

The Siemens logo is displayed in a white rectangular box in the upper left corner of the page. The background of the entire page is a detailed photograph of industrial electrical equipment, including circuit breakers and terminal blocks, with a futuristic digital overlay of a hexagonal grid and data visualizations.

SENTRON • SIVACON • ALPHA

# Low-Voltage Power Distribution and Electrical Installation Technology

Protection, Switching, Measuring and Monitoring  
Devices, Switchboards and Distribution Systems

Catalog  
LV 10

Edition  
10/2021

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### Technical specifications

The technical specifications are for general information purposes only. Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

All illustrations are not binding.



# Low-Voltage Power Distribution and Electrical Installation Technology

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# New products

## SENTRON digital

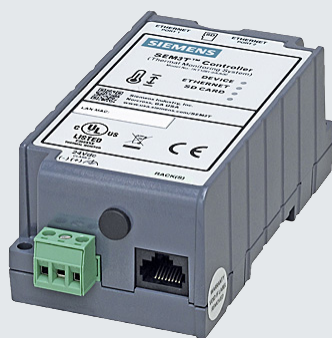


- New functions in SENTRON 7KN Powercenter 3000 V1.4
  - Support of the new 3WA air circuit breakers
  - Support of the new CP-COM device family via 7KN Powercenter 1000
  - Changes to existing 7KN Powercenter 3000 project and commissioning without SENTRON powerconfig
  - Customized notifications about value changes and the system condition can be created
- New functions in SENTRON powermind V1.4
  - Export of diagram data in the form of a CSV file, should this be required for further processing in other programs
  - Display of total energy consumption values at system level in a Sankey diagram
  - Heatmap functionality for power values
  - Overview of connected data sources

See chapter 10

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## SEM3T multichannel temperature measuring system



- Early detection of hotspots
- Avoid critical overload conditions and prevent system failures
- Automated warning messages
- Integrated web server
- Different thermal sensors for busbars and cables
- Continuous temperature acquisition
- Avoid potential downtimes due to arcing faults and power failures
- UL and CE certification

See chapter 10

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## ALPHA 3200 Eco power distribution boards



- Expansion from 1250 A to 3200 A
- Innovative 3D engineering increases planning reliability
- Use of copper reduced by up to 30% due to centrally located busbar
- Application-specific design verifications directly from SIMARIS configuration
- Optimized for  $I_n = 3200$  A and 2000 kVA transformers with 3WA in sizes I and II
- Can be flexibly combined with ALPHA 8GK assembly kits

[See chapter 15](#)  
[Page 15/16](#)

## SIVACON S4 power distribution boards



- New system concept with centrally located main busbar
- Use of copper reduced by up to 30% due to innovative system concept
- Flexible complete system allows two 3WA air circuit breakers in one section
- Coupling panels in size III up to  $I_n = 6300$  A
- Increased planning reliability due to the provision of 3D data
- VDE approval according to IEC 61439-2 directly from SIMARIS configuration

[See chapter 15](#)  
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Miniature Circuit Breakers | Devices for all applications

### Devices for all applications

#### Miniature circuit breakers for basic applications



**Ideal for standard applications**  
The SSL6 miniature circuit breakers are the new standard with B and C tripping characteristics for applications up to 63 A. They can be used to disconnect or isolate equipment.

The SSL6 devices are mainly installed in meter panels and small distribution boards to protect circuits for lamps, cookers and even machines, for example, in residential or commercial buildings.

#### Miniature circuit breakers for advanced applications



**Ideal for industrial applications**  
For circuits with motors or large lamps, semiconductor or strong pulse-generating equipment such as transformers and solenoid valves – the 55Y and 55P devices are optimized for industrial applications and are proven in use.

The 55Y devices offer you top quality and functionality for installation in complex buildings and industry. With a rated breaking capacity of up to 25 kA, they are able to handle the most challenging requirements at a rated current of 0.3 to 80 A.

- Special features**
- Dual-chamber terminal
  - Simple to detach without tools using sliding catches
  - Separate switching position indication
  - A wide range of accessories
  - SSL60 available as communication-capable miniature circuit breaker

#### Device protection switches for advanced applications



**Ideal for devices in industry**  
Device protection switches from Siemens offer optimum protection for all applications in AC and DC control circuits in industrial applications and plant engineering.

Thermomagnetic 55Y17 device protection switches are used to protect solenoid valves, servo motors, signal lamps or even PLC inputs. Everywhere where loads have to be primarily protected from overloads and short-circuits.

#### SSL6 COM miniature circuit breakers and 55Y17 COM auxiliary switches/fault signal contacts with communication and measuring functions **new**

The new communication-capable protective device and auxiliary components record measured values and status information and transmit this data wirelessly to higher-level systems.



- Recording of energy and active power, current, voltage, line frequency and temperature
- Integrated status acquisition, operating hours counter and trip counter
- Higher system availability through early response to warning messages
- Convenient integration into new and existing systems thanks to compact widths of 1 MW
- Fast parameterization and commissioning with the SENTRON powercoffigy mobile app or the SENTRON powercoffigy software
- Wireless transmission of measurement data from up to 24 communication-capable devices to the 7FN Powercenter 1000 data transceiver, see page 1016

### System overview

#### Basic units and accessories

##### Miniature circuit breakers for basic applications



##### Miniature circuit breakers for advanced applications



##### Device protection switches for advanced applications



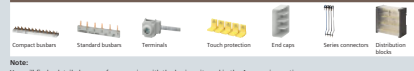
##### Electrical accessories



##### Mechanical accessories



##### Busbars and accessories



**Note:** You will find a detailed range of accessories with the basic units and in the Accessories section.

### System overview

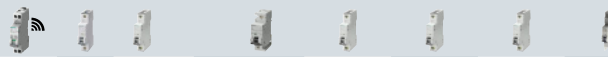
An overview of the basic units and accessories can be found in the system overview at the beginning of the chapters or sections. The color helps you recognize the accessory at a glance.

Miniature Circuit Breakers | Quick selection guide

Quick selection guide | Miniature Circuit Breakers

### Miniature circuit breakers

For advanced applications for buildings and infrastructure and for industry and machine manufacturing



	SSL6 COM	55Y6	55Y4	55P4	55Y5	55Y7	55Y8	55Y4.HG..	
<b>Standards</b>	IECEN 60898-1 IECEN 60947-2 UL 1077	IECEN 60898-1 IECEN 60947-2 UL 1077	IECEN 60898-1 IECEN 60947-2 UL 1077	IECEN 60898-1 IECEN 60947-2 UL 1077	IECEN 60898-2 UL 1077	IECEN 60898-2 UL 1077	IECEN 60898-1 IECEN 60947-2 UL 1077	IECEN 60947-2 UL 1077	IECEN 60947-2 UL 1077
<b>Basic data</b>									
Breaking capacity I <sub>n</sub>	For AC (230/400 V) acc. to IECEN 60898-1 AC Acc. to UL 1077 and CSA C22.2 No. 250	6	6	10	10	10	25	25	
Rated breaking capacity I <sub>n</sub>	For AC (230/400 V) acc. to IECEN 60898-1 AC (I <sub>n</sub> 1P+N) (2P, 3P, 4P, 3P+N)	6, 3, 2 A 2.5, 4 A 2.5, 10 A 2.5, 10 A 4, 16, 48 A 4, 16, 48 A	KA KA KA KA KA KA	30, 30 30, 30 20, 20 20, 20 15, 15 15, 15	KA KA KA KA KA KA	10 10 10 10 10 10	Supplementary protector, DC FW 0, GLO, TC 3 at 50°C	Supplementary protector, DC FW 0, GLO, TC 3 at 50°C	
Rated current		2, 32, 63, 80, 100, 125 A	6, 10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 A	10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 A	10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 A	10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 A	25, 32, 40, 50, 63, 80, 100, 125 A	25, 32, 40, 50, 63, 80, 100, 125 A	
Number of poles		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	
Tripping characteristic		B, C	B, C	B, C	B, C	B, C	B, C	B, C	
<b>Approach</b>		VDL, RED	VDL, RED	VDL, RED	VDL, RED	VDL, RED	VDL, RED	VDL, RED	
<b>Material classification</b>		DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	DMV, UL 94V-0, IEC 60959-2-1, IEC 60959-2-2	
<b>Operational voltage</b>		Acc. to IEC 60898-1, IEC 60947-2 Acc. to IEC 60947-2, IEC 60947-2	250 277/300 72	250/440 277/300 72	250/440 277/300 72	250/440 277/300 72	250/440 277/300 72	250/440 277/300 72	
<b>Rated voltage AC</b>		250, 277, 300 V	250, 277, 300 V	250, 277, 300 V	250, 277, 300 V	250, 277, 300 V	250, 277, 300 V	250, 277, 300 V	
<b>Rated impulse withstand voltage U<sub>imp</sub></b>		4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 kV	
<b>Connection</b>		3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 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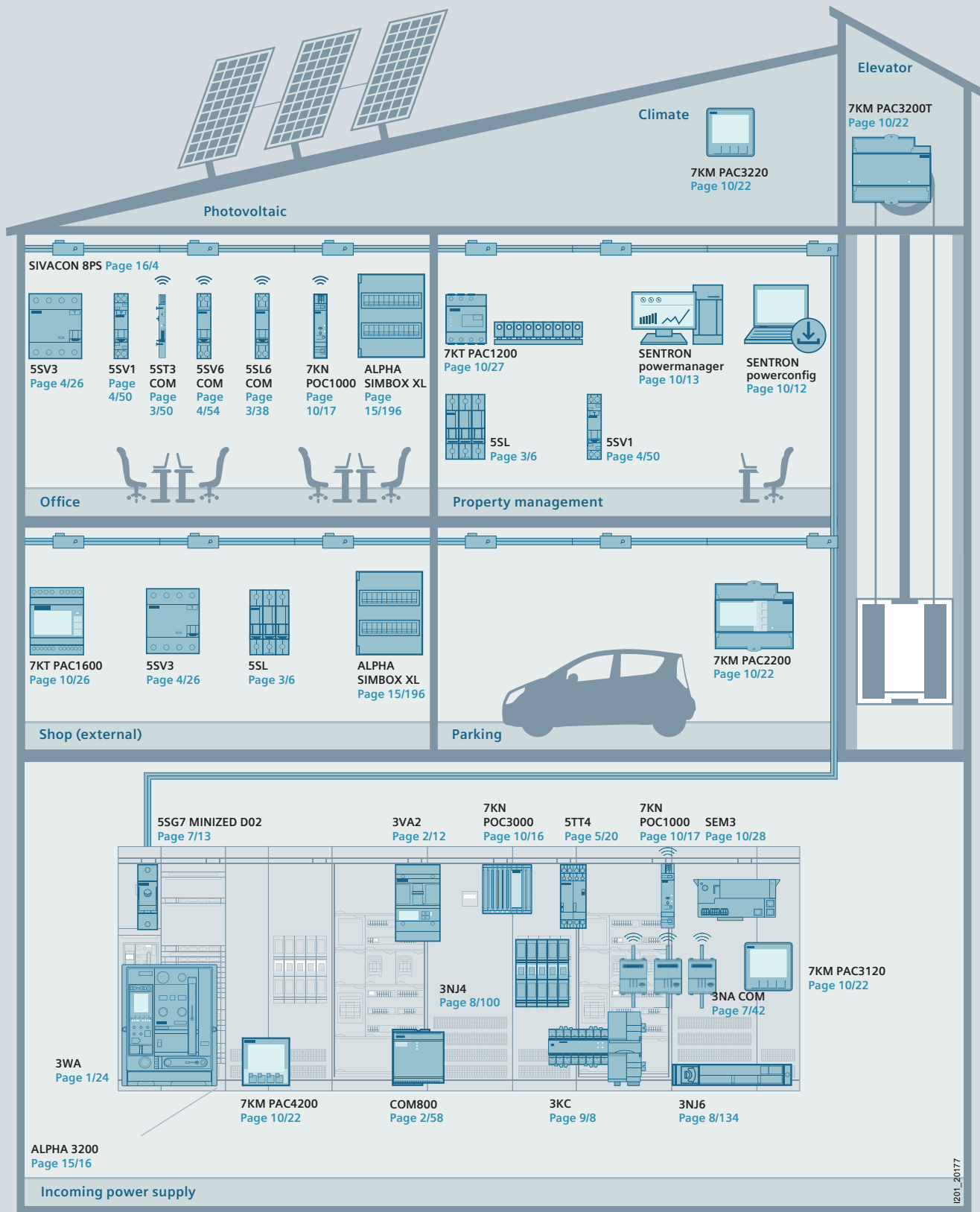
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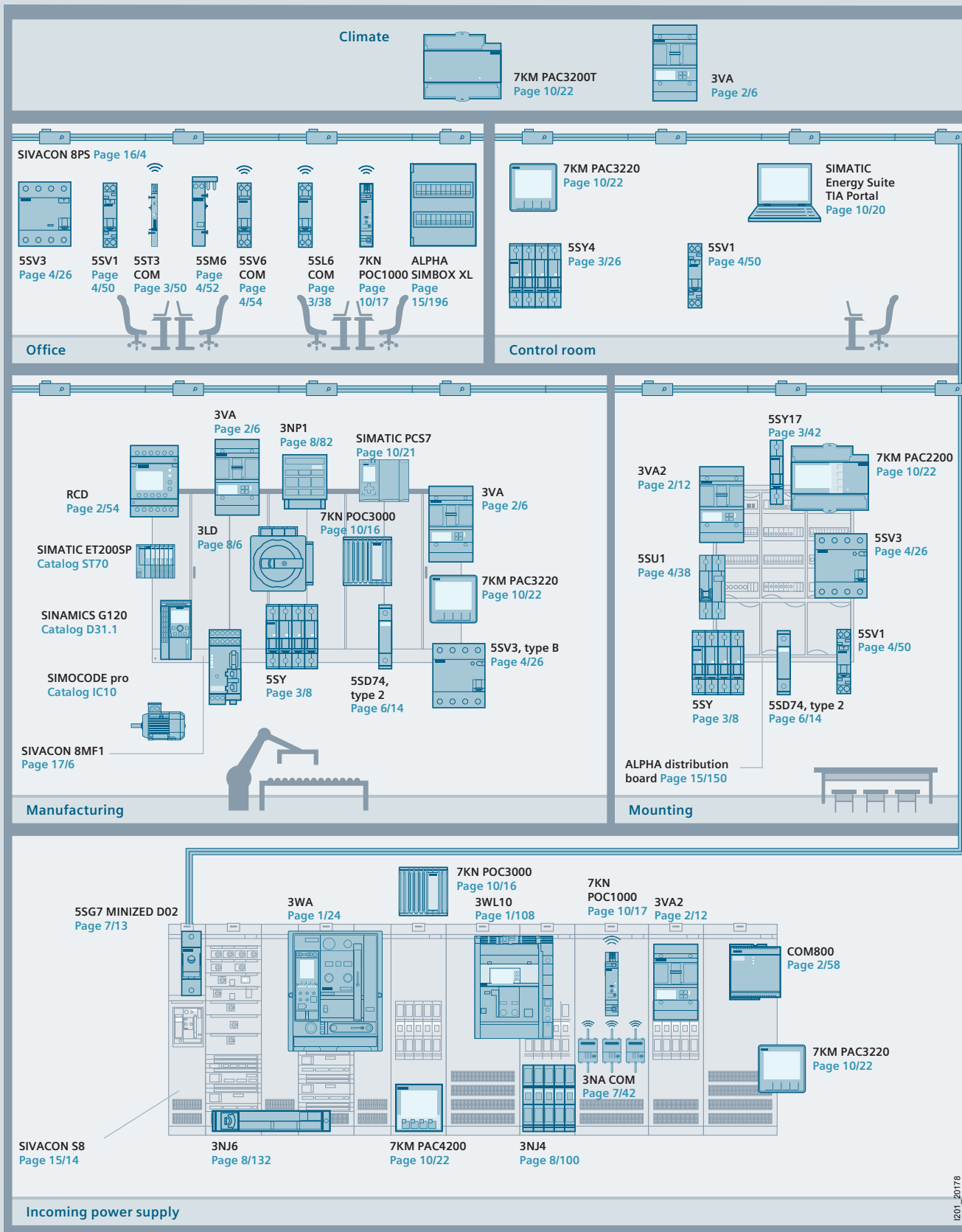


# Products and their applications in infrastructure



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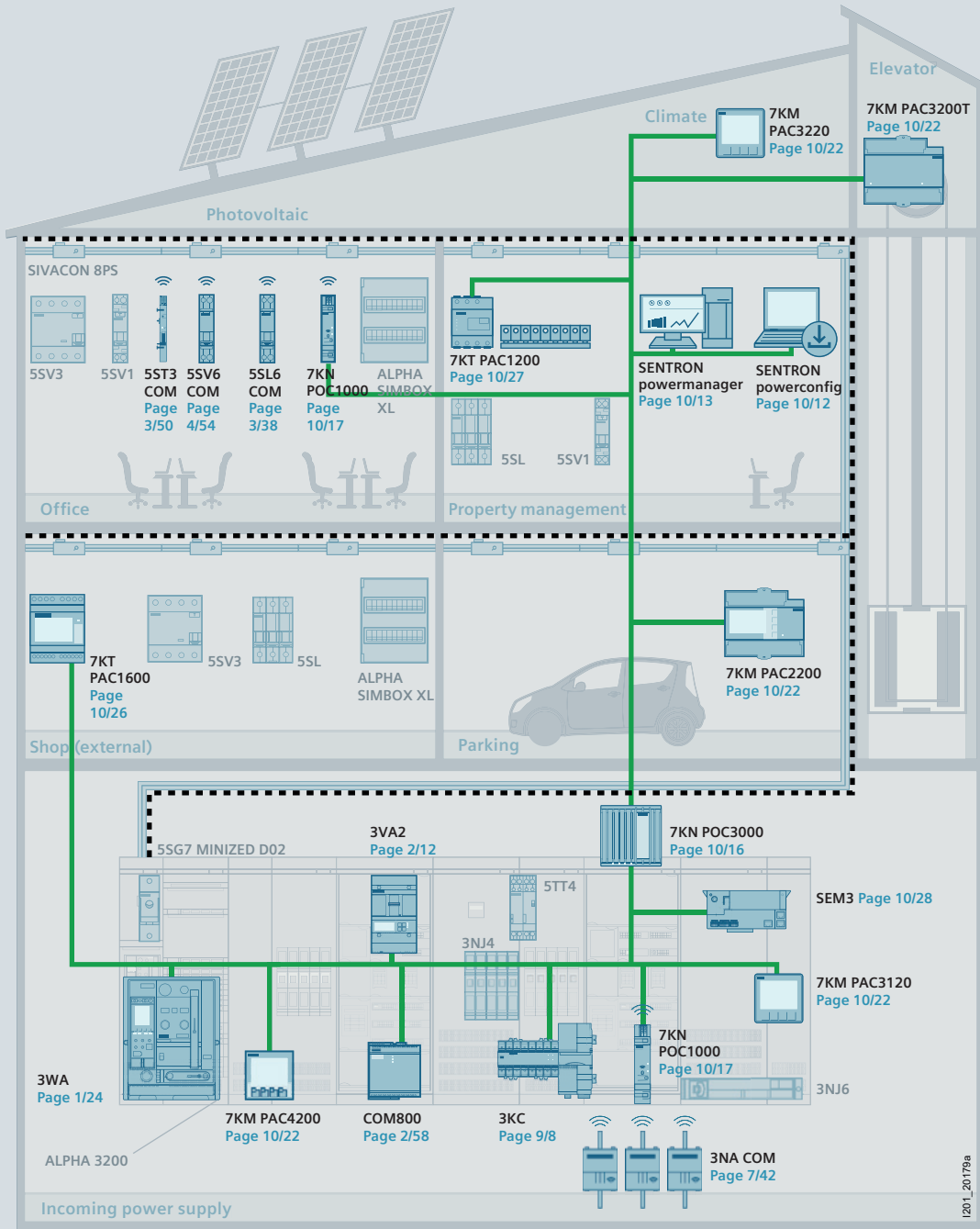
# Products and their applications in industry



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# Examples of digitalization in infrastructure



— Industrial Ethernet  
— 3VA-line  
 powerline




Measuring, evaluating and controlling with SENTRON powermanager / Desigo CC power monitoring software


Decentralized visualization of measured values, states and alarms via integrated web servers in measuring devices and Powercenter 3000

# Examples of digitalization in industry


**Cloud-based analysis**




**Condition monitoring**




**Predictive maintenance**



**Power monitoring**




**On premises**

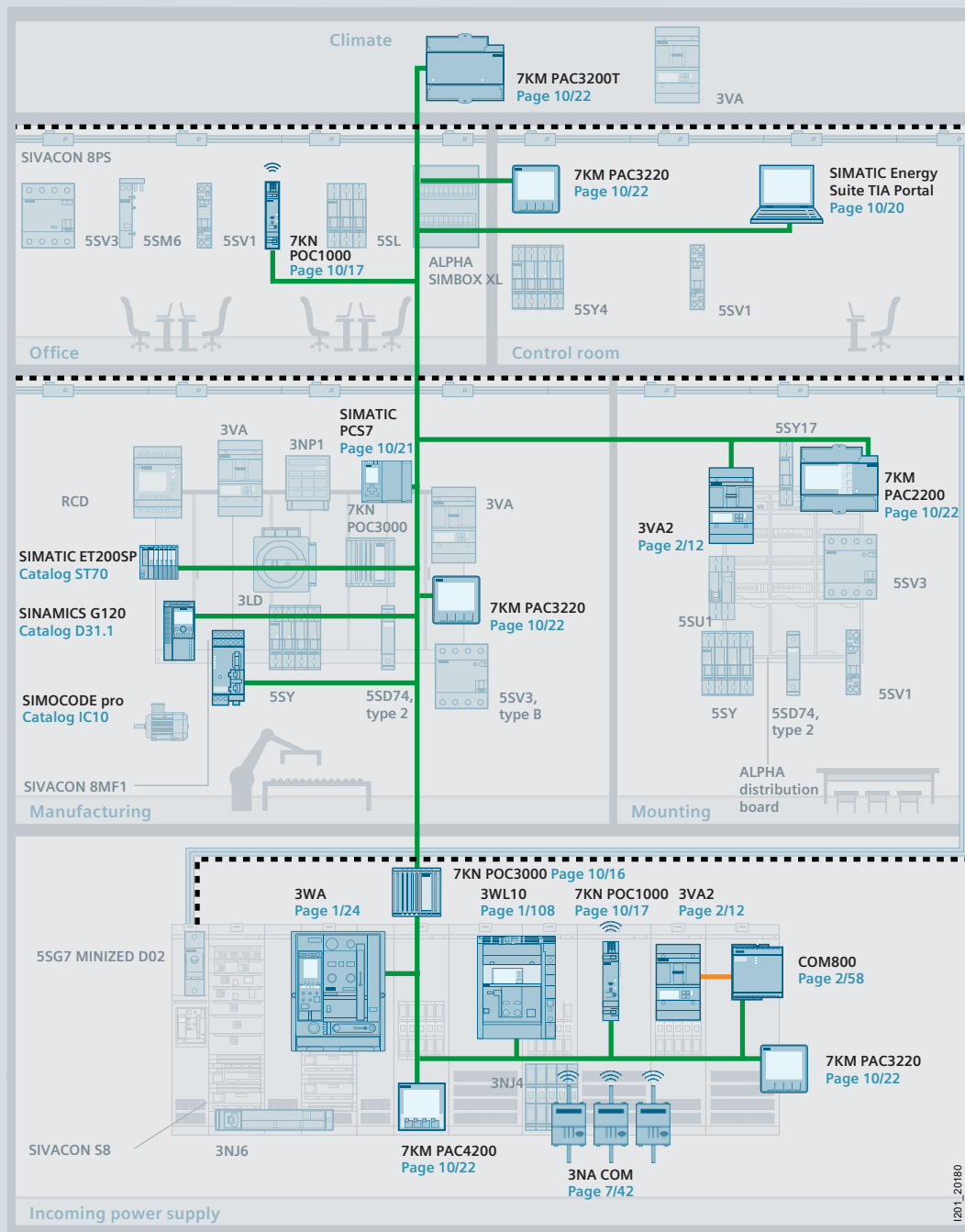


Measuring, evaluating and controlling with SIMATIC Energy Suite / TIA Portal

**Stand-alone**



Decentralized visualization of measured values, states and alarms via integrated web servers in measuring devices and Powercenter 3000



- Industrial Ethernet
- 3VA-line
- powerline

# Introduction to the topic of digitalization and Industry 4.0

In industrial automation, the demand for communication capability, data transparency and flexibility is growing constantly. To enable industrial switchgear technology to meet this demand, the use of bus systems and intelligent switching devices is unavoidable.

## Digitalization

Protection, switching and measuring devices in power distribution systems can display important information on local visualization via integrated communication, e.g. in Powercenter, or transmit it to energy data management systems (EDMS), e.g. SENTRON powermanager, as well as to cloud systems and applications.

- Diagnostics management
- Fault management – Email alarm
- Maintenance management – predictive maintenance
- Cost center management

### 1. Visualization and plant transparency



- Greater operational reliability thanks to remote access to the plant.
- Plant visualization for central and simple access to all device information.

### 2. Digital documentation



- Uniform access to digital data and documentation.
- Provision of extensive CAx data for systems and components during planning and operation.
- Support in planning and process creation using SIMARIS planning tools, product and system configurators.

### 3. Power monitoring



- Fulfilling the ISO 50001 by detecting and transparently presenting the energy flows within energy distribution.

### 4. Optimization and retrofit



- Retrofitting solutions such as SEM3 offer a simple option for integrating energy monitoring into existing systems.
- Energy monitoring and plant transparency help you efficiently plan plant expansion.

### 5. Maintenance management



- Maintenance support, even remotely, by transparently presenting the status of a switchgear and controlgear assembly.

### 6. Emergency management



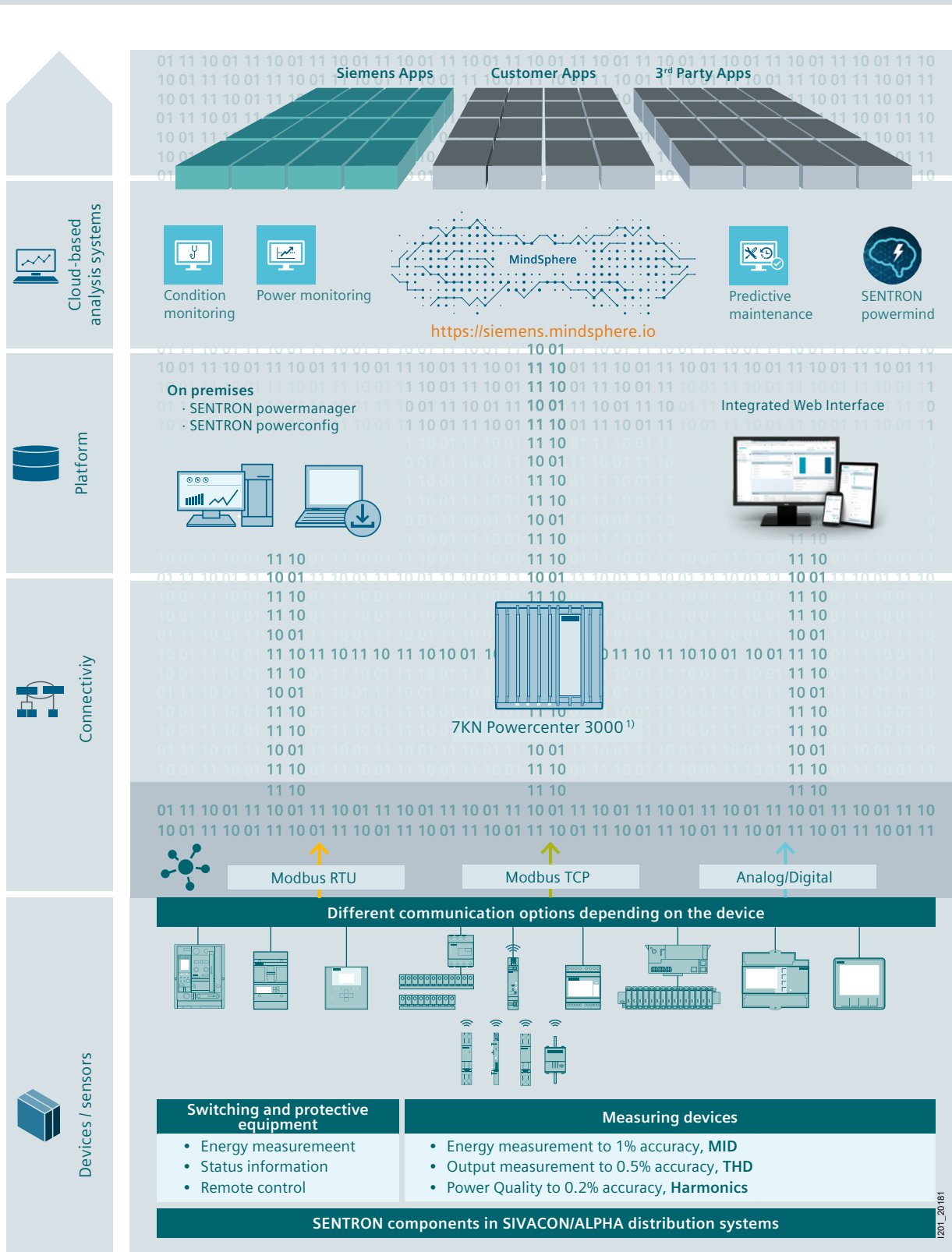
- Quick error localization which therefore leads to a minimization of outage times.

### 7. Cybersecurity



- Protection from unauthorized access and manipulation to switchgear and controlgear assemblies and devices ensures integrity, availability and confidentiality.





<sup>1)</sup> Modbus TCP

# Overview of protection, switching, measuring and monitoring tasks

The functions presented here are available in combination or individually. Details can be found in the respective chapter.

				Line protection	Motor protection	Generator protection	Starter protection	Isolating function
Device class	Type	Rated current	Page					
Air circuit breakers	3WA/ 3WL	630 ... 6300 A	1/24	■	■	■		■
Molded case circuit breakers	3VA	16 ... 1600 A	2/6	■	■	■	■	■
Miniature circuit breakers (automatic circuit breakers)	5SY/ 5SL	0 ... 80 A	3/6					■
RCCB	5SV3/ 5SM3	16 ... 125 A	4/6	■				■
RCBOs	5SU1/ 5SV1	0 ... 40 A	4/10	■				■
AFD units	5SM6	0 ... 40 A	4/12					
AFDD/MCBs	5SV6	0 ... 40 A	4/12	■				■
ON/OFF switches	5TL1	32 ... 125 A	5/14					
Oversoltage Protection Devices	5SD7	–	6/6					■
Fuses D0	5SG/ 5SA		7/30	■			■	
Photovoltaic fuses			7/35	■				
LV HRC fuses	3NA/ 3ND		7/36	■	■		■	
SITOR semiconductor fuses			7/46	■		■	■	
Switch disconnectors	3LD	16 ... 250 A	8/6					■
	3KD	16 ... 1600 A	8/8					■
Fuse switch disconnectors	3NP	0 ... 630 A	8/82		With suitable fuse links		With suitable fuse links	■
Switch disconnector with fuse	3NJ	0 ... 630 A	8/134					■
	3KF	0 ... 630 A	8/118					■
Transfer switching equipment	3KC	16 ... 3200 A	9/4					■
PAC measuring devices	7KM/ 7KT	Any	10/22					
Motor starter protectors	3RV		Catalog IC 10		■			■
Contactors	3RT		Catalog IC 10					■

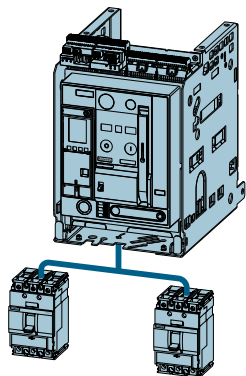
<sup>1)</sup> Only applies to the communication-capable COM products

Current limitation	Overload protection LT	Short-circuit protection, delayed ST	Short-circuit protection, instantaneous INST	Ground-fault protection GF	Metering function	Personnel safety/fault current protection	Overvoltage protection	Preventative fire protection	Switching function
	■	■	■	■	■				
■	■	■	■	■	■ <sup>1)</sup> new	■/■		■	
■	■		■			■/■			
■	■		■		■ <sup>1)</sup> new	■/■		■	
							■	■	
■	■		■						
■	■		■		■ <sup>1)</sup> new				
■	■		■						
With suitable fuse links	With suitable fuse links		With suitable fuse links						
					■				■
■	■		■						



# Overview of protection, switching, measuring and monitoring tasks

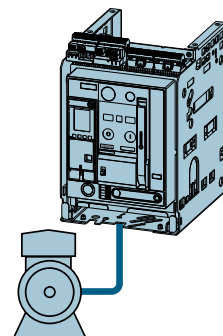
## Line protection



The trip units for line protection are designed to provide overload and short-circuit protection for:

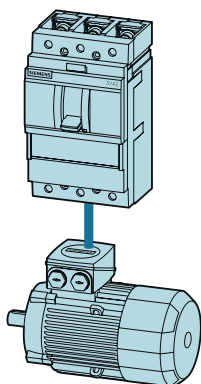
- Cables
- Leads
- Non-motor loads

## Generator protection



The setting values of the trip units are matched to protecting generators.

## Motor protection

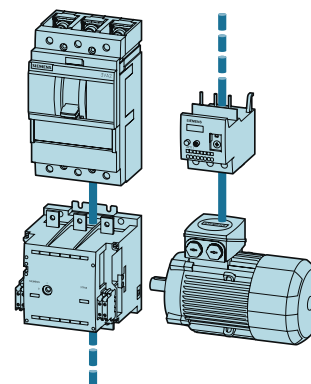


The overload and short-circuit releases are designed for optimal protection and direct starting of three-phase AC squirrel-cage motors.

The molded case circuit breakers for motor protection have phase-failure sensitivity and a thermal image that protects the motor against overheating.

The adjustable time lag class enables users to adjust the overload release to the startup conditions of the motor to be protected.

## Starter protection



Starter combinations consist of:

Molded case circuit breaker + contactor + overload relay.

The molded case circuit breaker handles short-circuit protection and the isolating function. The task of the contactor is the operational switching of the feeder. The overload relay handles overload protection that can be specially matched to the motor.

The molded case circuit breaker for the starter combination is therefore equipped with an adjustable and instantaneous short-circuit release.

## Isolating function

Switching devices are described that meet the requirements defined for the isolating function when in the open position.

- Load switches, disconnectors, switch disconnectors according to IEC 60947-3

Switching operational currents up to the maximum rated current of the switching devices is part of the tasks performed by these devices (See chapter 8).



- Non-automatic circuit breakers according to IEC 60947-2 Annex L

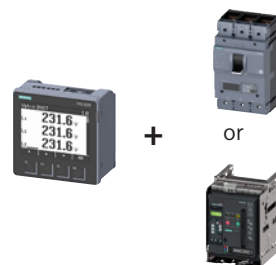
Non-automatic circuit breakers can disconnect operational currents up to the maximum rated current, including fault currents up to the specified  $I_{cc}$  value.



## Metering function

There are two possibilities for selecting the metering function in low-voltage power distribution (See chapter 10):

- Measuring devices (stand-alone) combined with protection and switching devices



- Protection and switching devices with integrated metering function (all-in-one), metering function equivalent to a measuring device



## Current limitation

Current limitation means that the peak value of the prospective peak short-circuit current is limited to a smaller let-through current.

- Current-limiting devices include molded case circuit breakers (MCCBs), motor starter protectors (MSPs), miniature circuit breakers (MCBs) and fuses



- Air circuit breakers (ACBs) are non-current-limiting devices



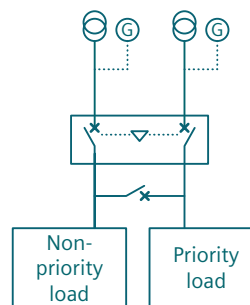
## Transfer switching function

In the selection of transfer switch equipment, the following functions are distinguished (See chapter 9):

- Transfer control
- Load transfer

The following possibilities for transfer switching are available:

- MTSE = manual transfer switch equipment
- RTSE = remote transfer switch equipment
- ATSE = automatic transfer switch equipment



# Tripping characteristics

The protection function of protection and switching devices in low-voltage power distribution systems is determined by the correct selection of the respective tripping characteristic (fuses, miniature circuit breakers) or TMTU/ETU trip units (air circuit breakers, molded case circuit breakers).

All current-limiting protection devices, such as MCCBs, MSPs, MCBs and fuses, can be described in terms of three characteristic curves:

- Tripping curve (time/current)
- Let-through current curve
- Let-through energy curve

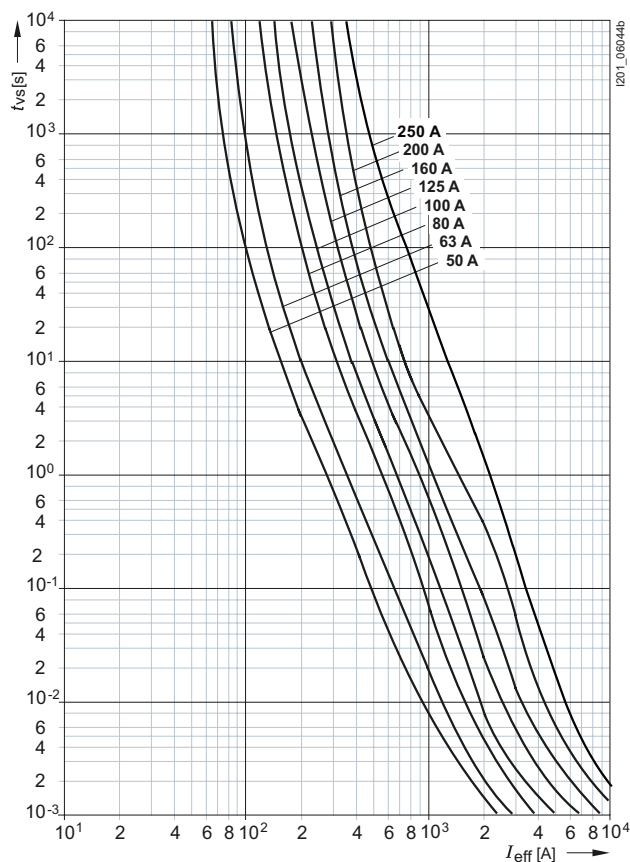
In the following, the functions of the tripping curves are presented as an example.

## Fuses

The time-current characteristic curve of fuses denotes the virtual melting time as a function of the overload or short-circuit current.

Different characteristics must be considered in dimensioning depending on the protection requirement and operational class (e.g. gG, gR, aR, etc.).

See configuration manual – Fuse systems ([45314810](#))

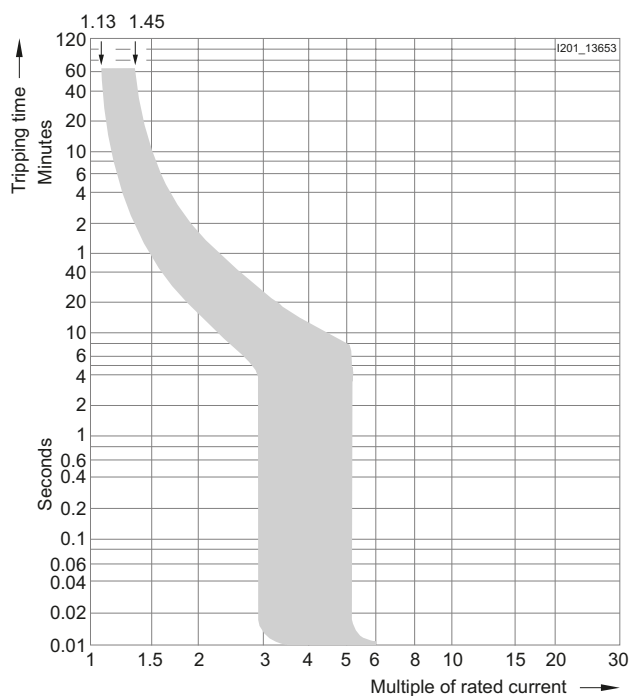


## Miniature circuit breakers (MCBs)

The characteristic curve is chosen based on the application and is classified, for example, as tripping characteristic A, B, C or D.

Tripping curve = tripping characteristics according to IEC/EN 60898-1

See configuration manual – Miniature circuit breakers ([45302792](#))





## Molded case circuit breakers (MCCBs)

The choice of electronic trip unit is based on the protection function required in power distribution.

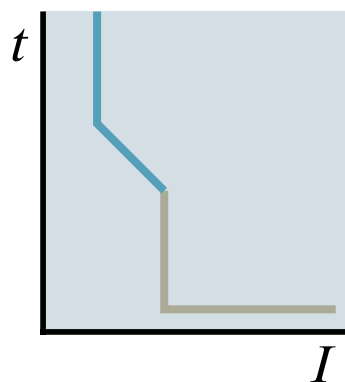
The trip units are classified as:

- thermal-magnetic trip units (TMTU; previously known as electromechanical trip units)
- electronic trip units (ETU).

Depending on the application and requirements, TMTUs are available with different protection setting options for both overload and short-circuit.

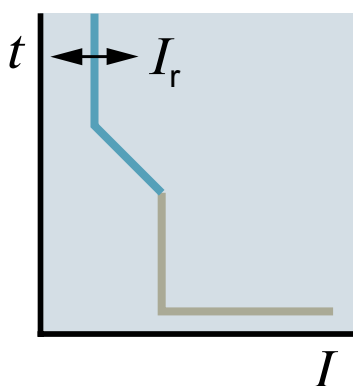
See equipment manual – 3VA molded case circuit breakers with IEC certificate ([90318775](#))

### FTFM (Fixed Thermal Fixed Magnetic)



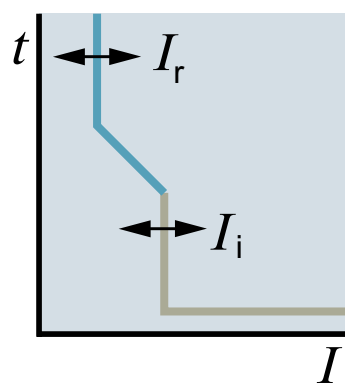
Permanently set thermal overload trip unit, permanently set magnetic trip unit with short-circuit protection

### ATFM (Adjustable Thermal Fixed Magnetic)



Adjustable thermal overload trip unit, permanently set magnetic trip unit with short-circuit protection

### ATAM (Adjustable Thermal Adjustable Magnetic)



Adjustable thermal overload trip unit, adjustable magnetic trip unit with short-circuit protection

# Tripping characteristics

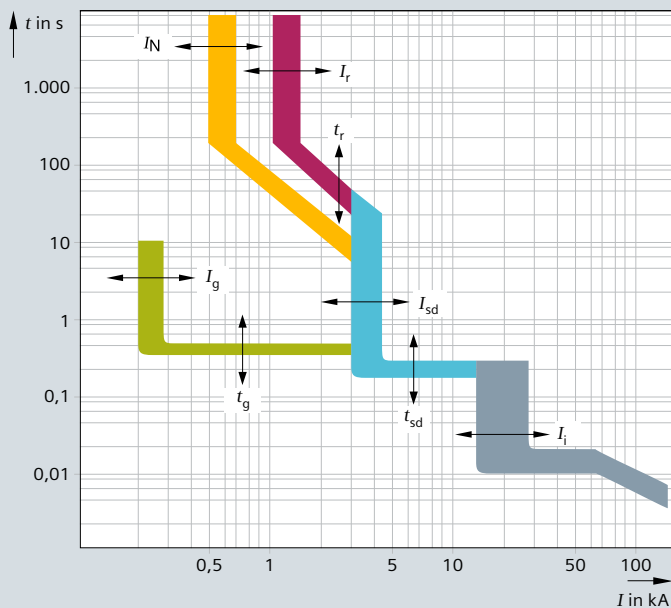
## Molded case circuit breakers (MCCBs)/air circuit breakers (ACBs) with ETU

Selection of the electronic trip unit determines the protection function in power distribution.

Electronic trip units offer the most extensive and variable protection settings of all protection and switching devices for low-voltage power distribution.

- See equipment manual – 3VA molded case circuit breakers with IEC certificate (90318775)
- See operating Instructions – SENTRON WL – 3WL1 circuit breaker (IEC) (109761064)

The graphs below show an overview of the time-current characteristic curve.



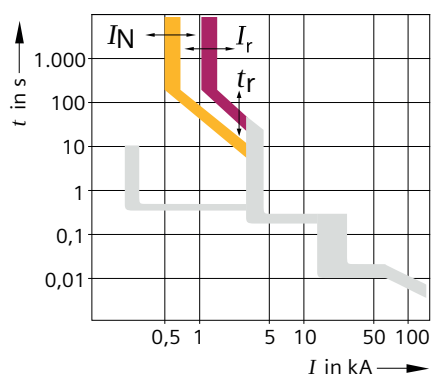
- LT** Overload protection LT
- N** Neutral conductor overload protection N
- ST** Short-circuit protection, delayed ST
- INST** Short-circuit protection, instantaneous INST
- GF** Ground-fault protection GF

### Overload protection LT

The ID letter for overload protection is LT (stands for "Long-time delay"). The trip unit is inverse-time delayed and exhibits the following characteristics depending on the trip unit type:

- Bimetal characteristic with thermal-magnetic trip units
- $I^2t$  characteristics for molded case circuit breakers MCCBs and  $I^2t$  and  $I^4t$  characteristics for ACBs
- Depending on the electronic trip units, only  $I^2t$  characteristic or  $I^2t$  and  $I^4t$  characteristic

The letters  $I_r$  refer to the current setting value; the associated tripping time is identical to  $t_r$ .



### Neutral conductor overload protection N

The ID letter for neutral conductor overload protection is N. The letters  $I_N$  refer to the current setting value for the overload protection; the associated tripping time is identical to  $t_r$ .

The short-circuit protection of the circuit breaker also protects the neutral conductor.

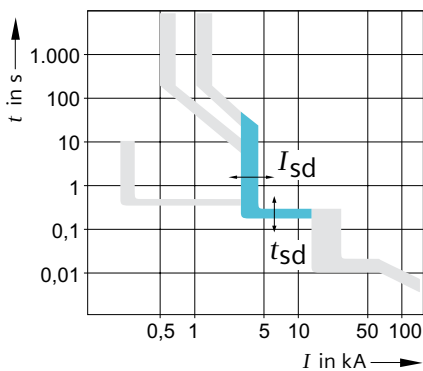
Possible reasons for implementing overload protection in the neutral conductor include:

- The neutral conductor has a smaller cross-section than the phase conductors.
- Higher harmonic components in the system can be expected.
- A large number of loads, or predominantly 1-phase loads, are connected.

### Short-circuit protection, delayed ST

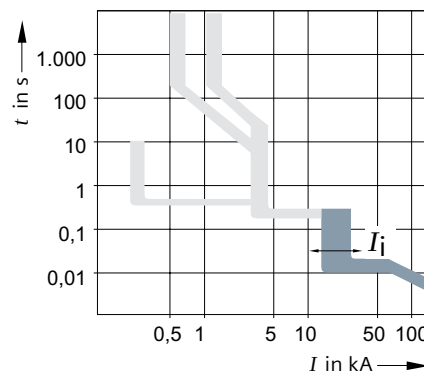
The ID letter for short-time delayed short-circuit protection is ST (stands for "Short-time"). The ST function of the electronic trip unit can be used to implement time-selective short-circuit tripping in low-voltage networks in which multiple circuit breakers are installed in series.

The short-time delayed short-circuit protection function protects phases L1 to L3 and the neutral conductor. The protection function responds if the current in at least one phase exceeds the set tripping current  $I_{sd}$  for the set delay period  $t_{sd}$ .



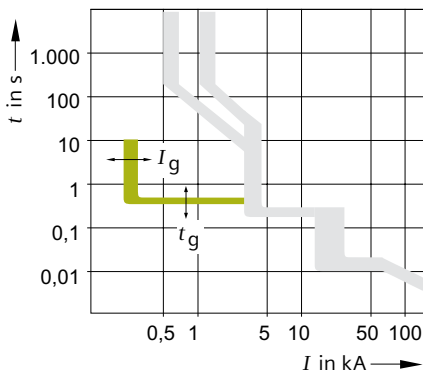
### Short-circuit protection, instantaneous INST

The ID letter for instantaneous short-circuit protection is INST (stands for "Instantaneous"). This short-circuit protection function protects phases L1 to L3. The instantaneous short-circuit protection function responds if the instantaneous value equal to the rms of the current in at least one phase exceeds the instantaneous tripping current  $I_i$ .



### Ground-fault protection GF

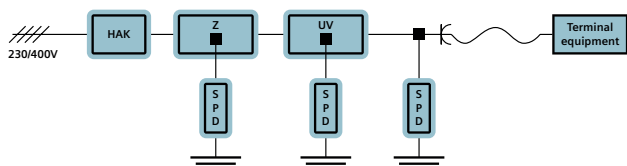
The ID letter for ground-fault protection is GF (ground fault). The G release measures fault currents between phases and grounded, electrically conductive parts. Ground-fault protection protects against the flow of current to ground in the rated current range. As ground-fault currents can produce arcing, ground-fault protection consequently offers extended fire protection.



# Overview of protection, switching, measuring and monitoring tasks

## Overvoltage protection

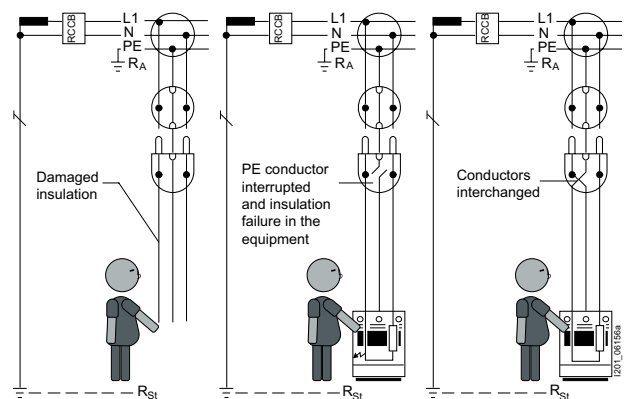
Overvoltage protection refers to the protection of electrical and electronic devices against excessively high electrical voltages. Overvoltage can be caused by switching operations or electrostatic discharging (ESD).



## Personnel safety/fault current protection

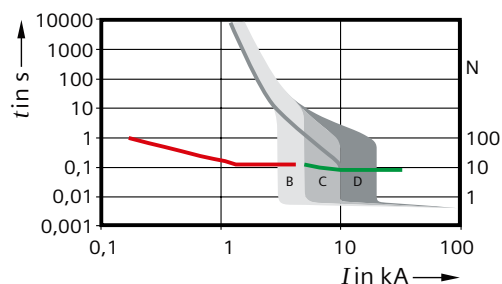
Protection in the event of direct contact:  
Additional protection contact refers to direct contact with a part that is live under operating conditions.

Protection in the case of indirect contact:  
Fault protection refers to contact with an electrically conductive part which is not live under operating conditions.



## Preventative fire protection

Arc-fault detection devices evaluate occurring faults in the current and voltage wave using an electronic switch and shutting off the current when it recognizes a contact fault. This prevents overheating at poor contact points which can prevent fires.



Potential failure causes

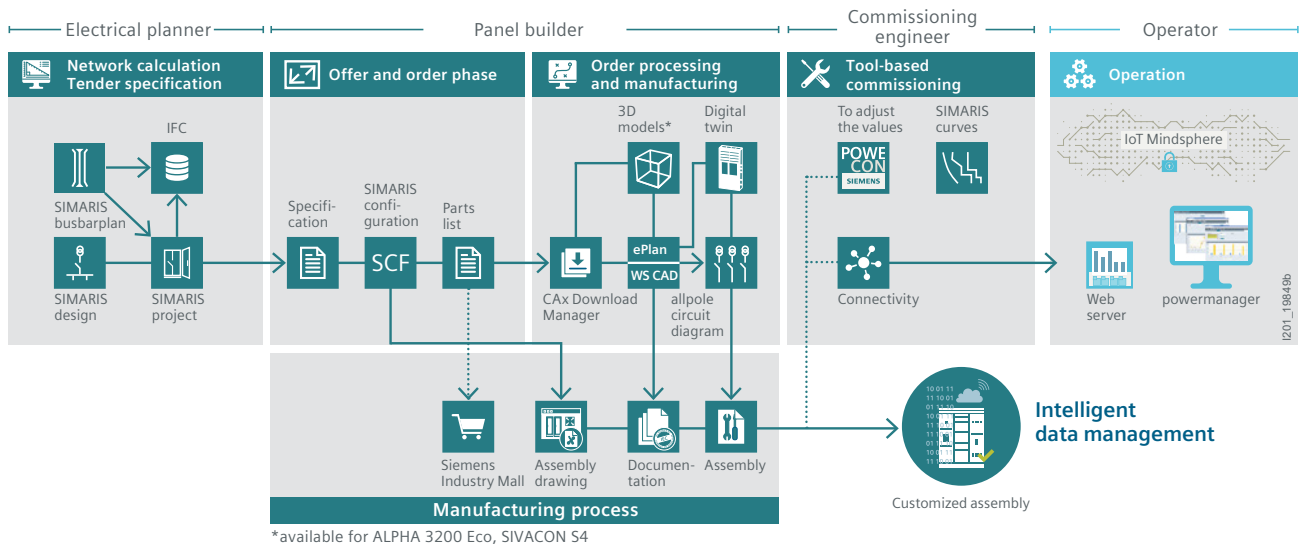
- Damaged cable insulation, e.g. by nails, screws or brackets
- The risk of a cable break exists for cables with a too-tight bending radius
- Cables which are laid through open doors and windows can be crushed when doors or windows are closed resulting in damaged insulation and arcing faults
- Environmental influences such as UV rays, temperature, humidity, gases can damage or age the insulation
- Damage caused by rodents
- Loose contact, e.g. caused by too low torque
- Conductor damaged by claw fixing



# SIMARIS planning tools

For planning and visualizing the power distribution system

## From planning to operation



Integrated planning tools SIMARIS and CAX data for safe, error-free, fast planning

The fast way to a safe, transparent assembly

### Highlights

- Thorough support of the engineering process with interlinked software tools
- Provision of extensive CAX data for systems and components
- Reduction of cost and time aspects during planning

# Distribution systems

For industrial plants or in infrastructure

## SIVACON S8 power distribution boards and motor control centers

- Reliable, economical, flexible and communication-capable
- For all applications in infrastructure and process industry



[See page 15/14 for the overview](#)

## SIVACON 8PS busbar trunking systems

- For economic and reliable power supply
- Space-saving and simple to install
- Low fire load, good electromagnetic compatibility



[See page 16/4 for the overview](#)

## ALPHA 3200 power distribution boards (DIN technology)

- Safe investment, enhances productivity and performance
- Optimized for applications in modern building infrastructures
- Integrated system for all SENTRON components



[See page 15/16 for the overview](#)

## ALPHA 3200 Eco power distribution boards (DIN technology)

- **Saves resources:** lower use of copper with centrally positioned busbar
- **Practical:** optimized performance – from the transformer connection via the busbar to the outgoing feeders
- **Modular:** a high packing density in a compact space due to flexible use of ALPHA assembly kits



[See page 15/16 for the overview](#)

## ALPHA distribution boards (DIN technology)

- Comprehensive portfolio with wall-mounted and floor-mounted distribution boards for currents between 160 A to 1250 A



[See page 15/150 for the overview](#)

### SIVACON S4 power distribution boards (NF technology)

- Modular system for reliable, integrated and cost-efficient power distribution up to 4000 A/6300 A with an extended license
- Compact, space-saving design perfectly adapted to suit SENTRON components
- Increased planning reliability due to the provision of 3D data



[See page 15/18 for the overview](#)

### ALPHA UNIVERSAL distribution boards (NF technology)

- Comprehensive portfolio with wall-mounted and floor-mounted distribution boards for currents between 125 A to 800 A
- Easy planning and assembly thanks to modular platform structure



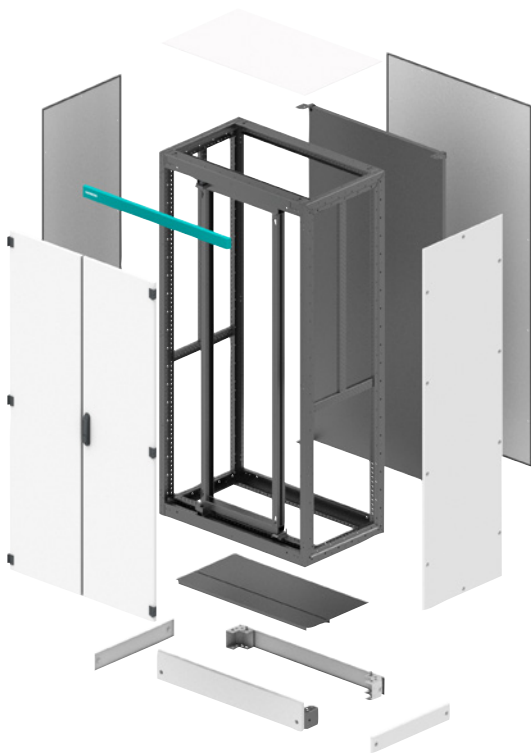
[See page 15/120 for the overview](#)

# Control cabinets/System cubicles

For plant engineering, process control, network technology,  
secondary systems/energy automation

## SIVACON 8MF1 system cubicles

- Modular system
- Fully assembled, adapted according to your specifications, or entirely customized



See page 17/6 for the overview

## SIVACON 8MF/8MR system lighting – LED lights

The LED lights offer optimum lighting conditions for installation and maintenance. The LED technology is energy-efficient and maintenance-free.



See page 17/32 for the overview

## SIVACON 8MF/8MR system lighting – Slimline lights

The Slimline lights are an alternative with an energy-saving lamp and are also available as a version with an integrated socket.



See page 17/33 for the overview

## SIVACON 8MR system air-conditioning

Ensures fault-free operation of the electrical and electronic built-in units installed in the cubicle, even under the harshest ambient conditions.



See page 17/36 for the overview







## Made for makers. Simply reliable.

All power distribution systems rely on a secure infeed of electrical energy. The 3WA air circuit breaker combines all of the functions which are required of power distribution equipment in the digital companies of today: from reliably protecting people and equipment from electrical accidents and damage, to flexible application and retrofit options, a long service life and low maintenance, to innovative features for integrated e-engineering, reliable energy data recording and seamless integration into digital environments. As the central component of the electrical power distribution, the 3WA air circuit breaker provides the basis for a holistic energy system in the digital age.

## Reliable, versatile and perfectly integrated

The 3WL air circuit breakers reliably protect electrical equipment from damage or fire resulting from short circuit, ground fault or overload failures.

# Air Circuit Breakers



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about air circuit breakers, please visit our websites

[www.siemens.com/3WA](http://www.siemens.com/3WA)  
[www.siemens.com/3WL](http://www.siemens.com/3WL)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Quick selection guide – 3WA air circuit breakers ([109781967](#))
- Brochure – 3WA air circuit breakers ([109800077](#))
- Quick selection guide – 3WL air circuit breakers ([109751638](#))
- Technical basic information – 3WL air circuit breakers ([109767789](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- 3WA air circuit breaker – Teaserfilm [bit.ly/3p14AOZ](http://bit.ly/3p14AOZ)
- 3WA air circuit breaker – Highlightfilm [bit.ly/2Y0iWD2](http://bit.ly/2Y0iWD2)
- 3WL air circuit breakers (general) [bit.ly/2ZH1rXH](http://bit.ly/2ZH1rXH)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Air circuit breakers [sie.ag/2IXiZjB](#)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

Order supports are available in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/catalogs](http://www.siemens.com/lowvoltage/catalogs)

- Order support – 3WA air circuit breakers – Made for makers. Simply reliable. ([109800074](#))

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations. Configure your air circuit breaker at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)  
[www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)  
[www.siemens.com/lowvoltage/3wl10-configurator](http://www.siemens.com/lowvoltage/3wl10-configurator)

The following are additionally available for your configured air circuit breaker:

- 3D views
- CAD data
- Unit wiring diagrams
- Dimension drawings

## The fast track to the experts

### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at

[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)



# ... can be found in our online services

## Commissioning + operation

### SENTRON powerconfig

The combined commissioning and service tool SENTRON powerconfig for communication-capable measuring devices, circuit protection devices and circuit breakers.

Free download SENTRON powerconfig via [www.siemens.com/powerconfig](http://www.siemens.com/powerconfig)

Free download SENTRON powerconfig mobile via [App Store](#) and [Play Store](#)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Equipment manual – 3WA air circuit breakers ([109763061](#))
- System manual – 3WA air circuit breaker communication ([109792368](#))
- Configuration manual – 3WL1 air circuit breakers ([35681108](#))
- Configuration manual – Low-voltage protection devices selectivity tables ([109748621](#))
- System manual – 3WL/3VL circuit breakers with communication capability – Modbus ([39850157](#))
- System manual – 3WL/3VL circuit breakers with communication capability – PROFIBUS ([12560390](#))
- Equipment manual – 3VA27 molded case circuit breakers & 3WL10 air circuit breakers ([109753821](#))
- Communications manual – 3WL air circuit breakers via COM35 – PROFINET IO, Modbus TCP ([109757987](#))
- Communication manual – 3WL10 air circuit breakers & 3VA27 molded case circuit breakers ([109760220](#))

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall [www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database [www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- 3WA air circuit breakers (WT-LV3WA)
- 3WL10 air circuit breaker, size 0 (WT-LVA3WL0)
- 3WL air circuit breakers, sizes 1-3 (WT-LVA3WL)
- Protection systems in low-voltage power distribution (WT-LVAPS)
- LV-3WA Basic (LV-3WA\_BA)
- LV-3WA Advanced (LV-3WA\_AD)
- Maintenance and operation of 3WL circuit breakers (LV-CBMAIN) with subsequent certification option (LV-CBCERT)
- Communication with SENTRON components (LV-COM)
- Project planning and selection of SENTRON circuit breakers (LV-CBPROJ)

Video tutorial on the 3WL air circuit breaker

[www.lowvoltage.siemens.com/wcms/3wl-tutorial](http://www.lowvoltage.siemens.com/wcms/3wl-tutorial)

### Technical overview – Air circuit breakers

3WA



3WL



## The fast way to get you to our online services

This page provides you with comprehensive information and links on air circuit breakers

3WA: [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109781188](#))

3WL: [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109766020](#))

# Switching devices for AC and DC

IEC 60947-2

AC



3WA11

3WA12

## Basic data

Rated operational voltage $U_e$	V	≤1000		≤1150	
Rated current $I_n$	A	630 ... 2500		2000 ... 4000	
Size		1		2	
Type of mounting		Withdrawable	Fixed-mounted	Withdrawable	Fixed-mounted
Number of poles		3/4-pole	3/4-pole	3/4-pole	3/4-pole

## Dimensions

Width (3-pole   4-pole)	mm	320 410	320 410	460 590	460 590
Height (for breaking capacity N, S, M, H and D   C and E)	mm	468 518	437 462	468 518	437 462
Depth	mm	471	357	471	357

## Approvals

General product approvals	VDE, EAC, CCC, CE, C-Tick	VDE, EAC, CCC, CE, C-Tick
Marine/shipbuilding	ABS, DNV, GL, LRS, BV, PRS, CCS, RMRS	ABS, DNV, GL, LRS, BV, PRS, CCS, RMRS

## Breaking capacity

		N	S	M	E	S	M	H	C	E	
<b>Rated short-circuit breaking capacity</b>											
$I_{cu}   I_{cs}$ at $U_e$ up to 415/440 V AC	kA	55 55	66 66	85 85	– –	66 66	85 85	100 100	130 130	– –	
$I_{cu}   I_{cs}$ at $U_e$ up to 500 V AC	kA	55 55	66 66	85 85	– –	66 66	85 85	100 100	130 130	– –	
$I_{cu}   I_{cs}$ at $U_e$ up to 690 V AC	kA	42 42	50 50	66 66	85 85	50 50	66 66	85 85	100 100	85 85	
$I_{cu}   I_{cs}$ at $U_e$ up to 1000 V AC	kA	– –	– –	– –	50 50	– –	– –	– –	– –	85 85	
$I_{cu}   I_{cs}$ at $U_e$ up to 1150 V AC	kA	– –	– –	– –	– –	– –	– –	– –	– –	50 50	
<b>Rated short-circuit making capacity <math>I_{cm}</math></b>											
$I_{cm}$ at $U_e$ up to 415 V AC	kA	121	145	187	–	145	187	220	286	–	
$I_{cm}$ at $U_e$ up to 500 V AC	kA	121	145	187	–	145	187	220	286	–	
$I_{cm}$ at $U_e$ up to 690 V AC	kA	88	105	145	187	105	145	187	220	187	
$I_{cm}$ at $U_e$ up to 1000 V AC	kA	–	–	–	105	–	–	–	–	187	
$I_{cm}$ at $U_e$ up to 1150 V AC	kA	–	–	–	–	–	–	–	–	105	
<b>Rated short-time withstand current <math>I_{cw}</math><sup>1)</sup></b>											
$I_{cw}$ at $U_e$ up to 500 V AC	0.5 s	kA	55	66	85	–	66	85	100	100	–
	1 s	kA	50	66	85	–	66	85	85	100	–
	2 s	kA	35 <sup>2)</sup> /45 <sup>3)</sup>	45	70	–	66	66 <sup>4)</sup> /85 <sup>5)</sup>	66 <sup>4)</sup> /85 <sup>5)</sup>	85	–
	3 s	kA	30 <sup>2)</sup> /35 <sup>3)</sup>	35	60	–	55 <sup>4)</sup> /66 <sup>5)</sup>	55 <sup>4)</sup> /75 <sup>5)</sup>	55 <sup>4)</sup> /75 <sup>5)</sup>	75	–
$I_{cw}$ at $U_e$ up to 690 V AC	0.5 s	kA	42	50	66	85	50	66	85	100	85
	1 s	kA	42	50	66	85	50	66	85	100	85
	2 s	kA	35 <sup>2)</sup> /42 <sup>3)</sup>	45	66	70	50	66	66 <sup>4)</sup> /85 <sup>5)</sup>	85	66 <sup>4)</sup> /85 <sup>5)</sup>
	3 s	kA	30 <sup>2)</sup> /35 <sup>3)</sup>	35	60	60	50	55 <sup>4)</sup> /66 <sup>5)</sup>	55 <sup>4)</sup> /75 <sup>5)</sup>	75	55 <sup>4)</sup> /75 <sup>5)</sup>
$I_{cw}$ at $U_e$ up to 1000 V AC	0.5 s	kA	–	–	–	50	–	–	–	–	85
	1 s	kA	–	–	–	50	–	–	–	–	85
	2 s	kA	–	–	–	50	–	–	–	–	66 <sup>4)</sup> /85 <sup>5)</sup>
	3 s	kA	–	–	–	50	–	–	–	–	55 <sup>4)</sup> /75 <sup>5)</sup>
$I_{cw}$ at $U_e$ up to 1150 V AC	0.5 s	kA	–	–	–	–	–	–	–	–	50
	1 s	kA	–	–	–	–	–	–	–	–	50
	2 s	kA	–	–	–	–	–	–	–	–	50
	3 s	kA	–	–	–	–	–	–	–	–	50
$I_{cw}$ at $U_e$ up to 220 V DC	1 s	kA	–	–	–	–	–	–	–	–	
$I_{cw}$ at $U_e$ up to 300 V DC	1 s	kA	–	–	–	–	–	–	–	–	
$I_{cw}$ at $U_e$ up to 600 V DC	1 s	kA	–	–	–	–	–	–	–	–	
$I_{cw}$ at $U_e$ up to 1000 V DC	1 s	kA	–	–	–	–	–	–	–	–	

<sup>1)</sup> At rated operational voltage  $U_e \geq 690$  V, the  $I_{cw}$  value of the circuit breaker corresponds to the  $I_{cu}$  or  $I_{cs}$  value

<sup>2)</sup> Size 1 with  $I_{n \max} \leq 1250$  A  
<sup>3)</sup> Size 1 with  $I_{n \max} \geq 1600$  A

<sup>4)</sup>  $I_{n \max} \leq 2500$  A  
<sup>5)</sup>  $I_{n \max} \geq 3200$  A

AC



3WA13

DC



3WA12

3WA13			3WA12			
≤1150 4000 ... 6300 3			≤600/1000 1000 ... 4000 2			
Withdrawable		Fixed-mounted	Withdrawable		Fixed-mounted	
3/4-pole		3/4-pole	3/4-pole		3/4-pole	
704 914		704 914	460 590		460 590	
468 518		437 462	468 518		437 462	
471		357	471		357	
VDE, EAC, CCC, CE, C-Tick ABS, DNV, GL, LRS, BV, PRS, CCS, RMRS			VDE, EAC, CCC, CE, C-Tick ABS, DNV, GL, LRS, BV, PRS, CCS, RMRS			
H	C	E	D	E	D	E
- -	- -	- -	- -	- -	- -	- -
100 100	150 150 (3-pole); 130 130 (4-pole)	- -	- -	- -	- -	- -
85 85	150 150 (3-pole); 130 130 (4-pole)	150 150 (3-pole); 130 130 (4-pole)	- -	- -	- -	- -
- -	- -	125 125	- -	- -	- -	- -
- -	- -	70 70	- -	- -	- -	- -
220	330 (3-pole); 286 (4-pole)	-	-	-	-	-
220	330 (3-pole); 286 (4-pole)	-	-	-	-	-
187	330 (3-pole); 286 (4-pole)	330 (3-pole); 286 (4-pole)	-	-	-	-
-	-	275	-	-	-	-
-	-	154	-	-	-	-
100	130 (3-pole); 120 (4-pole)	-	-	-	-	-
100	130 (3-pole); 120 (4-pole)	-	-	-	-	-
100	130 (3-pole); 120 (4-pole)	-	-	-	-	-
100	130 (3-pole); 120 (4-pole)	-	-	-	-	-
85	130 (3-pole); 120 (4-pole)	130 (3-pole); 120 (4-pole)	-	-	-	-
85	130 (3-pole); 120 (4-pole)	130 (3-pole); 120 (4-pole)	-	-	-	-
85	130 (3-pole); 120 (4-pole)	130 (3-pole); 120 (4-pole)	-	-	-	-
85	130 (3-pole); 120 (4-pole)	130 (3-pole); 120 (4-pole)	-	-	-	-
-	-	125 (3-pole); 120 (4-pole)	-	-	-	-
-	-	125 (3-pole); 120 (4-pole)	-	-	-	-
-	-	125 (3-pole); 120 (4-pole)	-	-	-	-
-	-	125 (3-pole); 120 (4-pole)	-	-	-	-
-	-	70 70	-	-	-	-
-	-	70 70	-	-	-	-
-	-	70 70	-	-	-	-
-	-	70 70	-	-	-	-
-	-	-	35	-	35	-
-	-	-	30	-	30	-
-	-	-	25	-	25	-
-	-	-	-	20	-	20



# Switching devices for AC and DC

IEC 60947-2 (continued)

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AC



3WA11

3WA12

Breaking capacity		N	S	M	E	S	M	H	C	E
<b>Rated conditional short-circuit current <math>I_{cc}</math> of the non-automatic air circuit breakers</b>										
Up to 500 V AC	kA	55	66	85	–	66	85	100	100	–
Up to 690 V AC	kA	42	50	66	85	50	66	85	100	85
Up to 1000 V AC	kA	–	–	–	50	–	–	–	–	85
Up to 1150 V AC	kA	–	–	–	–	–	–	–	–	50
Up to 220 V/300 V DC	kA	–	–	–	–	–	–	–	–	–
Up to 600 V/1000 V DC	kA	–	–	–	–	–	–	–	–	–
<b>IT network capability</b>										
1-pole short-circuit breaking capacity $I_{IT}$ acc to.	≤500 V kA	50	50	50	–	50	50	50	50	–
IEC 60947-2 Annex H	≤690 V kA	–	–	–	50	–	–	–	–	50
	1000 V kA	–	–	–	–	–	–	–	–	–

AC



3WA13

DC



3WA12

3WA13			3WA12			
H	C	E	D	E	D	E
100	130 (3-pole); 120 (4-pole)	–	–	–	–	–
85	130 (3-pole); 120 (4-pole)	130 (3-pole); 120 (4-pole)	–	–	–	–
–	–	125 (3-pole); 120 (4-pole)	–	–	–	–
–	–	70	–	–	–	–
–	–	–	35/30	–/–	35/30	–/–
–	–	–	25/–	–/20	25/–	–/20
50	50	–	–	–	–	–
–	–	50	–	–	–	–
–	–	–	–	–	–	–

1

# Switching devices for AC

IEC 60947-2

3WA11



Rated current $I_n$			630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A
<b>General data</b>									
Isolating function acc. to EN 60947-2			Yes						
Utilization category			B						
Permissible ambient temperature	Operation	°C	-40 ... +70						
	Storage	°C	-40 ... +80						
Mounting position									
Degree of protection			IP20 without control cabinet door, IP41 with door sealing frame, IP55 with cover						
<b>Voltage</b>									
Rated operational voltage $U_e$ at 50/60 Hz	1000 V version	V AC	≤1000						
Rated insulation voltage $U_i$		V AC	1000						
Rated impulse withstand voltage $U_{imp}$	Main conducting paths	kV	12						
	Auxiliary circuits	kV	4						
	Control circuits	kV	2.5						
<b>Permissible load</b>									
<b>Permissible load for withdrawable versions</b>									
For all connection types (except rear vertical main connections)	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1600	2000	–
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1600	1930	–
	Up to 70 °C (Cu bare)	A	630	800	1000	1210	1490	1780	–
With rear vertical connections	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1600	2000	2500
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1600	2000	2370
	Up to 70 °C (Cu bare)	A	630	800	1000	1250	1545	1855	2060
<b>Permissible load for fixed-mounted versions</b>									
For all connection types (except rear vertical main connections)	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1600	2000	–
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1600	2000	–
	Up to 70 °C (Cu bare)	A	630	800	1000	1250	1600	2000	–
With rear vertical connections	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1600	2000	2500
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1600	2000	2500
	Up to 70 °C (Cu bare)	A	630	800	1000	1250	1600	2000	2500
<b>Power loss at <math>I_n</math></b>									
With 3-phase symmetrical load with maximum rated current, complete device (3/4p)	Fixed-mounted	W	30	45	70	105	135	240	360
	Withdrawable versions	W	55	85	130	205	310	440	600

### 3WA12



### 3WA13



3WA12				3WA13		
2000 A	2500 A	3200 A	4000 A	4000 A	5000 A	6300 A
Yes				Yes		
B				B		
-40 ... +70				-40 ... +70		
-40 ... +80				-40 ... +80		
IP20 without control cabinet door, IP41 with door sealing frame, IP55 with cover				IP20 without control cabinet door, IP41 with door sealing frame, IP55 with cover		
≤1150				≤1150		
≤1150				≤1150		
12				12		
4				4		
2.5				2.5		
2000	2500	3200	–	4000	5000	–
2000	2500	3020	–	4000	5000	–
2000	2280	2870	–	4000	5000	–
2000	2500	3200	4000	4000	5000	5920
2000	2500	3200	3910	4000	5000	5810
2000	2390	2945	3645	4000	5000	5500
2000	2500	3200	–	4000	5000	–
2000	2500	3200	–	4000	5000	–
2000	2500	3200	–	4000	5000	–
2000	2500	3200	4000	4000	5000	6300
2000	2500	3200	4000	4000	5000	6300
2000	2500	3200	4000	4000	5000	5920
180	270	410	750	520	630	900
320	520	710	1040	810	1050	1600

# Switching devices for AC

IEC 60947-2 (continued)

3WA11



Rated current $I_n$			630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A
<b>Switching times</b>									
Make time	ms					35			
Opening time	ms					38			
Electrical make time (through closing coil) <sup>1)</sup>	ms					80			
Electrical opening time (through shunt trip)	ms					73			
Electrical opening time (instantaneous undervoltage release)	ms					≤80			
Opening time due to ETU, instantaneous short-circuit release	ms					50			
<b>Service life/endurance</b>									
<b>Breaking capacity N, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				15000			
	With maintenance <sup>2)</sup>	Operating cycles				30000			
Electrical	Without maintenance 690 V	Operating cycles			10000			7500	5000
	With maintenance <sup>2)</sup>	Operating cycles				30000			
<b>Breaking capacity S, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				15000			
	With maintenance <sup>2)</sup>	Operating cycles				30000			
Electrical	Without maintenance 690 V	Operating cycles			15000			7500	5000
	With maintenance <sup>2)</sup>	Operating cycles				30000			
<b>Breaking capacity M, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				10000			
	With maintenance <sup>2)</sup>	Operating cycles				15000			
Electrical	Without maintenance 690 V	Operating cycles			7500				5000
	With maintenance <sup>2)</sup>	Operating cycles				15000			
<b>Breaking capacity E, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				10000			
	With maintenance <sup>2)</sup>	Operating cycles				15000			
Electrical	Without maintenance 690 V	Operating cycles			7500				5000
	Without maintenance 1000 V	Operating cycles				1000			
	Without maintenance 1150 V	Operating cycles				–			
	With maintenance <sup>2)</sup>	Operating cycles				15000			
<b>Breaking capacity H, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				–			
	With maintenance <sup>2)</sup>	Operating cycles				–			
Electrical	Without maintenance 690 V	Operating cycles				–			
	With maintenance <sup>2)</sup>	Operating cycles				–			
<b>Breaking capacity C, 3/4-pole</b>									
Mechanical	Without maintenance	Operating cycles				–			
	With maintenance <sup>2)</sup>	Operating cycles				–			
Electrical	Without maintenance 690 V	Operating cycles				–			
	With maintenance 690 V <sup>2)</sup>	Operating cycles				–			
<b>Operating frequency</b>									
<b>Breaking capacity N and S</b>									
Electrical	3-pole	1/h				45			
	4-pole	1/h				45			
<b>Breaking capacity M, H and C</b>									
Electrical	3/4-pole	1/h				60/60 ≤ 690 V			
<b>Breaking capacity E</b>									
Electrical	3/4-pole	1/h				20/20 at 1000 V, 60/60 ≤ 690 V			

<sup>1)</sup> Make time through closing coil for momentary duty for synchronization purposes 5 % OP = 50 ms

<sup>2)</sup> Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual: [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)).

### 3WA12



### 3WA13



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2000 A		2500 A		3200 A		4000 A		4000 A		5000 A		6300 A	
			35								35		
			34								34		
			100								100		
			73								73		
			≤80								≤80		
			50								50		
			-								-		
			-								-		
			-								-		
			-								-		
			10000								-		
			20000								-		
7500		7500			4000		2000				-		
			20000								-		
			10000								-		
			20000								-		
7500		7500			4000		2000				-		
			20000								-		
			10000								5000		
			20000								10000		
7500		7500			4000		2000				2000		
			1000								1000		
			500								500		
			20000								10000		
			10000								10000		
			20000								15000		
7500		7500			4000		2000				2000		
20000		20000			20000		20000				15000		
			5000				-				5000		
			10000				-				10000		
5000		5000			4000		-				1000		
10000		10000			10000		-				10000		
			45								-		
			60								-		
			60/60 ≤ 690 V								60/60 ≤ 690 V		
			20/20 at 1000/1150 V, 60/60 ≤ 690 V								20/20 at 1000/1150 V, 60/60 ≤ 690 V		



# Switching devices for AC

IEC 60947-2 (continued)

3WA11



Rated current $I_n$		630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A
<b>Connection</b>								
<b>Main conductor minimum cross-sections</b>								
Copper bars, bare	Unit, mm <sup>2</sup>	1× 40× 10	1× 50× 10	1× 60× 10	2× 40× 10	2× 50× 10	3× 50× 10	4× 50× 10
Copper bars, painted black	Unit, mm <sup>2</sup>	1× 40× 10	1× 50× 10	1× 60× 10	2× 40× 10	2× 50× 10	3× 50× 10	4× 50× 10
<b>Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)</b>								
Standard connection = push-in	Without end sleeve				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)			
	With end sleeve acc. to DIN 46228 Part 2				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)			
	With twin end sleeve				2× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			
	Stripped length				10 ... 12 mm (0.39 ... 0.47 inch)			
Optional connection with screw connection	Without end sleeve				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)			
	With end sleeve acc. to DIN 46228 Part 2				1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			
	With twin end sleeve				1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			
	Stripped length				7 ... 8 mm (0.28 ... 0.31 inch)			
<b>Position signaling switch</b>								
Spring-loaded terminals for standard signaling contacts	Without end sleeve				0.08 ... 2.5 mm <sup>2</sup> (AWG 20 ... 12)			
	With end sleeve acc. to DIN 46228 Part 2				0.25 ... 1.5 mm <sup>2</sup>			
	Stripped length				5 ... 6 mm (0.2 ... 0.24 inch)			
Push-in connection for communication signaling contacts	Without end sleeve				0.14 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			
	With end sleeve acc. to DIN 46228 Part 2				0.25 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			
	Stripped length				9 mm (0.35 inch)			
<b>Weights</b>								
3-pole	Fixed-mounted circuit breaker	kg	43	43	43	43	43	43
	Withdrawable circuit breaker without guide frame	kg	45	45	45	45	45	45
	Guide frames	kg	25	25	25	25	25	25
4-pole	Fixed-mounted circuit breaker	kg	50	50	50	50	50	50
	Withdrawable circuit breaker without guide frame	kg	54	54	54	54	54	54
	Guide frames	kg	30	30	30	30	30	30

## 3WA12



## 3WA13



2000 A	2500 A	3200 A	4000 A	4000 A	5000 A	6300 A
3× 50×10	2× 100×10	3× 100×10	4× 120×10	4× 100×10	6× 100×10	6× 120×10
3× 50×10	2× 100×10	3× 100×10	4× 120×10	4× 100×10	6× 100×10	6× 120×10
	2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)	
	2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)	
	2× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)				2× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	10 ... 12 mm (0.39 ... 0.47 inch)				10 ... 12 mm (0.39 ... 0.47 inch)	
	2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)				2× 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)	
	1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)				1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)				1× 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	7 ... 8 mm (0.28 ... 0.31 inch)				7 ... 8 mm (0.28 ... 0.31 inch)	
	0.08 ... 2.5 mm <sup>2</sup> (AWG 20 ... 12)				0.08 ... 2.5 mm <sup>2</sup> (AWG 20 ... 12)	
	0.25 ... 1.5 mm <sup>2</sup>				0.25 ... 1.5 mm <sup>2</sup>	
	5 ... 6 mm (0.2 ... 0.24 inch)				5 ... 6 mm (0.2 ... 0.24 inch)	
	0.14 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)				0.14 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	0.25 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)				0.25 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	9 mm (0.35 inch)				9 mm (0.35 inch)	
56	59	64	85	82	82	90
60	63	68	121	88	88	96
31	39	45	52	60	60	70
67	71	77	103	99	99	108
72	76	82	146	106	106	108
37	47	54	62	84	84	119

# Switching devices for DC

IEC 60947-2

3WA12



Rated current $I_n$			1000 A	2000 A	4000 A
<b>General data</b>					
Isolating function acc. to EN 60947-2			Yes		
Utilization category			B		
Permissible ambient temperature	During operation	°C	-40 ... +70		
	(in operation with LCD max. 55 °C)				
	Storage	°C	-40 ... +80		
Mounting position					
Degree of protection			IP20 without control cabinet door, IP41 with door sealing frame, IP55 with cover		
<b>Voltage</b>					
Rated operational voltage $U_e$	1000 V version	V DC	1000		
Rated insulation voltage $U_i$		V DC	1000		
Rated impulse withstand voltage $U_{imp}$	Main conducting paths	kV	12		
	Auxiliary circuits	kV	4		
	Control circuits	kV	2.5		
<b>Permissible load</b>					
<b>Permissible load for withdrawable versions</b>					
For all connection types (except rear vertical main connections)	Up to 40 °C (Cu bare)	A	1000	2000	4000
	Up to 55 °C (Cu bare)	A	1000	2000	3640
	Up to 60 °C (Cu bare)	A	1000	2000	3500
	Up to 70 °C (Cu bare)	A	1000	1950	3250
With rear vertical connections	Up to 40 °C (Cu bare)	A	1000	2000	4000
	Up to 55 °C (Cu bare)	A	1000	2000	4000
	Up to 60 °C (Cu bare)	A	1000	2000	3640
	Up to 70 °C (Cu bare)	A	1000	2000	3400
<b>Permissible load for fixed-mounted versions</b>					
For all connection types (except rear vertical main connections)	Up to 40 °C (Cu bare)	A	1000	2000	4000
	Up to 55 °C (Cu bare)	A	1000	2000	4000
	Up to 60 °C (Cu bare)	A	1000	2000	4000
	Up to 70 °C (Cu bare)	A	1000	2000	3900
With rear vertical connections	Up to 40 °C (Cu bare)	A	1000	2000	4000
	Up to 55 °C (Cu bare)	A	1000	2000	4000
	Up to 60 °C (Cu bare)	A	1000	2000	4000
	Up to 70 °C (Cu bare)	A	1000	2000	4000
<b>Power loss at <math>I_n</math></b>					
With 3-phase symmetrical load, complete device (3/4p)	Withdrawable versions	W	280	770	1640
	Fixed-mounted	W	140	390	820
<b>Switching times</b>					
Make time		ms	35	35	35
Opening time		ms	34	34	34
Electrical make time (through closing coil)		ms	100	100	100
Electrical opening time (through shunt trip)		ms	73	73	73
Electrical opening time (instantaneous undervoltage release)		ms	≤80	≤80	≤80

## 3WA12



Rated current $I_n$			1000 A	2000 A	4000 A
<b>Service life/endurance</b>					
<b>Breaking capacity D, 3/4-pole</b>					
Mechanical	Without maintenance	Operating cycles	10000	10000	10000
	With maintenance <sup>1)</sup>	Operating cycles	20000	20000	20000
Electrical	Without maintenance 600 V	Operating cycles	6000	6000	4000
	With maintenance <sup>1)</sup>	Operating cycles	20000	20000	20000
<b>Breaking capacity E, 3/4-pole</b>					
Mechanical	Without maintenance	Operating cycles	10000	10000	10000
	With maintenance <sup>1)</sup>	Operating cycles	20000	20000	20000
Electrical	Without maintenance 1000 V	Operating cycles	1000	1000	1000
	With maintenance <sup>1)</sup>	Operating cycles	20000	20000	20000
<b>Operating frequency</b>					
<b>Breaking capacity D</b>					
Electrical	3/4-pole	1/h	60/60	60/60	60/60
<b>Breaking capacity E</b>					
Electrical	3/4-pole	1/h	20/20	20/20	20/20
<b>Connection</b>					
<b>Main conductor minimum cross-sections</b>					
Copper bars, bare		Unit, mm <sup>2</sup>	1 × 50 × 10	2 × 50 × 10	3 × 100 × 10 on the infeed and outgoing side; 6 × 250 × 500 × 5 for jumpers
Copper bars, painted black		Unit, mm <sup>2</sup>	1 × 50 × 10	2 × 50 × 10	3 × 100 × 10 on the infeed and outgoing side; 6 × 250 × 500 × 5 for jumpers
<b>Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)</b>					
Standard connection = push-in	Without end sleeve		2 × 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)		
	With end sleeve acc. to DIN 46228 Part 2		2 × 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)		
	With twin end sleeve		2 × 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)		
	Stripped length		10 ... 12 mm (0.39 ... 0.47 inch)		
Optional connection with screw connection	Without end sleeve		2 × 0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)		
	With end sleeve acc. to DIN 46228 Part 2		1 × 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)		
	With twin end sleeve		1 × 0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)		
	Stripped length		7 ... 8 mm (0.28 ... 0.31 inch)		
<b>Position signaling switch</b>					
Spring-loaded terminals for standard signaling contacts	Without end sleeve		0.08 ... 2.5 mm <sup>2</sup> (AWG 20 ... 12)		
	With end sleeve acc. to DIN 46228 Part 2		0.25 ... 1.5 mm <sup>2</sup>		
	Stripped length		5 ... 6 mm (0.2 ... 0.24 inch)		
Push-in connection for communication signaling contacts	Without end sleeve		0.14 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)		
	With end sleeve acc. to DIN 46228 Part 2		0.25 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)		
	Stripped length		9 mm (0.35 inch)		
<b>Weights</b>					
3-pole	Fixed-mounted circuit breaker	kg	56	56	64
	Withdrawable circuit breaker without guide frame	kg	60	60	68
	Guide frames	kg	31	31	45
4-pole	Fixed-mounted circuit breaker	kg	67	67	77
	Withdrawable circuit breaker without guide frame	kg	72	72	82
	Guide frames	kg	37	37	54

<sup>1)</sup> Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual: [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)).

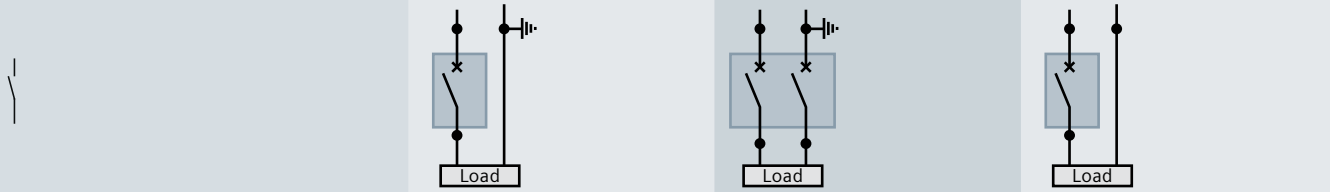
# Switching devices for DC

## Application examples

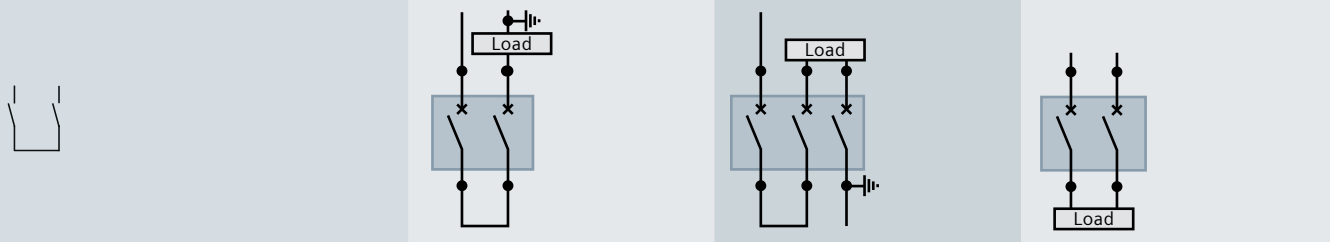
The connection to the circuit breakers is not dependent on direction and polarity; the circuit diagrams can be adapted accordingly. If the parallel or series connections are made directly to the connecting bars, for thermal reasons the continuous load on the circuit breakers must only be 80% of the permissible operational current. If the parallel or series connection is made at a distance of 1 m from the connecting bars, the circuit breaker can be used at full operational current load.

Required contact gaps at rated voltage      DC 1-pole disconnection  
Grounded system      DC 2-pole (all-pole) disconnection  
Grounded system      Non-grounded system

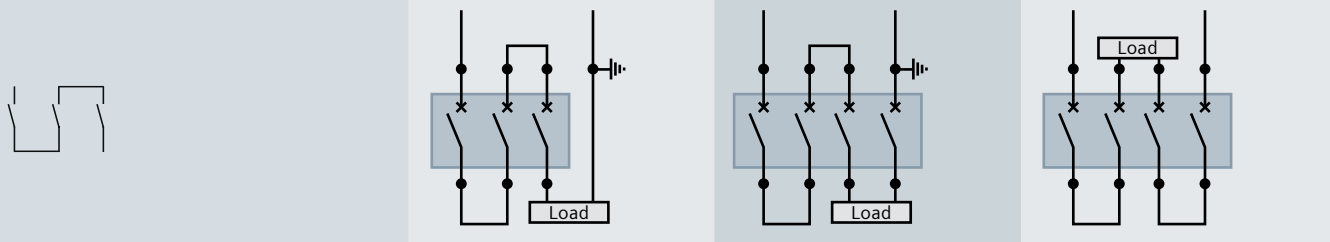
Rated operational voltage <300 V



Rated operational voltage >300 V ... 600 V



Rated operational voltage >600 V ... 1000 V



### Note:

#### DC 2-pole (all-pole) disconnection; grounded system

The grounded pole is always assigned to the individual conducting path, so that, in the event of a ground fault, there are always 2 conducting paths in series in a circuit with 3-pole circuit breakers and 3 conducting paths in series in a circuit with 4-pole circuit breakers.

# Electronic trip unit ETU600

## Protective functions

ETU600 LSI, ETU600 LSIG, ETU600 LSIG Hi-Z			Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring
Protective function	Variable setting range	Setting values with rotary switch					
<b>L: Overload protection LT</b>							
Tripping operation	Can be switched on/off		■	■	■	■	■
Current setting $I_r$	0.4 ... 1.0 × $I_n$	0.5/0.6/0.7/0.75/0.8/0.85/0.9/0.95/1.0 × $I_n$	■	■	■	■	■
Tripping time $t_r$ at 6 × $I_r$	For $I^2t$ : 0.5 ... 30 s and at $I^4t$ : 1 ... 5 s	1/2/5/8/10/14/17/21/25 s	■	■	■	■	■
Characteristic LT curve	$I^2t$ and $I^4t$		■	■	■	■	■
Thermal memory	Can be switched on/off		■	■	■	■	■
Cooling time constant	10 and 18 × $t_r$		■	■	■	■	■
Phase failure detection	Can be switched on/off		■	■	■	■	■
Overload pre-alarm PAL	Can be switched on/off		■	■	■	■	■
Current setting $I_{r,PAL}$	0.7 ... 1.0 × $I_r$		■	■	■	■	■
Delay time $t_{r,PAL}$	0.5 ... 1.0 × $t_r$		■	■	■	■	■
<b>L: Overload protection LT, neutral conductor</b>							
Tripping	Can be switched on/off		■	■	■	■	■
Current setting $I_N$	0.2 ... 2.0 × $I_n$ for 4-pole circuit breakers max. $I_{n,max}$		■	■	■	■	■
Current setting $I_{N,PAL}$	0.7 ... 1.0 × $I_N$		■	■	■	■	■
<b>S: Short-time-delayed short-circuit protection ST</b>							
Tripping	Can be switched on/off		■	■	■	■	■
Current setting $I_{sd}$	0.6 × $I_n$ ... 0.8 × $I_{cw}$	1.5/2/2.5/3/4/5/6/8/10 × $I_r$	■	■	■	■	■
Tripping time $t_{sd}$	0.02 ... 0.4 s	For Fix: 0.08/0.15/0.22/0.3/0.4 s For $I^2t$ : 0.1/0.2/0.3/0.4 s	■	■	■	■	■
Characteristic ST curve	$I^0t$ and $I^2t$		■	■	■	■	■
Reference point $I_{ST,ref}$	6-12 × $I_r$		■	■	■	■	■
Intermittent acquisition	Can be switched on/off		■	■	■	■	■
<b>S: Directional short-time-delayed short-circuit protection dST</b>							
Tripping	Can be switched on/off		□	□	□	■	■
Current setting $I_{sd,FW}$	0.6 × $I_n$ ... 0.8 × $I_{cw}$		□	□	□	■	■
Current setting $I_{sd,REV}$	0.6 × $I_n$ ... 0.8 × $I_{cw}$		□	□	□	■	■
Tripping time $t_{sd,FW}$	0.05 ... 0.4 s		□	□	□	■	■
Tripping time $t_{sd,REV}$	0.05 ... 0.4 s		□	□	□	■	■
<b>I: instantaneous short-circuit protection INST</b>							
Tripping	Can be switched on/off		■	■	■	■	■
Current setting $I_i$	1.5 × $I_n$ ... 0.8 × $I_{cs}$	1.5/2/3/4/6/8/10/12/15 × $I_n$	■	■	■	■	■
<b>Reverse power protection RP</b>							
Tripping	Can be switched on/off		□	□	□	■	■
Setting value $P_{RP}$	0.05 ... 0.5 × $P_n$		□	□	□	■	■
Tripping time $t_{RP}$	0.01 ... 25 s		□	□	□	■	■
<b>Enhanced Protective functions EPF</b>							
Phase unbalance current and phase unbalance voltage			□	□	□	■	■
Undervoltage and overvoltage			□	□	□	■	■
Active power import and active power export			□	□	□	■	■
Under-frequency and over-frequency			□	□	□	■	■
Total harmonic distortion for current and voltage			□	□	□	■	■
Phase sequence detection			□	□	□	■	■
<b>DAS+ dynamic arc sentry</b>							
Current setting $I_{i,DAS+}$	1.5 ... 10 × $I_n$		■	■	■	■	■
Current setting $I_{g,DAS+}$	With LSIG GFx option plug Residual: - Sizes 1 and 2: 100 ... 2000 A and - Size 3: 400 ... 2000 A Direct: 15 ... 2000 A		■	■	■	■	■
Tripping time $t_{g,DAS+}$	0 ... 5 s		■	■	■	■	■
<b>Second parameter set</b>							
Parameter set changeover	Switchable between parameter set A and B		□	□	□	■	■

■ Available, feature of the application package  
□ Can be retrofitted



# Electronic trip unit ETU600

## Protective functions

1

			Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring
<b>ETU600 LSI</b>							
Protective function	Variable setting range						
<b>G: ground fault GF alarm</b>							
Alarm	Can be switched on/off		□	□	□	■	■
Current setting $I_{g\text{ alarm}}$ with LSIG GFx option plug	Detection method	Sizes 1 and 2: 100 ... 5000 A	□	□	□	■	■
	Residual	Size 3: 400 ... 5000 A					
	Detection method	15 ... 5000 A	□	□	□	■	■
	Direct						
Alarm time $t_{g\text{ alarm}}$	0 ... 0.5 s		□	□	□	■	■

			Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring
<b>ETU600 LSIG</b>							
Protective function	Variable setting range						
<b>G: Ground fault GF</b>							
Tripping	Can be switched on/off		■	■	■	■	■
Method of ground fault detection	Residual	Detection of ground-fault current via summation current formation in all phases and the N-conductor	■	■	■	■	■
	Direct	Direct metering of the ground-fault current with a current transformer	■	■	■	■	■
	Dual	Protection zone UREF: Detection of the ground-fault current by means of summation current formation, Protection zone REF: Measurement of the ground-fault current with an external current transformer	■	■	■	■	■
Characteristic GF curve	With LSIG GFx option plug	For Fix $(I^0t)I^2t/I^4t/I^6t$	■	■	■	■	■
Current setting $I_g$ with LSIG GFx option plug	Detection method	Sizes 1 and 2: 100 ... 2000 A	■	■	■	■	■
	Residual	Size 3: 400 ... 2000 A					
	Detection method	15 ... 2000 A	■	■	■	■	■
	Direct						
Tripping time $t_g$	For Fix $(I^0t)$	0 ... 5 s	■	■	■	■	■
	For $I^2t$ at $3 \times I_g$	0 ... 30 s	■	■	■	■	■
Intermittent acquisition	Can be switched on/off		■	■	■	■	■
<b>G: ground fault GF alarm</b>							
Alarm	Can be switched on/off		■	■	■	■	■
Current setting $I_{g\text{ alarm}}$ with LSIG GFx option plug	Detection method	Sizes 1 and 2: 100 ... 5000 A	■	■	■	■	■
	Residual	Size 3: 400 ... 5000 A					
	Detection method	15 ... 5000 A	■	■	■	■	■
	Direct						
Alarm time $t_{g\text{ alarm}}$	0 ... 0.5 s		■	■	■	■	■

■ Available, feature of the application package

ETU600 LSIG Hi-Z			Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring
Protective function	Variable setting range						
<b>G: Ground fault GF Hi-Z</b>							
Tripping	Can be switched on/off		■	■	■	■	■
Method of ground fault detection	Residual	Detection of ground-fault current via summation current formation in all phases and the N-conductor	■	■	■	■	■
	Dual Hi-Z, For high-impedance connection of the external current transformers	Protection zone UREF: Detection of the ground-fault current by means of summation current formation, Protection zone REF: Measurement of the ground-fault current with an external current transformer combination	■	■	■	■	■
Characteristic GF curve	With LSIG GFx option plug	For Fix ( $I^0t$ )/ $I^2t$ / $I^4t$ / $I^6t$	■	■	■	■	■
Current setting $I_g$ with LSIG GFx option plug	Protection zone UREF	Size 2: 100 ... 2000 A and Size 3: 400 ... 2000 A	■	■	■	■	■
	Protection zone REF	15 ... 2000 A	■	■	■	■	■
Tripping time $t_g$	For Fix ( $I^0t$ )	0 ... 5 s	■	■	■	■	■
	For $I^0t \geq 3 \times I_g$ in protection zone UREF	0 ... 30 s	■	■	■	■	■
Intermittent acquisition	Can be switched on/off		■	■	■	■	■
<b>G: ground fault GF alarm</b>							
Alarm	Can be switched on/off		■	■	■	■	■
Current setting $I_{g \text{ alarm}}$ with LSIG GFx option plug	Protection zone UREF	Size 2: 100 ... 5000 A and Size 3: 400 ... 5000 A	■	■	■	■	■
Alarm time $t_{g \text{ alarm}}$	0 ... 0.5 s		■	■	■	■	■

■ Available, feature of the application package

# Electronic trip unit ETU600

## Operation, interfaces and metering function

ETU600		Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring	Non-automatic circuit breakers
<b>Operation and interfaces</b>							
Rotary switch		■	■	■	■	■	–
Display and operating keys		■	■	■	■	■	–
SETRON powerconfig configuration software		■	■	■	■	■	–
Fieldbus communication		■	■	■	■	■	–
Color display		■	■	■	■	■	–
Bluetooth <sup>1)</sup> and USB interface		■	■	■	■	■	–
<b>Communication</b>							
Prepared for connection of a communication module (ready4COM feature)	Status messages of the circuit breaker	□	□	■	■	■	□
	Status messages of the electronic trip unit ETU600	□	□	■	■	■	–
	Remote operation, requires a communication module, closing coil, shunt trip	□	□	■	■	■	□
Communication module COM190 PROFINET-IO/Modbus-TCP		□	□	□	□	□	□
<b>Digital input and output on the electronic trip unit ETU600</b>							
Parameterizable input	For activating DAS+ dynamic arc sentry or can be used for parameter set changeover	■	■	■	■	■	–
Parameterizable output	Can be used as a "life contact" and for display of "Parameter set B active" or "DAS+ dynamic arc sentry active".	■	■	■	■	■	–
<b>IOM230 digital input and output module</b>							
Two parameterizable inputs	For controlling the circuit breaker and transmitting information from the switchboard via communication.	□	□	□	□	□	□
Three parameterizable outputs	For signaling events, states, tripping operations or alarms of the switching device	□	□	□	□	□	□

<sup>1)</sup> A country-specific radio license is required to operate the Bluetooth interface. Before activating the Bluetooth function, ensure that the license is available: [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

– Not available  
 ■ Available, feature of the application package  
 □ Can be retrofitted

		Current metering	ready4COM	PMF-I Energy efficiency	PMF-II Basic Power Monitoring	PMF-III Advanced Power Monitoring
<b>ETU600</b>						
<b>Metering function</b>						
Integrated voltage tap at top/bottom		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voltage tap module VTM		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Type acc. to IEC 61557-12	PMF-I	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	PMF-II	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	PMF-III	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Metering values acc. to IEC61557-12</b>						
Phase current $I_{L1}, I_{L2}, I_{L3}$	Class 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Neutral conductor current $I_N$	Class 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ground-fault current $I_g$ with ETU600 LSI		-	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ground-fault current $I_g$ with ETU600 LSIG, ETU600 LSIG Hi-Z		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature		-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voltage $U_{LN}$	Class 0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voltage $U_{LL}$	Class 0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Active energy $E_a$	Class 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reactive energy $E_r$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apparent energy $E_{ap}$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Active power $P$	Class 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reactive power $Q$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apparent power $S$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Power totals $S, P, Q$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Power factor $PF$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
$\cos \varphi$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Frequency $f$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Current unbalance		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voltage unbalance		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total harmonic distortion $THD-I$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total harmonic distortion $THD-U$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Harmonic $I, U$		-	-	-	-	<input checked="" type="checkbox"/>

- Available, feature of the application package
- Can be retrofitted

# Connection

## Main circuit connection

### 3WA11 – 3WA13

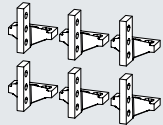
Fixed-mounted

Withdrawable

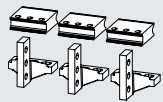
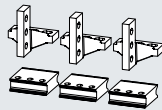
1



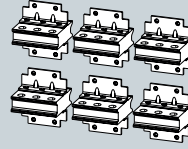
Rear horizontal



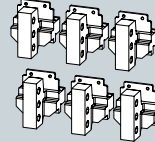
Rear vertical

Horizontal on top,  
vertical at the bottomVertical on top,  
horizontal at the bottom

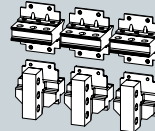
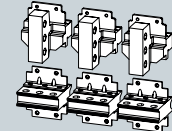
Front connection with double hole



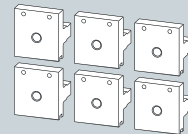
Rear horizontal



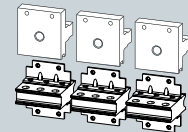
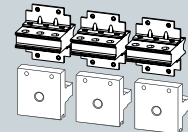
Rear vertical

Horizontal on top,  
vertical at the bottomVertical on top,  
horizontal at the bottom

Front connection with double hole



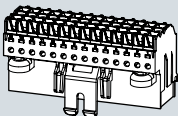
Flange

Flange on top and  
horizontal at bottomFlange on bottom and  
horizontal at top

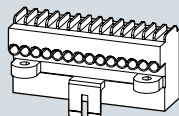
## Secondary disconnect terminal

The auxiliary and control cables are connected at the manual connectors using the push-in technology of the auxiliary conductor connections of the circuit breaker.

Coding pins on the manual connectors prevent them being inserted in the wrong slots.

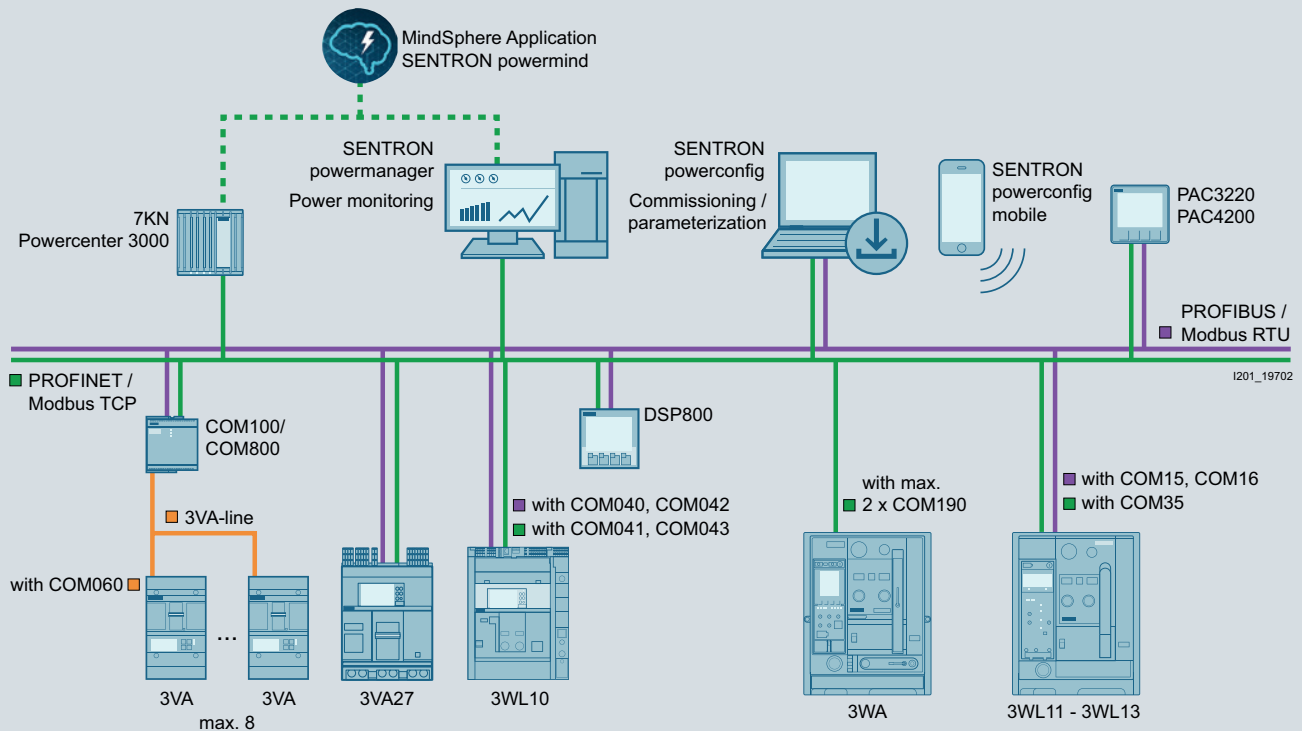


Screwless connection (push in)



Screw connection (optional)

# Communication



The 3WA can be equipped with up to two PROFINET IO/Modbus TCP COM190 communication modules and up to five IOM230 digital input/output modules.

For the optional communications link with COM190 communication module, a "ready4COM" must be selected as the switching device. The first COM190 communication module must be selected via a Z option. If you want to use a further COM190 communication module, this must be ordered separately as an accessory. Both COM190 communication modules can be run in parallel.

The first IOM230 digital input/output module can be selected via a Z option.  
The up to four further digital input/output modules must be ordered separately as accessories.

You will find further information on the COM190 in the equipment manual – 3WA air circuit breakers ([109763061](#))

Technical specifications	COM190
<b>Operating values</b>	
$U_s$	24 V DC $\pm$ 20%
Rated power dissipation	1 W
Switched Ethernet Ports	2
Protocol	PROFINET IO (CC-C) and Modbus TCP
Security functions	Yes
Number	Up to 2

Technical specifications	IOM230
<b>Operating values</b>	
$U_s$	24 V DC $\pm$ 20%
Rated power dissipation	1 W
Inputs	2
Outputs	3
Maximum switching current	24 V DC, 4 A 250 V AC, 5 A
Maximum continuous current	24 V DC, 0.2 A 250 V AC, 0.2 A
Number	Up to 5

# System overview 3WA11 – 3WA13

## Switching devices for AC and DC

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

1

### Switching devices



Sizes 1 to 3

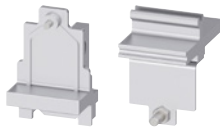
### Main circuit connection



Front double hole



Flange



Main connection  
vertical, horizontal

### Electronic trip unit and metering function



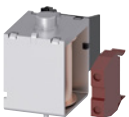
ETU600

### Operating mechanisms and auxiliary switches



Spring charging motor

### Closing coil and remote trip alarm reset coil



Closing coil (CC)



Remote trip alarm reset coil

#### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.



## Auxiliary releases



Closing coil (CC)



Shunt trip (ST)



Undervoltage release (UVR)

## Accessories for electronics



Communication module



Digital input/output module



Sealable and lockable cover



Internal current sensors

## Accessories for auxiliary circuit



Trip alarm switch



Motor disconnect switch



Local electric close



Emergency OPEN button

## Interlocks and locking provisions



Locking provision for charging handle



Locking provision against unauthorized closing



Mutual mechanical interlockings

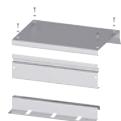


Locking mechanisms

## Other accessories



Door sealing frame



Arc chute cover



Automatic reset of the reclosing lockout

### Note:

You will find a detailed range of accessories in the Accessories section.

# Online configurator highlights

[www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

## Graphical display

- Integration of the legend as a color system
  - Orange: still to be selected
  - Petrol: already selected
  - Gray: preselected (default)
- Graphical highlighting of the individual configuration steps: "What you see is what you get"

**SIEMENS**  
legendarily for life

**3WA Configurator**  
3WA1...AC...AA02R01

Configurations is not yet complete

Please insert 3WA Order number

Log In Support Language X

Monitoring the spring mechanism  
with motorized operating mechanism

Supply voltage of the motor drive

110-127 VAC / 110-125 VDC  
200-240 VAC / 230-250 VDC  
24-30 VDC

Number of auxiliary switches ON / OFF  
2 NC + 2 NO

Closing coil and remote trip alarm reset coil

Design of switch-on solenoid CC  
without

Supply voltage of the closing coil  
without

Remote reset magnet for trip signaling  
No

1st Auxiliary switch

Type of the 1st voltage release ST  
without

Supply voltage of the 1st voltage release  
without

Legend:

- Basic configuration
- Main connection
- Electronic trip unit and measurement function
- Switch mechanism and auxiliary switch
- Closing coil and remote trip alarm reset coil
- 1st Auxiliary switch
- 2nd Auxiliary switch
- Electronic accessories
- Auxiliary current accessories
- Locking accessories
- Miscellaneous accessories
- Not assigned

CAD-AREA

Price  
**7900,00 €**

Cancel Reset Load / Save CAx Files Documents Add to Cart

## Splitting function (Frame and circuit breaker can be ordered separately)

Configuration result

Configuration result

Print Excel export

Split the configuration

3WA Circuit breaker  
**3WA1225-5AE60-0AA0**

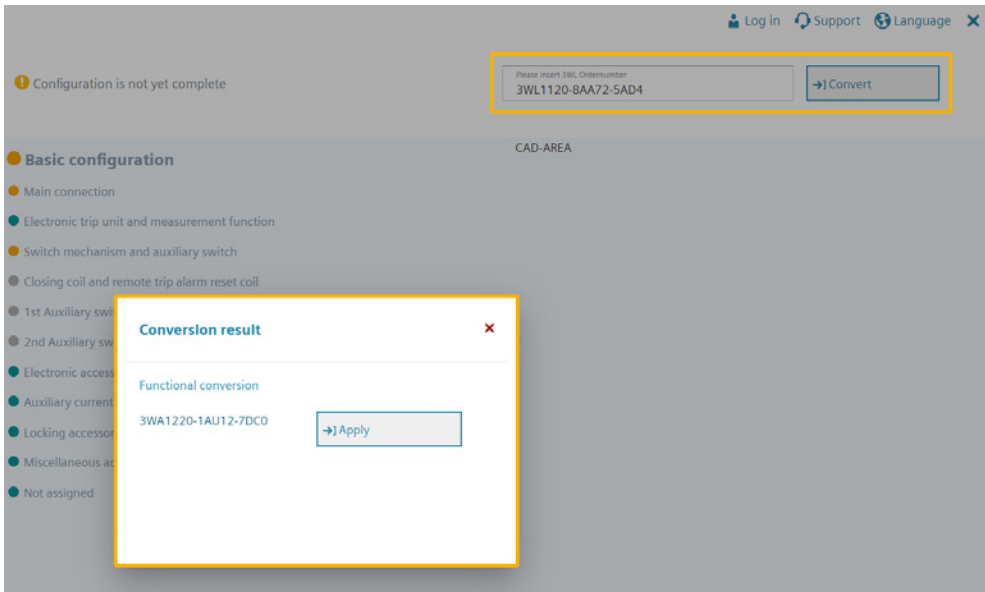
3WA frame  
**3WA8225-5AA32-1BC1**

Show additional information

- Closing coil and remote trip alarm reset coil
- 1st Auxiliary switch
- 2nd Auxiliary switch
- Electronic accessories
- Auxiliary current accessories
- Locking accessories
- Miscellaneous accessories
- Not assigned
- Configuration result**

Cancel Reset Load / Save CAx Files

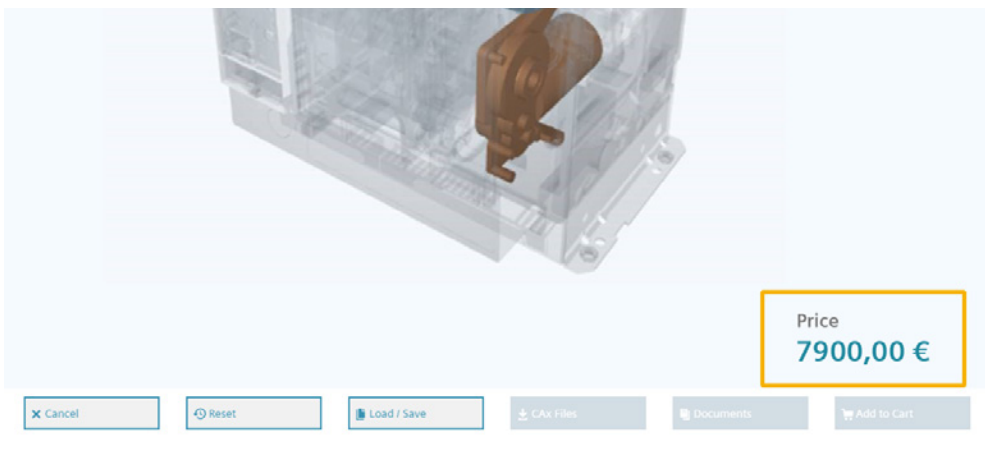
### Direct conversion of a 3WL article number to a 3WA article number in the configurator



### Responsive design (adapted to the differing requirements of the displaying devices)



### Dynamic customer price during configuration



# Structure of the article numbers

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers up to 690 V

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

			5	6	7	8	9	10	11	12	13	14	15	16
<b>3WA1</b>						-					-			
<b>Switching device</b>														
Size (SZ)	1		1											
	2		2											
	3		3											
		SZ 1	SZ 2	SZ 3										
Max. rated current	630 A	■	-	-		0	6							
$I_{n\max}$	800 A	■	-	-		0	8							
	1000 A	■	-	-		1	0							
	1250 A	■	-	-		1	2							
	1600 A	■	-	-		1	6							
	2000 A	■	■	-		2	0							
	2500 A	■	■	-		2	5							
	3200 A	-	■	-		3	2							
	4000 A	-	■ <sup>1)</sup>	■		4	0							
	5000 A	-	-	■		5	0							
	6300 A	-	-	■		6	3							
Short-circuit breaking capacity $I_{cu}$ at 500/690 V	N	■	-	-	55/42 kA		2							
	S	■	■	-	66/50 kA		3							
	M	■	■	-	85/66 kA		4							
	H	-	■	■	100/85 kA		5							
	C	-	■	-	130/100 kA		6							
		-	-	■	3-pole: 150/150 kA 4-pole: 130/130 kA		6							
<b>Non-automatic circuit breakers</b>							A	A						
<b>Non-automatic circuit breakers, ready4COM feature</b>							C	A						
<b>Application packages with protective and metering functions for circuit breakers</b>	Electronic trip unit ETU600	Current metering					A							
		Current metering, ready4COM feature					C							
	Electronic trip unit ETU600 with metering function, internal voltage tap in the circuit breaker, VTM680 voltage tap module and ready4COM	PMF-I	Voltage tap on top				L							
		Energy Efficiency	Voltage tap on bottom				E							
		PMF-II Basic Power Monitoring	Voltage tap on top				M							
			Voltage tap on bottom				F							
		PMF-III Advanced Power Monitoring	Voltage tap on top				N							
			Voltage tap on bottom				G							
	Protective functions	■	■	■	LSI			E						
		■	■	■	LSIG			F						
	-	■	■	LSIG Hi-Z			G							
<b>Number of poles</b>	Fixed-mounted			3-pole		0								
				4-pole, Neutral left		1								
	Withdrawable	Without position signaling switch			3-pole		3							
					4-pole, Neutral left		4							
		With position signaling switch <sup>2)</sup>			3-pole		6							
					4-pole, Neutral left		7							

<sup>1)</sup> Not available for breaking capacity C

<sup>2)</sup> Position signaling switch for circuit breakers/non-automatic circuit breakers without ready4COM: 3× connected position, 2× test position, 1× disconnected position; Position signaling switch for circuit breakers/non-automatic circuit breakers with ready4COM: 1× connected position, 1× test position, 1× disconnected position + message through communication interface for disconnected position and for "not available"

3WA1



## Connection

		SZ 1	SZ 2	SZ 3		
Type of mounting	Fixed-mounted	■	■ <sup>1)</sup>	■	Vertical	1
		■	■ <sup>3)</sup>	■ <sup>4)</sup>	Horizontal	2
		■ <sup>2)</sup>	■ <sup>5)</sup>	■ <sup>6)</sup>	Front	3
		■	■ <sup>3)</sup>	■ <sup>4)</sup>	Vertical/horizontal	5
		■	■ <sup>3)</sup>	■ <sup>4)</sup>	Horizontal/vertical	6
		■	■	■	Without guide frame	0
	Withdrawable	■	■ <sup>1)</sup>	■	Vertical	1
		■ <sup>2)</sup>	■ <sup>3)</sup>	■ <sup>4)</sup>	Horizontal	2
		■ <sup>2)</sup>	■ <sup>5)</sup>	■ <sup>6)</sup>	Front	3
		■ <sup>2)</sup>	■ <sup>5)</sup>	■ <sup>6)</sup>	Flange	4
		■ <sup>2)</sup>	■ <sup>3)</sup>	■ <sup>4)</sup>	Vertical/horizontal	5
		■ <sup>2)</sup>	■ <sup>3)</sup>	■ <sup>4)</sup>	Horizontal/vertical	6
	■ <sup>2)</sup>	■ <sup>5)</sup>	■ <sup>6)</sup>	Flange/horizontal	7	
	■ <sup>2)</sup>	■ <sup>5)</sup>	■ <sup>6)</sup>	Horizontal/flange	8	

<sup>1)</sup> The 4000 A vertical connections for the 3WA1 have different dimensions from the 3WL1. Dimensionally compatible connections can be ordered with the additional Z option D01.

<sup>2)</sup> Not available for 2500 A

<sup>3)</sup> Not available for 4000 A

<sup>4)</sup> Not available for 6300 A

<sup>5)</sup> Not available for 4000 A and for breaking capacity C

<sup>6)</sup> Not available for 5000 A and 6300 A and for breaking capacity C

# Structure of the article numbers

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers up to 690 V

The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

1

3WA1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

## Operating mechanism, auxiliary switch and auxiliary release

<b>Operating mechanism and auxiliary switch</b>	Manual recharging of the stored energy mechanism	Without spring charging motor	2 NO, 2 NC	0		
			4 NO, 4 NC	1		
	Recharging of the stored energy mechanism by spring charging motor (M)	24 ... 30 V DC	2 NO, 2 NC	2		
			4 NO, 4 NC	5		
		48 ... 60 V DC	4 NO, 4 NC	6		
			2 NO, 2 NC	3		
		110 ... 127 V AC/ 110 ... 125 V DC	4 NO, 4 NC	7		
			2 NO, 2 NC	4		
		4 NO, 4 NC	8			
<b>Closing coil and remote trip alarm reset coil <sup>1)2)</sup></b>	Without closing coil	Without remote trip alarm reset coil		A		
			With closing coil (CC) for continuous duty, 100% OP	Without remote trip alarm reset coil	24 ... 30 V DC	B
					48 ... 60 V DC	C
	110 ... 127 V AC/110 ... 125 V DC	D				
	With remote trip alarm reset coil (RR) for momentary duty 1% OP	Without remote trip alarm reset coil		208 ... 240 V AC/220 ... 250 V DC	E	
				24 ... 30 V DC	F	
				48 ... 60 V DC	G	
	With closing coil (CC) for momentary duty, 5% OP	Without remote trip alarm reset coil	110 ... 127 V AC/110 ... 125 V DC	H		
			208 ... 240 V AC/220 ... 250 V DC	J		
			24 ... 30 V DC	K		
		With remote trip alarm reset coil (RR) for momentary duty 1% OP	Without remote trip alarm reset coil	48 ... 60 V DC	L	
				110 ... 127 V AC/110 ... 125 V DC	M	
				208 ... 240 V AC/220 ... 250 V DC	N	
	2nd auxiliary release	Without 2nd auxiliary release	Without remote trip alarm reset coil	24 ... 30 V DC	P	
				48 ... 60 V DC	Q	
				110 ... 127 V AC/110 ... 125 V DC	R	
		With shunt trip (ST), continuous duty 100% OP	Without remote trip alarm reset coil	208 ... 240 V AC/220 ... 250 V DC	S	
				24 ... 30 V DC	A	
48 ... 60 V DC				B		
With shunt trip (ST), momentary duty 5% OP	Without remote trip alarm reset coil	Without remote trip alarm reset coil	110 ... 127 V AC/110 ... 125 V DC	C		
			208 ... 240 V AC/220 ... 250 V DC	D		
			24 ... 30 V DC	E		
	With undervoltage release (UVR) <sup>3)</sup> , instantaneous ( $\leq 0.08$ s) and short-time delayed ( $\leq 0.2$ s)	Without remote trip alarm reset coil	Without remote trip alarm reset coil	48 ... 60 V DC	F	
				110 ... 127 V AC/110 ... 125 V DC	G	
				208 ... 240 V AC/220 ... 250 V DC	H	
With undervoltage release (UVR-t), adjustable delay 0.2 ... 3.2 s	Without remote trip alarm reset coil	Without remote trip alarm reset coil	380 ... 415 V AC	J		
			24 V DC	L		
			48 V DC	N		
	With undervoltage release (UVR-t), adjustable delay 0.2 ... 3.2 s	Without remote trip alarm reset coil	Without remote trip alarm reset coil	110 ... 127 V AC/110 ... 125 V DC	P	
				208 ... 240 V AC/220 ... 250 V DC	Q	
				380 ... 415 V AC	R	
2nd auxiliary release	Without 2nd auxiliary release	Without remote trip alarm reset coil	48 V DC	S		
			60 V DC	T		
			110 ... 127 V AC/110 ... 125 V DC	U		
	With shunt trip (ST), continuous duty 100% OP	Without remote trip alarm reset coil	Without remote trip alarm reset coil	208 ... 240 V AC/220 ... 250 V DC	V	
				24 ... 30 V DC	A	
				48 ... 60 V DC	B	
With shunt trip (ST), momentary duty 5% OP	Without remote trip alarm reset coil	Without remote trip alarm reset coil	110 ... 127 V AC/110 ... 125 V DC	C		
			208 ... 240 V AC/220 ... 250 V DC	D		
			380 ... 415 V AC	R		

<sup>1)</sup> Remote trip alarm reset coil is not available for non-automatic circuit breakers

<sup>2)</sup> When using the remote trip alarm reset coil, the reclosing lockout is generally deactivated. The circuit breaker can be closed again immediately if the conditions for closing are fulfilled.

<sup>3)</sup> For UVR instantaneous for 30 V DC and 60 V DC only a separate delivery of the UVR is possible.

The following must be ordered: for 30 V DC 3WL9111-0AE02-0AA0; for 60 V DC 3WL9111-0AE07-0AA0.

3WA1



## Auxiliary releases

1st auxiliary release	Without 1st auxiliary release		0
	With shunt trip (ST), continuous duty 100% OP	24 ... 30 V DC	1
		48 ... 60 V DC	2
		110 ... 127 V AC/110 ... 125 V DC	3
		208 ... 240 V AC/220 ... 250 V DC	4
		24 ... 30 V DC	5
	With shunt trip (ST), momentary duty 5% OP	48 ... 60 V DC	6
		110 ... 127 V AC/110 ... 125 V DC	7
208 ... 240 V AC/220 ... 250 V DC		8	



# Structure of the article numbers

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers in a 690 V IT system and for higher voltages

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

1

3WA1			5	6	7	8	9	10	11	12	13	14	15	16
<b>Switching device</b>														
Size (SZ)	1		1											
	2		2											
	3		3											
		SZ 1	SZ 2	SZ 3										
Max. rated current $I_{n \max}$	630 A	■	-	-	0	6								
	800 A	■	-	-	0	8								
	1000 A	■	-	-	1	0								
	1250 A	■	-	-	1	2								
	1600 A	■	-	-	1	6								
	2000 A	■	■	-	2	0								
	2500 A	■	■	-	2	5								
	3200 A	-	■	-	3	2								
	4000 A	-	■	■	4	0								
	5000 A	-	-	■	5	0								
	6300 A	-	-	■	6	3								
Short-circuit breaking capacity $I_{cu}$ at 690 V/1000 V/1150 V	Breaking capacity E	■	-	-	85/50 kA/-		8							
		-	■	-	85/85/50 kA		8							
		-	-	■	3-pole: 150/125/70 kA 4-pole: 130/125/70 kA		8							
<b>Non-automatic circuit breakers</b>										A	A			
<b>Non-automatic circuit breaker, ready4COM feature</b>										C	A			
<b>Application packages with protective and metering functions for circuit breakers</b>	Electronic trip unit ETU600	Current metering		A										
		Current metering, ready4COM feature		C										
	Electronic trip unit ETU600 with metering function, internal voltage tap in the circuit breaker, VTM640 voltage tap module and ready4COM	PMF-I	Voltage tap on top	U										
		Energy Efficiency	Voltage tap on bottom	Q										
	PMF-II Basic Power Monitoring	Voltage tap on top	V											
		Voltage tap on bottom	R											
	PMF-III Advanced Power Monitoring	Voltage tap on top	W											
		Voltage tap on bottom	S											
	Protective functions	■ ■ ■	LSI	E										
		■ ■ ■	LSIG	F										
- ■ ■		LSIG Hi-Z	G											
<b>Number of poles</b>	Fixed-mounted	3-pole	0											
		4-pole, Neutral left	1											
	Withdrawable	Without position signaling switch	3-pole	3										
			4-pole, Neutral left	4										
		With position signaling switch <sup>1)</sup>	3-pole	6										
		4-pole, Neutral left	7											

<sup>1)</sup> Position signaling switch for circuit breakers/non-automatic circuit breakers without ready4COM:

3× connected position, 2× test position, 1× disconnected position;

Position signaling switch for circuit breakers/non-automatic circuit breakers with ready4COM:

1× connected position, 1× test position, 1× disconnected position + message through communication interface for disconnected position and for "not available".

3WA1



## Connection

		SZ 1	SZ 2	SZ 3		
Type of mounting	Fixed-mounted	■	■ <sup>3)</sup>	■	Vertical	1
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Horizontal	2
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>5)</sup>	Front double hole	3
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Vertical on top/horizontal at the bottom	5
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Horizontal on top/vertical at the bottom	6
		■	■	■	Without guide frame	0
	Withdrawable	■	■ <sup>3)</sup>	■	Vertical	1
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Horizontal	2
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>5)</sup>	Front double hole	3
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>5)</sup>	Flange	4
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Vertical on top/horizontal at the bottom	5
		■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>4)</sup>	Horizontal on top/vertical at the bottom	6
	■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>5)</sup>	Flange on top/horizontal at the bottom	7	
	■ <sup>1)</sup>	■ <sup>2)</sup>	■ <sup>5)</sup>	Horizontal on top/flange at the bottom	8	

<sup>1)</sup> Only ≤2000 A is available for size 1

<sup>2)</sup> Only ≤3200 A is available for size 2

<sup>3)</sup> Vertical connection for 3WA size 2 for 4000 A has different dimensions than for the 3WL.

With Z option D01, vertical connection can be changed to the connection compatible with 3WL.

<sup>4)</sup> Only ≤5000 A is available for size 3

<sup>5)</sup> Only for 4000 A is available for size 3

# Structure of the article numbers

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers in a 690 V IT system and for higher voltages

The structure shown below is intended as an overview of each position and its meaning.

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

1

3WA1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

## Operating mechanism, auxiliary switch and auxiliary release

<b>Operating mechanism and auxiliary switch</b>	Manual recharging of the stored energy mechanism	Without spring charging motor	2 NO, 2 NC	0	
			4 NO, 4 NC	1	
	Recharging of the stored energy mechanism by spring charging motor (M)	24 ... 30 V DC		2 NO, 2 NC	2
				4 NO, 4 NC	5
		48 ... 60 V DC		4 NO, 4 NC	6
				2 NO, 2 NC	3
		110 ... 127 V AC/ 110 ... 125 V DC		4 NO, 4 NC	7
				2 NO, 2 NC	4
		208 ... 240 V AC/ 220 ... 250 V DC		4 NO, 4 NC	8
<b>Closing coil and remote trip alarm reset coil<sup>1)</sup></b>	Without closing coil	Without remote trip alarm reset coil		A	
		With closing coil (CC) for continuous duty, 100% OP	Without remote trip alarm reset coil	24 ... 30 V DC	B
	48 ... 60 V DC			C	
	110 ... 127 V AC/110 ... 125 V DC		D		
	208 ... 240 V AC/220 ... 250 V DC		E		
	With remote trip alarm reset coil (RR) for momentary duty 1% OP		24 ... 30 V DC		F
					G
		110 ... 127 V AC/110 ... 125 V DC		H	
			208 ... 240 V AC/220 ... 250 V DC	J	
	With closing coil (CC) for momentary duty, 5% OP	Without remote trip alarm reset coil	24 ... 30 V DC	K	
			48 ... 60 V DC	L	
		110 ... 127 V AC/110 ... 125 V DC	M		
		208 ... 240 V AC/220 ... 250 V DC	N		
		With remote trip alarm reset coil (RR) for momentary duty 1% OP	24 ... 30 V DC		P
					Q
	110 ... 127 V AC/110 ... 125 V DC			R	
			208 ... 240 V AC/220 ... 250 V DC	S	
	<b>2nd auxiliary release</b>	Without 2nd auxiliary release		A	
With shunt trip (ST), continuous duty 100% OP		24 ... 30 V DC	B		
		48 ... 60 V DC	C		
		110 ... 127 V AC/110 ... 125 V DC	D		
		208 ... 240 V AC/220 ... 250 V DC	E		
With shunt trip (ST), momentary duty 5% OP		24 ... 30 V DC	F		
		48 ... 60 V DC	G		
		110 ... 127 V AC/110 ... 125 V DC	H		
		208 ... 240 V AC/220 ... 250 V DC	J		
With undervoltage release (UVR) <sup>2)</sup> , instantaneous ( $\leq 0.08$ s) and short-time delayed ( $\leq 0.2$ s)		24 V DC	L		
		48 V DC	N		
		110 ... 127 V AC/110 ... 125 V DC	P		
		208 ... 240 V AC/220 ... 250 V DC	Q		
		380 ... 415 V AC	R		
			S		
With undervoltage release (UVR-t), adjustable delay 0.2 ... 3.2 s		48 V DC	S		
		60 V DC	T		
		110 ... 127 V AC/110 ... 125 V DC	U		
	208 ... 240 V AC/220 ... 250 V DC	V			
	380 ... 415 V AC	W			

<sup>1)</sup> Remote trip alarm reset coil is not available for non-automatic circuit breakers

<sup>2)</sup> For UVR instantaneous for 30 V DC and 60 V DC only a separate delivery of the UVR is possible.

The following must be ordered: for 30 V DC 3WL9111-0AE02-0AA0; for 60 V DC 3WL9111-0AE07-0AA0.

3WA1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

## Auxiliary releases

1st auxiliary release	Without 1st auxiliary release		0
	With shunt trip (ST), continuous duty 100% OP	24 ... 30 V DC	1
		48 ... 60 V DC	2
		110 ... 127 V AC/110 ... 125 V DC	3
		208 ... 240 V AC/220 ... 250 V DC	4
	With shunt trip (ST), momentary duty 5% OP	24 ... 30 V DC	5
		48 ... 60 V DC	6
		110 ... 127 V AC/110 ... 125 V DC	7
208 ... 240 V AC/220 ... 250 V DC		8	

# Structure of the article numbers

## Basic configuration for DC non-automatic circuit breakers

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

1

		5		6		7		8		9		10		11		12		13		14		15		16			
		3WA1						-																			
<b>Switching device</b>																											
Size (SZ)	2	2																									
		SZ 2																									
Max. rated current $I_{n \max}$	1000 A			1		0																					
	2000 A			2		0																					
	4000 A			4		0																					
Short-circuit breaking capacity $I_{cc}$	D	■		25 kA, 600 V DC		1																					
	E	■		20 kA, 1000 V DC		8																					
Non-automatic circuit breakers										A		U															
Non-automatic circuit breaker, ready4COM feature										C		U															
Number of poles <sup>1)</sup>	Fixed-mounted							3-pole																0			
								4-pole																1			
	Withdrawable			Without position signaling switch				3-pole																3			
								4-pole																4			
				With position signaling switch <sup>1)</sup>				3-pole																6			
								4-pole																7			
<b>Connection</b>		SZ 2																									
Type of mounting	Fixed-mounted	■		Vertical																				1			
		■		Horizontal																				2			
		■		Front double hole																				3			
		■		Vertical on top/horizontal at the bottom																				5			
		■		Horizontal on top/vertical at the bottom																				6			
		■		Without guide frame																				0			
	Withdrawable	■		Vertical																				1			
		■		Horizontal																				2			
		■		Front double hole																				3			
		■		Flange																				4			
		■		Vertical on top/horizontal at the bottom																				5			
		■		Horizontal on top/vertical at the bottom																				6			
		■		Flange on top/horizontal at the bottom																				7			
		■		Horizontal on top/flange at the bottom																				8			

<sup>1)</sup> Position signaling switch for circuit breakers/non-automatic circuit breakers without ready4COM:  
3× connected position, 2× test position, 1× disconnected position;

Position signaling switch for circuit breakers/non-automatic circuit breakers with ready4COM:

1× connected position, 1× test position, 1× disconnected position + message through communication interface for disconnected position and for "not available".

3WA1

5	6	7	8	9	10	11	12	13	14	15	16
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## Operating mechanism, auxiliary switch and auxiliary release

<b>Operating mechanism and auxiliary switch</b>	Manual recharging of the stored energy mechanism	Without spring charging motor	2 NO, 2 NC	0	
			4 NO, 4 NC	1	
	Recharging of the stored energy mechanism by spring charging motor (M)	24 ... 30 V DC		2 NO, 2 NC	2
				4 NO, 4 NC	5
		48 ... 60 V DC		4 NO, 4 NC	6
		110 ... 127 V AC/ 110 ... 125 V DC		2 NO, 2 NC	3
				4 NO, 4 NC	7
		208 ... 240 V AC/ 220 ... 250 V DC		2 NO, 2 NC	4
		4 NO, 4 NC	8		
<b>Closing coil</b>	Without closing coil			A	
	With closing coil (CC) for continuous duty, 100% OP		24 ... 30 V DC	B	
			48 ... 60 V DC	C	
			110 ... 127 V AC/110 ... 125 V DC	D	
			208 ... 240 V AC/220 ... 250 V DC	E	
	With closing coil (CC) for momentary duty, 5% OP		24 ... 30 V DC	K	
			48 ... 60 V DC	L	
			110 ... 127 V AC/110 ... 125 V DC	M	
		208 ... 240 V AC/220 ... 250 V DC	N		
<b>2nd auxiliary release</b>	Without 2nd auxiliary release			A	
	With shunt trip (ST), continuous duty 100% OP		24 ... 30 V DC	B	
			48 ... 60 V DC	C	
			110 ... 127 V AC/110 ... 125 V DC	D	
			208 ... 240 V AC/220 ... 250 V DC	E	
	With shunt trip (ST), momentary duty 5% OP		24 ... 30 V DC	F	
			48 ... 60 V DC	G	
			110 ... 127 V AC/110 ... 125 V DC	H	
			208 ... 240 V AC/220 ... 250 V DC	J	
	With undervoltage release (UVR) <sup>1)</sup> , instantaneous ( $\leq 0.08$ s) and short-time delayed ( $\leq 0.2$ s)		24 V DC	L	
			48 V DC	N	
			110 ... 127 V AC/110 ... 125 V DC	P	
			208 ... 240 V AC/220 ... 250 V DC	Q	
			380 ... 415 V AC	R	
					S
	With undervoltage release (UVR-t), adjustable delay 0.2 ... 3.2 s		48 V DC	T	
		60 V DC			
		110 ... 127 V AC/110 ... 125 V DC	U		
		208 ... 240 V AC/220 ... 250 V DC	V		
		380 ... 415 V AC	W		
<b>1st auxiliary release</b>	Without 1st auxiliary release			0	
	With shunt trip (ST), continuous duty 100% OP		24 ... 30 V DC	1	
			48 ... 60 V DC	2	
			110 ... 127 V AC/110 ... 125 V DC	3	
			208 ... 240 V AC/220 ... 250 V DC	4	
	With shunt trip (ST), momentary duty 5% OP		24 ... 30 V DC	5	
			48 ... 60 V DC	6	
			110 ... 127 V AC/110 ... 125 V DC	7	
		208 ... 240 V AC/220 ... 250 V DC	8		

<sup>1)</sup> For UVR instantaneous for 30 V DC and 60 V DC only a separate delivery of the UVR is possible.  
The following must be ordered: for 30 V DC 3WL9111-0AE02-0AA0; for 60 V DC 3WL9111-0AE07-0AA0.

# Accessory options

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WA....-.....-.... -Z

Order code

## Option plug for electronic trip unit

- To reduce the rated current of the circuit breaker
- Only one module is possible per circuit breaker. As standard, the electronic trip unit is equipped with an option plug which is equal to the maximum rated breaker current ( $I_{n\max}$ ). The rated current of the selected option plug must be less than  $I_{n\max}$ .

Option plug	Rated current $I_n$	SZ1	SZ2	SZ3	Order code
	250 A	■	■	–	B02
	315 A	■	■	–	B03
	400 A	■	■	–	B04
	500 A	■	■	–	B05
	630 A	■	■	–	B06
	800 A	■	■	–	B08
	1000 A	■	■	–	B10
	1250 A	■	■	■	B12
	1600 A	■	■	■	B16
	2000 A	■	■	■	B20
	2500 A	–	■	■	B25
	3200 A	–	■	■	B32
	4000 A	–	–	■	B40
	5000 A	–	–	■	B50

## IOM230 digital input/output module

### Module with 2 inputs and 3 outputs

A module including adapter for mounting on the secondary disconnect terminal system of the circuit breaker, connecting cables and **CubicleBUS**<sup>2</sup> terminating resistor; five modules can be operated at the same time. Further modules must be ordered separately as 3WA9111-0EC11, which includes the adapter for mounting on the secondary disconnect terminal system of the circuit breaker and the adapter for external mounting on a standard mounting rail.

F23

## COM190 communication module

- The precondition for connection is a circuit breaker or non-automatic circuit breaker with the "ready4COM" feature

### PROFINET IO/Modbus TCP

A module including 2 Switched Ethernet ports, circuit breaker internal. A module including adapter for mounting on the secondary disconnect terminal system of the circuit breaker, connecting cables and **CubicleBUS**<sup>2</sup> terminating resistor; two communication modules can be run at the same time. The second communication module must be ordered separately as 3WA9111-0EC13.

F19

## Automatic reset

- Only possible for circuit breakers with an electronic trip unit

### Automatic reset

Automatic reset of the reclosing lockout after ETU tripping; this option is not required when ordering a circuit breaker with a remote trip alarm reset coil RR.

K01

## Tinned version of the main connections on the guide frame

- Only for switching devices in withdrawable version with horizontal connection or flange connection.
- Cannot be ordered for circuit breakers without a guide frame
- The normal delivery time increases to 15 work days

### Tinned connections

Sizes 1, 2, 3

D08



To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WA.....-.....-..... -Z

Order code

### Broadened vertical main connection

- Only possible on complete order for a withdrawable switching device or when ordering the guide frame separately

<b>Main circuit connection</b>	For 3WA1, 4000 A, size 2	Compatible with 3WL1240 for retrofit	D01
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### Secondary disconnect terminal system

- Cannot be ordered for circuit breakers without a guide frame

<b>Secondary disconnect terminal system</b>	With screw connection instead of push-in connection (standard)		N03
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### Mechanical operating cycles counter

<b>Mechanical operating cycles counter, 5-digit</b>	Can be used with all circuit breakers and non-automatic circuit breakers including those without a spring charging motor		C01
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### Signaling switch

<b>Tripped signaling switch</b>	2nd tripped signaling switch (S25)	1 NO	K06
	1st tripped signaling switch included as standard for circuit breakers. Can only be used with circuit breakers with an electronic trip unit without ready4COM.		

### Pushbuttons/shutdown switches/closing lockouts/special packaging/arc chute cover

<b>Emergency OPEN button</b>	Mushroom pushbutton instead of the mechanical OFF pushbutton		C25
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<b>Local electric close on operator panel (S10)</b>	This prevents unauthorized electrical closing from the operator panel. Mechanical closing and remote closing remain possible. Only possible in combination with a closing coil (CC)	With sealing cap	C11
		With CES lock	C12

<b>Motor disconnect switch on operator panel (S12)</b>	This prevents automatic charging of the stored energy mechanism by the spring charging motor		C24
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<b>Cardboard packaging with water-repellent coating on corrugated cardboard (moisture protection)</b>			P61
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<b>Arc chute cover mounted on the guide frame</b>	Not available for: <ul style="list-style-type: none"> <li>– Fixed-mounted</li> <li>– Breaking capacity C, E and D</li> <li>– 4000 A size 2</li> </ul>		R10
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<b>Sealable and lockable cover</b>	For electronic trip unit		F40
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### Internal current sensors (without energy core) for applications with frequency converters

- Used in converter applications with high harmonic components; can only be used for circuit breakers with an electronic trip unit
  - External 24 V DC supply required
  - Undervoltage release required
  - Additionally contains a relay for monitoring the 24 V DC and warning labels

<b>Internal current sensors</b>	Sizes 2, 3		K60
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### Mutual mechanical interlockings

- Interlocking module with Bowden cable 2 m

<b>Mutual mechanical interlockings</b>	For fixed-mounted breakers		S55
	For withdrawable circuit breakers with guide frame		R55
	For guide frames (ordered separately)		R56
	For withdrawable circuit breakers (ordered separately)		R57

# Accessory options

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To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WA.....-.....-..... -Z

Order code

## Locking provisions (for fixed-mounted and withdrawable circuit breakers)

Locking provision	To prevent unauthorized closing from the operator panel of the circuit breaker. The disconnecter unit fulfills the requirements for main circuit breakers according to EN 60204-1	Made by CES	S01
		Made by IKON	S03
		Assembly kit FORTRESS or CASTELL <sup>1)</sup>	S05
		Assembly kit for padlocks <sup>2)</sup>	S07
		Made by RONIS	S08
		Made by PROFALUX	S09
Locking provision	For charging handle with padlock <sup>2)</sup>		S33

## Locking provisions (for withdrawable circuit breakers)

Locking provision to prevent movement of the withdrawable circuit breaker	Safety lock for mounting onto the circuit breaker	Made by CES	S71
		Made by PROFALUX	S75
		Made by RONIS	S76

## Locking provisions against unauthorized closing, for withdrawable circuit breakers

- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1, consisting of a lock in the guide frame, active in the connected position, function is retained when circuit breaker is replaced.
- Not available in combination with order code "R81", "R85" or "R86".
- Only possible on complete order for a withdrawable switching device or when ordering the guide frame separately

Made by CES	R61
Made by RONIS	R68
Made by PROFALUX	R60

## Locking mechanisms

- R30 and R50 not possible in combination with order code "R81", "R85" or "R86".
- R30 and R50 only possible on complete order for a circuit breaker with a guide frame or when ordering the guide frame separately
- R40 can only be ordered with the circuit breaker

For fixed-mounted circuit breakers	To prevent opening of the control cabinet door in ON position	S30
For withdrawable circuit breakers	To prevent opening of the control cabinet door in connected position	R30
	To prevent activation when the control cabinet door is open <sup>3)</sup>	R40
	To prevent movement when the control cabinet door is open <sup>4)</sup>	R50

## Locking provisions to prevent movement of the withdrawable circuit breaker in disconnected position

- Consisting of Bowden cable and lock in the control cabinet door
- Not available in combination with order code "R30", "R50", "R61", "R68" or "R60"
- Only possible for a complete order for a circuit breaker with a guide frame or when ordering the guide frame separately

Made by CES	R81
Made by PROFALUX	R85
Made by RONIS	R86

## Increased degree of protection for installation in a control cabinet

Door sealing frame for degree of protection IP41	T40
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<sup>1)</sup> Locks must be ordered from the manufacturer.

<sup>2)</sup> Padlock not included in the scope of supply

<sup>3)</sup> Not available in combination with R50

<sup>4)</sup> Not available in combination with R40

# Guide frames for AC

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[www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WA8</b>					–	A	A			–			
<b>Guide frames</b>													
<b>Size</b>	1	1											
	2	2											
	3	3											
		SZ 1	SZ 2	SZ 3									
<b>Max. rated current <math>I_{n\max}</math></b>	630 ... 1000 A	■	–	–	1	0							
	1250 ... 1600 A	■	–	–	1	6							
(Generate the selection of positions 6, 7 and 8 according to the list below)	630 ... 2000 A	■	■	–	2	0							
	2500 A	■	■	–	2	5							
	2000 ... 3200 A	–	■	–	3	2							
	4000 A	–	■	■	4	0							
	4000 ... 5000 A	–	–	■	5	0							
	6300 A	–	–	■	6	3							
<b>Short-circuit breaking capacity <math>I_{cu}</math></b> (Generate the selection of positions 6, 7 and 8 according to the list below)	At 500/690 V	N	■	–	–	55/42 kA			2				
		S	■	■	–	66/50 kA			3				
		M	■	■	–	85/66 kA			4				
		H	–	■	■	100/85 kA			5				
		C	–	■	–	130/100 kA			6				
	At 690/1000/1150 V	E	■	–	–	80/50 kA/–			8				
			–	■	–	85/85/50 kA			8				
			–	–	■	3-pole: 150/150 kA 4-pole: 130/130 kA			6				
									8				
									8				
<b>Number of poles</b>	3-pole							3					
	4-pole, Neutral left							4					
<b>Main connection</b>	■ ■ <sup>5)</sup> ■	Vertical						1					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>3)</sup>	Horizontal						2					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>4)</sup>	Front double hole						3					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>4)</sup>	Flange						4					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>3)</sup>	Vertical on top/horizontal at the bottom						5					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>3)</sup>	Horizontal on top/vertical at the bottom						6					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>4)</sup>	Flange on top/horizontal at the bottom						7					
	■ <sup>1)</sup> ■ <sup>2)</sup> ■ <sup>4)</sup>	Horizontal on top/flange at the bottom						8					

<sup>1)</sup> Only ≤2000 A is available for size 1

<sup>2)</sup> Only ≤3200 A is available for size 2

<sup>3)</sup> Only ≤5000 A is available for size 3

<sup>4)</sup> Only for 4000 A is available for size 3

<sup>5)</sup> Vertical connection for 3WA size 2 for 4000 A has different dimensions than for the 3WL.

With Z option D01, vertical connection can be changed to the connection compatible with 3WL.

The following combinations of positions 6, 7 and 8 are technically possible

Size	Breaking capacity at $I_{n\max}$	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
Representation 6, 7, 8												
1	N	10-2	10-2	10-2	16-2	16-2	20-3	25-3	–	–	–	–
	S	10-3	10-3	10-3	16-3	16-3	20-3	25-3	–	–	–	–
	M	20-4	20-4	20-4	20-4	20-4	20-4	25-4	–	–	–	–
	E	20-8	20-8	20-8	20-8	20-8	20-8	25-8	–	–	–	–
2	S	–	–	–	–	–	20-5	25-5	32-5	40-5	–	–
	M	–	–	–	–	–	20-5	25-5	32-5	40-5	–	–
	H	–	–	–	–	–	20-5	25-5	32-5	40-5	–	–
	E	–	–	–	–	–	20-8	25-8	32-8	40-8	–	–
	C	–	–	–	–	–	32-6	32-6	32-6	–	–	–
3	H	–	–	–	–	–	–	–	–	40-5	50-5	63-5
	E	–	–	–	–	–	–	–	–	50-8	50-8	63-8
	C	–	–	–	–	–	–	–	–	50-8	50-8	63-8

# Guide frames for AC

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1

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WA8</b>						–				–	1		1
<b>Push-in connection</b> <sup>1)</sup>	SZ 1, SZ 2, SZ 3	X7, X6, X5		Non-automatic circuit breakers without ready4COM feature		A							
		X8, X7, X6, X5		Circuit breakers/non-automatic circuit breakers with ready4COM feature		B							
	SZ 2, SZ 3	X9, X8, X7, X6, X5		Including external trip controller ETC600 for circuit breakers with ETU600 LSIG Hi-Z		K							
<b>Position signaling switch</b>	Without position signaling switch					A							
	Position signaling switch PSS (3x connected position, 2x test position, 1x disconnected position)					C							
	Position signaling switch PSS-COM (1x connected position, 1x test position, 1x disconnected position) plus connection to a communication module					G							

<sup>1)</sup> Conversion to screw-type connection is possible with Z option N03.

# Guide frames for DC

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your guide frame, please use our online configurator at [www.siemens.com/lowvoltage/3wa-configurator](http://www.siemens.com/lowvoltage/3wa-configurator)

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WA8</b>					–	A	U			–	1		1
<b>Guide frames</b>													
<b>Size (SZ)</b>	2	2											
<b>Max. rated current <math>I_{n\max}</math></b>	2000 A 4000 A		2 4	0 0									
<b>Short-circuit breaking capacity</b>	D $\leq 600$ V DC E $\leq 1000$ V DC				25 kA at 600 V DC 20 kA at 1000 V DC								1 8
<b>Number of poles</b>	3-pole 4-pole							3 4					
<b>Connection</b>	Withdrawable								Vertical Horizontal Front double hole Flange Vertical on top/horizontal at the bottom Horizontal on top/vertical at the bottom Flange on top/horizontal at the bottom Horizontal on top/flange at the bottom				1 2 3 4 5 6 7 8
<b>Secondary disconnect terminal</b>	Push-in connection				X7, X6, X5 X8, X7, X6, X5				Non-automatic circuit breakers Non-automatic circuit breakers with ready4COM				A B
<b>Position signaling switch</b>	Without position signaling switch Position signaling switch PSS (3x connected position, 2x test position, 1x disconnected position) Position signaling switch PSS-COM (1x connected position, 1x test position, 1x disconnected position) plus connection to a communication module												A C G

1

# Accessories and spare parts

## Accessories for electronic trip unit

### Electronic trip unit ETU600



Basic Protective functions	Article No.
LSI/LSIG	3WA9111-0EE62
LSIG Hi-Z	3WA9111-0EE63

### Spare part battery for ETU600



Article No.
3WA9111-0EE81

### Option plug



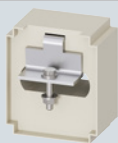
Basic configuration	Rated current $I_n$	SZ 1	SZ 2	SZ 3	Article No.
Protective function LSI: LT, ST, INST					3WA9111-0EB ..
Protective function LSIG: LT, ST, INST, GF (ground-fault protection with extended setting range)					3WA9111-0EX ..
	250 A	■	■	–	02
	315 A	■	■	–	03
	400 A	■	■	–	04
	500 A	■	■	–	05
	630 A	■	■	–	06
	800 A	■	■	–	08
	1000 A	■	■	–	10
	1250 A	■	■	■	12
	1600 A	■	■	■	16
	2000 A	■	■	■	20
	2500 A	■	■	■	25
	3200 A	–	■	■	32
	4000 A	–	■	■	40
	5000 A	–	–	■	50
	6300 A	–	–	■	63

### Function packages for ETU600



Protective and alarm functions	Article No.
Ground fault alarm (GF alarm)	3WA9111-0ES01
Directional short-time-delayed short-circuit protection (dST) and reverse power protection (RP) (requires an optional voltage tap module)	3WA9111-0ES05
<b>Enhanced Protective functions (EPF)</b>	<b>Article No.</b>
Full package with unbalance, voltage, active power, frequency, THD and phase sequence detection	3WA9111-0ES11
Phase unbalance current and phase unbalance voltage	3WA9111-0ES12
Undervoltage and overvoltage	3WA9111-0ES13
Active power import and active power export	3WA9111-0ES14
Under-frequency and over-frequency	3WA9111-0ES15
Total harmonic distortion for current and voltage	3WA9111-0ES16
Phase sequence detection	3WA9111-0ES17
<b>Functional expansions</b>	<b>Article No.</b>
Second protection parameter set	3WA9111-0ES21
<b>Extended metering function</b>	<b>Article No.</b>
Upgrade to metering function PMF-II Basic Power Monitoring (metering values, see catalog page 1/21)	3WA9111-0ES52
Upgrade to metering function PMF-III Advanced Power Monitoring (metering values, see catalog page 1/21)	3WA9111-0ES53

### External current sensors for the N-conductor



Version	Size	Article No.
For mounting on busbar	1	3WA9111-0AA21
	2	3WA9111-0AA22
	3	3WA9111-0AA23
For busbar connection	1	3WA9111-0AA31
	2	3WA9111-0AA32
	3	3WA9111-0AA33

## Accessories for electronic trip unit

Sealable and lockable covers		
	<b>Accessory for</b> ETU600	<b>Article No.</b> 3WA9111-0EM22
Automatic reset of the reclosing lockout		
	<b>Version</b> Spare part for option K01 or for retrofitting	<b>Article No.</b> 3WA9111-0EM31
Remote trip alarm reset coil		
	<ul style="list-style-type: none"> <li>For mechanical tripped indicator</li> <li>Including automatic reset of the reclosing lockout 3WA9111-0EM31</li> </ul>	
	<b>Voltage</b> 24 ... 30 V DC	<b>Article No.</b> 3WA9111-0EM42
	48 ... 60 V DC	3WA9111-0EM44
	110 ... 127 V AC/110 ... 125 V DC	3WA9111-0EM45
	208 ... 240 V AC/220 ... 250 V DC	3WA9111-0EM46
Second tripping solenoid (F6) with reclosing lockout		
	<b>Version</b> For external control via the external trip controller ETC600, including the necessary parts for the secondary disconnect terminal	<b>Article No.</b> 3WA9111-0EM61
External trip controller ETC600		
	<b>Version</b> Including adapter for mounting on the secondary disconnect terminal system of the circuit breaker, adapter for mounting on standard mounting rail	<b>Article No.</b> 3WA9111-0EM62

1



# Accessories and spare parts

## Locking provisions and interlocks

### Interlocking sets for mechanical Open/Close



- Consisting of two transparent covers each for sealing or for attaching padlocks (padlocks not included in scope of supply)
- Cover with 6.35 mm hole (for tool actuation)
- Lock mount for safety lock for key operation



Version	Article No.
Without safety lock	3WA9111-0BA21
Made by CES	3WA9111-0BA22
Made by IKON	3WA9111-0BA23

### Locking provision to prevent unauthorized closing from the operator panel



- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Spare part for options S01 to S09

Type	Scope of supply	Article No.
Assembly kit FORTRESS or CASTELL <sup>1)</sup>	Without locks, cylinders or keys	3WA9111-0BA31
Made by RONIS	Locks, cylinders and keys included	3WA9111-0BA32
Made by KIRK-Key <sup>1)</sup>	Without locks, cylinders or keys	3WA9111-0BA33
Made by PROFALUX	Locks, cylinders and keys included	3WA9111-0BA34
Made by CES	Locks, cylinders and keys included	3WA9111-0BA35
Made by IKON	Locks, cylinders and keys included	3WA9111-0BA36
Assembly kit for padlocks	Without padlock	3WA9111-0BA37

### Locking provision against unauthorized closing of the withdrawable circuit breaker



- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Consisting of lock in the guide frame, active in connected position, function is retained when circuit breaker is replaced
- Spare part for option R60, R61, R68

Type	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WA9111-0BA51
Made by IKON	Locks, cylinders and keys included	3WA9111-0BA53
Made by KIRK-Key <sup>1)</sup>	Without locks, cylinders or keys	3WA9111-0BA57
Made by RONIS	Locks, cylinders and keys included	3WA9111-0BA58
Made by PROFALUX	Locks, cylinders and keys included	3WA9111-0BA50

### Locking provision for charging handle with padlock



Version	Scope of supply	Article No.
Spare part for S33	Without padlock	3WA9111-0BA71

### Locking provision to prevent movement of the withdrawable circuit breaker


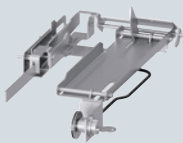

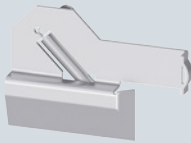





- Safety lock for mounting onto the circuit breaker
- Spare part for option S71, S75, S76

Type	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WA9111-0BA73
Made by IKON	Locks, cylinders and keys included	3WA9111-0BA75
Made by PROFALUX	Locks, cylinders and keys included	3WA9111-0BA76
Made by RONIS	Locks, cylinders and keys included	3WA9111-0BA77
Made by KIRK-Key <sup>1)</sup>	Without locks, cylinders or keys	3WA9111-0BA80

<sup>1)</sup> Locks, cylinders and keys must be ordered from the manufacturer.  
 Suitable cylinder lock KIRK Key C 900-301.  
 Suitable lock FORTRESS CLIS X005.  
 Suitable lock CASTELL FS2.

## Locking provisions and interlocks

Interlock systems				
	<ul style="list-style-type: none"> <li>• 2 of the same keys for 3 circuit breakers</li> <li>• Locking provision in OFF position</li> <li>• Lock in the operator panel</li> <li>• A maximum of 2 circuit breakers can be switched on</li> </ul>			
	<b>Type</b>		<b>Article No.</b>	
	Made by CES		3WA9111-0BA43	
Locking mechanisms to prevent movement of the withdrawable circuit breakers in the disconnected position				
	<ul style="list-style-type: none"> <li>• Consisting of Bowden cable and the breaker mechanism in the control cabinet door</li> <li>• Spare part for option R81, R85, R86</li> <li>• <b>Note:</b> Not possible in combination with "Locking mechanism to prevent opening of the control cabinet door" (order code "R30") or "Locking mechanism to prevent movement with the control cabinet door open" (order code "R50")</li> </ul>			
	<b>Type</b>		<b>Article No.</b>	
	Made by CES		3WA9111-0BA81	
	Made by IKON		3WA9111-0BA82	
	Made by PROFALUX		3WA9111-0BA83	
Made by RONIS		3WA9111-0BA84		
Locking mechanisms to prevent opening of the control cabinet door when the circuit breaker is closed				
	<ul style="list-style-type: none"> <li>• Defeatable</li> <li>• <b>Note:</b> Not possible in combination with "Locking mechanisms to prevent movement of the withdrawable circuit breakers in the disconnected position" (order codes "R81", "R85" or "R86").</li> </ul>			
	<b>Version</b>		<b>Article No.</b>	
	Spare part for option S30	Fixed-mounted circuit breaker	3WA9111-0BB12	
	Spare part for option R30	Guide frames	3WA9111-0BB13	
Locking mechanisms to prevent movement when the control cabinet door is open				
	<ul style="list-style-type: none"> <li>• Mounted on guide frame</li> <li>• <b>Note:</b> Not possible in combination with "Locking mechanisms to prevent movement of the withdrawable circuit breakers in the disconnected position" (order codes "R81", "R85" or "R86").</li> </ul>			
	<b>Version</b>		<b>Article No.</b>	
	Spare part for option R50		3WA9111-0BB15	
Mutual mechanical interlockings				
	<ul style="list-style-type: none"> <li>• With Bowden cable 2000 mm (one required for each circuit breaker)</li> </ul>			
	<b>Type</b>	<b>Circuit breaker and guide frame when ordered separately</b>	<b>Spare part for</b>	
	Fixed-mounted circuit breaker	–	Option S55	3WA9111-0BB21
	Module for withdrawable circuit breakers with guide frame	–	Option R55	3WA9111-0BB22
	Module for guide frame	✓	Option R56	3WA9111-0BB23
	Module for withdrawable circuit breaker	✓	Option R57	3WA9111-0BB24
Adapter for size 3 withdrawable circuit breaker	✓	–	3WA9111-0BB25	
Coupling on the circuit breaker for mutual interlocking with Bowden cable				
	<ul style="list-style-type: none"> <li>• Can be used in all circuit breakers</li> </ul>			
			<b>Article No.</b>	
			3WA9111-0BB31	
Bowden cable for mutual mechanical interlocking				
	<b>Length</b>		<b>Article No.</b>	
	2000 mm		3WA9111-0BB41	
	3000 mm		3WA9111-0BB42	
	4500 mm		3WA9111-0BB43	

<sup>1)</sup> Locks, cylinders and keys must be ordered from the manufacturer.

# Accessories and spare parts

## Indicators and control elements

### Ready-to-close signaling switches (S20)



#### Version

Spare part for signaling switch installed as standard

#### Article No.

3WA9111-0AH01

### 1st trip alarm switch (S24)



#### Version

Spare part for signaling switch installed as standard

#### Article No.

3WA9111-0AH02

### 2nd trip alarm switch (S25)



- Can only be used with a circuit breaker with an electronic trip unit without ready4COM
- The 1st trip alarm switch (1 changeover contact) is installed in every circuit breaker with a trip unit as standard

#### Version

Spare part for option K06

#### Contacts

1 NO

#### Article No.

3WA9111-0AH03

### Mechanical operating cycles counter (5-digit)



#### Version

Spare part for option C01

#### For circuit breakers/non-automatic circuit breakers

With manual operating mechanism

With spring charging motor

#### Article No.

3WA9111-0AH04

3WA9111-0AH05

### Spring charged signaling switch (S21)



- Standard when a spring charging motor is installed to charge the stored energy mechanism
- When a spring charging motor is retrofitted, the spring charged signaling switch can also be retrofitted

#### Contacts

1 NO

#### Article No.

3WA9111-0AH06

### Position signaling switch for withdrawable circuit breakers



#### Contacts

PSS: 6 changeover contacts; 3× connected position, 2× test position, 1× disconnected position

PSS-COM: 3 changeover contacts; 1× connected position, 1× test position, 1× disconnected position and option for connection to a communication module

#### Article No.

3WA9111-0AH11

3WA9111-0AH12

### Local electric close (S10) for operator panel



- Scope of supply: Button + wiring
- Not available with motor disconnect switch
- **Note:** Possible only for circuit breakers with closing coil



#### Version

With sealing cap, spare part for option C11

With CES assembly kit, Spare part for option C12

With IKON assembly kit

#### Article No.

3WA9111-0AH21

3WA9111-0AH22

3WA9111-0AH23

### Motor disconnect switch (S12)



- Mounting onto operator panel
- Only in combination with the spring charging motor for charging the stored energy mechanism
- Not available in combination with local electric close

#### Version

Spare part for option S25

#### Article No.

3WA9111-0AH24

### Emergency OPEN button



- Mushroom pushbutton instead of local mechanical open

#### Version

Spare part for option S24

#### Article No.

3WA9111-0AH25



## Secondary disconnect terminals for circuit breakers and guide frames

- For size 1, up to 4 secondary disconnect terminal blocks are possible; for sizes 2 and 3, up to 5 secondary disconnect terminal blocks are possible
- Circuit breakers and non-automatic circuit breakers with secondary disconnect terminal blocks are supplied from the factory:
  - Non-automatic circuit breakers with 3 blocks
  - Non-automatic circuit breakers with ready4COM feature with 4 blocks
  - Non-automatic circuit breakers with ETU600 LSI or LSI with 4 blocks
  - Non-automatic circuit breaker with ETU600 LSI-HiZ with 5 blocks

Secondary disconnect terminal			
	Version	Type	Article No.
	Base part <sup>1</sup>		3WA9111-0AB01
	1000 V extension <sup>1)</sup>		3WA9111-0AB02
	Manual connector <sup>2</sup>	Screw connection	3WA9111-0AB03
		Push-in connection	3WA9111-0AB04
	Coding kit <sup>3</sup>	For fixed-mounted X5 to X8	3WA9111-0AB07
	Sliding contact module <sup>4</sup>	For guide frames	3WA9111-0AB08
	Blanking block		3WA9111-0AB12

For a complete secondary disconnect terminal block, you must order:

Fixed-mounted version: **1 + 2 + 3**

Withdrawable version: **1 + 4 + 2**

<sup>1)</sup> Secondary disconnect terminal for circuit breakers with breaking capacity C and E must be ordered separately

## Auxiliary releases

### Closing coil (CC)/shunt trip (ST)



- Suitable for continuous duty

Version	Voltage	Article No.
100% OP	24 ... 30 V DC	3WA9111-0AD02
Switching time $\leq 80$ ms	48 ... 60 V DC	3WA9111-0AD04
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD05
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD06

### Closing coil (CC-COM)/shunt trip (ST-COM) **new**



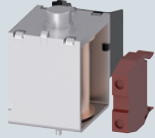
- Suitable for continuous duty

Version	Voltage	Article No.
For switching devices with the "ready4com" feature	24 ... 30 V DC	3WA9111-0AD32
100% OP	48 ... 60 V DC	3WA9111-0AD34
Switching time $\leq 80$ ms	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD35
Switching time via COM $\leq 120$ ms	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD36

# Accessories and spare parts

## Auxiliary releases

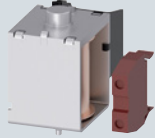
### Closing coil (CC)



- For momentary duty, with cut-off switch S15

Version	Voltage	Article No.
5% OP	24 ... 30 V DC	3WA9111-0AD12
Switching time 50 ms	48 ... 60 V DC	3WA9111-0AD14
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD15
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD16

### Shunt trip (ST)



- For momentary duty, with cut-off switch S14

Version	Voltage	Article No.
5% OP	24 ... 30 V DC	3WA9111-0AD22
Switching time 50 ms	48 ... 60 V DC	3WA9111-0AD24
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD25
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD26

### Capacitor trip device



- For shunt trips
- Storage time 5 min
- Also suitable for 3VL, 3VA, 3WL and 3WN circuit breakers
- Note:** Rated control supply voltage must match the rated control supply voltage of the shunt trip

Rated control supply voltage/rated operational voltage	Article No.
AC 50/60 Hz	DC
220 ... 240 V	220 ... 250 V
	3WA9111-0AD81

### Undervoltage release (UVR)



Version	Voltage	Article No.
Instantaneous $\leq 0.08$ s (UVR) and short-time delayed $\leq 0.2$ s	24 V DC	3WA9111-0AE02
	30 V DC	3WL9111-0AE02-0AA0
	48 V DC	3WA9111-0AE04
	60 V DC	3WL9111-0AE07-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AE05
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AE06
Delayed (UVR-t), adjustable delay 0.2 ... 3.2 s	380 ... 415 V AC	3WA9111-0AE07
	48 V DC	3WA9111-0AE13
	60 V DC	3WA9111-0AE14
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AE15
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AE16
	380 ... 415 V AC	3WA9111-0AE17

## Operating mechanism

### Spring charging motor to charge the stored energy mechanism



Voltage	Article No.
24 ... 30 V DC	3WA9111-0AF02
48 ... 60 V DC	3WA9111-0AF04
110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AF05
220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AF06





## Auxiliary contacts

### Auxiliary switches (AUX)




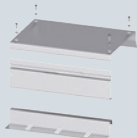
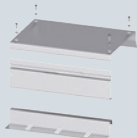
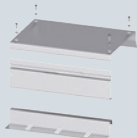
Contacts	Article No.
2 NO + 2 NC	3WA9111-0AG01
2 NO	3WA9111-0AG02
1 NO + 1 NC	3WA9111-0AG03

## Door sealing frame, protective cover


Door sealing frame								
	<table border="1"> <thead> <tr> <th>Version</th> <th>Article No.</th> </tr> </thead> <tbody> <tr> <td>Spare part for option T40</td> <td>3WA9111-0AP01</td> </tr> </tbody> </table>	Version	Article No.	Spare part for option T40	3WA9111-0AP01			
	Version	Article No.						
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<table border="1"> <thead> <tr> <th colspan="2">Protective cover IP55</th> </tr> </thead> <tbody> <tr> <td rowspan="2"></td> <td> <ul style="list-style-type: none"> <li>Cannot be used in conjunction with door sealing frames</li> <li>Hood removable and can be opened on both sides</li> </ul> </td> </tr> <tr> <td> <table border="1"> <thead> <tr> <th>Article No.</th> </tr> </thead> <tbody> <tr> <td>3WA9111-0AP03</td> </tr> </tbody> </table> </td> </tr> </tbody> </table>		Protective cover IP55			<ul style="list-style-type: none"> <li>Cannot be used in conjunction with door sealing frames</li> <li>Hood removable and can be opened on both sides</li> </ul>	<table border="1"> <thead> <tr> <th>Article No.</th> </tr> </thead> <tbody> <tr> <td>3WA9111-0AP03</td> </tr> </tbody> </table>	Article No.	3WA9111-0AP03
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Article No.								
3WA9111-0AP03								

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## Arc chute, arc chute cover

Arc chute																																						
	<b>Voltage</b>	<b>Size</b>	<b>Breaking capacity</b>	<b>Article No.</b>																																		
	690 V AC	1	N, S	3WA9111-0AS01																																		
			M	3WA9111-0AS02																																		
		2	S, M, H	3WA9111-0AS10																																		
			C	3WA9111-0AS11																																		
		3	H	3WA9111-0AS17																																		
			C	3WA9111-0AS18																																		
	1000 V AC	1	E	For fixed-mounted breakers 3WA9111-0AS04																																		
			E	For withdrawable circuit breakers 3WA9111-0AS05																																		
		2	E	3WA9111-0AS12																																		
			E	3WA9111-0AS18																																		
		600 V DC	2	D	3WA9111-0AS13																																	
1000 V DC			1	E	3WA9111-0AS06																																	
		2	E	3WA9111-0AS14																																		
<table border="1"> <thead> <tr> <th colspan="5">Arc chute cover</th> </tr> </thead> <tbody> <tr> <td rowspan="10"></td> <td colspan="4"> <ul style="list-style-type: none"> <li>Parts kit for guide frame</li> <li>Spare part for option R10</li> <li>Not available for:               <ul style="list-style-type: none"> <li>Breaking capacity C, D and E</li> <li>4000 A size 2</li> </ul> </li> </ul> </td> </tr> <tr> <td><b>Number of poles</b></td> <td><b>Size</b></td> <td colspan="2"><b>Article No.</b></td> </tr> <tr> <td rowspan="3">3-pole</td> <td>1</td> <td colspan="2">3WA9111-0AS31</td> </tr> <tr> <td>2</td> <td colspan="2">3WA9111-0AS32</td> </tr> <tr> <td>3</td> <td colspan="2">3WA9111-0AS33</td> </tr> <tr> <td rowspan="3">4-pole</td> <td>1</td> <td colspan="2">3WA9111-0AS41</td> </tr> <tr> <td>2</td> <td colspan="2">3WA9111-0AS42</td> </tr> <tr> <td>3</td> <td colspan="2">3WA9111-0AS43</td> </tr> </tbody> </table>					Arc chute cover						<ul style="list-style-type: none"> <li>Parts kit for guide frame</li> <li>Spare part for option R10</li> <li>Not available for:               <ul style="list-style-type: none"> <li>Breaking capacity C, D and E</li> <li>4000 A size 2</li> </ul> </li> </ul>				<b>Number of poles</b>	<b>Size</b>	<b>Article No.</b>		3-pole	1	3WA9111-0AS31		2	3WA9111-0AS32		3	3WA9111-0AS33		4-pole	1	3WA9111-0AS41		2	3WA9111-0AS42		3	3WA9111-0AS43	
Arc chute cover																																						
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	4-pole	1	3WA9111-0AS41																																			
		2	3WA9111-0AS42																																			
		3	3WA9111-0AS43																																			

## Coding for withdrawable version

Coding for withdrawable version							
	<ul style="list-style-type: none"> <li>Variant coding by the customer with 36 coding options</li> </ul>						
	<table border="1"> <thead> <tr> <th>Size</th> <th>Article No.</th> </tr> </thead> <tbody> <tr> <td>1, 2</td> <td>3WA9111-0AR11</td> </tr> <tr> <td>3</td> <td>3WA9111-0AR12</td> </tr> </tbody> </table>	Size	Article No.	1, 2	3WA9111-0AR11	3	3WA9111-0AR12
	Size	Article No.					
1, 2	3WA9111-0AR11						
3	3WA9111-0AR12						

# Accessories and spare parts

## Grounding connections

### Grounding connection between the guide frame and the circuit breaker



- For 30 kA and 60 kA ground short-circuit current
- For 60 kA ground short-circuit current, order 2x contact modules for guide frame

Contact module	Size	Number of poles	Article No.
For guide frames	1, 2 <sup>1)</sup>		3WA9111-0BG01
	3		3WA9111-0BG02
For withdrawable circuit breakers	1	3-pole	3WA9111-0BG11
		4-pole	3WA9111-0BG21
	2	3-pole <sup>1)</sup>	3WA9111-0BG12
		3-pole <sup>2)</sup>	3WA9111-0BG13
		4-pole <sup>1)</sup>	3WA9111-0BG22
		4-pole <sup>2)</sup>	3WA9111-0BG23

<sup>1)</sup> Cannot be used for size 2 with breaking capacity C and size 2, 4000 A.

<sup>2)</sup> Not for breaking capacity E

## Support brackets

### Support brackets



- For mounting fixed-mounted circuit breakers on vertical plane
- Only for sizes 1 and 2 (1 set = 2 units)

Article No.

3WA9111-0BB50

## Modules of the CubicleBUS<sup>2</sup>

### COM190 Modbus TCP PROFINET IO communication module



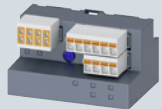
#### Version

Circuit breaker internal or on standard mounting rail, including adapter for mounting on the secondary disconnect terminal system of the circuit breaker, adapter for mounting on standard mounting rail, connecting cables and **CubicleBUS<sup>2</sup>** terminating resistor

Article No.

3WA9111-0EC13

### IOM230 digital input/output module (2 inputs and 3 outputs)



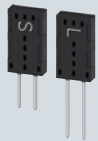
#### Version

Including adapter for mounting on the secondary disconnect terminal system of the circuit breaker, adapter for mounting on standard mounting rail, connecting cables and terminating resistor for **CubicleBUS<sup>2</sup>**

Article No.

3WA9111-0EC11

### Terminating resistor for CubicleBUS<sup>2</sup>



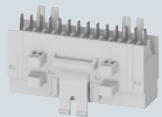
#### Version

For **CubicleBUS<sup>2</sup>** on the last module

Article No.

3WA9111-0EC50

### Adapters



#### Version

For mounting the modules of the **CubicleBUS<sup>2</sup>** on the secondary disconnect terminal system of the circuit breaker.


Article No.


3WA9111-0EC60

For mounting the modules of the **CubicleBUS<sup>2</sup>** on standard mounting rail

3WA9111-0EC61

## Internal voltage tap

Set of components for conversion of an existing internal voltage tap on the main conducting paths				
Conversion	Circuit breaker	Size	Article No.	
 From bottom to top	3-pole	1	3WA9111-0EK11	
		2	3WA9111-0EK12	
		3	3WA9111-0EK13	
	4-pole	1	3WA9111-0EK21	
		2	3WA9111-0EK22	
		3	3WA9111-0EK23	
From top to bottom	3-pole	1	3WA9111-0EK31	
		2	3WA9111-0EK32	
		3	3WA9111-0EK33	
	4-pole	1	3WA9111-0EK41	
		2	3WA9111-0EK42	
		3	3WA9111-0EK43	

Retrofit of the internal voltage tap on the lower main conducting paths				
For breaking capacity	Set for circuit breaker	Size	Article No.	
 N, S, M, H, C with VTM680 voltage tap module	3-pole	1	3WA9111-0EK51	
		2	3WA9111-0EK52	
		3	3WA9111-0EK53	
	4-pole	1	3WA9111-0EK61	
		2	3WA9111-0EK62	
		3	3WA9111-0EK63	
E with VTM640 voltage tap module	3-pole	1	3WA9111-0EK55	
		2	3WA9111-0EK56	
		3	3WA9111-0EK57	
	4-pole	1	3WA9111-0EK65	
		2	3WA9111-0EK66	
		3	3WA9111-0EK67	

Retrofit kit to connect an external voltage transformer		
Size	Article No.	
2, 3 including VTM640 voltage tap module and the necessary connection components	3WA9111-0EK81	

## Main conductor connections, fixed-mounted versions

Front-accessible main connections according to DIN 43673, double hole for main connection at top			
Size	Breaking capacity   Rated current $I_n$	Article No.	
1	N, S   $\leq 1000$ A AC	3WA9111-0AL11	
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AL12	
2	S, M, H, E   2000 A AC; D, E   $\leq 2000$ A DC	3WA9111-0AL21	
	S, M, H, E   2500 A AC	3WA9111-0AL22	
	S, M, H, E   3200 A AC; D, E   4000 A DC	3WA9111-0AL23	
3	H   4000 A AC	3WA9111-0AL31	

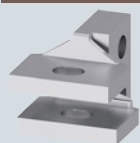
Front-accessible main connections according to DIN 43673, double hole for main connection at bottom			
Size	Breaking capacity   Rated current $I_n$	Article No.	
1	N, S   $\leq 1000$ A AC	3WA9111-0AL13	
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AL14	
2	S, M, H, E   2000 A AC; D, E   $\leq 2000$ A DC	3WA9111-0AL24	
	S, M, H, E   2500 A AC	3WA9111-0AL25	
	S, M, H, E   3200 A AC; D, E   4000 A DC	3WA9111-0AL26	
3	H   4000 A AC	3WA9111-0AL32	



# Accessories and spare parts

## Main conductor connections, fixed-mounted versions

### Rear vertical main connections



Size	Breaking capacity   Rated current $I_n$	Article No.
1	N, S, M, E   $\leq 2000$ A AC <sup>1)</sup>	3WA9111-0AM11
	N, S, M, E   2500 A AC	3WA9111-0AM12
2	S, M, H, C, E   $\leq 3200$ A AC <sup>2)</sup>	3WA9111-0AM21
3	H, C, E   $\leq 6300$ A AC	3WA9111-0AM33

<sup>1)</sup> In the case of vertical connection size 1 with breaking capacity N and S, up to 1000 A one 3WA9111-0AM11 vertical connection is required for each connection, from 1250 A to 2000 A or with breaking capacity M or E two 3WA9111-0AM11 vertical connections are required for each connection.

<sup>2)</sup> In the case of vertical connection size 2, up to 2500 A one 3WA9111-0AM21 vertical connection is required for each connection for breaking capacity S, M, H, E, D, for 3200 A and always for breaking capacity C, two 3WA9111-0AM21 vertical connections are required for each connection

## Main conductor connections for withdrawable units

### Front-accessible main connections, according to DIN 43673, double hole at top or at bottom<sup>1)</sup>



Size	Breaking capacity   Rated current $I_n$	Article No.
1	N, S   $\leq 1000$ A AC	3WA9111-0AN11
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AN12
2	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AN21
	S, M, H, E   2500 A AC	3WA9111-0AN22
	S, M, H, E   3200 A AC; D, E   4000 A DC	3WA9111-0AN23
3	H   4000 A AC	3WA9111-0AN31

### Supports for front-accessible main connections according to DIN 43673



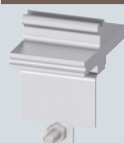
Number of poles	Size	Article No.
3-pole, set for 3 bars, top or bottom	1	3WA9111-0AN81
	2	3WA9111-0AN82
	3	3WA9111-0AN83
4-pole, set for 4 bars, top or bottom	1	3WA9111-0AN84
	2	3WA9111-0AN85
	3	3WA9111-0AN86

### Rear vertical main connections



Size	Breaking capacity   Rated current $I_n$	Article No.
1	N, S   $\leq 1000$ A AC	3WA9111-0AV11
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AV12
2	S, M, H, E   2000 A AC; D, E   $\leq 2000$ A DC <sup>2)</sup>	3WA9111-0AV21
	S, M, H, E   2500 A AC <sup>2)</sup>	3WA9111-0AV22
	S, M, H, E   3200 A AC; D, E   4000 A DC <sup>2)</sup>	3WA9111-0AV23
	C   2000 ... 3200 A AC	3WA9111-0AV24
3	H, C, E   $\leq 5000$ A AC	3WA9111-0AV31

### Rear horizontal main connections



Size	Breaking capacity   Rated current $I_n$	Article No.
1	N, S   $\leq 1000$ A AC	3WA9111-0AX11
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AX12
2	S, M, H, E   2000 A AC; D, E   $\leq 2000$ A DC <sup>2)</sup>	3WA9111-0AX21
	S, M, H, E   2500 A AC <sup>2)</sup>	3WA9111-0AX22
	S, M, H, E   3200 A AC; D, E   4000 A DC <sup>2)</sup>	3WA9111-0AX23
	C   2000 ... 3200 A AC	3WA9111-0AX24
3	H, C, E   $\leq 5000$ A AC	3WA9111-0AX31

<sup>1)</sup> When using front-accessible main connections (withdrawable circuit breakers) supports are required.

<sup>2)</sup> Not for circuit breakers with very high breaking capacity C.

### Connecting flange



Size	Breaking capacity   Rated current $I_n$	Article No.
1	N, S   $\leq 1000$ A AC	3WA9111-0AW11
	N, S   1250 ... 2000 A AC; M, E   $\leq 2000$ A AC	3WA9111-0AW12
2	S, M, H, E   2000 A AC; D, E   $\leq 2000$ A DC	3WA9111-0AW21
	S, M, H, E   2500 A AC	3WA9111-0AW22
	S, M, H, E   3200 A AC; D, E   4000 A DC	3WA9111-0AW23
3	H   4000 A AC	3WA9111-0AW31

## Conversion kit

### Conversion kit for converting fixed-mounted circuit breakers into withdrawable circuit breakers

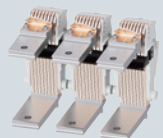


- Guide frames and sliding contact modules must be ordered separately
- Conversion from fixed-mounted to withdrawable circuit breakers is not possible for 3WA circuit breakers with breaking capacity C and breaking capacity E

Number of poles	Size	Article No.
3-pole	1	3WA9111-OBC11
	2	3WA9111-OBC12
	3	3WA9111-OBC13
4-pole	1	3WA9111-OBC14
	2	3WA9111-OBC15
	3	3WA9111-OBC16

## Main contact elements

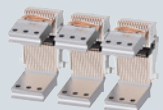
### Main contact elements for AC circuit breakers



- **Notes:**
  - To be ordered only once for each circuit breaker
  - On the following circuit breakers, the main contact elements can only be replaced in the factory:  
3WA1 size 1 breaking capacity M and E  
3WA1 size 2 breaking capacity C  
3WA1 size 3 breaking capacity C and E

Number of poles	Size	Breaking capacity	Rated current $I_n$	Article No.	
3	1	N	≤1000 A	3WA9111-0AQ01	
			1250 A	3WA9111-0AQ02	
			1600 A	3WA9111-0AQ04	
		S	≤ 1000 A	3WA9111-0AQ03	
			1250 ... 1600 A	3WA9111-0AQ04	
	2	N, S	2000 ... 2500 A	3WA9111-0AQ05	
			S, M, H, E	2000 A	3WA9111-0AQ08
				2500 A	3WA9111-0AQ11
		S, M, H, E	3200 A	3WA9111-0AQ13	
			4000 A	3WA9111-0AQ15	
3	H	4000 A	3WA9111-0AQ20		
		5000 ... 6300 A	3WA9111-0AQ22		
	1	≤ 1000 A	3WA9111-0AQ51		
		1250 A	3WA9111-0AQ52		
		1600 A	3WA9111-0AQ54		
2	S	≤1000 A	3WA9111-0AQ53		
		1250 ... 1600 A	3WA9111-0AQ54		
		N, S	2000 ... 2500 A	3WA9111-0AQ55	
	S, M, H, E	2000 A	3WA9111-0AQ58		
		2500 A	3WA9111-0AQ61		
3	S, M, H, E	3200 A	3WA9111-0AQ63		
		4000 A	3WA9111-0AQ65		
		H	4000 A	3WA9111-0AQ70	
	H	4000 A	3WA9111-0AQ70		
		5000 ... 6300 A	3WA9111-0AQ72		

### Main contact elements for DC non-automatic circuit breakers



- **Note:** To be ordered only once for each circuit breaker

Number of poles	Size	Breaking capacity	Rated current $I_n$	Article No.
3	2	D, E	1000/2000 A	3WA9111-0AQ17
			4000 A	3WA9111-0AQ18
4	2	D, E	1000/2000 A	3WA9111-0AQ67
			4000 A	3WA9111-0AQ68

# Switching devices for AC and DC

IEC 60947-2

AC



3WL10

3WL11

Basic data		3WL10		3WL11				
Rated operational voltage $U_e$	V	≤690		≤1000				
Rated current $I_n$	A	630 ... 1250		630 ... 2000				
Size		0		1				
Type of mounting		Withdrawable	Fixed-mounted	Withdrawable	Fixed-mounted			
Number of poles		3/4-pole	3/4-pole	3/4-pole	3/4-pole			
Dimensions								
Width (3-pole   4-pole)	mm	278 348	210 280	320 410	320 410			
Height (standard)   A05, A15, A16, DC greater than 600 V)	mm	363.5	296	468 518	462			
Depth	mm	271	183	471	357			
Approvals								
General product approvals		VDE, EAC, CCC, CE, C-Tick		VDE, EAC, CCC, CE, C-Tick				
Marine/shipbuilding		RMRS		ABS, DNV, LR, BV, GL, PRS, RMRS				
Breaking capacity		B	N	S	N	S	H	
Rated short-circuit breaking capacity								
Rated operational voltage $U_e$ up to 415 V AC $I_{cu}   I_{cs}$	kA	42 42	55 50	66 50	55 55	66 66	85 85	
Rated operational voltage $U_e$ up to 500 V AC $I_{cu}   I_{cs}$	kA	42 42	50 50	50 50	55 55	66 66	85 85	
Rated operational voltage $U_e$ up to 690 V AC $I_{cu}   I_{cs}$	kA	– –	42 42	50 50	42 42	50 50	66 66	
Rated operational voltage $U_e$ up to 690 V AC +20% <sup>6)</sup> , with Z option: A16 $I_{cu}   I_{cs}$	kA	– –	– –	– –	– –	– –	50 50	
Rated operational voltage $U_e$ up to 1000 V AC, with Z option: A05 $I_{cu}   I_{cs}$	kA	– –	– –	– –	– –	– –	50 50	
Rated operational voltage $U_e$ up to 1150 V AC, with Z option: A15 $I_{cu}   I_{cs}$	kA	– –	– –	– –	– –	– –	– –	
Rated short-time withstand current $I_{cw}$ <sup>5)</sup>								
Rated short-time withstand current $I_{cw}$ at $U_e$ up to 500 V AC	0.5 s	kA	–	–	–	55	66	85
	1 s	kA	42	42	50	50	66	85
	2 s	kA	–	–	–	35 <sup>1)</sup> /45 <sup>2)</sup>	45	70
	3 s	kA	24	24	36	35 <sup>1)</sup> /45 <sup>2)</sup>	35	60
Rated short-time withstand current $I_{cw}$ at $U_e$ up to 690 V AC	0.5 s	kA	–	–	–	42	50	66
	1 s	kA	42	42	50	42	50	66
	2 s	kA	–	–	–	35 <sup>1)</sup> /42 <sup>2)</sup>	45	66
	3 s	kA	24	24	36	30 <sup>1)</sup> /45 <sup>2)</sup>	35	60
Rated short-time withstand current $I_{cw}$ at DC	1 s	kA	–	–	–	–	–	
Rated conditional short-circuit current $I_{cc}$ of the non-automatic air circuit breakers								
Up to 500 V AC	kA	–	42	50	55	66	85	
Up to 690 V AC	kA	–	42	50	42	50	66	
Up to 1000 V/1150 V AC, with Z option: A05	kA	–	–	–	–	–	50/–	
Up to 1000 V/1150 V AC, with Z option: A15	kA	–	–	–	–	–	–	
Up to 220 V/300 V DC	kA	–	–	–	–	–	–	
Up to 600 V/1000 V DC	kA	–	–	–	–	–	–	
Rated short-circuit making capacity $I_{cm}$								
$I_{cm}$ at 415 V AC	kA	88	121	145	121	145	187	
$I_{cm}$ at 500 V AC	kA	88	105	105	121	145	187	
$I_{cm}$ at 690 V AC	kA	–	88	105	88	105	145	
$I_{cm}$ at 1000 V AC	kA	–	–	–	–	–	105	
$I_{cm}$ at 1150 V AC	kA	–	–	–	–	–	–	

<sup>1)</sup> Size 1 with  $I_{n \max} \leq 1250$  A  
<sup>2)</sup> Size 1 with  $I_{n \max} \geq 1600$  A

<sup>3)</sup> Size 2 with  $I_{n \max} \leq 2500$  A  
<sup>4)</sup> Size 2 with  $I_{n \max} \leq 3200$  A

<sup>5)</sup> At a rated voltage  $\geq 690$  V the  $I_{cw}$  value of the circuit breaker corresponds with the  $I_{cu}$  or  $I_{cs}$  value

AC

DC

**3WL12****3WL13****3WL11****3WL12**

≤1150 800 ... 4000 2				≤1150 4000 ... 6300 3			1000 DC 2000 1		≤600/1000 DC 1000 ... 4000 2					
Withdrawable 3/4-pole		Fixed-mounted 3/4-pole		Withdrawable 3/4-pole		Fixed-mounted 3/4-pole		Fixed-mounted 4-pole		Withdrawable 3/4-pole		Fixed-mounted 3/4-pole		
460 590		460 590		704 914		704 914		410		460 590		460 590		
468 518		462		468 518		462		462		468 518		462		
471		357		471		357		357		471		357		
VDE, EAC, CCC, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS				VDE, EAC, CCC, VDE, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS			VDE, EAC, CCC, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS		VDE, EAC, CCC, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS		VDE, EAC, CCC, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS		VDE, EAC, CCC, CE, C-Tick ABS, DNV, LR, BV, GL, PRS, RMRS	
N	S	H	C <sup>7)</sup>	H	C 3p	C 4p	DC		DC					
66 66	85 85	100 100	130 130	100 100	150 150	130 130	-		-					
66 66	85 85	100 100	130 130	100 100	150 150	130 130	-		-					
50 50	75 75	85 85	100 100	85 85	150 150	130 130	-		-					
- -	- -	- -	- -	- -	- -	- -	-		-					
- -	- -	85 85	- -	85 85	125 125	125 125	-		-					
- -	- -	50 50	- -	70 70	- -	- -	-		-					
66	85	100	100	100	130	120	-		-					
66	85	85	100	100	130	120	-		-					
66	66 <sup>3)/85<sup>4)</sup></sup>	66 <sup>3)/85<sup>4)</sup></sup>	85	100	130	120	-		-					
55 <sup>3)/66<sup>4)</sup></sup>	55 <sup>3)/75<sup>4)</sup></sup>	55 <sup>3)/75<sup>4)</sup></sup>	75	100	130	120	-		-					
50	75	85	100	85	130	120	-		-					
50	75	85	100	85	130	120	-		-					
50	66 <sup>3)/75<sup>4)</sup></sup>	66 <sup>3)/85<sup>4)</sup></sup>	85	85	130	120	-		-					
50	55 <sup>3)/75<sup>4)</sup></sup>	55 <sup>3)/75<sup>4)</sup></sup>	75	85	130	120	-		-					
-	-	-	-	-	-	-	20		35 <sup>8)/30<sup>9)/25<sup>10)/20<sup>11)</sup></sup></sup></sup>					
66	85	100	130	100	130	120	-		-					
50	75	85	100	85	130	120	-		-					
-	-	85/85	-	85/85	-	-	-		-					
-	-	-/50	-	70/70	-	-	-		-					
-	-	-	-	-	-	-	20/20		35/30					
-	-	-	-	-	-	-	20/20		25/20					
145	187	220	286	220	330	286	-		-					
145	187	220	286	220	330	286	-		-					
105	165	187	220	187	330	286	-		-					
-	-	105	-	187	267	267	-		-					
-	-	105	-	147	-	-	-		-					

<sup>6)</sup> At 690 V AC +5% the  $I_{cu} = I_{cs} = 85$  kA  
<sup>7)</sup> Up to 3200 A

<sup>8)</sup> At  $U_e = 220$  V DC  
<sup>9)</sup> At  $U_e = 300$  V DC

<sup>10)</sup> At  $U_e = 600$  V DC  
<sup>11)</sup> At  $U_e = 1000$  V DC

# Switching devices for AC

IEC 60947-2

1

3WL10



3WL11



Rated current $I_n$			630 A	800 A	1000 A	1250 A	1000 A	1250 A
<b>General data</b>								
Isolating function acc. to EN 60947-2			Yes					
Utilization category			B					
Permissible ambient temperature	During operation (in operation with LCD max. 55 °C) <sup>1)</sup>	°C	-25 ... +70				-40 ... +70	
	Storage	°C	-40 ... +70				-40 ... +80	
Mounting position								
Degree of protection			IP20 without cabinet door, IP30 with door sealing frame, IP54 with cover				IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover	
<b>Voltage</b>								
Rated operational voltage $U_e$ at 50/60 Hz	1000 V version	V AC	≤690				690/1000	
Rated insulation voltage $U_i$		V AC	1000				1000	
Rated impulse withstand voltage $U_{imp}$	Main conducting paths	kV	12				12	
	Auxiliary circuits	kV	4				4	
	Control circuits <sup>9)</sup>	kV	2.5				2.5	
Rated rotor operational voltage $U_{er}$		V					2000	
<b>Permissible load for withdrawable versions<sup>2) 4) 10)</sup></b>								
At rear horizontal main connections	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1000	1250
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1000	1250
	Up to 70 °C	A	630	800	1000	1250	1000 <sup>8)</sup>	1210 <sup>8)</sup>
<b>Power loss at <math>I_n</math></b>								
With 3-phase symmetrical load, complete device (3/4p)	Fixed-mounted circuit breaker	W	31	50	78	122	100	105
	Withdrawable circuit breaker	W	62	100	156	244	195	205
<b>Switching times</b>								
Make time		ms	<20	<20	<20	<20		35
Opening time		ms	<20	<20	<20	<20		38
Electrical make time (through closing coil) <sup>5)</sup>		ms	<50	<50	<50	<50		80
Electrical opening time (through shunt trip)		ms	<35	<35	<35	<35		73
Electrical opening time (instantaneous undervoltage release)		ms	<50	<50	<50	<50		≤80
Opening time due to ETU, instantaneous short-circuit release		ms	25	25	25	25		50
<b>Service life/endurance</b>								
<b>Breaking capacity N and S, 3/4-pole</b>								
Mechanical	Without maintenance	Operating cycles	20000	20000	20000	20000	15000	15000
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	25000	25000
Electrical	Without maintenance 440 V	Operating cycles	8000 <sup>7)</sup>	8000 <sup>7)</sup>	8000 <sup>7)</sup>	8000 <sup>7)</sup>	–	–
	Without maintenance 690 V	Operating cycles	8000 <sup>7)</sup>	8000 <sup>7)</sup>	8000 <sup>7)</sup>	6500 <sup>7)</sup>	10000	10000
	With maintenance <sup>6)</sup>	Operating cycles	– <sup>7)</sup>	– <sup>7)</sup>	– <sup>7)</sup>	– <sup>7)</sup>	25000	25000
<b>Breaking capacity H, 3-pole</b>								
Mechanical	Without maintenance	Operating cycles	–	–	–	–	10000	10000
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	15000	15000
Electrical	Without maintenance 690 V	Operating cycles	–	–	–	–	7500	7500
	Without maintenance 1000 V, with Z option: A05	Operating cycles	–	–	–	–	1000	1000
	Without maintenance 1150 V, with Z option: A15	Operating cycles	–	–	–	–	–	–
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	15000	15000

<sup>1)</sup> The LCD on the 3WL10 is always active.

<sup>2)</sup> 4000 A, size 2 in fixed-mounted version, 3-pole

<sup>4)</sup> ETU76B with graphics display can be used up to max. 55 °C.

<sup>5)</sup> Make time through closing coil for synchronization purposes (short-time excited) 50 ms.

<sup>6)</sup> Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual). Greasing the breaker mechanism on the 3WL10, no spare part of components.

### 3WL11



### 3WL12



### 3WL13



1600 A	2000 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	4000 A	5000 A	6300 A
--------	--------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

Yes  
B

-40 ... +70

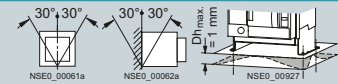
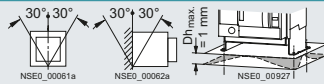
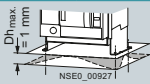
-40 ... +70

-40 ... +70

-40 ... +80

-40 ... +80

-40 ... +80



IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover

IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover

IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover

690/1000

690/1000

690/1000

1000

1000

1000

12

12

12

4

4

4

2.5

2.5

2.5

2000

2000

2000

1600	2000	800	1000	1250	1600	2000	2500	3200	3950	4000	5000	5920
1600	1930	800	1000	1250	1600	2000	2500	3020	3810	4000	5000	5810
1490 <sup>8)</sup>	1780 <sup>8)</sup>	800 <sup>8)</sup>	1000 <sup>8)</sup>	1250 <sup>8)</sup>	1600 <sup>8)</sup>	2000 <sup>8)</sup>	2280 <sup>8)</sup>	2870 <sup>8)</sup>	3600 <sup>8)</sup>	4000 <sup>8)</sup>	5000 <sup>8)</sup>	5500 <sup>8)</sup>

150	240	40	45	80	85	180	270	410	750	520	630	900
350	440	85	95	165	175	320	520	710	925	810	1050	1600

35

35

35

38

34

34

80

100

100

73

73

73

≤80

≤80

≤80

50

50

50

15000	15000	10000	10000	10000	10000	10000	10000	10000	10000	-	-	-
25000	25000	17500	17500	17500	17500	17500	17500	17500	17500	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
10000	7500	7500	7500	7500	7500	7500	7500	4000	2000	-	-	-
25000	25000	17500	17500	17500	17500	17500	17500	17500	17500	-	-	-
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	5000	5000	5000
15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
7500	7500	7500	7500	7500	7500	7500	7500	4000	2000	2000	2000	2000
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
-	-	500	500	500	500	500	500	500	500	500	500	500
15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000

<sup>7)</sup> Periodic greasing of breaker mechanism on the 3WL10 (see Manual), no spare part of components  
<sup>8)</sup> Cu painted black

<sup>9)</sup> Motorized operating mechanism  $U_{imp}=1.2$  kV  
<sup>10)</sup> For 3WL size 2 4000 A and size 3 6300 A with rear vertical main connections.

# Switching devices for AC

IEC 60947-2 (continued)

3WL10



3WL11



Rated current $I_n$			630 A	800 A	1000 A	1250 A	1000 A	1250 A
<b>Service life/endurance</b>								
<b>Breaking capacity H, 4-pole</b>								
Mechanical	Without maintenance	Operating cycles	–	–	–	–	10000	10000
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	15000	15000
Electrical	Without maintenance 690 V	Operating cycles	–	–	–	–	7500	7500
	Without maintenance 1000 V	Operating cycles	–	–	–	–	1000	1000
	Without maintenance 1150 V <sup>7)</sup>	Operating cycles	–	–	–	–	–	–
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	10000	10000
<b>Breaking capacity C</b>								
Mechanical	Without maintenance	Operating cycles	–	–	–	–	–	–
	With maintenance <sup>6)</sup>	Operating cycles	–	–	–	–	–	–
Electrical	Without maintenance 690 V	Operating cycles	–	–	–	–	–	–
	With maintenance 690 V <sup>6)</sup>	Operating cycles	–	–	–	–	–	–
<b>Switching frequency<sup>8)</sup></b>								
Mechanical/electrical	690 V version	1/h	60/30	60/30	60/30	60/30	–	–
	1000 V / 1150 V version	1/h	–	–	–	–	–	–
<b>Connection</b>								
<b>Minimum phase size</b>								
Copper bars, bare		Unit, mm <sup>2</sup>	2× 40× 5	2× 50× 5	2× 50× 10 <sup>12)</sup> 2× 50× 8 <sup>13)</sup>	2× 50× 10 <sup>12)</sup> 2× 50× 8 <sup>12)</sup>	1× 60× 10	2× 40× 10
Copper bars, painted black		Unit, mm <sup>2</sup>	–	–	–	–	1× 60× 10	2× 40× 10
<b>Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)</b>								
Standard connection = screw	Without end sleeve				–		2× 0.5 ... 2× 1.5 mm <sup>2</sup> (AWG 20 ... 16); 1× 2.5 mm <sup>2</sup> (AWG 14)	
	With end sleeve acc. to DIN 46228 Part 2				–		1× 0.5 ... 1× 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
	With twin end sleeve				–		2× 0.5 ... 2× 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
Screwless connection technology	Without end sleeve			0.5 ... 2.5 mm <sup>2</sup> (AWG 20 ... 14)			2× 0.5 ... 2× 2.5 mm <sup>2</sup> (AWG 20 ... 14)	
	With end sleeve acc. to DIN 46228 Part 2			0.5 ... 1.5 mm <sup>2</sup> (AWG 20 ... 16)			2× 0.5 ... 2× 1.5 mm <sup>2</sup> (AWG 20 ... 16)	
<b>Position signaling switches</b>								
Screwless connection technology					1× 0.5 ... 1× 2.5 mm <sup>2</sup> (AWG 20 ... 14)		1× 0.5 ... 1× 2.5 mm <sup>2</sup> (AWG 20 ... 14)	
<b>Weights</b>								
3-pole	Fixed-mounted circuit breaker	kg			14		43	43
	Withdrawable circuit breaker	kg			17.3		45	45
	Guide frames	kg			21		25	25
4-pole	Fixed-mounted circuit breaker	kg			16		50	50
	Withdrawable circuit breaker	kg			19.3		54	54
	Guide frames	kg			25		30	30

<sup>6)</sup> Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual).

<sup>7)</sup> Size 2 with order code "A15" and size 3. Data for very high breaking capacity.

<sup>8)</sup> Minimum interval time between 2 tripping operations  
<sup>9)</sup> 3-pole switching with breaking capacity N and S: 45/h.

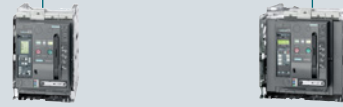




# Switching devices for DC

IEC 60947-2

3WL11 3WL12



Rated current $I_n$			2000 A	1000 A	2000 A	4000 A
<b>General data</b>						
Size			1		2	
Isolating function acc. to EN 60947-2					Yes	
Utilization category					B	
Permissible ambient temperature	Operation	°C			-40 ... +70	
	Storage	°C			-40 ... +80	
Mounting position						
Degree of protection					IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover	
<b>Voltage</b>						
Rated operational voltage $U_e$ at 50/60 Hz	1000 V version	V DC	1000		600/1000	
Rated insulation voltage $U_i$		V DC	1000		1000	
Rated impulse withstand voltage $U_{imp}$	Main conducting paths	kV	12		12	
	Auxiliary circuits	kV	4		4	
	Control circuits	kV	2.5		2.5	
<b>Permissible load</b>						
At rear horizontal main connections	Up to 40 °C (Cu black painted)	A	2000	1000	2000	4000
	Up to 55 °C (Cu black painted)	A	1910	1000	2000	3640
	Up to 60 °C (Cu black painted)	A	1850	1000	2000	3500
	Up to 70 °C (Cu black painted)	A	1710	1000	1950	3250
<b>Power loss at <math>I_n</math></b>						
With symmetrical load	Withdrawable circuit breaker	W	150	280	770	1640
<b>Switching times</b>						
Make time		ms	35		35	
Opening time		ms	38		34	
Electrical make time (through activation solenoid) <sup>1)</sup>		ms	100		100	
Electrical opening time (through shunt trip)		ms	73		73	
Electrical opening time (instantaneous undervoltage release)		ms	≤80		≤80	
<b>Service life/endurance<sup>3)</sup></b>						
Mechanical	Without maintenance	Operating cycles	10000	10000	10000	10000
	With maintenance <sup>2)</sup>	Operating cycles	15000	17500	17500	17500
Electrical	Without maintenance	Operating cycles	1000	6000	6000	4000
	Without maintenance 1000 V	Operating cycles	1000	1000	1000	1000
	With maintenance <sup>2)</sup>	Operating cycles	2000	17500	17500	17500

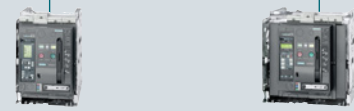
<sup>1)</sup> Make time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

<sup>2)</sup> Maintenance means: Replace main contact elements and arc chutes (see Operating Manual).

<sup>3)</sup> Further technical specifications on request.

<sup>4)</sup> At  $U_e = 220$  V DC

## 3WL11                      3WL12



Rated current $I_n$		2000 A	1000 A	2000 A	4000 A	
<b>Short-circuit breaking capacity <math>I_{cc}</math></b>						
Up to 220 V DC	kA	20		35		
Up to 300 V DC	kA	20		30		
Up to 600 V DC	kA	20		25		
Up to 1000 V DC	kA	20		20		
<b>Rated short-time withstand current <math>I_{cw}</math></b>						
0.5 s	kA	–		–		
1 s	kA	20		35 <sup>4)</sup> /30 <sup>5)</sup> /25 <sup>6)</sup> /20 <sup>7)</sup>		
2 s	kA	–		–		
3 s	kA	–		–		
<b>Switching frequency</b>						
690 V version	1/h	–	60	60	60	
1000 V version	1/h	20	20	20	20	
<b>Connection</b>						
<b>Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)</b>						
Standard connection = strain-relief clamp	Without end sleeve	2 × 0.5 ... 2 × 1.5 mm <sup>2</sup> (AWG 20 ... 16); 1 × 2.5 mm <sup>2</sup> (AWG 14)				
	With end sleeve acc. to DIN 46228 Part 2	1 × 0.5 ... 1 × 1.5 mm <sup>2</sup> (AWG 20 ... 16)				
	With twin end sleeve	2 × 0.5 ... 2 × 1.5 mm <sup>2</sup> (AWG 20 ... 16)				
Optional connection = tension spring	Without end sleeve	2 × 0.5 ... 2 × 2.5 mm <sup>2</sup> (AWG 20 ... 14)				
	With end sleeve acc. to DIN 46228 Part 2	2 × 0.5 ... 2 × 1.5 mm <sup>2</sup> (AWG 20 ... 16)				
<b>Weights</b>						
3-pole	Fixed-mounted circuit breaker	kg	43	56	56	64
	Withdrawable circuit breaker	kg	–	60	60	68
	Guide frames	kg	–	31	31	45
4-pole	Fixed-mounted circuit breaker	kg	50	67	67	77
	Withdrawable circuit breaker	kg	–	72	72	82
	Guide frames	kg	–	37	37	54

<sup>5)</sup> At  $U_e = 300$  V DC<sup>7)</sup> At  $U_e = 1000$  V DC.<sup>6)</sup> At  $U_e = 600$  V DC

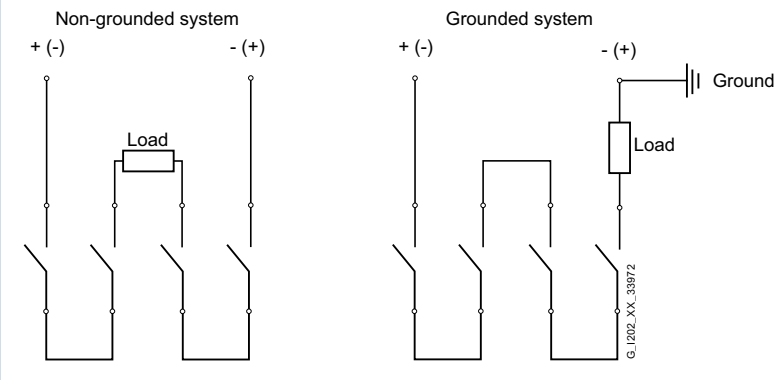
# Switching devices for DC

## Application examples size 1

Permissible interconnection



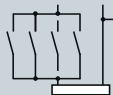
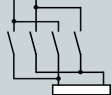



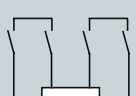
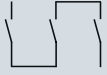
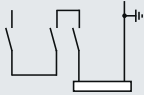
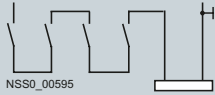
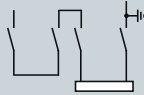
Circuit diagrams for size 1, 1000 V DC non-automatic air circuit breakers

1



## Application examples size 2

The connection to the circuit breakers is not dependent on direction and polarity; the circuit diagrams can be adapted accordingly. If the parallel or series connections are made directly to the connecting bars, for thermal reasons the continuous load on the circuit breakers must only be 80% of the permissible operational current. If the parallel or series connection is made at a distance of 1 m from the connecting bars, the circuit breaker can be used at full operational current load.

Required contact gaps at rated voltage	For 3-pole non-automatic air circuit breakers		For 4-pole non-automatic air circuit breakers	
	1-pole	2-pole	1-pole	2-pole
<b>Rated operational voltage &lt;300 V + 10%</b>		 <small>NSS0_00539</small> only with grounded system <sup>2)</sup>	 only with grounded system <sup>3)</sup>	 only with grounded system <sup>3)</sup>
<b>Rated operational voltage &gt;300 V + 10% ... 600 V + 10%</b>		 only with grounded system	 only with grounded system <sup>2)</sup>	 only with grounded system <sup>2)</sup>
<b>Rated operational voltage &gt;600 V + 10% ... 1000 V + 10%<sup>4)</sup></b>		 only with grounded system	 <small>NSS0_00595</small> only with grounded system	 only with grounded system

<sup>1)</sup> Conducting paths series-connected

<sup>2)</sup> 2 parallel conducting paths

<sup>3)</sup> 3 parallel conducting paths

<sup>4)</sup> Version for 1000 V required, order with "-Z" and order code A05

—|— Grounded system

▬ Load

# Electronic trip unit ETU

## With watchdog monitoring

3WL10



		ETU320 (LI)	ETU350 (LSI)	ETU360 (LSIG)
<b>Basic protective functions</b>				
<b>L</b> Overload protection (L tripping operation)	Setting range of operating value $I_r = I_n \times \dots$	0.4   0.5   0.6   0.7   0.75   0.8   0.85   0.9   0.95   1   Default 0.4	0.4   0.5   0.6   0.7   0.75   0.8   0.85   0.9   0.95   1   Default 0.4	0.4   0.5   0.6   0.7   0.75   0.8   0.85   0.9   0.95   1   Default 0.4
	Switchable overload protection (from $I^2t$ - to $I^4t$ -dependent function)	–	–	–
	Setting range of delay $t_r$ at $I^2t$ (Reference point $6 \times I_n$ )	0.75   1   2   5   8   10   14   17   21   25 s   Default 0.75 s	0.75   1   2   5   8   10   14   17   21   25 s   Default 0.75 s	0.75   1   2   5   8   10   14   17   21   25 s   Default 0.75 s
	Setting range of delay $t_r$ at $I^4t$ (Reference point $6 \times I_n$ )	–	–	–
	Thermal memory can be switched on/off	Permanently switched on	Permanently switched on	Permanently switched on
	Phase failure sensitivity/asymmetry	–	–	–
<b>S</b> Short-time delay short-circuit protection (ST tripping)	Setting range of operating value $I_{sd} = I_n \times \dots$	–	1   1.5   2   2.5   3   4   6   8   10   Default OFF	1   1.5   2   2.5   3   4   6   8   10   Default OFF
	Setting range of delay time $t_{sd}$ at $I^2t$	–	0.1   0.2   0.3   0.4   0.5   (Ref. $10 \times I_n$ )	0.1   0.2   0.3   0.4   0.5   (Ref. $10 \times I_n$ )
	Setting range of delay time $t_{sd}$ ( $t = \text{const.}$ )	–	0.08   0.15   0.22   0.3   0.4 s	0.08   0.15   0.22   0.3   0.4 s
	ZSI function	–	–	–
<b>I</b> Instantaneous short-circuit protection (INST tripping operation)	Setting range $2 = I_n \times \dots$	OFF   1.5   2   3   4   6   8   10   12   15	OFF   1.5   2   3   4   6   8   10   12   15	OFF   1.5   2   3   4   6   8   10   12   15
<b>N</b> Neutral conductor protection	Neutral conductor setting range $I_N = I_n \times \dots$	OFF   50%   100%   200%	OFF   50%   100%   200%	OFF   50%   100%   200%
<b>G</b> Ground-fault tripping (GF tripping) Detection of ground-fault current through summation current formation with internal or external N conductor transformer	Tripping function can be switched on/off	–	–	■
	Alarm function can be switched on/off	–	–	Permanently switched on
	Detection of ground-fault current through external current transformer	–	–	–
	Setting range of the operating current $I_g = I_n \times \dots$	–	–	0.1   0.2   0.3   0.4   0.5   0.6   0.7   0.8   1
	Setting range of the operating current $I_g$ for alarm	–	–	–
	Setting range of the delay time $t_g$	–	–	0.1   0.2   0.4   0.6   0.8 s   (fixed delay)
	Switchable grounding protection characteristic ( $I^2t$ -dependent function)	–	–	$t = \text{const.} / I^2t$   Default $I^2t$
	Setting range of delay time $t_g$ at $I^2t$	–	–	0.1   0.2   0.4   0.6   0.8 s (Ref. $2 \times I_n$ ) ( $I^2t$ dependent)   Default 0.1 ( $I^2t$ )
	ZSI-G function	–	–	–

<sup>1)</sup> Sizes 1 and 2/size 3

■ Available

– Not available/not present

## 3WL10



## 3WL11 – 3WL13



1

ETU650 (LSI)	ETU660 (LSIG)	ETU15B (LI)	ETU25B (LSI)	ETU27B (LSIG)	ETU45B (LSIG)	ETU76B (LSIG)
0.4 ... 1   Default 1 (in steps of 0.001)	0.4 ... 1   Default 1 (in steps of 0.001)	0.5   0.55   0.6   0.65   0.7   0.75   0.8   0.85   0.9   1	0.4   0.45   0.5   0.55   0.6   0.65   0.7   0.8   0.9   1	0.4   0.45   0.5   0.55   0.6   0.65   0.7   0.8   0.9   1	0.4   0.45   0.5   0.55   0.6   0.65   0.7   0.8   0.9   1	0.4 ... 1
■	■	–	–	–	■	■
0.75 ... 36 s   (in steps of 0.25 s)   Default 36 s	0.75 ... 36 s   (in steps of 0.25 s)   Default 36 s	10 s fixed	10 s fixed	10 s fixed	2   3.5   5.5   8   10   14   17   21   25   30 s	2 ... 30 s
0.75 ... 5 s   (in steps of 0.25 s)   Default 5 s	0.75 ... 5 s   (in steps of 0.25 s)   Default 5 s	–	–	–	1   2   3   4   5 s	1 ... 5 s
■	■	–	–	–	■	■
2% ... 90% (default 50%)	2% ... 90% (default 50%)	–	At $t_{sd} = 20$ ms (M)	At $t_{sd} = 20$ ms (M)	At $t_{sd} = 20$ ms (M)	■ (on/off)
0.6 ... 10   OFF   (in steps of 0.1)	0.6 ... 10   OFF   (in steps of 0.1)	–	1.25   1.5   2   2.5   3   4   6   8   10   12	1.25   1.5   2   2.5   3   4   6   8   10   12	1.25   1.5   2   2.5   3   4   6   8   10   12   OFF	$1.25 \times I_n \dots 0.8 \times I_{cw}$ OFF
0.05 ... 0.5 s (Ref. $10 \times I_n$ )	0.05 ... 0.5 s (Ref. $10 \times I_n$ )	–	–	–	100   200   300   400 ms	100 ... 400 ms
0.05 ... 0.4 s	0.05 ... 0.4 s	–	M (0.02 ms)   100   200   300   400 ms	M (0.02 ms)   100   200   300   400 ms	M (0.02 ms)   100   200   300   400 ms	M (0.02 ms)   80 ... 4000 ms
–	–	–	–	–	Via module of the CubicleBUS	Via module of the CubicleBUS
OFF   1.5 ... 15   (in steps of 0.1)	OFF   1.5 ... 15   (in steps of 0.1)	2   3   4   5   6   7   8	Fixed at $2 \geq 20 \times I_{nr}$ max. 50 kA	Fixed at $2 \geq 20 \times I_{nr}$ max. 50 kA	OFF   1.5   2.2   3   4   6   8   10   12   $0.8 \times I_{cs}$	OFF   $1.5 \times I_n \dots 0.8 \times I_{cs}$
OFF   50%   100%   150%   200%	OFF   50%   100%   200%	–	–	100%	OFF   50%   100%	OFF   20% ... 200%
–	■	–	–	■	■	■
–	■	–	–	–	–	■
–	Alternative Rc or G-ret ground-fault monitoring	–	–	–	■	■
–	0.1 ... 1   (in steps of 0.001) $I_g = I_n \times \dots$	–	–	A <sup>1)</sup> (100/400 A)   B <sup>1)</sup> (300/600 A); C <sup>1)</sup> (600/800 A)   D <sup>1)</sup> (900/1000 A); E <sup>1)</sup> (1200/1200 A)	A <sup>1)</sup> (100/400 A)   B <sup>1)</sup> (300/600 A); C <sup>1)</sup> (600/800 A)   D <sup>1)</sup> (900/1000 A); E <sup>1)</sup> (1200/1200 A)	SZ 1, 2: 100 ... 1200 A SZ 3: 400 ... 1200 A
–	50% ... 90% $\times I_r$   (in steps of 1%) PreAlarm	–	–	–	A <sup>1)</sup> (100/400 A); B <sup>1)</sup> (300/600 A); C <sup>1)</sup> (600/800 A); D <sup>1)</sup> (900/1000 A); E <sup>1)</sup> (1200/1200 A)	SZ 1, 2: 100 ... 1200 A SZ 3: 400 ... 1200 A
–	0.1 ... 1 s   Default 0.1 s   (in steps of 0.05 s)	–	–	100   200   300   400   500 ms	100   200   300   400   500 ms	100 ... 500 ms
–	$t = \text{const.} / I^2 t$   Default const.	–	–	–	■	■
–	0.1 ... 1 s   (in steps of 0.05 s) (Ref. $2 \times I_n$ )	–	–	–	100   200   300   400   500 ms	100 ... 500 ms
–	–	–	–	–	Via module of the CubicleBUS	Via module of the CubicleBUS

# Electronic trip unit ETU

With watchdog monitoring (continued)

3WL10



		ETU320 (LI)	ETU350 (LSI)	ETU360 (LSIG)
Parameter set changeover	Switchable between parameter set A and B	–	–	–
LCD		–	–	–
Voltage tap on top/bottom		–	–	–
Metering function		–	–	–
<b>Tripping operation as a result of extended protective function:</b> (including: phase asymmetry current/voltage, harmonic distortion current/voltage, under/overvoltage, phase rotation direction, active power in/opposite to normal direction, under/over-frequency, protective functions dependent on direction of power flow)				
<b>Mode of communication</b>				
Communication PROFIBUS   PROFINET   Modbus RTU   Modbus TCP		–	–	–
<b>Output modules</b>				
Signals via relay: Overload warning, load shedding/load carrying, leading signal, overload tripping 200 ms, temperature alarm, phase asymmetry, instantaneous short-circuit release, short time-delayed short-circuit release, overload trip, neutral conductor trip, auxiliary relay, ETU faults, grounding protection tripping and grounding protection alarm (only with grounding protection module)		IOM300	IOM300	IOM300

## Increment size when settings are made for the ETU76B using the menu

From ... to	Increment size
0 ... 1	0.1
1 ... 100	1
100 ... 500	5
500 ... 1000	10
1000 ... 1600	50
1600 ... 10000	100
10000 ... max.	1000

■ Available    – Not available/not present

3WL10

3WL11 – 3WL13



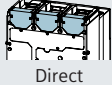
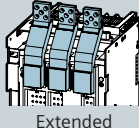
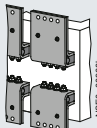
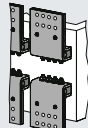
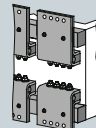
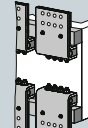

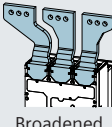
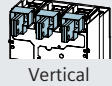
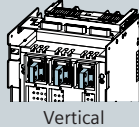
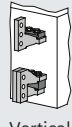

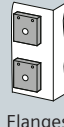
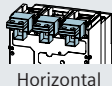

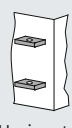
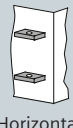

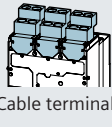
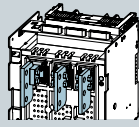
1

ETU650 (LSI)	ETU660 (LSIG)	ETU15B (LI)	ETU25B (LSI)	ETU27B (LSIG)	ETU45B (LSIG)	ETU76B (LSIG)
■	■	–	–	–	–	■
Integrated	Integrated	–	–	–	Optional	Integrated
Optional	Optional	–	–	–	Optional	Optional
Basic/Advanced	Basic/Advanced	–	–	–	Metering function Plus	Metering function Plus
■	■	–	–	–	■	■
■	■	–	–	–	■	■
IOM040/IOM300	IOM040/IOM300	–	–	–	■	■



# Connection

## Main circuit connection

Connection	3WL10		3WL11 – 3WL13			
	Fixed-mounted	Withdrawable	Fixed-mounted		Withdrawable	
Front	 Direct	 Extended	 1-hole	 2-hole	 1-hole	 2-hole
	 Extended					
	 Broadened					
Rear	 Vertical	 Vertical	 Vertical		 Vertical	 Flanges
	 Horizontal	 Horizontal	 Horizontal		 Horizontal	
		 Broadened				
Cable	 Cable terminals	 Cable lug				

## Auxiliary circuit connections

### 3WL10: Withdrawable/fixed-mounted version

- Direct engagement of the auxiliary conductor vertically onto the circuit breaker or horizontally in the guide frame



Screwless connection technology  
(push in)

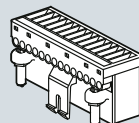
### 3WL11 – 3WL13: Withdrawable version

- Connection of the internal auxiliary switches to the male connector on the switch side
- When fully inserted, connection with the sliding contact module in the guide frame

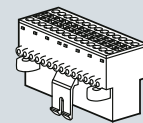
### 3WL11 – 3WL13: Fixed-mounted version

- Engagement of the auxiliary supply connectors directly onto the circuit breaker

Coding pins on the connectors prevent them being inserted in the wrong slots



Screw connection (standard)



Screwless connection  
(tension spring) (optional)

# Operating mechanism, auxiliary release, auxiliary switch

## Operating mechanism

The circuit breakers are available with various optional operating mechanisms:

- Manual operating mechanism with mechanical closing (standard design)
- Manual operating mechanism with mechanical and electrical closing
- Motorized operating mechanism with mechanical and electrical closing

The operating mechanisms with electrical closing are suitable for synchronization tasks.

	Available for air circuit breakers	
	3WL10	3WL11 – 3WL13
Closing coils (CC)	■	■
Undervoltage releases (UVR)/ shunt trips (ST)	■	■
Shunt trips (ST)	■	■
Remote reset magnets (RR)	■	■
Motorized operating mechanism (MO)	■	■
Mechanical operating cycles counters	■	■

# System overview 3WL11 – 3WL13

IEC AC 630 – 6300 A, IEC DC ..

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

1

## Switching devices



Sizes 1 to 3

### ETU



LI



LSI



LSING



LSIN, LSING



LSIN, LSING

### Accessories



Communi-  
cation  
modules



Rating plugs



Remote reset  
magnets

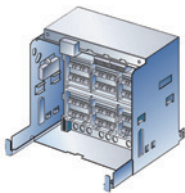


Breaker status  
sensors (BSS)



Ground-fault  
modules

## Connection



Fixed-mounted,  
withdrawable versions



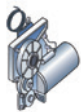
Main connection vertical,  
horizontal, front, flange

### Accessories

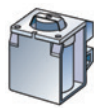


Auxiliary conductor plug-in system

## Operating mechanisms and auxiliary releases

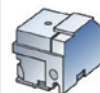


Motorized operating mechanisms



Auxiliary releases

### Accessories



Closing coils

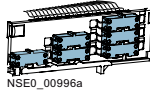
**Note:**

You will find a detailed range of accessories in the Accessories and spare parts section.

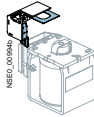
## Auxiliary switches



Auxiliary switches



Position signaling switches



Signaling switches

## Accessories



Position signaling switches

## Other accessories



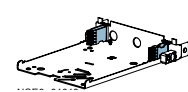
Door sealing frames



Shutters

EMERGENCY-OFF  
pushbuttonsOperating cycle  
counters

Support brackets



Grounding connections

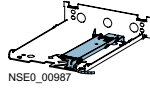
## Interlocking



Interlocking sets



Key operation



Locking mechanisms

### Note:

You will find a detailed range of accessories in the Accessories section.

# Online configurator highlights

[www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

**Ungroup into individual components:**  
Divides the finished complete article number into single article numbers

**SIEMENS**  
Ingenuity for Life

Additional actions Support Language

on request  
Recommended retail price

The configuration is complete. You can order this product.

Basic breaker ETU Connection Motor and auxiliary releases Auxiliary switches Accessories Locking Result CAD/CAE 13.7

Ordering individual components

Yes No

Print Export as Excel

Name	Order number	Properties
Basic breaker	3WL1216-3FG62-1AA2	Order quantity: 1 ST
Mutualised operating mechanisms	3WL9111-0M01-0MAD	Order quantity: 1 ST
Closing interlock	3WL9111-0A01-0MAD	Order quantity: 1 ST
Mutual mechanical interlocking	3WL9111-0B021-0MAD	Order quantity: 1 ST

**Automatic generation of the 3D model, 2D dimension drawing and the internal circuit diagram according to IEC**

The configuration is complete. You can order this product.

Filter (e.g. "power", ...)

Basic breaker ETU Connection Motor and auxiliary releases Auxiliary switches Accessories Locking Result CAD/CAE 13.7

Basic breaker

Preview

Area Model View | Wire frame view | Unit Wiring Diagram IEC | 3D view  
Dimension drawing



Download – quick links

Basic breaker

Click2CAD

Download – all CAD formats

View Area Model View

View option Isometric

File type Joint Photography Experts Group (\*.jpg)

Start generation

Download – all documents

open documents dialog

**Direct entry of an already known article number or parts of an article number**

3WL Air Circuit Breakers

Product Information Configurators

Select a Configurator 3WL Upgrade Air Circuit Breakers

3WL Upgrade Air Circuit Breakers



Selection - Tool for air circuit breakers (ACB) SENTRON 3WL from 630 A to 1250 A

- for selective line protection
- for motor protection
- non-automatic circuit breaker

Using this configurator, you can precisely select the optimum circuit breaker configuration for your application. Comprehensive CAx-data support of the device is provided after successful configuration.

To start the configurator with a preallocation use the direct input e.g. 3WL1116-3EB66-4FG4-Z K07+S07+C01+T40

Start

MLFB direct input (complete):

3WL

Start



# Structure of the article numbers

## Basic configuration for AC circuit breakers

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

1

		3WL1		5	6	7	8	9	10	11	12	13	14	15	16
<b>Switching device and ETU</b>															
<b>Size (SZ)</b>		1		1											
		2		2											
		3		3											
			SZ 1	SZ 2	SZ 3										
<b>Max. rated current</b>															
$I_{n \max.}$	630 A	■	–	–		0	6								
	800 A	■	–	■ <sup>6)</sup>	–	0	8								
	1000 A	■	–	■ <sup>6)</sup>	–	1	0								
	1250 A	■	–	■ <sup>6)</sup>	–	1	2								
	1600 A	■	■	–	–	1	6								
	2000 A	■	■	–	–	2	0								
	2500 A	–	■	–	–	2	5								
	3200 A	–	■	–	–	3	2								
	4000 A	–	–	■ <sup>6)</sup>	■	4	0								
	5000 A	–	–	–	■	5	0								
	6300 A	–	–	–	■	6	3								
<b>Short-circuit breaking capacity</b>															
$I_{cu}$ at 500 V	N	ECO	■	–	–	55 kA	2								
			–	■	–	66 kA	2								
	S	Standard	■	–	–	66 kA	3								
			–	■	–	85 kA	3								
	H	High	■	–	–	85 kA	4								
			–	■	■	100 kA	4								
	C	Very high	–	■	■ <sup>8)</sup>	130 kA	5								
			–	–	■ <sup>9)</sup>	150 kA	5								
<b>Trip units</b>								A	A						
	Without trip unit														
	With trip unit, without ground-fault tripping	ETU15B <sup>7)</sup>				LI		B	B						
		ETU25B				LSI		C	B						
		ETU45B (without display)				LSIN		E	B						
		ETU45B (with display)				LSIN		F	B						
		ETU76B				LSIN		N	B						
	With trip unit, with ground-fault tripping	ETU27B (without display)				LSING		D	G						
		ETU45B (without display)				LSING		E	G						
		ETU45B (with display)				LSING		F	G						
		ETU76B				LSING		N	G						
<b>Number of poles</b>	3-pole (3WL upgrade)										6				
	4-pole (3WL upgrade)										7				
<b>Connection</b>			SZ 1	SZ 2	SZ 3										
<b>Type of mounting</b>	Fixed-mounted	■	■	■	■	Vertical									1
		■	■ <sup>2)</sup>	■	■ <sup>3)</sup>	Horizontal									2
		■ <sup>4)</sup>	■ <sup>1)</sup>	■	■ <sup>5)</sup>	Front single hole									3
		■	■ <sup>1)</sup>	■	■ <sup>5)</sup>	Front double hole									4
	Withdrawable	■	■	■	■	Without guide frame									5
		■	■ <sup>2)</sup>	■	■ <sup>3)</sup>	Horizontal									6
		■	■	■	■	Vertical									7
		■	■ <sup>1)</sup>	■	■ <sup>5)</sup>	Flanges									8

<sup>1)</sup> Not available for 4000 A and breaking capacity C

<sup>2)</sup> Not available for 4000 A

<sup>3)</sup> Not available for 6300 A

<sup>4)</sup> Not available for 2000 A and breaking capacity H

<sup>5)</sup> Not available for 5000 A, 6300 A and breaking capacity C

<sup>6)</sup> Not available for breaking capacity C

<sup>7)</sup> Not available for size 3

<sup>8)</sup> Not available for 3-pole

<sup>9)</sup> Not available for 4-pole

## 3WL1

5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	----	----	----	----	----	----	----

## Operating mechanisms and auxiliary releases

<b>Stored energy mechanism</b>	Manual recharging of the stored energy mechanism	With mechanical operation		1
		With mechanical and electrical operation, closing coil suitable for uninterrupted duty, 100% OP	110 V AC 50/60 Hz/110 V DC	2
			230 V AC 50/60 Hz/220 V DC	3
	Motorized recharging	With mechanical and electrical operation, closing coil suitable for uninterrupted duty, 100% OP	208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	4
			110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	5
			24 V DC	6
<b>1st auxiliary release</b>	Without 1st auxiliary release			A
	With shunt trip 100% OP	24 V DC		B
		30 V DC		C
		48 V DC		D
		60 V DC		E
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC		F
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC		G
<b>2nd auxiliary release</b>	Without 2nd auxiliary release			A
	With shunt trip 100% OP	24 V DC		B
		30 V DC		C
		48 V DC		D
		60 V DC		E
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC		F
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC		G
		With undervoltage release, instantaneous	24 V DC	
	30 V DC			K
	48 V DC			L
	60 V DC			U
	110 ... 127 V AC 50/60 Hz/110 ... 125 V DC			M
	208 ... 240 V AC 50/60 Hz/220 ... 250 V DC			N
	380 ... 415 V AC 50/60 Hz			P
	With undervoltage release, delay 0.2 ... 3.2 s		48 V DC	
110 ... 127 V AC 50/60 Hz/110 ... 125 V DC			R	
208 ... 240 V AC 50/60 Hz/220 ... 250 V DC			S	
380 ... 415 V AC 50/60 Hz			T	

## Auxiliary switches

<b>1st auxiliary switch block</b>	2 NO + 2 NC	2
<b>1st + 2nd auxiliary switch block</b>	4 NO + 4 NC	4
	6 NO + 2 NC	7
	5 NO + 3 NC	8



# Structure of the article numbers

## Basic configuration for DC circuit breakers

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

		5	6	7	8	9	10	11	12	13	14	15	16	
<b>3WL1</b>					-					-				
<b>Switching device and ETU</b>														
<b>Size (SZ)</b>	1	1												
	2	2												
		SZ 1	SZ 2											
<b>Max. rated current</b> $I_n$	1000 A	-	■		1	0								
	2000 A	■	■		2	0								
	4000 A	-	■		4	0								
<b>Short-circuit breaking capacity</b> $I_{cu}$	1000 V DC 20 kA	■	-										8	
	600 V DC 25 kA	-	■										8	
<b>Non-automatic air circuit breakers</b>	Without trip unit					A	A							
<b>Number of poles</b>	3-pole (3WL upgrade)	-	■										6	
	4-pole (3WL upgrade)	■	■										7	
<b>Connection</b>		SZ 1	SZ 2											
<b>Type of mounting</b>	Fixed-mounted	■	■	Vertical									1	
		■	■	Horizontal									2	
		-	■ <sup>1)</sup>	Front single hole									3	
		-	■ <sup>1)</sup>	Front double hole									4	
	Withdrawable	-	■	Without guide frame										5
		-	■	Horizontal										6
		-	■	Vertical										7
		-	■	Flanges										8

<sup>1)</sup> Not available for 4000 A

## 3WL1

5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	----	----	----	----	----	----	----

## Operating mechanisms and auxiliary releases

<b>Stored energy mechanism</b>	Manual recharging of the stored energy mechanism	With mechanical operation		1	
		With mechanical and electrical operation, closing coil suitable for uninterrupted duty, 100% OP	110 V AC 50/60 Hz/110 V DC	2	
			230 V AC 50/60 Hz/220 V DC	3	
	Motorized recharging	With mechanical and electrical operation, closing coil suitable for uninterrupted duty, 100% OP		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	4
				110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	5
				24 V DC	6
<b>1st auxiliary release</b>	Without 1st auxiliary release			A	
	With shunt trip 100% OP		24 V DC	B	
			30 V DC	C	
			48 V DC	D	
			60 V DC	E	
			110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	F	
			208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	G	
<b>2nd auxiliary release</b>	Without 2nd auxiliary release			A	
	With shunt trip 100% OP		24 V DC	B	
			30 V DC	C	
			48 V DC	D	
			60 V DC	E	
			110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	F	
			208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	G	
		With undervoltage release, instantaneous		24 V DC	J
			30 V DC	K	
			48 V DC	L	
			60 V DC	U	
			110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	M	
			208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	N	
			380 ... 415 V AC 50/60 Hz	P	
With undervoltage release, delay 0.2 ... 3.2 s		48 V DC	Q		
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	R		
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	S		
		380 ... 415 V AC 50/60 Hz	T		

## Auxiliary switches

<b>1st auxiliary switch block</b>	2 NO + 2 NC	2
<b>1st + 2nd auxiliary switch block</b>	4 NO + 4 NC	4
	6 NO + 2 NC	7
	5 NO + 3 NC	8

# Accessory options

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Order code

## Accessories for basic configuration

### Rated operational voltage 1000 V AC and 690 V IT networks

- Only for circuit breakers of size 1 - 3 with high breaking capacity H and of size 3 C class.
- Cannot be combined with rated operational voltage 1150 V AC, order code "A15".

Rated operational voltage	Size 1 <sup>1)</sup>	≤2000 A	A05
	Size 2 <sup>1) 2)</sup>	≤4000 A	A05
	Size 3 <sup>1)</sup>	≤6300 A	A05

### Rated operational voltage 1150 V AC

- Only for circuit breakers with high breaking capacity H (8th digit of the article number is a "4").
- Cannot be combined with rated voltage 1000 V AC, order code "A05".

Rated operational voltage	Size 2 <sup>1) 2)</sup>	≤4000 A	A15
	Size 3 <sup>1) 3)</sup>	≤6300 A	A15

### Rated operational voltage 690 V AC (+ 20%)

- Only for 3WL11 circuit breakers, size 1, with high breaking capacity H (8th digit of the article number is a "4").

Rated operational voltage	Size 1	≤ 2000 A	A16
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<sup>1)</sup> When ordering withdrawable circuit breaker and guide frame separately, specify order code "A05" for withdrawable circuit breaker and guide frame.

<sup>2)</sup> Not possible for circuit breakers with very high breaking capacity C.

<sup>3)</sup> Front connections are tinned as standard.

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL.....-.....-..... -Z

Order code

## Accessories for electronic trip units ETU

### Rating plugs

- Only one module is possible per circuit breaker (not in conjunction with electronic trip unit ETU15B).
- As standard, the electronic trip units are equipped with a rating plug which is equal to the maximum rated circuit breaker current ( $I_{n \max}$ ).  
The rated current of the selected rating plug must be less than  $I_{n \max}$ .

Module	Sizes 1, 2	250 A	B02
		315 A	B03
		400 A	B04
		500 A	B05
		630 A	B06
		800 A	B08
	Sizes 1, 2, 3	1000 A	B10
		1250 A	B12
		1600 A	B16
	Sizes 2, 3	2000 A	B20
		2500 A	B25
		3200 A	B32
	Size 3	4000 A	B40
		5000 A	B50
		6300 A	B63

### Communication <sup>1)</sup>

Breaker status sensor (BSS)	For determining the statuses ON/OFF/Tripped	F01
PROFIBUS DP communication port <sup>2)</sup>	Including COM15 and breaker status sensor (BSS)	F02
MODBUS RTU communication port <sup>2)</sup>	Including COM16 and breaker status sensor (BSS)	F12
PROFINET IO/Modbus TCP communication port <sup>2)</sup>	Including COM35 and breaker status sensor (BSS)	F35

### Metering function (communication modules not included) <sup>1)</sup>

Metering function Plus	With internal voltage tap on the lower main conducting paths <sup>2)</sup>	F36
	With internal voltage tap on the upper main conducting paths <sup>2)</sup>	F37
	For combination with external voltage transformer	F38

### EMC filter

- Common-mode interference suppressor filters (e.g. in converter applications)
- Insertion loss (asymmetric) in the range 40 kHz to 10 MHz >40 dB.

EMC filter		F31
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### Overload and short-circuit protection for neutral conductors

- Only possible with 4-pole circuit breaker with ETU27B to ETU76B

Internal current transformer for N conductor	Size 1	F23
	Size 2	F23
	Size 3	F23

<sup>1)</sup> The precondition is an ETU45b or ETU76b

<sup>2)</sup> When ordering withdrawable circuit breaker and guide frame separately, specify order code "F02", "F12" or "F35" only for withdrawable circuit breaker.

<sup>3)</sup> Can only be used for rated operational voltages up to 690 V AC.

# Accessory options

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To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Order code

## Accessories for electronic trip units ETU

### Remote resetting

#### Automatic reset of the reclosing lockout

- Remote reset for displays and reset buttons including automatic reset of the reclosing lockout

K01

#### Remote reset magnets

24 V DC

K10

48 V DC

K11

110 ... 127 V AC 50/60 Hz/110 ... 125 V DC

K12

208 ... 240 V AC 50/60 Hz/220 ... 250 V DC

K13

## Connection

### Tinned version of the customer's connections on the guide frame

- Only for circuit breakers in withdrawable version with horizontal connection or flange connection.
- The normal delivery time increases to 15 work days.

#### Customer's connections <sup>1)2)</sup>

Size 1

A08

Size 2

A08

Size 3

A08

### Connection technology for main connections (fixed-mounted versions)

#### Top:<sup>3)</sup> horizontal

Size 1

≤1600 A

N11

#### Bottom: accessible from front, single hole

Size 2

≤3200 A

N11

Size 3<sup>4)</sup>

≤4000 A

N11

#### Top: vertical

Size 1

≤2000 A

N20

#### Bottom: horizontal

Size 2

≤3200 A

N20

Size 3

≤5000 A

N20

#### Top: horizontal

Size 1

≤2000 A

N24

#### Bottom: vertical

Size 2

≤3200 A

N24

Size 3

≤5000 A

N24

### Connection technology for main connections (withdrawable versions)

#### Top and bottom:<sup>5)6)</sup>

#### accessible from front, single hole

Size 1

≤1600 A

P00

Size 2

≤3200 A

P00

Size 3

≤4000 A

P00

#### Top and bottom:<sup>5)</sup>

#### accessible from front, double hole

Size 1

≤1600 A

P01

Size 2

≤3200 A

P01

Size 3

≤4000 A

P01

#### Top:<sup>5)6)</sup> horizontal

Size 1

≤1600 A

P07

#### Bottom: accessible from front, single hole

Size 2

≤3200 A

P07

Size 3

≤4000 A

P07

<sup>1)</sup> Front connections are tinned as standard.

<sup>2)</sup> The permissible temperature-rise limits according to IEC 60947-2 are 5 K lower for a tin surface than for a silver surface.

<sup>3)</sup> Not for 3WL1 size 1 with high breaking capacity H and circuit breakers with very high breaking capacity C.

<sup>4)</sup> Not for size 3 with very high breaking capacity C.

<sup>5)</sup> Not for size 2, 3 circuit breakers with very high breaking capacity C.

<sup>6)</sup> Not for 3WL1 size 1 with high breaking capacity H

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL.....-.....-..... -Z

Order code

## Connection

### Connection technology for main connections (withdrawable versions)

Top: vertical Bottom: horizontal	Size 1	≤2000 A	P18
	Size 2	≤3200 A	P18
	Size 3	≤5000 A	P18
Top: <sup>1)</sup> connecting flange Bottom: horizontal	Size 1	≤2000 A	P19
	Size 2	≤3200 A	P19
	Size 3	≤4000 A	P19
Top: horizontal Bottom: vertical	Size 1	≤2000 A	P23
	Size 2	≤3200 A	P23
	Size 3	≤5000 A	P23
Top: <sup>1)</sup> horizontal Bottom: connecting flange	Size 1	≤2000 A	P28
	Size 2	≤3200 A	P28
	Size 3	≤4000 A	P28

### Connection technology for auxiliary conductors (for fixed-mounted and withdrawable versions)

Connection technology for screwless terminals (tension spring)	Fixed-mounted	N61
	Withdrawable	P61

## Operating mechanisms and auxiliary releases

Motorized operating mechanisms	Only possible if the 13th digit of the article number = "1"	24 ... 30 V DC	M01
		48 ... 60 V DC	M03
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	M05
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	M06
Mechanical operating cycles counter, 5-digit <sup>2)</sup>			C01
Closing coils	<ul style="list-style-type: none"> <li>Suitable for uninterrupted duty, 100% OP</li> <li>Only possible if the 13th digit of the article number = "1"</li> </ul>	24 V DC	M21
		30 V DC	M22
		48 V DC	M23
		60 V DC	M24
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	M25
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	M26
	<ul style="list-style-type: none"> <li>Not suitable for uninterrupted duty, 5% OP, synchronizable <sup>3)</sup></li> <li>Only possible if the 13th digit of the article number = "1"</li> </ul>	24 V DC	M31
		48 V DC	M33
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	M35
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	M36
Opening coils (shunt trips) <sup>3)4)</sup>	Not suitable for uninterrupted duty, 5% OP, synchronizable	24 V DC	M41
		48 V DC	M43
		110 ... 127 V AC 50/60 Hz/110 ... 125 V DC	M45
		208 ... 240 V AC 50/60 Hz/220 ... 250 V DC	M46

<sup>1)</sup> Not for size 2, 3 circuit breakers with very high breaking capacity C.

<sup>2)</sup> Only possible with motorized operating mechanism.

<sup>3)</sup> Overexcited, i.e. switching time 50 ms (standard >80 ms).

<sup>4)</sup> Only possible if the 14th digit of the article number for the circuit breaker is "A", i.e. "without 1st auxiliary release".

# Accessory options

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To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL.....-.....-..... -Z

Order code

## Auxiliary switches and signaling switches

Position signaling switches for guide frames	1 CO   1 CO   1 CO (connected   test   disconnected position)		R15
	3 CO   2 CO   1 CO (connected   test   disconnected position)		R16
Signaling switches	Ready-to-close signaling switch (S20)	1 NO	C22
	Spring charged signaling switch <sup>1)</sup> (S21)	1 NO	C20
	For the first auxiliary release <sup>1)</sup> (S22)	1 CO	C26
	For the second auxiliary release <sup>1)</sup> (S23)	1 CO	C27
	1st tripped signaling switch <sup>1)2)</sup> (S24)	1 CO	K07
	2nd tripped signaling switch <sup>1)2)3)</sup> (S25)	1 NO	K06

## Other accessories

### Pushbuttons/shutdown switches/closing lockouts

EMERGENCY-OFF pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton		S24
Electrical ON button on the operator panel <sup>1)</sup> (S10)	This prevents unauthorized electrical closing from the operator panel. Mechanical closing and remote closing remain possible. Possible only for circuit breakers with closing coil (CC)	With sealing cap	C11
		With CES lock	C12
Motor shutdown switch on control panel <sup>4)</sup> (S12)	This prevents automatic charging of the stored energy mechanism by the motorized operating mechanism		S25

### Special packaging for increased transport requirements (moisture protection)

Cardboard packaging with water-repellent coating on corrugated cardboard (moisture protection)		A61
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### Arc chute covers

- Not available for
  - 1000 V version (order code "A05"),
  - DC version
  - 4000 A size 2
  - 1150 V version (order code "A15")
  - 130 kA version, size 2
  - 150 kA version, size 3

Arc chute covers	3-pole, 4-pole	R10
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### Shutters

Shutter: 2-part, lockable, with padlocks <sup>5)</sup>	3-pole, 4-pole	R21
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<sup>1)</sup> Not possible with "communications interface" option, order code "F02", "F12" or "F35".

<sup>2)</sup> Not available for non-automatic air circuit breakers.

<sup>3)</sup> Only possible with option "K07".

<sup>4)</sup> Only for breakers with motorized operating mechanism, not possible with order codes "C11", "C12".

<sup>5)</sup> Padlock not included in the scope of supply.

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL.....-.....-..... -Z

Order code

## Other accessories

### Measuring transformers (without energy transformers), for powering the ETU

- Used in converter applications with high harmonic components; can only be used with ETU45B or ETU76B
  - External 24 V DC supply required
  - Undervoltage release required
- Comprises:
  - 3 (3-pole) or 4 (4-pole) transformers
  - 24 V DC relay
  - Warning signs
  - Manual

Transformer	3-pole/4-pole	Size 2, 3	K60
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### Operating manual, printed version

French/Italian	A11
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Spanish/Portuguese	A12
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## Interlocking

### Mechanical interlocks

- Interlocking module with Bowden cable 2 m

Mutual mechanical interlockings	For fixed-mounted breakers	S55
	For withdrawable circuit breakers with guide frame	R55
	For guide frames (ordered separately)	R56
	For withdrawable circuit breakers (ordered separately)	R57

### Locking provisions (for fixed-mounted and withdrawable versions)

- The disconnecter unit fulfills the requirements for main circuit breakers according to EN 60204-1

Locking provisions	To prevent unauthorized closing from the operator panel	Made by CES	S01
		Made by IKON	S03
		Assembly kit FORTRESS or CASTELL <sup>1)</sup>	S05
		Assembly kit for padlocks <sup>2)</sup>	S07
		Made by RONIS	S08
		Made by PROFALUX	S09

### Locking provisions (for fixed-mounted and withdrawable versions)

Locking provisions	For operating mechanism handle with padlock <sup>2)</sup>	S33
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<sup>1)</sup> Locks must be ordered from the manufacturer.

<sup>2)</sup> Padlock not included in the scope of supply.



# Accessory options

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To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Order code

## Interlocking

### Locking provisions (for withdrawable version)

- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1, consisting of a lock in the guide frame, active in the connected position, function is retained when circuit breaker is replaced
- Not possible in combination with order code "R81", "R85" or "R86"

Locking provisions	To prevent unauthorized closing from the operator panel	Made by CES	R61
		Made by RONIS	R68
		Made by PROFALUX	R60

### Locking provisions (for withdrawable version)

- Safety lock for mounting onto the circuit breaker

Locking provisions	To prevent movement of withdrawable circuit breaker	Made by CES	S71
		Made by PROFALUX	S75
		Made by RONIS	S76

### Locking mechanisms

- Not possible in combination with order code "R81", "R85" or "R86"

For fixed-mounted circuit breakers	To prevent opening of the cabinet door in ON position	S30
For withdrawable circuit breakers	To prevent opening of the cabinet door in connected position	R30
	To prevent activation when the cabinet door is open <sup>1) 3)</sup>	R40
	To prevent movement when the cabinet door is open <sup>2)</sup>	R50

### Locking mechanisms to prevent movement of the withdrawable circuit breaker in disconnected position

- Consisting of Bowden cable and lock in the cabinet door
- Not possible in combination with order code "R30", "R50", "R61", "R68" or "R60"

Made by CES	R81
Made by PROFALUX	R85
Made by RONIS	R86

### Seals

Door sealing frame for degree of protection IP41	T40
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## Accessories from current catalog

### Use of the withdrawable circuit breaker in combination with an older guide frame

- Reduction of the technical specifications for withdrawable circuit breakers 3WL1 for use in combination with older guide frames supplied
  - as complete circuit breaker with 3WL1....3-.... or 3WL1....4-.... or
  - as 3WL92...A-.... or
  - as 3WL92...B-.... or
  - as 3WL92...D-.... or
  - as 3WL92...E-.... or
- for sizes 1, 2, 3.

Use of the circuit breaker in older guide frames, including the appropriate guide frame coding	A41
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<sup>1)</sup> Not available in combination with R50

<sup>2)</sup> Not available in combination with R40

<sup>3)</sup> Combination with R81, R85 and R86 on request

## Further technical specifications

<b>Manual operating mechanism</b>		<b>3WL11 – 3WL13</b>	
<b>Switching on/charging the stored-energy operating mechanism</b>			
Maximum force required to operate the hand lever		≤230 N	
Required number of strokes on the hand lever		9	
<b>Closing coils</b>		<b>3WL11 – 3WL13</b>	
<b>Primary operating range</b>			
Version		For continuous command (100% OP)	5 % OP
Primary operating range		0.85 ... 1.1 × $U_s$	0.85 ... 1.1 × $U_s$
Extended operating range for battery operation		At 24 ... 30 V, DC, 48 ... 60 V DC 110 ... 125 V DC 220 ... 250 V DC	0.85 ... 1.26 × $U_s$
<b>Rated operational voltage</b>			
Rated control supply voltage $U_s$		50/60 Hz AC	110 ... 127 V, 208 ... 240 V
		DC	24 ... 30 V, 48 ... 60 V, 110 ... 125 V, 220 ... 250 V
<b>Betrieb</b>			
Closing power		DC/AC	40 W/40 VA
			≤60 V: 200 W ≥110 V: 250 W
Continuous power		DC/AC	8 W/8 VA
			-
Minimum command duration at 100% $U_s$		60 ms	60 ms
Maximum command duration at 100% $U_s$		-	2000 ms
Make time of the circuit breaker at 100% $U_s$		100 ms	50 ms
<b>Fuse protection of the control circuit at <math>U_s</math> for closing coil</b>			
Smallest permissible DIAZED fuse, gL, slow-response		24 ... 30 V DC	2 A
		48 ... 60 V DC	2 A
		110 ... 125 V DC/110 ... 127 V AC	1 A
		220 ... 250 V DC/208 ... 240 V AC	1 A
Automatic circuit breaker with C characteristic		24 ... 30 V DC	2 A
		48 ... 60 V DC	2 A
		110 ... 125 V DC/110 ... 127 V AC	1 A
		220 ... 250 V DC/208 ... 240 V AC	1 A
<b>Fuse protection of the control circuit at <math>U_s</math> for spring charging motor + closing coil</b>			
Smallest permissible DIAZED fuse, gL, slow-response		24 ... 30 V DC	6 A
		48 ... 60 V DC	6 A
		110 ... 125 V DC/110 ... 127 V AC	2 A
		220 ... 250 V DC/208 ... 240 V AC	2 A
Automatic circuit breaker with C characteristic		24 ... 30 V DC	6 A
		48 ... 60 V DC	6 A
		110 ... 125 V DC/110 ... 127 V AC	2 A
		220 ... 250 V DC/208 ... 240 V AC	2 A
<b>Motor</b>		<b>3WL11 – 3WL13</b>	
<b>Primary operating range</b>			
Primary operating range		0.85 ... 1.1 × $U_s$	
Extended operating range for battery operation		At 24 V DC, 48 V DC 60 V DC, 110 V DC 220 V DC	
		0.85 ... 1.26 × $U_s$	
<b>Operation</b>			
Power consumption of motor		AC/DC	
		135 VA/135 W	
Time required to charge the stored energy mechanism at 1 × $U_s$		≤10 s	
<b>Short-circuit protection</b>			
Smallest permissible DIAZED fuse (operational class gL)/automatic circuit breaker with C characteristic (for different rated control supply voltages)		At $U_s = 24 ... 30$ V	6 A
		At $U_s = 48 ... 60$ V	6 A
		At $U_s = 110 ... 125$ V DC/ 110 ... 127 V AC	2 A
		At $U_s = 220 ... 250$ V DC/ 208 ... 240 V AC	2 A

# Accessory options

## Further technical specifications

### Signals of the electronic trip unit

3WL11 – 3WL13

#### Signals of the electronic trip unit

Measuring accuracy of the electronic trip unit

Protective functions acc. to EN 60947; current indication  $\leq 10\%$ ; metering function for base quantities  $\leq 1\%$ ; metering function for derived quantities  $\leq 4\%$ 

### Undervoltage releases UVR (F3) and UVR- $t_d$ (F4)

3WL11 – 3WL13

#### Primary operating range

Response values	Pickup	$\geq 0.85 \times U_s$ (circuit breaker can be closed)
	Dropout	$0.35 \dots 0.7 \times U_s$ (circuit breaker is tripped)
Primary operating range		$0.85 \dots 1.1 \times U_s$
Extended operating range for battery operation	At 24 V DC, 30 V DC, 48 V DC, 110 V DC, 220 V DC	$0.85 \dots 1.26 \times U_s$

#### Rated voltage

Rated control supply voltage $U_s$	Instantaneous 50/60 Hz AC	110 ... 127 V, 208 ... 240 V, 380 ... 415 V
	Instantaneous DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V <sup>1)</sup>
	Delayed 50/60 Hz AC	110 ... 127 V, 208 ... 240 V, 380 ... 415 V
	Delayed DC	48 V, 110 ... 125 V, 220 ... 250 V

#### Operation

Power consumption (pickup/uninterrupted duty)	AC	20/5 VA
	DC	20/5 W

#### Opening time of the circuit breaker

Version UVR (F3)	Instantaneous	$\leq 80$ ms
	With delay	200 ms
Version UVR- $t_d$ (F8)	With delay, $t_d = 0.2$ to $3.2$ s	$0.2 \dots 3.2$ s
	Reset through additional NC contact – direct tripping	$\leq 100$ ms

#### Short-circuit protection

Smallest permissible DIAZED fuse (operational class gL)/miniature circuit breaker with C characteristic

1 A TDz (slow)/1 A

### Shunt trip (ST) (F1, F2)

3WL11 – 3WL13

#### Primary operating range

Version	For continuous command (100% OP), locks out on momentary-contact commands	5% OP	With spring energy store consisting of shunt trip and capacitor storage device
Primary operating range	$0.85 \dots 1.1 \times U_s$	$0.85 \dots 1.1 \times U_s$	$0.85 \dots 1.1 \times U_s$
Extended operating range for battery operation	$0.85 \dots 1.26 \times U_s$	$0.85 \dots 1.26 \times U_s$	–
Response values	Pickup	$> 0.7 \times U_s$ (circuit breaker is tripped)	–

#### Rated operational voltage

Rated control supply voltage $U_s$	50/60 Hz AC	110 ... 127 V, 208 ... 240 V	230 V
	DC	24 ... 30 V, 48 ... 60 V, 110 ... 125 V, 220 ... 250 V	220 V

#### Operation

Closing power DC	DC/AC	40 W/40 VA	$\leq 60$ V: 200 W $\geq 110$ V: 250 W	1 VA/1 W
Continuous power	DC/AC	8 W/8 VA	–	–
Minimum command duration at 100% $U_s$		60 ms	60 ms	–
Maximum command duration at 100% $U_s$		–	2000 ms	–
Opening time of the circuit breaker at $U_s = 100\%$		80 ms	50 ms	80 ms
Storage time at $U_s/I_s$ /Recharging time at $U_s$		–	–	max. 5 min/min. 5 s

#### Fuse protection of the control circuit at $U_s$ for shunt trip

Smallest permissible DIAZED fuse, gL, slow-response	24 ... 30 V DC	2 A	10 A	–
	48 ... 60 V DC	2 A	10 A	–
	110 ... 125 V DC/110 ... 127 V AC	1 A	4 A	–
	220 ... 250 V DC/208 ... 240 V AC	1 A	2 A	–
Automatic circuit breaker with C characteristic	24 ... 30 V DC	2 A	10 A	–
	48 ... 60 V DC	2 A	10 A	–
	110 ... 125 V DC/110 ... 127 V AC	1 A	4 A	–
	220 ... 250 V DC/208 ... 240 V AC	1 A	2 A	–

<sup>1)</sup> 24 V and 30 V only with undervoltage release UVR (F3)

**Remote reset magnet for mechanical tripped indicator (F7)**

3WL11 – 3WL13

Primary operating range		3WL11 – 3WL13	
Primary operating range		0.85 ... 1.1 × $U_s$	
Extended operating range for battery operation	At 24 ... 30 V DC, 48 ... 60 V DC, 110 ... 125 V DC, 220 ... 250 V DC	0.7 ... 1.26 × $U_s$	
Operation			
Power consumption	AC/DC	60 VA/60 W	
Min. command duration at $U_s$ for the remote reset magnet		60 ms	
Short-circuit protection			
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic		2 A TDz (slow)/1 A at $U_s = 24 ... 60$ V DC 1 A TDz (slow)/1 A at >110 V DC and 100 V AC	

**Contact position-driven auxiliary switches (S1, S2, S3, S4, S7, S8)**

3WL11 – 3WL13

Rated operational voltage		3WL11 – 3WL13			
Rated insulation voltage $U_i$	AC/DC	500 V			
Rated operational voltage $U_e$	AC/DC	500 V			
Rated impulse withstand voltage $U_{imp}$		4 kV			
Contact reliability		From 1 mA at 5 V DC			
Breaking capacity					
Alternating current 50/60 Hz	Rated operational voltage $U_e$	24 ... 230 V	380 V, 400 V		
	Rated operational current $I_e/AC-12$	10 A	10 A		
	Rated operational current $I_e/AC-15$	4 A	3 A		
Direct current	Rated operational voltage $U_e$	24 V	48 V	110 V	220 V
	Rated operational current $I_e/DC-12$	10 A	8 A	3.5 A	1 A
	Rated operational current $I_e/DC-13$	8 A	4 A	1.2 A	0.4 A
Short-circuit protection					
Largest permissible DIAZED fuse (operational class gL)		10 A TDz, 10 A Dz			
Largest permissible miniature circuit breaker with C characteristic		10 A			

**Ready-to-close signaling switches (S20) (acc. to DIN VDE 0630)**

3WL11 – 3WL13

Breaking capacity		3WL11 – 3WL13			
Alternating current 50/60 Hz	Rated operational voltage $U_e$	250 V			
	Rated operational current $I_e$	8 A			
Direct current	Rated operational voltage $U_e$	125 V	250 V		
	Rated operational current $I_e$	0.4 A	0.2 A		
	Contact reliability	From 1 mA at 5 V DC			
Short-circuit protection					
Largest permissible DIAZED fuse (operational class gL)		2 A Dz (quick)			

1

# Accessory options

## Further technical specifications

### Tripped signaling switches (S24) and signaling switches for auxiliary releases (S22, S23) (acc. to DIN VDE 0630)

3WL11 – 3WL13

Breaking capacity			
Alternating current 50/60 Hz	Rated operational voltage $U_e$	250 V	
	Rated operational current $I_e/AC-12$	8 A	
Direct current	Rated operational voltage $U_e$	24 V	125 V
	Rated operational current $I_e/DC-12$	6 A	0.4 A
	Contact reliability	From 1 mA at 5 V DC	
Short-circuit protection			
Largest permissible DIAZED fuse (operational class gL)		6 A Dz (quick)	
Tripped signaling switches			
Signal duration after tripping		Until manual or electrical remote reset (option)	

### Position signaling switches on guide frame

3WL11 – 3WL13

Type of contacts			
Message	"Circuit breaker in connected position"	3 CO	or
	"Circuit breaker in test position"	2 CO	or
	"Circuit breaker in disconnected position"	1 CO	or
Contact reliability		From 1 mA at 5 V DC	
Rated operational voltage			
Rated insulation voltage $U_i$	50/60 Hz AC	440 V	
	DC	250 V	
Rated operational voltage $U_e$		250 V	
Rated impulse withstand voltage $U_{imp}$		4 kV	
Breaking capacity			
Rated operational current $I_e$	$I_e/AC-12$	24 V 10 A, 110/127 V 10 A, 220/240 V 10 A, 320/440 V 10 A	
	$I_e/AC-15$	220/240 V 4 A, 320/440 V 3 A	
	$I_e/DC-12$	24 V 10 A, 48 V 2.5 A, 220/240 V 0.2 A	
	$I_e/DC-13$	24 V 3.0 A, 220/240 V 0.1 A	
	A 300 (AC)	120 V 6 A, 240 V 3 A	
	R 300 (DC)	125 V 0.22 A, 250 V 0.11 A	
Short-circuit protection			
Largest permissible DIAZED fuse (operational class gL)		8 A TDz (slow)	
Largest permissible automatic circuit breaker with C characteristic		8 A TDz (slow)	

# Guide frames for AC

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your guide frame, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WL9</b>		2	1	–	–	–	–	–	–	–	–	–	1
<b>Size (SZ)</b>	1			1									
	2			2									
	3			3									
		SZ 1	SZ 2	SZ 3									
<b>Max. rated current</b>	1000 A <sup>5) 6)</sup>	■	–	–	1								
<b><math>I_{n \max}</math></b>	1600 A <sup>5) 6)</sup>	■	–	–	2								
<b>(guide frames)</b>	2000 A <sup>6)</sup>	■	■	–	3								
	2500 A <sup>6)</sup>	–	■	–	4								
	3200 A <sup>7)</sup>	–	■	–	5								
	4000 A <sup>6)</sup>	–	■	■	6								
	5000 A	–	–	■	7								
	6300 A	–	–	■	8								
<b>Number of poles</b>	3-pole												F
	4-pole												G
<b>Main connection</b>	Front, single hole	■ <sup>1)</sup>	■ <sup>2) 6)</sup>	■ <sup>3)</sup>									A
	Front, double hole	■	■ <sup>2) 6)</sup>	■ <sup>3)</sup>									B
	Horizontal	■	■ <sup>2)</sup>	■ <sup>4)</sup>									C
	Vertical	■	■	■									D
	Connecting flange	■	■ <sup>2) 6)</sup>	■ <sup>3)</sup>									E
<b>Breaking capacity</b>	N, 55 kA	■	–	–									N
<b><math>I_{cu}</math> at 500 V</b>	S, 66 kA	■	–	–									S
	H, 85 kA	■ <sup>5)</sup>	–	–									H
	N, S and H $\leq 100$ kA	–	■	■									H
	C, 130 kA	–	■	–									C
	C, 150 kA	–	–	■									C

<sup>1)</sup> Not available for rated circuit breaker current 2000 A and breaking capacity H

<sup>2)</sup> Not available for rated circuit breaker current 4000 A

<sup>3)</sup> Not available for rated circuit breaker current 5000 A + 6300 A + breaking capacity C

<sup>4)</sup> Not available for rated circuit breaker current 6300 A

<sup>5)</sup> For size 1 with breaking capacity H, please select the max. rated current  $I_n$  2000 A of the guide frame

<sup>6)</sup> Not available for breaking capacity C

<sup>7)</sup> For all rated circuit breaker currents up to 3200 A with breaking capacity C

## Options

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WL9</b>		2	1	–	–	–	–	–	–	–	–	–	1
<b>Number of auxiliary supply connector</b>	Without <sup>2)</sup>							0					
	1 connector							1					
	2 connectors							2					
	3 connectors							3					
	4 connectors							4					
<b>Type of auxiliary circuit connections</b>	Without <sup>2)</sup>							0					
	With screw terminals (SIGUT, standard)							1					
	With screwless terminals (tension spring)							2					
<b>Position signaling switches</b>	Without												0
	1 CO   1 CO   1 CO (connected   test   disconnected position)												1
	3 CO   2 CO   1 CO (connected   test   disconnected position)												2
<b>Shutters</b>	Without												A
	With shutter, 2-part, lockable												B

<sup>8)</sup> Can only be selected if the number of the auxiliary supply connector is zero.

# Guide frames for DC

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your guide frame, please use our online configurator at [www.siemens.com/lowvoltage/3wl-configurator](http://www.siemens.com/lowvoltage/3wl-configurator)

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		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WL9</b>		2	1	2	–					–		0	1
<b>Max. rated current <math>I_{n \max}</math></b>	2000 A				3								
	4000 A				6								
<b>Number of poles</b>	3-pole				H								
	4-pole				J								
<b>Main connection</b>	Front, single hole <sup>1)</sup>				A								
	Front, double hole <sup>1)</sup>				B								
	Horizontal				C								
	Vertical				D								
	Connecting flange				E								

<sup>1)</sup> Not available for rated circuit breaker current 4000 A

## Optionen

		5	6	7	8	9	10	11	12	13	14	15	16
<b>3WL9</b>		2	1	2	–					–		0	1
<b>Number of auxiliary supply connectors</b>	Without						0						
	1 connector						1						
	2 connectors						2						
	3 connectors						3						
	4 connectors						4						
<b>Type of auxiliary circuit connections</b>	Without <sup>2)</sup>						0						
	With screw terminals (SIGUT, standard)						1						
	With screwless terminals (tension spring)						2						
<b>Position signaling switches</b>	Without							0					
	1 CO   1 CO   1 CO (connected   test   disconnected position)							1					
	3 CO   2 CO   1 CO (connected   test   disconnected position)							2					
<b>Shutters</b>	Without							A					
	With shutter, 2-part, lockable							B					

<sup>2)</sup> Can only be selected if the number of the auxiliary supply connector is zero.

# Accessories and spare parts

## Accessories for electronic trip units ETU

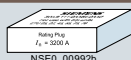
### Protective devices with device holder and optional metering function



- For spare part in existing circuit breakers, please specify the circuit breaker ID No. when ordering.

Type	With protective function	Metering function	Article No.
ETU15B	LI	Without	3WL9311-5AA00-0AA2
ETU25B	LSI	Without	3WL9312-5AA00-0AA2
ETU27B	LSING	Without	3WL9312-7AA00-0AA2
ETU45B (without display)	LSIN(G)	Without	3WL9314-5AA00-0AA2
		With metering function Plus	3WL9314-5AA30-0AA2
ETU76B	LSIN(G)	Without	3WL9317-6AA00-0AA2
		With metering function Plus	3WL9317-6AA30-0AA2

### Rating plugs



- With the rating plug selected, the maximum rated current  $I_{n,max}$  of the circuit breaker must not be exceeded. The following applies:  $I_n \leq I_{n,max}$

Size	Rated current $I_n$	Article No.
1, 2	250 A	3WL9111-0AA51-0AA0
	315 A	3WL9111-0AA52-0AA0
	400 A	3WL9111-0AA53-0AA0
	500 A	3WL9111-0AA54-0AA0
	630 A	3WL9111-0AA55-0AA0
	800 A	3WL9111-0AA56-0AA0
	1000 A	3WL9111-0AA57-0AA0
1, 2, 3	1250 A	3WL9111-0AA58-0AA0
	1600 A	3WL9111-0AA61-0AA0
	2000 A	3WL9111-0AA62-0AA0
2, 3	2500 A	3WL9111-0AA63-0AA0
	3200 A	3WL9111-0AA64-0AA0
	4000 A	3WL9111-0AA65-0AA0
3	5000 A	3WL9111-0AA66-0AA0
	6300 A	3WL9111-0AA67-0AA0

### Ground-fault modules



- Alarm and tripping
- For direct metering of the ground-fault current, e.g. in the star point of the transformer, a 1200 A/1 A current transformer, class 1, is required. The internal load of the 3WL circuit breaker is 0.11  $\Omega$ . If the ground-fault current is to be determined using the vectorial sum of the phases, a transformer must be installed in the neutral conductor.

Type	Accessory for	Article No.
GFM AT 45B	ETU45B	3WL9111-0AT53-0AA0
GFM AT 55B – 76B	ETU76B	3WL9111-0AT56-0AA0

### Display



Accessory for	Version	Article No.
ETU45B	4-line	3WL9111-0AT81-0AA0

### Internal current transformers, for N conductor including wiring kit

ETU Release 2	Size	Article No.
–	1	3WL9111-0AA11-0AA0
	2	3WL9111-0AA12-0AA0
	3	3WL9111-0AA13-0AA0
✓	1	3WL9111-0AA14-0AA0
	2	3WL9111-0AA15-0AA0
	3	3WL9111-0AA16-0AA0

### External current transformers for N conductor

Copper connection pieces	Size	Article No.
–	1	3WL9111-0AA21-0AA0
	2	3WL9111-0AA22-0AA0
	3	3WL9111-0AA23-0AA0
✓	1	3WL9111-0AA31-0AA0
	2	3WL9111-0AA32-0AA0
	3	3WL9111-0AA33-0AA0





# Accessories and spare parts

## Accessories for electronic trip units ETU

### EMC filter

- Common-mode interference suppressor filters (e.g. in IT networks, caused by frequency converters)
- Insertion loss (asymmetric) in the range 40 kHz to 10 MHz >40 dB.

Type	Article No.
Only for ETU Release 2	3WL9111-0AK34-0AA0

### Sealable and lockable covers

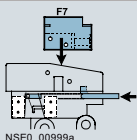


Accessory for	Article No.
ETU15B to ETU45B	3WL9111-0AT45-0AA0
ETU76	3WL9111-0AT46-0AA0

### Automatic reset of the reclosing lockout

Version	Article No.
Spare part for option K01	3WL9111-0AK21-0AA0

### Remote reset magnets



- For mechanical tripped indicator
- Spare part for options K10 to K13
- **Note:** Automatic reset of the reclosing lockout 3WL9111-0AK21-0AA0 is also required

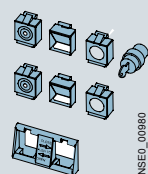
Voltage	Article No.
24 ... 30 V DC	3WA9111-0EM42
48 ... 60 V DC	3WA9111-0EM44
120 V AC/125 V DC	3WA9111-0EM45
208 ... 250 V AC/208 ... 250 V DC	3WA9111-0EM46

### Retrofittable internal wiring

Use	Male connector	Accessory for	Article No.
Internal CubicleBUS wiring for connection to terminal X8	Without male connector for retrofitting the communication	ETU45B and ETU76B	3WL9111-0AK30-0AA0
For connection of the external N and G transformers to terminal X8	Without male connector	Not for ETU Release 2 ETU Release 2	3WL9111-0AK31-0AA0 3WL9111-0AK33-0AA0

## Locking provisions and interlocks

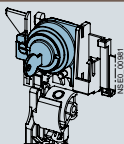
### Interlocking sets for mechanical Open/Close



- Consisting of two transparent covers each for sealing or for attaching padlocks (padlocks not included in scope of supply)
- Cover with 6.35 mm hole (for tool actuation)
- Lock mount for safety lock for key operation

Version	Article No.
Without safety lock	3WL9111-0BA21-0AA0
Made by CES	3WL9111-0BA22-0AA0
Made by IKON	3WL9111-0BA24-0AA0

### Locking provisions to prevent unauthorized closing from the operator panel

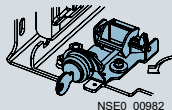


- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Spare part for options S01 to S09

Type	Scope of supply	Article No.
Assembly kit FORTRESS or Castell	Without locks, cylinders or keys	3WL9111-0BA31-0AA0
Made by RONIS	Locks, cylinders and keys included	3WL9111-0BA33-0AA0
Made by KIRK-Key	Without locks, cylinders or keys	3WL9111-0BA34-0AA0
Made by PROFALUX	Locks, cylinders and keys included	3WL9111-0BA35-0AA0
Made by CES	Locks, cylinders and keys included	3WL9111-0BA36-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA38-0AA0
Assembly kit for padlocks	Without padlock	3WL9111-0BA41-0AA0

## Locking provisions and interlocks

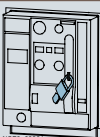
### Locking provisions against unauthorized closing, for withdrawable circuit breakers



- The disconnecter unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Consisting of lock in the guide frame, active in connected position, function is retained when circuit breaker is replaced
- Spare part for option R60, R61, R68

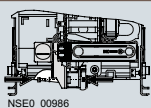
Type	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA51-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA53-0AA0
Made by KIRK-Key <sup>1)</sup>	Without locks, cylinders or keys	3WL9111-0BA57-0AA0
Made by RONIS	Locks, cylinders and keys included	3WL9111-0BA58-0AA0
Made by PROFALUX	Locks, cylinders and keys included	3WL9111-0BA50-0AA0

### Locking provisions for operating mechanism handle with padlock



Version	Scope of supply	Article No.
Spare part for S33	Without padlock	3WL9111-0BA71-0AA0

### Locking provisions to prevent movement of the withdrawable circuit breaker



- Safety lock for mounting onto the circuit breaker
- Spare part for option S71, S75, S76

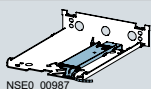
Type	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA73-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA75-0AA0
Made by PROFALUX	Locks, cylinders and keys included	3WL9111-0BA76-0AA0
Made by RONIS	Locks, cylinders and keys included	3WL9111-0BA77-0AA0
Made by KIRK-Key <sup>1)</sup>	Without locks, cylinders or keys	3WL9111-0BA80-0AA0

### Interlocking systems

- 2 of the same keys for 3 circuit breakers
- Locking provision in OFF position
- Lock in the operator panel
- A maximum of 2 circuit breakers can be switched on

Type	Article No.
Made by CES	3WL9111-0BA43-0AA0

### Locking mechanisms to prevent movement of the withdrawable circuit breakers in disconnected position



- Consisting of Bowden cable and lock in the cabinet door on the circuit breaker
- Spare part for option R81, R85, R86
- **Note:** Not possible in combination with "Locking mechanism to prevent opening of the cabinet door" (order code "R30") or "Locking mechanism to prevent movement with the cabinet door open" (order code "R50")

Type	Article No.
Made by CES	3WL9111-0BA81-0AA0
Made by IKON	3WL9111-0BA83-0AA0
Made by PROFALUX	3WL9111-0BA85-0AA0
Made by RONIS	3WL9111-0BA86-0AA0

### Locking mechanisms to prevent opening of the cabinet door in ON position



- Fixed-mounted
- Defeatable
- **Note:** Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

Version	Article No.
Spare part for option S30	3WL9111-0BB12-0AA0

<sup>1)</sup> Locks, cylinders and keys must be ordered from the manufacturer.

# Accessories and spare parts

## Locking provisions and interlocks

### Locking mechanisms to prevent opening of the cabinet door

- Guide frames
- Defeatable
- **Note:** Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

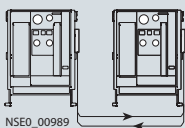
Version	Article No.
Spare part for option R30	3WL9111-0BB13-0AA0

### Locking mechanisms to prevent movement with the cabinet door open

- Guide frames
- **Note:** Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

Version	Article No.
Spare part for option R50	3WL9111-0BB15-0AA0

### Mutual mechanical interlockings



- With Bowden cable 2000 mm (one required for each circuit breaker)

Type	When ordered separately	Spare part for	Article No.
Fixed-mounted circuit breaker	–	Option S55	3WL9111-0BB21-0AA0
Module for withdrawable circuit breakers with guide frame	–	Option R55	3WL9111-0BB24-0AA0
Module for guide frame	✓	Option R56	3WL9111-0BB22-0AA0
Module for withdrawable circuit breaker	✓	Option R57	3WL9111-0BB23-0AA0
Adapter for size 3 withdrawable circuit breaker	✓	–	3WL9111-0BB30-0AA0

### Couplings on the circuit breaker (with ring) for mutual interlocking



- Can be used in all circuit breakers

Article No.
3WL9112-8AH47-0AA0

### Bowden cables

Length	Article No.
2000 mm	3WL9111-0BB45-0AA0
3000 mm	3WL9111-0BB46-0AA0
4500 mm	3WL9111-0BB47-0AA0

## Test devices

### Manual tester, Release 2 for electronic trip units ETU15B to ETU76B



- For testing the electronic trip unit functions of all 3WL ETUs (Release 1 and Release 2)

Article No.
3WL9111-0AT32-0AA0

### Function test unit

- For testing the tripping characteristics for electronic trip units ETU15B to ETU76B (Release 1 and Release 2)

Article No.
3WL9111-0AT44-0AA0

### TD400 Kit IEC<sup>1)</sup>

- Commissioning/Service Tool for IEC 3WL (ETU Release 2) and 3VA
- With adapter, cable and case
- Not suitable for 3WL10 and 3VA27

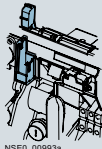
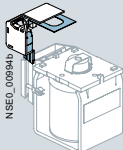
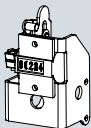
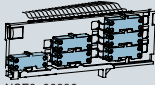
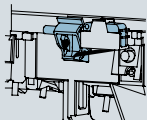
Article No.
3VW9011-0AT40

### TD400 adapter (spare part)

Version	Article No.
For 3VA	3VW9011-0AT43
For 3WL ETU Release 1	3VW9011-0AT44
For 3WL ETU Release 2	3VW9011-0AT45

<sup>1)</sup> A country-specific radio license is required to operate the Bluetooth interface. Before activating the Bluetooth function, ensure that the license is available: [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

## Indicators and control elements

Ready-to-close signaling switch (S20)			
 NSE0_00993a	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
	Spare part for option C22	1 NO	3WL91111-0AH01-0AA0
<b>Signaling switch (S22 or S23)</b>			
 NSE0_00994a	<ul style="list-style-type: none"> <li>Not possible with communication port, order code "F02", "F12" or "F35"</li> <li>Auxiliary supply connector X7 required for circuit breakers or guide frames. If this is not already available, please order additionally</li> </ul>		
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
Spare part for options C26 to C27	1st or 2nd auxiliary release	3WL91111-0AH02-0AA0	
<b>1st tripped signaling switch (S24)</b>			
	<ul style="list-style-type: none"> <li>Not possible with communication port, order code "F02", "F12" or "F35"</li> <li>Auxiliary supply connector X7 required for circuit breakers or guide frames. If this is not already available, please order additionally</li> </ul>		
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
Spare part for option K07	1 CO	3WL91111-0AH14-0AA0	
<b>2nd tripped signaling switch (S25)</b>			
	<ul style="list-style-type: none"> <li>Not possible with communication port, order code "F02", "F12" or "F35"</li> <li>Auxiliary supply connector X7 required for circuit breakers or guide frames. If this is not already available, please order additionally</li> <li>Can only be used in combination with 1st tripped signaling switch</li> </ul>		
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
Spare part for option K06	1 NO	3WL91111-0AH17-0AA0	
<b>Operating cycle counters</b>			
 NSE0_00995a	<ul style="list-style-type: none"> <li>Only in conjunction with motorized operating mechanism.</li> </ul>		
	<b>Variant</b>	<b>Version</b>	<b>Article No.</b>
Spare part for option C01	Mechanical	3WL91111-0AH07-0AA0	
<b>Spring charged signaling switch</b>			
	<ul style="list-style-type: none"> <li>Not possible with communication port, order code "F02", "F12" or "F35".</li> <li>Auxiliary supply connector X7 required for circuit breakers or guide frames. If this is not already available, please order additionally</li> </ul>		
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
Spare part for option C20	1 NO	3WL91111-0AH08-0AA0	
<b>Position signaling switches for guide frames</b>			
 NSE0_00996a	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>
	Spare part for options R15 to R16	1st block (3 CO) 2nd block (6 CO)	3WL91111-0AH11-0AA0 3WL91111-0AH12-0AA0
<b>Electrical ON button (S10) for operator panel</b>			
 NSE0_00997a	<ul style="list-style-type: none"> <li>Not possible with communication port, order code "F02", "F12" or "F35"</li> <li>Not possible with motor shutdown switch</li> <li>Button + wiring (Auxiliary supply connector X7 required for circuit breakers or guide frames. If this is not already available, please order additionally)</li> <li><b>Note:</b> Possible only for circuit breakers with closing coil.</li> </ul>		
	<b>Version</b>	<b>Type</b>	<b>Article No.</b>
Spare part for options C11 and C12	With sealing cap C11 With CES assembly kit C12 With IKON assembly kit	3WL91111-0AJ02-0AA0 3WL91111-0AJ03-0AA0 3WL91111-0AJ05-0AA0	

# Accessories and spare parts

## Indicators and control elements

### Motor cutout switch (S12)

- Mounting onto operator panel
- Not possible with electrical ON button

#### Version

Spare part for option S25

#### Article No.

3WL9111-0AJ06-0AA0

### EMERGENCY-OFF pushbuttons

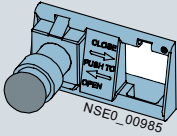
- Mushroom pushbutton instead of the mechanical OFF pushbutton

#### Type

Spare part for option S24

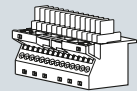
#### Article No.

3WL9111-0BA72-0AA0



## Auxiliary conductor connections

### Male connectors for circuit breakers ①



#### Article No.

3WL9111-0AB01

### Extension for male connector

- Male connector must be ordered separately

#### Version

1000 V

#### Article No.

3WL9111-0AB02

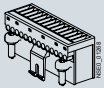
### Auxiliary supply connection for circuit breakers or guide frames ②

#### Version

Screw connection (SIGUT)

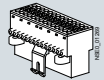
#### Article No.

3WL9111-0AB03



Screwless connection (tension spring)

3WL9111-0AB04-0AA0



### Coding kits ③

#### Version

For fixed-mounted X5 to X8

#### Article No.

3WL9111-0AB07



### Sliding contact modules for guide frames ④

#### Article No.

3WL9111-0AB08



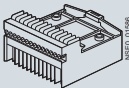
### One-part sliding contact modules for guide frames ⑤

#### Version

Screw terminals (SIGUT)

#### Article No.

3WL9111-0AB18-0AA0



### Blanking blocks for circuit breakers

#### Article No.

3WL9111-0AB12

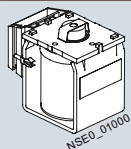
For a complete auxiliary current connection you must order:

Fixed-mounted version: ① + ② + ③

Withdrawable version: ① + ④ + ② or ① + ⑤

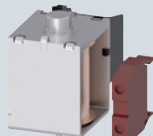
## Auxiliary releases

### Closing coils/shunt trips



Version	Voltage	Article No.
100% OP	24 ... 30 V DC	3WA9111-0AD02
	48 ... 60 V DC	3WA9111-0AD04
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD05
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD06

### Closing coils (CC)



- For momentary duty, with cut-off switch S15

Version	Voltage	Article No.
5 % OP Switching time 50 ms	24 ... 30 V DC	3WA9111-0AD12
	48 ... 60 V DC	3WA9111-0AD14
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD15
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD16

### Shunt trips (ST)



- For momentary duty, with cut-off switch S14

Version	Voltage	Article No.
5 % OP Switching time 50 ms	24 ... 30 V DC	3WA9111-0AD22
	48 ... 60 V DC	3WA9111-0AD24
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AD25
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AD26

### Undervoltage release



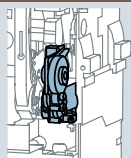
Version	Voltage	Article No.
Instantaneous	24 V DC	3WA9111-0AE02
	30 V DC	3WL9111-0AE02-0AA0
	48 V DC	3WA9111-0AE04
	60 V DC	3WL9111-0AE07-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AE05
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AE06



Version	Voltage	Article No.
Delayed	48 V DC	3WA9111-0AE13
	110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AE15
	220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AE16
	380 ... 415 V AC	3WA9111-0AE17

## Operating mechanism

### Motorized operating mechanisms

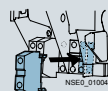


- Auxiliary supply connector X5 required for circuit breakers or guide frames. If this is not already available, please order additionally

Voltage	Article No.
24 ... 30 V DC	3WA9111-0AF02
48 ... 60 V DC	3WA9111-0AF04
110 ... 125 V DC/110 ... 127 V AC	3WA9111-0AF05
220 ... 250 V DC/208 ... 240 V AC	3WA9111-0AF06

## Auxiliary contacts

### Auxiliary switch blocks



Contacts	Article No.
2 NO + 2 NC	3WL9111-0AG01-0AA0
2 NO	3WL9111-0AG02-0AA0
1 NO + 1 NC	3WL9111-0AG03-0AA0

# Accessories and spare parts

## Door sealing frames, hoods, shutters

### Door sealing frames



Version	Article No.
Spare part for option T40	3WL9111-0AP01-0AA0

### Protective cover IP55



- Cannot be used in conjunction with door sealing frames
- Cover removable and can be opened on both sides

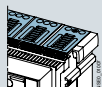
Article No.
3WL9111-0AP02-0AA0

### Shutters

Version	Number of poles	Size	Breaking capacity	Article No.
Spare part for option R21	3-pole	1	N, S, H	3WL9111-0AP04-0AA0
		2	N, S, H	3WL9111-0AP06-0AA0
			C	3WL9111-0AP43-0AA0
	4-pole	3	H, C	3WL9111-0AP07-0AA0
		1	N, S, H	3WL9111-0AP08-0AA0
		2	N, S, H	3WL9111-0AP11-0AA0
			C	3WL9111-0AP44-0AA0
		3	H, C	3WL9111-0AP12-0AA0

## Arc chute

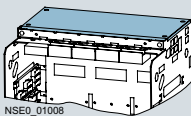
### Arc chute



Voltage	Size	Breaking capacity	Article No.	
690 V	1	N, S, H	3WL9111-0AS01-0AA0	
	2	N, S, H	3WL9111-0AS02-0AA0	
		C	3WL9111-0AS10-0AA0	
		H, C	3WL9111-0AS03-0AA0	
	1000 V / 1150 V	2	H, C	3WL9111-0AS05-0AA0
		3	H, C	3WL9111-0AS06-0AA0

### Arc chute covers

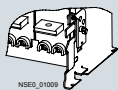
- Parts kit for guide frame
- Spare part for option R10
- Not available for
  - 1000 V version (order code "A05"),
  - 1150 V version (order code "A15")
  - DC version,
  - 4000 A size 2,
  - Circuit breakers with very high breaking capacity C.



Number of poles	Size	Article No.
3-pole	1	3WL9111-0AS32-0AA0
	2	3WL9111-0AS36-0AA0
	3	3WL9111-0AS38-0AA0
4-pole	1	3WL9111-0AS42-0AA0
	2	3WL9111-0AS44-0AA0
	3	3WL9111-0AS46-0AA0

## Coding for withdrawable version

### Coding for withdrawable version



- By customer, for 36 coding variants

Size	Article No.
1, 2	3WL9111-OAR12-OAAO
3	3WL9111-OAR13-OAAO

## Grounding connections

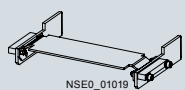
### Grounding connection between the guide frame and the withdrawable circuit breaker



- Order 2x for 30 kA ground short-circuit current
- Contacting modules for guide frame

Size	Article No.
1 and 2 <sup>1)</sup>	3WL9111-OBA01-OAAO
3	3WL9111-OBA02-OAAO

### Contacting modules for withdrawable circuit breakers



Number of poles	Size	Article No.
3-pole	1	3WL9111-OBA05-OAAO
	2 <sup>1)</sup>	3WL9111-OBA06-OAAO
	3	3WL9111-OBA07-OAAO
4-pole	1	3WL9111-OBA08-OAAO
	2 <sup>1)</sup>	3WL9111-OBA04-OAAO
	3	3WL9111-OBA10-OAAO

<sup>1)</sup> Cannot be used for size 2 with very high breaking capacity C and size 2, 4000 A.

## Support brackets

### Support brackets



- For mounting fixed-mounted circuit breakers on vertical plane
- Only for sizes 1 and 2 (1 set = 2 units)

Article No.
3WL9111-0BB50-OAAO

## Modules of the CubicleBUS

- Each module of the **CubicleBUS** is supplied with a 0.2 m pre-assembled cable to connect the modules with each other. A longer pre-assembled cable is required for connection to the circuit breaker.
- All communication components, modules of the **CubicleBUS** and metering functions are available for the electronic trip units ETU45B and ETU76B.

### CubicleBUS modules



Type	Article No.
Digital output module with rotary coding switch, relay outputs	3WL9111-OAT26-OAAO
Digital output module, configurable, relay outputs	3WL9111-OAT20-OAAO
Digital input module	3WL9111-OAT27-OAAO
Analog output module	3WL9111-OAT23-OAAO
ZSI module	3WL9111-OAT21-OAAO

### Preassembled cables for modules of the CubicleBUS

For connection to 3WL	Length	Article No.
With COM15/COM16/COM35	0.5 m	3WL9111-OBC04-OAAO
	1 m	3WL9111-OBC02-OAAO
	2 m	3WL9111-OBC03-OAAO
Without COM15/COM16/COM35	2 m	3WL9111-OBC05-OAAO

### Voltage transformers

- Required for 3WL circuit breakers with metering function Plus, if no direct voltage tap is available.
- 380 ... 690 V/100 V, class 0.5

Number of poles	Metering function	Article No.
3-pole	With metering function Plus	3WL9111-0BB68-OAAO



# Accessories and spare parts

## Retrofitting and spare parts

- For retrofitting the COM15, COM16 or COM35 communication modules in withdrawable 3WL circuit breakers with Z options A05 (1000 V AC), A15 (1150 V AC) or A16 (690 V + 20%), the following additional assembly kits are required: 3WL9111-0AT62-0AA0 for circuit breakers size 1 or 3WL9111-0AT63-0AA0 for circuit breakers size 2/3

### COM35 PROFINET IO/Modbus TCP modules



#### Version

For electronic trip units ETU45B and ETU76B

#### Article No.

3WL9111-0AT65-0AA0

### PROFINET IO/Modbus TCP retrofit kits

- Retrofit kit for the PROFINET IO/Modbus TCP communication including COM35, BSS and set of cables for all 3WL air circuit breakers with ETU45B and ETU76B electronic trip units

#### Article No.

3WL9111-0AT66-0AA0

### PROFIBUS retrofit kits

- Retrofit kit for the PROFIBUS communication including COM15, BSS and set of cables for all 3WL air circuit breakers with ETU45B and ETU76B electronic trip units

#### Article No.

3WL9111-0AT12-0AA0

### COM15 PROFIBUS modules



#### Version

For electronic trip units ETU45B and ETU76B

#### Article No.

3WL9111-0AT15-0AA0

### COM16 Modbus RTU modules

#### Version

For electronic trip units ETU45B and ETU76B

#### Article No.

3WL9111-0AT17-0AA0

### Modbus RTU retrofit kits IEC

- Retrofit kit for the Modbus communication including COM16, BSS and set of cables for all 3WL air circuit breakers with electronic trip units ETU45B and ETU76B

#### Article No.

3WL9111-0AT18-0AA0

### Additional parts for retrofitting the COM15/COM16/COM35 communication modules

- In withdrawable 3WL circuit breakers with Z options:
  - A05 (1000 V AC) or
  - A15 (1150 V AC) or
  - A16 (690 V + 20%)

#### Size

1

#### Article No.

3WL9111-0AT62-0AA0

2, 3

3WL9111-0AT63-0AA0

### Breaker status sensors (BSS)



#### Version

- For acquisition via communication of the circuit breaker states ON/OFF/tripped
- For electronic trip units ETU45B and ETU76B

#### Article No.

3WL9111-0AT16-0AA0

## Interfaces

### Interface to the IEC 61850

- The SICAM A8000 as an intelligent data concentrator ensures the connection of the circuit breakers from the SENTRON portfolio via the MODBUS TCP/IP protocol and the forwarding of the data via communication protocols (such as IEC61850, IEC60870-5-104, IEC60870-5-101, MODBUS and DNP) to higher-level systems.

Type	Operating voltage	Article No.
SICAM CP-8021 <sup>1)</sup>	–	6MF2802-1AA00
SICAM CP-8050 <sup>2)</sup>	–	6MF2805-0AA00
SICAM PS-8620	24 ... 60 V DC (12 W)	6MF2862-0AA00
SICAM PS-8622	110 ... 220 V DC (12 W)	6MF2862-2AA00



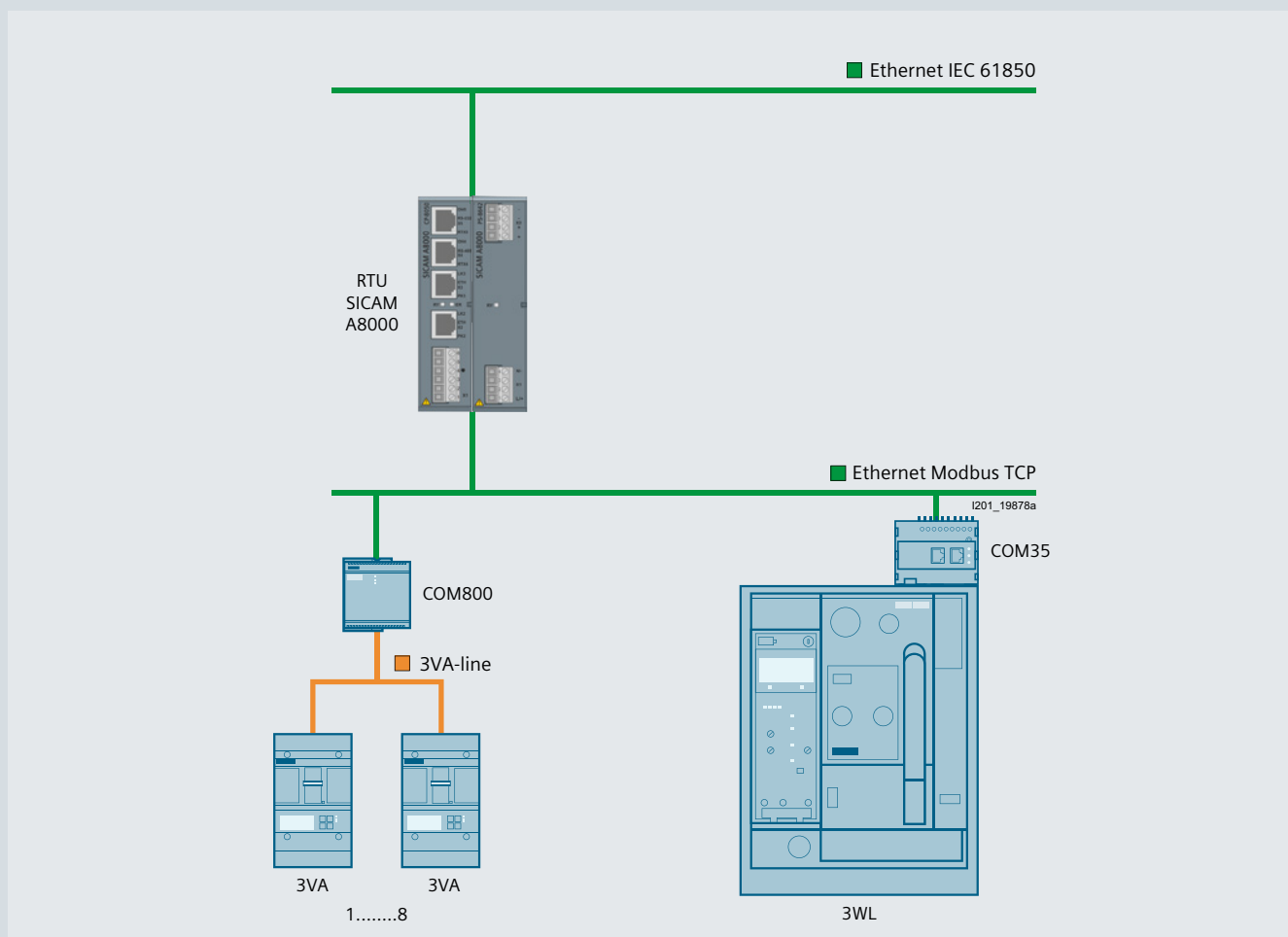
<sup>1)</sup> Dimensioned for device quantities of max. 1× 3WL and 1× 3VA

<sup>2)</sup> Dimensioned for device quantities of 3× 3WL and 8× 3VA

You will find further information at:

[www.siemens.com/sicam-a8000](http://www.siemens.com/sicam-a8000)

For the SICAM CP-8021 and SICAM CP-8050, predefined modules were created to reduce commissioning work to a minimum. The modules can be downloaded from SIOS free of charge ([109779191](https://www.siemens.com/sios))



# Accessories and spare parts

## Storage devices

### Capacitor storage devices

- For shunt trips
- Storage time 5 min
- Also suitable for 3VL, 3VA and 3WN circuit breakers
- **Note:** Rated control supply voltage must match the rated control supply voltage of the shunt trip.

#### Rated control supply voltage/rated operational voltage

50/60 Hz AC	DC	Article No.
220 ... 240 V	220 ... 250 V	3WL9111-0BA14-0AA0

## Spare parts

### Metering function Plus for retrofitting

- As spare part or for retrofitting the metering function Plus with an external voltage transformer
  - For ETU45B or ETU76B Release 2
  - Voltage transformer required
  - Voltage converter required
  - A measuring accuracy of 3% is achieved if retrofitted.

#### Article No.

3WL9111-0AT05-0AA0

### Voltage converter

#### Version

As spare part or for retrofitting the metering function Plus

#### Article No.

3WL9111-0AT06-0AA0

### Components for conversion of an existing internal voltage tap <sup>2)</sup>

- Conversion requires 3 components for 3-pole 3WL
- Conversion requires 4 components for 4-pole 3WL
- Conversion of a metering function (Z option A05) is not possible.

#### Conversion of internal voltage tap Size to main contact

#### Article No.

From bottom to top	1	3WL9111-0AT71-0AA0
	2	3WL9111-0AT72-0AA0
	3	3WL9111-0AT73-0AA0
From top to bottom	1	3WL9111-0AT74-0AA0
	2	3WL9111-0AT75-0AA0
	3	3WL9111-0AT76-0AA0

### Transformers (without iron core), Rogowski coil only (instrument transformer for the protective function)

- Used in converter applications with high harmonic components; can only be used with ETU45B or ETU76B
  - External 24 V DC supply required
  - Undervoltage release required (e.g. 3WL9111-0AE01-0AA0)
- As retrofit kit or as spare part. With new circuit breakers, please use the Z option K60
- **Scope of supply:**
  - Transformer
  - Warning signs
  - Manual

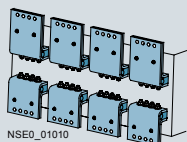
#### Number of poles Size

#### Article No.

3-pole	1	3WL9111-0AA42-0AA0
	2	3WL9111-0AA43-0AA0
	3	3WL9111-0AA44-0AA0
4-pole	1	3WL9111-0AA45-0AA0
	2	3WL9111-0AA46-0AA0
	3	3WL9111-0AA47-0AA0

## Main conductor connections, fixed-mounted versions (essential accessory)

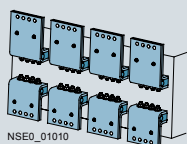
### Front-accessible main connections, single hole at top



- Not for 3WL1 size 1 with high breaking capacity H

Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A	3WL9111-0AL01-0AA0
	1250 ... 1600 A	3WL9111-0AL02-0AA0
2 <sup>4)</sup>	$\leq 2000$ A	3WL9111-0AL03-0AA0
	$\leq 2500$ A	3WL9111-0AL04-0AA0
	$\leq 3200$ A	3WL9111-0AL05-0AA0
3	$\leq 4000$ A	3WL9111-0AL06-0AA0

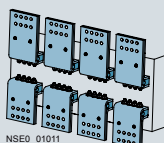
### Front-accessible main connections, single hole at bottom



- Not for 3WL1 size 1 with high breaking capacity H

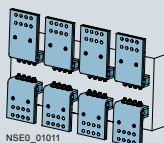
Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A	3WL9111-0AL51-0AA0
	1250 ... 1600 A	3WL9111-0AL52-0AA0
2 <sup>4)</sup>	$\leq 2000$ A	3WL9111-0AL53-0AA0
	$\leq 2500$ A	3WL9111-0AL54-0AA0
	$\leq 3200$ A	3WL9111-0AL55-0AA0
3	$\leq 4000$ A	3WL9111-0AL56-0AA0

### Front-accessible main connections according to DIN 43673, double hole at top



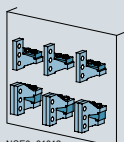
Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A <sup>1)</sup>	3WL9111-0AL07-0AA0
	1250 ... 2000 A <sup>5)</sup>	3WL9111-0AL08-0AA0
2 <sup>4)</sup>	$\leq 2000$ A	3WL9111-0AL11-0AA0
	$\leq 2500$ A	3WL9111-0AL12-0AA0
	$\leq 3200$ A	3WL9111-0AL13-0AA0
3	$\leq 4000$ A	3WL9111-0AL14-0AA0

### Front-accessible main connections according to DIN 43673, double hole at bottom



Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A <sup>1)</sup>	3WL9111-0AL57-0AA0
	1250 ... 2000 A <sup>5)</sup>	3WL9111-0AL58-0AA0
2 <sup>4)</sup>	$\leq 2000$ A	3WL9111-0AL61-0AA0
	$\leq 2500$ A	3WL9111-0AL62-0AA0
	$\leq 3200$ A	3WL9111-0AL63-0AA0
3	$\leq 4000$ A	3WL9111-0AL64-0AA0

### Rear vertical main connections



Size	Rated current $I_n$	Article No.
1 <sup>2)</sup>	$\leq 2000$ A	3WL9111-0AM01-0AA0
2 <sup>3)</sup>	$\leq 3200$ A	3WL9111-0AM02-0AA0
3	$\leq 6300$ A	3WL9111-0AM03-0AA0

<sup>1)</sup> Not for 3WL1 size 1 with high breaking capacity H

<sup>2)</sup> In the case of vertical connection size 1 with breaking capacity N and S, up to 1000 A one 3WL9111-0AM01-0AA0 vertical connection is required, up to 2000 A or with breaking capacity H two 3WL9111-0AM01-0AA0 vertical connections are required.

<sup>3)</sup> In the case of vertical connection size 2, up to 2500 A one 3WL9111-0AM02-0AA0 vertical connection is required, up to 3200 A two 3WL9111-0AM02-0AA0 vertical connections are required.

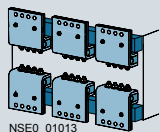
<sup>4)</sup> Not for circuit breakers with very high breaking capacity C.

<sup>5)</sup> Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

# Accessories and spare parts

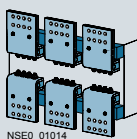
## Main conductor connections, withdrawable versions (essential accessory)

### Front-accessible main connections, single hole at top or at bottom <sup>1)2)</sup>



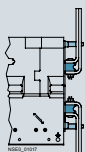
Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A	3WL9111-0AN01-0AA0
	1250 ... 1600 A	3WL9111-0AN02-0AA0
2 <sup>3)</sup>	$\leq 2000$ A	3WL9111-0AN03-0AA0
	$\leq 2500$ A	3WL9111-0AN04-0AA0
	$\leq 3200$ A	3WL9111-0AN05-0AA0
	$\leq 4000$ A	3WL9111-0AN06-0AA0

### Front-accessible main circuit connections, according to DIN 43673, double hole at top or at bottom <sup>1)</sup>



Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A <sup>2)</sup>	3WL9111-0AN07-0AA0
	1250 ... 2000 A <sup>5)</sup>	3WL9111-0AN08-0AA0
2 <sup>3)</sup>	$\leq 2000$ A	3WL9111-0AN11-0AA0
	$\leq 2500$ A	3WL9111-0AN12-0AA0
	$\leq 3200$ A	3WL9111-0AN13-0AA0
	$\leq 4000$ A	3WL9111-0AN14-0AA0

### Supports for front and DIN connecting bars



Number of poles	Size	Article No.
3-pole for 3 bars	1	3WL9111-0AN41-0AA0
	2	3WL9111-0AN42-0AA0
	3	3WL9111-0AN43-0AA0
4-pole for 4 bars	1	3WL9111-0AN44-0AA0
	2	3WL9111-0AN45-0AA0
	3	3WL9111-0AN46-0AA0

### Rear vertical main connections

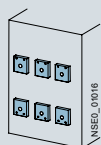


Size	Rated current $I_n$	Connection pieces	Article No.
1	$\leq 1000$ A <sup>2)</sup>		3WL9111-0AN15-0AA0
	1250 ... 2000 A <sup>5)</sup>		3WL9111-0AN16-0AA0
2	$\leq 2000$ A <sup>3)</sup>		3WL9111-0AN17-0AA0
	$\leq 2500$ A <sup>3)</sup>		3WL9111-0AN18-0AA0
	$\leq 3200$ A <sup>3)</sup>		3WL9111-0AN21-0AA0
	1600 ... 3200 A <sup>4)</sup>		3WL9111-0AN38-0AA0
	$\leq 5000$ A		3WL9111-0AN22-0AA0
3	$\leq 6300$ A	3 pieces for 3-pole switches	3WL9111-0AN23-0AA0
	$\leq 6300$ A, top	4 pieces for 4-pole switches	3WL9111-0AN20-0AA0
	$\leq 6300$ A, bottom	4 pieces for 4-pole switches	3WL9111-0AN10-0AA0

### Rear horizontal main connections

Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A <sup>2)</sup>	3WL9111-0AN32-0AA0
	1250 ... 2000 A <sup>5)</sup>	3WL9111-0AN33-0AA0
2	$\leq 2000$ A <sup>3)</sup>	3WL9111-0AN34-0AA0
	$\leq 2500$ A <sup>3)</sup>	3WL9111-0AN35-0AA0
	$\leq 3200$ A and 4000 A DC <sup>3)</sup>	3WL9111-0AN36-0AA0
	1600 ... 3200 A <sup>4)</sup>	3WL9111-0AN47-0AA0
3	$\leq 5000$ A	3WL9111-0AN37-0AA0

### Connecting flange



Size	Rated current $I_n$	Article No.
1	$\leq 1000$ A <sup>2)</sup>	3WL9111-0AN24-0AA0
	1250 ... 2000 A <sup>5)</sup>	3WL9111-0AN25-0AA0
2 <sup>3)</sup>	$\leq 2000$ A	3WL9111-0AN26-0AA0
	$\leq 2500$ A	3WL9111-0AN27-0AA0
	$\leq 3200$ A	3WL9111-0AN28-0AA0
	$\leq 4000$ A	3WL9111-0AN31-0AA0

<sup>1)</sup> When using front-accessible main connections (withdrawable circuit breakers) supports are required.

<sup>2)</sup> Not for 3WL1 size 1 with high breaking capacity H

<sup>3)</sup> Not for circuit breakers with very high breaking capacity C.

<sup>4)</sup> Only for circuit breakers with very high breaking capacity C.

<sup>5)</sup> Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

## Conversion kit

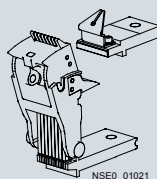
### Conversion kit for converting fixed-mounted circuit breakers into withdrawable circuit breakers

- Guide frames and sliding contact modules must be ordered separately
- Conversion from fixed-mounted to withdrawable circuit breakers is not possible for 3WL1 circuit breakers with very high breaking capacity C and for circuit breakers with Z options A05, A15 or A16

Number of poles	Size	Article No.
3-pole	1	3WL9111-OBC11-0AA0
	2	3WL9111-OBC12-0AA0
	3	3WL9111-OBC13-0AA0
4-pole	1	3WL9111-OBC14-0AA0
	2	3WL9111-OBC15-0AA0
	3	3WL9111-OBC16-0AA0

## Main contact elements

### Main contact elements<sup>2) 4)</sup>



- **Notes:**
  - The circuit breaker ID number must be specified when ordering<sup>3)</sup>
  - Specified for each connection (depending on the number of poles on the circuit breaker, order 3 or 4 units)
  - Article number is automatically adapted to the circuit breaker ID No.

Size	Rated current $I_n$	Article No.
1	$\leq 1600$ A <sup>1)</sup>	3WL9111-0AM90 L1Y
	$\leq 2500$ A	3WL9111-0AM91 L1Y
2	$\leq 4000$ A	3WL9111-0AM92 L1Y
	$\leq 6300$ A	3WL9111-0AM93 L1Y

<sup>1)</sup> Not for circuit breakers with very high breaking capacity C.

<sup>2)</sup> Spare part of the main contact elements for 3WL1 circuit breakers with very high breaking capacity C is only possible at the factory.

<sup>3)</sup> Please specify the circuit breaker ID No. in plain text when ordering.

<sup>4)</sup> Not for size 1 circuit breakers with breaking capacity H and circuit breakers with  $I_n=2000$ A.

# System overview 3WL10

IEC AC ..

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl10-configurator](http://www.siemens.com/lowvoltage/3wl10-configurator)

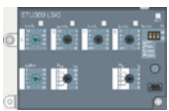
1

## Switching devices



Size 0

## Trip units



Electronic trip units ETU (LI, LSI, LSI G)



Electronic trip units ETU (LSI, LSI G)

## Accessories



Communication and I/O modules



Rating plugs



Breaker Connect modules



Metering function (Basic/Advanced)



External ground fault transformers

## Main conductor connections



Fixed-mounted, withdrawable versions



Rear vertical/horizontal connections



Front connections



Front connections, extended



Terminals for Cu/Al cable connection

## Motors



Spring charging motor

## Accessories



Remote reset magnets



Mechanical operating cycles counters

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.

## Auxiliary releases/closing coils



Shunt trips,  
undervoltage releases



Closing coils

## Auxiliary switches and signaling switches



Auxiliary, alarm, and  
signaling switches



Position signaling switches

## Interlocking



Interlocking sets



Locking provisions



Locking mechanisms



Door sealing frames



Protective covers

### Note:

You will find a detailed range of accessories in the Accessories section.



# Online configurator highlights

[www.siemens.com/lowvoltage/configurators](http://www.siemens.com/lowvoltage/configurators)

## Search function with global direct input

Searches for specific terms and jumps to MLFB based on input to the correct configurator

1

SIEMENS  
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Log in Additional actions Support Language

Configurators for Low-voltage List of products

Search for (e.g. 3WL1110-4EB36-6EQ8-Z A05+80...)

1 Select Type of Product 2 Select Category

## Product list stores multiple configurations and can transfer them collectively to the shopping cart

List of products

Projectdata Load product list

Actions

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 / Fixed-mounted circuit breaker 3-pole, Size 1, IEC In=630 A to 690 V, 50/60 Hz AC Icu=55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt.... Further details	1 Piece	on request	all documents for position
+ 2	3VA2450-6KP32-0AA0 / 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu=85kA @ 415V 3-pole, line protection ETU850, LSI, In=500A overload protection In=200A...500A short-circuit protection Ibd=0.6...10x In,.... Further details	1 Piece	on request	all documents for position

## Recall of completed configurations for modification or additional configuration

List of products

Projectdata Load product list

Actions

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 / Fixed-mounted circuit breaker 3-pole, Size 1, IEC In=630 A to 690 V, 50/60 Hz AC Icu=55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt.... Further details	1 Piece	on request	all documents for position
+ 2	3VA2450-6KP32-0AA0 / 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu=85kA @ 415V 3-pole, line protection ETU850, LSI, In=500A overload protection In=200A...500A short-circuit protection Ibd=0.6...10x In,.... Further details	1 Piece	on request	all documents for position

Duplicate Configure

## Responsive Design

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Log in Additional actions Support Language

Configurators for Low-voltage List of products

Search for (e.g. 3WL1110-4EB36-6EQ8-Z A05+80...)

1 Select Type of Prod... 2 Select Category

## www.siemens.com/lowvoltage/3wl10-configurator

### Download an ePlan selector for 3WL10

The configuration is complete. You can order this product.

Basic configuration | Trip units | Main connection | Motor | Auxiliary release / Closing coil | Result | CAD/CAE

3WL1010-2CE41-0AA0

Preview  
Area Model View | Wire frame view | 3D view | Unit Wiring Diagram IEC  
Fluorescence drawings

Documentation and reporting

Choose languages for the data sheet: deutsch

Project data for the datasheet

Download selection of document types

Datashets (PDF)

Selection of download format

All in a ZIP file

Start generation

Component documentation

3WL1010-2CE41-0AA0

Datashet (PDF)

EPLAN Macro (EDZ)

© Siemens AG | Application information

Download – quick links  
3WL1010-2CE41-0AA0  
Click2CAD

Download – all CAD formats

View: Area Model View

View option: Isometric

File type: Joint Photography Experts Group (\*.jpg)

Start generation

Download – all documents  
open documents dialog

### Mouseover display of characteristic curves to show the protective function

The configuration is not complete, please set all orange values.

Basic configuration | Trip units | Main connection | Motor | Auxiliary release / Closing coil

Choose value...

Trip units	Protective function	Communication capability	Metering capability	Display
Non-automatic breaker	-	-	-	-
ETL120	LI	-	-	-
ETL250	LI	-	-	-
ETL460	LI	-	-	-
ETL450	LI	yes	yes	yes
ETL460	LI	yes	yes	yes

Graph showing characteristic curves for  $I_t$  and  $I_n$ .

### Direct entry of an already known article number or parts of an article number

3WL Air Circuit Breakers

Product Information | Configurators

Select a Configurator: 3WL10 Air Circuit-Breakers, FS0

3WL10 Air Circuit-Breakers, FS0

Selection - Tool for air circuit breakers (ACB) SENTRON 3WL10 from 630 A to 1250 A

- for selective line protection
- for motor protection
- non-automatic circuit breaker

Using this configurator, you can precisely select the optimum circuit breaker configuration for your application. Comprehensive CAx-data support of the device is provided after successful configuration.

Start

MLFB direct input (complete): 3WL1010-2CE41-0AA0

Start

# Structure of the article numbers

## Basic configuration

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl10-configurator](http://www.siemens.com/lowvoltage/3wl10-configurator)

	6	7	8	9	10	11	12	13	14	15	16
<b>3WL10</b>			-					-			

### Switching device and ETU

<b>Max. rated current</b>	630 A	0	6								
$I_{n\ max}$	800 A	0	8								
	1000 A	1	0								
	1250 A	1	2								
<b>Short-circuit breaking capacity</b> $I_{cu}$ at 415 V	B Basic (42 kA)			1							
	N ECO (55 kA)			2							
	S Standard (66 kA)			3							
<b>Non-automatic air circuit breakers<sup>1)</sup></b>	Without metering function, without a communication link	Without trip unit			A	A					
<b>Circuit breakers, ETU 3-series</b>	Without metering function, without a communication link	With trip unit	ETU320 LI (N) <sup>2)</sup>	A	B						
			ETU350 LSI (N) <sup>2)</sup>	A	C						
			ETU360 LSI (N) <sup>2)</sup>	A	D						
<b>Circuit breakers, ETU 6-series</b>	Without a communication link	With trip unit	ETU650 (LSI) (N) <sup>2)</sup>		E						
			ETU660 (LSIG) (N) <sup>2)</sup>		F						
		Without metering function		A							
		Without metering function		B							
		Metering function Basic	Voltage tap on bottom	C							
			Voltage tap on top	D							
		Metering function Advanced	Voltage tap on bottom	E							
	Voltage tap on top	F									

<sup>1)</sup> Only possible with N = ECO (55 kA) and S = Standard (66 kA)

<sup>2)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

<b>Number of poles</b>	Fixed-mounted versions	3-pole		0
		4-pole	Neutral left	1
			Neutral right	2
	Withdrawable	3-pole		3
		4-pole	Neutral left	4
			Neutral right	5

### Connection<sup>3)</sup>

<b>Type of mounting</b>	Withdrawable	Without frame	0
		Rear vertical connection	1
		Rear horizontal connection	2
		Adapter for cable lug connection (rear)	4
		Front-accessible, extended terminal for main circuit connection	5
	Fixed-mounted versions	Rear vertical connection	1
		Rear horizontal connection	2
		Front terminal for main circuit connection	3
		Circular conductor terminals (front)	4
		Front-accessible, extended terminal for main circuit connection	5

<sup>3)</sup> Broadened connections available as accessories.

## 3WL10

6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	----	----	----	----	----	----	----

## Motor

Operating mechanisms	Manual operating mechanism	0	
	Spring charging motor	24 ... 30 V AC/DC	1
		48 ... 60 V AC/DC	2
		110 V AC/DC	3
		230 V AC/DC	4

## Auxiliary releases, closing coils

Closing coil (CC), remote reset magnet (RR)	Without closing coil, without remote reset magnet		A
	Closing coils (CC)	24 V AC/DC	B
		30 V AC/DC	C
		48 V AC/DC	D
		60 V AC/DC	E
		110 ... 120 V AC/DC	F
		120 ... 127 V AC/DC	G
		220 ... 240 V AC/DC	H
	240 ... 250 V AC/DC	J	
	Closing coil (CC) and additionally a remote reset magnet (RR)	24 V AC/DC	K
		110 V AC/DC	L
		220 V AC/DC	M

2nd auxiliary release	Without 2nd auxiliary release		A
	With undervoltage release (UVR)	24 V AC/DC	B
		30 V AC/DC	C
		48 V AC/DC	D
		60 V AC/DC	E
		110 ... 120 V AC/DC	F
		120 ... 127 V AC/DC	G
		220 ... 240 V AC/DC	H
		240 ... 250 V AC/DC	J
		380 ... 400 V AC/DC	K
		415 ... 440 V AC/DC	L
	With undervoltage release (UVR), delayable with external time-delay device; Scope of supply: UVR + time-delay device	24 ... 30 V AC/DC	M
		110 ... 127 V AC/DC	N
		220 ... 250 V AC/DC	P
	With 2nd shunt trip (ST2)	24 V AC/DC	Q
		30 V AC/DC	R
		48 V AC/DC	S
		60 V AC/DC	T
		110 ... 120 V AC/DC	U
120 ... 127 V AC/DC		V	
220 ... 240 V AC/DC		W	
240 ... 250 V AC/DC		X	

1st auxiliary release	Without 1st auxiliary release		0
	Shunt trip (ST)	24 V AC/DC	1
		30 V AC/DC	2
		48 V AC/DC	3
		60 V AC/DC	4
		110 ... 120 V AC/DC	5
		120 ... 127 V AC/DC	6
		220 ... 240 V AC/DC	7
		240 ... 250 V AC/DC	8

# Accessory options

For a complete and valid configuration of your air circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3wl10-configurator](http://www.siemens.com/lowvoltage/3wl10-configurator)

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Order code

## Accessories for basic configuration

### Mounting options for fixed-mounted versions

- In the basic configuration, the fixed-mounted circuit breaker is mounted onto the rear panel; floor mounting is an option; in addition, the device must be modified if it is to be extended with functionalities such as external auxiliary switches or mechanical interlocks.<sup>1)</sup>

Mounting options for fixed-mounted versions <sup>1)</sup>			Order code
Floor mounting		Mounting support standard	A07
		Mounting support extended <sup>2)</sup>	S56
Rear panel mounting onto mounting plate		Side wall extended <sup>2)</sup>	S57

## Accessories for electronic trip units ETU

### Rating plugs

- As standard, the electronic trip units are equipped with a rating plug for setting the rated current  $I_n$ , which is equal to the maximum rated circuit breaker current ( $<I_{n\max}$ ). The rated current of the selected rating plug must be less than or equal to  $I_{n\max}$ .
- To downrate the circuit breaker, the rated current of less than  $I_{n\max}$  is selected for the rating plug by means of a Z option.
- Other functions can also be activated using rating plugs (L = OFF or Rc protection).

Rating plug				Order code
For setting the rated current $I_n$	For all ETUs	400 A		B04
		630 A		B06
		800 A		B08
		1000 A		B10
For setting the rated current $I_n$ , with overload protection L = OFF	For 6-series ETUs	400 A		L04
		630 A		L06
		800 A		L08
		1000 A		L10
		1250 A		L12
For setting the rated current $I_n$ , for enabling of the residual current protective function. The residual current function is only possible with the MF advanced metering function.	For ETU660 only	400 A		G04
		630 A		G06
		800 A		G08
		1250 A		G12

### Communication modules

- No more than two different communication modules can be used at the same time.
- When using an IOM040 digital I/O module (Z option K56), only one communication module can be used.

Communication modules			Order code
COM040		PROFIBUS	F02
COM041		PROFINET	F03
COM043		Modbus TCP	F11
COM042		Modbus RTU	F12

### Breaker Connect modules

- When a circuit breaker with a communication link is ordered, a Breaker Connect module for external 24 V DC power supply of the electronic components is also supplied ready installed.
- By means of this Z option, the Breaker Connect module for 24 V DC is replaced by a Breaker Connect module for 110 ... 240 V AC/DC.

Breaker Connect modules	110 ... 240 V AC/DC	Order code
		F26

### I/O modules internal

I/O modules internal	Digital I/O module IOM040	2 inputs, 2 outputs	Order code
			K56

<sup>1)</sup> These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.

<sup>2)</sup> Not possible in connection with or as an alternative to the mounting support, standard (A07)

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3WL.....-.....-..... -Z

Order code

## Accessories for the motor

Mechanical operating cycles counter, 5-digit

C01

## Auxiliary switches and signaling switches

- Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard.
- For currents <100 mA for PLC connections, these auxiliary and signaling switches can be replaced.
- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimal load from 1 mA at 5 V DC and
  - a maximum breaking capacity of 100 mA at 24 V DC.

<b>Position signaling switches for guide frames<sup>1)</sup></b>	2 CO   2 CO   2 CO (connected   test   disconnected position)	K55
<b>Signaling switches</b>	Ready-to-close signaling switches	1 CO digital, 24 V DC
	Tripped signaling switches (S24)	1 CO digital, 24 V DC
	Spring charged signaling switch (S21)	1 CO digital, 24 V DC
<b>Auxiliary switches</b>	ON/OFF AUX	4 CO digital, 24 V DC
		2 CO 400 V AC + 2 CO digital, 24 V DC

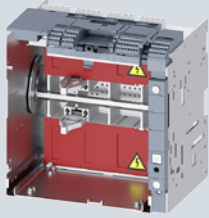
## Locking, blocking and interlocking

<b>Locking provisions<sup>1)</sup></b>	To prevent movement of withdrawable circuit breaker	Cylinder lock	Made by RONIS	R78
		For no more than 3 padlocks, 8 mm		R65
<b>Locking mechanisms</b>	To prevent movement to disconnected position			R79
<b>Locking provision</b>	To prevent unauthorized closing from the operator panel (safe OFF)	Cylinder lock, made by RONIS		S08
		For no more than 3 padlocks, plastic 4 mm		S22
		For no more than 1 padlock, metal 7 mm		S23
		For no more than 2 padlocks, metal 8 mm		S07
<b>Interlocking sets</b>	For mechanical ON and/or OFF on the operator panel	For no more than 3 padlocks, plastic 4 mm		S42
		For no more than 1 padlock, metal 7 mm		S43
		For no more than 2 padlocks, metal 8 mm		S44
<b>Protective covers</b>	For mechanical ON/OFF, not lockable			S41
<b>Door sealing frame IP30</b>	IP3x			T30

<sup>1)</sup> Can be used not only when guide frame is ordered separately, but also with complete order (breaker + guide frame).

# Guide frames

## Guide frames for ordering separately without circuit breakers



- Guide frames without breakers up to 1250 A
- **Note:** All CB bus modules for communication COM04x/IOM300/Breaker Connect module, as well as COMPSS signaling switches are configured without frames in the withdrawable circuit breaker and defined there by means of Z options, and are included with the switching device. The PSS standard is always included in the frame and can be changed to an electronics-capable signal by means of a Z option.

Number of poles	Connection type	Article No.
3-pole	Rear vertical	3VW8112-0AA01
	Rear horizontal	3VW8112-0AB01
	4× 240 mm <sup>2</sup> Cu/Al cable connection, for cable lug connections	3VW8112-0AD01
	Front connection bars, extended	3VW8112-0AE01
4-pole	Rear vertical	3VW8112-0BA01
	Rear horizontal	3VW8112-0BB01
	4× 240 mm <sup>2</sup> Cu/Al cable connection, for cable lug connections	3VW8112-0BD01
	Front connection bars, extended	3VW8112-0BE01

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3VW8.....-.....-..... -Z

Order code

## Locking, blocking and interlocking

Locking provisions	To prevent movement of withdrawable circuit breaker	Cylinder lock, made by RONIS	R78
		For no more than 3 padlocks, 8 mm	R65
Locking mechanisms	To prevent movement to disconnected position (only in combination with R78 or R65)		R79





## Auxiliary/signaling switches

Position signaling switch PSS for guide frame	For 24 V DC digital signals, for minimum currents	2 CO   2 CO   2 CO (connected   test   disconnected position)	K55
---	---	---	-----

Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard. For currents <100 mA for PLC connections, these auxiliary and signaling switches can be modified. The auxiliary/signaling switches for 24 V DC digital signals are designed for

- a minimal load from 1 mA at 5 V DC and
- a maximum breaking capacity of 100 mA at 24 V DC.

# Electronic trip units ETU and accessories

Electronic trip units (ETU)					
	Version	With communications/metering function/enhanced protective functions	Type	Protective function	Article No.
	With rotary coding switches	No	ETU320	LIN	3VW9011-5AA00
			ETU350	LSIN	3VW9012-5AA00
			ETU360	LSING	3VW9012-7AA00
	With display	Yes	ETU650	LSIN	3VW9017-5AA00
			ETU660	LSING	3VW9017-7AA00
Metering functions for ETU650 or ETU660					
	Description	Protective function/version	Arrangement	Article No.	
	Metering function	MF Basic	–	3VW9011-0AT01	
		MF Advanced	–	3VW9011-0AT04	
	Set of cables for voltage tap for MF	For 4-pole circuit breakers with neutral right	Top or bottom	3VW9011-0AT08	
			Top	3VW9011-0AT75	
		For 4-pole circuit breakers with neutral left	Bottom	3VW9011-0AT76	
For 3-pole circuit breakers			Top	3VW9011-0AT72	
		Bottom	3VW9011-0AT73		
External current transformers for N conductor					
	Accessory for	Use	Article No.		
	ETU320, ETU350, ETU360, ETU650, ETU660	For 3-pole circuit breakers only	3VW9011-0AA30		
External current transformers for grounded transformer star point					
	Accessory for	$G_{ret}$ (ground return)	Article No.		
	ETU660	100 A	3VW9011-0GF30		
		250 A	3VW9011-0GF31		
Summation current transformers external Rc-CT for residual current measurement					
	• Only with MF Advanced metering function and Rc rating plug				
	Accessory for	Use	Article No.		
ETU660	For external residual current measurement	3VW9011-0RC30			
Remote reset magnets RR for the circuit breakers including tripped signal					
	• Remote reset magnet (RR) for resetting the circuit breaker after tripping as a result of overcurrent conditions				
	Accessory for	Voltage	Article No.		
	ETU320, ETU350, ETU360, ETU650, ETU660	24 V DC	3VW9011-0AK03		
		110 V AC/DC	3VW9011-0AK05		
250 V AC/DC		3VW9011-0AK06			
Spare part batteries for electronic trip units ETU					
	Accessory for	Article No.			
	ETU320, ETU350, ETU360, ETU650, ETU660	3VW9011-0AT38			

1



# Electronic trip units ETU and accessories

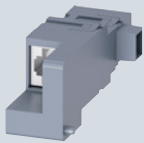
## Rating plug



- Only one module is possible per circuit breaker

Accessory for	Version	Rated current $I_n$	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	Rating plugs for setting ( $< I_{n \max}$ ) the rated current $I_n$	400 A	3VW9011-0AA53
		630 A	3VW9011-0AA55
		800 A	3VW9011-0AA56
		1000 A	3VW9011-0AA57
		1250 A	3VW9011-0AA58
ETU 6-series	Rating plugs without overload protection (L = OFF) and for setting ( $< I_{n \max}$ ) the rated current $I_n$	400 A	3VW9011-0LF53
		630 A	3VW9011-0LF55
		800 A	3VW9011-0LF56
		1000 A	3VW9011-0LF57
		1250 A	3VW9011-0LF58
ETU660	Rating plug Rc for ETU660, for enabling the residual current protective function and setting ( $< I_{n \max}$ ) of the rated current $I_n$ . The residual current function is only possible with the MF Advanced metering function.	400 A	3VW9011-0RC53
		630 A	3VW9011-0RC55
		800 A	3VW9011-0RC56
		1250 A	3VW9011-0RC58

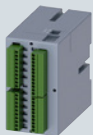
## CB bus modules - communication modules



- Contains the communication module
- No more than two different communication modules can be used at the same time
- When using a digital I/O module IOM040 (Z option K56) only one communication module can be used
- Can only be used with ETUs of the 6-series and a Breaker Connect module for connection to the circuit breaker. This can also be configured directly on the device by means of a Z option if the communication link to the ETU 6-series is selected

Communication modules	Protocol	Article No.
COM040	PROFIBUS	3VW9011-0AT15
COM041	PROFINET	3VW9011-0AT14
COM043	Modbus TCP	3VW9011-0AT16
COM042	Modbus RTU	3VW9011-0AT17

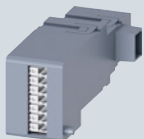
## CB bus modules - I/O modules external IOM300



- For snapping onto standard mounting rail

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	<ul style="list-style-type: none"> <li>2 A at <math>\leq</math> DC 30 V</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul>	11	10	3VW9011-0AT20

## CB bus modules - I/O modules internal IOM040



- When using a digital I/O module IOM040, only one communication module can be used

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	<ul style="list-style-type: none"> <li>2 A at <math>\leq</math> 30 V DC</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul>	2	2	3VW9011-0AT30

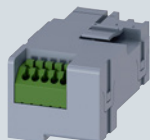
## Actuator module COM ACT



- For switching the circuit breaker on/off remotely via communication
- Actuation of the closing coil (CC) and the 1st shunt trip (ST)
- Can only be used in combination with a communication module, spring charging motor, closing coil and 1st shunt trip
- Automatically included if the communication link of the ETU 6-series is selected in the basic circuit breaker configuration

Accessory for	Article No.
ETU 6-series	3VW9011-0AT10

## Breaker Connect modules



- For the external power supply for the electronics components

Voltage	Article No.
110 ... 240 V AC/DC	3VW9011-0AT06
24 ... 48 V DC	3VW9011-0AT07

## Auxiliary contact signaling switch for communication link



- Auxiliary contacts for signaling the readiness to close or for position signaling switches of the withdrawable positions.
- Can only be used in combination with communication module.
- Can be combined with standard position signaling switches or ready-to-close signaling contacts.
- **Note:** Both signaling switches are automatically included in the basic circuit breaker if the communication link of the ETU 6-series is selected (COM PSS only with withdrawable versions).

Function	Article No.
Ready-to-close signaling switch for communication COM RTC	3VW9011-0AT11
Position signaling switch COM PSS (for withdrawable breakers only)	3VW9011-0AT12

## Test devices and Breaker Data Adapters



- Can be used for all ETU 3-series and 6-series

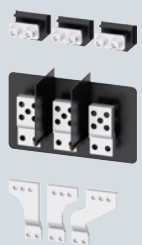

Function	Type	Article No.
Test device <ul style="list-style-type: none"> <li>• For the trip test via ETU and tripping solenoid including release</li> <li>• The ETU and the tripping solenoids are activated by means of a battery built into the test device.</li> <li>• On activation in the ETU 6-series, the parameters can be configured on the display</li> </ul>	TD310	3VW9011-0AT32
Breaker Data Adapter <ul style="list-style-type: none"> <li>• As gateway for parameterization of the ETU with SENTRON powerconfig</li> <li>• For generation of a report of the set parameters with powerservice</li> </ul>	TD410	3VW9011-0AT34
Test devices and Breaker Data Adapters <ul style="list-style-type: none"> <li>• As gateway for parameterization of the ETU with SENTRON powerconfig               <ul style="list-style-type: none"> <li>– Testing a tripping operation using SENTRON powerconfig</li> </ul> </li> <li>• For use with the powerservice software               <ul style="list-style-type: none"> <li>– Testing of the basic protective functions LSING</li> <li>– Testing of the enhanced protective functions</li> <li>– Test data storage</li> <li>– Readout of ETU buffer</li> <li>– Generation of a report of the set parameters</li> </ul> </li> </ul>	TD420	3VW9011-0AT33

# Accessories and spare parts

## Accessories for connection

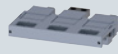


### Front terminals for main circuit connections acc. to IEC 60947-2

- To be ordered separately for top and bottom

Fixing	Version	Mounted onto	Number of poles/ quantity	Article No.
	Front terminals for main circuit connection	Front terminals for main circuit connection	3-pole/3 units	3VW9011-0AL01
			4-pole/4 units	3VW9011-0AL02
	Extended main terminals, including insulating plate and phase barriers, standard	Front terminals for main circuit connection	3-pole/3 units	3VW9011-0AL77
			4-pole/4 units	3VW9011-0AL78
	Broadened main terminals, including insulating plate and extended phase barriers	Front terminals for main circuit connection, top	3-pole/3 units	3VW9011-0AL73
			Front terminals for main circuit connection, bottom	3-pole/3 units
Front terminals for main circuit connection, top, bottom	Flange of the guide frame	4-pole/4 units	3VW9011-0AL74	
		3-pole/3 units	3VW9011-0AN01	
	Front-accessible terminals for main circuit connection	Front-accessible terminals for main circuit connection	4-pole/4 units	3VW9011-0AN02
			3-pole/3 units	3VW9011-0AN73
	Broadened main circuit connections	Front-accessible terminals for main circuit connection	4-pole/4 units	3VW9011-0AN74



### Rear terminals for main circuit connections acc. to IEC 60947-2

- To be ordered separately for top and bottom

Fixing	Version	Mounted onto	Number of poles/ quantity	Article No.
	Rear terminals for main circuit connection; rotatable for horizontal/vertical connection, including terminal cover	Rear horizontal main connections	3-pole/3 units	3VW9011-0AL32
			4-pole/4 units	3VW9011-0AL33
	Rear terminals for main circuit connection; rotatable for horizontal/vertical connection, including terminal cover	Rear horizontal main connections	3-pole/3 units	3VW9011-0AN32
			4-pole/4 units	3VW9011-0AN33
	Broadened main circuit connections	Rear horizontal main connections	3-pole/3 units	3VW9011-0AN75
			4-pole/4 units	3VW9011-0AN76

### Cu/Al cable connections

- To be ordered separately for top and bottom

Fixing	Version	Mounted onto	Number of poles/ quantity	Article No.
	Circular conductor terminals 4 × 240 mm <sup>2</sup> for front cable connection <sup>1)</sup> , including insulating plate and high, extended terminal cover	Front terminals for main circuit connection	3-pole/3 units	3VW9011-0AL71
			4-pole/4 units	3VW9011-0AL72
	Set of circular conductor connection pieces 4 × 240 mm <sup>2</sup> for cable lug connections, rear cable connection	Rear vertical main connections	3-pole/3 units	3VW9011-0AN71
			4-pole/4 units	3VW9011-0AN72

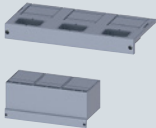



### Auxiliary supply connectors in push-in version

- Control wire tap in push-in version for upgrading fixed-mounted breakers and guide frames.
- The device is always fitted at the factory with the exact number of control wire taps required.

Version	Article No.
Push-in	3VW9011-0AB11

1) For connecting Al cables up to 1000 A

## Accessories for connection

Terminal covers for fixed-mounted			
	<ul style="list-style-type: none"> <li>Finger-proof for front main circuit connection for fixed-mounted</li> <li>Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.</li> </ul>		
	Version	Number of poles/quantity	Article No.
	Standard	3-pole/2 units	3VW9723-OWD30
		4-pole/2 units	3VW9724-OWD40
Extended	3-pole/2 units	3VW9723-OWF30	
	4-pole/2 units	3VW9724-OWF40	
Phase barriers for fixed-mounted			
	<ul style="list-style-type: none"> <li>Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.</li> <li>For operating voltages &gt;440 V AC the use of phase barriers is mandatory; up to 440 V AC their use is optional.</li> </ul>		
	Height	Number of poles/quantity	Article No.
	100 mm (standard)	3-pole/4 units	3VW9723-OWA00
		4-pole/6 units	3VW9724-OWA10
200 mm (extended)	3-pole/4 units	3VW9723-OWA01	
	4-pole/6 units	3VW9724-OWA11	
Support for mounting the fixed-mounted breaker on the floor			
<ul style="list-style-type: none"> <li>For fixed-mounted versions</li> </ul>			
	Version	Use	Article No.
	Mounting support standard (circuit breaker feet) (= Z option A07)		3VW9011-0BB51
	Mounting support extended (circuit breaker feet), including mechanical transmission of switch position on circuit breaker side panel (= Z option S56)	<ul style="list-style-type: none"> <li>Fixation for external auxiliary switches AUX 15 W (3VW9011-0AG15)</li> <li>Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16)</li> <li>Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)</li> </ul>	3VW9011-0BB52
Extension kit for modification of the side wall of the fixed-mounted breaker			
	<ul style="list-style-type: none"> <li>For fixed-mounted versions</li> <li>Rear wall fixing on mounting plate</li> <li>For modification for mechanical transmission of switch position on circuit breaker side panel (= Z option S57)</li> </ul>		
	Version	Use	Article No.
	Extension kit for side wall	<ul style="list-style-type: none"> <li>Fixation for external auxiliary switches AUX 15 W (3VW9011-0AG15)</li> <li>Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16)</li> <li>Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)</li> </ul>	3VW9011-0BB53

# Accessories and spare parts

## Motor

### Spring charging motor (MO)



Description	Voltage	Article No.
For automatic charging of the stored-energy operating mechanism	24 ... 30 V AC/DC	3VW9011-0AF01
	48 ... 60 V AC/DC	3VW9011-0AF02
	100 ... 130 V AC/DC	3VW9011-0AF03
	220 ... 250 V AC/DC	3VW9011-0AF04

### Mechanical operating cycles counters



Description	Version	Article No.
In combination with a spring charging motor	5 digits	3VW9011-0AH07

## Auxiliary releases, closing coils

### Closing coils CC/shunt trips ST



Voltage	Article No.
24 V AC/DC	3VW9011-0AD01
30 V AC/DC	3VW9011-0AD02
48 V AC/DC	3VW9011-0AD03
60 V AC/DC	3VW9011-0AD04
110 ... 120 V AC/DC	3VW9011-0AD05
120 ... 127 V AC/DC	3VW9011-0AD06
220 ... 240 V AC/DC	3VW9011-0AD07
240 ... 250 V AC/DC	3VW9011-0AD08
380 ... 400 V AC	3VW9011-0AD17
415 ... 440 V AC	3VW9011-0AD18

### TD320 function test unit for closing coil/shunt trip



- The TD320 test unit allows the operational availability and functions of the closing coils and shunt trips with a rated operational voltage between 24 V and 250 V (AC and DC) to be tested
- The operational availability test is performed cyclically at intervals of 30 seconds
- The unit has visual indicators in the form of LEDs on the front in order to display the following states:
  - LED POWER ON LIT: Correct function of the YO/YC test unit
  - LED DEACTIVATION LIT: Power supply failure, wire break
  - LED SHORT-CIRCUIT LIT: Winding short-circuit
  - LED DEACTIVATION and SHORT-CIRCUIT FLASHING: Incorrect power supply
  - LED DEACTIVATION and SHORT-CIRCUIT OFF: Closing coil/shunt trip OK

Version	Article No.
For all closing coils/shunt trips	3VW9011-0AT31

## Auxiliary releases, closing coils

### Auxiliary/signaling switches



- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimum load from 1 mA at 5 V DC and a
  - a maximum breaking capacity of 100 mA at 24 V DC
- For external auxiliary switches ON/OFF AUX 15 CO, a 3VW9011-0AG1x fixation must be ordered in addition, and for fixed-mounted breakers a 3VW9011-0BB5x side wall modification

Type	Contacts	Article No.
Ready-to-close signal RTC	1 CO standard	3VW9011-0AH01
	1 CO digital	3VW9011-0AH02
Auxiliary switch ON/OFF AUX	4 CO standard	3VW9011-0AG01
	4 CO digital	3VW9011-0AG02
	2 CO standard + 2 CO digital	3VW9011-0AG03
External auxiliary switch ON/OFF AUX	15 CO standard	3VW9011-0AG05
	15 CO digital	3VW9011-0AG06
Tripped signaling switch S24	1 CO standard	3VW9011-0AH14
	1 CO digital	3VW9011-0AH15
Spring charged signaling switch S21	1 CO standard	3VW9011-0AH10
	1 CO digital	3VW9011-0AH08
Position signaling switch PSS (for withdrawable devices)	2 CO   2 CO   2 CO (connected   test   disconnected position) standard	3VW9011-0AH11
	2 CO   2 CO   2 CO (connected   test   disconnected position) digital	3VW9011-0AH12

### Fixing for external auxiliary switches AUX 15 CO



- External auxiliary switches ON/OFF AUX 15 CO must be ordered separately.

Version	Article No.
For fixed-mounted circuit breakers with rear panel or floor mounting (in combination with Z option S56 or S57)	3VW9011-0AG15
For guide frames	3VW9011-0AG17

### Undervoltage releases UVR



Voltage	Article No.
24 V AC/DC	3VW9011-0AE01
30 V AC/DC	3VW9011-0AE02
48 V AC/DC	3VW9011-0AE03
60 V AC/DC	3VW9011-0AE04
110 ... 120 V AC/DC	3VW9011-0AE05
120 ... 127 V AC/DC	3VW9011-0AE06
220 ... 240 V AC/DC	3VW9011-0AE07
240 ... 250 V AC/DC	3VW9011-0AE08
380 ... 400 V AC	3VW9011-0AE17
415 ... 440 V AC	3VW9011-0AE18

### External time-delay device for undervoltage release



- With adjustable delay time from 0.5 to 3 s.
- Suitable for mounting onto DIN rail.

Voltage	Article No.
24 ... 30 V AC/DC	3VW9011-0AE10
48 V AC/DC	3VW9011-0AE11
60 V AC/DC	3VW9011-0AE15
110 ... 127 V AC/DC	3VW9011-0AE12
220 ... 250 V AC/DC	3VW9011-0AE13

# Accessories and spare parts

## Interlocking

### Locking provisions to prevent movement of the withdrawable circuit breaker



Version	Article No.
RONIS cylinder lock (spare part for R78)	3VW9011-0BA80
Padlock 8 mm (spare part for R65), for no more than 3 padlocks	3VW9011-0BA87

### Locking mechanisms to prevent movement of the withdrawable circuit breakers in disconnected position



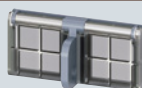
<ul style="list-style-type: none"> <li>Only possible as a supplement in conjunction with R78 (3VW9011-0BA80) and/or R65 (3VW9011-0BA87)</li> </ul>	
Description	Article No.
Locking mechanism (spare part for R79)	3VW9011-0BA84

### Locking provisions in OFF position



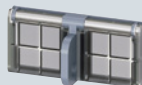
<ul style="list-style-type: none"> <li>For fixed-mounted versions and withdrawable versions</li> <li>To prevent unauthorized closing from the operator panel (safe OFF)</li> <li>The disconnecter unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1</li> </ul>	
Description	Article No.
Cylinder lock, made by RONIS (spare part for S08)	3VW9011-0BA33

### Locking provisions in OFF position



<ul style="list-style-type: none"> <li>For fixed-mounted versions and withdrawable versions</li> <li>To prevent unauthorized closing from the operator panel (safe OFF)</li> <li>The disconnecter unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1</li> </ul>		
Description	Version	Article No.
Padlock 4 mm (spare part for S22)	Plastic for no more than 3 padlocks	3VW9011-0BA41
Padlock 7 mm (spare part for S23)	Metal for no more than 1 padlock	3VW9011-0BA42
Padlock 8 mm (spare part for S07)	Metal for no more than 2 padlocks	3VW9011-0BA44

### Interlocking sets for mechanical Open and/or Close on the operator panel



Description	Version	Article No.
Padlock 4 mm (spare part for S42)	Plastic for no more than 3 locks	3VW9011-0BA22
Padlock 7 mm (spare part for S43)	Metal for no more than 1 lock	3VW9011-0BA23
Padlock 8 mm (spare part for S44)	Metal for no more than 2 locks	3VW9011-0BA24

### Protective cover for mechanical ON/OFF



<ul style="list-style-type: none"> <li>Mechanical ON/OFF to protect against unintentional actuation on the operator panel</li> <li>Not lockable</li> </ul>	
Description	Article No.
Not lockable (spare part for S41)	3VW9011-0BA21

### Mutual mechanical interlockings



<ul style="list-style-type: none"> <li>Mutual mechanical interlocking for 3WL/3VA with Bowden cable 2 m</li> <li>For fixed-mounted versions, an additional support 3VW9011-0BB52 (option S56) or extension kit 3VW9011-0BB53 (option S57) must be ordered</li> </ul>		
Fixing	Mounting	Article No.
Fixed-mounted	Rear panel or floor mounting	3VW9011-0BB21
Withdrawable	Mounting onto guide frame	3VW9011-0BB22

### Bowden cable, separate

<ul style="list-style-type: none"> <li>One required for each circuit breaker</li> </ul>	
Type	Article No.
1000 mm	3VW9011-0BB23
2000 mm	3WL9111-0BB45-0AA0
3000 mm	3WL9111-0BB46-0AA0

## Interlocking

### Locking mechanisms for control cabinet door



- To prevent opening of the cabinet door in ON position
- It additionally prevents the circuit breaker from being closed when the control cabinet door is open

Fixing	Version	Article No.
Fixed-mounted onto side panel or floor	Direct fixed interlocking	3VW9011-0BB10
	Locking with Bowden cable	3VW9011-0BB16
Withdrawable	Direct fixed interlocking	3VW9011-0BB14
	Locking with Bowden cable	3VW9011-0BB18

### Door sealing frame IP30



- Can be used up to IP3x degree of protection

Version	Mounting	Version	Article No.
Spare part for Z option T30.	Fixed-mounted	IP3x	3VW9011-0AP01
	Withdrawable	IP3x	3VW9011-0AP02

### Protective cover IP54



- Protective cover/hood IP54 lockable for fixed-mounted breakers and withdrawable breakers
- For implementing degrees of protection IP4x and IP54 when installing in switchboard door
- Cannot be combined with IP30 door sealing frame and door mounted rotary operator

Version	Version	Article No.
Lock with unique key	IP54	3VW9011-0AP03
Lock with standard key	IP54	3VW9011-0AP13





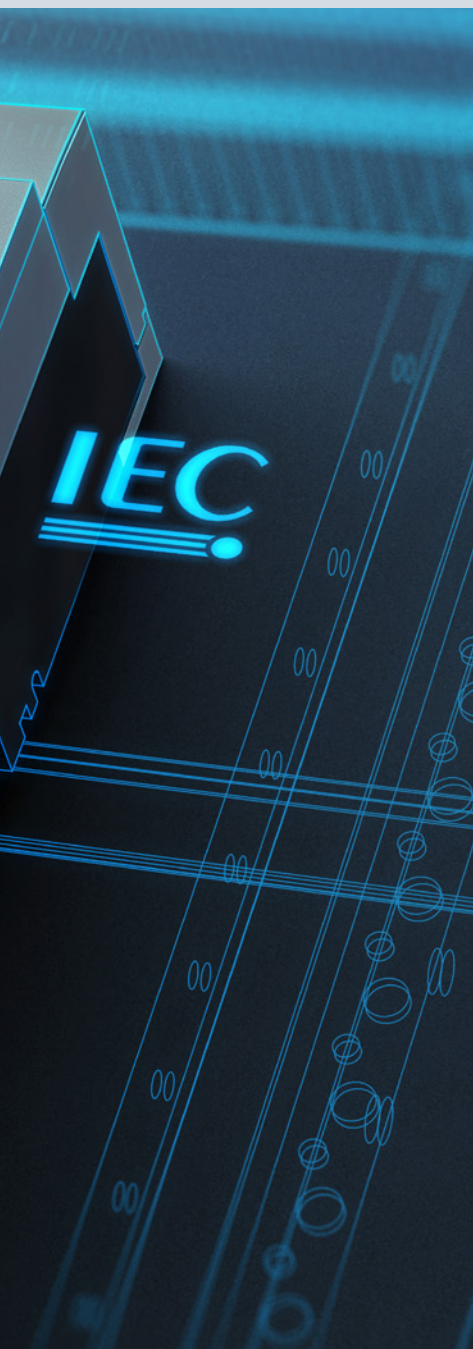
## One system. For all applications.

Requirements for cost- and energy-efficient operation of electrical power distribution are on the increase. Whether in industrial plants, in infrastructure or in buildings: As a modular, highly adaptable system, the 3VA series of molded case circuit breakers ensures fully reliable protection of personnel and plant, and supports every process phase – from planning to operation of electrical power distribution.

Comprehensively certified. Deployable worldwide.

3VA molded case circuit breakers are available in various ranges with IEC approval; other ranges are available that comply with standard IEC 60947 and standard UL 489. The system is therefore ideally suited for mechanical engineering companies and switchgear manufacturers. The full range of functionalities of molded case circuit breakers can be used for plant and equipment operating in Europe and North America, with absolute standards compliance assured.

# Molded Case Circuit Breakers



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about molded case circuit breakers, please visit our website [www.siemens.com/3VA](http://www.siemens.com/3VA)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – 3VA molded case circuit breakers ([109766672](https://www.siemens.com/lowvoltage/product-support))

The relevant tender specifications can be found at  
[www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- 3VA molded case circuit breakers (general)  
[bit.ly/2xNxIFA](https://bit.ly/2xNxIFA)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Molded case circuit breakers [sie.ag/2mmLcAk](https://sie.ag/2mmLcAk)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number  
[www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations. Configure your 3VA molded case circuit breaker at

[www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)  
[www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

The following are additionally available for your 3VA molded case circuit breaker:

- 3D views
- CAD data
- Unit wiring diagrams
- Dimension drawings

## The fast track to the experts

### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at  
[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at  
[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at  
[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### SENTRON powerconfig

The combined commissioning and service tool SENTRON powerconfig for communication-capable measuring devices, circuit protection devices and circuit breakers.

Free download SENTRON powerconfig via [www.siemens.com/powerconfig](http://www.siemens.com/powerconfig)

Free download SENTRON powerconfig mobile via [App Store](#) and [Play Store](#)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under: [www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – 3VA selectivity ([109743975](#))
- Communication manual – 3VA molded case circuit breakers with IEC and UL certification ([98746267](#))
- Equipment manual – 3VA molded case circuit breakers with IEC certificate ([90318775](#))
- Equipment manual – 3VA27 molded case circuit breakers & 3WL10 air circuit breakers ([109753821](#))
- Communication manual – 3WL10 air circuit breakers & 3VA27 molded case circuit breakers ([109760220](#))

### Classroom or online training

Our training courses can be found at [www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- 3VA molded case circuit breaker (WT-LVA3VA)
- Protection systems in low-voltage power distribution (WT-LVAPS)
- Communication with SENTRON components (LV-COM)
- Project planning and selection of SENTRON circuit breakers (LV-CBPROJ)

## Technical overview – Molded case circuit breakers



### The fast way to get you to our online services

This page provides you with comprehensive information and links on molded case circuit breakers [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109767421](#))



# Molded case circuit breakers for all applications

2



3VA10 ... 3VA15 molded case circuit breakers

## Setting standards for standard applications

The 3VA1 molded case circuit breaker is ideally suited for your standard applications in infrastructure and industrial facilities. It is equipped with a thermal-magnetic trip unit, and offers reliable protection for plants and generators.

With its compact dimensions and depth of just 70 mm, the 3VA1 molded case circuit breaker can even fit into locations where space is limited. Thanks to its cover size of 45 mm, it is also ideally suited for use in distribution boards up to 250 A.

### Special features

- Compact design
- AC/DC applications
- No derating up to +50 °C
- Optimized for distribution boards (45 mm cover size)
- Universal platform of accessories
- 1, 2, 3 or 4-pole versions
- Rated current range of 1 to 1000 A



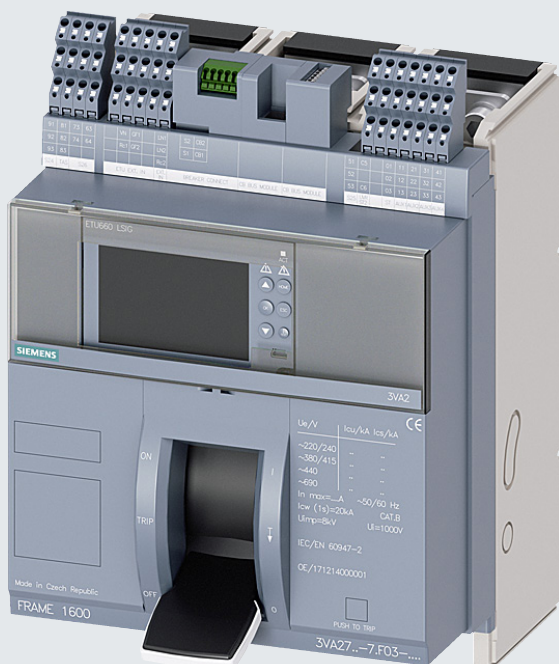
3VA20 ... 3VA26 molded case circuit breakers

## The power to deliver in demanding applications

If you are looking for a solution that lets you handle your most technically demanding projects in industrial and infrastructure applications with ease, the 3VA2 molded case circuit breaker has the special capabilities you need. It combines high breaking capacity, a range of electronic trip units (ETUs), very good selectivity properties, and various additional functionalities.

### Special features

- Very good selective protection response
- AC applications
- No derating up to +50 °C
- Integrated metering function
- Connection to a communication system
- Rated current range of 25 to 1250 A



3VA27 molded case circuit breaker

Depending on the application, the 3VA27 molded case circuit breaker handles line/motor and starter protection for low-voltage electrical power distribution, and supplements the existing IEC portfolio with a rated current of 1600 A.

### Special features

- Choice between two ranges of electronic trip units with a number of equipment versions
- Variable and versatile connections
- Connection to a communication system
- Can be used as a platform circuit breaker with the 3WL10 ACB, with an extensive range of common accessories
- Rated current range of 800 to 1600 A

# Switching devices and accessories

2



## Protective functions

	3VA10	3VA11	3VA12	3VA13	3VA14	3VA15
<b>Size</b>	100 A	160 A	250 A	400 A	630 A	1000 A
<b>Switch disconnectors</b>						
No protection	–	■	■	■	■	–
<b>Thermal-magnetic</b>						
Line protection	■	■	■	■	■	■
Starter protection	–	■	■	■	■	■
<b>Electronic</b>						
Line protection	–	–	–	–	–	–
Line and generator protection	–	–	–	–	–	–
Line and generator protection, with display	–	–	–	–	–	–
Line and generator protection, with display, with metering function	–	–	–	–	–	–
Motor protection	–	–	–	–	–	–
Motor protection, with display	–	–	–	–	–	–
Motor protection, with display, with metering function	–	–	–	–	–	–
Starter protection	–	–	–	–	–	–

## Accessories

	100 A	160 A	250 A	400 A	630 A	1000 A
<b>Accessories</b>						
Auxiliary switches and signaling switches	■	■	■	■	■	■
Auxiliary releases	■	■	■	■	■	■
Connection technology	■	■	■	■	■	■
Plug-in version	–	■	■	■	■	■
Withdrawable version	–	–	■	■	■	–
Front mounted rotary operator	■	■	■	■	■	■
Door mounted rotary operator	■	■	■	■	■	■
Side wall mounted rotary operator	■	■	■	■	■	–
MO310 motor operator (mounted onto the side)	–	■	–	–	–	–
MO320 motor operator (mounted onto the front)	–	■	■	■	■	–
Motor operator with SEO520 stored energy operator	–	–	–	–	–	–
Motor operator (MO), integrable	–	–	–	–	–	–
Locking, blocking and interlocking	■	■	■	■	■	■
Residual current device (mounted onto the side)	–	■	■	–	–	–
Residual current device (mounted underneath)	–	■	■	–	–	–
Communication link	–	–	–	–	–	–
EFB300	–	–	–	–	–	–
Testing and commissioning devices	–	–	–	–	–	–
Cover frame	■	■	■	■	■	■
DIN rail adapter	■	■	–	–	–	–
Busbar adapter	■	■	■	■	■	–

■ Available – Not available/not present





# 3VA1 switching devices up to 1000 A

## Technical specifications

2



			3VA10			3VA11			3VA11					
<b>Electrical characteristics according to IEC 60947-2</b>														
Number of poles			3/4-pole			1-pole			2-pole					
Size	A		100			160			160					
Rated current $I_n$ at 50 °C ambient temperature	A		16 ... 100			16 ... 160			16 ... 160					
Rated operational voltage $U_e$ 50/60 Hz AC	V		690			415			415					
Rated insulation voltage $U_i$	V		800			500			500					
Rated impulse withstand voltage $U_{pulse}$	kV		8			8			8					
Use in IT networks (breaking capacity acc. to IEC 60947-2, Annex H)	V		■			■			■					
Frequency	Hz		0 ... 400			0 ... 400			0 ... 400					
<b>Breaking capacity (line protection)</b>														
<b>Rated ultimate short-circuit breaking capacity <math>I_{cu}</math></b>														
50/60 Hz AC	220 ... 240 V	kA	25	36	55	25	36	55	36	55	85			
	380 ... 415 V	kA	16	25	36	5	6	6	25	36	55			
	440 V	kA	8	16	25	–	–	–	–	–	–			
	500 V	kA	5	5	7	–	–	–	–	–	–			
	690 V	kA	5	5	7	–	–	–	–	–	–			
DC <sup>1)</sup>	125 V	kA	16	25	30	16	25	30	16	25	30			
	250 V	kA	25	36	55	–	–	–	36	55	85			
	500 V	kA	25	36	55	–	–	–	–	–	–			
	600 V	kA	8	16	25	–	–	–	–	–	–			
	750 V	kA	–	–	–	–	–	–	–	–	–			
	1000 V <sup>2)</sup>	kA	–	–	–	–	–	–	–	–	–			
<b>Rated operational short-circuit breaking capacity <math>I_{cs}</math></b>														
50/60 Hz AC	220 ... 240 V	kA	25	36	55	25	35	55	36	55	85			
	380 ... 415 V	kA	16	25	36	5	6	6	25	36	55			
	440 V	kA	8	16	25	–	–	–	–	–	–			
	500 V	kA	5	5	5	–	–	–	–	–	–			
	690 V	kA	5	5	5	–	–	–	–	–	–			
DC	125 V	kA	16	25	30	16	25	30	16	25	30			
	250 V	kA	25	36	55	–	–	–	36	55	85			
	500 V	kA	25	36	55	–	–	–	–	–	–			
	600 V	kA	8	16	25	–	–	–	–	–	–			
	750 V	kA	–	–	–	–	–	–	–	–	–			
	1000 V <sup>2)</sup>	kA	–	–	–	–	–	–	–	–	–			
<b>Dimensions</b>														
		A	mm			76.2 (3P)   101.6 (4P)			25.4			50.8		
		B	mm			130			130			130		
		C	mm			70			70			70		
		D	mm			88			88			88		

<sup>1)</sup> For detailed data on DC breaking capacity, number of interrupter poles and circuit diagrams, see FAQ [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109779932)

<sup>2)</sup> For  $I_n = 630$  A/800 A

<sup>3)</sup>  $I_n$  125 A, 160 A:  $I_{cu}/I_{cs} = 36$  kA/36 kA

■ Available – Not available/not present



2

**3VA11****3VA12****3VA13****3VA14****3VA15**

3/4-pole

3/4-pole

3/4-pole

3/4-pole

3/4-pole

160

250

400

630

1000

16 ... 160

160 ... 250

320 ... 400

500 ... 630

630 ... 1000

690

690

690

690

690

800

800

800

800

800

8

8

8

8

8

■

■

■

■

≤500

0 ... 400

0 ... 400

0 ... 400

0 ... 400

0 ... 400

N	S	M	H	S	M	H	S	M	H	C	S	M	H	C	M	H	C		
36	55	85	100	55	85	100	55	85	100	200	55	85	100	200	85	110	200		
25	36	55	70	36	55	70	36	55	70	110	36	55	70	110	55	70	110		
16	25	36	55 <sup>3)</sup>	25	36	36	36	55	70	110	36	55	70	110	55	70	110		
7	7	10	10	10	15	15	25	36	55	70	25	36	55	70	36	55	70		
7	7	10	10	7	10	10	7	7	10	10	7	7	10	10	25	35	35		
16	25	30	30	55	85	100	8	16	25	25	8	16	25	25	–	–	–		
36	55	85	100	55	85	100	8	16	25	25	8	16	25	25	35	50	100		
36	55	85	100	55	85	100	8	16	25	25	8	16	25	25	35	50	100		
16	25	36	55	25	36	55	8	16	25	25	8	16	25	25	–	–	–		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	35	50	100		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	25	35	50		
36	55	85	100	55	85	100	55	85	100	200	55	85	100	200	85	110	150		
25	36	55	70	36	55	70	36	55	70	110	36	55	70	110	55	70	110		
16	25	36	40 <sup>3)</sup>	25	36	36	36	55	70	110	36	55	70	110	55	70	70		
5	5	5	5	10	10	10	25	36	55	70	25	36	55	70	36	55	65		
5	5	5	5	5	5	5	5	5	6	6	5	5	6	6	19	19	19		
16	25	30	30	55	85	100	8	16	25	25	8	16	25	25	–	–	–		
36	55	85	100	55	85	100	8	16	25	25	8	16	25	25	35	50	100		
36	55	85	100	55	85	100	8	16	25	25	8	16	25	25	35	50	100		
16	25	36	55	25	36	55	8	16	25	25	8	16	25	25	–	–	–		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	35	50	100		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	25	35	50		
76.2 (3P)   101.6 (4P)				105 (3P)   140 (4P)				138 (3P)   184 (4P)				138 (3P)   184 (4P)				210 (3P)   280 (4P)			
130				158				248				248				320			
70				70				110				110				120			
88				88				137				137				253			

# 3VA1 switching devices up to 1000 A

## Application

2



		3VA10	3VA11	3VA11
<b>Electrical characteristics according to IEC 60947-2</b>				
Number of poles		3/4-pole	1-pole	2-pole
Size	A	100	160	160
Rated current $I_n$ at 50 °C ambient temperature	A	16 ... 100	16 ... 160	16 ... 160
<b>3VA1 molded case circuit breakers for line protection, standard applications (IEC 60947-2)</b>				
<b>Service life/endurance (operating cycles)</b>				
Mechanical (CLOSE-OPEN cycles)		20000	20000	20000
Electrical	380 ... 415 V	$I_n$ 9000	9000	9000
		$I_n/2$ 15000	15000	15000
	690 V	6300	6300	6300
<b>Trip Units</b>				
TM210	FTFM	■	■	■
TM220	ATFM	–	–	–
TM240	ATAM	–	–	–
<b>3VA1 molded case circuit breakers for starter protection (IEC 60947-4-1 standards and specifications acc. to AC-1)</b>				
Rated current $I_n$ at 50 °C ambient temperature	A	–	–	–
<b>Service life/endurance (operating cycles)</b>				
Mechanical (CLOSE-OPEN cycles)		–	–	–
Electrical	380 ... 415 V	–	–	–
<b>Trip Units</b>				
TM120M	AM	–	–	–
<b>Switch disconnectors (IEC 60947-3)</b>				
<b>Electrical characteristics according to IEC 60947-3</b>				
Rated uninterrupted current $I_u$ at 50 °C ambient temperature	A	–	–	–
Rated operational voltage $U_e$ 50/60 Hz AC	V	–	–	–
Rated operational voltage $U_e$ DC	V	–	–	–
Rated conditional short-circuit current $I_q$ with upstream 3VA1 circuit breaker	kA	–	–	–
Permissible rated short-time current $I_{cw}$ (1 s)	kA	–	–	–

■ Available    – Not available/not present

**3VA11****3VA12****3VA13****3VA14****3VA15**

2

3VA11	3VA12	3VA13	3VA14	3VA15
3/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole
160	250	400	630	1000
16 ... 160	160 ... 250	320 ... 400	500 ... 630	630 ... 1000
20000	20000	20000	20000	10000
9000	8000	6000	4000	4600
15000	14000	12000	8000	7000
6300	5400	4200	3000	3200
■	–	–	–	–
■	–	–	–	–
■	■	■	■	■
32 ... 125	160, 200	250	400 ... 500	630 ... 800
20000	20000	20000	20000	10000
9000	8000	6000	4000	4600
■	■	■	■	■
63 ... 160	250	400	630 (3P), 500 (4P)	–
690	690	690	690	–
500 (3P), 600 (4P)	500 (3P), 600 (4P)	500 (3P), 600 (4P)	500 (3P), 600 (4P)	–
70 at 415 V	70 at 415 V	110 at 415 V 10 at 690 V	110 at 415 V 10 at 690 V	–
2	3	6	7.6 (3P), 6 (4P)	–

# 3VA2 switching devices up to 1600 A

## Technical specifications

2



		3VA20				3VA21				3VA22						
<b>Electrical characteristics according to IEC 60947-2</b>																
Number of poles		3/4-pole				3/4-pole				3/4-pole						
Size	A	100				160				250						
Rated current $I_n$ at 50 °C ambient temperature	A	25 ... 100				25 ... 160				160 ... 250						
Rated operational voltage $U_e$ 50/60 Hz AC	V	690				690				690						
Rated insulation voltage $U_i$	V	800				800				800						
Rated impulse withstand voltage $U_{pulse}$	kV	8				8				8						
Use in IT networks (breaking capacity acc. to IEC 60947-2, Annex H)	V	■				■				■						
Frequency	Hz	50/60				50/60				50/60						
<b>Breaking capacity (line protection)</b>		M	H	C	L	M	H	C	L	E	M	H	C	L	E	
<b>Rated ultimate short-circuit breaking capacity <math>I_{cu}</math></b>																
50/60 Hz AC	220 ... 240 V	kA	85	110	150	200	85	110	150	200	–	85	110	150	200	–
	380 ... 415 V	kA	55	85	110	150	55	85	110	150	200	55	85	110	150	200
	440 V	kA	55	85	110	150	55	85	110	150	–	55	85	110	150	–
	500 V	kA	36	55	85	100	36	55	85	100	–	36	55	85	100	–
	690 V	kA	2	2	2	25	2.5	2.5	2.5	25	85	3	3	3	25	85
DC	125 V (1 switching pole)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250 V (2 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	500 V (3 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	600 V (4 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Rated service short-circuit breaking capacity <math>I_{cs}</math></b>																
50/60 Hz AC	220 ... 240 V	kA	85	110	150	200	85	110	150	200	–	85	110	150	200	–
	380 ... 415 V	kA	55	85	110	150	55	85	110	150	200	55	85	110	150	200
	440 V	kA	55	85	110	150	55	85	110	150	–	55	85	110	150	–
	500 V	kA	36	55	85	100	36	55	85	100	–	36	55	85	100	–
	690 V	kA	2	2	2	18	2.5	2.5	2.5	18	65	3	3	3	18	65
DC	125 V (1 switching pole)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250 V (2 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	500 V (3 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	600 V (4 switching poles)	kA	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Dimensions</b>																
	A	mm	105 (3P)   140 (4P)				105 (3P)   140 (4P)				105 (3P)   140 (4P)					
	B	mm	181				181				181					
	C	mm	86				86				86					
	D	mm	107				107				107					

■ Available    – Not available/not present

**3VA23****3VA24****3VA25****3VA26****3VA27**

3/4-pole

400

250 ... 400

690

800

8

■

50/60

3/4-pole

630

400 ... 630

690

800

8

■

50/60

3/4-pole

1000

630 ... 1000

690

800

8

≤500

50/60

3/4-pole

1250

1250

690

800

8

≤500

50/60

3/4-pole

1600

800 ... 1600

690

1000

8

■

50/60

M	H	C	L	E	M	H	C	L	E	M	H	C	M	H	C	M	H	C
85	110	150	200	–	85	110	150	200	–	85	110	200	85	110	200	100	150	200
55	85	110	150	200	55	85	110	150	200	55	85	110	55	85	110	55	85	110
55	85	110	–	–	55	85	110	–	–	55	85	110	55	85	110	55	85	100
36	55	85	–	–	36	55	85	–	–	36	55	85	36	55	85	36	55	85
5	5	5	25	85	6	6	6	25	85	25	35	35	25	35	35	25	36	50
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
85	110	150	200	–	85	110	150	200	–	85	110	150	85	110	150	100	150	200
55	85	110	150	200	55	85	110	150	200	55	85	85	55	85	85	55	85	110
55	85	110	–	–	55	85	110	–	–	55	70	70	55	70	70	55	85	100
36	55	65	–	–	36	55	85	–	–	36	55	65	36	55	65	36	55	63
5	5	5	18	65	6	6	6	18	65	19	19	19	19	19	19	25	36	36
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

138 (3P) | 184 (4P)

248

110

137

138 (3P) | 184 (4P)

248

110

137

210 (3P) | 280 (4P)

320

120

253

210 (3P) | 280 (4P)

320

120

253

210 (3P) | 280 (4P)

291

171 (handle operating mechanism) | 183 (stored energy operating mechanism)

225

# 3VA2 switching devices up to 1600 A

## Application

2



		3VA20	3VA21	3VA22
<b>Electrical characteristics according to IEC 60947-2</b>				
Number of poles		3/4-pole	3/4-pole	3/4-pole
Size	A	100	160	250
Rated current $I_n$ at 50 °C ambient temperature	A	25 ... 100	25 ... 160	160 ... 250
<b>Service life/endurance (operating cycles)</b>				
Mechanical (CLOSE-OPEN cycles)		25000	25000	25000
Electrical	380 ... 415 V $I_n$	15000	14000	12000
	690 V $I_n/2$	20000	20000	17000
		10500	9800	8400
<b>Trip units</b>				
ETU320	LI	■	■	■
ETU330	LIG	■	■	■
ETU340	ELISA LI	–	■	■
ETU350	LSI	■	■	■
ETU550/ETU850	LSI	■	■	■
ETU560/ETU860	LSIG	■	■	■
ETU650	LSI	–	–	–
ETU360	LSIG	–	–	–
ETU660	LSIG	–	–	–
<b>3VA2 molded case circuit breakers for motor/starter protection (IEC 60947-4-1 standards and specifications acc. to AC-1)</b>				
Rated current $I_n$ at 50 °C ambient temperature	A	–	25 ... 100	160 ... 200
<b>Service life/endurance (operating cycles)</b>				
Mechanical (CLOSE-OPEN cycles)		–	25000	25000
Electrical	380 ... 415 V	–	14000	12000
<b>Trip units</b>				
ETU310M	I	–	■	■
ETU350M	LSI	–	■	■
ETU550M	LSI	–	■	■
ETU860M	LSIG	–	■	■
ETU320	LI	–	–	–
ETU350	LSI	–	–	–
ETU360	LSIG	–	–	–
ETU650	LSIG	–	–	–
ETU660	LSIG	–	–	–

■ Available    – Not available/not present






3VA23	3VA24	3VA25	3VA26	3VA27
3/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole
400	630	1000	1250	1600
250 ... 400	400 ... 630	630 ... 1000	1250	800 ... 1600
20000	20000	10000	10000	10000
6000	5000	4600	4600	2000
12000	10000	7000	7000	–
4200	3500	3200	3200	–
■	■	■	■	■
■	■	■	■	–
■	■	■	■	–
■	■	■	■	■
■	■	■	■	–
■	■	■	■	–
–	–	–	–	■
–	–	–	–	■
–	–	–	–	■
250	400 ... 500	630 ... 800	–	800 ... 1600
20000	20000	10000	–	10000
6000	5000 (400 A) 3000 (500 A)	4600	–	2000
■	■	–	–	–
■	■	■	–	–
■	■	■	–	–
■	■	■	–	–
–	–	–	–	■
–	–	–	–	■
–	–	–	–	■
–	–	–	–	■



# Trip units

Protection system for 3VA molded case circuit breakers up to 1000 A

Trip units	Thermal-magnetic	Electronic	Electronic with display	Electronic with display and metering function
	 TM240 I/A I/A I201_19035	 ETU350 LSI I/A t/s I <sub>∞</sub> I t <sub>∞</sub> /s I <sub>∞</sub> I I201_18828	 ETU550M LSI ACT COM AL1 AL2 ESC OK I201_19701	 ETU860M LSIG ACT COM AL1 AL2 ESC OK I201_18484
	<b>TM 2-series</b>	<b>ETU 3-series</b>	<b>ETU 5-series</b>	<b>ETU 8-series</b>
<b>Protective function</b>				
Line protection	TM210, TM220, TM240	ETU320, ETU330, ETU340, ETU350	ETU550, ETU560	ETU850, ETU860
Starter protection	TM120M	ETU310M	–	–
Motor protection	–	ETU350M	ETU550M	ETU860M
<b>Integrated functions</b>				
Parameterizing	Setting and reading the parameters • Current values	Setting and reading the parameters • Current values • Delay times	Setting and reading the parameters • Via display and communication • Fine setting of the parameters • Reading the measured values	Setting and reading the parameters • Via display and communication • Fine setting of the parameters • Reading the measured values
Status display	–	Indicating the ETU status via LEDs	Indicating the ETU status via LEDs	Indicating the ETU status via LEDs
Interface	–	Interface for test devices	Interface for test devices	Interface for test devices
Metering function	–	–	–	Metering function integrated
<b>Optional expansions</b>				
24 V module	–	–	 24 V module for continuous power supply (also without primary current through the molded case circuit breaker)	 24 V module for continuous power supply (also without primary current through the molded case circuit breaker)
External function box	–	 EFB300 external function box for connection to the ETU	 EFB300 external function box for connection to the ETU	 EFB300 external function box for connection to the ETU
Communication module	–	–	 COM060 communication module	 COM060 communication module
Breaker data server	–	–	 COM800/COM100 breaker data server with interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)	 COM800/COM100 breaker data server with interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)
External display	–	–	 DSP800 external display for installing in the cubicle door	 DSP800 external display for installing in the cubicle door
Test device	–	 TD300/TD400/TD500 test device	 TD300/TD400/TD500 test device	 TD300/TD400/TD500 test device

2

## Protective functions of the 3VA1 with thermal-magnetic trip unit

	TM120M AM	TM210 FTFM	TM220 ATFM	TM240 ATAM
<b>Protections</b>				
Starter protection	■	–	–	–
Line protection	–	■	■	■
<b>Version available with</b>				
1-pole and 2-pole breakers	–	■	–	–
3-pole breaker	■	■	■	■
4-pole breaker	–	■	■	■
<b>Available protection parameters</b>				
$I_r$ adjustable	–	–	■	■
$I_i$ adjustable	■	–	–	■
$I_r$ fixed	–	■	–	–
$I_i$ fixed	–	■	■	–
$I_N^{1)}$	–	■	■	■

<sup>1)</sup> 3VA10 only without N protection  
 3VA11, 3VA12, 3VA13, 3VA14 without, 50% or 100% N protection  
 50% N protection from  $I_n \geq 100$  A

## Protective functions of the 3VA2 with electronic trip unit

	ETU310M I	ETU320 LI	ETU330 LIG	ETU340 ELISA®	ETU350 LSI	ETU350M LSI	ETU550 LSI	ETU550M LSI	ETU560 LSIG	ETU850 LSI	ETU860 LSIG	ETU860M LSIG
<b>Protection</b>												
Starter protection	■	–	–	–	–	–	–	–	–	–	–	–
Motor protection	–	–	–	–	–	■	–	■	–	–	–	■
Line protection	–	■	■	■	■	–	–	–	■	■	■	–
Generator protection	–	■	■	–	■	–	■	–	■	■	■	–
<b>Version available with</b>												
3-pole without external neutral conductor transformer	■	■	■	■	■	■	–	■	–	–	–	■
3-pole with external neutral conductor transformer	–	–	–	–	–	–	■	–	■	■	■	–
4-pole with protected neutral conductor transformer	–	■	■	■	■	–	■	–	■	■	■	–
<b>Available protection parameters</b>												
Characteristic in L range	$I^2t$	$I^2t$	$I^2t$	$I^4t$	$I^2t$	$I^2t$	$I^2t$	$I^2t$	$I^2t$	$I^2t$	$I^2t$	$I^2t$
$I_r$	–	■	■	■	■	■	■	■	■	■	■	■
$t_r$ at $6 \times I_r$	–	■	■	–	■	–	■	–	■	■	■	–
$t_c$	–	–	–	–	–	■	–	■	–	–	–	■
$t_p$	–	–	–	–	–	–	–	■	–	–	–	■
Thermal image	■	■	■	■	■	■	■	■	■	■	■	■
Thermal image can be switched on/off	–	–	–	–	–	–	■	–	■	–	■	–
$I_{sd}$	–	–	–	–	■	■	■	■	■	■	■	■
$t_{sd}$ at $8 \times I_r$	–	–	–	–	■	■	■	■	■	■	■	■
Characteristic in S range: $I^2t_{sd}$	–	–	–	–	–	–	■	–	■	■	■	–
Characteristic in S range: selectable $I^2t_{sd}/t_{sd}$	–	–	–	–	–	–	■	–	■	■	■	–
$I_i$	■	■	■	■	■	■	■	■	■	■	■	■
$I_N^{1)}$	–	■	■	■	■	–	■	–	■	■	■	–
$I_g$	–	–	■	–	–	–	–	–	■	–	■	■
$t_g$ at $2 \times I_g$	–	–	■	–	–	–	–	–	■	–	■	■
Characteristic in G range: $I^2t_g$	–	–	–	–	–	–	–	–	■	–	■	■
Characteristic in G range: selectable $I^2t_g/t_g$	–	–	–	–	–	–	–	–	■	–	■	■
Ground-fault alarm function	–	–	–	–	–	–	–	–	■	–	■	■
Blocking protection	–	–	–	–	–	–	–	–	–	–	–	■
ZSI in combination with an EFB external function box	–	■	■	■	■	■	■	■	■	■	■	■

<sup>1)</sup> Available in a version with external current transformer for N conductor or 4-pole breaker

### Available for:

- Circuit breakers with ETU (4-pole)
- Circuit breakers with ETU5/ETU8 3-pole with external neutral conductor transformer or 4-pole

# Online configurator highlights

[www.siemens.com/lowvoltage/configurators](http://www.siemens.com/lowvoltage/configurators)

## Search function with global direct input

Searches for specific terms and jumps to MLFB based on input to the correct configurator

SIEMENS  
Ingenuity for Life

Log in Additional actions Support Language

Configurators for Low-voltage

Search for (e.g. 3WL1110-4EB36-6EQ8-Z A05+80...)

1 Select Type of Product 2 Select Category

## Product list stores multiple configurations and can transfer them collectively to the shopping cart

List of products

Projectdata Load product list

Actions

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 Fixed-mounted circuit breaker 3-pole, Size 1, IEC In-630 A to 690 V, 50/60 Hz AC Icu-55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt.... Further details	1 Piece	on request	> all documents for position
2	3VA2450-6KP32-0AA0 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu-85kA @ 415V 3-pole, line protection ETU850, LSI, In-500A overload protection Ir-200A...500A short-circuit protection Ird-0.6..10x In,... Further details	1 Piece	on request	> all documents for position

## Recall of completed configurations for modification or additional configuration

List of products

Projectdata Load product list

Actions

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 Fixed-mounted circuit breaker 3-pole, Size 1, IEC In-630 A to 690 V, 50/60 Hz AC Icu-55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt.... Further details	1 Piece	on request	> all documents for position
2	3VA2450-6KP32-0AA0 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu-85kA @ 415V 3-pole, line protection ETU850, LSI, In-500A overload protection Ir-200A...500A short-circuit protection Ird-0.6..10x In,... Further details	1 Piece	on request	> all documents for position

Duplicate Configure

## Responsive Design

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Log in Additional actions Support Language

Configurators for Low-voltage

Search for (e.g. 3WL1110-4EB36-6EQ8-Z A05+80...)

1 Select Type of Prod... 2 Select Category

MCCB - molded case circuit ACB - air circuit breaker Additional products



# System overview

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Switching devices



3VA1 for standard applications



3VA2 for selective applications

## Trip units



Thermal-magnetic trip unit (TMTU)



Electronic trip unit (ETU)



Electronic trip unit (ETU) with display, and optionally with metering function

## Trip unit accessories



24 V module



Communication module



Breaker data server



External display



Test device

## Type of mounting



Fixed-mounted



Withdrawable unit, complete kit



Plug-in unit, complete kit

## Supplementary accessories



Auxiliary circuit connector



Door feedthrough



Position signaling switch



Cylinder lock adapter



Crank

## Main conductor connection



Bus connectors



Bus connectors broadened



Circular conductor terminal



Box terminal



Nut keeper units, right-angled

## Connection accessories

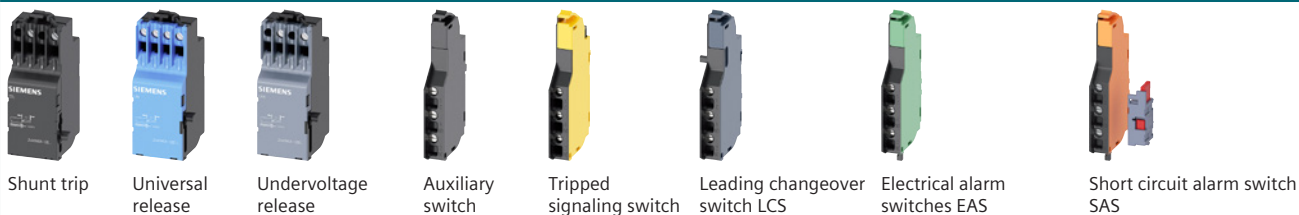


Insulation accessories

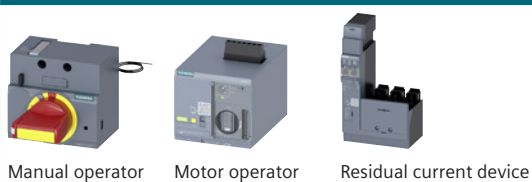
**Note:**

You will find a detailed range of accessories in the Accessories and spare parts section.

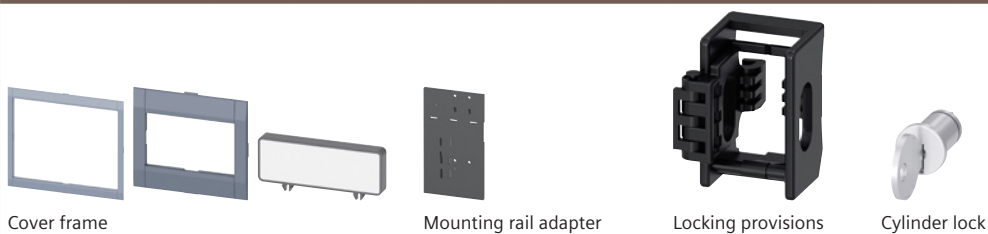
## Auxiliary releases/auxiliary switches



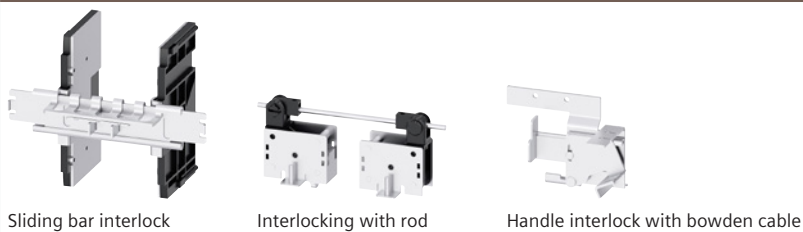
## Mountable accessories



## Additional circuit breaker accessories



## Mechanical interlocks



**Note:**

You will find a detailed range of accessories in the Accessories and spare parts section.

# Structure of the article numbers

## Basic configuration for line and generator protection

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

		3VA											4	5	6	7	8	9	10	11	12	- 0AA0				
Trip units	Thermal-magnetic												1													
	Electronic												2													
		3VA10	3VA11	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26												
Size (SZ)	100 A	■	-	-	-	-	-	■	-	-	-	-	-	-	0											
	160 A	-	■	-	-	-	-	-	■	-	-	-	-	-	1											
	250 A	-	-	■	-	-	-	-	-	■	-	-	-	-	2											
	400 A	-	-	-	■	-	-	-	-	-	■	-	-	-	3											
	630 A	-	-	-	-	■	-	-	-	-	-	■	-	-	4											
	1000 A	-	-	-	-	-	■	-	-	-	-	-	■	-	5											
	1250 A	-	-	-	-	-	-	-	-	-	-	-	-	■	6											
Max. rated current $I_{n \max}$	Line protection	16 A	■	■	-	-	-	-	-	-	-	-	-	-	9	6										
		20 A	■	■	-	-	-	-	-	-	-	-	-	-	-	2	0									
		25 A	■	■	-	-	-	-	■	■	-	-	-	-	-	2	5									
		32 A	■	■	-	-	-	-	-	-	-	-	-	-	-	3	2									
		40 A	■	■	-	-	-	-	■	■	-	-	-	-	-	4	0									
		50 A	■	■	-	-	-	-	-	-	-	-	-	-	-	5	0									
		63 A	■	■	-	-	-	-	■	■	-	-	-	-	-	6	3									
		80 A	■	■	-	-	-	-	-	-	-	-	-	-	-	8	0									
		100 A	■	■	-	-	-	-	■	■	-	-	-	-	-	1	0									
		125 A	-	■	-	-	-	-	-	-	-	-	-	-	-	1	2									
		160 A	-	■	■	-	-	-	-	■ <sup>1)</sup>	■	-	-	-	-	1	6									
		200 A	-	-	■	-	-	-	-	-	-	-	-	-	-	2	0									
		250 A	-	-	■	-	-	-	-	-	■ <sup>1)</sup>	■	-	-	-	2	5									
		320 A	-	-	-	■	-	-	-	-	-	-	-	-	-	3	2									
		400 A	-	-	-	■	-	-	-	-	-	■ <sup>1)</sup>	■	-	-	4	0									
	500 A	-	-	-	-	■	-	-	-	-	-	■ <sup>2)</sup>	-	-	5	0										
	630 A	-	-	-	-	■	■	-	-	-	-	■	■	-	6	3										
	800 A	-	-	-	-	-	■	-	-	-	-	-	■	-	8	0										
	1000 A	-	-	-	-	-	■	-	-	-	-	-	■	-	1	0										
	1250 A	-	-	-	-	-	-	-	-	-	-	-	-	■	1	2										
	Generator protection	25 A	-	-	-	-	-	-	■	■	-	-	-	-	2	5										
		40 A	-	-	-	-	-	-	■	■	-	-	-	-	4	0										
		63 A	-	-	-	-	-	-	■	■	-	-	-	-	6	3										
		100 A	-	-	-	-	-	-	■	■	-	-	-	-	1	0										
		160 A	-	-	-	-	-	-	-	■	■	-	-	-	1	6										
		250 A	-	-	-	-	-	-	-	-	■	■	-	-	2	5										
		400 A	-	-	-	-	-	-	-	-	-	■	■	-	4	0										
		500 A	-	-	-	-	-	-	-	-	-	-	■ <sup>2)</sup>	-	5	0										
		630 A	-	-	-	-	-	-	-	-	-	-	■	■	6	3										
		800 A	-	-	-	-	-	-	-	-	-	-	-	■	8	0										
		1000 A	-	-	-	-	-	-	-	-	-	-	-	■	1	0										
		1250 A	-	-	-	-	-	-	-	-	-	-	-	■	1	2										
		Switch disconnecter	63 A	-	■	-	-	-	-	-	-	-	-	-	-	6	3									
100 A			-	■	-	-	-	-	-	-	-	-	-	-	1	0										
125 A			-	■	-	-	-	-	-	-	-	-	-	-	1	2										
160 A	-		■	-	-	-	-	-	-	-	-	-	-	1	6											
250 A	-		-	■	-	-	-	-	-	-	-	-	-	2	5											
400 A	-		-	-	■	-	-	-	-	-	-	-	-	4	0											
500 A	-		-	-	-	■	-	-	-	-	-	-	-	5	0											
630 A	-	-	-	-	■	-	-	-	-	-	-	-	6	3												

<sup>1)</sup> Rated current not available with ETU340 ELISA LI  
<sup>2)</sup> With ETU 5-series and 8-series, utilization category B and ETU340 ELISA LI only

		3VA											4	5	6	7	8	9	10	11	12	- 0AA0		
		3VA10	3VA11	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26										
<b>Short-circuit breaking capacity</b> $I_{cu} = I_{cs}$ at 415 V	Without overload protection	-	■	-	■	-	■	-	-	-	-	-	-	-									1	
	Without short-circuit protection	-	■	■	■	■	-	-	-	-	-	-	-	-										1
	16 kA	■	-	-	-	-	-	-	-	-	-	-	-	-										2
	25 kA	■	■	-	-	-	-	-	-	-	-	-	-	-										3
	36 kA	■	■	■	■	■	-	-	-	-	-	-	-	-										4
	55 kA	-	■	■	■	■	■	■	■	■	■	■	■	■										5
	70 kA	-	■	■	■	■	■	-	-	-	-	-	-	-										6
	85 kA	-	■	■	■	■	■	■	■	■	■	■	■	■										6
	110 kA	-	-	-	■	■	■	■	■	■	■	■	■	■										7
	150 kA	-	-	-	-	-	-	■	■	■	■	■	■	■										8
200 kA <sup>1)</sup>	-	-	-	-	-	-	-	■	■	■	■	■	■										0	
<b>Protective function thermal-magnetic</b>	No protection	-	■	■	■	■	-	-	-	-	-	-	-	-	SD100	-							A	
	Line protection	■	■	-	-	-	-	-	-	-	-	-	-	-	TM210	FTFM							D	
		-	■	■	■	■	■	-	-	-	-	-	-	-	TM220	ATFM							E	
		-	■	■	■	■	■	-	-	-	-	-	-	-	TM240	ATAM							F	
<b>Protective function thermal-magnetic, neutral conductor protection</b>	No protection																						A	
	Line protection	Without neutral conductor protection																				E		
		50% neutral conductor protection																				F		
		100% neutral conductor protection																				G		
<b>Protective function electronic</b>	Line protection	-	-	-	-	-	-	■	■	■	■	■	■	■	ETU320	LI	(N) <sup>2)</sup>	H	L					
		-	-	-	-	-	-	■	■	■	■	■	■	■	ETU330	LIG	(N) <sup>2)</sup>	H	M					
		-	-	-	-	-	-	■	■	■	■	■	■	■	ETU340	ELISA LI	(N) <sup>2)</sup>	H	K					
	Line and generator protection	-	-	-	-	-	-	■	■	■	■	■	■	■	ETU350	LSI	(N) <sup>2)</sup>	H	N					
	Line and generator protection, with display	-	-	-	-	-	-	■	■	■	■	■	■	■	ETU550	LSI	(N) <sup>3)</sup>	J	P					
		-	-	-	-	-	-	■	■	■	■	■	■	■	ETU560	LSIG	(N) <sup>3)</sup>	J	Q					
	Line and generator protection, with display, with metering function	-	-	-	-	-	-	■	■	■	■	■	■	■	ETU850	LSI	(N) <sup>3)</sup>	K	P					
	-	-	-	-	-	-	■	■	■	■	■	■	■	ETU860	LSIG	(N) <sup>3)</sup>	K	Q						
<b>Number of poles</b>	1-pole	Line protection	-	■ <sup>4)</sup>	-	-	-	-	-	-	-	-	-	-									1	
	2-pole	Line protection	-	■ <sup>4)</sup>	-	-	-	-	-	-	-	-	-	-									2	
	3-pole	Line protection	■	■	■	■	■	■	■	■	■	■	■	■	■									3
		Generator protection	-	-	-	-	-	-	■	■	■	■	■	■	■									3
	4-pole	Line protection	■	■	■	■	■	■	■	■	■	■	■	■	■									4
		Generator protection	-	-	-	-	-	-	■	■	■	■	■	■	■									4
<b>Connection technology</b>	Nut keeper kit	Line protection	■	■	■	■	■	■	■	■	■	■	■	■									2	
		Generator protection	-	-	-	-	-	-	■	■	■	■	■	■									2	
	Box terminal	Line protection	■	■	-	-	-	-	■	■	-	-	-	-									6	
		Generator protection	-	-	-	-	-	-	■	■	-	-	-	-									6	

<sup>1)</sup> Available for 3 and 8-series ETUs

<sup>2)</sup> Neutral conductor protection for 4-pole breakers

<sup>3)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or for 4-pole breakers

<sup>4)</sup> For TM210 only



# Structure of the article numbers

## Basic configuration for starter and motor protection

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

		3VA										4	5	6	7	8	9	10	11	12	-	OAA0	
Trip units	Thermal-magnetic											1											
	Electronic											2											
Size (SZ)	160 A	■	-	-	-	-	-	-	-	-	-	1											
	250 A	-	■	-	-	-	-	-	-	-	-	2											
	400 A	-	-	■	-	-	-	-	-	-	-	3											
	630 A	-	-	-	■	-	-	-	-	-	-	4											
	1000 A	-	-	-	-	■	-	-	-	-	-	5											
Max. rated current $I_n$	Starter protection	1 A	■	-	-	-	-	-	-	-	-	-	8	1									
		2 A	■	-	-	-	-	-	-	-	-	-	0	2									
		4 A	■	-	-	-	-	-	-	-	-	-	0	4									
		8 A	■	-	-	-	-	-	-	-	-	-	0	8									
		12.5 A	■	-	-	-	-	-	-	-	-	-	9	2									
		20 A	■	-	-	-	-	-	-	-	-	-	2	0									
		25 A	-	-	-	-	-	■	-	-	-	-	2	5									
		32 A	■	-	-	-	-	-	-	-	-	-	3	2									
		40 A	■	-	-	-	-	■	-	-	-	-	4	0									
		50 A	■	-	-	-	-	-	-	-	-	-	5	0									
		63 A	■	-	-	-	-	■	-	-	-	-	6	3									
		80 A	■	-	-	-	-	-	-	-	-	-	8	0									
		100 A	■	-	-	-	-	■	-	-	-	-	1	0									
		125 A	■	-	-	-	-	-	-	-	-	-	1	2									
		160 A	-	■	-	-	-	-	■	-	-	-	1	6									
		200 A	-	■	-	-	-	-	■	-	-	-	2	0									
	250 A	-	-	■	-	-	-	-	■	-	-	2	5										
	320 A	-	-	■	-	-	-	-	-	-	-	3	2										
	400 A	-	-	-	■	-	-	-	-	■	-	4	0										
	500 A	-	-	-	■	-	-	-	-	■	-	5	0										
	630 A	-	-	-	-	■	-	-	-	-	-	6	3										
	800 A	-	-	-	-	■	-	-	-	-	-	8	0										
	Motor protection	25 A	-	-	-	-	-	■	-	-	-	2	5										
		40 A	-	-	-	-	-	■	-	-	-	4	0										
		63 A	-	-	-	-	-	■	-	-	-	6	3										
		100 A	-	-	-	-	-	■	-	-	-	1	0										
		160 A	-	-	-	-	-	-	■	-	-	1	6										
		200 A	-	-	-	-	-	-	■	-	-	2	0										
		250 A	-	-	-	-	-	-	-	■	-	2	5										
		400 A	-	-	-	-	-	-	-	-	■	-	4	0									
		500 A	-	-	-	-	-	-	-	-	■	-	5	0									
		630 A	-	-	-	-	-	-	-	-	-	■	6	3									
800 A	-	-	-	-	-	-	-	-	-	■	8	0											
Short-circuit breaking capacity $I_{cu} = I_{cs}$ at 415 V	55 kA	■	■	■	■	■	■	■	■	■	■	5											
	70 kA	■	■	■	■	■	-	-	-	-	-	6											
	85 kA	-	-	-	-	-	■	■	■	■	■	6											
	110 kA	-	-	■	■	■	■	■	■	■	■	7											
	200 kA	-	-	-	-	-	■	■	■	■	■	0											

		3VA										- 0AA0						
		4	5	6	7	8	9	10	11	12								
		3VA11	3VA12	3VA13	3VA14	3VA15	3VA21	3VA22	3VA23	3VA24	3VA25							
Protective function thermal-magnetic	Starter protection	■	-	-	-	-	-	-	-	-	-	TM110M	FM	M	G			
		■	■	■	■	■	-	-	-	-	-	TM120M	AM	M	H			
Protective function electronic	Motor protection	-	-	-	-	-	■	■	■	■	■	ETU350M	LSI	M	N			
	Motor protection, with display	-	-	-	-	-	■	■	■	■	■	ETU550M	LSI	M	P			
	Motor protection, with display, with metering function	-	-	-	-	-	■	■	■	■	■	ETU860M	LSIG	M	Q			
	Starter protection	-	-	-	-	-	■	■	■	■	-	ETU310M	I	M	S			
Number of poles	3-pole																3	
	Starter protection	■	■	■	■	■	■	■	■	■	-						3	
Connection technology	Nut keeper kit	Starter protection	■	■	■	■	■	■	■	■	-							2
		Motor protection	-	-	-	-	-	■	■	■	■	■						2
	Box terminal	Starter protection	■	-	-	-	-	■	-	-	-	-						6
		Motor protection	-	-	-	-	-	■	-	-	-	-						6

# Internal accessories

## Auxiliary switches and alarm switches

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					3VA10	3VA11	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26
<b>Auxiliary switches AUX</b>																	
<ul style="list-style-type: none"> <li>Used to signal the position of the main contacts of the molded case circuit breaker</li> <li>The contacts of the auxiliary switch and the molded case circuit breaker close in unison</li> </ul>																	
	<b>Type</b>	<b>Width</b>	<b>I<sub>e</sub></b>	<b>U<sub>e</sub> AC/DC</b>	<b>Version</b>												
	HQ	7 mm (1 slot)	6 A <1 A	240 V/250 V 24 V/24 V	Standard Electronic-compatible	3VA9988-0AA12 3VA9988-0AA13											
	HP	14 mm (2 slots)	10 A	600 V/250 V	Standard	–	3VA9988-0AA11										
<b>Leading changeover switches LCS</b>																	
<ul style="list-style-type: none"> <li>Used for load shedding, for example</li> <li>Signal the opening of the main contacts with a lead time of 20 ms in advance of circuit breaker trips</li> </ul>																	
	<b>Type</b>	<b>Width</b>	<b>I<sub>e</sub></b>	<b>U<sub>e</sub> AC/DC</b>	<b>Version</b>												
	HQ	7 mm (1 slot)	6 A <1 A	240 V/250 V 24 V/24 V	Standard Electronic-compatible	–	3VA9988-0AA22 3VA9988-0AA23										
	HP	14 mm (2 slots)	10 A	600 V/250 V	Standard	–	3VA9988-0AA21										
<b>Trip alarm switches TAS</b>																	
<ul style="list-style-type: none"> <li>Signal every circuit breaker tripping operation</li> <li>Are actuated whenever the molded case circuit breaker switches to the TRIP position</li> </ul>																	
	<b>Type</b>	<b>Width</b>	<b>I<sub>e</sub></b>	<b>U<sub>e</sub> AC/DC</b>	<b>Version</b>												
	HQ	7 mm (1 slot)	6 A <1 A	240 V/250 V 24 V/24 V	Standard Electronic-compatible	3VA9988-0AB12 3VA9988-0AB13											
	HP	14 mm (2 slots)	10 A	600 V/250 V	Standard	–	3VA9988-0AB11										
<b>Short circuit alarm switches SAS</b>																	
<ul style="list-style-type: none"> <li>Signal tripping operations only if they have been initiated by a short circuit</li> <li>The tripping operation must be reset by deliberate acknowledgement of the fault before the molded case circuit breaker can be switched to ON again</li> </ul>																	
	<b>Type</b>	<b>Width</b>	<b>I<sub>e</sub></b>	<b>U<sub>e</sub> AC/DC</b>	<b>Version</b>												
	HQ	7 mm (1 slot)	6 A <1 A	240 V/250 V 24 V/24 V	Standard Electronic-compatible	3VA9988-0AB32	3VA9988-0AB32	3VA9988-0AB34	–	–							
						3VA9988-0AB33	3VA9988-0AB33	3VA9988-0AB35	–	–							
<b>Electrical alarm switches EAS</b>																	
<ul style="list-style-type: none"> <li>Are actuated as soon as the main contacts of the molded case circuit breaker open in the event that the breaker is tripped by the ETU</li> </ul>																	
	<b>Type</b>	<b>Width</b>	<b>I<sub>e</sub></b>	<b>U<sub>e</sub> AC/DC</b>	<b>Version</b>												
	HQ	7 mm (1 slot)	6 A <1 A	240 V/250 V 24 V/24 V	Standard Electronic-compatible	–	–	–	–	–	3VA9988-0AB22 3VA9988-0AB23						
						–	–	–	–	–							

## Auxiliary releases

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			3VA10	3VA20	
			3VA11	3VA21	
			3VA12	3VA22	
			3VA13	3VA23	3VA25
			3VA14	3VA24	3VA26
			3VA15		
<b>Shunt trips left STL</b>					
	<ul style="list-style-type: none"> <li>Used for remote-controlled tripping of the molded case circuit breaker</li> <li>Have particularly low power consumption</li> <li>Especially suitable for electrical interlocking in the EI variant<sup>1)</sup></li> </ul>				
	<b>Version</b>	<b><math>U_e</math> 50/60 Hz AC</b>	<b><math>U_e</math> DC</b>		
	Standard	–	12 V		3VA9988-OBL10
		24 V	24 ... 30 V		3VA9988-OBL30
		48 ... 60 V	48 ... 60 V		3VA9988-OBL31
		110 ... 127 V	110 ... 127 V		3VA9988-OBL32
		208 ... 277 V	220 ... 250 V		3VA9988-OBL33
		380 ... 600 V	–		3VA9988-OBL20
	Electrical (EI)	–	24 V		3VA9988-OBM10
<b>Shunt trips flexible STF</b>					
	<ul style="list-style-type: none"> <li>Used for remote-controlled tripping of the molded case circuit breaker</li> <li>Flexible installation</li> </ul>				
	<b><math>U_e</math> 50/60 Hz AC</b>	<b><math>U_e</math> DC</b>			
	24 V	–	–	3VA9988-OBA20	–
	48 ... 60 V	–	–	3VA9988-OBA21	–
	110 ... 127 V	–	–	3VA9988-OBA22	–
	208 ... 277 V	–	–	3VA9988-OBA23	–
	380 ... 500 V	–	–	3VA9988-OBA24	–
	600 V	–	–	3VA9988-OBA25	–
<b>Universal releases UNI</b>					
	<ul style="list-style-type: none"> <li>Combination of shunt trip and undervoltage release</li> </ul>				
	<b><math>U_e</math> 50/60 Hz AC</b>	<b><math>U_e</math> DC</b>			
	–	12 V		3VA9908-0BD11	
		24 V		3VA9908-0BD12	
		48 V		3VA9908-0BD13	
<b>Undervoltage releases UVR</b>					
	<ul style="list-style-type: none"> <li>Trip the molded case circuit breaker in the event that the rated operational voltage of a monitored circuit drops below a minimum permissible limit or fails altogether</li> </ul>				
	<b><math>U_e</math> 50/60 Hz AC</b>	<b><math>U_e</math> DC</b>			
	–	12 V		3VA9908-0BB10	
		24 V		3VA9908-0BB11	
		48 V		3VA9908-0BB12	
		60 V		3VA9908-0BB13	
		125 ... 127 V		3VA9908-0BB14	
		220 ... 230 V		3VA9908-0BB15	
		250 V		3VA9908-0BB16	
	24 V	–		3VA9908-0BB20	
	48 V	–		3VA9908-0BB21	
	60 V	–		3VA9908-0BB22	
	110 V	–		3VA9908-0BB23	
	120 ... 127 V	–		3VA9908-0BB24	
	208 ... 230 V	–		3VA9908-0BB25	
	380 ... 400 V	–		3VA9908-0BB26	
	440 ... 480 V	–		3VA9908-0BB27	
<b>Time-delay devices for undervoltage releases</b>					
	<b><math>U_e</math> 50/60 Hz AC</b>	<b><math>U_e</math> DC</b>			
	110 V	110 V		3VA9988-0BF21	
	230 V	230 V		3VA9988-0BF22	
	–	24 V		3VA9988-0BF23	




<sup>1)</sup> In combination with TAS and AUX. For circuit diagrams, see the Operating Instructions

# Manual operators

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			3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26	
<b>Front mounted rotary operators</b>								
<ul style="list-style-type: none"> <li>Handle</li> <li>For IEC</li> <li>Degree of protection IP30</li> <li>For 3-pole and 4-pole breakers</li> </ul>								
	<b>Version</b>	<b>Illumination kit</b>	<b>Door interlock</b>					
	Standard (gray)	Without	Without	3VA9157-0EK11	3VA9257-0EK11	3VA9267-0EK11	3VA9467-0EK11	3VA9687-0EK11
			With	3VA9157-0EK21	3VA9257-0EK21	3VA9267-0EK21	3VA9467-0EK21	3VA9687-0EK21
		With	Without	3VA9157-0EK13	3VA9257-0EK13	3VA9267-0EK13	3VA9467-0EK13	–
With	3VA9157-0EK23		3VA9257-0EK23	3VA9267-0EK23	3VA9467-0EK23	–	–	
	EMERGENCY-OFF (red/yellow)	Without	Without	3VA9157-0EK15	3VA9257-0EK15	3VA9267-0EK15	3VA9467-0EK15	3VA9687-0EK15
			With	3VA9157-0EK25	3VA9257-0EK25	3VA9267-0EK25	3VA9467-0EK25	3VA9687-0EK25
		With	Without	3VA9157-0EK17	3VA9257-0EK17	3VA9267-0EK17	3VA9467-0EK17	–
With	3VA9157-0EK27		3VA9257-0EK27	3VA9267-0EK27	3VA9467-0EK27	–	–	
<b>Door mounted rotary operators with tolerance compensation</b>								
<ul style="list-style-type: none"> <li>Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)</li> <li>With mounting tolerance compensation</li> <li>Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>								
	<b>Version</b>	<b>Illumination kit</b>	<b>Door interlock</b>					
	Standard (gray)	Without	With	3VA9157-0FK21	3VA9257-0FK21	3VA9267-0FK21	3VA9467-0FK21	3VA9687-0FK21
		With	With	3VA9157-0FK23	3VA9257-0FK23	3VA9267-0FK23	3VA9467-0FK23	3VA9687-0FK23
	EMERGENCY-OFF (red/yellow)	Without	With	3VA9157-0FK25	3VA9257-0FK25	3VA9267-0FK25	3VA9467-0FK25	3VA9687-0FK25
		With	With	3VA9157-0FK27	3VA9257-0FK27	3VA9267-0FK27	3VA9467-0FK27	3VA9687-0FK27
<b>Door mounted rotary operators without tolerance compensation</b>								
<ul style="list-style-type: none"> <li>Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)</li> <li>Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>								
	<b>Version</b>	<b>Illumination kit</b>	<b>Door interlock</b>					
	Standard (gray)	Without	With	3VA9157-0FK61	3VA9257-0FK61	3VA9267-0FK61	3VA9467-0FK61	3VA9687-0FK61
<b>Door mounted rotary operators without handle</b>								
<ul style="list-style-type: none"> <li>For IEC</li> <li>Degree of protection IP30</li> <li>For 3-pole and 4-pole breakers</li> </ul>								
	<b>Version</b>	<b>Illumination kit</b>	<b>Door interlock</b>					
	With shaft stub (gray)	–	Without	3VA9157-0GK00	3VA9257-0GK00	3VA9267-0GK00	3VA9467-0GK00	3VA9687-0GK00

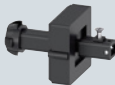



			3VA10	3VA11	3VA12	3VA20	3VA21	3VA22	3VA13	3VA14	3VA15	
			3VA10	3VA11	3VA12	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26
<b>Side wall mounted rotary operators</b>												
	<ul style="list-style-type: none"> <li>Rotary operator with shaft 300 mm</li> <li>Handle with masking plate 75 × 75 mm</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>											
<b>Version</b>	<b>Mounting bracket</b>	<b>Illumination kit</b>										
Standard (gray)	Without	Without	3VA9157-0PK11	3VA9257-0PK11	3VA9267-0PK11	3VA9467-0PK11	–	–	–	–	–	–
		With	3VA9157-0PK13	3VA9257-0PK13	3VA9267-0PK13	3VA9467-0PK13	–	–	–	–	–	–
EMERGENCY-OFF (red/yellow)	Without	Without	3VA9157-0PK15	3VA9257-0PK15	3VA9267-0PK15	3VA9467-0PK15	–	–	–	–	–	–
		With	3VA9157-0PK17	3VA9257-0PK17	3VA9267-0PK17	3VA9467-0PK17	–	–	–	–	–	–
<b>Side wall mounted rotary operators with mounting bracket</b>												
	<ul style="list-style-type: none"> <li>Rotary operator with short shaft and mounting bracket for mounting directly on the side wall</li> <li>Handle with masking plate 75 × 75 mm</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>											
<b>Version</b>	<b>Mounting bracket</b>	<b>Illumination kit</b>										
Standard (gray)	With	Without	3VA9157-0PK51	3VA9257-0PK51	3VA9267-0PK51	–	–	–	–	–	–	–
		With	3VA9157-0PK53	3VA9257-0PK53	3VA9267-0PK53	–	–	–	–	–	–	–
EMERGENCY-OFF (red/yellow)	With	Without	3VA9157-0PK55	3VA9257-0PK55	3VA9267-0PK55	–	–	–	–	–	–	–
		With	3VA9157-0PK57	3VA9257-0PK57	3VA9267-0PK57	–	–	–	–	–	–	–
<b>Extended standard mounting rail for N/PE terminals</b>												
	<b>Version</b>	<b>Rated current</b>										
	For mounting bracket	≤250 A	3VA9987-0GL30	3VA9987-0GL30	3VA9987-0GL30	–	–	–	–	–	–	–
<b>Auxiliary switch modules for rotary operator</b>												
	<b>Version</b>											
	2× leading to "ON"		3VA9257-0GX10	3VA9257-0GX10	3VA9467-0GX10	3VA9467-0GX10	–	–	–	–	–	–
	2× leading to "ON" and 1× leading to "OFF"		–	–	3VA9467-0GX20	3VA9467-0GX20	–	–	–	–	–	–
<b>Mounting adapters for side wall mounted rotary operators</b>												
	<b>Version</b>											
	Necessary accessories for 3VA side wall mounted rotary operators, if 3VA9...-0GX.0 auxiliary switch modules are used		3VA9257-0GX01	3VA9257-0GX01	3VA9467-0GX01	–	–	–	–	–	–	–

# Manual operators

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		3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
<b>Supplementary handles for door mounted rotary operators</b>						
	• For operation when cabinet door is open					
	<b>Version</b>					
	Standard (gray)	3VA9287-0GC01	3VA9287-0GC01	3VA9487-0GC01	3VA9487-0GC11	3VA9687-0GC01
EMERGENCY-OFF (red/yellow)	3VA9287-0GC05	3VA9287-0GC05	3VA9487-0GC05	3VA9487-0GC15	3VA9687-0GC05	
<b>Handles</b>						
	• With masking plate					
	<b>Version</b>	<b>Tolerance compensation</b>				
	Standard (gray)	With		8UD1721-0AB21	8UD1731-0AB21	8UD1741-0AB21
		Without		8UD1721-0AB11	8UD1731-0AB11	8UD1741-0AB11
	EMERGENCY-OFF (red/yellow)	With		8UD1721-0AB25	8UD1731-0AB25	8UD1741-0AB25
Without			8UD1721-0AB15	8UD1731-0AB15	8UD1741-0AB15	
<b>Handle lever extensions</b>						
	• <b>Note:</b> The handle lever extension is already included in the scope of supply of the breakers.					
					3VA9487-0SC10	3VA9987-0SC10
<b>Shafts</b>						
	<b>Type</b>	<b>Length</b>				
	8 × 8 mm	300 mm		8UD1900-2WA00		–
		600 mm		8UD1900-2WB00		–
	12 × 12 mm	300 mm	–	–	–	–
600 mm		–	–	–	–	8UD1900-4WB00
<b>Adapters for shafts</b>						
	<b>Type</b>	<b>Use</b>				
	8 × 8 mm	With door mounted rotary operator and side wall mounted rotary operator		8UD1900-2DA00		–
	12 × 12 mm	For door mounted rotary operator		–	–	8UD1900-4DA00
<b>Door couplings</b>						
	<b>Type</b>					
	8 × 8 mm			8UD1900-2HA00		–
	12 × 12 mm			–	–	8UD1900-4HA00

		3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
<b>Mounting tolerance compensations</b>						
	Type					
	8 × 8 mm	8UD1900-2GA00				
	Type					
	12 × 12 mm	–	–	–	–	8UD1900-4GA00
<b>Fixing brackets for shafts</b>						
	Type					
		3VA9287-0GA80		3VA9487-0GA80		3VA9687-0GA80
<b>Variable depth adapters</b>						
	Type					
	8 × 8 mm	3VA9487-0GB10				



# Manual operators

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					3VA20	
					3VA21	
					3VA22	
	3VA10	3VA13		3VA15	3VA23	3VA25
	3VA11	3VA14			3VA24	3VA26
	3VA12					

## Labeling plates for manual operators



3VA9087-05X10

## Illumination kits for manual operators



- 24 V DC voltage

Version	Rated current					
Front rotary operator	100 ... 250 A	8UD1900-0KA10	–	–	–	–
	100 ... 630 A	–	8UD1900-0KA20	–	8UD1900-0KA20	–
	630 ... 1000 A	–	–	8UD1900-0KA30	–	8UD1900-0KA30
Door mounted rotary operator and side wall mounted rotary operator	100 ... 630 A	8UD1900-0KA20	8UD1900-0KA20	8UD1900-0KA20	8UD1900-0KA20	–
	630 ... 1000 A	–	–	–	–	8UD1900-0KA30

## Cylinder locks (type Kaba), standard masking plates



Use	Key					
For door mounted rotary operator and side wall mounted rotary operator (in the masking plate), only for locking, not for interlocking	1	8UD1900-0MB01	8UD1900-0MB01	–	8UD1900-0MB01	–
	2	8UD1900-0NB01	8UD1900-0NB01	–	8UD1900-0NB01	–
	3	8UD1900-0PB01	8UD1900-0PB01	–	8UD1900-0PB01	–
	4	8UD1900-0QB01	8UD1900-0QB01	–	8UD1900-0QB01	–

## Cylinder locks (type Kaba), EMERGENCY-OFF masking plates



Use	Key					
For door mounted rotary operator and side wall mounted rotary operator (in the masking plate), only for locking, not for interlocking	1	8UD1900-0MB05	8UD1900-0MB05	–	8UD1900-0MB05	–
	2	8UD1900-0NB05	8UD1900-0NB05	–	8UD1900-0NB05	–
	3	8UD1900-0PB05	8UD1900-0PB05	–	8UD1900-0PB05	–
	4	8UD1900-0QB05	8UD1900-0QB05	–	8UD1900-0QB05	–

## Cylinder locks (type RONIS)



- Includes a lock with 2 keys
- For locking or interlocking
- For installation on the circuit breaker side in all rotary operators
- For mounting in the adapter kit for the accessories compartment
- **Note:** The cylinder lock adapter for rotary operators is also needed for locking or interlocking circuit breakers via rotary operators

Key					
1				3VA9980-0VL10	
3				3VA9980-0VL30	
4				3VA9980-0VL40	

## Cylinder lock adapters for rotary operators



- To mount the cylinder lock in the rotary operator (also possible with door mounted rotary operator and side wall mounted rotary operator), on circuit breaker side, NOT in masking plate

Rated current					
100 ... 630 A	3VA9980-0LF20	3VA9980-0LF20	–	3VA9980-0LF20	–
1000 A	–	–	3VA9680-0LF20	–	3VA9680-0LF20

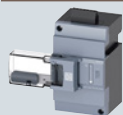


# Motor operators

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## Side mounted motor operators without stored energy operators (MO310)



- Cover size 45 mm

Addressable via control signals	Isolating features in accordance with IEC/EN 60947-1	Make time, typically		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	<300 ms	–	<300 ms	–	250 W, max. 500 W (60 ms)

## Motor operators without stored energy operators (MO320)



Addressable via control signals	Isolating features in accordance with IEC/EN 60947-1	Make time, typically		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	<800 ms (160 A, 250A)	<1000 ms (250 A), <1700 ms (630 A)	<800 ms (160 A, 250A)	<1000 ms (250 A), <1400 ms (630 A)	250 W, max. 500 W (60 ms)

## Spare parts kit for MO320 **new**

### Scope of supply

Mounting plate, plug

## Motor operators with stored energy operators (SEO520)

- Synchronizable remote operating mechanism with optional communication link
- Has two spring assemblies that are used to switch the 3VA2 molded case circuit breaker on and off quickly. This new principle in the MCCB area ensures fast, reliable and easily controllable switching sequences, especially in load transfer switching applications.
- The connection with the COM060 communication module, via a plug-in connection, integrates the SEO520 into the communication environment of the 3VA molded case circuit breakers and ensures that the molded case circuit breaker can also be switched via the supported communication networks and the SENTRON powerconfig and SENTRON powermanager software packages.
- Note:** On account of the fast switching times, the SEO520 cannot be used with a leading changeover switch LCS.



Addressable via control signals	Isolating features in accordance with IEC/EN 60947-1	Make time, typically		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	–	<80 ms	–	<80 ms	300 W, max. 500 W (60 ms)

## Spare parts kit for SEO520 **new**

### Scope of supply

Mounting plate, plug

## Spare parts kit for SEO520 with communication **new**

### Scope of supply

Mounting plate, plug, SLC adapter

## Mechanical operating cycles counters (for installation in the SEO520)



### Mounting

For installation in the SEO520

### Article No.

3VA9987-0HX10

## Cylinder lock adapters for SEO520



### Mounting

For installation of cylinder locks in the SEO520

### Article No.

3VA9980-0LF30

## Cylinder locks (type RONIS)



- Includes a lock with 2 keys
- For locking the operating mode (Manual/Auto/Lock) of the SEO520

### Key

	Article No.
1	3VA9980-0VL10
3	3VA9980-0VL30
4	3VA9980-0VL40

		3VA10	3VA11	3VA12	3VA20	3VA21	3VA22	3VA13	3VA14	3VA23	3VA24
<b>Rated control supply voltage</b>	<b>With communication</b>										
42 ... 60 V AC, 24 ... 60 V DC	–	–	3VA9117-0HB10	–	–	–	–	–	–	–	–
110 ... 230 V AC, 110 ... 250 V DC	–	–	3VA9117-0HB20	–	–	–	–	–	–	–	–
<b>Rated control supply voltage</b>	<b>With communication</b>										
24 ... 60 V DC	–	–	3VA9157-0HA10	3VA9257-0HA10	3VA9267-0HA10	3VA9467-0HA10	–	–	–	–	–
110 ... 230 V AC, 110 ... 250 V DC	–	–	3VA9157-0HA20	3VA9257-0HA20	3VA9267-0HA20	3VA9467-0HA20	–	–	–	–	–
		–	3VA9157-0HA00	3VA9257-0HA00	3VA9267-0HA00	3VA9467-0HA00	–	–	–	–	–
<b>Rated control supply voltage</b>	<b>With communication</b>										
24 V DC	–	–	–	–	3VA9267-0HC10	–	–	–	–	–	–
42 ... 60 V AC/DC	–	–	–	–	3VA9267-0HC20	–	–	–	–	–	–
110 ... 230 V AC, 110 ... 250 V DC	–	–	–	–	3VA9267-0HC30	–	–	–	–	–	–
24 V DC	Yes	–	–	–	3VA9267-0HC15	–	–	–	–	–	–
110 ... 230 V AC, 110 ... 250 V DC	Yes	–	–	–	3VA9267-0HC35	–	–	–	–	–	–
		–	–	–	3VA9267-0HC00	–	–	–	–	–	–
		–	–	–	3VA9267-0HC05	–	–	–	–	–	–



## Reset mode

**All motor operators have the following reset modes:**

- Reset mode 1: Automatic reset
- Reset mode 2: Reset via OFF-signal

**The motor operator with SE0520 stored energy operator additionally has:**

- Reset mode 3: Reset via OFF-signal with additional acknowledge signal

# Connection technology





- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units


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## Box terminals

	Connection options	Scope of supply	Cable cross-section, copper stranded
	① ②	3 single terminals	1.5 ... 70 mm <sup>2</sup>
			6 ... 120 mm <sup>2</sup>
			25 ... 185 mm <sup>2</sup>
			50 ... 185 mm <sup>2</sup>
			35 ... 300 mm <sup>2</sup>
	① ②	4 single terminals	1.5 ... 70 mm <sup>2</sup>
			6 ... 120 mm <sup>2</sup>
			25 ... 185 mm <sup>2</sup>
			50 ... 185 mm <sup>2</sup>
			35 ... 300 mm <sup>2</sup>

## Nut keeper kits

	Connection options	Scope of supply	Max. tap width	Max. tap thickness
	① ②	3 terminals	17 mm	6.5 mm
			25 mm	8 mm
			35 mm	10 mm
			Nut keeper kit for 3-pole breakers, 1 terminal cover	50 mm
	① ②	4 terminals	17 mm	6.5 mm
			25 mm	8 mm
			35 mm	10 mm
			Nut keeper kit for 4-pole breakers, 1 terminal cover	50 mm

## Circular conductor terminals, 1 cable

	Connection options	Scope of supply	Cable cross-section	Copper/aluminum stranded <sup>3)</sup>	
				Cu	Al
	① ②	3 single terminals	1.5 ... 10 mm <sup>2</sup>	■	–
			1.5 ... 50 mm <sup>2</sup>	■	–
			10 ... 95 mm <sup>2</sup>	■	■
			16 ... 185 mm <sup>2</sup>	■	■
			35 ... 185 mm <sup>2</sup>	■	■
	① ②	4 single terminals	1.5 ... 10 mm <sup>2</sup>	■	–
			1.5 ... 50 mm <sup>2</sup>	■	–
			10 ... 95 mm <sup>2</sup>	■	■
			16 ... 185 mm <sup>2</sup>	■	■
			35 ... 185 mm <sup>2</sup>	■	■
			50 ... 300 mm <sup>2</sup>	■	■

<sup>1)</sup> Maximum current-carrying capacity of cable connection 400 A  
Flexible copper bar: No restrictions

<sup>2)</sup> Maximum current-carrying capacity of cable connection 400 A

<sup>3)</sup> Al cable only tested according to UL486 A/B

3VA10 3VA11		3VA12	3VA20 3VA21	3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9153-OJA11	–	–	–	–	–	–
–	3VA9253-OJA11	3VA9163-OJA12	3VA9163-OJA12	–	–	–
–	–	3VA9263-OJA12	3VA9263-OJA12	–	–	–
–	3VA9253-OJA12	–	–	–	–	–
–	–	–	–	3VA9483-OJA13 <sup>1)</sup>	–	–
3VA9154-OJA11	–	–	–	–	–	–
–	3VA9254-OJA11	3VA9164-OJA12	3VA9164-OJA12	–	–	–
–	–	3VA9264-OJA12	3VA9264-OJA12	–	–	–
–	3VA9254-OJA12	–	–	–	–	–
–	–	–	–	3VA9484-OJA13 <sup>1)</sup>	–	–
3VA9113-OQA00	–	–	–	–	–	–
–	3VA9213-OQA00	3VA9203-OQA00	3VA9203-OQA00	–	–	–
–	–	–	–	3VA9403-OQA00	–	–
–	–	–	–	–	3VA9603-OQA00	–
3VA9114-OQA00	–	–	–	–	–	–
–	3VA9214-OQA00	3VA9204-OQA00	3VA9204-OQA00	–	–	–
–	–	–	–	3VA9404-OQA00	–	–
–	–	–	–	–	3VA9604-OQA00	–
3VA9113-OJB10	–	–	–	–	–	–
–	–	3VA9103-OJB11	3VA9103-OJB11	–	–	–
3VA9113-OJB11	–	–	–	–	–	–
–	–	3VA9263-OJB12	3VA9263-OJB12	–	–	–
–	3VA9253-OJB12	–	–	–	–	–
–	–	–	–	3VA9383-OJB13 <sup>2)</sup>	–	–
3VA9114-OJB10	–	–	–	–	–	–
–	–	3VA9104-OJB11	3VA9104-OJB11	–	–	–
3VA9114-OJB11	–	–	–	–	–	–
–	–	3VA9264-OJB12	3VA9264-OJB12	–	–	–
–	3VA9254-OJB12	–	–	–	–	–
–	–	–	–	3VA9384-OJB13 <sup>2)</sup>	–	–

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

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## Circular conductor terminals with control wire taps, 1 cable<sup>2)</sup>

	Connection options		Scope of supply	Cable cross-section	Copper/aluminum stranded <sup>3)</sup>	
	①	②			Cu	Al
	①	②	3 single terminals	1.5 ... 10 mm <sup>2</sup>	■	–
				1.5 ... 50 mm <sup>2</sup>	■	–
				10 ... 95 mm <sup>2</sup>	■	■
				16 ... 185 mm <sup>2</sup>	■	■
				50 ... 185 mm <sup>2</sup>	■	■
	①	②	4 single terminals	1.5 ... 10 mm <sup>2</sup>	■	–
				1.5 ... 50 mm <sup>2</sup>	■	–
				10 ... 95 mm <sup>2</sup>	■	■
				16 ... 185 mm <sup>2</sup>	■	■
				50 ... 185 mm <sup>2</sup>	■	■
				50 ... 300 mm <sup>2</sup>	■	■

## Circular conductor terminals, 2 cables

	Connection options		Scope of supply	Cable cross-section	Copper/aluminum stranded <sup>3)</sup>		Control wire tap
	①	②			Cu	Al	
	①	②	3 single terminals, 1 short terminal cover	120 ... 300 mm <sup>2</sup>	■	■	No
					Yes <sup>2)</sup>		
	①	②	4 single terminals, 1 short terminal cover	120 ... 300 mm <sup>2</sup>	■	■	No
					Yes <sup>2)</sup>		

## Circular conductor terminals, 3 cables

	Connection options		Scope of supply	Cable cross-section	Copper/aluminum stranded <sup>3)</sup>		Control wire tap
	①	②			Cu	Al	
	①	②	3 single terminals, 1 short terminal cover	120 ... 185 mm <sup>2</sup>	■	■	No
					Yes <sup>2)</sup>		
	①	②	4 single terminals, 1 short terminal cover	120 ... 185 mm <sup>2</sup>	■	■	No
					Yes <sup>2)</sup>		

## Control wire taps for box terminals<sup>2)</sup>

Connection options	
①	
②	

## Control wire taps for busbars<sup>2)</sup>

Connection options	
①	
②	

<sup>1)</sup> Maximum current-carrying capacity of copper cables 380 A  
Maximum current-carrying capacity of aluminum cables 310 A

<sup>2)</sup> Maximum current-carrying capacity 15 A  
Maximum cable connection up to 2.5 mm<sup>2</sup>

<sup>3)</sup> Al cable only tested according to UL 486 A/B

3VA10 3VA11		3VA12	3VA20 3VA21	3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9113-0JG10	–	–	–	–	–	–
–	–	3VA9103-0JG11	3VA9103-0JG11	–	–	–
3VA9113-0JG11	–	–	–	–	–	–
–	–	3VA9263-0JG12	3VA9263-0JG12	–	–	–
–	3VA9253-0JG12	–	–	–	–	–
–	–	–	–	3VA9383-0JG13 <sup>1)</sup>	–	–
3VA9114-0JG10	–	–	–	–	–	–
–	–	3VA9104-0JG11	3VA9104-0JG11	–	–	–
3VA9114-0JG11	–	–	–	–	–	–
–	–	3VA9264-0JG12	3VA9264-0JG12	–	–	–
–	3VA9254-0JG12	–	–	–	–	–
–	–	–	–	3VA9384-0JG13 <sup>1)</sup>	–	–
–	–	–	–	–	3VA9503-0JB23	3VA9503-0JG23
–	–	–	–	–	–	–
–	–	–	–	–	3VA9504-0JB23	3VA9504-0JG23
–	–	–	–	–	–	–
–	–	–	–	–	3VA9503-0JB32	3VA9503-0JG32
–	–	–	–	–	–	–
–	–	–	–	–	3VA9504-0JB32	3VA9504-0JG32
–	–	–	–	–	–	–
3VA9110-0WB00	3VA9200-0WB00	3VA9200-0WB00	3VA9200-0WB00	3VA9480-0WB00	–	–
3VA9150-0WB00	3VA9280-0WB00	3VA9280-0WB00	3VA9280-0WB00	3VA9480-0WB00	–	–
3VA9110-0WC00	3VA9200-0WC00	3VA9200-0WC00	3VA9200-0WC00	3VA9480-0WC00	–	–
3VA9150-0WC00	3VA9280-0WC00	3VA9280-0WC00	3VA9280-0WC00	3VA9480-0WC00	–	–



# Connection technology



- 1 For mounting onto the circuit breaker
- 2 For mounting on plug-in and withdrawable units

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## Note:

All bus connectors, bus connectors broadened and rear connections are Cu/Sn 6 r plated according to ISO 2093.

### Front bus connectors



Number of poles	Connection options	Scope of supply	Max. tap width	Max. tap thickness
1P	1 –	1 terminal	22 mm	8 mm
3P	– 2	3 terminals	6 × 50 mm	8 mm

### Front bus connectors, with phase barriers



- 3-pole and 4-pole bus connectors extended only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).

Number of poles	Connection options	Scope of supply	Max. tap width	Max. tap thickness
3P	1 2	3 terminals,	22 mm	8 mm
		2 phase barriers	32 mm	10 mm
			40 mm	12.5 mm
			50 mm	28 mm
4P	1 2	4 terminals,	22 mm	8 mm
		3 phase barriers	32 mm	10 mm
			40 mm	12.5 mm
			50 mm	28 mm

### Bus connectors edgewise, with phase barriers



- 3-pole and 4-pole bus connectors extended only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).

Number of poles	Connection options	Scope of supply	Max. tap width	Max. tap thickness
3P	1 2	3 terminals,	20 mm	6 mm
		2 phase barriers	25 mm	7 mm
			40 mm	8 mm
4P	1 2	4 terminals,	20 mm	6 mm
		3 phase barriers	25 mm	7 mm
			40 mm	8 mm

### Front bus connectors broadened, with phase barriers



- 3-pole and 4-pole bus connectors broadened only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).
- Distance between pole centers:
  - 100/160 A = 35 mm
  - 250 A = 45 mm
  - 400/630 A = 70 mm

Number of poles	Connection options	Scope of supply	Max. tap width	Max. tap thickness
3P	1 2	3 terminals,	30 mm	8 mm
		2 phase barriers	35 mm	10 mm
			60 mm	12.5 mm
			80 mm	10 mm
	– 2	3 terminals,	80 mm	15 mm
4P	1 2	4 terminals,	30 mm	8 mm
		3 phase barriers	35 mm	10 mm
			60 mm	12.5 mm
			80 mm	10 mm
	– 2	3 terminals,	80 mm	15 mm

3VA10 3VA11		3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25	3VA26
3VA9151-QB00	-	-	-	-	-	-
-	-	-	-	-	3VA9603-QB01 <b>new</b>	-
3VA9153-QB00	-	-	-	-	-	-
-	3VA9253-QB00	3VA9263-QB00	-	-	-	-
-	-	-	3VA9483-QB00	-	-	-
-	-	-	-	3VA9603-QB00	-	-
3VA9154-QB00	-	-	-	-	-	-
-	3VA9254-QB00	3VA9264-QB00	-	-	-	-
-	-	-	3VA9484-QB00	-	-	-
-	-	-	-	3VA9604-QB00	-	-
3VA9153-QD00	-	-	-	-	-	-
-	3VA9253-QD00	3VA9263-QD00	-	-	-	-
-	-	-	3VA9483-QD00	-	-	-
3VA9154-QD00	-	-	-	-	-	-
-	3VA9254-QD00	3VA9264-QD00	-	-	-	-
-	-	-	3VA9484-QD00	-	-	-
3VA9153-QC00	-	-	-	-	-	-
-	3VA9253-QC00	3VA9263-QC00	-	-	-	-
-	-	-	3VA9483-QC00	-	-	-
-	-	-	-	3VA9603-QC00	-	-
-	-	-	-	3VA9603-QC01 <b>new</b>	3VA9603-QC01 <b>new</b>	-
3VA9154-QC00	-	-	-	-	-	-
-	3VA9254-QC00	3VA9264-QC00	-	-	-	-
-	-	-	3VA9484-QC00	-	-	-
-	-	-	-	3VA9604-QC00	-	-

# Connection technology



- ❶ For mounting onto the circuit breaker
- ❷ For mounting on plug-in and withdrawable units

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## Note:




All bus connectors broadened, bus connectors and rear connections are Cu/Sn 6 r plated according to ISO 2093.

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### Nut keeper units, right-angled<sup>1)</sup>

	Number of poles	Connection options	Scope of supply	Max. tap width	Max. tap thickness
	3P	❶   ❷	3 terminals,	22 mm	8 mm
			2 phase barriers	32 mm	10 mm
				40 mm	12.5 mm
	4P	❶   ❷	4 terminals,	22 mm	8 mm
			3 phase barriers	32 mm	10 mm
				40 mm	12.5 mm

### Rear connection studs flat

	Number of poles	Connection options	Scope of supply
	1P	❶   ❷	1 short connection stud flat
			1 long connection stud flat
	3P	❶   ❷	2 short connection studs flat,
			1 long connection stud flat
	4P	❶   ❷	3 short connection studs flat
			2 short connection studs flat,
	2 long connection stud flat		

### Rear connection studs round

	Number of poles	Connection options	Scope of supply
	1P	❶   ❷	1 short connection stud round
			1 long connection stud round
	3P	❶   ❷	1 long connection stud round,
			2 short connection studs round
	4P	❶   ❷	2 long connection studs round,
			2 short connection studs round

<sup>1)</sup> Can only be connected to breaker side N, 1, 3, 5

3VA10 3VA11		3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9113-0QG00	–	–	–	–	–
–	3VA9213-0QG00	3VA9223-0QG00	–	–	–
–	–	–	3VA9403-0QG00	–	–
3VA9114-0QG00	–	–	–	–	–
–	3VA9214-0QG00	3VA9224-0QG00	–	–	–
–	–	–	3VA9404-0QG00	–	–
3VA9111-0QE10	3VA9211-0QE10	3VA9201-0QE10	3VA9401-0QE10	–	–
3VA9111-0QE20	3VA9211-0QE20	3VA9201-0QE20	3VA9401-0QE20	–	–
3VA9113-0QE00	3VA9213-0QE00	3VA9203-0QE00	3VA9403-0QE00	–	–
–	–	–	–	3VA9603-0QE01 <b>new</b>	–
3VA9114-0QE00	3VA9214-0QE00	3VA9204-0QE00	3VA9404-0QE00	–	–
3VA9111-0QF10	3VA9211-0QF10	3VA9201-0QF10	3VA9401-0QF10	–	–
3VA9111-0QF20	3VA9211-0QF20	3VA9201-0QF20	3VA9401-0QF20	–	–
3VA9113-0QF00	3VA9213-0QF00	3VA9203-0QF00	3VA9403-0QF00	–	–
3VA9114-0QF00	3VA9214-0QF00	3VA9204-0QF00	3VA9404-0QF00	–	–

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

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## Circular conductor terminals, 2P



Connection options	Scope of supply	Number of cables	Cable cross-section	Cu/Al stranded <sup>2)</sup>		Control wire tap
				Cu	Al	
① –	2 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
		6	1.5 ... 35 mm <sup>2</sup>	■	■	No

## Circular conductor terminals, 3P



- Note on 3VA9603-0JJ25, 3VA9603-0JJ35 and 3VA9603-0JJ45: 1 set of front bus connectors 3VA9603-0QB01 is required for installing circular conductor terminals on the load and/or outgoing side.

Connection options	Scope of supply	Number of cables	Cable cross-section	Cu/Al stranded <sup>2)</sup>		Control wire tap		
				Cu	Al			
① –	3 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No		
			50 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No		
			2	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
				70 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
			4	120 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
				120 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
		– ②	3 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
				2	50 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
					25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
				3	70 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
					150 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
				6	1.5 ... 35 mm <sup>2</sup>	■	■	No

## Circular conductor terminals, 4P



Connection options	Scope of supply	Number of cables	Cable cross-section	Cu/Al stranded <sup>2)</sup>		Control wire tap		
				Cu	Al			
① –	4 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No		
			50 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No		
			2	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
				70 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
			4	120 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
				120 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No	
		– ②	4 single terminals, 1 extended terminal cover, 1 insulation plate	6	1.5 ... 35 mm <sup>2</sup>	■	■	No
				1	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
					50 ... 240 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
				2	25 ... 150 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
					70 ... 300 mm <sup>2</sup>	■	■	Yes <sup>1)</sup> No
				6	1.5 ... 35 mm <sup>2</sup>	■	■	No

<sup>1)</sup> Maximum current-carrying capacity 15 A  
Maximum cable connection up to 2.5 mm<sup>2</sup>

<sup>2)</sup> Al cable only tested according to UL 486 A/B

	3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9112-0JC12	–	–	–	–	–
3VA9112-0JJ12	–	–	–	–	–
3VA9112-0JF60	–	–	–	–	–
3VA9113-0JC12	–	–	–	–	–
3VA9113-0JJ12	–	–	–	–	–
–	3VA9213-0JC13	3VA9223-0JC13	–	–	–
–	3VA9213-0JJ13	3VA9223-0JJ13	–	–	–
–	3VA9213-0JC22	3VA9223-0JC22	–	–	–
–	3VA9213-0JJ22	3VA9223-0JJ22	–	–	–
–	–	–	3VA9403-0JC23	–	–
–	–	–	3VA9403-0JJ23	–	–
–	–	–	–	3VA9603-0JC43	–
–	–	–	–	3VA9603-0JJ43	–
–	–	–	–	3VA9603-0JC44	–
–	–	–	–	3VA9603-0JJ44	–
3VA9113-0JF60	3VA9213-0JF60	3VA9223-0JF60	3VA9303-0JF60	–	–
3VA9153-0JC12	–	–	–	–	–
–	3VA9253-0JC13	3VA9263-0JC13	–	–	–
–	3VA9253-0JC22	3VA9263-0JC22	–	–	–
–	–	–	3VA9483-0JC23	–	–
–	–	–	–	3VA9603-0JJ25	new
–	–	–	–	3VA9603-0JJ35	new
–	–	–	–	3VA9603-0JJ45	new
3VA9153-0JF60	3VA9253-0JF60	3VA9263-0JF60	3VA9383-0JF60	–	–
3VA9114-0JC12	–	–	–	–	–
3VA9114-0JJ12	–	–	–	–	–
–	3VA9214-0JC13	3VA9224-0JC13	–	–	–
–	3VA9214-0JJ13	3VA9224-0JJ13	–	–	–
–	3VA9214-0JC22	3VA9224-0JC22	–	–	–
–	3VA9214-0JJ22	3VA9224-0JJ22	–	–	–
–	–	–	3VA9404-0JC23	–	–
–	–	–	3VA9404-0JJ23	–	–
–	–	–	–	3VA9604-0JC43	–
–	–	–	–	3VA9604-0JJ43	–
–	–	–	–	3VA9604-0JC44	–
–	–	–	–	3VA9604-0JJ44	–
3VA9114-0JF60	3VA9214-0JF60	3VA9224-0JF60	3VA9304-0JF60	–	–
3VA9154-0JC12	–	–	–	–	–
–	3VA9254-0JC13	3VA9264-0JC13	–	–	–
–	3VA9254-0JC22	3VA9264-0JC22	–	–	–
–	–	–	3VA9484-0JC23	–	–
3VA9154-0JF60	3VA9254-0JF60	3VA9264-0JF60	3VA9384-0JF60	–	–

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

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3VA10

3VA11

## Terminal covers specially for fixed-mounted units

Version	Number of poles	Mounting location		3VA10	3VA11
Short	1P	①	–	3VA9111-0WD10	3VA9111-0WD10
	2P	①	–	3VA9111-0WD20	3VA9111-0WD20
	3P	①	–	3VA9111-0WD30	3VA9111-0WD30
	4P	①	–	3VA9111-0WD40	3VA9111-0WD40
Intermediate	3P	①	–	–	–
	4P	①	–	–	–
Extended <sup>1)</sup>	2P	①	–	3VA9111-0WF20	3VA9111-0WF20
	3P	①	–	3VA9111-0WF30	3VA9111-0WF30
	4P	①	–	3VA9111-0WF40	3VA9111-0WF40
Broadened <sup>1)</sup>	3P	①	–	3VA9111-0WG30	3VA9111-0WG30
	4P	①	–	3VA9111-0WG40	3VA9111-0WG40

## Terminal covers specially for plug-in and withdrawable units (spare part)

Version	Number of poles	Mounting location		3VA10	3VA11
Short	3P	①	–	3VA9113-0KB01	3VA9113-0KB01
	4P	①	–	3VA9114-0KB01	3VA9114-0KB01

- To provide circuit breaker touch protection
- For mounting to the molded case circuit breaker
- Included in scope of supply: Cover for the infeed and outgoing terminal

## Terminal covers for plug-in or withdrawable sockets

Version	Number of poles	Mounting location		3VA10	3VA11
Short	3P	–	②	–	3VA9153-0KB03
	4P	–	②	–	3VA9154-0KB03
Extended <sup>1)</sup>	3P	–	②	–	3VA9153-0KB04
		–	②	–	3VA9154-0KB04
Broadened <sup>1)</sup>	3P	–	②	–	3VA9153-0KB05
	4P	–	②	–	3VA9154-0KB05

- For touch protection in the termination area of the plug-in or withdrawable socket
- For mounting onto the plug-in or withdrawable socket

<sup>1)</sup> Including insulating plate

<sup>2)</sup> Suitable for circular conductor terminals 2/4 cables

	3VA20	3VA13 3VA14	3VA15
3VA12	3VA21 3VA22	3VA23 3VA24	3VA25
–	–	–	–
–	–	–	–
3VA9211-0WD30	3VA9221-0WD30	3VA9481-0WD30	3VA9601-0WD30
3VA9211-0WD40	3VA9221-0WD40	3VA9481-0WD40	3VA9601-0WD40
–	–	–	3VA9601-0WE30 <sup>2)</sup>
–	–	–	3VA9601-0WE40 <sup>2)</sup>
–	–	–	–
3VA9211-0WF30	3VA9221-0WF30	3VA9481-0WF30	3VA9601-0WF30
3VA9211-0WF40	3VA9221-0WF40	3VA9481-0WF40	3VA9601-0WF40
3VA9211-0WG30	3VA9221-0WG30	3VA9401-0WG30	–
3VA9211-0WG40	3VA9221-0WG40	3VA9401-0WG40	–
3VA9213-0KB01	3VA9123-0KB01	3VA9353-0KB01	–
3VA9214-0KB01	3VA9124-0KB01	3VA9354-0KB01	–
3VA9253-0KB03	3VA9163-0KB03	3VA9353-0KB03	3VA9603-0KB03 <b>new</b>
3VA9254-0KB03	3VA9164-0KB03	3VA9354-0KB03	–
3VA9253-0KB04	3VA9163-0KB04	3VA9353-0KB04	–
3VA9254-0KB04	3VA9164-0KB04	3VA9354-0KB04	–
3VA9253-0KB05	3VA9163-0KB05	3VA9353-0KB05	–
3VA9254-0KB05	3VA9164-0KB05	3VA9354-0KB05	–



# Connection technology



- ❶ For mounting onto the circuit breaker
- ❷ For mounting on plug-in and withdrawable units

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				3VA10	3VA11	
<b>Insulating plates</b>						
	<b>Version</b>	<b>Number of poles</b>	<b>Mounting location</b>			
	Standard	2P	❶	–	3VA9111-0WJ20	3VA9111-0WJ20
		3P	❶	–	3VA9111-0WJ30	3VA9111-0WJ30
		4P	❶	–	3VA9111-0WJ40	3VA9111-0WJ40
	Broadened	3P	❶	–	3VA9111-0WK30	3VA9111-0WK30
		4P	❶	–	3VA9111-0WK40	3VA9111-0WK40
<b>Phase barrier</b>						
	<b>Mounting location</b>	<b>Scope of supply</b>				
	❶    ❷	2 phase barriers		3VA9152-0WA00		
	–    ❷	2 phase barriers			–	
<b>Protective sleeve for insulation of rear connections</b>						
	<b>Mounting location</b>	<b>Scope of supply</b>				
	–    ❷	3 protective sleeves			–	
<b>DC insulation plates for 3VA1 for fixed-mounted molded case circuit breakers</b>						
	<b>Number of poles</b>					
	3P				3VA9113-0SG10	
	4P				3VA9114-0SG10	
<b>Side plates for 3VA1 for fixed-mounted molded case circuit breakers</b>						
	<b>Number of poles</b>	<b>Mounting</b>				
	2P	On 2-pole molded case circuit breakers			3VA9112-0SG20	

	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25	3VA26
–	–	–	–	–
3VA9211-0WJ30	3VA9221-0WJ30	3VA9481-0WJ30	–	–
3VA9211-0WJ40	3VA9221-0WJ40	3VA9481-0WJ40	–	–
3VA9211-0WK30	3VA9221-0WK30	3VA9481-0WK30	–	–
3VA9211-0WK40	3VA9221-0WK40	3VA9481-0WK40	–	–
3VA9252-0WA00	3VA9262-0WA00	3VA9482-0WA00	3VA9602-0WA00 3VA9602-0WA05 <b>new</b>	3VA9602-0WA00 3VA9602-0WA05 <b>new</b>
–	–	–	3VA9603-0WH05 <b>new</b>	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–

# Plug-in and withdrawable technology

2



## Thanks to plug-in and withdrawable technology:






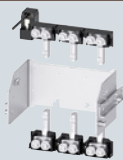
- Molded case circuit breakers can be replaced quickly and easily for overhauls or servicing
- Electrical isolation and clearly visible isolating distance
- The socket can be interlocked to prevent the 3VA molded case circuit breaker from being plugged in or moved in
- Identical connection technology for all molded case circuit breakers, whether they are plug-in, withdrawable or fixed-mounted units

## In addition, withdrawable technology offers:

- Transmission of the position of the molded case circuit breaker via communication (CONNECT, TEST, DISCONNECT)
- The ability to test the auxiliary and control circuit connections in the test position of the withdrawable unit, without contacted main current paths
- Transmission of the state of the molded case circuit breaker (ON, OFF, TRIP) via the COM060 communication module

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	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
<b>Withdrawable units, complete kits</b>					
	<ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Withdrawable socket</li> <li>– Withdrawable unit, conversion kit</li> <li>– Mounting screw kit</li> </ul> </li> <li>• <b>Note:</b> The crank for the withdrawable unit must be ordered separately.</li> </ul>				
<b>Number of poles</b>					
3P	–	3VA9213-0KD00	3VA9123-0KD00	3VA9323-0KD00	–
4P	–	3VA9214-0KD00	3VA9124-0KD00	3VA9324-0KD00	–
<b>Withdrawable units, conversion kits</b>					
	<ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Screw-fastened terminal covers for molded case circuit breakers</li> <li>– Side panels</li> <li>– Plug-in contacts</li> <li>– Cable cages</li> <li>– Autotrip plunger</li> </ul> </li> <li>• <b>Note:</b> The crank for the withdrawable unit must be ordered separately.</li> </ul>				
<b>Number of poles</b>					
3P	–	3VA9213-0KD10	3VA9123-0KD10	3VA9323-0KD10	–
4P	–	3VA9214-0KD10	3VA9124-0KD10	3VA9324-0KD10	–

	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
<b>Plug-in units, complete kits</b>					
 	<ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Plug-in base</li> <li>– Plug-in unit, conversion kit</li> <li>– Mounting screw kit</li> </ul> </li> <li>• <b>Note on 3VA9603-OKP00:</b> <ul style="list-style-type: none"> <li>– The circuit breaker must be equipped with additional threaded holes for installing the components of the plug-in unit. When ordering the circuit breaker, specify „with plug-in“ accordingly.</li> <li>– An undervoltage release (UVR) (MLFB 3VA9908-0BB..) is required in the circuit breaker in order to provide the protection trip specified in the standard for unplugging the circuit breaker under load. The required UVR voltage version must be ordered in addition.</li> </ul> </li> </ul>				
<b>Number of poles</b>					
3P	3VA9113-OKP00	3VA9213-OKP00	3VA9123-OKP00	3VA9323-OKP00	3VA9603-OKP00 <b>new</b>
4P	3VA9114-OKP00	3VA9214-OKP00	3VA9124-OKP00	3VA9324-OKP00	–
<b>Plug-in units, conversion kits</b>					
  	<ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Screw-fastened terminal covers for molded case circuit breakers</li> <li>– Plug-in contacts</li> <li>– Cable cages</li> <li>– Autotrip plunger</li> </ul> </li> </ul>				
<b>Number of poles</b>					
3P	3VA9113-OKP10	3VA9213-OKP10	3VA9123-OKP10	3VA9323-OKP10	3VA9603-OKP10 <b>new</b>
4P	3VA9114-OKP10	3VA9214-OKP10	3VA9124-OKP10	3VA9324-OKP10	–
<b>Plug-in units, conversion kits with blade contacts</b>					
	<ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– 6× blade contacts</li> <li>– Guide frame for circuit breaker</li> <li>– 2× cover for blade contacts</li> <li>– Position signaling switch</li> <li>– Connecting cable for auxiliary circuits</li> </ul> </li> <li>• <b>Note:</b> The circuit breaker must be equipped with additional threaded holes for installing the components of the plug-in unit. When ordering the circuit breaker, specify „with plug-in“ accordingly.</li> </ul>				
<b>Number of poles</b>					
3P	–	–	–	–	3VA9603-OKP10 <b>new</b>








# Plug-in and withdrawable technology

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	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26	
<b>Cable cages for plug-in/withdrawable units (spare part)</b>						
	<ul style="list-style-type: none"> <li>For routing of the required cables from the internal accessories on the back of the circuit breaker</li> </ul>					
<b>Number of poles</b>						
3P/4P	3VA9157-OKB02	3VA9257-OKB02	3VA9167-OKB02	3VA9367-OKB02	–	
<b>Door feedthroughs</b>						
	–	3VA9257-OKT00	3VA9167-OKT00	3VA9367-OKT00	–	
<b>Autotrip plungers (spare part)</b>						
<b>Version</b>						
	Plug-in unit	3VA9157-OKP81	3VA9257-OKP81	3VA9267-OKP81	3VA9457-OKP81	–
	Withdrawable unit	–	3VA9257-OKD81	3VA9267-OKD81	3VA9457-OKD81	–

## Accessories

Communication links for withdrawable unit							
	<b>Scope of supply</b>						
	Set of cables with three special position signaling switches, 3VA9987-0KC10 connecting cables	3VA9987-0KC00	3VA9987-0KC00	3VA9987-0KC00	3VA9987-0KC00	–	
Position signaling switches for withdrawable unit and plug-in unit							
	<ul style="list-style-type: none"> <li><b>Note on 3VA9603-0KB00:</b> 4 position signaling switches can be installed in the plug-in base.</li> </ul>						
		3VA9987-0KB00	3VA9987-0KB00	3VA9987-0KB00	3VA9987-0KB00	3VA9603-0KB00 <b>new</b>	
Connecting cables							
	<b>Use</b>						
	Connection of position signaling switches for communication with COM060 For auxiliary circuits	3VA9987-0KC10	3VA9987-0KC10	3VA9987-0KC10	3VA9987-0KC10	–	
		–	–	–	–	3VA9603-0KP80 <b>new</b>	
Crank for withdrawable units							
	<b>Version</b>						
	Insulated Including crank holder	3VA9987-0KD81	3VA9987-0KD81	3VA9987-0KD81	3VA9987-0KD81	–	
Auxiliary circuit connectors							
	<ul style="list-style-type: none"> <li>Each auxiliary circuit connector is designed for 4 cables.</li> </ul>						
	<b>Version</b>						
	For all withdrawable units	3VA9987-0KD80	3VA9987-0KD80	3VA9987-0KD80	3VA9987-0KD80	–	
For all plug-in units	3VA9987-0KP80	3VA9987-0KP80	3VA9987-0KP80	3VA9987-0KP80	–		
Cylinder locks							
	<ul style="list-style-type: none"> <li><b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– 1 lock with 2 keys</li> </ul> </li> <li>For locking or interlocking</li> <li><b>Note:</b> Not for 3VA15/3VA25!</li> </ul>						
	<b>Key</b>	<b>Lock number</b>					
	1	1	3VA9980-0VL10	3VA9980-0VL10	3VA9980-0VL10	3VA9980-0VL10	–
	3	3	3VA9980-0VL30	3VA9980-0VL30	3VA9980-0VL30	3VA9980-0VL30	–
	4	4	3VA9980-0VL40	3VA9980-0VL40	3VA9980-0VL40	3VA9980-0VL40	–
Cylinder lock adapters for withdrawable units							
	<ul style="list-style-type: none"> <li>To prevent unauthorized withdrawal or insertion of the circuit breaker into the withdrawable unit</li> <li>Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions</li> </ul>						
	<b>Use</b>						
For fitting a cylinder lock in the right-hand side wall of the withdrawable unit	3VA9980-0LF40	3VA9980-0LF40	3VA9980-0LF40	3VA9980-0LF40	–		

# Residual current devices RCD

According to IEC 60947-2 Annex B (Type A, Type B) and according to DIN VDE 0664-400 (Type B+)

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Residual current devices (RCD) for switch disconnectors and molded case circuit breakers

- Mounted onto the side (left)



Number of poles	Type	Sensitivity <sup>3)</sup>	Rated residual response current $I_{\Delta n}$	Limit value of non-tripping time $\Delta t$	Rated operational voltage $U_e$	Fault current frequency	Pre-alarm			Tripped signal		
							Pre-alarm	Pre-alarm	Pre-alarm	TRIP	TRIP	TRIP
3-pole	RCD510	Type A	0.03 ... 5 A	0 ... 3 s	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–
4-pole	RCD310	Type A	0.03 ... 5 A	Instantaneous	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–
	RCD510	Type A	0.03 ... 5 A	0 ... 3 s	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–



## Residual current devices (RCD) for molded case circuit breakers

- Mounted below (under trip unit)

Number of poles	Type	Sensitivity <sup>3)</sup>	Rated residual response current $I_{\Delta n}$	Limit value of non-tripping time $\Delta t$	Rated operational voltage $U_e$	Fault current frequency	Pre-alarm			Tripped signal		
							Pre-alarm	Pre-alarm	Pre-alarm	TRIP	TRIP	TRIP
3-pole	RCD520	Type A	0.03 ... 5 A	0 ... 3 s	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–
	RCD520B <sup>1)4)</sup>	Type B	0.03 ... 5 A	0 ... 10 s	127 ... 690 V AC	0 ... 100 kHz	1	–	–	–	–	–
		Type B+	0.03 ... 0.3 A					–	–	–	–	–
4-pole	RCD820 <sup>2)</sup>	Type A	0.03 ... 30 A <sup>5)</sup>	0 ... 10 s	127 ... 690 V AC	50/60 Hz	2	–	–	–	–	–
	RCD320	Type A	0.03 ... 5 A	Instantaneous	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–
	RCD520	Type A	0.03 ... 5 A	0 ... 3 s	127 ... 480 V AC	50/60 Hz	1	–	–	–	–	–
	RCD520B <sup>4)</sup>	Type B	0.03 ... 5 A	0 ... 10 s	127 ... 690 V AC	0 ... 100 kHz	1	–	–	–	–	–
		Type B+	0.03 ... 0.3 A					–	–	–	–	–
	RCD820 <sup>2)</sup>	Type A	0.03 ... 30 A <sup>5)</sup>	0 ... 10 s	127 ... 690 V AC	50/60 Hz	2	–	–	–	–	–

## Residual current releases (spare part)



Version	Scope of supply
For RCD310 or RCD510	RCD, RCD-RCD cables

## RCD820 - 3VA2 ETU connecting cables (spare part) **new**

- Connecting cable between the RCD820 and the electronic trip unit (ETU) of a 3VA2



Version	Scope of supply
For RCD820	1 × RCD-ETU cable

<sup>1)</sup> 3-pole version in 4-pole enclosure

<sup>2)</sup> With energy infeed from below, the required auxiliary switch (AUX) must be ordered separately

<sup>3)</sup> Type A: pulse current sensitive, type B/B+: universal current sensitive

<sup>4)</sup> Sensitivity selectable for type B/B+

<sup>5)</sup>  $I_{\Delta n} = 30A$ : type AC

<sup>6)</sup> If the molded case circuit breaker has no box terminals as connections, a set of box terminals must be ordered additionally for the taps below the thermal-magnetic trip units.

<sup>7)</sup> 1 set of box terminals is included in scope of supply of the RCD510 (3VA921.-0RS20).

Modular residual current devices type A/B (according to IEC 60947-2 Annex M)  
See monitoring devices, page 11/1

			3VA11	3VA12	3VA20 3VA21	3VA22	3VA23	3VA24	3VA10 3VA13 3VA14 3VA15 3VA25 3VA26
Monitoring mode (tripping can be disabled as an option)	Remote test/remote reset	Communication-capable							
■	–	–	3VA9113-ORS20 <sup>6)</sup>	3VA9213-ORS20 <sup>7)</sup>	–	–	–	–	–
■	–	–	3VA9114-ORS10 <sup>6)</sup>	–	–	–	–	–	–
■	–	–	3VA9114-ORS20 <sup>6)</sup>	3VA9214-ORS20 <sup>7)</sup>	–	–	–	–	–
Monitoring mode (tripping can be disabled as an option)	Remote test/remote reset	Communication-capable							
–	–	–	3VA9113-ORL20	3VA9213-ORL20	–	–	–	–	–
■	–	–	3VA9113-ORL21	–	–	–	–	–	–
■	■	■	–	–	3VA9123-ORL30	3VA9223-ORL30	3VA9323-ORL30	3VA9423-ORL30	–
–	–	–	3VA9114-ORL10	–	–	–	–	–	–
–	–	–	3VA9114-ORL20	3VA9214-ORL20	–	–	–	–	–
■	–	–	3VA9114-ORL21	–	–	–	–	–	–
■	■	■	–	–	3VA9124-ORL30	3VA9224-ORL30	3VA9324-ORL30	3VA9424-ORL30	–
			3VA9988-OBR10	3VA9988-OBR10	–	–	–	–	–
			–	–	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	–






# Communication

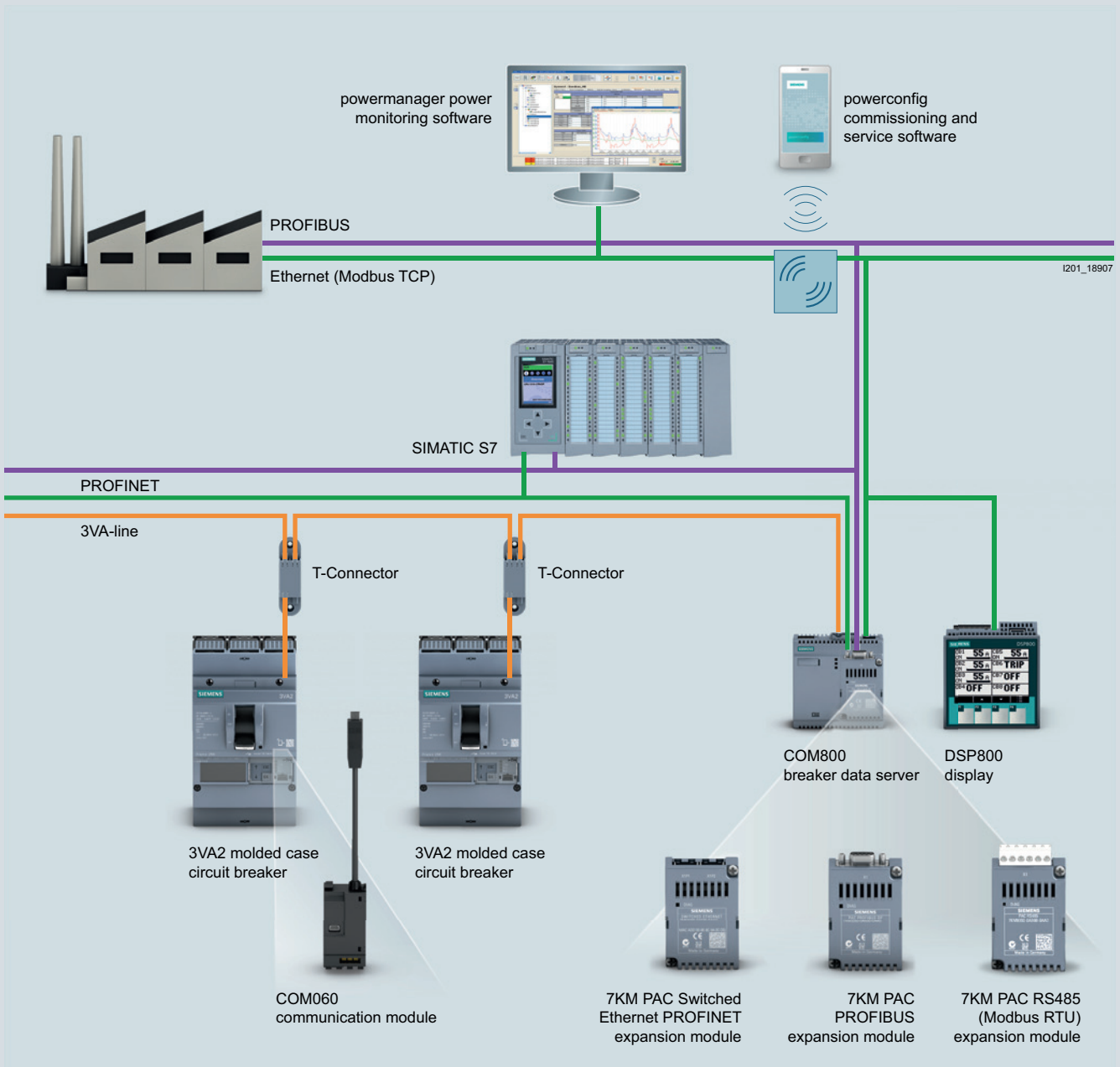
2

Metering function <sup>1)</sup>			ETU 5-series	ETU 8-series	Display in ETU	Display DSP800	Communication COM800/COM100
<b>Current</b>							
Phase and neutral conductor currents	$I_1, I_2, I_3, I_N$	A	■	■	□	□	■
Residual current to ground	$I_g$	A	■	■	□	□	■
Phase with highest load		A	■	■	□	□	■
Mean value over the three phase currents	$I_{\text{leading axis}} = (I_1 + I_2 + I_3)/3$	A	–	■	–	□	■
Asymmetry of the phase currents	$I_{\text{nba}}$	%	–	■	–	□	■
THD of the 3 phases	$THDI_1, THDI_2, THDI_3$	%	–	■	–	□	■
<b>Voltage</b>							
Phase voltages incl. mean value	$U_{12}, U_{23}, U_{31}, U_{\text{phavg}}$	V	–	■	□	□	■
Voltages to N conductor incl. mean value	$U_{1N}, U_{2N}, U_{3N}, U_{\text{Navg}}$	V	–	■	–	□	■
Voltage unbalance		%	–	■	–	□	■
THD phase/phase and phase/N	$THDI_1, THDI_2, THDI_3$	%	–	■	–	□	■
<b>Power</b>							
Active power, total and per phase	$P_1, P_2, P_3, P_{\text{tot}}$	kW	–	■	□ ( $P_{\text{tot}}$ )	□	■
Apparent power, total and per phase	$S_1, S_2, S_3, S_{\text{tot}}$	kVA	–	■	–	□	■
Reactive power, total and per phase	$Q_1, Q_2, Q_3, Q_{\text{tot}}$	kVAr	–	■	□	□	■
Power factor of the fundamental	$P_{F1}, P_{F2}, P_{F3}, P_{F\text{avg}}$		–	■	□ ( $P_{F\text{avg}}$ )	□	■
<b>Energy</b>							
Active energy, infeed and feedback	$E_p$	kWh	–	■	□	□	■
Reactive energy, infeed and feedback	$E_q$	kVArh	–	■	–	□	■
Apparent energy	$E_s$	kVAh	–	■	–	□	■
<b>Frequency</b>							
Present frequency	$f$	Hz	–	■	□	□	■
<b>Maximum pointer function</b>							
Min./max. current, voltage, power	With time stamp	–	–	–	–	–	■
<b>Condition Monitoring <sup>2)</sup></b>							
Operating cycles counter	CLOSE-OPEN cycle		■	■	–	–	■
Operating hours		h	■	■	–	–	■
Trip counter	Differentiated by trip causes		■	■	–	–	■
Health indicator <sup>3)</sup>	Incl. contact state	%	■	■	■	–	■
Remaining life time <sup>3)</sup>		Time	■	■	–	–	■

■ Available    □ Displayable    – Not available

<sup>1)</sup> Depending on ETU version  
<sup>2)</sup> Only available with continuous external power supply and COM060 and COM800/100 communication interfaces  
<sup>3)</sup> Firmware 4.4 or higher of ETU, COM060, COM800/100 required

		3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26
<b>COM060 communication modules</b>								
 <ul style="list-style-type: none"> <li>For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply)</li> <li>Including a T-Connector</li> </ul>	<b>Use</b>							
	Communication to the COM800/COM100 breaker data server via 3VA line				3VA9187-0TB10			3VA9387-0TB10
<b>SLC adapters (spare part) <span style="color: orange;">new</span></b>								
	<b>Scope of supply</b>							
	5 units				3VA9187-0TB60			3VA9387-0TB60
<b>24 V modules</b>								
 <ul style="list-style-type: none"> <li>24 V DC</li> <li>For mounting in the right-hand accessories compartment of the 3VA2</li> </ul>	<b>Use</b>							
	Optional energy supply for the ETU, also includes continuous operation of the ETU display and the metering function of the ETU 8-series				3VA9187-0TB50			3VA9387-0TB50



# Communication

## Breaker data server

### COM800 breaker data servers



#### Version

Central communication module for connection of up to eight 3VA2 molded case circuit breakers via the 3VA line, Ethernet 10/100 Mbps interface module socket for inserting an optional PROFIBUS DP or PROFINET module, 2 terminating resistors

#### Article No.

3VA9987-0TA10

### COM100 breaker data servers



#### Version

Central communication module for connection of a 3VA2 molded case circuit breaker via the 3VA line, Ethernet 10/100 Mbps interface module socket for inserting an optional PROFIBUS DP or PROFINET module, 2 terminating resistors

#### Article No.

3VA9987-0TA20

### 7KM PAC PROFIBUS DP expansion modules



#### Use

Used for connecting the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to PROFIBUS DPV1. Supplies the state and measured variables of the 3VA molded case circuit breaker for the PROFIBUS DP master. Receives information (e.g. commands) from the PROFIBUS DP master and transmits them to the 3VA molded case circuit breaker.

#### Article No.

7KM9300-0AB01-0AA0

### 7KM PAC Switched Ethernet PROFINET expansion modules



#### Use

Used for connecting the COM800/COM100 breaker data server, and the connected 3VA molded case circuit breakers, to PROFINET via two Ethernet interfaces. Supplies the state and measured variables of the 3VA molded case circuit breakers to PROFINET via the PROFINET IO, PROFinergy and Modbus TCP protocols.

#### Article No.

7KM9300-0AE02-0AA0

### 7KM PAC RS485 Modbus RTU expansion modules



#### Use

Used for connecting the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to Modbus RTU. Supplies the state and measured variables of the 3VA molded case circuit breaker for the Modbus RTU master. Receives information (e.g. commands) from the Modbus RTU master and transmits them to the 3VA molded case circuit breaker.

#### Article No.

7KM9300-0AM00-0AA0

### Interfaces to IEC 61850

Purpose: The SICAM A8000 smart breaker data server connects the circuit breakers from the SENTRON portfolio via the MODBUS TCP/IP protocol and transmits data via communication protocols (e.g.: IEC 61850, IEC 60870-5-104, IEC 60870-5-101, MODBUS and DNP) to higher-level systems.



#### Type

#### Processor assembly

#### Operating voltage

#### Article No.

SICAM CP-8021 <sup>1)</sup>

4 interfaces

6MF2802-1AA00

SICAM PS-8620

–

24 ... 60 V DC (12 W)

6MF2862-0AA00

SICAM PS-8622

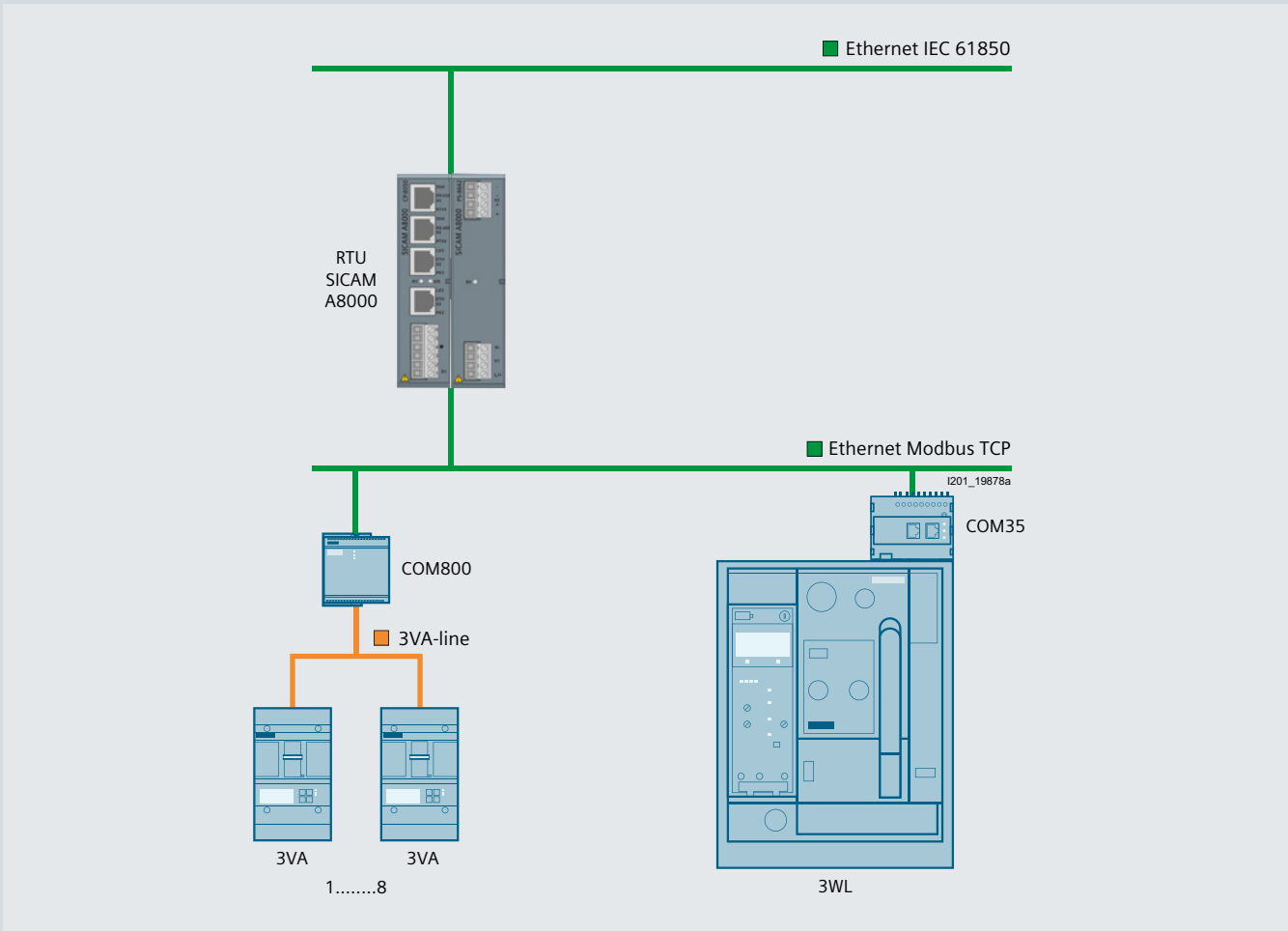
–

110 ... 220 V DC (12 W)

6MF2862-2AA00

<sup>1)</sup> Dimensioned for device quantities of 8x 3VA and 1x 3W

You will find further information at:  
[www.siemens.com/sicam-a8000](http://www.siemens.com/sicam-a8000)




# Communication

## Accessories for communication

T-connectors (spare part)			
	Use		Article No.
	Provides a stub connection to the COM060 and loops through to the next circuit breaker.		3VA9987-0TG10
DIN rail adapters			
	Use		Article No.
	For snapping the T-Connector onto a DIN rail.		3VA9987-0TG11
Prefabricated connecting cables, T-connector – T-connector or T-connector – COM800/COM100			
	Length		Article No.
	0.4 m		3VA9987-0TC10
	1 m		3VA9987-0TC20
	2 m		3VA9987-0TC30
	4 m		3VA9987-0TC40
Prefabricated connecting cables for extending the COM060 – T-connector stub connection			
	Length		Article No.
	0.4 m		3VA9987-0TF20
	0.8 m		3VA9987-0TF10
Additional bus terminating resistors (spare part)			
	Use		Article No.
	For COM800 and COM060		3VA9987-0TE10
Voltage tap to external N conductors (spare part)			
	Use		Article No.
	Cable for connection of the star point for the metering function of the 8-series ETU, length 1.5 m		3VA9987-0UC10
External current transformer for N conductors			
	Use	Rated current	Article No.
	For 3VA2 3-pole molded case circuit breakers, for 5 and 8-series ETUs, including connecting cables	25 ... 150 A	3VA9007-0NA10
		160 ... 350 A	3VA9107-0NA10
		400 ... 630 A	3VA9307-0NA10
External current transformers as straight-through transformers			
	Rated current		Article No.
	25 ... 150 A		3VA9077-0NA10
	160 ... 350 A		3VA9177-0NA10
	400 ... 630 A		3VA9377-0NA10
	600 ... 1250 A		3VA9677-0NA10
Connecting cables for external current transformers for N conductors (spare part)			
			Article No.
			3VA9907-0NB10

## Display

DSP800 displays			
	Use		Article No.
	For displaying the status and measured values of up to eight devices <ul style="list-style-type: none"> <li>• 3VA27 via COM800/100</li> <li>• 3VA27</li> <li>• 3WL10</li> <li>• 3WL11-13</li> <li>• PAC3200T</li> </ul>		3VA9987-0TD10

## External function box

### EFB300 external function boxes



- 4 digital outputs for information output
- 1 digital input
- ZSI functionality
- S0 interface
- Including cable 1.5 m in length

Use	Article No.
For connection to the ETU of 3VA2 molded case circuit breakers	3VA9987-0UA10

### Connecting cables for EFB300



Length	Use	Article No.
1.5 m	For 3VA2 with EFB	3VA9987-0UB10
3.0 m	For 3VA2 with EFB	3VA9987-0UB20
	For 3VA2 with EFB and RCD820	3VA9987-0UB30

## Test devices

### TD300 test devices



Use	Connection	Article No.
For activation of the ETU and initiation of a test tripping operation	On the front interface of the ETU	3VA9987-0MA10

### TD400 test devices <sup>1)</sup>



- Energy supply via batteries or the USB-C interface
- USB-C interface for connecting a PC with SENTRON powerconfig
- Bluetooth interface for connection to a PC, smartphone or tablet
- ETU parameterization
- Including adapter and connecting cable to 3VA2 molded case circuit breaker and IEC 3WL (ETU release 2)
- Including case

Use	Connection	Article No.
Initiation of a test tripping operation	On the front interface of the ETU (3VA and IEC 3WL ETU release 2)	3VW9011-0AT40

### TD500 test devices



- USB interface for connecting a PC with SENTRON powerconfig
- Including external power supply
- Including connecting cable to 3VA2 molded case circuit breaker

Use	Connection	Article No.
Initiation of various test tripping operations (LSING), ETU parameterization	On the front interface of the ETU	3VA9987-0MB10

### External power supplies for TD500 (spare part)



Voltage	Article No.
110 ... 240 V	3VA9987-0MX10

### Connecting cables for connecting TD500 to 3VA2 molded case circuit breakers (spare part)



Article No.
3VA9987-0MY10

<sup>1)</sup> A country-specific radio license is required to operate the Bluetooth interface. Before activating the Bluetooth function, ensure that the license is available: [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

# Locking, blocking and interlocking

2

		3VA11	3VA12	3VA20 3VA21 3VA22
<b>Locking</b>				
<ul style="list-style-type: none"> <li>The locking provisions make it possible to lock the 3VA molded case circuit breakers in either the OFF or the ON operating position.</li> </ul>				
<b>Version</b>				
	Cylinder lock	Key 1 (lock number 1)		3VA9980-OVL10
		Key 3 (lock number 3)		3VA9980-OVL30
		Key 4 (lock number 4)		3VA9980-OVL40
	Adapter kit for mounting the cylinder lock (type RONIS) in the accessories compartment of the molded case circuit breaker	3VA9157-0LF10	3VA9257-0LF10	3VA9167-0LF10
	Locking provision for handle operating mechanism		3VA9088-0LB10	3VA9388-0LB10
<b>Interlocking</b>				
<ul style="list-style-type: none"> <li>Using interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers.</li> <li>The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time.</li> <li>The following methods of interlocking can be used on 3VA molded case circuit breakers:               <ul style="list-style-type: none"> <li>Front interlock</li> <li>Rear interlock</li> </ul> </li> </ul>				
<b>Version</b>				
	Cylinder lock	Key 1 (lock number 1)		3VA9980-OVL10
		Key 3 (lock number 3)		3VA9980-OVL30
		Key 4 (lock number 4)		3VA9980-OVL40
	Sliding bar interlock	3VA9158-0VF30	3VA9258-0VF30	3VA9168-0VF30
	Module for handle interlock with bowden cable	3VA9157-0VF10	3VA9257-0VF10	3VA9167-0VF10
	Bowden cable	Length 0.6 m		3VA9980-0VC10
		Length 1.0 m		3VA9980-0VC20
		Length 1.5 m		3VA9980-0VC30
	Rear interlock with rod	Circuit breaker, fixed-mounted		3VA9088-0VM10
		Plug-in/withdrawable technology		3VA9088-0VM30
	Mounting frame for rear interlock with rod	Profile rails		3VA9088-0VK10
		Mounting plate	3VA9158-0VK20	3VA9258-0VK20

<sup>1)</sup> With mounting frame for rear interlock.

Can be used with breaker 3VA15 from "E02" and 3VA25 from "E05" (Line protection CB with TMTU, 3-Series ETU and 5-Series ETU)

3VA13	
3VA14	3VA15
3VA23	3VA25
3VA24	3VA26

## Locking

Use in	Locking in OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10 3VA9980-0VL30 3VA9980-0VL40	–	–	–	–	–
3VA9367-0LF10	3VA9587-0LF10	–	–	–	–
3VA9388-0LB10	3VA9588-0LB10	–	–	–	–

## Interlocking

Use in	Locking in OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10 3VA9980-0VL30 3VA9980-0VL40	–	–	–	–	Unlimited
3VA9368-0VF30	–	–	–	–	3
3VA9367-0VF10	3VA9587-0VF10	–	–	–	3
3VA9980-0VC10 3VA9980-0VC20 3VA9980-0VC30	–	–	–	–	–
3VA9088-0VM10	3VA9588-0VM10 <sup>1)</sup>	–	–	–	2
3VA9088-0VM30	–	–	–	–	2
3VA9088-0VK10	–	–	–	–	–
3VA9468-0VK20	–	–	–	–	–




# Cover frame and mounting

2


3VA10  
3VA11

3VA12


## Cover frames for door cutouts for molded case circuit breakers

	Number of poles	Door cut-out with trip unit	3VA10 3VA11	3VA12
	3P	No		3VA9053-OSB10
Yes			3VA9053-OSB20	3VA9253-OSB20
4P	No		3VA9054-OSB10	3VA9254-OSB10
	Yes		3VA9054-OSB20	3VA9254-OSB20

## Cover frames for MO320 motor operators

	Use	3VA10 3VA11	3VA12
	MO320 motor operator		3VA9053-OSB20
Motor operator with SEO520 stored energy operator		–	–

## Cover frames for RCD320, RCD520 and RCD820 residual current devices

	Number of poles	3VA10 3VA11	3VA12
	3P		3VA9053-OSB10
4P		3VA9054-OSB10	3VA9254-OSB10


## Cover frames for front mounted rotary operators

		3VA9053-OSB10	3VA9253-OSB10
---	--	---------------	---------------


## Cover frames for door feedthroughs

		–	3VA9253-OSB20
---	--	---	---------------


## Labeling plates for cover frame

			3VA9087-OSX10
---	--	--	---------------

## Standard mounting rail adapter 3VA1 molded case circuit breakers

	Number of poles	3VA10 3VA11	3VA12
	1P		3VA9181-OSH10
2P		3VA9182-OSH10	–
3P and 4P		3VA9187-OSH10	–
3P and 4P in connection with RCD310 or RCD510		3VA9187-OSH20	–

## Mounting screw kits

	Use	Number of poles	3VA10 3VA11	3VA12
	For fixed-mounted breakers		1P	3VA9111-OSS10
2P and 3P (apart from 125 A/160 A with 55 kA and 70 kA)			3VA9116-OSS10	–
3P (125 A/160 A with 55 kA and 70 kA) and 4P			3VA9114-OSS10	–
3P			–	–
4P			–	–
For plug-in units		3P and 4P	–	–
			3VA9114-OSS10	–
For plug-in and withdrawable technology		–	–	3VA9114-OSS10

Adapter for 60 mm busbar system (8US), see page 13/26

	3VA13	
3VA20	3VA14	3VA15
3VA21	3VA23	3VA25
3VA22	3VA24	3VA26
3VA9163-0SB10	3VA9383-0SB10	3VA9503-0SB10
3VA9163-0SB20	3VA9363-0SB20	3VA9503-0SB20
3VA9164-0SB10	3VA9384-0SB10	3VA9504-0SB10
3VA9164-0SB20	3VA9364-0SB20	3VA9504-0SB20
3VA9257-0SB30	3VA9387-0SB30	–
3VA9167-0SB30	–	–
3VA9253-0SB10	3VA9303-0SB40	–
3VA9254-0SB10	3VA9304-0SB40	–
3VA9163-0SB10	3VA9383-0SB10	3VA9503-0SB50
3VA9253-0SB20	3VA9353-0SB20	–
3VA9087-0SX10		
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
3VA9126-0SS10	–	–
3VA9124-0SS10	–	–
–	3VA9328-0SS10	3VA9517-0SS10
–	–	3VA9603-0SS10 <b>new</b>
3VA9124-0SS10	3VA9328-0SS10	–

# System overview

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

2

## Switching devices

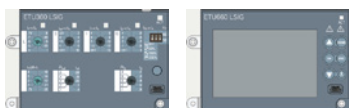


Handle



Stored energy operator

## Trip units



Electronic trip unit (ETU)

## Accessories



Communication module



Rating plugs



Breaker Connect module



Test devices and breaker data adapters

## Main conductor connections



Rear vertical/horizontal



Rear broadened



Front extended



Front broadened

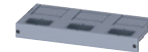


Cable lug

## Accessories



Phase barriers



Terminal cover

## Motors



Spring charging motor

## Accessories



Mechanical operating cycles counter (MOC)

## Auxiliary releases/closing coils



Undervoltage release (UVR) / Shunt trip (ST)



Closing coil (CC) / Remote reset magnet (RR)

**Note:**

You will find a detailed range of accessories in the Accessories and spare parts section.

## Auxiliary switches



Tripped signaling switch



Ready-to-close signaling switch (RTC)



Auxiliary switch ON/OFF (AUX)



Tripped signaling switch (S24)



Trip alarm switch (TAS)

## Other accessories



Interlocking sets



Locking provision



Locking mechanism



Door sealing frame



Protective cover



Mutual mechanical interlocking



Manual operator

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.

# Structure of the article numbers

## Basic configuration with handle operating mechanism

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

3VA27 6 7 8 9 10 11 12 13 14 15 16

### Switching devices and ETUs

Max. rated current $I_n$	800 A	8	0																	
	1000 A	1	0																	
	1250 A	1	2																	
	1600 A	1	6																	
Short-circuit breaking capacity $I_{cu} = I_{cs}$ at 415 V	Handle operating mechanism	55 kA		5																
		85 kA		6																
		110 kA		7																
Non-automatic air circuit breakers	Without metering function, without a communication link	Without trip unit					A	A												
Circuit breakers, ETU 3-series	Without metering function, without a communication link	With trip unit	ETU320 LI (N) <sup>1)</sup>		A	B														
			ETU350 LSI (N) <sup>1)</sup>		A	C														
			ETU360 LSI (N) <sup>1)</sup>		A	D														
Circuit breakers, ETU 6-series	With trip unit		ETU650 LSI (N) <sup>1)</sup>			E														
			ETU660 LSI (N) <sup>1)</sup>			F														
	Without a communication link	Without metering function			A															
		With a communication link	Without metering function			B														
	Metering function Basic	Voltage tap on bottom			C															
					D															
Metering function Advanced	Voltage tap on bottom			E																
				F																

<sup>1)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

Number of poles	Fixed-mounted versions	3-pole		0
		4-pole	Neutral left	1
			Neutral right	2
	Withdrawable	3-pole		3
		4-pole	Neutral left	4
			Neutral right	5

### Connections

Type of mounting	Withdrawable	Withdrawable circuit breaker without guide frame (guide frame must be ordered separately)	0
	Fixed-mounted breaker/ withdrawable breaker	Rear vertical connection	1
		Rear horizontal connection	2
		Front terminal for main circuit connection	3
		Front-accessible, extended terminal for main circuit connection	5
		Front-accessible, broadened terminal for main circuit connection	6
		Rear broadened bus connectors	7

3VA27 6 7 8 9 10 11 12 13 14 15 16

## Alarm switch combinations

Alarm switches	Without	0
	With tripped signaling switch TAS and tripped signaling switch S25	1
	With two leading changeover switches S26	2
	With tripped signaling switch TAS and tripped signaling switch S25 and two leading changeover switches S26	3

## Auxiliary releases, closing coils

Closing coil (CC), remote reset magnet (RR)	Without	A
---	---------	---

2nd auxiliary release	Without 2nd auxiliary release		A	
	With undervoltage release (UVR)	24 V AC/DC		B
		30 V AC/DC		C
		48 V AC/DC		D
		60 V AC/DC		E
		110 ... 120 V AC/DC		F
		120 ... 127 V AC/DC		G
		220 ... 240 V AC/DC		H
		240 ... 250 V AC/DC		J
		380 ... 400 V AC/DC		K
		415 ... 440 V AC/DC		L
	With undervoltage release (UVR), delayable with external time-delay device Scope of supply: UVR + time-delay device	24 ... 30 V AC/DC		M
		110 ... 127 V AC/DC		N
		220 ... 250 V AC/DC		P
	With 2nd shunt trip (ST2)	24 V AC/DC		Q
		30 V AC/DC		R
		48 V AC/DC		S
		60 V AC/DC		T
		110 ... 120 V AC/DC		U
120 ... 127 V AC/DC			V	
220 ... 240 V AC/DC			W	
240 ... 250 V AC/DC			X	

1st auxiliary release	Without 1st auxiliary release		0	
	Shunt trip (ST)	24 V AC/DC		1
		30 V AC/DC		2
		48 V AC/DC		3
		60 V AC/DC		4
		110 ... 120 V AC/DC		5
		120 ... 127 V AC/DC		6
		220 ... 240 V AC/DC		7
		240 ... 250 V AC/DC		8

# Structure of the article numbers

## Basic configuration with stored energy operating mechanism

The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

3VA27 6 7 8 9 10 11 12 13 14 15 16

### Switching devices and ETUs

<b>Max. rated current</b>	800 A															
$I_n$	1000 A	8	0													
	1250 A	1	0													
	1600 A	1	2													
		1	6													
<b>Short-circuit breaking capacity</b> $I_{cu} = I_{cs}$ at 415 V	Stored energy operating mechanism															
	55 kA															
	85 kA															
	110 kA															
<b>Non-automatic air circuit breakers</b>	Without metering function, without a communication link															
										A	A					
<b>Circuit breakers, ETU 3-series</b>	Without metering function, without a communication link															
	With trip unit															
		ETU320 LI	(N) <sup>1)</sup>							A	B					
		ETU350 LSI	(N) <sup>1)</sup>							A	C					
		ETU360 LSI	(N) <sup>1)</sup>							A	D					
<b>Circuit breakers, ETU 6-series</b>																
	With trip unit															
		ETU650 LSI	(N) <sup>1)</sup>								E					
		ETU660 LSI	(N) <sup>1)</sup>								F					
	Without a communication link															
	Without metering function										A					
	With a communication link															
	Without metering function										B					
	Metering function Basic															
		Voltage tap on bottom									C					
		Voltage tap on top									D					
	Metering function Advanced															
		Voltage tap on bottom									E					
		Voltage tap on top									F					

<sup>1)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

<b>Number of poles</b>	Fixed-mounted versions	3-pole														
		4-pole														
			Neutral left													
			Neutral right													
	Withdrawable	3-pole														
		4-pole														
			Neutral left													
			Neutral right													

### Connections

<b>Type of mounting</b>	Withdrawable	Withdrawable circuit breaker without guide frame (guide frame must be ordered separately)														
	Fixed-mounted breaker/withdrawable breaker	Rear vertical connection														
		Rear horizontal connection														
		Front terminal for main circuit connection														
		Front-accessible, extended terminal for main circuit connection														
		Front-accessible, broadened terminal for main circuit connection														
		Rear broadened bus connectors														

### Motor

<b>Operating mechanisms</b>	Manual operator															
	Spring charging motor	24 ... 30 V AC/DC														
		48 ... 60 V AC/DC														
		110 V AC/DC														
		230 V AC/DC														

3VA27 6 7 8 9 10 11 12 13 14 15 16

## Auxiliary releases, closing coils, remote reset magnets

Closing coil (CC), remote reset magnet (RR)	Without		A
	Closing coil (CC)	24 V AC/DC	B
		30 V AC/DC	C
		48 V AC/DC	D
		60 V AC/DC	E
		110 ... 120 V AC/DC	F
		120 ... 127 V AC/DC	G
		220 ... 240 V AC/DC	H
	Closing coil (CC) and additional remote reset magnet (RR)	240 ... 250 V AC/DC	J
		24 V AC/DC	K
110 V AC/DC		L	
	220 V AC/DC	M	
2nd auxiliary release	Without 2nd auxiliary release		A
	With undervoltage release (UVR)	24 V AC/DC	B
		30 V AC/DC	C
		48 V AC/DC	D
		60 V AC/DC	E
		110 ... 120 V AC/DC	F
		120 ... 127 V AC/DC	G
		220 ... 240 V AC/DC	H
		240 ... 250 V AC/DC	J
		380 ... 400 V AC/DC	K
		415 ... 440 V AC/DC	L
	With undervoltage release (UVR), delayable with external time-delay device Scope of supply: UVR + time-delay device	24 ... 30 V AC/DC	M
		110 ... 127 V AC/DC	N
		220 ... 250 V AC/DC	P
	With 2nd shunt trip (ST2)	24 V AC/DC	Q
		30 V AC/DC	R
		48 V AC/DC	S
		60 V AC/DC	T
110 ... 120 V AC/DC		U	
120 ... 127 V AC/DC		V	
220 ... 240 V AC/DC		W	
240 ... 250 V AC/DC		X	
1st auxiliary release	Without 1st auxiliary release		0
	Shunt trip (ST)	24 V AC/DC	1
		30 V AC/DC	2
		48 V AC/DC	3
		60 V AC/DC	4
		110 ... 120 V AC/DC	5
		120 ... 127 V AC/DC	6
		220 ... 240 V AC/DC	7
240 ... 250 V AC/DC	8		



# Accessory options

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

To specify the options, add „-Z“ to the complete article number and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Order code

## Accessories for basic configuration

### Mounting options for fixed-mounted circuit breakers

- In the basic configuration, the fixed-mounted circuit breaker is mounted onto the rear panel. Floor mounting is possible as an option. The device must additionally be modified if it is to be extended to include functionalities such as external auxiliary switches or mechanical interlocks.<sup>1)</sup>

Mounting options for fixed-mounted circuit breakers <sup>1)</sup>						Order code
Mounting options for fixed-mounted circuit breakers <sup>1)</sup>	Floor mounting	Mounting support standard	☒	☒		A07
		Mounting support extended <sup>2)</sup>	☒	☒		S56
	Rear panel mounting onto mounting plate	Side wall extended <sup>2)</sup>	☒	☒		S57

## Accessories for electronic trip units ETU

### Rating plugs

- The electronic trip units are equipped as standard with a rating plug for setting the rated current  $I_n$ , which is equal to the maximum rated circuit breaker current ( $< I_{n,max}$ ). The rated current of the selected rating plug must be less than or equal to  $I_{n,max}$ .
- To downrate the circuit breaker, a rated current smaller than  $I_{n,max}$  is selected for the rating plug via a Z option.
- Other functions can also be activated using rating plugs (L = OFF or Rc protection).

Rating plug						Order code
Rating plug	For setting the rated current $I_n$	For all ETUs	400 A	☒	☒	B04
			630 A	☒	☒	B06
			800 A	☒	☒	B08
			1000 A	☒	☒	B10
			1200 A	☒	☒	B12
			For setting the rated current $I_n$ with overload protection L = OFF	For 6-series ETUs	400 A	☒
	630 A	☒			☒	L06
	800 A	☒			☒	L08
	1000 A	☒			☒	L10
	1250 A	☒			☒	L12
	1600 A	☒			☒	L16
	For setting the rated current $I_n$ , For enabling the residual current protective function. The residual current function is only possible with the MF Advanced metering function.	For ETU660 only	400 A	☒	☒	G04
630 A			☒	☒	G06	
800 A			☒	☒	G08	
1250 A			☒	☒	G12	

### Communication modules

- Up to 2 different communication modules can be used at the same time.
- When using an IOM040 digital I/O module (Z option K56), only 1 communication module can be used.

Communication modules						Order code
Communication modules	COM040	Modbus TCP	☒	☒		F02
	COM041	Modbus RTU	☒	☒		F03
	COM043	Modbus TCP	☒	☒		F11
	COM042	Modbus RTU	☒	☒		F12

### Breaker Connect modules

- When a circuit breaker with a communication link is ordered, a Breaker Connect module for external 24 V DC power supply of the electronic components is also supplied ready installed as standard.
- By means of this Z option, the Breaker Connect module for 24 V DC is replaced by a Breaker Connect module for 110–240 V AC/DC.

Breaker Connect module	110 ... 240 V AC/DC	☒	☒		F26
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### I/O modules internal

I/O modules internal	IOM040 digital I/O module	2 inputs, 2 outputs	☒	☒	K56
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☒ For molded case circuit breakers with stored energy operating mechanism

☒ For molded case circuit breakers with handle operating mechanism

<sup>1)</sup> These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.

<sup>2)</sup> Not possible in connection with or as an alternative to the mounting support, standard (A07).

To specify the options, add „-Z“ to the complete article number and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Order code

2

## Accessories for motors

5-digit mechanical operating cycles counter

WM - C01

## Auxiliary switches and signaling switches

- Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard.
- For currents <100 mA for PLC connections, these auxiliary and signaling switches can be replaced.
- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimum load above 1 mA at 5 V DC, and
  - a maximum breaking capacity of 100 mA at 24 V DC.

Position signaling switches for guide frames <sup>1)</sup>		2 CO   2 CO   2 CO (connected   test   disconnected position)	WM	▲	K55
Signaling switch	Ready-to-close signaling	1 CO digital 24 V DC	WM	-	K50
	Tripped signaling switch (S24)	1 CO digital 24 V DC	WM	▲	K53
	Spring charged signaling switch (S21)	1 CO digital 24 V DC	WM	-	K54
Auxiliary switch	On/Off AUX	4 CO digital 24 V DC	WM	▲	K51
		2 CO 400 V AC, and 2 CO digital 24 V DC	WM	▲	K52

## Locking, blocking and interlocking

Locking provisions <sup>1)</sup>	To prevent movement of withdrawable circuit breaker	Cylinder lock	Made by RONIS	WM	▲	R78
		For no more than three 8-mm padlocks		WM	▲	R65
Locking mechanism	To prevent movement to disconnected position			WM	▲	R79
Locking provision	To prevent unauthorized closing in the operator panel (safe OFF)	Cylinder lock, made by RONIS		WM	-	S08
		For no more than 3 padlocks, plastic 4 mm		WM	-	S22
		For no more than 1 padlock, metal 7 mm		WM	-	S23
		For no more than 2 padlocks, metal 8 mm		WM	-	S07
Interlocking sets	For mechanical ON and/or OFF on the operator panel	For no more than 3 padlocks, plastic 4 mm		WM	-	S42
		For no more than 1 padlock, metal 7 mm		WM	-	S43
		For no more than 2 padlocks, metal 8 mm		WM	-	S44
Protective cover	For mechanical ON/OFF, not lockable			WM	-	S41
Door sealing frame IP30	IP3x			WM	▲	T30

☰ For molded case circuit breakers with stored energy operating mechanism

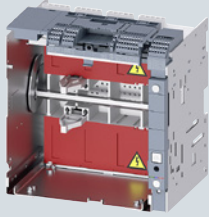
▲ For molded case circuit breakers with handle operating mechanism

<sup>1)</sup> Can be used both for individual orders of the guide frame and complete orders (circuit breaker + guide frame).

# Guide frames

3VA27

## Guide frames for ordering separately without circuit breakers



- Guide frames without breakers up to 1600 A
- **Note:** All CB bus modules for communication COM04x/IOM300/Breaker Connect module, as well as COMPSS signaling switches are configured without frames in the withdrawable circuit breaker and defined there by means of Z options, and are included with the switching device. PSS Standard is always included in the frame and can be changed to an electronics-capable signal by means of a Z option.

Number of poles	Connection type	Article No.
3-pole	Rear vertical	3VW8116-7AA01
	Rear horizontal	3VW8116-7AB01
	Front straight bus connectors extended	3VW8116-7AE01
	Broadened bus connectors	3VW8116-7AF01
	Rear broadened bus connectors	3VW8116-7AG01
4-pole	Rear vertical	3VW8116-7BA01
	Rear horizontal	3VW8116-7BB01
	Front straight bus connectors extended	3VW8116-7BE01
	Broadened bus connectors	3VW8116-7BF01
	Rear broadened bus connectors	3VW8116-7BG01

To specify the options, add „-Z“ to the complete article number and indicate the appropriate order code(s).

3VW8....-.....-Z

Order code

## Locking, blocking and interlocking

Locking provision	To prevent movement of withdrawable circuit breaker	Cylinder lock, made by RONIS	☒	☒	R78
		For no more than 3 8-mm padlocks	☒	☒	R65
Locking mechanism	To prevent movement to disconnected position (only in combination with R78 or R65)		☒	☒	R79

## Auxiliary/signaling switches

Position signaling switch PSS for guide frame	For 24 V DC digital signals, for minimum currents	2 CO   2 CO   2 CO (connected   test   disconnected position)	☒	☒	K55
---	---	---	---	---	-----

Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard.

For currents <100 mA for PLC connections, these auxiliary and signaling switches can be modified.

The auxiliary/signaling switches for 24 V DC digital signals are designed for

- A minimum load above 1 mA at 5 V DC, and
- A maximum breaking capacity of 100 mA at 24 V DC.




















☒ For molded case circuit breakers with stored energy operating mechanism

☒ For molded case circuit breakers with handle operating mechanism

# Electronic trip unit ETU and accessories

3VA27

## Electronic trip units (ETU)

Version	With communications/ metering function, enhanced protective functions	Type	Protective function	Article No.	
	With rotary coding switches	No	ETU320	LIN	                 

# Electronic trip unit ETU and accessories

3VA27

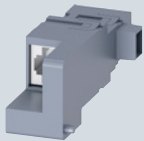
## Rating plugs



- Only one module is possible per circuit breaker.

Accessory for	Version	Rated current $I_n$	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	Rating plugs for setting ( $< I_{n\max}$ ) the rated current $I_n$	400 A	3VW9011-0AA53
		630 A	3VW9011-0AA55
		800 A	3VW9011-0AA56
		1000 A	3VW9011-0AA57
		1250 A	3VW9011-0AA58
		1600 A	3VW9011-0AA61
ETU 6-series	Rating plug without overload protection (L = OFF) and for setting ( $< I_{n\max}$ ) the rated current $I_n$	400 A	3VW9011-0LF53
		630 A	3VW9011-0LF55
		800 A	3VW9011-0LF56
		1000 A	3VW9011-0LF57
		1250 A	3VW9011-0LF58
		1600 A	3VW9011-0LF61
ETU660	Rating plug Rc for ETU660 for enabling the residual current protective function and setting ( $< I_{n\max}$ ) the rated current $I_n$ . The residual current function is only possible with the MF Advanced metering function.	400 A	3VW9011-0RC53
		630 A	3VW9011-0RC55
		800 A	3VW9011-0RC56
		1250 A	3VW9011-0RC58

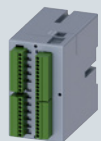
## CB bus modules - communication modules



- Contains the communication module
- Up to 2 different communication modules can be used at the same time.
- When using a digital I/O module IOM040 (Z option K56), only 1 communication module can be used.
- Can only be used with ETU of the 6-series and require a Breaker Connect module for connection to the circuit breaker. This can also be configured directly on the device by means of a Z option if the communication link to the ETU 6-series is selected.

Communication module	Protocol	Article No.
COM040	PROFIBUS	3VW9011-0AT15
COM041	PROFINET	3VW9011-0AT14
COM043	Modbus TCP	3VW9011-0AT16
COM042	Modbus RTU	3VW9011-0AT17

## CB bus modules - I/O modules external IOM300



- For snapping onto standard mounting rail

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	<ul style="list-style-type: none"> <li>2 A at <math>\leq 30</math> V DC</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul>	11	10	3VW9011-0AT20

## CB bus modules - I/O modules internal IOM040



- When using a digital I/O module IOM040, only 1 communication module can be used.

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	<ul style="list-style-type: none"> <li>2 A at <math>\leq 30</math> V DC</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul>	2	2	3VW9011-0AT30

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with handle operating mechanism

3VA27

## Actuator modules COM ACT



- For switching the circuit breaker on/off remotely via communication.
- Actuation of the closing coil (CC) and the 1st shunt trip (ST).
- Can only be used in combination with a communication module, spring charging motor, closing coil and 1st shunt trip.
- Automatically included if the communication link of the ETU 6-series is selected in the basic circuit breaker configuration.

## Accessory for

ETU 6-series



–

## Article No.

3VW9011-0AT10

## Breaker Connect modules



- For external power supply for the electronics components

## Voltage

110 ... 240 V AC/DC



↙

## Article No.

3VW9011-0AT06

24 ... 48 V DC



↙

3VW9011-0AT07

## Auxiliary contact signals for communication link



- Auxiliary contacts for signaling the readiness to close or for position signaling switches of the withdrawable positions.
- Can only be used in combination with communication module.
- Can be combined with standard position signaling switches or ready-to-close signaling contacts.
- **Note:** Both signaling switches are automatically included in the basic circuit breaker (COM PSS only with withdrawable versions) if the communication link of the ETU 6-series is selected.

## Function

Ready-to-close signaling switch for communication (COM RTC)



–

## Article No.

3VW9011-0AT11

Position signaling switch COM PSS (for withdrawable breaker only)



↙

3VW9011-0AT12

## Test devices and breaker data adapters



- Usable for all ETU 3-series and 6-series

## Description

Test device

## Type

TD310



↙

## Article No.

3VW9011-0AT32

- For the trip test via ETU and tripping solenoid including release
- Activation of the ETU and the tripping solenoid by means of a battery built into the test device
- On activation in the ETU 6-series, the parameters can be configured on the display

Breaker data adapter

TD410



↙

3VW9011-0AT34

- As gateway for parameterization of the ETU with SENTRON powerconfig
- For generation of a report of the set parameters with powerservice

Test device and breaker data adapter

TD420



↙

3VW9011-0AT33

- As gateway for parameterization of the ETU with SENTRON powerconfig
  - Testing a tripping operation using SENTRON powerconfig
- For use with the powerservice software
  - Testing of the basic protective functions LSING
  - Testing of the enhanced protective functions
  - Test data storage
  - Readout of ETU buffer
  - Generation of a report of the set parameters

For molded case circuit breakers with stored energy operating mechanism





















For molded case circuit breakers with handle operating mechanism

# Accessories for connection and insulation

3VA27













## Front terminals for main circuit connections acc. to IEC 60947-2

- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom

Fixing	Version	Mounting onto	Number of poles/quantity	Article No.
Fixed-mounted	Front terminals for main circuit connection	–	3-pole/3 units  	3VW9011-0AL01
			4-pole/4 units  	3VW9011-0AL02
	Extended main terminals, including insulation plate and phase barriers, standard	Front terminals for main circuit connection	3-pole/3 units  	3VW9011-0AL77
			4-pole/4 units  	3VW9011-0AL78
			Broadened main terminals, including insulation plate and extended phase barriers	Front terminals for main circuit connection, top
Front terminals for main circuit connection, bottom	Front terminals for main circuit connection, top/bottom	3-pole/3 units  	3VW9011-0AL75	
		4-pole/4 units  	3VW9011-0AL74	
		Withdrawable	Guide frame flange	3-pole/3 units  
4-pole/4 units  	3VW9011-0AN02			
Broadened main circuit connections	Front-accessible terminals for main circuit connection	3-pole/3 units  	3VW9011-0AN73	
		4-pole/4 units  	3VW9011-0AN74	









## Rear terminals for main circuit connections acc. to IEC 60947-2

- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom


Fixing	Version	Mounting onto	Number of poles/quantity	Article No.
Fixed-mounted	Rear terminals for main circuit connection, rotatable for horizontal/vertical connection, including terminal cover	–	3-pole/3 units  	3VW9011-0AL32
			4-pole/4 units  	3VW9011-0AL33
Withdrawable	Rear terminals for main circuit connection, rotatable for horizontal/vertical connection, including terminal cover	–	3-pole/3 units  	3VW9011-0AN32
			4-pole/4 units  	3VW9011-0AN33
	Broadened main terminals	Rear horizontal main connections	–	3-pole/3 units  
4-pole/4 units  				3VW9011-0AN76


## Cu/Al cable connections acc. to IEC 60947-2

- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom

Fixing	Version	Mounting onto	Number of poles/quantity	Article No.
Fixed-mounted	Circular conductor terminals 4 x 240 mm <sup>2</sup> for front cable connection <sup>1)</sup> , including insulation plate and high, extended terminal cover	Front terminals for main circuit connection	3-pole/3 units  	3VW9011-0AL71
			4-pole/4 units  	3VW9011-0AL72
Withdrawable	Set of circular conductor connection pieces 4 x 240 mm <sup>2</sup> for cable lugs for rear cable connection	Rear vertical main connections	3-pole/3 units  	3VW9011-0AN71
			4-pole/4 units  	3VW9011-0AN72

1) For connecting Al cables up to 1000 A

 For molded case circuit breakers with stored energy operating mechanism

 For molded case circuit breakers with handle operating mechanism

3VA27

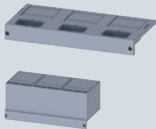
## Auxiliary supply connectors in push-in version



- Control wire tap in push-in version for upgrading fixed-mounted breakers and guide frames.
- The device is always fitted at the factory with the exact number of control wire taps required.

Version	Article No.
Push-in	3VW9011-0AB11

## Terminal covers for fixed-mounted circuit breakers



- Finger-proof for front terminals for main circuit connection for fixed-mounted versions
- Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.

Version	Number of poles/quantity	Article No.
Standard	3-pole/2 units	3VW9723-0WD30
	4-pole/2 units	3VW9724-0WD40
Extended	3-pole/2 units	3VW9723-0WF30
	4-pole/2 units	3VW9724-0WF40

## Phase barriers for fixed-mounted breakers



- Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.
- For operating voltages >440 V AC the use of phase barriers is mandatory; up to 440 V AC their use is optional.

Height	Number of poles/quantity	Article No.
100 mm (standard)	3-pole/4 units	3VW9723-0WA00
	4-pole/6 units	3VW9724-0WA10
200 mm (extended)	3-pole/4 units	3VW9723-0WA01
	4-pole/6 units	3VW9724-0WA11

## Supports for mounting the fixed-mounted breakers on the floor



- For fixed-mounted versions only

Version	Use	Article No.
Mounting support standard (circuit breaker feet) (= Z option A07)		3VW9011-0BB51
Mounting support extended (circuit breaker feet) including mechanical transmission of switch position on circuit breaker side panel (= Z option S56)	<ul style="list-style-type: none"> <li>• Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15)</li> <li>• Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>• Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16),</li> <li>• Mutual mechanical interlocking to 3WA/3WL/3VA (for 3VW9011-0BB21)</li> </ul>	3VW9011-0BB52

## Extension kits for modification of the side wall of the fixed-mounted breakers



- For fixed-mounted breakers only
- Rear fixation on mounting plate
- For modification for mechanical transmission of switch position on circuit breaker side panel (= Z option S57)

Version	Use	Article No.
Extension kit for side wall	<ul style="list-style-type: none"> <li>• Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15)</li> <li>• Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>• Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16),</li> <li>• Mutual mechanical interlocking to 3WA/3WL/3VA (for 3VW9011-0BB21)</li> </ul>	3VW9011-0BB53

☒ For molded case circuit breakers with stored energy operating mechanism

☒ For molded case circuit breakers with handle operating mechanism



# Motor operators and manual operators

3VA27

## Spring charging motor (MO)



Description	Voltage	Article No.
For automatic charging of the stored energy operating mechanism	24 ... 30 V AC/DC	3VW9011-0AF01
	48 ... 60 V AC/DC	3VW9011-0AF02
	100 ... 130 V AC/DC	3VW9011-0AF03
	220 ... 250 V AC/DC	3VW9011-0AF04

## Mechanical operating cycles counter MOC



Description	Version	Article No.
Only possible in combination with a spring charging motor.	5 digits	3VW9011-0AH07

## Manual operators for circuit breakers with toggle operating mechanism



Description	Version	Color	Degree of protection	Article No.
Front mounted rotary operator incl. door sealing frame	Standard	Gray	IP30	3VW9727-0EK11
	EMERGENCY-OFF	Yellow-red	IP30	3VW9727-0EK15



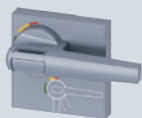
Door mounted rotary operator	Standard	Gray	IP30	3VW9727-0FK21
	EMERGENCY-OFF	Yellow-red	IP30	3VW9727-0FK25



Basic without handle			IP30	3VW9727-0GK00
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Shaft stub			IP30	8UD1900-3WD00
------------	--	--	------	---------------



Handle	Gray	IP30		8UD1861-0AB11
	Yellow-red	IP30		8UD1861-0AB15

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with handle operating mechanism

# Auxiliary release, closing coil

3VA27

## Closing coils CC/shunt trips ST

### Note:

- For molded case circuit breakers with handle operating mechanism, the products can only be used as closing shunt trips ST.
- For molded case circuit breakers with stored energy operating mechanism, the products can be used as closing coils CC and shunt trips ST.



Voltage	Article No.
24 V AC/DC	3VW9011-0AD01
30 V AC/DC	3VW9011-0AD02
48 V AC/DC	3VW9011-0AD03
60 V AC/DC	3VW9011-0AD04
110 ... 120 V AC/DC	3VW9011-0AD05
120 ... 127 V AC/DC	3VW9011-0AD06
220 ... 240 V AC/DC	3VW9011-0AD07
240 ... 250 V AC/DC	3VW9011-0AD08
380 ... 400 V AC	3VW9011-0AD17
415 ... 440 V AC	3VW9011-0AD18

## TD320 function test units for closing coils/shunt trips



- The TD320 test unit allows the operational availability and functions of the closing coils and shunt trips with a rated operational voltage between 24 V and 250 V (AC and DC) to be tested.
- The operational availability test is performed cyclically at intervals of 30 seconds.
- The unit has visual indicators in the form of LEDs on the front in order to display the following states:
  - LED POWER ON LIT: Correct function of the YO/YC test unit
  - LED DEACTIVATION LIT: Power supply failure, wire break
  - LED SHORT-CIRCUIT LIT: Winding short-circuit
  - LED DEACTIVATION and SHORT-CIRCUIT FLASHING: Incorrect power supply
  - LED DEACTIVATION and SHORT-CIRCUIT OFF: Closing coil/shunt trips OK

Description	Article No.
For all closing coils/shunt trips	3VW9011-0AT31

## Auxiliary/signaling switches



- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimum load above 1 mA at 5 V DC, and
  - a maximum breaking capacity of 100 mA at 24 V DC
- For external auxiliary switches ON/OFF AUX 15 CO, a 3VW9011-0AG1x fixation must be ordered in addition, and for fixed-mounted breakers a 3VW9011-0BB5x side wall modification

Description	Contacts	Article No.
Ready-to-close signal RTC	1 CO standard	3VW9011-0AH01
	1 CO digital	3VW9011-0AH02
Auxiliary switch ON/OFF AUX	4 CO standard	3VW9011-0AG01
	4 CO digital	3VW9011-0AG02
	2 CO standard + 2 CO digital	3VW9011-0AG03
External auxiliary switch ON/OFF AUX	15 CO standard	3VW9011-0AG05
	15 CO digital	3VW9011-0AG06
Tripped signaling switch S24	1 CO standard	3VW9011-0AH14
	1 CO digital	3VW9011-0AH15
Spring charged signaling switch S21	1 CO standard	3VW9011-0AH10
	1 CO digital	3VW9011-0AH08
Position signaling switches PSS (only with withdrawable versions)	2 CO   2 CO   2 CO (connected   test   disconnected position) standard	3VW9011-0AH11
	2 CO   2 CO   2 CO (connected   test   disconnected position) digital	3VW9011-0AH12

☒ For molded case circuit breakers with stored energy operating mechanism

☒ For molded case circuit breakers with handle operating mechanism

# Auxiliary release, closing coil

3VA27

## Auxiliary/signaling switches for toggle operating mechanisms



- Auxiliary and signaling switches are each offered in two versions:
  - Standard version for currents >100 mA and up to 400/250 V AC, minimum load above 100 mA at 24 V DC, and maximum breaking capacity 5 A at 250 V AC
  - Digital version for currents <100 mA for PLC connections, minimum load above 1 mA at 5 V DC, and maximum breaking capacity 100 mA at 24 V DC
- For external auxiliary switches ON/OFF AUX 15 CO, a 3VW9011-0AG1x fixation must be ordered in addition, and for fixed-mounted breakers a 3VW9011-0BB5x side wall modification.

Description	Contacts		Article No.
Trip alarm switch TAS signals the trip position irrespective of the tripping reason	1 CO standard	–	3VW9727-0AB11
	1 CO digital	–	3VW9727-0AB13
Tripped signaling switch via auxiliary release S25 signals tripping operations via auxiliary releases (UVR, ST) in UVR/ST2 pocket	1 CO standard	–	3VW9727-0AB41
	1 CO digital	–	3VW9727-0AB43
Leading auxiliary switch S26 (2 units)	1 NO standard, 250 V AC	–	3VW9727-0AA21

## Fixation for external auxiliary switches AUX 15 CO



- External auxiliary switches ON/OFF AUX 15 CO must be ordered separately.

Version		Article No.
For fixed-mounted breakers with rear panel or floor mounting (in combination with Z option S56 or S57)	WE	3VW9011-0AG15
For guide frames	WE	3VW9011-0AG17

## Undervoltage releases UVR



Voltage		Article No.
24 V AC/DC	WE	3VW9011-0AE01
30 V AC/DC	WE	3VW9011-0AE02
48 V AC/DC	WE	3VW9011-0AE03
60 V AC/DC	WE	3VW9011-0AE04
110 ... 120 V AC/DC	WE	3VW9011-0AE05
120 ... 127 V AC/DC	WE	3VW9011-0AE06
220 ... 240 V AC/DC	WE	3VW9011-0AE07
240 ... 250 V AC/DC	WE	3VW9011-0AE08
380 ... 400 V AC	WE	3VW9011-0AE17
415 ... 440 V AC	WE	3VW9011-0AE18

## External time-delay devices for undervoltage releases



- With adjustable delay time from 0.5 to 3 s.
- Suitable for mounting onto DIN rail.

Voltage		Article No.
24 ... 30 V AC/DC	WE	3VW9011-0AE10
48 V AC/DC	WE	3VW9011-0AE11
60 V AC/DC	WE	3VW9011-0AE15
110 ... 127 V AC/DC	WE	3VW9011-0AE12
220 ... 250 V AC/DC	WE	3VW9011-0AE13

WE For molded case circuit breakers with stored energy operating mechanism

WE For molded case circuit breakers with handle operating mechanism

# Locking provisions and interlocks

3VA27

## Locking provision to prevent movement of the withdrawable circuit breaker



Version	Article No.
RONIS cylinder lock (spare part for R78)	3VW9011-0BA80
Padlock 8 mm (spare part for R65), for no more than 3 padlocks	3VW9011-0BA87

## Locking mechanisms to prevent movement of the withdrawable circuit breakers in disconnected position



- Only possible as a supplement in conjunction with R78 (3VW9011-0BA80) and/or R65 (3VW9011-0BA87).

Description	Article No.
Locking mechanism (spare part for R79)	3VW9011-0BA84

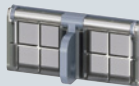
## Locking provisions in OFF position



- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized closing in the operator panel (safe OFF)
- The disconnecter unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Article No.
Cylinder lock, made by RONIS (spare part for S08)	3VW9011-0BA33

## Locking provisions in OFF position



- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized closing in the operator panel (safe OFF)
- The disconnecter unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Version	Article No.
Padlock 4 mm (spare part for S22)	Plastic for no more than 3 locks	3VW9011-0BA41
Padlock 7 mm (spare part for S23)	Metal for no more than 1 lock	3VW9011-0BA42
Padlock 8 mm (spare part for S07)	Metal for no more than 2 locks	3VW9011-0BA44

## Locking provision in OFF position for handle operating mechanism with rotary operators

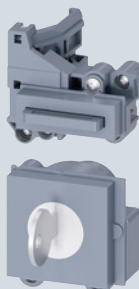


- To prevent unauthorized activation in the case of molded case circuit breakers with rotary operator

Description	Article No.
For RONIS	3VW9727-0VL10

## Locking provision in OFF position for handle operating mechanism without rotary operators

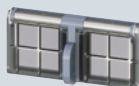
- To prevent unauthorized closing in the operator panel in the case of molded case circuit breakers without rotary operator



Description	Article No.
For padlocks	3VW9727-0LB10

For RONIS	3VW9727-0LF10
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## Interlocking sets for mechanical Open and/or Close on the operator panels



Description	Version	Article No.
Padlock 4 mm (spare part for S42)	Plastic for no more than 3 locks	3VW9011-0BA22
Padlock 7 mm (spare part for S43)	Metal for no more than 1 lock	3VW9011-0BA23
Padlock 8 mm (spare part for S44)	Metal for no more than 2 locks	3VW9011-0BA24

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with handle operating mechanism

2

# Locking provisions and interlocks

3VA27

## Protective covers for mechanical ON/OFF



- Mechanical ON/OFF to protect against unintentional actuation on the operator panel.
- Not lockable.

### Description

Not lockable (spare part for S41)



-

### Article No.

3VW9011-0BA21

## Mutual mechanical interlocking



- Mutual mechanical interlocking with Bowden cable 2 m
- For fixed-mounted versions, an additional support 3VW9011-0BB52 (option S56) or extension kit 3VW9011-0BB53 (option S57) must be ordered

### Fixing

### Mounting

### Article No.

Fixed-mounted

Rear panel or floor mounting



3VW9011-0BB21

Withdrawable

Mounting onto guide frame



3VW9011-0BB22

## Bowden cables, separate

- One required for each circuit breaker

### Type

### Article No.

1000 mm

3VW9011-0BB23

2000 mm

3WL9111-0BB45-0AA0

3000 mm

3WL9111-0BB46-0AA0

## Locking mechanisms to prevent opening of the control cabinet doors in ON position



- To prevent opening of the control cabinet door in ON position
- It additionally prevents the circuit breaker from being closed when the control cabinet door is open.

### Fixing

### Version

### Article No.

Fixed mounted on side panel or floor

Direct fixed interlocking



3VW9011-0BB10

Locking with Bowden cable



3VW9011-0BB16

Withdrawable

Direct fixed interlocking



3VW9011-0BB14

Locking with Bowden cable



3VW9011-0BB18

## Door sealing frames IP30



- For IP4x and higher, you must order the protective cover IP54 3VW9011-0AP03 or 3VW9011-0AP13.

### Description

### Fixing

### Version

### Article No.

Spare part for Z option T30.

Fixed-mounted

IP3x



3VW9011-0AP01

Withdrawable

IP3x



3VW9011-0AP02



3VW9011-0AP04

## Protective covers IP54



- Protective cover/hood IP54 lockable for fixed-mounted breakers and withdrawable breakers
- For implementing degrees of protection IP4x and IP54 when installing in switchboard door.
- Cannot be combined with IP30 door sealing frame and door mounted rotary operator.

### Description

### Version

### Article No.

Lock with unique key

IP54



3VW9011-0AP03

Lock with standard key

IP54



3VW9011-0AP13

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with handle operating mechanism

# 3VL up to 1600 A, IEC



3VL molded case circuit breaker



## *Product Discontinuation*

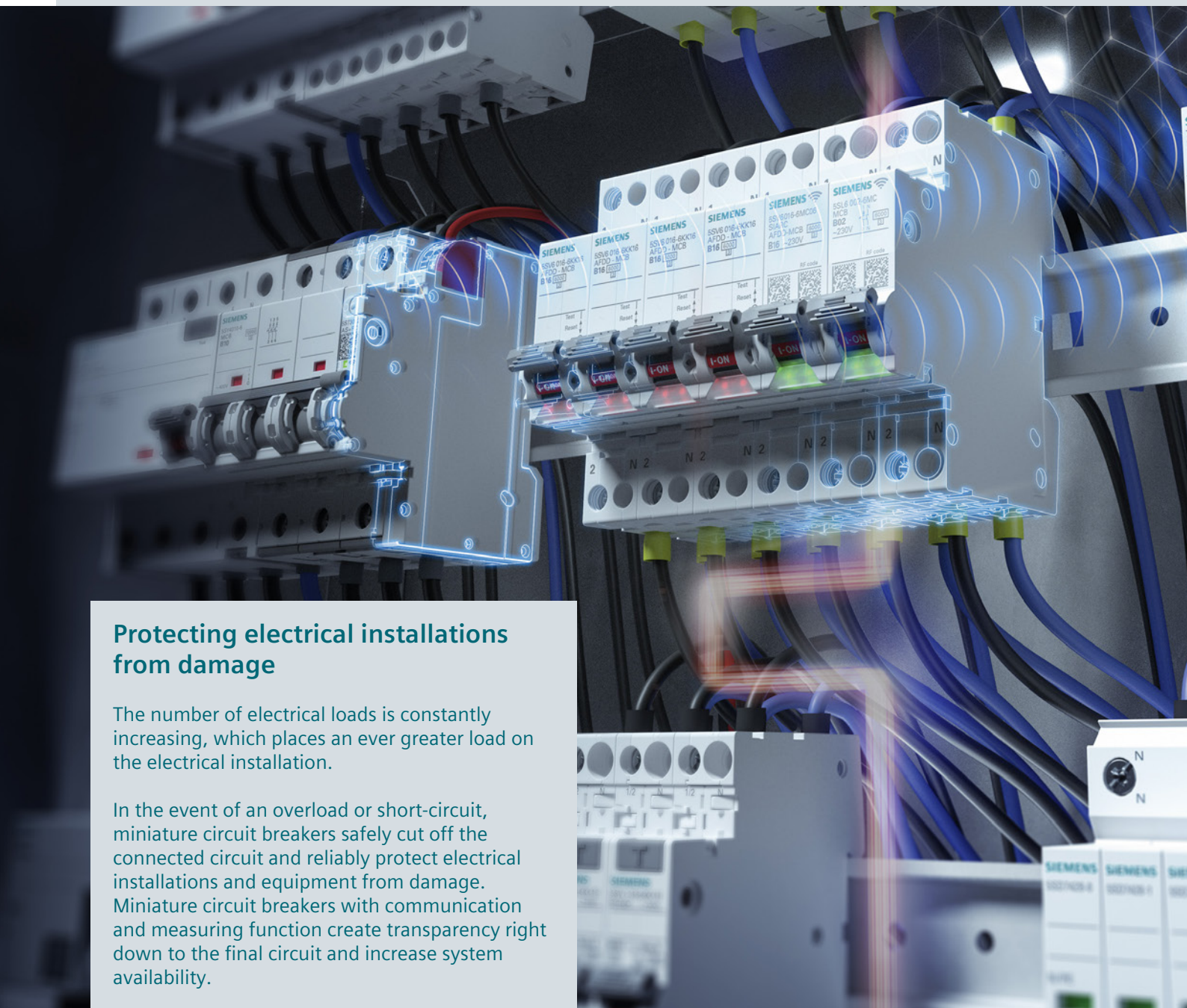
The 3VL molded case circuit breaker up to 1600 A IEC can only be ordered as a spare part (since 10/2020), and will be removed from the order portfolio from 10/2025.

### **Documents available for downloading:**

You can find comprehensive information on the 3VL molded case circuit breaker in the catalog extract.

3VL molded case circuit breaker ([109769073](#))





## Protecting electrical installations from damage

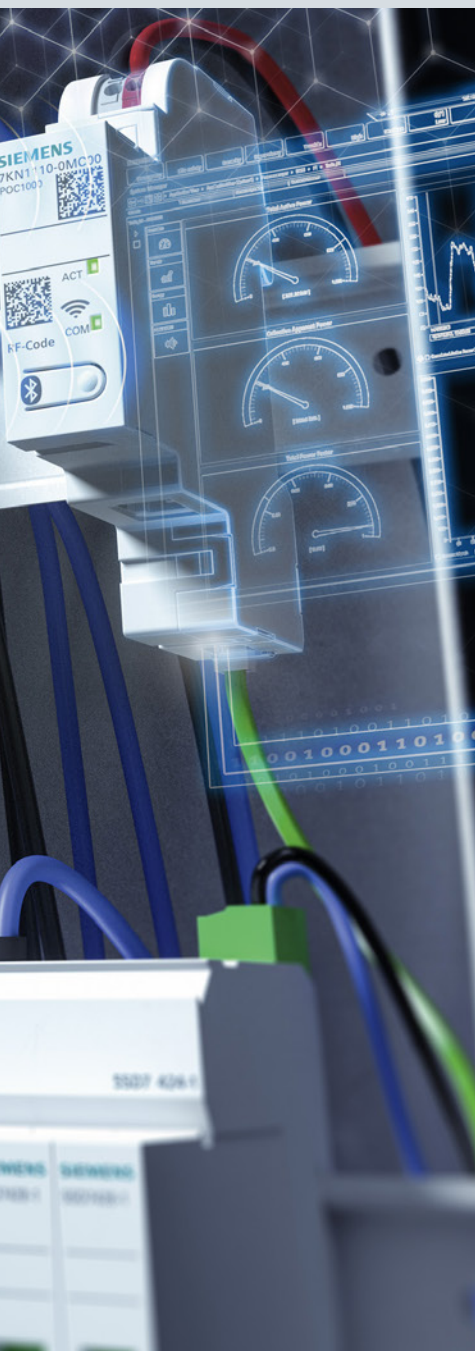
The number of electrical loads is constantly increasing, which places an ever greater load on the electrical installation.

In the event of an overload or short-circuit, miniature circuit breakers safely cut off the connected circuit and reliably protect electrical installations and equipment from damage. Miniature circuit breakers with communication and measuring function create transparency right down to the final circuit and increase system availability.

Miniature circuit breakers from the SENTRON portfolio are also simple to mount and install. The devices have a uniform design and, with the appropriate accessories, can be expanded by many additional functions.

For industry, buildings or infrastructure – with our versatile portfolio, you will find a suitable miniature circuit breaker for any application.

# Miniature Circuit Breakers



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about miniature circuit breakers, please visit our websites

[www.siemens.com/mcb](http://www.siemens.com/mcb)

[www.siemens.com/protection-concept](http://www.siemens.com/protection-concept)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – SENTRON protection concept ([109767456](#))
- Technology primer – Miniature circuit breakers ([109482304](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- Miniature circuit breakers (general) [bit.ly/2kJP2Dq](https://bit.ly/2kJP2Dq)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Miniature circuit breakers [sie.ag/2kTFX15](https://sie.ag/2kTFX15)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number

[www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

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## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Miniature circuit breakers ([45302792](#))
- Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))
- System manual – Circuit protection devices with communication and measuring function ([109791806](#))

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- SENTRON circuit protection devices with measuring and communication function (WT-LVBCOM)
- Basic principles of electrical engineering (WT-LVBGET)
- Protection concept (WT-LVBPC)

### Technical overview – Miniature circuit breakers



## The fast way to get you to our online services

This page provides you with comprehensive information and links on miniature circuit breakers

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109769082](#))

# Devices for all applications

## Miniature circuit breakers for basic applications

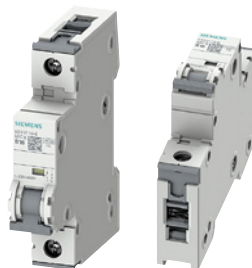


### Ideal for standard applications

The 5SL miniature circuit breakers are the new standard with B and C tripping characteristics for applications up to 63 A. They can be used to disconnect or isolate equipment.

The 5SL devices are mainly installed in meter panels and small distribution boards to protect circuits for lamps, cookers and even machines, for example, in residential or commercial buildings.

## Miniature circuit breakers for advanced applications



### Ideal for industrial applications

For circuits with motors or large lamps, semiconductors or strong pulse-generating equipment such as transformers and solenoid valves – the 5SY and 5SP devices are optimized for industrial applications and are proven in use.

The 5SY devices offer you top quality and functionality for installation in complex buildings and industry. With a rated breaking capacity of up to 25 kA, they are able to handle the most challenging requirements at a rated current of 0.3 to 80 A.

### Special features

- Dual-chamber terminals
- Simple to detach without tools using sliding catches
- Separate switching position indication
- A wide range of accessories
- 5SL60 available as communication-capable miniature circuit breaker

## Device protection switches for advanced applications



### Ideal for devices in industry

Device protection switches from Siemens offer optimum protection for all applications in AC and DC control circuits in industrial applications and plant engineering.

Thermomagnetic 5SY17 device protection switches are used to protect solenoid valves, servo motors, signal lamps or even PLC inputs. Everywhere where loads have to be precisely protected from overloads and short-circuits.

Electronic 5SK9 device protection switches are optimally suited to protecting, for example, relays, programmable controllers, motors, sensors, actuators and valves. A current analysis in conjunction with fast tripping in the event of a fault avoid the danger of overloading the switched-mode power supply.

## 5SL6 COM miniature circuit breakers and 5ST3 COM auxiliary switches/fault signal contacts with communication and measuring functions **new**

The new communication-capable protective devices and auxiliary components record measured values and status information and transmit this data wirelessly to higher-level systems.



5SL6 COM  
see page 3/38



5ST3 COM  
see page 3/50



7KN POC1000  
see page 10/17

- Recording of energy and active power, current, voltage, line frequency and temperature
- Integrated status acquisition, operating hours counter and trip counter
- Higher system availability through early response to warning messages
- Convenient integration into new and existing systems thanks to compact widths of 1 MW
- Fast parameterization and commissioning with the SENTRON powerconfig mobile app or the SENTRON powerconfig software
- Wireless transmission of measurement data from up to 24 communication-capable devices to the 7KN Powercenter 1000 data transceiver, see page 10/16

# System overview

## Basic units and accessories

### Miniature circuit breakers for basic applications



5SL3



5SL6



5SL4



5SJ6...-KS



5SL30



5SL60



5SP3

### Miniature circuit breakers for advanced applications



5SY6



5SY4



5SP4



5SY5



5SY7



5SY8



5SJ4..HG..

5SL6 COM **new**

### Device protection switches for advanced applications



5SY17



5SK9

### Electrical accessories

Auxiliary switches  
(AS)Fault signal  
contacts (FC)Auxiliary switches and fault signal  
contacts (AS+FC)/(AS+FC) COM **new**Shunt trips  
(ST)Undervoltage  
releases (UR)Remote controlled  
mechanisms (RC mech.)5SM6 arc fault  
detection units

### Mechanical accessories

Rotary operating  
mechanisms

Spacers



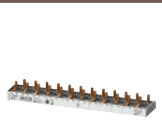
Terminal covers



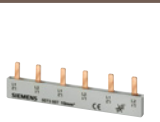
Wall enclosures

Molded-plastic  
enclosuresHolders for front  
panel installationIntermediate  
frames

### Busbars and accessories



Compact busbars



Standard busbars



Terminals



Touch protection



End caps



Series connectors

Distribution  
blocks

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.

# Miniature circuit breakers

For basic applications for buildings and infrastructure



5SL3



5SL6

Standards			IEC/EN 60898-1	IEC/EN 60898-1
Standards			IEC/EN 60898-1	IEC/EN 60898-1
Basic data				
Breaking capacity $I_{cn}$ for AC (230/400 V)		kA	4.5	6
Rated current		A	0.3 ... 63	0.3 ... 63
Number of poles			1P   2P   3P   4P   1P+N   3P+N	1P   2P   3P   4P   1P+N   3P+N
Tripping characteristic			B   C	B   C
Approvals				
General product approvals			VDE, CEBC, TSE	VDE, CEBC, TSE
Marine classifications			–	–
Operational voltage				
Max. AC		V	250/440	250/440
Max. DC per pole	Acc. to EN 60898-2, EN 60947-2	V	72	72
Max. AC	Acc. to UL 1077, CSA C22.2 No.235	V	–	–
Rated voltage AC	Acc. to UL 489	V	–	–
Rated impulse withstand voltage $U_{imp}$		kV	4	4
Rated frequency $f_n$		Hz	50/60	50/60
Connection				
Dual-chamber terminal			–	–
Conductor cross-section 1 wire	Solid/stranded	mm <sup>2</sup>	0.75 ... 35	0.75 ... 35
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 25	0.75 ... 25
	Finely stranded without end sleeve	mm <sup>2</sup>	1 ... 35	1 ... 35
Conductor cross-section 2 wires (same cross-section and same conductor type)	Solid/stranded	mm <sup>2</sup>	0.75 ... 10	0.75 ... 10
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 4	0.75 ... 4
	Finely stranded without end sleeve	mm <sup>2</sup>	1 ... 4	1 ... 4
Conductor cross-section 1-wire + busbar (pin thickness 1.5 mm)	Solid/stranded	mm <sup>2</sup>	10 ... 25	10 ... 25
	Finely stranded with non-insulated end sleeve	mm <sup>2</sup>	6 ... 25	6 ... 25
	Finely stranded with insulated end sleeve	mm <sup>2</sup>	6 ... 16	6 ... 16
Ambient conditions				
Ambient temperature <sup>5)</sup>		°C	–25 ... +45 <sup>1)</sup>	–25 ... +45 <sup>1)</sup>
Storage temperature		°C	–40 ... +75 <sup>3)</sup>	–40 ... +75 <sup>3)</sup>
Shock acc. to IEC 60068-2-27 150 m/s <sup>2</sup> at 11 ms half-sine			–	–
Resistance to vibrations acc. to IEC 60068-2-6: 5 ... 25 Hz (±1mm) and at 25 ... 150 Hz (50 m/s <sup>2</sup> )			–	–
Resistant to shock and vibrations acc. to EN 61373 and EN 50155 "1B" (railway engineering)			–	–
Fire behavior of materials acc. to EN 45545-2 (fire protection on railway vehicles)			–	–
Pollution degree for overvoltage category			2/III	2/III
More information				
			<a href="#">See page 3/12</a>	<a href="#">See page 3/14</a>

<sup>1)</sup> Periodically +55 °C, max. 95% humidity

<sup>2)</sup> Max. 95% humidity

<sup>3)</sup> 95% humidity up to 55 °C  
55% humidity up to 70 °C  
30% humidity up to 75 °C

<sup>4)</sup> Max. 85% rel. humidity, > 45°C max. 0.056kg/m<sup>3</sup> abs. humidity

<sup>5)</sup> The device properties specified, for example, in the product standards, such as service life, breaking capacity and surface temperature, cannot be guaranteed at the specified ambient temperatures that lie outside the specified product standards.

**5SL4****5SJ6...-KS****5SL30****5SL60****5SP3**

IEC/EN 60898-1

IEC/EN 60898-1

IEC/EN 60898-1

IEC/EN 60898-1

DIN VDE 0641-21

10

6

4.5

6

25

0.3 ... 63

10 ... 20

2 ... 40

2 ... 40

16 ... 63

1P | 2P | 3P | 4P | 1P+N | 3P+N

1P | 2P | 3P | 1P+N

1P+N

1P+N

1P | 2P | 3P | 4P

B | C | D

B | C

C

B | C

E

VDE, CEBC, IMQ

VDE

VDE, IMQ, NF, CCC

VDE, IMQ, NF, CCC

VDE

-

-

-

DNV-GL

-

250/440

250/440

250

250

-

72

60

72

72

-

-

-

-

-

-

-

-

-

-

-

4

4

4

4

4

50/60

50/60

50/60

50/60

50/60

-

Plug-in terminal on outgoing side

-

-

-

0.75 ... 35

1.5 ... 4 (top) | 0.75 ... 25 (bottom)

0.75 ... 16

0.75 ... 16

2.5 ... 50 (bottom)

0.75 ... 25

1.5 ... 2.5 (top) | 0.75 ... 25 (bottom)

0.75 ... 10

0.75 ... 10

2.5 ... 50 (bottom)

1 ... 35

1.5 ... 4

0.75 ... 16

0.75 ... 16

2.5 ... 16 (top)

0.75 ... 10

-

0.75 ... 4

0.75 ... 4

-

0.75 ... 4

-

0.75 ... 1.5

0.75 ... 1.5

-

1 ... 4

-

0.75 ... 4

0.75 ... 4

-

10 ... 25

-

-

-

-

6 ... 25

-

6 ... 10

6 ... 10

-

6 ... 16

-

6 ... 10

6 ... 10

-

-25 ... +55<sup>2)</sup>-25 ... +45<sup>1)</sup>

-25 ... +60

-25 ... +60<sup>4)</sup>

-25 ... +55

-40 ... +75<sup>3)</sup>-40 ... +75<sup>3)</sup>

-40 ... +75

-40 ... +75

-40 ... +70

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[See page 3/16](#)[See page 3/18](#)[See page 3/20](#)[See page 3/22](#)[See page 3/40](#)

# Miniature circuit breakers

For advanced applications for buildings and infrastructure and for industry and machine manufacturing



SSL6 COM

5SY6

5SY4

Standards		IEC/EN 60898-1		IEC/EN 60898-1 IEC/EN 60947-2 UL 1077		IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	
Standards		IEC/EN 60898-1		IEC/EN 60898-1 IEC/EN 60947-2 UL 1077		IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	
<b>Basic data</b>							
Breaking capacity $I_{cn}$	For AC (230/400 V) acc. to IEC/EN 60898-1 AC	kA	6	6	10		
	Acc. to UL1077 and CSA C22.2 No.235		–	Supplementary protector, OC, FW 0, OL 0, TC 3 at 50 °C	Supplementary protector, OC, FW 0, OL 0, TC 3 at 50 °C		
		SC	–	U2: see Certificate of Compliance	U2: see Certificate of Compliance		
Rated breaking capacity $I_{cu}$ acc. to IEC/EN 60947-2 at $U_e$ 230 V   at $U_e$ 400 V (1P, 1P+N)   (2P, 3P, 4P, 3P+N)	$I_n$ 0.3 ... 2 A	kA	–	30   30	35   35		
	$I_n$ 3 ... 6 A	kA	–	30   30	35   35		
	$I_n$ 8 ... 10 A	kA	–	15   15	20   20		
	$I_n$ 13 ... 32 A	kA	–	15   15	20   20		
	$I_n$ 35 ... 40 A	kA	–	10   10	15   15		
	$I_n$ 50 ... 63 A	kA	–	10   10	15   15		
	$I_n$ 80 ... 125 A	kA	–	–   –	10   10		
Rated current		A	2 ... 32	0.3 ... 63	0.3 ... 80		
Number of poles			1P+N	1P   2P   3P   4P   1P+N   3P+N	1P   2P   3P   4P   1P+N   3P+N		
Tripping characteristic			B   C	B   C	A   B   C   D		
<b>Approvals</b>							
General product approvals		VDE, RED		VDE, IMQ, CCC, 	VDE, IMQ, CCC, 		
Marine classifications		–		DNV-GL, LR, BV, RINA, ABS	DNV-GL, LR, BV, RINA, ABS		
<b>Operational voltage</b>							
Max. AC	Acc. to EN 60898-1/-2, EN 60947-2	V	250	250/440	250/440		
	Acc. to UL 1077, CSA C22.2 No.235	V	–	277/480	277/480		
Max. DC per pole	Acc. to EN 60898-1/-2, EN 60947-2	V	72	72 <sup>1)</sup>	72 <sup>1)</sup>		
Rated voltage AC	Acc. to UL 489	V	–	–	–		
Rated impulse withstand voltage $U_{imp}$		kV	4	4	4		
Rated frequency $f_n$		Hz	50/60	50/60	50/60		
<b>Connection</b>							
Dual-chamber terminal		–		■	■		
Conductor cross-section 1 wire	Solid/stranded	mm <sup>2</sup>	0.75 ... 16	0.75 ... 35	0.75 ... 35		
	Finely stranded, with end sleeve	mm <sup>2</sup>	0.75 ... 10	0.75 ... 25	0.75 ... 25		
	Conductors (Cu 60/75 °C $I_n \leq 40$ A; 60 °C $I_n > 40$ A)		–	AWG 18 ... 4	AWG 18 ... 4		
Terminal tightening torque		Nm	1.5 ... 2.5 max.	2.5 ... 3.5 max.	2.5 ... 3.5 max.		
		lb-in	13 ... 22	22 ... 26	22 ... 26		
<b>Ambient conditions</b>							
Ambient temperature <sup>7)</sup>		°C	–25 ... +60 <sup>5)</sup>	–25 ... +55 <sup>4)</sup>	–40 ... +70 <sup>3)</sup>		
Storage temperature		°C	–40 ... +75	–40 ... +75 <sup>3)</sup>	–40 ... +75 <sup>3)</sup>		
Shock acc. to IEC 60068-2-27 150 m/s <sup>2</sup> at 11 ms half-sine			–	■	■		
Resistance to vibrations acc. to IEC 60068-2-6: 5 ... 25 Hz ( $\pm 1$ mm) and at 25 ... 150 Hz (50 m/s <sup>2</sup> )			–	■	■		
Resistant to shock and vibrations acc. to EN 61373 and EN 50155 "1B" (railway engineering)			–	–	■		
Fire behavior of materials acc. to EN 45545-2 (fire protection on railway vehicles)			–	–	■		
Pollution degree for overvoltage category			2/III	3/III	3/III		
<b>Additional functions</b>							
Communication and measuring function <sup>8)</sup>		■		–	–		
<b>More information</b>							
		See page 3/38		See page 3/24		See page 3/26	

<sup>1)</sup> Exempt: C/D 0.3 A ... 0.5 A

<sup>2)</sup> 5SY54.. 4-pole, degree of pollution 2 for overvoltage category II

<sup>3)</sup> 95% humidity up to 55 °C

55% humidity up to 70 °C

30% humidity up to 75 °C

<sup>4)</sup> Max. 95% humidity

<sup>5)</sup> Max. 85% rel. humidity, > 45°C max. 0.056kg/m<sup>3</sup> abs. humidity

<sup>6)</sup> When used with a busbar at the front or 2 conductors, the terminal area at the rear is restricted, see notes on the Internet

**5SP4****5SY5****5SY7****5SY8****5SJ4..HG..**IEC/EN 60898-1  
UL 1077IEC/EN 60898-2  
UL 1077IEC/EN 60898-1  
IEC/EN 60947-2  
UL 1077IEC/EN 60947-2  
UL 1077IEC/EN 60947-2  
UL 489

10

10

15

25

–

Supplementary protector, OC,  
FW 0, OL 0, TC 3 at 50°CSupplementary protector, OC,  
FW 0, OL 0, TC 3 at 50°CSupplementary protector, OC,  
FW 0, OL 0, TC 3 at 50°CSupplementary protector, OC,  
FW 0, OL 0, TC 3 at 50°C

–

U2: see Certificate of  
ComplianceU2: see Certificate of  
ComplianceU2: see Certificate of  
ComplianceU2: see Certificate of  
Compliance

–

– | –

– | –

50 | 50

70 | 70

10

– | –

– | –

40 | 40

50 | 50

10

– | –

– | –

30 | 30

40 | 40

10

– | –

– | –

25 | 25

30 | 30

10

– | –

– | –

20 | 20

25 | 25

10

– | –

– | –

15 | 15

20 | 20

10

10 | 10

– | –

– | –

– | –

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80 ... 125

0.3 ... 63

0.3 ... 63

0.3 ... 63

0.3 ... 63

1P | 2P | 3P | 4P

1P | 2P | 4P

1P | 2P | 3P | 4P | 1P+N | 3P+N

1P | 2P | 3P | 4P | 1P+N | 3P+N

1P | 2P | 3P

B | C | D

B | C

B | C | D

C | D

B | C | D

VDE, CCC,  
VDE, CCC,  
VDE, IMQ, CCC,  
VDE, CCC,  


LR

ABS

DNV-GL, LR, BV, RINA, ABS

ABS

–

250/440

250/440

250/440

250/440

250/440

277/480

–

277/480

277/480

–

72

250

72<sup>1)</sup>72<sup>1)</sup>

60

–

–

–

–

277/480

4

4

4

4

4

50/60

50/60

50/60

50/60

50/60

–

■

■

■

■

10 ... 50

0.75 ... 35

0.75 ... 35

0.75 ... 35

0.75 ... 25 (16)<sup>6)</sup>

10 ... 35

0.75 ... 25

0.75 ... 25

0.75 ... 25

0.75 ... 25 (10)

AWG 3 ... 1

AWG 18 ... 4

AWG 18 ... 4

AWG 18 ... 4

AWG 18 ... 4 (5)

2.5 ... 3.5 max.

2.5 ... 3.5 max.

2.5 ... 3.5 max.

2.5 ... 3.5 max.

2.5 ... 3.5 max.

22 ... 31

22 ... 26

22 ... 26

22 ... 26

22 ... 26

–25 ... +55<sup>4)</sup>–40 ... +70<sup>3)</sup>–40 ... +70<sup>3)</sup>–25 ... +55<sup>4)</sup>–25 ... +55<sup>4)</sup>–40 ... +75<sup>3)</sup>–40 ... +75<sup>3)</sup>–40 ... +75<sup>3)</sup>–40 ... +75<sup>3)</sup>–40 ... +75<sup>3)</sup>

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3/III

3/III<sup>4)</sup>

3/III

3/III

3/III

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See page 3/28

See page 3/30

See page 3/32

See page 3/34

See page 3/36

<sup>7)</sup> The device properties specified, for example, in the product standards, such as service life, breaking capacity and surface temperature, cannot be guaranteed at the specified ambient temperatures that lie outside the specified product standards.

<sup>8)</sup> Please note the country-specific radio licenses of the products in SIOS:  
[www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)




# Device protection switches

For advanced applications for industry and machine manufacturing



## 5SY17

Standards			
Standards		IEC/EN 60934 UL 1077	
Basic data			
Breaking capacity $I_{cn}$	At rated voltage	kA	3
Rated current		A	0.5 ... 16
Number of poles			1P+AS
DC tripping	Magnetic		F1 (2.5 ... 4 × $I_n$ )   F2 (4 ... 7 × $I_n$ )
	Thermal		1.05 × holding current   1.35 × tripping current   TC3 1.35 × $I_n$
	Electronic		–
Service life	Actuations		6000
Approvals			
General product approvals		CCC, 	
Operational voltage			
Min. AC	Acc. to EN 60934	V	12 <sup>2)</sup>
	Acc. to UL 1077, CSA C22.2 No.235	V	12 <sup>2)</sup>
Max. AC	Acc. to EN 60934	V	250
	Acc. to UL 1077, CSA C22.2 No.235	V	277
Min. DC per pole		V	12 <sup>2)</sup>
Max. DC per pole		V	72
Rated voltage	Acc. to IEC/EN 60934	V	230
	Acc. to UL 1077	V	277
Rated impulse withstand voltage $U_{imp}$		kV	4
Rated frequency $f_n$		Hz	50/60
Auxiliary switch			
Min. operational voltage (AC)		V	12
Max. operational voltage (AC)		V	250
Min. operational voltage (DC)		V	12
Max. operational voltage (DC)		V	60
Utilization category AC-12			6A at 230 V AC
Utilization category AC-14			6A at 230 V AC
Utilization category DC-13			1A at 60 V DC
Connection			
Dual-chamber terminal			–
Conductor cross-section 1 wire	Solid/stranded	mm <sup>2</sup>	0.75 ... 16
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 10
	Finely stranded with insulated end sleeve	mm <sup>2</sup>	0.75 ... 10
	Finely stranded without end sleeve	mm <sup>2</sup>	0.75 ... 16
	Conductor cross-section AWG		–
2-wire (same cross-section)	Solid/stranded	mm <sup>2</sup>	0.75 ... 4
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 2.5
	Finely stranded with insulated end sleeve	mm <sup>2</sup>	0.75 ... 1.5
	Finely stranded without end sleeve	mm <sup>2</sup>	0.75 ... 4
Terminal tightening torque		Nm	2.0 ... 2.5 max.
		lb-in	17.7 ... 22.1
Ambient conditions			
Ambient temperature		°C	–25 ... +60 <sup>3)</sup>
Storage temperature		°C	–40 ... +70
Shock acc. to IEC 60068-2-27 150 m/s <sup>2</sup> at 11 ms half-sine			–
Resistance to vibrations acc. to IEC 60068-2-6: 5 ... 25 Hz (±1mm) and at 25 ... 150 Hz (50 m/s <sup>2</sup> )			–
Resistant to shock and vibrations acc. to EN 61373 and EN 50155 "1B" (railway engineering)			–
Fire behavior of materials acc. to EN 45545-2 (fire protection on railway vehicles)			–
Pollution degree for overvoltage category	Acc. to IEC		2/III
More information			

See page 3/42

<sup>1)</sup> Max. 95% humidity

<sup>2)</sup> At a minimum current of 100 mA



## 5SK9

EN 61000-6-2, EN 61000-6-3, EN 60068-2-78,  
EN 50178, EN 60068-2-6, EN 60068-2-27,  
UL 508, UL 2367

–

1 ... 8

1P+AS

–

–

Overload  $1.2 \times I_n/1s$  | Short-circuit  $2 \times I_n < 10\text{ ms}$

–



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–

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30

–

0.5

–

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–

–

0.2 ... 4

0.2 ... 2.5

0.2 ... 2.5

–

AWG 24 ... 12

–

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–

–

–25 ... +60<sup>1)</sup>

–40 ... +70

–

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[See page 3/43](#)

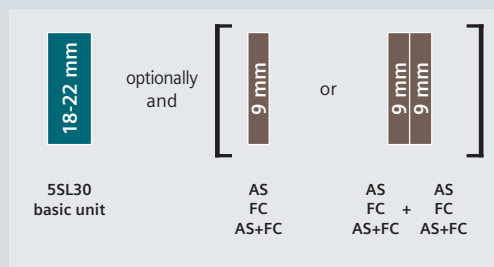
<sup>3)</sup> Max. 85% rel. humidity, > 45°C max. 0.056kg/m<sup>3</sup> abs. humidity

# 5SL3 miniature circuit breakers

4.5 kA

Mounting width	1P	1P+N	2P	3P				
	230/400 V AC	230 V AC	400 V AC	400 V AC				
1 MW		2 MW	2 MW	3 MW				
Rated current $I_n$	Characteristic		Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C	B	C
0.3 A	–	5SL3114-7	–	5SL3514-7	–	5SL3214-7	–	–
0.5 A	–	5SL3105-7	–	5SL3505-7	–	5SL3205-7	–	–
1 A	–	5SL3101-7	–	5SL3501-7	–	5SL3201-7	–	5SL3301-7
1.6 A	–	5SL3115-7	–	5SL3515-7	–	5SL3215-7	–	–
2 A	–	5SL3102-7	–	5SL3502-7	–	5SL3202-7	–	5SL3302-7
3 A	–	5SL3103-7	–	5SL3503-7	–	5SL3203-7	–	5SL3303-7
4 A	–	5SL3104-7	–	5SL3504-7	–	5SL3204-7	–	5SL3304-7
6 A	5SL3106-6	5SL3106-7	5SL3506-6	5SL3506-7	5SL3206-6	5SL3206-7	5SL3306-6	5SL3306-7
8 A	–	5SL3108-7	–	5SL3508-7	–	5SL3208-7	–	–
10 A	5SL3110-6	5SL3110-7	5SL3510-6	5SL3510-7	5SL3210-6	5SL3210-7	5SL3310-6	5SL3310-7
13 A	5SL3113-6	5SL3113-7	5SL3513-6	5SL3513-7	5SL3213-6	5SL3213-7	–	–
16 A	5SL3116-6	5SL3116-7	5SL3516-6	5SL3516-7	5SL3216-6	5SL3216-7	5SL3316-6	5SL3316-7
20 A	5SL3120-6	5SL3120-7	5SL3520-6	5SL3520-7	5SL3220-6	5SL3220-7	5SL3320-6	5SL3320-7
25 A	5SL3125-6	5SL3125-7	5SL3525-6	5SL3525-7	5SL3225-6	5SL3225-7	5SL3325-6	5SL3325-7
32 A	5SL3132-6	5SL3132-7	5SL3532-6	5SL3532-7	5SL3232-6	5SL3232-7	5SL3332-6	5SL3332-7
40 A	5SL3140-6	5SL3140-7	5SL3540-6	5SL3540-7	5SL3240-6	5SL3240-7	5SL3340-6	5SL3340-7
50 A	5SL3150-6	5SL3150-7	5SL3550-6	5SL3550-7	5SL3250-6	5SL3250-7	5SL3350-6	5SL3350-7
63 A	5SL3163-6	5SL3163-7	5SL3563-6	5SL3563-7	5SL3263-6	5SL3263-7	5SL3363-6	5SL3363-7

## Mounting concept



AS Auxiliary switches  
 FC Fault signal contacts  
 AS+FC Auxiliary switches and fault signal contacts

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3P+N 400 V AC 4 MW		4P 400 V AC 4 MW	
Characteristic		Characteristic	
B	C	B	C
–	–	–	–
–	–	–	–
–	5SL3601-7	–	5SL3401-7
–	–	–	–
–	5SL3602-7	–	5SL3402-7
–	5SL3603-7	–	5SL3403-7
–	5SL3604-7	–	5SL3404-7
5SL3606-6	5SL3606-7	–	5SL3406-7
–	5SL3608-7	–	–
5SL3610-6	5SL3610-7	–	5SL3410-7
5SL3613-6	5SL3613-7	–	5SL3413-7
5SL3616-6	5SL3616-7	–	5SL3416-7
5SL3620-6	5SL3620-7	–	5SL3420-7
5SL3625-6	5SL3625-7	–	5SL3425-7
5SL3632-6	5SL3632-7	–	5SL3432-7
5SL3640-6	5SL3640-7	–	5SL3440-7
5SL3650-6	5SL3650-7	–	5SL3450-7
5SL3663-6	5SL3663-7	–	5SL3463-7

3

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

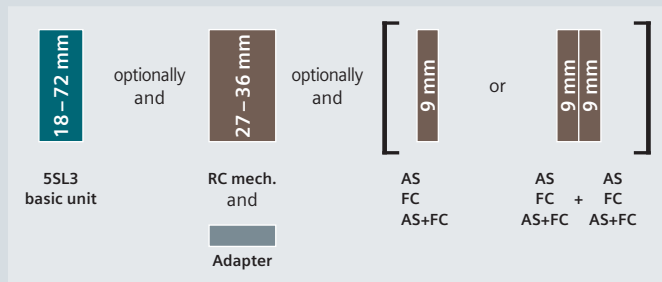
Fault signal contacts (FC)	Article No.
1 NO + 1 NC	5ST3020
2 NO	5ST3021
2 NC	5ST3022
Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO (AS) + 1 CO (FC)	5ST3062
5ST3 COM (AS+FC) <b>new</b>	5ST3062-0MC

# 5SL6 miniature circuit breakers

6 kA

Mounting width	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
	1 MW		2 MW		2 MW		3 MW	
Rated current $I_n$	Characteristic		Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C	B	C
0.3 A	–	5SL6114-7	–	5SL6514-7	–	5SL6214-7	–	5SL6314-7
0.5 A	–	5SL6105-7	–	5SL6505-7	–	5SL6205-7	–	5SL6305-7
1 A	–	5SL6101-7	–	5SL6501-7	–	5SL6201-7	–	5SL6301-7
1.6 A	–	5SL6115-7	–	5SL6515-7	–	5SL6215-7	–	5SL6315-7
2 A	5SL6102-6	5SL6102-7	–	5SL6502-7	–	5SL6202-7	–	5SL6302-7
3 A	–	5SL6103-7	–	5SL6503-7	–	5SL6203-7	–	5SL6303-7
4 A	5SL6104-6	5SL6104-7	–	5SL6504-7	–	5SL6204-7	–	5SL6304-7
6 A	5SL6106-6	5SL6106-7	5SL6506-6	5SL6506-7	5SL6206-6	5SL6206-7	5SL6306-6	5SL6306-7
8 A	–	5SL6108-7	–	5SL6508-7	–	5SL6208-7	–	5SL6308-7
10 A	5SL6110-6	5SL6110-7	5SL6510-6	5SL6510-7	5SL6210-6	5SL6210-7	5SL6310-6	5SL6310-7
13 A	5SL6113-6	5SL6113-7	5SL6513-6	5SL6513-7	5SL6213-6	5SL6213-7	5SL6313-6	5SL6313-7
16 A	5SL6116-6	5SL6116-7	5SL6516-6	5SL6516-7	5SL6216-6	5SL6216-7	5SL6316-6	5SL6316-7
20 A	5SL6120-6	5SL6120-7	5SL6520-6	5SL6520-7	5SL6220-6	5SL6220-7	5SL6320-6	5SL6320-7
25 A	5SL6125-6	5SL6125-7	5SL6525-6	5SL6525-7	5SL6225-6	5SL6225-7	5SL6325-6	5SL6325-7
32 A	5SL6132-6	5SL6132-7	5SL6532-6	5SL6532-7	5SL6232-6	5SL6232-7	5SL6332-6	5SL6332-7
40 A	5SL6140-6	5SL6140-7	5SL6540-6	5SL6540-7	5SL6240-6	5SL6240-7	5SL6340-6	5SL6340-7
50 A	5SL6150-6	5SL6150-7	5SL6550-6	5SL6550-7	5SL6250-6	5SL6250-7	5SL6350-6	5SL6350-7
63 A	5SL6163-6	5SL6163-7	5SL6563-6	5SL6563-7	5SL6263-6	5SL6263-7	5SL6363-6	5SL6363-7

## Mounting concept



- AS Auxiliary switches
- FC Fault signal contacts
- AS+FC Auxiliary switches and fault signal contacts
- RC mech. Remote controlled mechanisms

- [See page 3/46](#)
- [See page 3/48](#)
- [See page 3/49](#)
- [See page 3/54](#)



3P+N 400 V AC 4 MW		4P 400 V AC 4 MW	
Characteristic		Characteristic	
B	C	B	C
–	5SL6614-7	–	5SL6414-7
–	5SL6605-7	–	5SL6405-7
–	5SL6601-7	–	5SL6401-7
–	5SL6615-7	–	5SL6415-7
–	5SL6602-7	–	5SL6402-7
–	5SL6603-7	–	5SL6403-7
–	5SL6604-7	–	5SL6404-7
5SL6606-6	5SL6606-7	5SL6406-6	5SL6406-7
–	5SL6608-7	–	5SL6408-7
5SL6610-6	5SL6610-7	5SL6410-6	5SL6410-7
5SL6613-6	5SL6613-7	5SL6413-6	5SL6413-7
5SL6616-6	5SL6616-7	5SL6416-6	5SL6416-7
5SL6620-6	5SL6620-7	5SL6420-6	5SL6420-7
5SL6625-6	5SL6625-7	5SL6425-6	5SL6425-7
5SL6632-6	5SL6632-7	5SL6432-6	5SL6432-7
5SL6640-6	5SL6640-7	5SL6440-6	5SL6440-7
5SL6650-6	5SL6650-7	5SL6450-6	5SL6450-7
5SL6663-6	5SL6663-7	5SL6463-6	5SL6463-7

3

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022

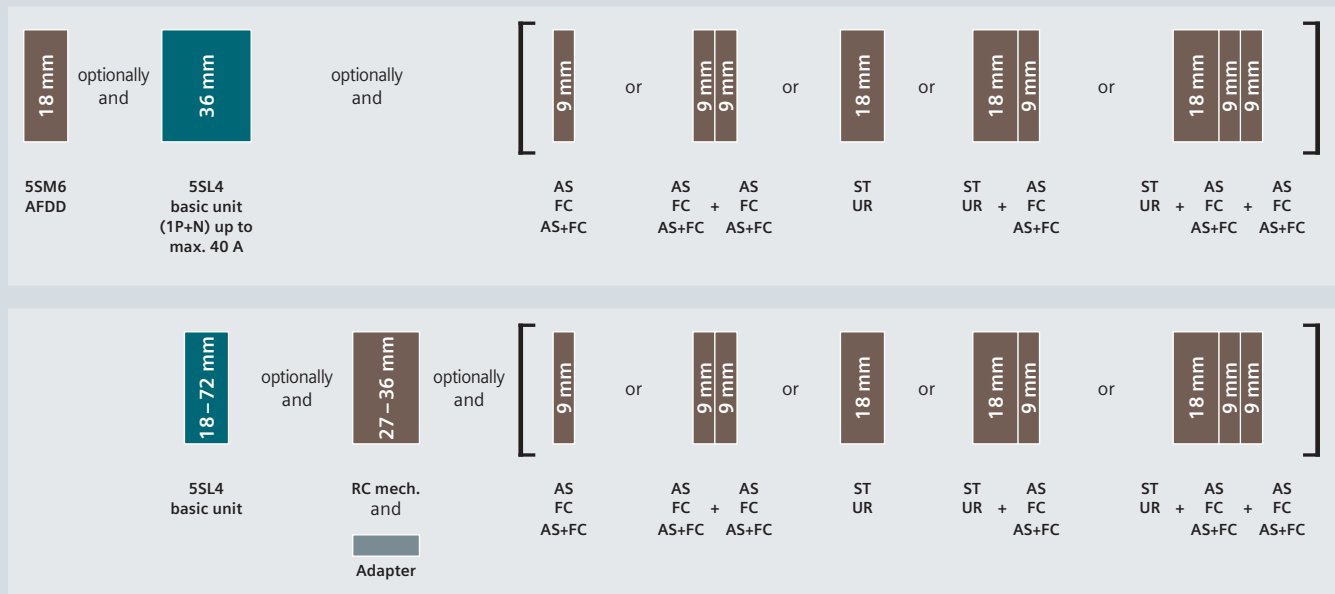
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1–2 MW		5ST3820-6
3–4 MW		5ST3820-7

# 5SL4 miniature circuit breakers

10 kA

Mounting width	1P 230/400 V AC			1P+N 230 V AC			2P 400 V AC		
	1 MW			2 MW			2 MW		
Rated current I <sub>n</sub>	Characteristic			Characteristic			Characteristic		
	B	C	D	B	C	D	B	C	D
0.3 A	–	5SL4114-7	5SL4114-8	–	5SL4514-7	5SL4514-8	–	5SL4214-7	5SL4214-8
0.5 A	–	5SL4105-7	5SL4105-8	–	5SL4505-7	5SL4505-8	–	5SL4205-7	5SL4205-8
1 A	5SL4101-6	5SL4101-7	5SL4101-8	5SL4501-6	5SL4501-7	5SL4501-8	5SL4201-6	5SL4201-7	5SL4201-8
1.6 A	–	5SL4115-7	5SL4115-8	–	5SL4515-7	5SL4515-8	–	5SL4215-7	5SL4215-8
2 A	5SL4102-6	5SL4102-7	5SL4102-8	5SL4502-6	5SL4502-7	5SL4502-8	5SL4202-6	5SL4202-7	5SL4202-8
3 A	5SL4103-6	5SL4103-7	5SL4103-8	5SL4503-6	5SL4503-7	5SL4503-8	5SL4203-6	5SL4203-7	5SL4203-8
4 A	5SL4104-6	5SL4104-7	5SL4104-8	5SL4504-6	5SL4504-7	5SL4504-8	5SL4204-6	5SL4204-7	5SL4204-8
6 A	5SL4106-6	5SL4106-7	5SL4106-8	5SL4506-6	5SL4506-7	5SL4506-8	5SL4206-6	5SL4206-7	5SL4206-8
8 A	5SL4108-6	5SL4108-7	5SL4108-8	5SL4508-6	5SL4508-7	5SL4508-8	5SL4208-6	5SL4208-7	5SL4208-8
10 A	5SL4110-6	5SL4110-7	5SL4110-8	5SL4510-6	5SL4510-7	5SL4510-8	5SL4210-6	5SL4210-7	5SL4210-8
13 A	5SL4113-6	5SL4113-7	5SL4113-8	5SL4513-6	5SL4513-7	5SL4513-8	5SL4213-6	5SL4213-7	5SL4213-8
16 A	5SL4116-6	5SL4116-7	5SL4116-8	5SL4516-6	5SL4516-7	5SL4516-8	5SL4216-6	5SL4216-7	5SL4216-8
20 A	5SL4120-6	5SL4120-7	5SL4120-8	5SL4520-6	5SL4520-7	5SL4520-8	5SL4220-6	5SL4220-7	5SL4220-8
25 A	5SL4125-6	5SL4125-7	5SL4125-8	5SL4525-6	5SL4525-7	5SL4525-8	5SL4225-6	5SL4225-7	5SL4225-8
32 A	5SL4132-6	5SL4132-7	5SL4132-8	5SL4532-6	5SL4532-7	5SL4532-8	5SL4232-6	5SL4232-7	5SL4232-8
40 A	5SL4140-6	5SL4140-7	5SL4140-8	5SL4540-6	5SL4540-7	5SL4540-8	5SL4240-6	5SL4240-7	5SL4240-8
50 A	5SL4150-6	5SL4150-7	5SL4150-8	5SL4550-6	5SL4550-7	5SL4550-8	5SL4250-6	5SL4250-7	5SL4250-8
63 A	5SL4163-6	5SL4163-7	5SL4163-8	5SL4563-6	5SL4563-7	5SL4563-8	5SL4263-6	5SL4263-7	5SL4263-8

## Mounting concept



AFDD Arc fault detection units  
AS Auxiliary switches  
FC Fault signal contacts

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AS+FC Auxiliary switches and fault signal contacts  
ST Shunt trips

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UR Undervoltage releases  
RC mech. Remote controlled mechanisms

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[See page 3/54](#)



3P 400 V AC 3 MW			3P+N 400 V AC 4 MW			4P 400 V AC 4 MW		
Characteristic			Characteristic			Characteristic		
B	C	D	B	C	D	B	C	D
–	5SL4314-7	5SL4314-8	–	5SL4614-7	5SL4614-8	–	5SL4414-7	5SL4414-8
–	5SL4305-7	5SL4305-8	–	5SL4605-7	5SL4605-8	–	5SL4405-7	5SL4405-8
5SL4301-6	5SL4301-7	5SL4301-8	5SL4601-6	5SL4601-7	5SL4601-8	5SL4401-6	5SL4401-7	5SL4401-8
–	5SL4315-7	5SL4315-8	–	5SL4615-7	5SL4615-8	–	5SL4415-7	5SL4415-8
5SL4302-6	5SL4302-7	5SL4302-8	5SL4602-6	5SL4602-7	5SL4602-8	5SL4402-6	5SL4402-7	5SL4402-8
5SL4303-6	5SL4303-7	5SL4303-8	5SL4603-6	5SL4603-7	5SL4603-8	5SL4403-6	5SL4403-7	5SL4403-8
5SL4304-6	5SL4304-7	5SL4304-8	5SL4604-6	5SL4604-7	5SL4604-8	5SL4404-6	5SL4404-7	5SL4404-8
5SL4306-6	5SL4306-7	5SL4306-8	5SL4606-6	5SL4606-7	5SL4606-8	5SL4406-6	5SL4406-7	5SL4406-8
5SL4308-6	5SL4308-7	5SL4308-8	5SL4608-6	5SL4608-7	5SL4608-8	5SL4408-6	5SL4408-7	5SL4408-8
5SL4310-6	5SL4310-7	5SL4310-8	5SL4610-6	5SL4610-7	5SL4610-8	5SL4410-6	5SL4410-7	5SL4410-8
5SL4313-6	5SL4313-7	5SL4313-8	5SL4613-6	5SL4613-7	5SL4613-8	5SL4413-6	5SL4413-7	5SL4413-8
5SL4316-6	5SL4316-7	5SL4316-8	5SL4616-6	5SL4616-7	5SL4616-8	5SL4416-6	5SL4416-7	5SL4416-8
5SL4320-6	5SL4320-7	5SL4320-8	5SL4620-6	5SL4620-7	5SL4620-8	5SL4420-6	5SL4420-7	5SL4420-8
5SL4325-6	5SL4325-7	5SL4325-8	5SL4625-6	5SL4625-7	5SL4625-8	5SL4425-6	5SL4425-7	5SL4425-8
5SL4332-6	5SL4332-7	5SL4332-8	5SL4632-6	5SL4632-7	5SL4632-8	5SL4432-6	5SL4432-7	5SL4432-8
5SL4340-6	5SL4340-7	5SL4340-8	5SL4640-6	5SL4640-7	5SL4640-8	5SL4440-6	5SL4440-7	5SL4440-8
5SL4350-6	5SL4350-7	5SL4350-8	5SL4650-6	5SL4650-7	5SL4650-8	5SL4450-6	5SL4450-7	5SL4450-8
5SL4363-6	5SL4363-7	5SL4363-8	5SL4663-6	5SL4663-7	5SL4663-8	5SL4463-6	5SL4463-7	5SL4463-8

## Accessories

Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-0XX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015			
1 CO	Standard	5ST3016	Remote controlled mechanisms (RC mech.)		Article No.
Fault signal contacts (FC)		Article No.	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
1 NO + 1 NC		5ST3020		177 ... 270 V AC	5ST3054
2 NO		5ST3021	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
2 NC		5ST3022		177 ... 270 V AC	5ST3056
Auxiliary switches and fault signal contacts (AS+FC)		Article No.	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
1 CO (AS) + 1 CO (FC)		5ST3062		177 ... 270 V AC	5ST3058
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Shunt trips (ST)		Article No.	Adapters for remote controlled mechanisms (RC mech.)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030	1–2 MW		5ST3820-6
24 ... 48 V AC/DC		5ST3031	3–4 MW		5ST3820-7
12 V DC		5ST3031-0XX01	Arc fault detection units (AFDD)		Article No.
			For basic units 1P+N (2 MW), not in combination with RC mech.	$I_n$ up to 16 A $I_n$ up to 40 A	5SM6021-2 5SM6024-2



# 5SJ6...-KS miniature circuit breakers

6 kA – plug-in terminal on outgoing side



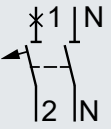

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	1P 230/400 V AC		1P+N 230/400 V AC		2P 230/400 V AC		3P 230/400 V AC	
	1 MW		2 MW		2 MW		3 MW	
Mounting width								
Rated current $I_n$	Characteristic		Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C	B	C
10 A	5SJ6110-6KS	5SJ6110-7KS	5SJ6510-6KS	5SJ6510-7KS	5SJ6210-6KS	5SJ6210-7KS	5SJ6310-6KS	5SJ6310-7KS
13 A	5SJ6113-6KS	5SJ6113-7KS	5SJ6513-6KS	5SJ6513-7KS	5SJ6213-6KS	5SJ6213-7KS	5SJ6313-6KS	5SJ6313-7KS
16 A	5SJ6116-6KS	5SJ6116-7KS	5SJ6516-6KS	5SJ6516-7KS	5SJ6216-6KS	5SJ6216-7KS	5SJ6316-6KS	5SJ6316-7KS
20 A	5SJ6120-6KS	5SJ6120-7KS	5SJ6520-6KS	5SJ6520-7KS	5SJ6220-6KS	5SJ6220-7KS	5SJ6320-6KS	5SJ6320-7KS

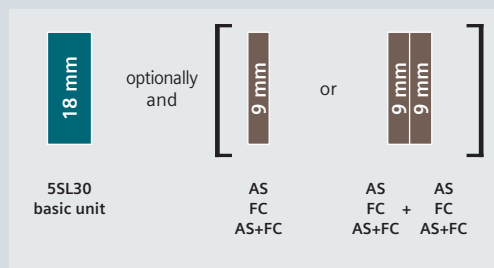


# 5SL30 miniature circuit breakers

## 1P+N 4.5 kA compact miniature circuit breakers

	1P+N (N pole right) 230 V AC	1P+N (N pole left) 230 V AC
Mounting width	2 MW 	2 MW 
Rated current $I_n$	Characteristic C	Characteristic C
2 A	5SL3002-7	5SL3002-7KL
4 A	5SL3004-7	5SL3004-7KL
6 A	5SL3006-7	5SL3006-7KL
8 A	5SL3008-7	5SL3008-7KL
10 A	5SL3010-7	5SL3010-7KL
13 A	5SL3013-7	5SL3013-7KL
16 A	5SL3016-7	5SL3016-7KL
20 A	5SL3020-7	5SL3020-7KL
25 A	5SL3025-7	5SL3025-7KL
32 A	5SL3032-7	5SL3032-7KL
40 A	5SL3040-7	5SL3040-7KL

### Mounting concept



AS Auxiliary switches  
 FC Fault signal contacts  
 AS+FC Auxiliary switches and fault signal contacts

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[See page 3/49](#)



## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC

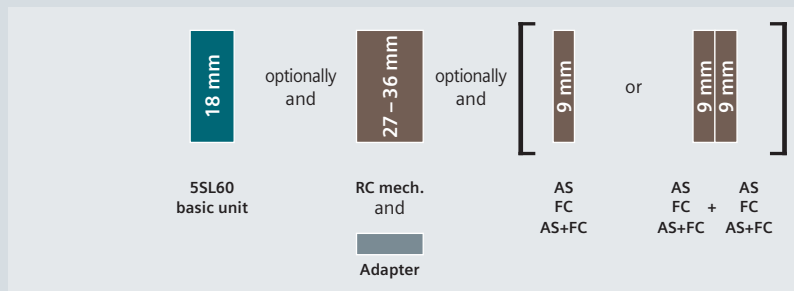
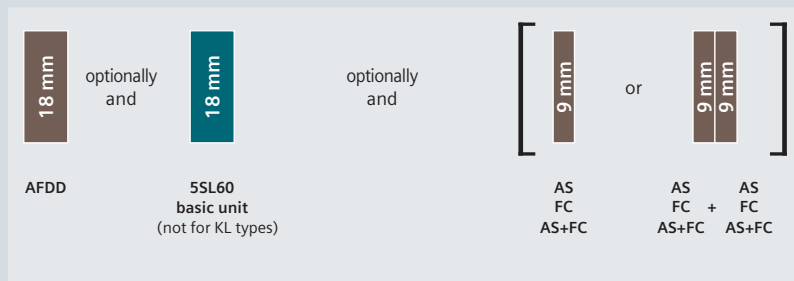
# 5SL60 miniature circuit breakers

## 1P+N 6 kA compact miniature circuit breakers

3

Mounting width	1P+N (N pole right) 230 V AC		1P+N (N pole left) 230 V AC	
	1 MW		1 MW	
Rated current $I_n$	Characteristic		Characteristic	
	B	C	C	
2 A	–	5SL6002-7	5SL6002-7KL	
4 A	–	5SL6004-7	5SL6004-7KL	
6 A	5SL6006-6	5SL6006-7	5SL6006-7KL	
8 A	–	5SL6008-7	5SL6008-7KL	
10 A	5SL6010-6	5SL6010-7	5SL6010-7KL	
13 A	5SL6013-6	5SL6013-7	5SL6013-7KL	
16 A	5SL6016-6	5SL6016-7	5SL6016-7KL	
20 A	5SL6020-6	5SL6020-7	5SL6020-7KL	
25 A	5SL6025-6	5SL6025-7	5SL6025-7KL	
32 A	5SL6032-6	5SL6032-7	5SL6032-7KL	
40 A	5SL6040-6	5SL6040-7	5SL6040-7KL	

### Mounting concept



- AFDD Arc fault detection units
- AS Auxiliary switches
- FC Fault signal contacts
- AS+FC Auxiliary switches and fault signal contacts
- RC mech. Remote controlled mechanisms

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- [See page 3/49](#)
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## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-OMC

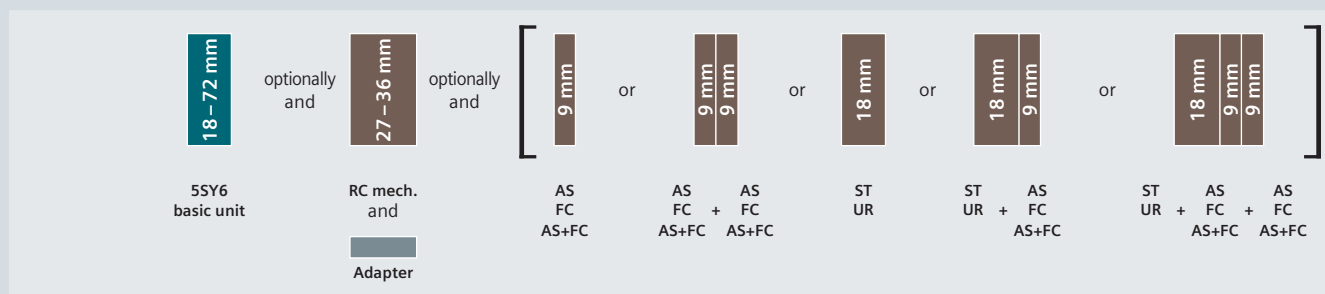
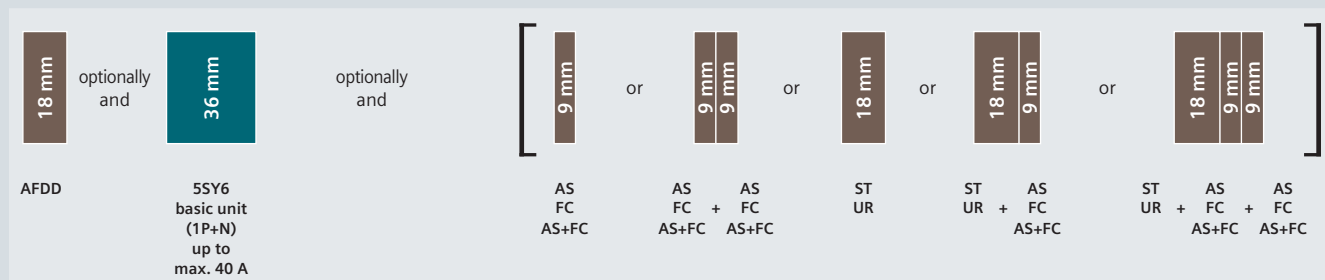
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1 MW		5ST3820-6
Arc fault detection units (AFDD)		Article No.
For basic units 1P + N (1 MW), not for KL types	$I_n$ up to 16 A	5SM6011-2
	$I_n$ up to 40 A	5SM6014-2

# 5SY6 miniature circuit breakers

6 kA

Mounting width	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
	1 MW		2 MW		2 MW		3 MW	
Rated current $I_n$	Characteristic		Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C	B	C
0.3 A	–	5SY6114-7	–	5SY6514-7	–	5SY6214-7	–	5SY6314-7
0.5 A	–	5SY6105-7	–	5SY6505-7	–	5SY6205-7	–	5SY6305-7
1 A	–	5SY6101-7	–	5SY6501-7	–	5SY6201-7	–	5SY6301-7
1.6 A	–	5SY6115-7	–	5SY6515-7	–	5SY6215-7	–	5SY6315-7
2 A	5SY6102-6	5SY6102-7	–	5SY6502-7	–	5SY6202-7	–	5SY6302-7
3 A	–	5SY6103-7	–	5SY6503-7	–	5SY6203-7	–	5SY6303-7
4 A	5SY6104-6	5SY6104-7	–	5SY6504-7	–	5SY6204-7	–	5SY6304-7
5 A	–	5SY6111-7	–	–	–	5SY6211-7	–	5SY6311-7
6 A	5SY6106-6	5SY6106-7	5SY6506-6	5SY6506-7	5SY6206-6	5SY6206-7	5SY6306-6	5SY6306-7
8 A	–	5SY6108-7	–	5SY6508-7	–	5SY6208-7	–	5SY6308-7
10 A	5SY6110-6	5SY6110-7	5SY6510-6	5SY6510-7	5SY6210-6	5SY6210-7	5SY6310-6	5SY6310-7
13 A	5SY6113-6	5SY6113-7	5SY6513-6	5SY6513-7	5SY6213-6	5SY6213-7	5SY6313-6	5SY6313-7
15 A	–	5SY6118-7	–	–	–	5SY6218-7	–	5SY6318-7
16 A	5SY6116-6	5SY6116-7	5SY6516-6	5SY6516-7	5SY6216-6	5SY6216-7	5SY6316-6	5SY6316-7
20 A	5SY6120-6	5SY6120-7	5SY6520-6	5SY6520-7	5SY6220-6	5SY6220-7	5SY6320-6	5SY6320-7
25 A	5SY6125-6	5SY6125-7	5SY6525-6	5SY6525-7	5SY6225-6	5SY6225-7	5SY6325-6	5SY6325-7
30 A	–	5SY6130-7	–	–	–	5SY6230-7	–	5SY6330-7
32 A	5SY6132-6	5SY6132-7	5SY6532-6	5SY6532-7	5SY6232-6	5SY6232-7	5SY6332-6	5SY6332-7
40 A	5SY6140-6	5SY6140-7	5SY6540-6	5SY6540-7	5SY6240-6	5SY6240-7	5SY6340-6	5SY6340-7
50 A	5SY6150-6	5SY6150-7	5SY6550-6	5SY6550-7	5SY6250-6	5SY6250-7	5SY6350-6	5SY6350-7
63 A	5SY6163-6	5SY6163-7	5SY6563-6	5SY6563-7	5SY6263-6	5SY6263-7	5SY6363-6	5SY6363-7

## Mounting concept



AFDD Arc fault detection units

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AS+FC Auxiliary switches and

UR Undervoltage releases

[See page 3/53](#)

AS Auxiliary switches

[See page 3/46](#)

FC Fault signal contacts

[See page 3/49](#)

RC mech. Remote controlled mechanisms

[See page 3/54](#)

FC Fault signal contacts

[See page 3/48](#)

ST Shunt trips

[See page 3/52](#)



3P+N 400 V AC 4 MW		4P 400 V AC 4 MW	
Characteristic		Characteristic	
B	C	B	C
–	5SY6614-7	–	5SY6414-7
–	5SY6605-7	–	5SY6405-7
–	5SY6601-7	–	5SY6401-7
–	5SY6615-7	–	5SY6415-7
–	5SY6602-7	–	5SY6402-7
–	5SY6603-7	–	5SY6403-7
–	5SY6604-7	–	5SY6404-7
–	–	–	–
5SY6606-6	5SY6606-7	5SY6406-6	5SY6406-7
–	5SY6608-7	–	5SY6408-7
5SY6610-6	5SY6610-7	5SY6410-6	5SY6410-7
5SY6613-6	5SY6613-7	5SY6413-6	5SY6413-7
–	–	–	–
5SY6616-6	5SY6616-7	5SY6416-6	5SY6416-7
5SY6620-6	5SY6620-7	5SY6420-6	5SY6420-7
5SY6625-6	5SY6625-7	5SY6425-6	5SY6425-7
–	–	–	–
5SY6632-6	5SY6632-7	5SY6432-6	5SY6432-7
5SY6640-6	5SY6640-7	5SY6440-6	5SY6440-7
5SY6650-6	5SY6650-7	5SY6450-6	5SY6450-7
5SY6663-6	5SY6663-7	5SY6463-6	5SY6463-7

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2
Arc fault detection units (AFDD)		Article No.
For basic units 1P+N (2 MW), not in combination with RC mech.	$I_n$ up to 16 A	5SM6021-2
	$I_n$ up to 40 A	5SM6024-2



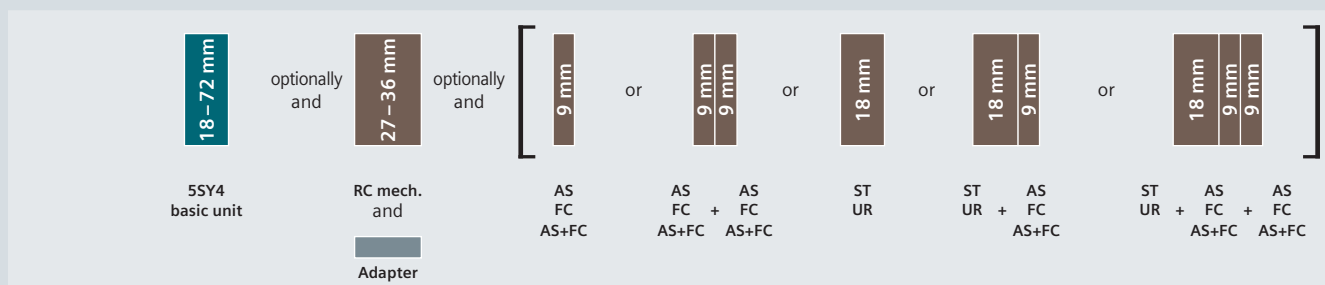
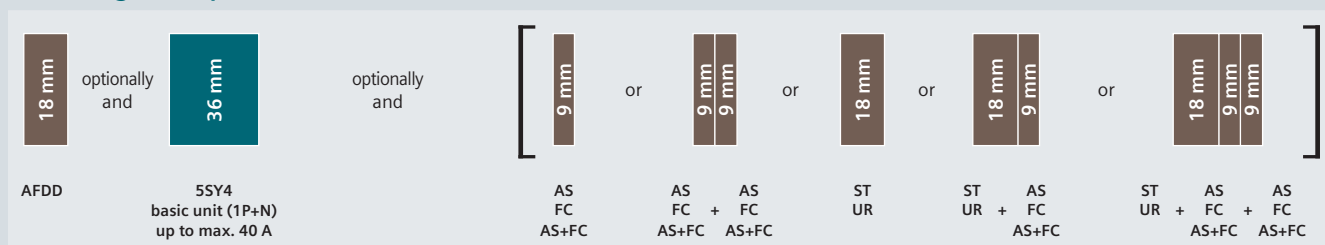
# 5SY4 miniature circuit breakers

10 kA

3

Rated current $I_n$	1P 230/400 V AC 1 MW Mounting width 1				1P+N 230 V AC 2 MW Mounting width 2				2P 400 V AC 2 MW Mounting width 3			
	Characteristic A	Characteristic B	Characteristic C	Characteristic D	Characteristic A	Characteristic B	Characteristic C	Characteristic D	Characteristic A	Characteristic B	Characteristic C	Characteristic D
0.3 A	–	–	5SY4114-7	5SY4114-8	–	–	5SY4514-7	5SY4514-8	–	–	5SY4214-7	5SY4214-8
0.5 A	5SY4105-5	–	5SY4105-7	5SY4105-8	–	–	5SY4505-7	5SY4505-8	5SY4205-5	–	5SY4205-7	5SY4205-8
1 A	5SY4101-5	5SY4101-6	5SY4101-7	5SY4101-8	5SY4501-5	–	5SY4501-7	5SY4501-8	5SY4201-5	5SY4201-6	5SY4201-7	5SY4201-8
1.6 A	5SY4115-5	5SY4115-6	5SY4115-7	5SY4115-8	5SY4515-5	5SY4515-6	5SY4515-7	5SY4515-8	5SY4215-5	5SY4215-6	5SY4215-7	5SY4215-8
2 A	5SY4102-5	5SY4102-6	5SY4102-7	5SY4102-8	5SY4502-5	–	5SY4502-7	5SY4502-8	5SY4202-5	5SY4202-6	5SY4202-7	5SY4202-8
3 A	5SY4103-5	5SY4103-6	5SY4103-7	5SY4103-8	5SY4503-5	–	5SY4503-7	5SY4503-8	5SY4203-5	5SY4203-6	5SY4203-7	5SY4203-8
4 A	5SY4104-5	5SY4104-6	5SY4104-7	5SY4104-8	5SY4504-5	5SY4504-6	5SY4504-7	5SY4504-8	5SY4204-5	5SY4204-6	5SY4204-7	5SY4204-8
5 A	–	–	5SY4111-7	–	–	–	–	–	–	–	5SY4211-7	–
6 A	5SY4106-5	5SY4106-6	5SY4106-7	5SY4106-8	5SY4506-5	5SY4506-6	5SY4506-7	5SY4506-8	5SY4206-5	5SY4206-6	5SY4206-7	5SY4206-8
8 A	5SY4108-5	5SY4108-6	5SY4108-7	5SY4108-8	5SY4508-5	–	5SY4508-7	5SY4508-8	5SY4208-5	5SY4208-6	5SY4208-7	5SY4208-8
10 A	5SY4110-5	5SY4110-6	5SY4110-7	5SY4110-8	5SY4510-5	5SY4510-6	5SY4510-7	5SY4510-8	5SY4210-5	5SY4210-6	5SY4210-7	5SY4210-8
13 A	5SY4113-5	5SY4113-6	5SY4113-7	5SY4113-8	5SY4513-5	5SY4513-6	5SY4513-7	5SY4513-8	5SY4213-5	5SY4213-6	5SY4213-7	5SY4213-8
15 A	–	–	5SY4118-7	–	–	–	–	–	–	–	5SY4218-7	–
16 A	5SY4116-5	5SY4116-6	5SY4116-7	5SY4116-8	5SY4516-5	5SY4516-6	5SY4516-7	5SY4516-8	5SY4216-5	5SY4216-6	5SY4216-7	5SY4216-8
20 A	5SY4120-5	5SY4120-6	5SY4120-7	5SY4120-8	5SY4520-5	5SY4520-6	5SY4520-7	5SY4520-8	5SY4220-5	5SY4220-6	5SY4220-7	5SY4220-8
25 A	5SY4125-5	5SY4125-6	5SY4125-7	5SY4125-8	5SY4525-5	5SY4525-6	5SY4525-7	5SY4525-8	5SY4225-5	5SY4225-6	5SY4225-7	5SY4225-8
30 A	–	–	5SY4130-7	–	–	–	–	–	–	–	5SY4230-7	–
32 A	5SY4132-5	5SY4132-6	5SY4132-7	5SY4132-8	5SY4532-5	5SY4532-6	5SY4532-7	5SY4532-8	5SY4232-5	5SY4232-6	5SY4232-7	5SY4232-8
35 A	–	–	5SY4135-7	–	–	–	–	–	–	–	5SY4235-7	–
40 A	5SY4140-5	5SY4140-6	5SY4140-7	5SY4140-8	5SY4540-5	5SY4540-6	5SY4540-7	5SY4540-8	5SY4240-5	5SY4240-6	5SY4240-7	5SY4240-8
45 A	–	–	5SY4145-7	–	–	–	–	–	–	–	5SY4245-7	–
50 A	5SY4150-5	5SY4150-6	5SY4150-7	5SY4150-8	5SY4550-5	5SY4550-6	5SY4550-7	5SY4550-8	5SY4250-5	5SY4250-6	5SY4250-7	5SY4250-8
60 A	–	–	5SY4160-7	–	–	–	–	–	–	–	5SY4260-7	–
63 A	5SY4163-5	5SY4163-6	5SY4163-7	5SY4163-8	5SY4563-5	5SY4563-6	5SY4563-7	5SY4563-8	5SY4263-5	5SY4263-6	5SY4263-7	5SY4263-8
80 A	–	5SY4180-6	5SY4180-7	–	–	–	5SY4580-7	–	–	5SY4280-6	5SY4280-7	–

## Mounting concept





3P 400 V AC 3 MW				3P+N 400 V AC 4 MW				4P 400 V AC 4 MW			
Characteristic				Characteristic				Characteristic			
A	B	C	D	A	B	C	D	A	B	C	D
–	–	5SY4314-7	5SY4314-8	–	–	5SY4614-7	5SY4614-8	–	–	5SY4414-7	5SY4414-8
5SY4305-5	–	5SY4305-7	5SY4305-8	–	–	5SY4605-7	5SY4605-8	–	–	5SY4405-7	5SY4405-8
5SY4301-5	5SY4301-6	5SY4301-7	5SY4301-8	5SY4601-5	–	5SY4601-7	5SY4601-8	5SY4401-5	–	5SY4401-7	5SY4401-8
5SY4315-5	5SY4315-6	5SY4315-7	5SY4315-8	5SY4615-5	–	5SY4615-7	5SY4615-8	5SY4415-5	–	5SY4415-7	5SY4415-8
5SY4302-5	5SY4302-6	5SY4302-7	5SY4302-8	5SY4602-5	–	5SY4602-7	5SY4602-8	5SY4402-5	–	5SY4402-7	5SY4402-8
5SY4303-5	5SY4303-6	5SY4303-7	5SY4303-8	5SY4603-5	–	5SY4603-7	5SY4603-8	5SY4403-5	–	5SY4403-7	5SY4403-8
5SY4304-5	5SY4304-6	5SY4304-7	5SY4304-8	5SY4604-5	–	5SY4604-7	5SY4604-8	5SY4404-5	–	5SY4404-7	5SY4404-8
–	–	5SY4311-7	–	–	–	–	–	–	–	–	–
5SY4306-5	5SY4306-6	5SY4306-7	5SY4306-8	5SY4606-5	5SY4606-6	5SY4606-7	5SY4606-8	5SY4406-5	5SY4406-6	5SY4406-7	5SY4406-8
5SY4308-5	5SY4308-6	5SY4308-7	5SY4308-8	5SY4608-5	–	5SY4608-7	5SY4608-8	5SY4408-5	–	5SY4408-7	5SY4408-8
5SY4310-5	5SY4310-6	5SY4310-7	5SY4310-8	5SY4610-5	5SY4610-6	5SY4610-7	5SY4610-8	5SY4410-5	5SY4410-6	5SY4410-7	5SY4410-8
5SY4313-5	5SY4313-6	5SY4313-7	5SY4313-8	5SY4613-5	5SY4613-6	5SY4613-7	5SY4613-8	5SY4413-5	5SY4413-6	5SY4413-7	5SY4413-8
–	–	5SY4318-7	–	–	–	–	–	–	–	–	–
5SY4316-5	5SY4316-6	5SY4316-7	5SY4316-8	5SY4616-5	5SY4616-6	5SY4616-7	5SY4616-8	5SY4416-5	5SY4416-6	5SY4416-7	5SY4416-8
5SY4320-5	5SY4320-6	5SY4320-7	5SY4320-8	5SY4620-5	5SY4620-6	5SY4620-7	5SY4620-8	5SY4420-5	5SY4420-6	5SY4420-7	5SY4420-8
5SY4325-5	5SY4325-6	5SY4325-7	5SY4325-8	5SY4625-5	5SY4625-6	5SY4625-7	5SY4625-8	5SY4425-5	5SY4425-6	5SY4425-7	5SY4425-8
–	–	5SY4330-7	–	–	–	–	–	–	–	–	–
5SY4332-5	5SY4332-6	5SY4332-7	5SY4332-8	5SY4632-5	5SY4632-6	5SY4632-7	5SY4632-8	5SY4432-5	5SY4432-6	5SY4432-7	5SY4432-8
–	–	5SY4335-7	–	–	–	–	–	–	–	–	–
5SY4340-5	5SY4340-6	5SY4340-7	5SY4340-8	5SY4640-5	5SY4640-6	5SY4640-7	5SY4640-8	5SY4440-5	5SY4440-6	5SY4440-7	5SY4440-8
–	–	5SY4345-7	–	–	–	–	–	–	–	–	–
5SY4350-5	5SY4350-6	5SY4350-7	5SY4350-8	5SY4650-5	5SY4650-6	5SY4650-7	5SY4650-8	5SY4450-5	5SY4450-6	5SY4450-7	5SY4450-8
–	–	5SY4360-7	–	–	–	–	–	–	–	–	–
5SY4363-5	5SY4363-6	5SY4363-7	5SY4363-8	5SY4663-5	5SY4663-6	5SY4663-7	5SY4663-8	5SY4463-5	5SY4463-6	5SY4463-7	5SY4463-8
–	5SY4380-6	5SY4380-7	–	–	–	5SY4680-7	–	–	5SY4480-6	5SY4480-7	–

## Accessories

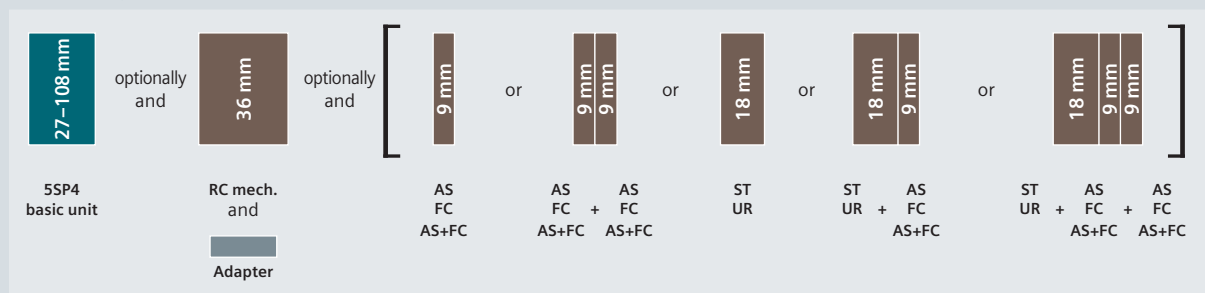
Auxiliary switches (AS)		Article No.	Arc fault detection units (AFDD)		Article No.
1 NO + 1 NC	Standard	5ST3010	For basic units 1P+N (2 MW)	$I_n$ up to 16 A	5SM6021-2
	For low power	5ST3013		$I_n$ up to 40 A	5SM6024-2
	For low power (with diode)	5ST3013-0XX01	<b>Undervoltage releases (UR)</b>		<b>Article No.</b>
2 NO	Standard	5ST3011	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3014		110 V DC	5ST3041
2 NC	Standard	5ST3012		24 V DC	5ST3042
	For low power	5ST3015	Without integrated auxiliary switch	230 V AC	5ST3043
1 CO	Standard	5ST3016	110 V DC	5ST3044	
			24 V DC	5ST3045	
Fault signal contacts (FC)		Article No.	Remote controlled mechanisms (RC mech.)		Article No.
1 NO + 1 NC		5ST3020	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
		5ST3021		177 ... 270 V AC	5ST3054
2 NO		5ST3022	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
2 NC				177 ... 270 V AC	5ST3056
Auxiliary switches and fault signal contacts (AS+FC)		Article No.	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
1 CO (AS) + 1 CO (FC)		5ST3062		177 ... 270 V AC	5ST3058
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Shunt trips (ST)		Article No.	Adapters for remote controlled mechanisms (RC mech.)		Article No.
110 ... 415 V AC, 110 ... 220 DC		5ST3030	1–2 MW		5ST3820-1
24 ... 48 V AC/DC		5ST3031		3–4 MW	
12 V DC		5ST3031-0XX01			

# 5SP4 miniature circuit breakers

10 kA

Mounting width	1P 230/400 V AC			2P 400 V AC		
	1.5 MW			3 MW		
Rated current $I_n$	Characteristic			Characteristic		
	B	C	D	B	C	D
80 A	5SP4180-6	5SP4180-7	5SP4180-8	5SP4280-6	5SP4280-7	5SP4280-8
100 A	5SP4191-6	5SP4191-7	5SP4191-8	5SP4291-6	5SP4291-7	5SP4291-8
125 A	5SP4192-6	5SP4192-7	–	5SP4292-6	5SP4292-7	–

## Mounting concept



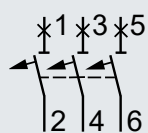
AS	Auxiliary switches	<a href="#">See page 3/46</a>
FC	Fault signal contacts	<a href="#">See page 3/48</a>
AS+FC	Auxiliary switches and fault signal contacts	<a href="#">See page 3/49</a>
ST	Shunt trips	<a href="#">See page 3/52</a>
UR	Undervoltage releases	<a href="#">See page 3/53</a>
RC mech.	Remote controlled mechanisms	<a href="#">See page 3/54</a>



3P

400 V AC

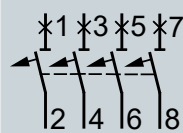
4.5 MW



4P

400 V AC

6 MW



Characteristic

B

C

D

5SP4380-6

5SP4380-7

5SP4380-8

5SP4391-6

5SP4391-7

5SP4391-8

5SP4392-6

5SP4392-7

-

Characteristic

B

C

D

5SP4480-6

5SP4480-7

5SP4480-8

5SP4491-6

5SP4491-7

5SP4491-8

5SP4492-6

5SP4492-7

-



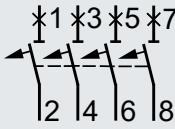
3

## Accessories

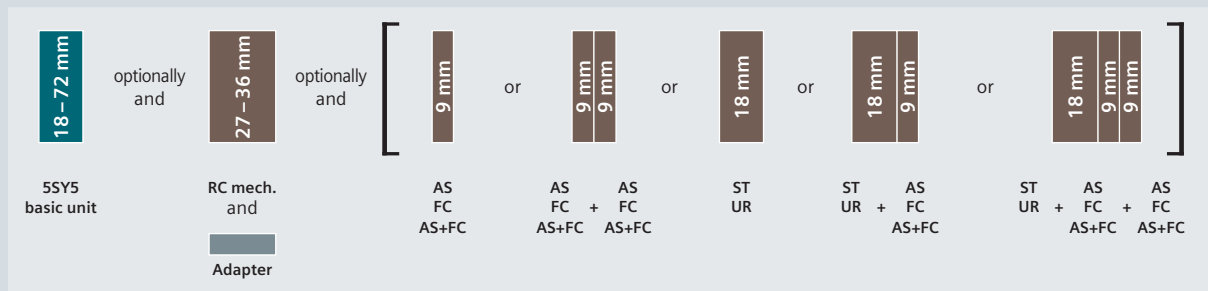
Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-0XX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015	<b>Remote controlled mechanisms (RC mech.)</b>		
1 CO	Standard	5ST3016	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
<b>Fault signal contacts (FC)</b>				177 ... 270 V AC	5ST3056
1 NO + 1 NC		5ST3020	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
2 NO		5ST3021		177 ... 270 V AC	5ST3058
2 NC		5ST3022	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>			<b>Adapters for remote controlled mechanisms (RC mech.)</b>		
1 CO (AS) + 1 CO (FC)		5ST3062	1.5 MW		5ST3820-1
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC	3-6 MW		5ST3820-2
<b>Shunt trips (ST)</b>					
110 ... 415 V AC, 110 ... 220 DC		5ST3030			
24 ... 48 V AC/DC		5ST3031			
12 V DC		5ST3031-0XX01			

# 5SY5 miniature circuit breakers

10 kA

	1P 230/400 V AC, 220 V DC		2P 400 V AC, 440 V DC		4P 400 V AC, 880 V DC	
Mounting width	1 MW 		2 MW 		4 MW 	
Rated current $I_n$	Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C
0.3 A	–	5SY5114-7	–	5SY5214-7	–	5SY5414-7
0.5 A	–	5SY5105-7	–	5SY5205-7	–	5SY5405-7
1 A	–	5SY5101-7	–	5SY5201-7	–	5SY5401-7
1.6 A	–	5SY5115-7	–	5SY5215-7	–	5SY5415-7
2 A	5SY5102-6	5SY5102-7	5SY5202-6	5SY5202-7	–	5SY5402-7
3 A	–	5SY5103-7	–	5SY5203-7	–	5SY5403-7
4 A	5SY5104-6	5SY5104-7	5SY5204-6	5SY5204-7	–	5SY5404-7
6 A	5SY5106-6	5SY5106-7	5SY5206-6	5SY5206-7	5SY5406-6	5SY5406-7
8 A	5SY5108-6	5SY5108-7	5SY5208-6	5SY5208-7	–	5SY5408-7
10 A	5SY5110-6	5SY5110-7	5SY5210-6	5SY5210-7	5SY5410-6	5SY5410-7
13 A	5SY5113-6	5SY5113-7	5SY5213-6	5SY5213-7	5SY5413-6	5SY5413-7
16 A	5SY5116-6	5SY5116-7	5SY5216-6	5SY5216-7	5SY5416-6	5SY5416-7
20 A	5SY5120-6	5SY5120-7	5SY5220-6	5SY5220-7	5SY5420-6	5SY5420-7
25 A	5SY5125-6	5SY5125-7	5SY5225-6	5SY5225-7	5SY5425-6	5SY5425-7
32 A	5SY5132-6	5SY5132-7	5SY5232-6	5SY5232-7	5SY5432-6	5SY5432-7
40 A	5SY5140-6	5SY5140-7	5SY5240-6	5SY5240-7	5SY5440-6	5SY5440-7
50 A	5SY5150-6	5SY5150-7	5SY5250-6	5SY5250-7	5SY5450-6	5SY5450-7
63 A	5SY5163-6	5SY5163-7	5SY5263-6	5SY5263-7	5SY5463-6	5SY5463-7

## Mounting concept



- AS Auxiliary switches
- FC Fault signal contacts
- AS+FC Auxiliary switches and fault signal contacts
- ST Shunt trips
- UR Undervoltage releases
- RC mech. Remote controlled mechanisms

- [See page 3/46](#)
- [See page 3/48](#)
- [See page 3/49](#)
- [See page 3/52](#)
- [See page 3/53](#)
- [See page 3/54](#)



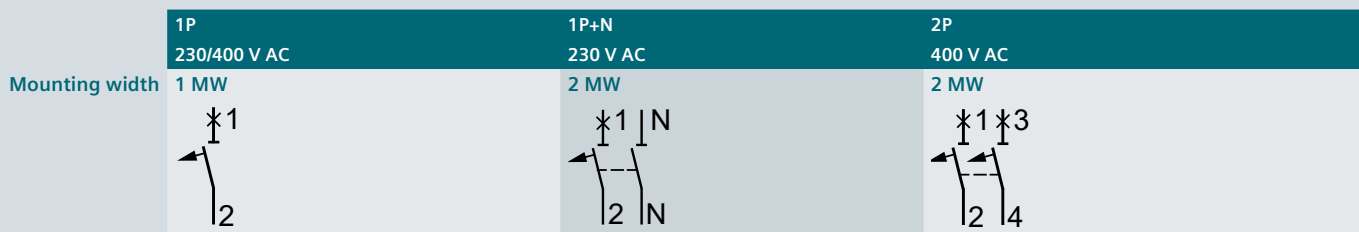
## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1–2 MW		5ST3820-1
4 MW		5ST3820-2

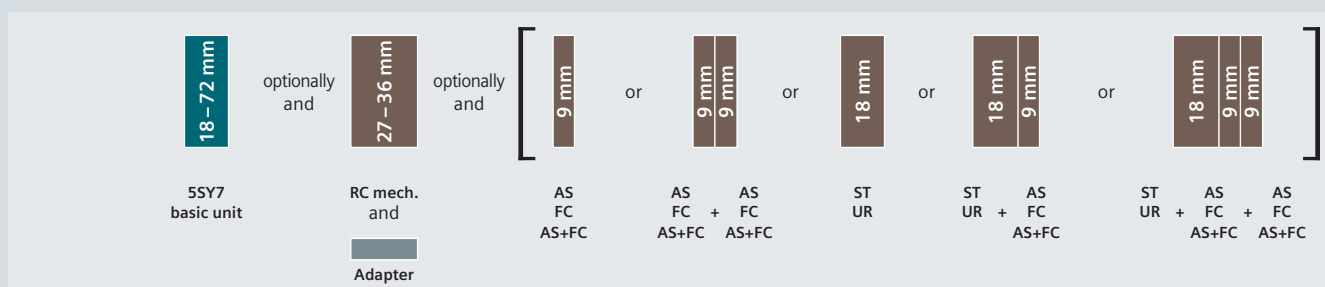
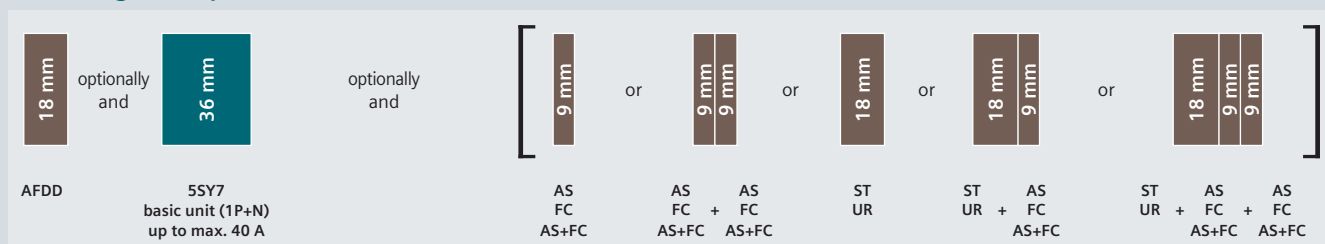
# 5SY7 miniature circuit breakers

15 kA



Rated current $I_n$	Main MCB, line side of meter	1P 230/400 V AC 1 MW			1P+N 230 V AC 2 MW			2P 400 V AC 2 MW		
		Characteristic B	Characteristic C	Characteristic D	Characteristic B	Characteristic C	Characteristic D	Characteristic B	Characteristic C	Characteristic D
0.3 A	–	–	5SY7114-7	5SY7114-8	–	5SY7514-7	5SY7514-8	–	5SY7214-7	5SY7214-8
0.5 A	–	–	5SY7105-7	5SY7105-8	–	5SY7505-7	5SY7505-8	–	5SY7205-7	5SY7205-8
1 A	–	–	5SY7101-7	5SY7101-8	–	5SY7501-7	5SY7501-8	–	5SY7201-7	5SY7201-8
1.6 A	–	–	5SY7115-7	5SY7115-8	–	5SY7515-7	5SY7515-8	–	5SY7215-7	5SY7215-8
2 A	–	–	5SY7102-7	5SY7102-8	–	5SY7502-7	5SY7502-8	–	5SY7202-7	5SY7202-8
3 A	–	–	5SY7103-7	5SY7103-8	–	5SY7503-7	5SY7503-8	–	5SY7203-7	5SY7203-8
4 A	–	–	5SY7104-7	5SY7104-8	–	5SY7504-7	5SY7504-8	–	5SY7204-7	5SY7204-8
6 A	–	5SY7106-6	5SY7106-7	5SY7106-8	5SY7506-6	5SY7506-7	5SY7506-8	5SY7206-6	5SY7206-7	5SY7206-8
	■	5SY7106-6KK13	–	–	–	–	–	–	–	–
8 A	–	–	5SY7108-7	5SY7108-8	–	5SY7508-7	5SY7508-8	–	5SY7208-7	5SY7208-8
10 A	–	5SY7110-6	5SY7110-7	5SY7110-8	5SY7510-6	5SY7510-7	5SY7510-8	5SY7210-6	5SY7210-7	5SY7210-8
	■	5SY7110-6KK13	–	–	–	–	–	–	–	–
13 A	–	5SY7113-6	5SY7113-7	5SY7113-8	5SY7513-6	5SY7513-7	5SY7513-8	5SY7213-6	5SY7213-7	5SY7213-8
16 A	–	5SY7116-6	5SY7116-7	5SY7116-8	5SY7516-6	5SY7516-7	5SY7516-8	5SY7216-6	5SY7216-7	5SY7216-8
20 A	–	5SY7120-6	5SY7120-7	5SY7120-8	5SY7520-6	5SY7520-7	5SY7520-8	5SY7220-6	5SY7220-7	5SY7220-8
25 A	–	5SY7125-6	5SY7125-7	5SY7125-8	5SY7525-6	5SY7525-7	5SY7525-8	5SY7225-6	5SY7225-7	5SY7225-8
32 A	–	5SY7132-6	5SY7132-7	5SY7132-8	5SY7532-6	5SY7532-7	5SY7532-8	5SY7232-6	5SY7232-7	5SY7232-8
40 A	–	5SY7140-6	5SY7140-7	5SY7140-8	5SY7540-6	5SY7540-7	5SY7540-8	5SY7240-6	5SY7240-7	5SY7240-8
50 A	–	5SY7150-6	5SY7150-7	5SY7150-8	5SY7550-6	5SY7550-7	5SY7550-8	5SY7250-6	5SY7250-7	5SY7250-8
63 A	–	5SY7163-6	5SY7163-7	5SY7163-8	5SY7563-6	5SY7563-7	5SY7563-8	5SY7263-6	5SY7263-7	5SY7263-8

## Mounting concept



AFDD Arc fault detection units [See page 3/55](#) AS+FC Auxiliary switches and fault signal contacts [See page 3/49](#) UR Undervoltage releases [See page 3/53](#)  
AS Auxiliary switches [See page 3/46](#) ST Shunt trips [See page 3/52](#) RC mech. Remote controlled mechanisms [See page 3/54](#)  
FC Fault signal contacts



3P 400 V AC 3 MW			3P+N 400 V AC 4 MW			4P 400 V AC 4 MW		
Characteristic			Characteristic			Characteristic		
B	C	D	B	C	D	B	C	D
–	5SY7314-7	5SY7314-8	–	5SY7614-7	5SY7614-8	–	5SY7414-7	5SY7414-8
–	5SY7305-7	5SY7305-8	–	5SY7605-7	5SY7605-8	–	5SY7405-7	5SY7405-8
–	5SY7301-7	5SY7301-8	–	5SY7601-7	5SY7601-8	–	5SY7401-7	5SY7401-8
–	5SY7315-7	5SY7315-8	–	5SY7615-7	5SY7615-8	–	5SY7415-7	5SY7415-8
–	5SY7302-7	5SY7302-8	–	5SY7602-7	5SY7602-8	–	5SY7402-7	5SY7402-8
–	5SY7303-7	5SY7303-8	–	5SY7603-7	5SY7603-8	–	5SY7403-7	5SY7403-8
–	5SY7304-7	5SY7304-8	–	5SY7604-7	5SY7604-8	–	5SY7404-7	5SY7404-8
5SY7306-6	5SY7306-7	5SY7306-8	5SY7606-6	5SY7606-7	5SY7606-8	5SY7406-6	5SY7406-7	5SY7406-8
–	–	–	–	–	–	–	–	–
–	5SY7308-7	5SY7308-8	–	5SY7608-7	5SY7608-8	–	5SY7408-7	5SY7408-8
5SY7310-6	5SY7310-7	5SY7310-8	5SY7610-6	5SY7610-7	5SY7610-8	5SY7410-6	5SY7410-7	5SY7410-8
–	–	–	–	–	–	–	–	–
5SY7313-6	5SY7313-7	5SY7313-8	5SY7613-6	5SY7613-7	5SY7613-8	5SY7413-6	5SY7413-7	5SY7413-8
5SY7316-6	5SY7316-7	5SY7316-8	5SY7616-6	5SY7616-7	5SY7616-8	5SY7416-6	5SY7416-7	5SY7416-8
5SY7320-6	5SY7320-7	5SY7320-8	5SY7620-6	5SY7620-7	5SY7620-8	5SY7420-6	5SY7420-7	5SY7420-8
5SY7325-6	5SY7325-7	5SY7325-8	5SY7625-6	5SY7625-7	5SY7625-8	5SY7425-6	5SY7425-7	5SY7425-8
5SY7332-6	5SY7332-7	5SY7332-8	5SY7632-6	5SY7632-7	5SY7632-8	5SY7432-6	5SY7432-7	5SY7432-8
5SY7340-6	5SY7340-7	5SY7340-8	5SY7640-6	5SY7640-7	5SY7640-8	5SY7440-6	5SY7440-7	5SY7440-8
5SY7350-6	5SY7350-7	5SY7350-8	5SY7650-6	5SY7650-7	5SY7650-8	5SY7450-6	5SY7450-7	5SY7450-8
5SY7363-6	5SY7363-7	5SY7363-8	5SY7663-6	5SY7663-7	5SY7663-8	5SY7463-6	5SY7463-7	5SY7463-8

## Accessories

Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-0XX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015			
1 CO	Standard	5ST3016	Remote controlled mechanisms (RC mech.)		Article No.
Fault signal contacts (FC)		Article No.	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
1 NO + 1 NC		5ST3020		177 ... 270 V AC	5ST3054
2 NO		5ST3021	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
2 NC		5ST3022		177 ... 270 V AC	5ST3056
Auxiliary switches and fault signal contacts (AS+FC)		Article No.	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
1 CO (AS) + 1 CO (FC)		5ST3062		177 ... 270 V AC	5ST3058
5ST3 COM (AS+FC) <b>new</b>		5ST3062-OMC	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Shunt trips (ST)		Article No.	Adapters for remote controlled mechanisms (RC mech.)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030	1–2 MW		5ST3820-1
24 ... 48 V AC/DC		5ST3031	3–4 MW		5ST3820-2
12 V DC		5ST3031-0XX01	Arc fault detection units (AFDD)		Article No.
			For basic units 1P+N	$I_n$ up to 16 A	5SM6021-2
			(2 MW)	$I_n$ up to 40 A	5SM6024-2

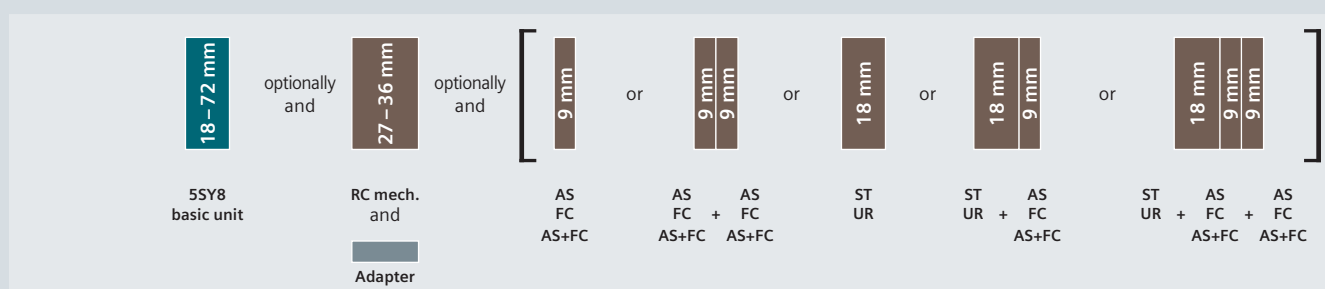
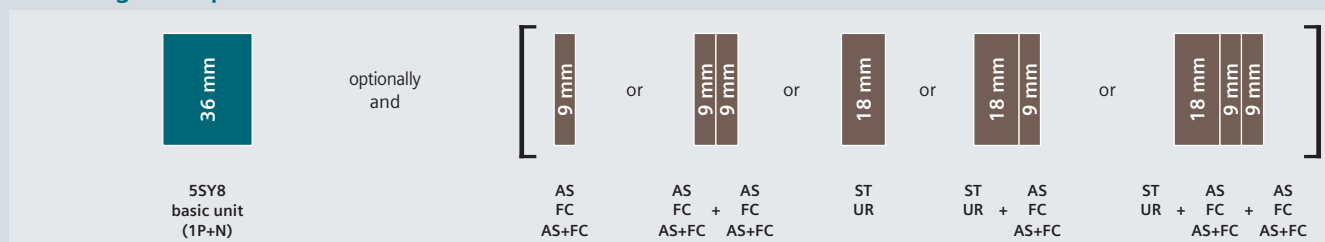


# 5SY8 miniature circuit breakers

25 kA

Mounting width	1P 230/400 V AC	1P+N 230 V AC	2P 400 V AC	3P 400 V AC				
	1 MW	2 MW	2 MW	3 MW				
Rated current $I_n$	Characteristic		Characteristic		Characteristic		Characteristic	
	C	D	C	D	C	D	C	D
0.3 A	5SY8114-7	5SY8114-8	5SY8514-7	5SY8514-8	5SY8214-7	5SY8214-8	5SY8314-7	5SY8314-8
0.5 A	5SY8105-7	5SY8105-8	5SY8505-7	5SY8505-8	5SY8205-7	5SY8205-8	5SY8305-7	5SY8305-8
1 A	5SY8101-7	5SY8101-8	5SY8501-7	5SY8501-8	5SY8201-7	5SY8201-8	5SY8301-7	5SY8301-8
1.6 A	5SY8115-7	5SY8115-8	5SY8515-7	5SY8515-8	5SY8215-7	5SY8215-8	5SY8315-7	5SY8315-8
2 A	5SY8102-7	5SY8102-8	5SY8502-7	5SY8502-8	5SY8202-7	5SY8202-8	5SY8302-7	5SY8302-8
3 A	5SY8103-7	5SY8103-8	5SY8503-7	5SY8503-8	5SY8203-7	5SY8203-8	5SY8303-7	5SY8303-8
4 A	5SY8104-7	5SY8104-8	5SY8504-7	5SY8504-8	5SY8204-7	5SY8204-8	5SY8304-7	5SY8304-8
6 A	5SY8106-7	5SY8106-8	5SY8506-7	5SY8506-8	5SY8206-7	5SY8206-8	5SY8306-7	5SY8306-8
8 A	5SY8108-7	5SY8108-8	5SY8508-7	5SY8508-8	5SY8208-7	5SY8208-8	5SY8308-7	5SY8308-8
10 A	5SY8110-7	5SY8110-8	5SY8510-7	5SY8510-8	5SY8210-7	5SY8210-8	5SY8310-7	5SY8310-8
12.5 A	–	–	–	–	–	–	–	–
13 A	5SY8113-7	5SY8113-8	5SY8513-7	5SY8513-8	5SY8213-7	5SY8213-8	5SY8313-7	5SY8313-8
16 A	5SY8116-7	5SY8116-8	5SY8516-7	5SY8516-8	5SY8216-7	5SY8216-8	5SY8316-7	5SY8316-8
20 A	5SY8120-7	5SY8120-8	5SY8520-7	5SY8520-8	5SY8220-7	5SY8220-8	5SY8320-7	5SY8320-8
25 A	5SY8125-7	5SY8125-8	5SY8525-7	5SY8525-8	5SY8225-7	5SY8225-8	5SY8325-7	5SY8325-8
32 A	5SY8132-7	5SY8132-8	5SY8532-7	5SY8532-8	5SY8232-7	5SY8232-8	5SY8332-7	5SY8332-8
40 A	5SY8140-7	5SY8140-8	5SY8540-7	5SY8540-8	5SY8240-7	5SY8240-8	5SY8340-7	5SY8340-8
50 A	5SY8150-7	5SY8150-8	5SY8550-7	5SY8550-8	5SY8250-7	5SY8250-8	5SY8350-7	5SY8350-8
63 A	5SY8163-7	5SY8163-8	5SY8563-7	5SY8563-8	5SY8263-7	5SY8263-8	5SY8363-7	5SY8363-8

## Mounting concept



AFDD Arc fault detection units

[See page 3/55](#)

AS+FC Auxiliary switches and

UR Undervoltage releases

[See page 3/53](#)

AS Auxiliary switches

[See page 3/46](#)

FC Fault signal contacts

[See page 3/49](#)

RC mech. Remote controlled mechanisms

[See page 3/54](#)

FC Fault signal contacts

[See page 3/48](#)

ST Shunt trips

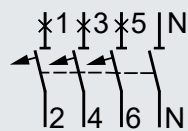
[See page 3/52](#)



3P+N

400 V AC

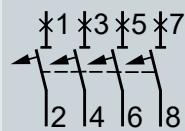
4 MW



4P

400 V AC

4 MW



Characteristic

C

D

5SY8614-7	5SY8614-8
5SY8605-7	5SY8605-8
5SY8601-7	5SY8601-8
5SY8615-7	5SY8615-8
5SY8602-7	5SY8602-8
5SY8603-7	5SY8603-8
5SY8604-7	5SY8604-8
5SY8606-7	5SY8606-8
5SY8608-7	5SY8608-8
5SY8610-7	5SY8610-8
–	–
5SY8613-7	5SY8613-8
5SY8616-7	5SY8616-8
5SY8620-7	5SY8620-8
5SY8625-7	5SY8625-8
5SY8632-7	5SY8632-8
5SY8640-7	5SY8640-8
5SY8650-7	5SY8650-8
5SY8663-7	5SY8663-8

Characteristic

C

D

5SY8414-7	5SY8414-8
5SY8405-7	5SY8405-8
5SY8401-7	5SY8401-8
5SY8415-7	5SY8415-8
5SY8402-7	5SY8402-8
5SY8403-7	5SY8403-8
5SY8404-7	5SY8404-8
5SY8406-7	5SY8406-8
5SY8408-7	5SY8408-8
5SY8410-7	5SY8410-8
–	–
5SY8413-7	5SY8413-8
5SY8416-7	5SY8416-8
5SY8420-7	5SY8420-8
5SY8425-7	5SY8425-8
5SY8432-7	5SY8432-8
5SY8440-7	5SY8440-8
5SY8450-7	5SY8450-8
5SY8463-7	5SY8463-8

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

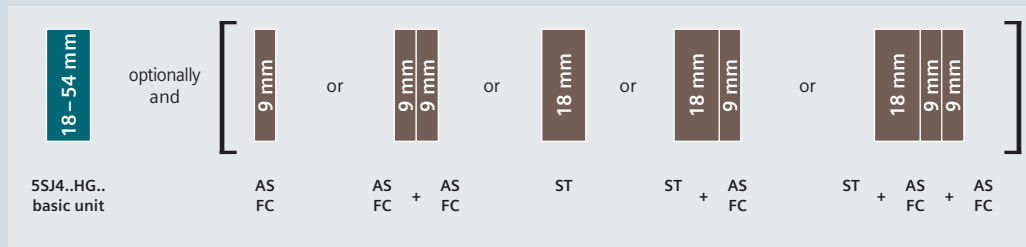
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2

# 5SJ4..HG.. miniature circuit breakers

According to UL489, 14/10 kA

Mounting width	1P "same polarity only"			1P			
	240 V AC	240 V AC	240 V AC	240 V AC	480Y/277 V AC	240 V AC	480Y/277 V AC
1 MW				1 MW			
Rated current $I_n$	Characteristic			Characteristic			
	B	C	D	C	C	D	D
0.3 A	–	5SJ4114-7HG40	5SJ4114-8HG40	5SJ4114-7HG41	5SJ4114-7HG42	5SJ4114-8HG41	5SJ4114-8HG42
0.5 A	–	5SJ4105-7HG40	5SJ4105-8HG40	5SJ4105-7HG41	5SJ4105-7HG42	5SJ4105-8HG41	5SJ4105-8HG42
1 A	–	5SJ4101-7HG40	5SJ4101-8HG40	5SJ4101-7HG41	5SJ4101-7HG42	5SJ4101-8HG41	5SJ4101-8HG42
1.6 A	–	5SJ4115-7HG40	5SJ4115-8HG40	5SJ4115-7HG41	5SJ4115-7HG42	5SJ4115-8HG41	5SJ4115-8HG42
2 A	–	5SJ4102-7HG40	5SJ4102-8HG40	5SJ4102-7HG41	5SJ4102-7HG42	5SJ4102-8HG41	5SJ4102-8HG42
3 A	–	5SJ4103-7HG40	5SJ4103-8HG40	5SJ4103-7HG41	5SJ4103-7HG42	5SJ4103-8HG41	5SJ4103-8HG42
4 A	–	5SJ4104-7HG40	5SJ4104-8HG40	5SJ4104-7HG41	5SJ4104-7HG42	5SJ4104-8HG41	5SJ4104-8HG42
5 A	–	5SJ4111-7HG40	5SJ4111-8HG40	5SJ4111-7HG41	5SJ4111-7HG42	5SJ4111-8HG41	5SJ4111-8HG42
6 A	5SJ4106-6HG40	5SJ4106-7HG40	5SJ4106-8HG40	5SJ4106-7HG41	5SJ4106-7HG42	5SJ4106-8HG41	5SJ4106-8HG42
8 A	–	5SJ4108-7HG40	5SJ4108-8HG40	5SJ4108-7HG41	5SJ4108-7HG42	5SJ4108-8HG41	5SJ4108-8HG42
10 A	5SJ4110-6HG40	5SJ4110-7HG40	5SJ4110-8HG40	5SJ4110-7HG41	5SJ4110-7HG42	5SJ4110-8HG41	5SJ4110-8HG42
13 A	5SJ4113-6HG40	5SJ4113-7HG40	5SJ4113-8HG40	5SJ4113-7HG41	5SJ4113-7HG42	5SJ4113-8HG41	5SJ4113-8HG42
15 A	5SJ4118-6HG40	5SJ4118-7HG40	5SJ4118-8HG40	5SJ4118-7HG41	5SJ4118-7HG42	5SJ4118-8HG41	5SJ4118-8HG42
16 A	5SJ4116-6HG40	5SJ4116-7HG40	5SJ4116-8HG40	5SJ4116-7HG41	5SJ4116-7HG42	5SJ4116-8HG41	5SJ4116-8HG42
20 A	5SJ4120-6HG40	5SJ4120-7HG40	5SJ4120-8HG40	5SJ4120-7HG41	5SJ4120-7HG42	5SJ4120-8HG41	5SJ4120-8HG42
25 A	5SJ4125-6HG40	5SJ4125-7HG40	5SJ4125-8HG40	5SJ4125-7HG41	5SJ4125-7HG42	5SJ4125-8HG41	5SJ4125-8HG42
30 A	5SJ4130-6HG40	5SJ4130-7HG40	5SJ4130-8HG40	5SJ4130-7HG41	5SJ4130-7HG42	5SJ4130-8HG41	5SJ4130-8HG42
32 A	5SJ4132-6HG40	5SJ4132-7HG40	5SJ4132-8HG40	5SJ4132-7HG41	5SJ4132-7HG42	5SJ4132-8HG41	5SJ4132-8HG42
35 A	5SJ4135-6HG40	5SJ4135-7HG40	5SJ4135-8HG40	5SJ4135-7HG41	5SJ4135-7HG42	5SJ4135-8HG41	–
40 A	5SJ4140-6HG40	5SJ4140-7HG40	5SJ4140-8HG40	5SJ4140-7HG41	5SJ4140-7HG42	5SJ4140-8HG41	–
45 A	5SJ4145-6HG40	5SJ4145-7HG40	5SJ4145-8HG40	5SJ4145-7HG41	–	5SJ4145-8HG41	–
50 A	5SJ4150-6HG40	5SJ4150-7HG40	5SJ4150-8HG40	5SJ4150-7HG41	–	5SJ4150-8HG41	–
60 A	5SJ4160-6HG40	5SJ4160-7HG40	5SJ4160-8HG40	5SJ4160-7HG41	–	5SJ4160-8HG41	–
63 A	5SJ4163-6HG40	5SJ4163-7HG40	5SJ4163-8HG40	5SJ4163-7HG41	–	5SJ4163-8HG41	–

## Mounting concept



- AS Auxiliary switches [See page 3/46](#)
- FC Fault signal contacts [See page 3/48](#)
- ST Shunt trips [See page 3/52](#)



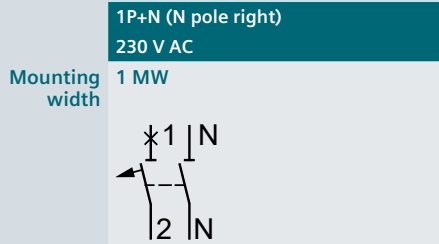
2P				3P			
240 V AC		480Y/277 V AC		240 V AC		480Y/277 V AC	
2 MW				3 MW			
Characteristic				Characteristic			
C	C	D	D	C	C	D	D
5SJ4214-7HG41	5SJ4214-7HG42	5SJ4214-8HG41	5SJ4214-8HG42	5SJ4314-7HG41	5SJ4314-7HG42	5SJ4314-8HG41	5SJ4314-8HG42
5SJ4205-7HG41	5SJ4205-7HG42	5SJ4205-8HG41	5SJ4205-8HG42	5SJ4305-7HG41	5SJ4305-7HG42	5SJ4305-8HG41	5SJ4305-8HG42
5SJ4201-7HG41	5SJ4201-7HG42	5SJ4201-8HG41	5SJ4201-8HG42	5SJ4301-7HG41	5SJ4301-7HG42	5SJ4301-8HG41	5SJ4301-8HG42
5SJ4215-7HG41	5SJ4215-7HG42	5SJ4215-8HG41	5SJ4215-8HG42	5SJ4315-7HG41	5SJ4315-7HG42	5SJ4315-8HG41	5SJ4315-8HG42
5SJ4202-7HG41	5SJ4202-7HG42	5SJ4202-8HG41	5SJ4202-8HG42	5SJ4302-7HG41	5SJ4302-7HG42	5SJ4302-8HG41	5SJ4302-8HG42
5SJ4203-7HG41	5SJ4203-7HG42	5SJ4203-8HG41	5SJ4203-8HG42	5SJ4303-7HG41	5SJ4303-7HG42	5SJ4303-8HG41	5SJ4303-8HG42
5SJ4204-7HG41	5SJ4204-7HG42	5SJ4204-8HG41	5SJ4204-8HG42	5SJ4304-7HG41	5SJ4304-7HG42	5SJ4304-8HG41	5SJ4304-8HG42
5SJ4211-7HG41	5SJ4211-7HG42	5SJ4211-8HG41	5SJ4211-8HG42	5SJ4311-7HG41	5SJ4311-7HG42	5SJ4311-8HG41	5SJ4311-8HG42
5SJ4206-7HG41	5SJ4206-7HG42	5SJ4206-8HG41	5SJ4206-8HG42	5SJ4306-7HG41	5SJ4306-7HG42	5SJ4306-8HG41	5SJ4306-8HG42
5SJ4208-7HG41	5SJ4208-7HG42	5SJ4208-8HG41	5SJ4208-8HG42	5SJ4308-7HG41	5SJ4308-7HG42	5SJ4308-8HG41	5SJ4308-8HG42
5SJ4210-7HG41	5SJ4210-7HG42	5SJ4210-8HG41	5SJ4210-8HG42	5SJ4310-7HG41	5SJ4310-7HG42	5SJ4310-8HG41	5SJ4310-8HG42
5SJ4213-7HG41	5SJ4213-7HG42	5SJ4213-8HG41	5SJ4213-8HG42	5SJ4313-7HG41	5SJ4313-7HG42	5SJ4313-8HG41	5SJ4313-8HG42
5SJ4218-7HG41	5SJ4218-7HG42	5SJ4218-8HG41	5SJ4218-8HG42	5SJ4318-7HG41	5SJ4318-7HG42	5SJ4318-8HG41	5SJ4318-8HG42
5SJ4216-7HG41	5SJ4216-7HG42	5SJ4216-8HG41	5SJ4216-8HG42	5SJ4316-7HG41	5SJ4316-7HG42	5SJ4316-8HG41	5SJ4316-8HG42
5SJ4220-7HG41	5SJ4220-7HG42	5SJ4220-8HG41	5SJ4220-8HG42	5SJ4320-7HG41	5SJ4320-7HG42	5SJ4320-8HG41	5SJ4320-8HG42
5SJ4225-7HG41	5SJ4225-7HG42	5SJ4225-8HG41	5SJ4225-8HG42	5SJ4325-7HG41	5SJ4325-7HG42	5SJ4325-8HG41	5SJ4325-8HG42
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5SJ4235-7HG41	5SJ4235-7HG42	5SJ4235-8HG41	–	5SJ4335-7HG41	5SJ4335-7HG42	5SJ4335-8HG41	–
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5SJ4245-7HG41	–	5SJ4245-8HG41	–	5SJ4345-7HG41	–	5SJ4345-8HG41	–
5SJ4250-7HG41	–	5SJ4250-8HG41	–	5SJ4350-7HG41	–	5SJ4350-8HG41	–
5SJ4260-7HG41	–	5SJ4260-8HG41	–	5SJ4360-7HG41	–	5SJ4360-8HG41	–
5SJ4263-7HG41	–	5SJ4263-8HG41	–	5SJ4363-7HG41	–	5SJ4363-8HG41	–

## Accessories

Auxiliary switches (AS) acc. to UL 489		Article No.
1 NO + 1 NC		5ST3010-OHG
2 NO		5ST3011-OHG
2 NC		5ST3012-OHG
Fault signal contacts (FC) acc. to UL 489		Article No.
1 NO + 1 NC		5ST3020-OHG
2 NO		5ST3021-OHG
2 NC		5ST3022-OHG
Shunt trips (ST) acc. to UL 489		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030-OHG
24 ... 48 V AC/DC		5ST3031-OHG

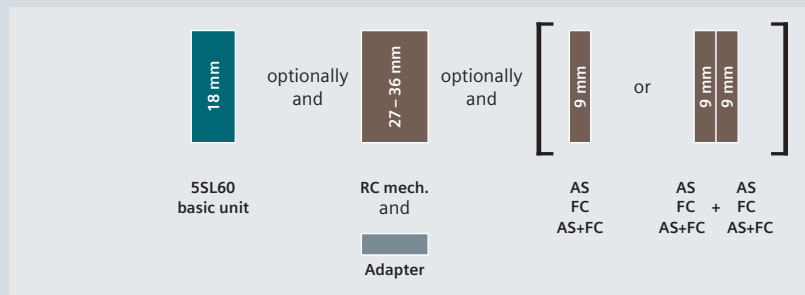
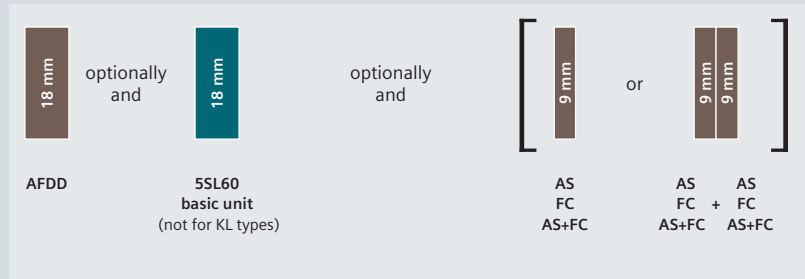
# 5SL6 COM miniature circuit breakers with communication and measuring function **new**

1P+N 6 kA compact miniature circuit breakers



Rated current $I_n$	Characteristic	
	B	C
2 A	5SL6002-6MC	5SL6002-7MC
4 A	5SL6004-6MC	5SL6004-7MC
6 A	5SL6006-6MC	5SL6006-7MC
8 A	–	5SL6008-7MC
10 A	5SL6010-6MC	5SL6010-7MC
13 A	5SL6013-6MC	5SL6013-7MC
16 A	5SL6016-6MC	5SL6016-7MC
20 A	5SL6020-6MC	5SL6020-7MC
25 A	5SL6025-6MC	5SL6025-7MC
32 A	5SL6032-6MC	5SL6032-7MC

## Mounting concept



**Note:**

Please note the country-specific radio licenses of the products in SIOS:  
[www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

## Accessories

Auxiliary switches (AS)	Article No.
1 NO + 1 NC	Standard 5ST3010
	For low power 5ST3013
	For low power (with diode) 5ST3013-OXX01
2 NO	Standard 5ST3011
	For low power 5ST3014
2 NC	Standard 5ST3012
	For low power 5ST3015
1 CO	Standard 5ST3016
Fault signal contacts (FC)	Article No.
1 NO + 1 NC	5ST3020
2 NO	5ST3021
2 NC	5ST3022
Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO (AS) + 1 CO (FC)	5ST3062
5ST3 COM (AS+FC) <b>new</b>	5ST3062-0MC

Remote controlled mechanisms (RC mech.)	Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC 5ST3053
	177 ... 270 V AC 5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC 5ST3055
	177 ... 270 V AC 5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC 5ST3057
	177 ... 270 V AC 5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC 5ST3070
	170 ... 277 V AC, 77 ... 286 V DC 5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)	Article No.
1 MW	5ST3820-6
Arc fault detection units (AFDD)	Article No.
For basic units 1P + N (1 MW), not for KL types	$I_n$ up to 16 A 5SM6011-2
	$I_n$ up to 40 A 5SM6014-2

AFDD Arc fault detection units  
AS Auxiliary switches  
FC Fault signal contacts

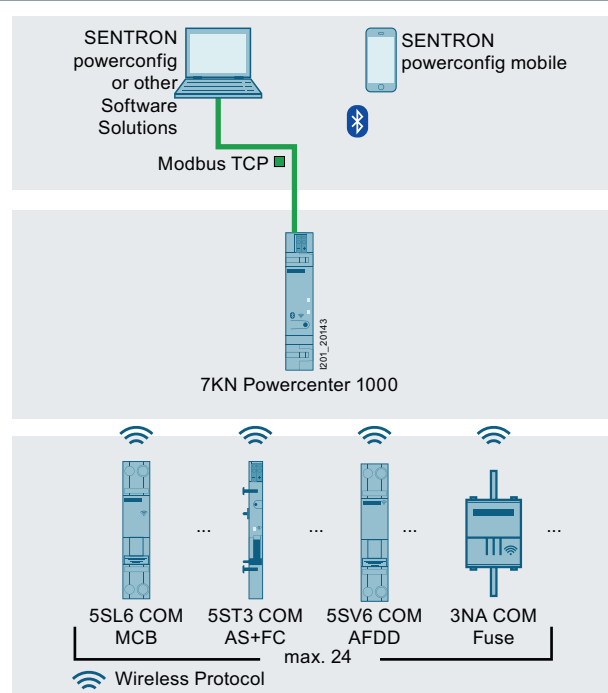
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AS+FC Auxiliary switches and fault signal contacts  
RC mech. Remote controlled mechanisms

See page 3/49  
See page 3/54



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000

Article No.

7KN1110-0MC00

### See page 10/17

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))



System manual – Circuit protection devices with communication and measuring function ([109791806](#))



## Monitoring functions with limit monitoring

- Trip monitoring
- Counters incl. limit monitoring for:
  - Operating hours
  - Operating hours with load current
  - Operating cycles (ON/OFF)
  - Tripping operations
  - Short circuits
- Limit values for:
  - Overcurrent alarm 1 and alarm 2
  - Undercurrent alarm 1 and alarm 2
  - Temperature

Measured values	Unit	Memory
Temperature	°C	1 hour in 1-minute intervals; 7 days in 15-minute intervals
Average temperature	°C	
Current	A	Min. and max. values over 10 days; 1 hour in 10-second intervals; 7 days in 15-minute intervals
Average current	A	
Maximum current	A	
Voltage	V	Min. and max. values over 10 days
Line frequency	Hz	Min. and max. values over 10 days
Active power	W	Min. and max. values over 10 days
Apparent power	VA	Min. and max. values over 10 days
Reactive power	Var	
Power factor		
Active energy imported	Wh	7 days in 15-minute intervals; 30 days in 1-day intervals
Active energy exported	Wh	
Reactive energy imported	Varh	
Reactive energy exported	Varh	

# 5SP3 selective main miniature circuit breakers (SHU)



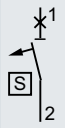
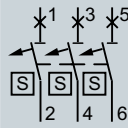
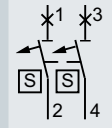
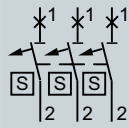
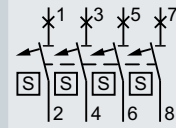
25 kA, mounting on a 40 mm busbar

3

Mounting width	1P 230/400 V AC		3 × 1P 230/400 V AC			
	1.5 MW					
Rated current $I_n$	Characteristic					Characteristic E
	E	L1	L2	L3	L1 + L2 + L3	
16 A		5SP3716-2KK01	5SP3716-2KK02	5SP3716-2KK03	5SP3716-2	5SP3816-2
20 A		5SP3720-2KK01	5SP3720-2KK02	5SP3720-2KK03	5SP3720-2	5SP3820-2
25 A		5SP3725-2KK01	5SP3725-2KK02	5SP3725-2KK03	5SP3725-2	5SP3825-2
35 A		5SP3735-2KK01	5SP3735-2KK02	5SP3735-2KK03	5SP3735-2	5SP3835-2
40 A		5SP3740-2KK01	5SP3740-2KK02	5SP3740-2KK03	5SP3740-2	5SP3840-2
50 A		5SP3750-2KK01	5SP3750-2KK02	5SP3750-2KK03	5SP3750-2	5SP3850-2
63 A		5SP3763-2KK01	5SP3763-2KK02	5SP3763-2KK03	5SP3763-2	5SP3863-2



## 25 kA, mounting on a mounting rail

	1P 230/400 V AC	3x 1P 230/400 V AC	2P 230/400 V AC	3P 230/400 V AC	4P 230/400 V AC
Mounting width	1.5 MW 	4.5 MW 	3 MW 	4.5 MW 	6 MW 
Rated current $I_n$	Characteristic E	Characteristic E	Characteristic E	Characteristic E	Characteristic E
16 A	5SP3716-3	5SP3816-3	5SP3216-3	5SP3316-3	5SP3416-3
20 A	5SP3720-3	5SP3820-3	5SP3220-3	5SP3320-3	5SP3420-3
25 A	5SP3725-3	5SP3825-3	5SP3225-3	5SP3325-3	5SP3425-3
35 A	5SP3735-3	5SP3835-3	5SP3235-3	5SP3335-3	5SP3435-3
40 A	5SP3740-3	5SP3840-3	5SP3240-3	5SP3340-3	5SP3440-3
50 A	5SP3750-3	5SP3850-3	5SP3250-3	5SP3350-3	5SP3450-3
63 A	5SP3763-3	5SP3863-3	5SP3263-3	5SP3363-3	5SP3463-3



# 5SY17 device protection switches

## Electromechanical

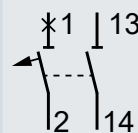


3

1P+AS

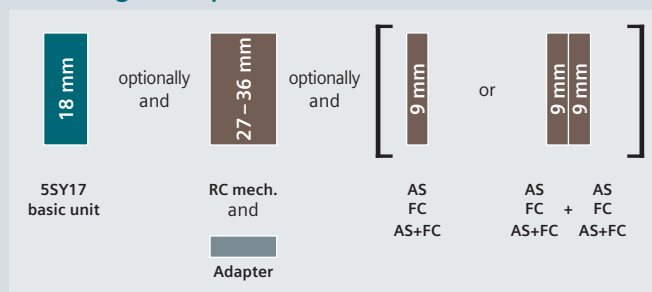
230 V AC/12 ... 72 V DC

Mounting width 1 MW (18 mm)



Rated current $I_n$	Characteristic	
	F1 (quick)	F2 (slow)
0.5 A	5SY1705-2	5SY1705-4
1 A	5SY1701-2	5SY1701-4
2 A	5SY1702-2	5SY1702-4
4 A	5SY1704-2	5SY1704-4
6 A	5SY1706-2	5SY1706-4
8 A	5SY1708-2	5SY1708-4
10 A	5SY1710-2	5SY1710-4
16 A	5SY1716-2	5SY1716-4

## Mounting concept



AS	Auxiliary switches
FC	Fault signal contacts
AS+FC	Auxiliary switches and fault signal contacts
RC mech.	Remote controlled mechanisms

[See page 3/46](#)
[See page 3/48](#)
[See page 3/49](#)
[See page 3/54](#)

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022

Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
Power	177 ... 270 V AC	5ST3056
	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
Power with ARD	177 ... 270 V AC	5ST3058
	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
Power with extended function	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapters for remote controlled mechanisms (RC mech.)		Article No.
1 MW		5ST3820-6

# 5SK9 device protection switches

Electronic



	1P+AS
	24 V DC
Mounting width	6.2 mm

Rated current $I_n$	
1 A	5SK9101-1
2 A	5SK9102-1
3 A	5SK9103-1
4 A	5SK9104-1
6 A	5SK9106-1
8 A	5SK9108-1

3

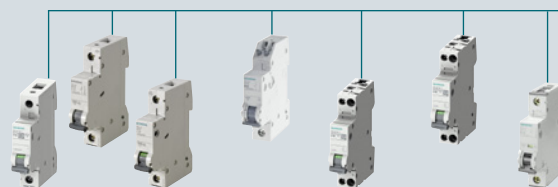
## Specific accessories

Connecting combs			
Type	Number of poles	Max. load current $I_{max}$	Article No.
 For parallel infeed	2-pole	24 A	8WH9020-6BC10
		32 A	8WH9020-6CC10
	5-pole	24 A	8WH9020-6BF10
		32 A	8WH9020-6CF10
For remote signal – group signal	2-pole	32 A	8WH9020-6CC10
Reducing combs for 10 mm <sup>2</sup> terminal blocks			
Type	Number of poles	Max. load current $I_{max}$	Article No.
 For bypassing the power supply	2-pole	40 A	8WH9020-0AC10










See general accessories from page 3/56 onwards

# Overview of the modular system

## Miniature circuit breakers



3

			5SL3	5SL6	5SL4	5SJ6...-KS	5SL30	5SL60/ 5SL6 COM	5SY
<b>Auxiliary switches (AS)</b>			<b>Article No.</b>						
	1 NO + 1 NC	Standard	5ST3010	■	■	■	–	■	■
		For low power	5ST3013	■	■	■	–	■	■
		For low power (with diode)	5ST3013-0XX01	■	■	■	–	■	■
	2 NO	Standard	5ST3011	■	■	■	–	■	■
		For low power	5ST3014	■	■	■	–	■	■
	2 NC	Standard	5ST3012	■	■	■	–	■	■
For low power		5ST3015	■	■	■	–	■	■	
1 CO	Standard	5ST3016	■	■	■	–	■	■	
		5ST1010-0FP	–	–	–	–	–	–	
<b>Fault signal contacts (FC)</b>			<b>Article No.</b>						
	1 NO + 1 NC		5ST3020	■	■	■	–	■	■
	2 NO		5ST3021	■	■	■	–	■	■
	2 NC		5ST3022	■	■	■	–	■	■
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>			<b>Article No.</b>						
	1 CO (AS) + 1 CO (FC)	Standard	5ST3062	■	■	■	–	■	■
	5ST3 COM (AS+FC) <b>new</b>	With communication and measuring function	5ST3062-0MC	■	■	■	–	■	■
<b>Shunt trips (ST)</b>			<b>Article No.</b>						
	110 ... 415 V AC, 110 ... 220 V DC		5ST3030	–	–	■	–	–	■
	24 ... 48 V AC/DC		5ST3031	–	–	■	–	–	■
	12 V DC		5ST3031-0XX01	–	–	■	–	–	■
<b>Undervoltage releases (UR)</b>			<b>Article No.</b>						
	With integrated auxiliary switch	230 V AC	5ST3040	–	–	■	–	–	■
		110 V DC	5ST3041	–	–	■	–	–	■
		24 V DC	5ST3042	–	–	■	–	–	■
	Without integrated auxiliary switch	230 V AC	5ST3043	–	–	■	–	–	■
		110 V DC	5ST3044	–	–	■	–	–	■
		24 V DC	5ST3045	–	–	■	–	–	■
<b>Remote controlled mechanisms (RC mech.)</b>			<b>Article No.</b>						
	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053	–	■	■	–	–	■
		177 ... 270 V AC	5ST3054	–	■	■	–	–	■
	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055	–	■	■	–	–	■
		177 ... 270 V AC	5ST3056	–	■	■	–	–	■
	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057	–	■	■	–	–	■
		177 ... 270 V AC	5ST3058	–	■	■	–	–	■
	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070	–	■	■	–	–	■
		170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>	–	■	■	–	–	■
<b>5SM6 arc fault detection units</b>			<b>Article No.</b>						
	Rated current up to 16 A	Standard	5SM6021-2	–	–	□	–	–	□
		For compact devices 1P+N in 1 MW	5SM6011-2	–	–	–	–	□	–
	Rated current up to 40 A	Standard	5SM6024-2	–	–	□	–	–	□
		For compact devices 1P+N in 1 MW	5SM6014-2	–	–	–	–	□	–
<b>Standard busbars</b>			<b>Article No.</b>						
	Cannot be cut		5ST36..	■	■	■	■	■	■
	Can be cut		5ST37..	■	■	■	■	■	■
<b>Compact busbars</b>			<b>Article No.</b>						
	Cannot be cut		5ST36..	□	□	□	–	■	■
	Can be cut		5ST37..	□	□	□	–	■	■

From page 3/12

■ Suitable for all versions

□ Suitable for some versions



# Electrical accessories



## Auxiliary switches (AS)

- Signals the contact position of the mounted device
- Version for the switching of small currents and voltages according to EN 61131-2 for control of programmable control systems (PLCs)
- Test button enables the testing of control circuits without the need to switch the mounted device

For combining with basic units						Contacts	Version	Mounting width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices	ON/OFF switches				
<b>Auxiliary switches (AS)</b>									
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	5TL1, 5TE8	1 NO + 1 NC	Standard	0.5 MW	5ST3010
							For low power	0.5 MW	5ST3013
							For low power (with diode)	0.5 MW	5ST3013-0XX01
						2 NO	Standard	0.5 MW	5ST3011
							For low power	0.5 MW	5ST3014
						2 NC	Standard	0.5 MW	5ST3012
							For low power	0.5 MW	5ST3015
						1 CO	Standard	0.5 MW	5ST3016
						<b>Auxiliary switches (AS) with TEST button</b>			
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	5TL1, 5TE8	1 NO + 1 NC	Standard	0.5 MW	5ST3010-2
							For low power	0.5 MW	5ST3013-2
						2 NO	Standard	0.5 MW	5ST3011-2
							For low power	0.5 MW	5ST3014-2
						2 NC	Standard	0.5 MW	5ST3012-2
							For low power	0.5 MW	5ST3015-2
<b>Auxiliary switches (AS) acc. to UL 489</b>									
5SJ4...-HG	-	-	-	-	-	1 NO + 1 NC	Standard	0.5 MW	5ST3010-0HG
						2 NO	Standard	0.5 MW	5ST3011-0HG
						2 NC	Standard	0.5 MW	5ST3012-0HG

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

5ST3010,  
5ST3011,  
5ST3012,  
5ST30165ST3010-0HG,  
5ST3011-0HG,  
5ST3012-0HG5ST3010-2,  
5ST3011-2,  
5ST3012-25ST3013,  
5ST3014,  
5ST3015,  
5ST3013-0XX01 <sup>1)</sup>5ST3013-2,  
5ST3014-2,  
5ST3015-2

Standards					
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1	–	IEC/EN 62019, IEC/EN 60947-5-1	
	UL, CSA	UL 1077, CSA C22.2 No. 235	UL 489, CSA 22.2 No. 5-02	– UL 1077, CSA C22.2 No. 235 –	
Contacts					
Minimum contact load		50 mA, 24 V		1 mA, 5 V DC 5 mA, 5 V DC	
Maximum contact load		–		100 mA, 30 V DC 50 mA, 30 V DC	
Contact load acc. to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-12	–		–	
	230 V AC, AC-13	6 A/6 A		–	
	400 V AC, AC-13	2 A/2 A		–	
	230 V AC, AC-14	6 A/6 A		–	
	400 V AC, AC-14	2 A/2 A		–	
	24 V DC, DC-13	6 A/3 A		–	
	30 V DC, DC-14	–		0.1 A	
	60 V DC, DC-13	3 A/1.5 A		–	
	110 V DC, DC-13	1 A/0.75 A		–	
	220 V DC, DC-12	–		–	
	220 V DC, DC-13	1 A/0.5 A		–	
	Contact load acc. to UL	120 V AC	–	6 A	–
		125 V AC	3 A	–	–
240 V AC		4 A	–	–	
277 V AC		–	3 A	–	
480 V AC		1,5 A	–	–	
60 V DC		–	3 A	–	
125 V DC		1,1 A	1 A	–	
250 V DC		0,55 A	–	–	
Service life, on average, with rated load	Actuations	20000	12000	20000	
	Safety				
	Short-circuit protection	5SY... 6A miniature circuit breaker or gG 6 A fuse			
Connections					
Conductor cross-sections	0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)				
Terminals	Max. tightening torque	0.5 Nm (4.5 lb-in)			
Ambient conditions					
Permissible ambient temperature	–40 ... +70 °C				
Permissible storage temperature	–40 ... +75 °C				
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles			
Mounting position	Any				
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>			
Resistance to vibrations at 5 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>			

<sup>1)</sup> No approvals

# Electrical accessories



## Fault signal contacts (FC)

- Signals automatic tripping of the protective switching device in the event of a fault, such as an overload or a short circuit
- If the fault signal contact is activated, the contact position does not change if the protective switching device is tripped manually
- Version with TEST and RESET buttons enable the testing of control circuits without operation of the protective switching device
- Red RESET button in the operating handle indicates automatic tripping of the mounted protective switching device

3

For combining with basic units					Contacts	Mounting width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices			
<b>Fault signal contacts (FC)</b>							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 NO + 1 NC	0.5 MW	5ST3020
					2 NO	0.5 MW	5ST3021
					2 NC	0.5 MW	5ST3022
<b>Fault signal contacts (FC) with TEST and RESET button</b>							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 NO + 1 NC	0.5 MW	5ST3020-2
					2 NO	0.5 MW	5ST3021-2
					2 NC	0.5 MW	5ST3022-2
<b>Fault signal contacts (FC) acc. to UL 489</b>							
5SJ4...-HG	–	–	–	–	1 NO + 1 NC	0.5 MW	5ST3020-0HG
					2 NO	0.5 MW	5ST3021-0HG
					2 NC	0.5 MW	5ST3022-0HG

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

	5ST3020, 5ST3021, 5ST3022	5ST3020-2, 5ST3021-2, 5ST3022-2	5ST3020-0HG, 5ST3021-0HG, 5ST3022-0HG
<b>Standards</b>			
Standards	IEC/EN UL, CSA	IEC/EN 62019, IEC/EN 60947-5-1 UL 1077, CSA C22.2 No. 235	– UL 489, CSA 22.2 No. 5-02
<b>Contacts</b>			
Minimum contact load	50 mA, 24 V		
Contact load acc. to IEC/EN 62019/IEC/EN 60947-5-1	230 V AC, AC-13	6 A/6 A	
	400 V AC, AC-13	6 A/6 A	
	230 V AC, AC-14	2 A/2 A	
	400 V AC, AC-14	2 A/2 A	
	24 V DC, DC-13	6 A/3 A	
	60 V DC, DC-13	3 A/1.5 A	
	110 V DC, DC-13	1 A/0.75 A	
	220 V DC, DC-13	1 A/0.5 A	
Contact load acc. to UL	120 V AC	–	
	125 V AC	3 A	–
	240 V AC	4 A	–
	277 V AC	–	3 A
	480 V AC	1.5 A	–
	60 V DC	–	3 A
	125 V DC	1.1 A	–
	250 V DC	0.55 A	–
Service life, on average, with rated load	Actuations	20000	12000
<b>Safety</b>			
Short-circuit protection	Miniature circuit breaker or gG 6 A fuse		
<b>Connections</b>			
Conductor cross-sections	0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)		
Terminals	Max. tightening torque	0.5 Nm (4.5 lb-in)	
<b>Ambient conditions</b>			
Permissible ambient temperature	–25 ... +55 °C		
Permissible storage temperature	–40 ... +75 °C		
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles	
Mounting position	Any		
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>	
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>	



## Auxiliary switches and fault signal contacts (AS+FC)

- Combines the function of both switches in a width of only 0.5 MW (9 mm)
- Signals the contact position of the mounted device
- Signals automatic tripping of the protective switching device in the event of a fault, such as an overload, a short circuit or a fault current
- If the fault signal contact is activated, the contact position does not change if the protective switching device is tripped manually

For combining with basic units					Contacts	Mounting width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices			
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 CO (AS) + 1 CO (FC)	0.5 MW	5ST3062

<sup>1)</sup> 5ST3805-1 handle coupler required

### Further technical specifications

5ST3062

Standards		
Standards	IEC/EN UL, CSA	IEC/EN 62019, IEC/EN 60947-5-1 UL 1077, CSA C22.2 No. 235
Contacts		
Minimum contact load		50 mA, 24 V
Maximum contact load		–
Contact load acc. to IEC/EN 62019/IEC/EN 60947-5-1	230 V AC, AC-13 400 V AC, AC-14	6 A/6 A 2 A/2 A
Contact load acc. to IEC/EN 62019/IEC/EN 60947-5-1	24 V DC, DC-13 60 V DC, DC-13 110 V DC, DC-13 220 V DC, DC-13	3 A/3 A 3 A/1 A 0.5 A/0.5 A 0.5 A/0.3 A
Contact load acc. to UL	125 V AC 240 V AC 480 V AC 125 V DC 250 V DC	2 A 1.5 A 0.75 A 0.5 A 0.3 A
Service life, on average, with rated load	Actuations	20000
Safety		
Short-circuit protection		Miniature circuit breaker or gG 6 A fuse
Connections		
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)
Terminals	Max. tightening torque	0.5 Nm (4.5 lb-in)
Ambient conditions		
Permissible ambient temperature		–25 ... +55 °C
Permissible storage temperature		–40 ... +75 °C
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles
Mounting position		Any
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>



# Electrical accessories

5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function **new**



For combining with basic units					Mounting width	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices	(1 MW = 18 mm)	
<b>5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function</b>						
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	Radio link to 7KN Powercenter 1000	0.5 MW 5ST3062-0MC

<sup>1)</sup> 5ST3805-1 handle coupler required

## Note:

Please note the country-specific radio licenses of the products in SIOS:

[www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

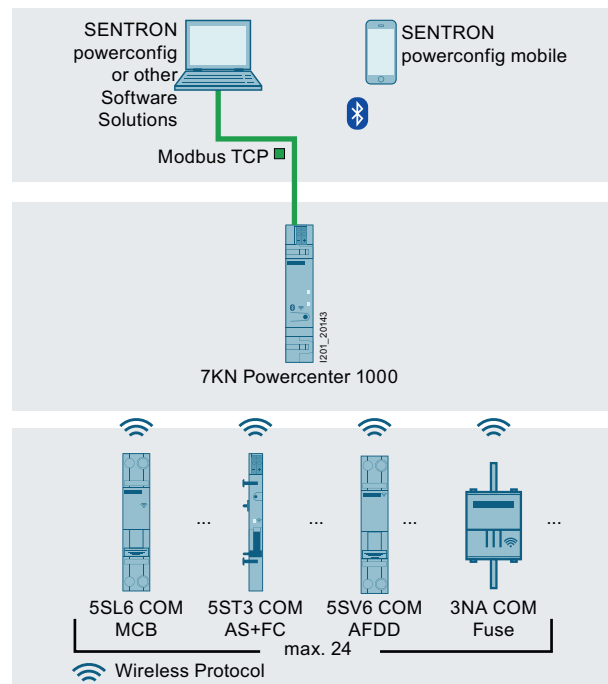
## Further technical specifications

5ST3062-0MC

Standards			60669-2-5 2014/53/EU
Standards		IEC/EN; UL, CSA RED	
Power supply			24 V DC ±20%, SELV
Power supply			
Conductor cross-sections			0.2 ... 1.5 mm <sup>2</sup>
Connection type			Plug-in terminal
Safety			
Pollution degree for overvoltage category			2/II
Degree of protection			IP40, with front cover
Ambient conditions			
Permissible ambient temperature			-25 ... +60 °C
Permissible storage temperature			-40 ... +85 °C
Humidity			93% at 40 °C
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles
Mounting position			Any
Schock			150 m/s <sup>2</sup>
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6		50 m/s <sup>2</sup>
Service life			10000
Communication			
Interface	7KN Powercenter 1000		Radio link
Temperature			Measuring accuracy of 2.5 °C with limit monitoring incl. storage (1 hour in 1-minute intervals and 7 days in 15-minute intervals)
Operating cycle counters			Mechanical operation with limit monitoring
Trip counter			Trip of the mounted circuit protection device with limit monitoring



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000

Article No.

7KN1110-0MC00

See page 10/17

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))

System manual – Circuit protection devices with communication and measuring function ([109791806](#))



# Electrical accessories



## Shunt trips (ST)

- For remote-controlled tripping of the mounted device

For combining with basic units			Rated operational voltage $U_e$	Mounting width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	RCCBs	RCBOs			
<b>Shunt trips (ST)</b>					
5SL4, 5SY, 5SP	5SV	5SU1 <sup>1)</sup>	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030
			24 ... 48 V AC/DC	1 MW	5ST3031
			12 V DC <b>new</b>	1 MW	5ST3031-0XX01
<b>Shunt trips (ST) acc. to UL 489</b>					
5SJ4...-HG	-	-	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030-0HG
			24 ... 60 V AC/DC	1 MW	5ST3031-0HG

<sup>1)</sup> 5ST3805-1 handle coupler required

### Further technical specifications

	5ST3030	5ST3031	5ST3031-0XX01	5ST3030-0HG	5ST3031-0HG
<b>Standards</b>					
Standards	IEC/EN UL, CSA		EN 60947-1 -	IEC/EN 60947-1 UL 489, UL-File E321559, CSA 22.2 No. 5-02	
<b>Supply</b>					
Primary operating range	0.7 ... 1.1 × $U_n$				
Rated frequency $f_n$	50 ... 60 Hz		-	50 ... 60 Hz	
<b>Contacts</b>					
Minimum contact load	50 mA, 24 V		1 mA, 5 V	50 mA, 24 V	
Tripping operations	Max. 2000				
Service life, on average, with rated load	Actuations 20000			12000	
<b>Safety</b>					
Short-circuit protection	Miniature circuit breaker B/C 6 A or fuse gG 6 A				
<b>Connections</b>					
Conductor cross-sections	0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)				
Terminals	Max. tightening torque 0.8 Nm (6.8 lb-in)				
<b>Ambient conditions</b>					
Permissible ambient temperature	-25 ... +55 °C		-40 ... +70 °C	-25 ... +55 °C	
Permissible storage temperature	-40 ... +75 °C				
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles		
Mounting position	Any				
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27		150 m/s <sup>2</sup>		
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6		50 m/s <sup>2</sup>		



## Undervoltage releases (UR)

- Integrated, for example, in EMERGENCY-STOP loops
- Ensure that the mounted device trips in the event of an emergency, guaranteeing disconnection of the control circuit according to EN 60204
- Trip the mounted device if the voltage is interrupted or too low, i.e. prevents activation of the mounted device

For combining with basic units			Rated operational voltage $U_e$	Mounting width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	RCCBs	RCBOs			
<b>With integrated auxiliary switch</b>					
5SL4, 5SY, 5SP4	5SV	5SU1 <sup>1)</sup>	230 V AC	1 MW	5ST3040
			110 V DC	1 MW	5ST3041
			24 V DC	1 MW	5ST3042
<b>Without integrated auxiliary switch</b>					
5SL4, 5SY, 5SP4	5SV	5SU1 <sup>1)</sup>	230 V AC	1 MW	5ST3043
			110 V DC	1 MW	5ST3044
			24 V DC	1 MW	5ST3045

<sup>1)</sup> 5ST3805-1 handle coupler required

### Further technical specifications

5ST304.

<b>Standards</b>		
Standards	IEC/EN	EN 60947-1
<b>Supply</b>		
Primary operating range		0.85 ... 1.1 × $U_n$
Rated frequency $f_n$		50/60 Hz
<b>Contacts</b>		
Minimum contact load		50 mA, 24 V
Tripping operations		Max. 2000
Service life, on average, with rated load	Actuations	20000
<b>Safety</b>		
Short-circuit protection		Miniature circuit breaker B/C 6 A or fuse gG 6 A
<b>Connections</b>		
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)
Terminals	Max. tightening torque	0.8 Nm (6.8 lb-in)
<b>Ambient conditions</b>		
Permissible ambient temperature		−25 ... +55 °C
Permissible storage temperature		−40 ... +75 °C
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles
Mounting position		Any
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>

# Electrical accessories



## 5ST3 remote controlled mechanisms (RC mech.)

- For locations that are spread out over a wide area or not permanently attended
- Permits direct and immediate access to the installation even if it is remote or in a location that is hard to access
- Permits fast reconnection after a fault
- Version with ARD with automatic restart
- Versions with ARD and Power with integrated auxiliary switches and fault signal contacts

Type of remote operating mechanism	Display	Ambient temperature	Vibration and shock requirements	Rated operational voltage $U_e$	Mounting width (1 MW = 18 mm)	Article No.
Basic	–	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	1.5 MW	5ST3053
				177 ... 270 V AC	2 MW	5ST3054
Power	LED	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3055
				177 ... 270 V AC	2 MW	5ST3056
Power with ARD	LED	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3057
				177 ... 270 V AC	2 MW	5ST3058
Power with extended function	LED	–40 °C ... +70 °C	Acc. to EN 61373/ EN 50155 "1B"	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	2 MW	5ST3071 <b>new</b>

### Further technical specifications

	5ST3053	5ST3054	5ST3055	5ST3056	5ST3057	5ST3058	5ST3070	5ST3071
<b>Standards</b>								
Standards	EN 50557 (VDE 0640-20)							
<b>Supply</b>								
Rated frequency $f_n$	50 ... 60 Hz							
Rated power dissipation in standby	≤1 VA							
<b>Contacts</b>								
Service life, on average, with rated load	Actuations	10000						
Number of remote switching operations per minute	2							
Number of automatic reclose attempts	–				3		–	
Cable length in the control circuit	≤1500 m						≤1500 m (DC)/ ≤200 m (AC)	
Sliding selector with locking device	–	■						
Integrated auxiliary switches	–		1W (1CO); 2 A; 250 V					
Integrated fault signal contact	–		1W (1CO); 2 A; 250 V					
<b>Connections</b>								
Conductor cross-sections	0.5 ... 1.5 mm <sup>2</sup> (AWG 14 ... 30)							
Terminal tightening torque	0.2 ... 0.25 Nm (2.0 lb-in)							
<b>Ambient conditions</b>								
Permissible storage temperature	–40 ... +55 °C						–40 ... +70 °C	
Degree of protection	IP20							
Pollution degree for overvoltage category	3/II							

### Suitable adapters for combination with basic units



Basic units	Mounting width			Article No.
	1–2 MW	3–4 MW	3–6 MW	
5SY4/5/6/7/8	■	–	–	5ST3820-1
	–	■	–	5ST3820-2
5SL3/4/6	■	–	–	5ST3820-6
	–	■	–	5ST3820-7
5SL60/5SY17	■	–	–	5ST3820-6
5SP4	■	–	–	5ST3820-1
	–	–	■	5ST3820-2



## 5SM6 arc fault detection units (AFDD)

- Detects arcing faults
- Offers extremely effective protection against fires started by electrical faults
- Ensures adequate fire protection even in applications without residual current protective device

For combining with basic units			Rated current $I_e$	Mounting width (1 MW = 18 mm)	Article No.
Width of basic unit	Miniature circuit breakers	RCBOs			
1 MW	5SL60 1P + N (no KL types)	5SV1	Up to 16 A	1 MW	5SM6011-2
			Up to 40 A	1 MW	5SM6014-2
2 MW	5SY <sup>1)</sup> , 5SL4 (1P+N devices only)	5SU1.5	Up to 16 A	1 MW	5SM6021-2
			Up to 40 A	1 MW	5SM6024-2

<sup>1)</sup> Not suitable for use with 5SY5, 5SY8

### Further technical specifications

#### 5SM6

Standards		
Standards		IEC/EN 62606
Supply		
Rated voltage $U_n$		230 V
Rated current $I_n$		Up to 16/40 A
Rated frequency		50 Hz
Power loss		0.6 W
Contacts		
Number of poles		2-pole
Service life		Average number of operating cycles
		>10000
Safety		
Touch protection		Acc. to EN 50274 (VDE 0660-514)
		Finger and back-of-hand safe
Degree of protection		Acc. to EN 60529 (VDE 0470-1)
		IP20, with connected conductors
Overvoltage category		III
Tripping in the event of overvoltage		>275 V
Connections		
Terminal/conductor cross-sections		Solid and stranded
		0.75 ... 16 mm <sup>2</sup>
		Finely stranded with end sleeve
		0.75 ... 10 mm <sup>2</sup>
Terminal tightening torque		2.0 ... 2.5 Nm
Mains connection		Bottom
Ambient conditions		
Permissible ambient temperature		-25 ... +40 °C
Permissible storage temperature		-40 ... +75 °C
Resistance to climate at 95% relative air humidity		Acc. to IEC 60068-2-30
		28 cycles, 55 °C
Pollution degree		2
CFC and silicone-free		Yes
Mounting position		Any

Suitable busbars, page 3/58 onwards

Suitable terminals and end caps, page 3/74 onwards

# Mechanical accessories

## Mechanical rotary operating mechanisms complete with handle



- For 5SY, 5SP4, 5SL (but not for 5SL.0 1P + N in 1TE), 5TL1, 5TE2, 5TE8, 5SU1

Types	Article No.
Handle black	5ST3060
Handle red/yellow	5ST3061

## Terminal cover



- For miniature circuit breakers, but not for 5SL60..
- For additional covering of the screw openings per pole
- Lockable
- In the case of 5SY, also prevents removal of device from the standard mounting rail

Article No.
5ST3800

## Handle locking devices

- To prevent undesired mechanical ON/OFF switching
- Sealable and lockable



For miniature circuit breakers	For padlocks with	Article No.
5SP4, 5SY	Max. 3 mm shackle	5ST3801
5SL, 5TL1	3 ... 6 mm shackle	5ST3806

## Padlocks



- For 5ST3801 and 5ST3806 handle locking devices and remote operating mechanisms 5ST3054 ... 58, 5ST3070

Article No.
5ST3802

## Locking devices

- Comprising 5ST3801 or 5ST3806 handle locking device and 5ST3802 padlock

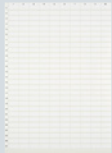






For miniature circuit breakers	Comprising	Article No.
5SP4 and 5SY	5ST3801 handle locking device, 5ST3802 padlock	5ST3803
5SL, 5SV, 5TL1	5ST3806 handle locking device, 5ST3802 padlock	5ST3807

## Spacers



- Can be placed on either side of the standard mounting rail. Two spacers allow for convenient cable routing

Mounting width	Article No.
0.5 MW	5TG8240

Device labels			
	<ul style="list-style-type: none"> <li>Adhesive</li> <li>For modular installation devices, e.g. 5SY, 5SL, 5TL1</li> </ul>		
	<b>Types</b>		<b>Article No.</b>
	15 x 6 mm, white (WIN 098)		8WH8210-0AA35
15 x 6 mm, yellow (WIN 099)		8WH8210-0AA36	
Terminal covers, gray			
	<ul style="list-style-type: none"> <li>For surface mounting, degree of protection IP40</li> <li>Sealable</li> <li>Can be used with 35 mm mounting rail</li> </ul>		
	<b>For widths up to</b>		<b>Article No.</b>
	2.5 MW		5SW3004
4.5 MW		5SW3005	
Wall enclosures, gray			
	<ul style="list-style-type: none"> <li>For flush mounting, degree of protection IP40</li> <li>Can be used with 35 mm mounting rail</li> </ul>		
	<b>For widths up to</b>		<b>Article No.</b>
	2.5 MW		5SW3006
4.5 MW		5SW3007	
Molded-plastic enclosures, gray			
	<ul style="list-style-type: none"> <li>For surface mounting, degree of protection IP54</li> <li>Sealable</li> <li>Can be used with 35 mm mounting rail</li> <li>With transparent hinged lid</li> </ul>		
	<b>For widths up to</b>		<b>Article No.</b>
	4.5 MW		5SW1200
Covers			
	<ul style="list-style-type: none"> <li>Can be assembled as mini distribution board</li> <li>Suitable for all devices</li> <li>Cover parts prepared for rail mounting of conventional label caps</li> </ul>		
	<b>Comprising</b>		<b>Article No.</b>
	End plate		5ST2134
	Angled profile		5ST2135
Alternatively flat profile		5ST2136	
Holders for front panel installation			
	<ul style="list-style-type: none"> <li>Universal use for devices from 1 to 6 MW</li> </ul>		
	<b>Cutout height</b>	<b>Cutout width</b>	<b>Article No.</b>
	45 <sup>+0.5</sup> mm	23, 41, 59, 77, 95 or 113 mm	7LF9006
Intermediate frames			
	<ul style="list-style-type: none"> <li>For 70 mm devices in 55 mm ALPHA SIMBOX small distribution boards</li> </ul>		
	<b>Types</b>		<b>Article No.</b>
	1-tier		8GB4561
	2-tier		8GB4562
	3-tier		8GB4563
4-tier		8GB4564	



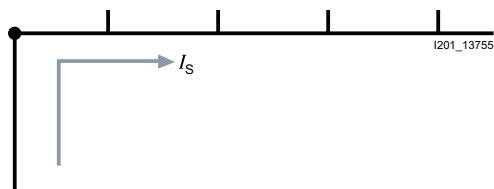
# Standard busbars

## General information



### Infeed

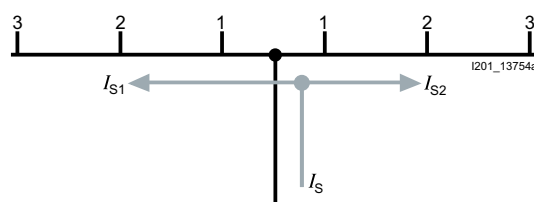
#### At the start or end of the busbar



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 63 A
- Cross-section 16 mm<sup>2</sup>: 80 A

#### Along the busbar or midpoint infeed



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 100 A
- Cross-section 16 mm<sup>2</sup>: 130 A



## Fixed length, cannot be cut

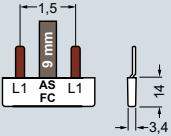
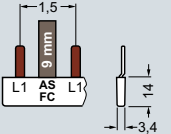
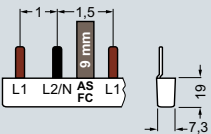
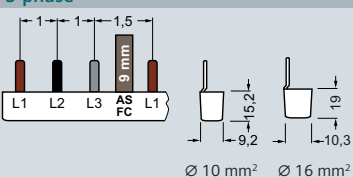
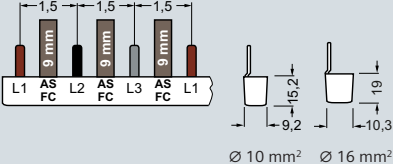
### For miniature circuit breakers (MCBs)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section		
				10 mm <sup>2</sup>	16 mm <sup>2</sup>	
<b>1-phase</b>						
	For 2 MCBs 1P	2 MW	33 mm	5ST3600	5ST3630	
	For 6 MCBs 1P	6 MW	105 mm	5ST3601	5ST3631	
	For 12 MCBs 1P	12 MW	212 mm	5ST3602	5ST3632	
					<b>Article No.</b>	<b>Article No.</b>
<b>2-phase/1-phase + N</b>						
	For 2 MCBs (2P/1P+N)	4 MW	76 mm	5ST3606	5ST3636	
	For 3 MCBs (2P/1P+N)	6 MW	105 mm	5ST3607	5ST3637	
	For 6 MCBs (2P/1P+N)	12 MW	210 mm	5ST3608	5ST3638	
				<b>Article No.</b>	<b>Article No.</b>	
<b>3-phase</b>						
	For 2 MCBs 3P	6 MW	102 mm	5ST3613	5ST3643	
	For 3 MCBs 3P	9 MW	157.5 mm	5ST3614	5ST3644	
	For 4 MCBs 3P	12 MW	210 mm	5ST3615	5ST3645	
	For 14 MCBs 1P <b>new</b>	14 MW	250 mm	5ST3613-4	–	
	Combi pack: 20x 5ST3613 + 10x 5ST3614 + 50x 5ST3615 + 50x 5ST3655				5ST3656	–
				–	5ST3657	
				Combi pack: 20x 5ST3643 + 10x 5ST3644 + 50x 5ST3645 + 50x 5ST3655		
<b>4-phase/3-phase + N</b>						
	For 2 MCBs (4P/3P+N)	8 MW	138 mm/ 140 mm	5ST3621	5ST3651	
	For 3 MCBs (4P/3P+N)	12 MW	210 mm	5ST3622	5ST3652	
				<b>Article No.</b>	<b>Article No.</b>	
	For 6 MCBs (1P+N)	12 MW	210 mm	5ST3623	5ST3653	
	For 7 MCBs (1P+N) <b>new</b>	14 MW	248 mm	5ST3623-4	–	
				<b>Article No.</b>	<b>Article No.</b>	

# Standard busbars

Fixed length, cannot be cut

For MCBs equipped with auxiliary switch (AS) or fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section	
				10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>1-phase</b>					
	For 2 MCBs 1P	2 MW	40 mm	5ST3603	5ST3633
	For 6 MCBs 1P	6 MW	158 mm	5ST3604	5ST3634
	For 9 MCBs 1P	9 MW	237 mm	5ST3605	5ST3635
<b>2-phase/1-phase + N</b>					
	For 2 MCBs (2P/1P+N)	4 MW	76 mm	–	5ST3640
	For 3 MCBs (2P/1P+N)	6 MW	121 mm	–	5ST3641
	For 5 MCBs (2P/1P+N)	10 MW	210 mm	–	5ST3642
<b>3-phase</b>					
	For 2 MCBs 3P	6 MW	115 mm	5ST3616	5ST3646
	For 4 MCBs 3P	12 MW	237 mm	5ST3617	5ST3647
	For 6 MCBs 1P	9 MW	156 mm/ 158 mm	5ST3618	5ST3648
	For 9 MCBs 1P	12 MW	227 mm	5ST3620	5ST3650

## Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm <sup>2</sup>	Cable entry on the left	5ST3768-4
	Cable entry in the center	5ST3768-3
	Cable entry on the right	5ST3768-5
For conductors up to 50 mm <sup>2</sup>	Cable entry on the left	5ST3760-4
	Cable entry in the center	5ST3760-3
	Cable entry on the right	5ST3760-5

Terminals for infeed at side		Article No.
For conductors up to 25 mm <sup>2</sup>	Short	5ST3768
	Short, IP20	5ST3771-2
Touch protection		Article No.
For free connections, yellow (RAL 1004) 5x 1 pin		5ST3655



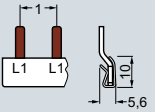
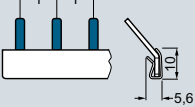
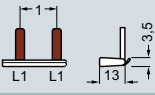
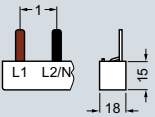
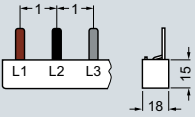
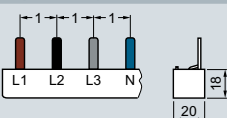
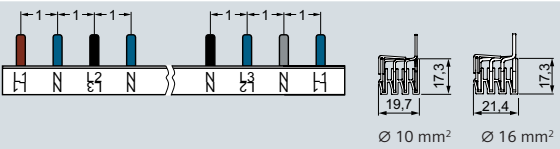
## For MCBs with RCCB

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section	
				10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>3-phase</b>				<b>Article No.</b>	<b>Article No.</b>
	For 8 MCBs 1P with 1 RCCB 3P+N, N right	12 MW	210 mm	5ST3624	5ST3654
	For 10 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCBs 3P and 7 MCBs 1P	14 MW	249 mm	5ST3624-4 <b>new</b>	–
	For 6 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCB 3P and 3 MCBs 1P	10 MW	176 mm	5ST3624-1 <b>new</b>	–
	For 8 MCBs 1P with 1 RCCB 3P+N, N left	11 MW	192 mm	5ST3667	5ST3668
<b>4-phase/3-phase + N</b>				<b>Article No.</b>	<b>Article No.</b>
	For 1 RCCB 3P+N, 1 MCBs 3P+N and 6 MCBs 1P	14 MW	248 mm	5ST3724-4 <b>new</b>	–
	For 1 RCCB 3P+N, 1 MCBs 3P+N and 3 MCBs 1P+N	14 MW	248 mm	5ST3725-4 <b>new</b>	–
	For 1 RCCB 3P+N, 1 MCBs 3P and 3 MCBs 1P+N	13 MW	230 mm	5ST3725-3 <b>new</b>	–
	For 1 RCCB 3P+N and 5 MCBs 1P+N	14 MW	248 mm	5ST3625-4 <b>new</b>	–

# Standard busbars

Can be cut

## For miniature circuit breakers (MCBs)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Color	Conductor cross-section	
						10 mm <sup>2</sup>	16 mm <sup>2</sup>
						Article No.	Article No.
<b>1-phase, straight</b> 	For MCBs 1P+N compact	12 MW	216 mm	■	Gray	5ST3762	–
					Blue	5ST3687-0	–
		56 MW	1016 mm	–	Gray	5ST3764	–
					Blue	5ST3787-0	–
<b>1-phase, angled 45°</b> 	For MCBs 1P+N compact	12 MW	216 mm	■	Blue	5ST3763	–
					56 MW	1016 mm	–
<b>1-phase, angled 90°</b> 	For MCBs 1P	12 MW	214 mm	■		Article No.	Article No.
					56 MW	1016 mm	–
<b>2-phase/1-phase + N</b> 	For 2MW devices (2P/1P+N)	12 MW	214 mm	■		Article No.	Article No.
					56 MW	1016 mm	–
<b>3-phase</b> 	For MCBs 3P	12 MW	214 mm	■		Article No.	Article No.
					56 MW	1016 mm	–
<b>4-phase/3-phase + N</b> 	For MCBs 4P or 3P+N	12 MW	214 mm	■		Article No.	Article No.
					56 MW	1016 mm	–
 For Rccb/MCBs or MCBs 1P+N	56 MW	1000 mm	–		5ST3770-2	5ST3770-3	

## Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm <sup>2</sup>	Cable entry on the left	5ST3768-4
	Cable entry in the center	5ST3768-3
	Cable entry on the right	5ST3768-5
For conductors up to 50 mm <sup>2</sup>	Cable entry on the left	5ST3760-4
	Cable entry in the center	5ST3760-3
	Cable entry on the right	5ST3760-5
Terminals for Infeed at side		Article No.
For conductors up to 25 mm <sup>2</sup>	Short	5ST3768
	Short, IP20	5ST3771-2

End caps		Article No.
For 1-phase busbars (MCB 1P+N compact)	Gray	5ST3766
	Blue	5ST3767
	White	5ST3748
For 2-phase busbars		5ST3750
Touch protection		Article No.
For free connections, yellow (RAL 1004) 5x 1 pin		5ST3655



## For MCBs equipped with auxiliary switch (AS) or fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section	
					10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>1-phase, angled 90°</b>					<b>Article No.</b>	<b>Article No.</b>
	For MCBs 1P	12 MW	214 mm	■	5ST3732	5ST3702
		56 MW	1016 mm	–	5ST3733	5ST3703
<b>2-phase/1-phase + N</b>					<b>Article No.</b>	<b>Article No.</b>
	For 2 MW devices (2P/1P+N)	12 MW	214 mm	■	5ST3736	5ST3706
		56 MW	1016 mm	–	5ST3737	5ST3707
<b>3-phase</b>					<b>Article No.</b>	<b>Article No.</b>
	For MCBs 3P	12 MW	214 mm	■	5ST3741	5ST3711
		56 MW	1016 mm	–	5ST3742	5ST3712
	For MCBs 1P	12 MW	214 mm	■	5ST3743	5ST3713
		56 MW	1016 mm	–	5ST3744	5ST3714
<b>4-phase/3-phase + N</b>					<b>Article No.</b>	<b>Article No.</b>
	For MCBs 1P+N	56 MW	1016 mm	–	5ST3746-2	–

## For MCBs equipped with undervoltage release (UR) or shunt trips (ST)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section	
					10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>2-phase</b>					<b>Article No.</b>	<b>Article No.</b>
	For MCBs 1P with UR/ST	56 MW	1016 mm	–	5ST3735-2	–

# Standard busbars



Can be cut

For MCBs with line-side RCCB or RCCBs equipped with AS/FC devices

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section	
					10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>4-phase/3-phase + N</b>						
	For RCCB/MCBs	56 MW	1016 mm	–	Article No.	Article No.
	For 6 MCBs 1P+N with 1 RCCB 3P+N, N right	16 MW	292 mm	■	5ST3770-4	5ST3770-5

3

## Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm <sup>2</sup>	Cable entry on the left	5ST3768-4
	Cable entry in the center	5ST3768-3
	Cable entry on the right	5ST3768-5
For conductors up to 50 mm <sup>2</sup>	Cable entry on the left	5ST3760-4
	Cable entry in the center	5ST3760-3
	Cable entry on the right	5ST3760-5

End caps	Article No.
For 3-phase busbars	5ST3750
For 4-phase busbars	5ST3718
Touch protection	Article No.
For free connections, yellow (RAL 1004) 5x 1 pin	5ST3655



5ST37 acc. to UL 508, can be cut

### For miniature circuit breakers (MCBs)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section	
				18 mm <sup>2</sup> Article No.	25 mm <sup>2</sup> Article No.
<b>1-phase</b>					
	For MCBs 1P or fuse holders 10 x 38 mm/class CC	56 MW	1000 mm	5ST3701-0HG	–
	For MCBs 1P or fuse holders 14 x 51 mm	56 MW	1000 mm	–	5ST3701-2HG
<b>2-phase</b>					
	For MCBs 2P or fuse holders 10 x 38 mm/class CC	56 MW	1000 mm	5ST3705-0HG	–
	For MCBs 2P or fuse holders 14 x 51 mm	56 MW	1000 mm	–	5ST3705-2HG
<b>3-phase</b>					
	For MCBs 3P or fuse holders 10 x 38 mm/class CC	56 MW	1000 mm	5ST3710-0HG	–
	For MCBs 3P or fuse holders 14 x 51 mm	56 MW	1000 mm	–	5ST3710-2HG



# Standard busbars



5ST37 acc. to UL 508, can be cut

## For MCBs equipped with auxiliary switch (AS) or fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section	
				18 mm <sup>2</sup>	25 mm <sup>2</sup>
<b>1-phase</b>				<b>Article No.</b>	<b>Article No.</b>
	For MCBs 1P	56 MW	1000 mm	5ST3703-0HG	–
<b>2-phase</b>				<b>Article No.</b>	<b>Article No.</b>
	For MCBs 2P	56 MW	1000 mm	5ST3707-0HG	–
<b>3-phase</b>				<b>Article No.</b>	<b>Article No.</b>
	For MCBs 3P	56 MW	1000 mm	5ST3712-0HG	–
	For MCBs 1P	56 MW	1000 mm	5ST3714-0HG	–

## Accessories

Terminals according to UL 489		Article No.
For infeed at the device	35 mm <sup>2</sup>	5ST3770-0HG
For infeed at the busbar	50 mm <sup>2</sup>	5ST3770-1HG
End caps according to UL 508		Article No.
For 1-phase busbars		5ST3748-0HG
For 2 and 3-phase busbars		5ST3750-0HG

Touch protection according to UL 508		Article No.
For open terminals, yellow 5 × 1 pin		5ST3655-0HG



## 5ST3.. acc. to UL 489 specially for 5SJ4... -HG..

### Fixed length, cannot be cut, for miniature circuit breakers (MCBs)<sup>1)</sup>

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 16 mm <sup>2</sup>
<b>1-phase</b>				
	For 6 MCBs 1P	6 MW	100 mm	<b>Article No.</b> 5ST3663-0HG
	For 12 MCBs 1P	12 MW	205 mm	5ST3663-1HG
	For 18 MCBs 1P	18 MW	310 mm	5ST3663-2HG
<b>2-phase</b>				
	For 3 MCBs 2P	6 MW	100 mm	<b>Article No.</b> 5ST3664-0HG
	For 6 MCBs 2P	12 MW	205 mm	5ST3664-1HG
	For 9 MCBs 2P	18 MW	310 mm	5ST3664-2HG
<b>3-phase</b>				
	For 2 MCBs 3P	6 MW	100 mm	<b>Article No.</b> 5ST3665-0HG
	For 4 MCBs 3P	12 MW	205 mm	5ST3665-1HG
	For 6 MCBs 3P	18 MW	310 mm	5ST3665-2HG

<sup>1)</sup> All unassigned pins of the busbars that cannot be cut must be covered with 5ST3666-1HG touch protection covers.

### Can be cut, for MCBs

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 18 mm <sup>2</sup>
<b>1-phase</b>				
	For MCBs 1P	56 MW	1016 mm	<b>Article No.</b> 5ST3701-3HG
<b>2-phase</b>				
	For MCBs 2P	56 MW	1016 mm	<b>Article No.</b> 5ST3705-3HG
<b>3-phase</b>				
	For MCBs 3P	56 MW	1016 mm	<b>Article No.</b> 5ST3710-3HG

# Standard busbars



5ST3.. according to UL 489 speziell For 5SJ4... -HG..

Can be cut, for MCBs equipped with auxiliary switch (AS) or fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 18 mm <sup>2</sup>
<b>1-phase</b>				<b>Article No.</b>
	For MCBs 1P	56 MW	1016 mm	5ST3703-3HG
<b>2-phase</b>				<b>Article No.</b>
	For MCBs 2P	56 MW	1016 mm	5ST3707-3HG
<b>3-phase</b>				<b>Article No.</b>
	For MCBs 3P	56 MW	1016 mm	5ST3712-3HG
	For MCBs 1P	56 MW	1016 mm	5ST3714-3HG

## Accessories

Terminals according to UL 489		Article No.
For infeed at the 5SJ4... -HG.. miniature circuit breaker	16 mm <sup>2</sup>	5ST3666-0HG
	18 mm <sup>2</sup>	5ST3770-3HG
For infeed at the busbar	16 mm <sup>2</sup>	5ST3666-2HG
End caps acc. to UL 489		Article No.
For 1, 2 and 3-phase busbars		5ST3750-3HG

Touch protection acc. to UL 489		Article No.
For open terminals, yellow 3x 1 pin	For 5ST37...HG busbars that cannot be cut	5ST3666-1HG
	For 5ST37...-3HG busbars that can be cut	5ST3655-3HG

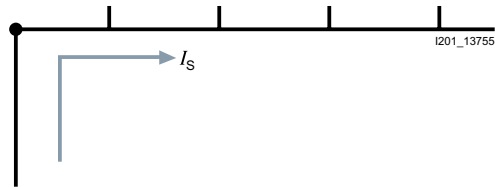
# Compact busbars

## General information



### Infeed

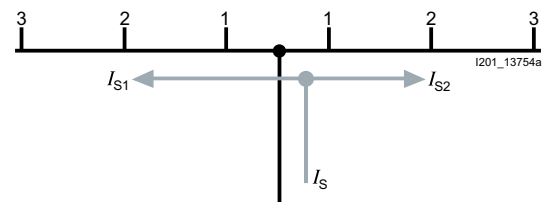
At the start or end of the busbar



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 63 A
- Cross-section 16 mm<sup>2</sup>: 80 A

Along the busbar or midpoint infeed



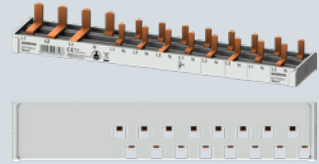
Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 100 A
- Cross-section 16 mm<sup>2</sup>: 130 A

# Compact busbars

## 5ST36, fixed length, cannot be cut

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm <sup>2</sup>
<b>2-phase/1-phase + N, for infeed via RCCB</b>					
	For 1× RCCB 1P+N and 5× compact devices equipped with 5SM6 arc fault detection unit	12 MW	216 mm	■	Article No. 5ST3685-0
<b>2-phase/1-phase + N</b>					
	For compact devices	6 MW	113 mm	■	Article No. 5ST3674-6
		9 MW	166 mm	■	5ST3674-7
		12 MW	218 mm	■	5ST3674-0
	For 12x 5SY17 CBE (device protection switch)	12 MW	218 mm	■	5ST3674-1
	For 6× compact devices equipped with 5SM6 arc fault detection unit	11 MW	200 mm	■	5ST3676-0
<b>4-phase/3-phase + N</b>					
	For compact devices	6 MW	113 mm	■	Article No. 5ST3673-6
		9 MW	116 mm	■	5ST3673-7
		12 MW	218 mm	■	5ST3673-0
		14 MW	254 mm	■	5ST3673-4
	For 6× compact devices equipped with 5SM6 arc fault detection unit	11 MW	200 mm	■	5ST3675-0



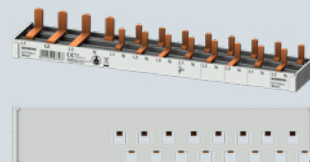
## 5ST37, can be cut

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm <sup>2</sup>
<b>2-phase/1-phase + N, for infeed via RCCB</b>					
	For 1× RCCB 1P+N and 10× compact devices	12 MW	215 mm	■	<b>Article No.</b> 5ST3784-0
	For 1× RCCB 1P+N (RCCB N left only) and 10× compact devices	12 MW	215 mm	■	5ST3784-OKL
<b>2-phase/1-phase + N</b>					
	For compact devices	60 MW	1060 mm	–	<b>Article No.</b> 5ST3774-0
	For compact devices equipped with 5SM6 arc fault detection unit	59 MW	1042 mm	–	5ST3776-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3778-0
	For compact devices equipped with 5SM6 arc fault detection unit and auxiliary switch	58.5 MW	1036 mm	–	5ST3780-0
	For 2 MW units (MCBs or RCBOs) with mounted 5SM6 arc fault detection unit and auxiliary switch	54 MW	956 mm	–	5ST3786-0

## Accessories

<b>Terminals for infeed at side</b>	<b>Article No.</b>	<b>Touch protection</b>	<b>Article No.</b>
For conductors up to 25 mm <sup>2</sup> Short, IP20	5ST3771-2	For free connections, yellow (RAL 1004)	5ST3655
<b>End caps</b>	<b>Article No.</b>	For pins L2, L3	5ST3655-0HG
2 and 4-phase busbars	5ST3788-0		





Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm <sup>2</sup> <b>Article No.</b>
<b>4-phase/3-phase + N</b> 	For compact devices	60 MW	1060 mm	–	5ST3773-0
	For compact devices equipped with 5SM6 arc fault detection unit	59 MW	1042 mm	–	5ST3775-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3777-0

3

## Accessories








<b>Terminals for infeed at side</b>	<b>Article No.</b>	<b>Touch protection</b>	<b>Article No.</b>
For conductors up to 25 mm <sup>2</sup> Short, IP20	5ST3771-2	For free connections, yellow (RAL 1004)	5ST3655
<b>End caps</b>	<b>Article No.</b>	For pins L1, N	5ST3655-0HG
2 and 4-phase busbars	5ST3788-0	For pins L2, L3	



# Accessories for busbars

## General accessories

### Terminals

	For conductors	Version	Cable entry	Infeed	Article No.
	Up to 25 mm <sup>2</sup>	Short	–	Side	5ST3768
		Short, IP20	–	Side	5ST3771-2
	Up to 25 mm <sup>2</sup>	–	Center	–	5ST3768-3
			Left	–	5ST3768-4
			Right	–	5ST3768-5
	Up to 30 mm <sup>2</sup>	–	–	Busbar	5ST3770-1HG
	Up to 35 mm <sup>2</sup>	–	–	Device	5ST3770-0HG
	Up to 35 mm <sup>2</sup>	For 5SJ4... -HG..	–	Miniature circuit breaker	5ST3666-0HG
		For 5ST37...-3HG that can be cut	–	Miniature circuit breaker	5ST3770-3HG
	Up to 50 mm <sup>2</sup>	–	Center	–	5ST3760-3
			Left	–	5ST3760-4
			Right	–	5ST3760-5
	Up to 50 mm <sup>2</sup>	–	–	Busbar	5ST3666-2HG

5ST36	5ST37	5ST37 (acc. to UL 508)	5ST3.. (acc. to UL 489)	5ST3 compact
■	■			
■	■			
	■			
	■			
	■			
		■		
		■		
			■	
			■	
	■			
	■			
	■			
			■	

# Accessories for busbars

## General accessories

### Touch protection



Version	Scope of supply	Version	Article No.
For free connections, yellow (RAL 1004)	5× 1 pin	–	5ST3655
			5ST3655-0HG
	3× 1 pin	–	5ST3666-1HG
		–	5ST3655-3HG
For 10 mm <sup>2</sup> conductors	20× 5ST3613 + 10× 5ST3614 + 50× 5ST3615 + 50× 5ST3655	–	5ST3656
For 16 mm <sup>2</sup> conductors	20× 5ST3643 + 10× 5ST3644 + 50× 5ST3645 + 50× 5ST3655	For 5ST337..-3HG	5ST3657

### End caps





Version	Color	Article No.
For 1-phase busbars	Gray	5ST3748
For 2 and 3-phase busbars	Gray	5ST3750
For 4-phase busbars	Gray	5ST3718
For 1, 2 and 3-phase busbars	Gray	5ST3750-3HG
–	Gray	5ST3766
–	Blue	5ST3767
For 1-phase busbars	Gray	5ST3748-0HG
For 2 and 3-phase busbars	Gray	5ST3750-0HG
For 2 and 4-phase compact busbars	Gray	5ST3788-0

5ST36	5ST37	5ST37 (acc. to UL 508)	5ST3.. (acc. to UL 489)	5ST3 compact
■		■	■	■
			■	■
■			■	
■				
	■			
	■			
	■		■	
■				
■			■	
			■	
				■

# Accessories for busbars

## General accessories

### Series connectors

	Conductor cross-section	Length of cable	Color	Number of phases	Article No.
	10 mm <sup>2</sup>	125 mm	N conductor blue	1	5ST3781-0
			Cable black	1	5ST3791-0
				3	5ST3793-0
		150 mm	N conductor blue	1	5ST3781-1
			Cable black	1	5ST3791-1
				3	5ST3793-1
	16 mm <sup>2</sup>	125 mm	N conductor blue	1	5ST3782-0
			Cable black	1	5ST3792-0
				3	5ST3794-0
		150 mm	N conductor blue	1	5ST3782-1
			Cable black	1	5ST3792-1
				3	5ST3794-1
		200 mm	N conductor blue	1	5ST3781-2
			Cable black	1	5ST3791-2
				3	5ST3793-2
			3× cables black and 1× N conductor blue	3+N	5ST3793-3


3



# Distribution blocks for standard rail mounting

Acc. to IEC



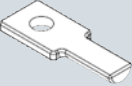
## Distribution blocks acc. to IEC

	Number of poles	Rated operational voltage $U_e$	Rated current $I_e$	Mounting width	Article No.
	4-pole	690 V AC	80 A	5 MW	5ST2501
			125 A	5.5 MW	5ST2502
			160 A	9 MW	5ST2503

## Further technical specifications

		5ST2501	5ST2502	5ST2503	
<b>Standards</b>					
Standards		IEC 60947-7-1			
<b>Supply</b>					
Rated operational voltage AC		690 V			
Max. rated current		80 A	125 A	160 A	
<b>Conductor cross-section</b>					
Inputs per pole	Solid/stranded	1 × 2.5 ... 16 mm <sup>2</sup>	1 × 6 ... 35 mm <sup>2</sup>	1 × 10 ... 50 mm <sup>2</sup>	
	Finely stranded with end sleeve	1 × 1.5 ... 10 mm <sup>2</sup>	1 × 6 ... 25 mm <sup>2</sup>	1 × 10 ... 35 mm <sup>2</sup>	
Outputs per pole	Solid/stranded	8 × 1.5 ... 10 mm <sup>2</sup>	5 × 1.5 ... 6 mm <sup>2</sup> 2 × 4 ... 16 mm <sup>2</sup>	8 × 2.5 ... 16 mm <sup>2</sup> 3 × 10 ... 35 mm <sup>2</sup>	
	Finely stranded with end sleeve	8 × 1.5 ... 10 mm <sup>2</sup>	5 × 1.5 ... 6 mm <sup>2</sup> (small) 2 × 4 ... 10 mm <sup>2</sup> (large)	8 × 1.5 ... 16 mm <sup>2</sup> (small) 3 × 10 ... 25 mm <sup>2</sup> (large)	
<b>Tightening torque</b>					
Inputs	Screw terminals	13.5 lb-in (1.5 Nm)		3.5 ... 5 lb-in (2 Nm)	
	Tools	PZ2			
Outputs	Screw terminals	Large	13.5 lb-in (1.5 Nm)		
		Small	–	7.2 lb-in (0.8 Nm)      13.5 lb-in (1.5 Nm)	
	Tools	Large	PZ1	PZ2	
		Small	–	PZ1	PZ2
<b>Safety</b>					
Rated peak withstand current $I_{pk}$		21.6 kA	24 kA	20 kA	
Rated short-time withstand current $I_{cw}$ (1 s)		3 kA	4.2 kA	6.2 kA	
<b>Ambient conditions</b>					
Permissible ambient temperature		–25 ... +70 °C			
Degree of protection      Acc. to EN 60529		IP20			
Approved cable		Copper			

## According to IEC and UL

Distribution blocks acc. to IEC and UL					
	Number of poles	Rated operational voltage $U_e$	Rated current $I_e$	Mounting width	Article No.
	1-pole	600 V AC	80 A	1.5 MW	5ST2504
			125 A	1.5 MW	5ST2505
			160 A	2 MW	5ST2507
			250 A	2.5 MW	5ST2508
			350 A	2.5 MW	5ST2511
Connector for 5ST2505 distribution board					
	<ul style="list-style-type: none"> <li>• Touch protection</li> <li>• 20 mm<sup>2</sup></li> <li>• 32 mm</li> </ul>				
	Version	Article No.			
	1-phase	5ST2506			
Terminal lug for ring terminal ends					
	Types				Article No.
	For 5ST2508 distribution block				5ST2510
	For 5ST2511 distribution block				5ST2512

Further technical specifications		5ST2504	5ST2505	5ST2507	5ST2508	5ST2511		
<b>Standards</b>								
Standards		UL 1059/UL 486E/IEC 60947-7-1 UL File No. E80027/XCFR2 C22.2 No. 158 -1987/XCFR8						
<b>Supply</b>								
Rated operational voltage		UL	600 V AC					
		IEC	1000/1500 V AC/DC					
Max. rated current		UL	80 A	115 A	160 A	230 A	310 A	
		IEC	80 A	125 A	160 A	250 A	400 A	
<b>Conductor cross-section</b>								
Inputs per pole	Solid/stranded	Large	3× 2.5 ... 25 mm <sup>2</sup> AWG 3× 14 ... 4	10 ... 35 mm <sup>2</sup> AWG 1× 8 ... 2	10 ... 70 mm <sup>2</sup> AWG 1× 8 ... 2/0	35 ... 120 mm <sup>2</sup> AWG 1× 2 ... 4/0	95 ... 185 mm <sup>2</sup> AWG 1× 3/0 ... 350 MCM	
		Small	–	2.5 ... 25 mm <sup>2</sup> AWG 1× 14 ... 6	–	–	–	
	Finely stranded with end sleeve	Large	3× 2.5 ... 16 mm <sup>2</sup> AWG 3× 14 ... 6	10 ... 35 mm <sup>2</sup> AWG 1× 8 ... 2	10 ... 50 mm <sup>2</sup> AWG 1× 8 ... 1	35 ... 95 mm <sup>2</sup> AWG 1× 2 ... 3/0	95 ... 150 mm <sup>2</sup> AWG 3/0 ... 300 MCM	
		Small	–	2.5 ... 25 mm <sup>2</sup> AWG 1× 14 ... 6	–	–	–	
	Outputs per pole	Solid/stranded	Top	2.5 ... 6 mm <sup>2</sup> AWG 4× 14 ... 10	2.5 ... 16 mm <sup>2</sup> AWG 6× 14 ... 4	2.5 ... 16 mm <sup>2</sup> AWG 6× 14 ... 4	2.5 ... 10 mm <sup>2</sup> AWG 4× 16 ... 8	2× 2.5... 35 mm <sup>2</sup> AWG 2× 14 ... 2
			Center	–	–	–	2.5 ... 16 mm <sup>2</sup> AWG 5× 14 ... 6	5× 2.5 ... 16 mm <sup>2</sup>
Bottom			2.5 ... 6 mm <sup>2</sup> AWG 4× 14 ... 10	–	–	2× 2.5... 35 mm <sup>2</sup> AWG 2× 14 ... 2	4× 2.5 ... 10 mm <sup>2</sup> AWG 4× 14 ... 8	
Finely stranded with end sleeve		Top	2.5 ... 6 mm <sup>2</sup> AWG 4× 14 ... 10	2.5 ... 16 mm <sup>2</sup> AWG 6× 14 ... 6	2.5 ... 16 mm <sup>2</sup> AWG 6× 14 ... 4	2.5 ... 25 mm <sup>2</sup> AWG 2× 14 ... 4	2× 2.5... 25 mm <sup>2</sup>	
		Bottom	2.5 ... 6 mm <sup>2</sup> AWG 4× 14 ... 10	–	–	2× 2.5... 25 mm <sup>2</sup> AWG 2× 14 ... 4	4× 2.5 ... 25 mm <sup>2</sup> AWG 5× 14 ... 4	
		–	–	–	–	–	–	

Continued on next page







# Distribution blocks for standard rail mounting

According to IEC and UL (continued)

Further technical specifications			5ST2504	5ST2505	5ST2507	5ST2508	5ST2511
<b>Tightening torque</b>							
Inputs	Screw terminals		13.2 ... 26.5 lb-in (1.5 ... 3 Nm)	31 ... 44 lb-in (3.5 ... 5 Nm)	44 ... 53 lb-in (5 ... 6 Nm)	170 ... 186 lb-in (19 ... 21 Nm)	222 lb-in (25 Nm)
	Tools		PZ2	Allen key 4 mm	Allen key 5 mm	Allen key 6 mm	Allen key 8 mm
Outputs	Screw terminals	Large	13.2 ... 26.5 lb-in (1.5 ... 3 Nm)	17.7 ... 26.5 lb-in (2 ... 3 Nm)	13.2 ... 26.5 lb-in (1.5 ... 3 Nm)	31 ... 62 lb-in (3.5 ... 7 Nm)	
		Small	7 ... 13.2 lb-in (0.8 ... 1.5 Nm)	–			18 ... 27 lb-in (2 ... 3 Nm)
	Tools	Large	PZ2			Standard screwdriver	
		Small	PZ1	PZ2	Standard screwdriver		
<b>Safety</b>							
Rated peak withstand current $I_{pk}$			2.7 kA	30 kA		51 kA	
Rated short-time withstand current $I_{cw}$ (1 s)			1.9 kA	4.2 kA	11 kA	21 kA	
Overcurrent protection class			J				
Short circuit current rating (SCCR)	RMS Sym A		100 kA				
Electrical isolation	Creepage distances		1/2" (12.7 mm)				
	Clearances		3/8" (9.5 mm)				
<b>Ambient conditions</b>							
Permissible ambient temperature			–25 ... +70 °C				
Degree of protection	Acc. to EN 60529		IP20				
Fire class			UL 94V-0				
Approved cable			Copper				

# SIKclip wiring system

SIKclip busbar				
	Length			Article No.
	12 MW			5ST2520
	24 MW			5ST2521
	36 MW			5ST2522
Connecting cables with plug				
	Length	Conductor cross-section	Color	Article No.
	120 mm	6 mm <sup>2</sup>	Black	5ST2523
			Blue	5ST2524
	10 mm <sup>2</sup>	Black	5ST2525	
		Blue	5ST2526	
	200 mm	6 mm <sup>2</sup>	Black	5ST2527
			Blue	5ST2528
		10 mm <sup>2</sup>	Black	5ST2530
Blue			5ST2531	
Crimp connector				
	<ul style="list-style-type: none"> <li>For connection to cables 4/6 mm<sup>2</sup></li> </ul>			Article No.
				5ST2532
Mounting brackets				
	<ul style="list-style-type: none"> <li>For mounting on the rear of the standard mounting rail (pair)</li> </ul>			Article No.
				5ST2533

## Further technical specifications

Further technical specifications		5ST25..
Standards		
Test specifications	EN 60947-1, EN 61439-1	
Rated values		
Rated operational voltage $U_n$	400 V AC	
Max. rated current $I_n$	250 A	
Max. rated output current $I_n$ (at 40 °C ambient temperature)	63 A	
Rated insulation voltage	660 V AC	
Test voltage (50 Hz)	2.5 kV	
Ambient conditions		
Degree of protection	IP20	
Connecting cables	40 A (6 mm <sup>2</sup> ), 63 A (10 mm <sup>2</sup> )	
Connecting cable type	H07VK	
Ambient temperature	-5 ... +60 °C	

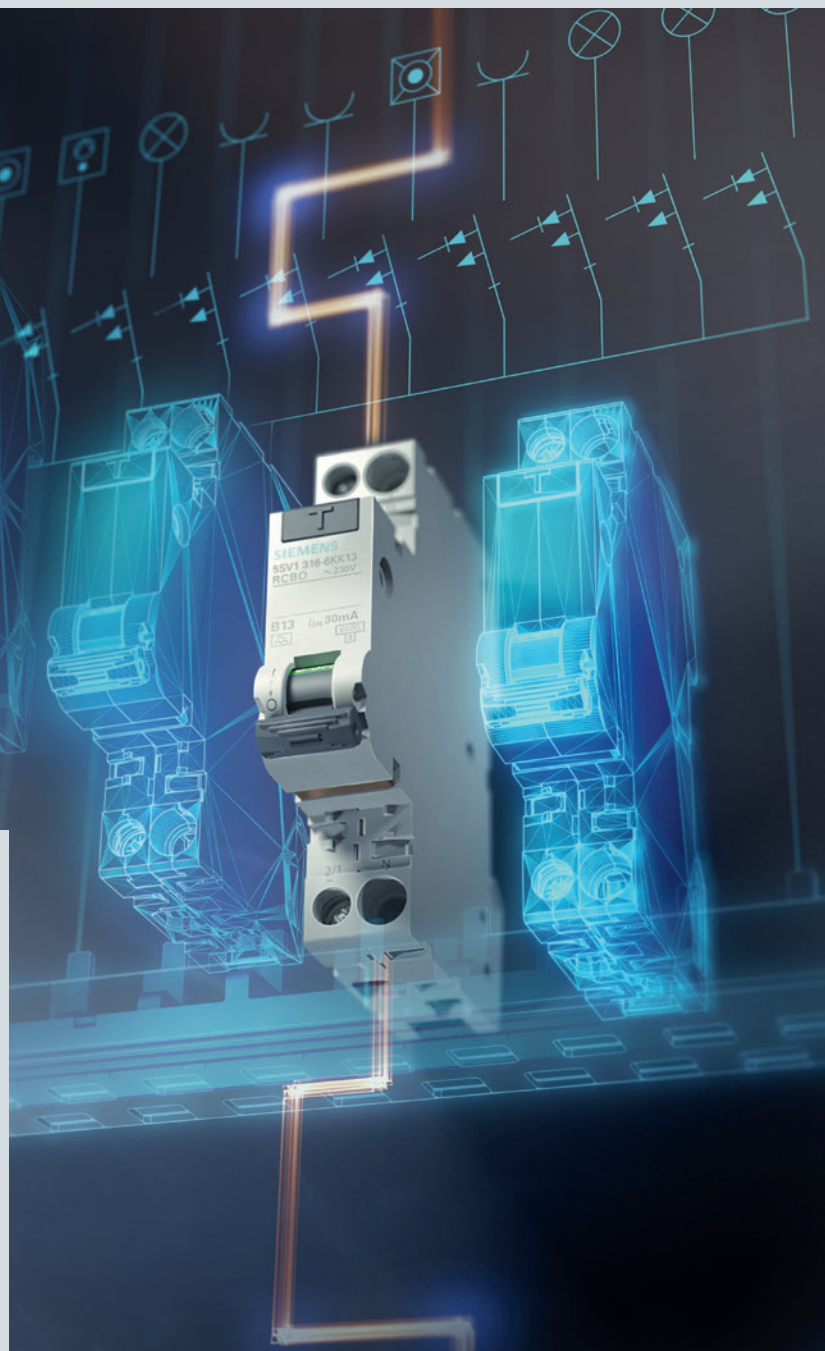
## More safety for humans, plants and assets

The number of electrical consumers in residential homes and commercial buildings has increased dramatically in recent decades.

Modern appliances often have quite different characteristics in terms of current consumption than earlier equipment due, for example, to the use of frequency converters in washing machines, or switched-mode power supply units in TVs, PCs or LED lights.

There are also decentralized power generators like photovoltaic systems or charging devices for electric vehicles.

All of this requires new protection strategies for electrical installations. This also includes appropriate residual current protection devices or residual current circuit breakers that will cut the current immediately and safely in the event of a fault.



# Residual Current Protective Devices/ Arc Fault Detection Devices (AFDDs)

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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about residual current protective devices/arc fault detection devices, please visit our websites

[www.siemens.com/rccb](http://www.siemens.com/rccb)

[www.siemens.com/protection-concept](http://www.siemens.com/protection-concept)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – SENTRON protection concept ([109767456](#))
- Technology primer – Residual current protective devices ([109482301](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- Residual current protective devices (general) [bit.ly/2YuWkNc](https://bit.ly/2YuWkNc)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Residual current protective devices/arc fault detection devices [sie.ag/2m55Y7j](http://sie.ag/2m55Y7j)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

## The fast track to the experts

### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at

[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Residual current protective devices/arc fault detection devices ([45303255](#))
- Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))
- System manual – Circuit protection devices with communication and measuring function ([109791806](#))

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- 5SM6/5SV6 arc fault detection devices (WT-LVBAFDD)
- SENTRON circuit protection devices with measuring and communication function (WT-LVBCOM)
- Basic principles of electrical engineering (WT-LVBGET)
- Protection concept (WT-LVBPC)

### Technical overview – Residual current protective devices/arc fault detection devices



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on residual current protective devices/arc fault detection devices

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109769082](#))

# System overview

## Basic devices and accessories

### Basic units



5SV3 RCCBs



5SM3 RCCBs



5SM2 RC units



5SU1 RCBOs



5SV1 RCBOs

5SM6 arc fault detection units and  
5SV6 AFDD/RCB and  
5SV6 COM AFDD/RCB **new**

4

### Electrical accessories



Auxiliary switches (AS)

Fault signal contacts  
(FC)Auxiliary switches and  
fault signal contacts  
(AS+FC)/(AS+FC) COM  
**new**

Shunt trips (ST)

Undervoltage releases  
(UR)Remote controlled (RC)  
mechanisms

### Mechanical accessories



Locking devices



Handle couplers



Touch protection



Wall enclosures

Molded-plastic  
enclosures

Terminal covers

### Busbars and accessories



Compact busbars



Standard busbars



Terminals



Touch protection



End caps

### RCCB protective socket outlets

In molded-plastic  
enclosureFor mounting  
on device box

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.

# Introduction

## Residual current protective devices

Selection criteria

**Equipment, power, environmental conditions**

### Design

RCCBs  
RCBOs  
RC units

### Number of pole

1P+N  
2P  
3P  
3P+N  
4P

### Rated current $I_n$

0.3 ... 125 A

### Types and waveform



Type	AC	A	F	B	B+	6 mA	10 mA	Other
Type AC	■	-	-	-	-	-	-	-
Type A	■	■	■	■	■	-	-	-
Type F	■	■	■	■	■	■	■	-
Type B	■	■	■	■	■	■	■	■
Type B+	■	■	■	■	■	■	■	■

### Version

SIGRES	With active condensation protection for use in severe ambient conditions
[G]/[K]	Super resistant, 10 ms short-term delayed devices with increased immunity to false triggering due to transient disruptions
[S]	As an upstream group switch for selective shutdown against downstream RCCBs
500 V	With their creepage distances and clearances designed for power grids up to 500 V alternating voltage
50 ... 400 Hz	Meet the triggering conditions up to 400 Hz due to low decrease in sensitivity with increasing frequency

**Protection objective, equipment directives**  
VDE 0100-410,  
VDE 0100-530,  
VDE 0100-7xx,  
VDS 3501,  
shutdown conditions according to VDE 0100-410

### Rated residual current $I_{\Delta n}$ (protection objective)

Additional protection  $I_{\Delta n} \leq 30$  mA  
Error protection  $I_{\Delta n} > 30$  mA  
Fire protection  $I_{\Delta n} \leq 300$  mA

### Characteristic CB (for residual current operated circuit breakers)

A  
B  
C  
D



# RCCBs



## 5SV

Types		Instantaneous	SIGRES, instantaneous	Short-time delayed [G]
Type AC		■	–	–
Type A		■	■	■
Type F		–	–	–
Type B/B+		–	–	–
<b>Surge current withstand capability 8/20 μs</b>				
Type A	kA	>1	>1	>3
Type F	kA	–	–	>3
Type B/B+	kA	–	–	–
<b>Minimum operational voltage for test function operation</b>				
30-mA devices	V AC		195	
Non-30-mA devices	V AC		100	
24 V devices	V AC		20	
<b>Terminal conductor cross-sections</b>				
1 conductor	Solid/stranded	mm <sup>2</sup>	0.75 ... 35	
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 25	
	Finely stranded without end sleeve	mm <sup>2</sup>	1 ... 35	
2 conductors, same cross-section, same conductor type	Solid/stranded	mm <sup>2</sup>	0.75 ... 10	
	Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 4	
	Finely stranded without end sleeve	mm <sup>2</sup>	1 ... 4	
1 conductor + busbar (pin thickness 1.5 mm)	Solid/stranded	mm <sup>2</sup>	10 ... 25	
	Finely stranded with non-insulated end sleeve	mm <sup>2</sup>	6 ... 25	
	Finely stranded with insulated end sleeve	mm <sup>2</sup>	6 ... 16	
Terminal tightening torque	Nm		2.5... 3.5	
<b>Poles</b>				
Number of poles			1P+N   3P+N	
Rated voltage $U_n$	V AC		24 ... 125   230   400   500	
Operating frequency	Hz		50   50 ... 400   50/60	
<b>Standards</b>				
		IEC/EN 61008 (VDE 0664-10), IEC/EN 61008-2-1 (VDE 0664-11), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40), ÖVE EN 61008, ÖVE/ÖNORM E 8601		
Rated residual current $I_{\Delta n}$	mA		10, 30, 100, 300, 500, 1000	
Rated current $I_n$	A		16 ... 80	
Rated breaking capacity $I_{cn}$	kA		–	
Connection			N right   N left	
Service life	Average number of operating cycles		>10000	
Test button Test cycles			Half-yearly <sup>1)</sup>   SIGRES annually <sup>2)</sup>	
Degree of protection	Acc. to EN 60529 (VDE 0470-1)		IP20, if the distribution board is installed, with connected conductors	
Touch protection	Acc. to EN 50274 (VDE 0660-514)		Finger and back-of-hand safe	
Temperatures	Storage temperature	°C	-40 ... +75 °C	
	Ambient temperature	°C	-25 ... +45, marked with	
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles (55 °C; 95% rel. air humidity)	
CFC and silicone-free			■	
Mains connection			Top   bottom   SIGRES on top only	
Overvoltage category   Pollution degree			III   2	

See page 4/14

<sup>1)</sup> Extension to annual test interval under certain conditions

<sup>2)</sup> Extension to four-yearly test interval under certain conditions



5SV			SIQUENCE 5SV3		5SM3	
Super resistant [K]	Selective [S]	SIGRES, selective [S]	SIGRES, super resistant [K]	SIGRES, selective [S]	Instantaneous	Selective [S]
-	-	-	-	-	■	■
■	■	■	-	-	■	■
■	■	-	-	-	-	-
-	-	-	■	■	-	-
>3	>5	>5	-	-	>1	>5
>3	-	-	-	-	-	-
-	-	-	>3	>5	-	-
	195		195		195	
	100		-		-	
	20		-		-	
	0.75 ... 35		0.75 ... 35		1.5 ... 50 (2 MW)   2.5 ... 50 (4 MW)	
	0.75 ... 25		0.75 ... 25		-	
	1 ... 35		1 ... 35		-	
	0.75 ... 10		0.75 ... 10		-	
	0.75 ... 4		0.75 ... 4		-	
	1 ... 4		1 ... 4		-	
	10 ... 25		0.75 ... 35		-	
	6 ... 25		0.75 ... 25		-	
	6 ... 16		1 ... 35		-	
	2.5... 3.5		2.5 ... 3.0		3.0... 3.5	
	1P+N   3P+N		1P+N   3P+N		1P+N   3P+N	
	24 ... 125   230   400   500		230   400		230   400	
	50/60		50/60		50	
	IEC/EN 61008 (VDE 0664-10), IEC/EN 61008-2-1 (VDE 0664-11), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40), ÖVE EN 61008, ÖVE/ÖNORM E 8601		IEC/EN 62423 (VDE 0664-40), IEC/EN 61543 (VDE 0664-30), DIN VDE 0664-400 (Type B+ only)		IEC/EN 61008-1 (VDE 0664-10), IEC/EN 61008-2-1 (VDE 0664-11), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)	
	10, 30, 100, 300, 500, 1000		30, 300, 500		30, 100, 300, 500	
	16 ... 80		16 ... 80		100 ... 125	
	-		-		-	
	N right   N left		N right		N right	
	>10000		>10000		>10000	
	Half-yearly <sup>1)</sup>   SIGRES annually <sup>2)</sup>		Annually <sup>2)</sup>		Half-yearly	
	IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors	
	Finger and back-of-hand safe		Finger and back-of-hand safe		Finger and back-of-hand safe	
	-40 ... +75 °C		-40 ... +75 °C		-40 ... +75 °C	
	-25 ... +45, marked with		-25 ... +45, marked with		-25 ... +45, marked with	
	28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)	
	■		■		■	
	Top   bottom   SIGRES on top only		Top   bottom		Top   bottom	
	III   2		III   2		III   2	
	See page 4/14		See page 4/26		See page 4/30	

# RC units



## 5SM2 (0.3 ... 63 A)

Types		Instantaneous
Type AC		■
Type A		■
Type F		–
Surge current withstand capability 8/20 μs		
Type A	kA	>1
Type F	kA	–
Minimum operational voltage for test equipment		
30-mA devices	V AC	195
Non-30-mA devices	V AC	100
Terminal conductor cross-sections		
Solid/stranded	mm <sup>2</sup>	1.0 ... 25
Terminal tightening torque	Nm	2.5 ... 3.0
Poles		
Number of poles		2P   3P   4P
Rated voltage $U_n$	V AC	230   400
Operating frequency	Hz	50   50/60
Standards		
IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)		
Rated residual current $I_{\Delta n}$	mA	10, 30, 100, 300, 500, 1000
Rated current $I_n$	A	0.3 ... 63
Service life	Average number of operating cycles	>10000
Test button Test cycles		Half-yearly <sup>1)</sup>
Degree of protection	Acc. to EN 60529 (VDE 0470-1)	IP20, if the distribution board is installed, with connected conductors
Touch protection	Acc. to EN 50274 (VDE 0660-514)	Finger and back-of-hand safe
Temperatures	Storage temperature	°C -40 ... +75 °C
	Ambient temperature	°C -25 ... +45, marked with
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles (55 °C; 95% rel. air humidity)
CFC and silicone-free		■
Mains connection		Top   bottom
Overvoltage category   Pollution degree		III   2
More information		

[See page 4/32](#)

<sup>1)</sup> Extension to annual test interval under certain conditions



### 5SM2 (0.3 ... 63 A)

### 5SM2 (80 ... 100 A)

5SM2 (0.3 ... 63 A)		5SM2 (80 ... 100 A)	
Super resistant [K]	Selective [S]	Instantaneous	Selective [S]
■	■	■	■
■	■	■	■
■	–	–	–
>3	>5	>1	>5
>3	–	–	–
195		195	
100		100	
1.0 ... 25		6.0 ... 50	
2.5 ... 3.0	2.5 ... 3.0	2.5 ... 3.0	2.5 ... 3.0
2P   3P   4P		2P   4P	
230   400		230   400	
50   50/60		50   50/60	
IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)		IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)	
30	300, 500, 1000	30, 300	300, 1000
0.3 ... 63	0.3 ... 63	80 ... 100	80 ... 100
>10000	>10000	>10000	>10000
Half-yearly <sup>1)</sup>	Half-yearly <sup>1)</sup>	Half-yearly <sup>1)</sup>	Half-yearly <sup>1)</sup>
IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors	
Finger and back-of-hand safe		Finger and back-of-hand safe	
-40 ... +75 °C		-40 ... +75 °C	
-25 ... +45, marked with		-25 ... +45, marked with	
28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)	
■		■	
Top   bottom		Top   bottom	
III   2		III   2	
<a href="#">See page 4/32</a>		<a href="#">See page 4/32</a>	

# RCBOs



## 5SU1 (up to 40 A)

Types		Instantaneous	Short-time delayed/ Super resistant	Selective [S]
Type AC		■	■	–
Type A		■	■	■
Type B		–	–	–
Type B+		–	–	–
Type F		–	■	–
<b>Surge current withstand capability 8/20 μs</b>				
Type A	kA	>1	>3	>5
Type F	kA	–	>3	–
<b>Minimum voltage for operation of the test equipment</b>				
30-mA devices	AC V		195	
Non-30-mA devices	AC V		100	
<b>Terminal conductor cross-sections</b>				
1 conductor at front + busbar at rear	Solid/stranded	mm <sup>2</sup>		0.75 ... 35
	Finely stranded with end sleeve	mm <sup>2</sup>		0.75 ... 25
	Finely stranded without end sleeve	mm <sup>2</sup>		1 ... 25
2 conductors at rear	Solid/stranded	mm <sup>2</sup>		0.75 ... 6
	Finely stranded with non-insulated end sleeve	mm <sup>2</sup>		0.75 ... 4
	Finely stranded with insulated end sleeve	mm <sup>2</sup>		0.75 ... 4
	Finely stranded without end sleeve	mm <sup>2</sup>		1 ... 4
Terminal tightening torque		Nm		2.5 ... 3.0
<b>Poles</b>				
Number of poles				1P+N   2P
Rated voltage $U_n$	AC V			110   230
Operating frequency	Hz			50   50/60
<b>Standards</b>				
IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)				
Rated residual current $I_{\Delta n}$	mA			10, 30, 100, 300
Rated current $I_n$	A			6 ... 40
Rated breaking capacity $I_{cn}$	kA			4.5   6   10
Connection				N right   N left
Service life	Average number of operating cycles			>10000
Test button Test cycles				Half-yearly <sup>1)</sup>
Degree of protection	Acc. to EN 60529 (VDE 0470-1)			IP20, if the distribution board is installed, with connected conductors
Touch protection	Acc. to EN 50274 (VDE 0660-514)			Finger and back-of-hand safe
Temperatures	Storage temperature	°C		-40 ... +75 °C
	Ambient temperature	°C		-25 ... +45, marked with
Resistance to climate	Acc. to IEC 60068-2-30			28 cycles (55 °C; 95% rel. air humidity)
CFC and silicone-free				■
Mains connection				Top   bottom
Energy limitation class				3
Overvoltage category   Pollution degree				III   2
<b>More information</b>				

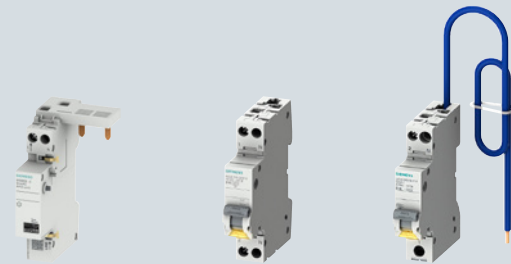
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<sup>1)</sup> Extension to annual test interval under certain conditions



5SV1		5SU1 (up to 32 A) <span style="background-color: orange;">new</span>		5SU1 (125 A)		5SU1 (100 A, 125 A)	
Instantaneous	Short-time delayed/ Super resistant	Instantaneous	Short-time delayed/ Super resistant	Instantaneous	Short-time delayed/ Super resistant	Short-time delayed/ Super resistant	Selective [S]
■	–	–	–	■	■	–	–
■	■	■	■	■	■	–	–
–	–	–	–	–	–	■	■
–	–	–	–	–	–	■	■
–	■	–	–	–	–	–	–
>1	>3	>0.25	>3	>1	>3	>3	>5
–	>3	–	–	–	–	–	–
195		2P, 4P: 195 V   3P: 340 V		195		195	
100		2P, 4P: 195 V   3P: 340 V		100		100	
0.75 ... 16		1 ... 35		25 ... 50		20 ... 50	
0.75 ... 10		1 ... 35		25 ... 35		25 ... 35	
0.75 ... 16		–		–		–	
0.75 ... 4		–		–		–	
0.75 ... 2.5		–		–		–	
0.75 ... 1.5		–		–		–	
0.75 ... 4		–		–		–	
1.2 ... 2.0		2.0		3.0 ... 3.5		3.0 ... 3.5	
1P+N		2P   3P   4P		2P   4P		4P	
230		230 V   400 V		230   400		400   430	
50   50/60		50   50/60		50   50/60		50/60	
IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)		IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21)		IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)		IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)	
30, 300		30, 300		30, 300, 1000		30, 300	
2 ... 16		6 ... 32		125		100, 125	
4.5   6		6   10		10		10	
N right		–		N right   N left		N right   N left	
>10 000		>10000		>10000		>10000	
Half-yearly <sup>1)</sup>		Monthly		Half-yearly <sup>1)</sup>		Half-yearly <sup>1)</sup>	
IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors		IP20, if the distribution board is installed, with connected conductors	
Finger and back-of-hand safe		Finger and back-of-hand safe		Finger and back-of-hand safe		Finger and back-of-hand safe	
-40 ... +75 °C		-40 ... +70 °C		-40 ... +75 °C		-40 ... +75 °C	
-25 ... +45, marked with		-25 ... +40, marked with		-25 ... +45, marked with		-25 ... +45, marked with	
28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)		28 cycles (55 °C; 95% rel. air humidity)	
■		–		■		■	
Top   bottom		Top   bottom		Top   bottom		Top   bottom	
3		3   1		3		3	
III   2		III   3		III   2		III   2	
<a href="#">See page 4/50</a>		<a href="#">See page 4/44</a>		<a href="#">See page 4/42</a>		<a href="#">See page 4/49</a>	

# Arc fault detection devices (AFDDs)



5SM6

5SV6

5SV6...KP..





Poles			5SM6	5SV6	5SV6...KP..
Number of poles			2P	1P+N	1P+N
Rated voltage $U_n$	V AC		230	230	230
Operating frequency	Hz		50	50	50
Terminal conductor cross-sections					
Solid and stranded	mm <sup>2</sup>		0.75 ... 16	0.75 ... 16	0.75 ... 16 (top) 0.75 ... 35 (bottom)
Finely stranded with end sleeve	mm <sup>2</sup>		0.75 ... 10	0.75 ... 10	0.75 ... 10 (top) 0.75 ... 25 (bottom)
Terminal tightening torque	Nm		2.0 ... 2.5	1.2 ... 2.0	1.2 ... 2.0 (top) 2.5 ... 3.5 (bottom)
Standards					
			IEC/EN 62606	IEC/EN 62606	IEC/EN 62606
Rated current $I_n$	A		Up to 16/40 A	6 ... 40	6 ... 40
Service life	Average number of operating cycles		>10000	>10000	>10000
Mounting position			Any	Any	Any
Degree of protection	Acc. to EN 60529 (VDE 0470-1)		IP20, with connected conductors	IP20, with connected conductors	IP20, with connected conductors
Touch protection	Acc. to EN 50274 (VDE 0660-514)		Finger and back-of-hand safe	Finger and back-of-hand safe	Finger and back-of-hand safe
Temperatures	Storage temperature	°C	-40 ... +75 °C	-40 ... +75 °C	-40 ... +75 °C
	Ambient temperature	°C	-25 ... +45, marked with	-25 ... +45, marked with	-25 ... +45, marked with
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles (55 °C; 95% rel. air humidity)	28 cycles (55 °C; 95% rel. air humidity)	28 cycles (55 °C; 95% rel. air humidity)
CFC and silicone-free			■	■	■
Mains connection			Bottom	Top   bottom	Bottom
Overvoltage category   Pollution degree			III   2	III   2	III   2
Tripping in the event of overvoltage	V		>275	>285	>285
Additional functions					
Communication and measuring function			-	■	-
More information					
			See page 4/52	See page 4/53 and page 4/54	See page 4/53





# 5SV RCCBs

## Type A, 1P+N (2 MW)

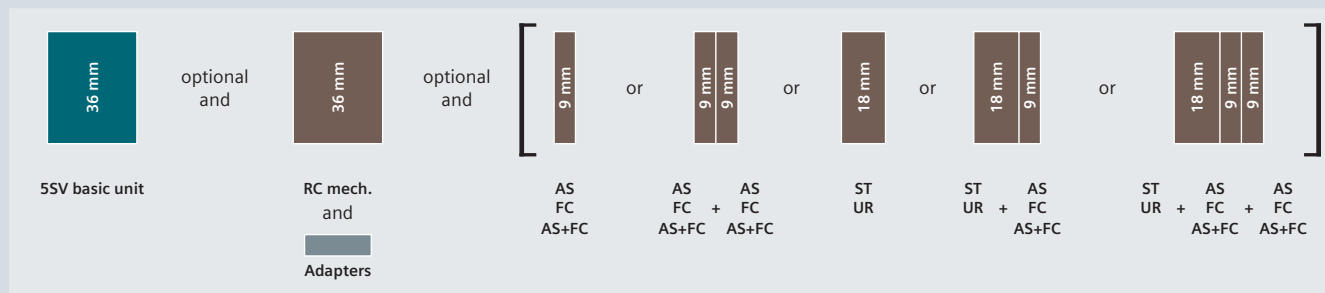
N connection	Instantaneous		Instantaneous (only available in Belgium) <sup>2)</sup>
	24 ... 125 V AC	230 V AC	230 V AC
	Right	Right	Left
			
			

$I_{\Delta n}$	$I_n$	Thermal overload protection <sup>1)</sup>	Bulk packaging (36 units)				
<b>Type A</b>							
10 mA	16 A	–	–	–	5SV3111-6	5SV3111-6KL	–
	25 A	–	–	–	5SV3112-6 <b>new</b>	–	–
30 mA	16 A	–	–	5SV3311-6KK13	5SV3311-6	5SV3311-6KL	–
		–	■	–	5SV3311-6GV01	–	–
	25 A	–	–	5SV3312-6KK13	5SV3312-6	5SV3312-6KL	5SV3312-6BA
		–	■	–	5SV3312-6GV01	–	–
	40 A	–	–	5SV3314-6KK13	5SV3314-6	5SV3314-6KL	5SV3314-6BA
		–	■	–	5SV3314-6GV01	–	–
100 mA	63 A	–	–	5SV3316-6KK13	5SV3316-6	5SV3316-6KL	5SV3316-6BA
	80 A	–	–	–	5SV3317-6	5SV3317-6KL	–
	25 A	–	–	–	5SV3412-6	5SV3412-6KL	5SV3612-6BA
	40 A	–	–	–	5SV3414-6	5SV3414-6KL	5SV3614-6BA
300 mA	63 A	–	–	–	5SV3416-6	5SV3416-6KL	5SV3616-6BA
	80 A	–	–	–	5SV3417-6	5SV3417-6KL	–
	25 A	–	–	–	5SV3612-6	5SV3612-6KL	–
	40 A	–	–	–	5SV3614-6	5SV3614-6KL	–
	63 A	–	–	–	5SV3616-6	5SV3616-6KL	–
	80 A	–	–	–	5SV3617-6	5SV3617-6KL	–

<sup>1)</sup> Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).

<sup>2)</sup> These products cannot be used in France according to NF C 15-100. Product complies with the specifications of the Belgian market only. (Simultaneous tripping of the 3 poles and the N conductor.) Available for the export market only.

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

SIGRES, instantaneous	Short-time delayed [G]	Super resistant [K]	Selective [S]	
230 V AC	230 V AC	230 V AC	230 V AC	
Right	Right	Right	Right	Left
				
-	-	-	-	-
-	-	-	-	-
5SV3311-6KK12	-	-	-	-
-	-	-	-	-
5SV3312-6KK12	-	5SV3312-6KK01	-	-
-	-	-	-	-
5SV3314-6KK12	-	5SV3314-6KK01	-	-
-	-	-	-	-
-	5SV3314-6LA01	-	-	-
5SV3316-6KK12	-	5SV3316-6KK01	-	-
-	-	5SV3317-6KK01	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	5SV3416-8	-
-	-	-	-	-
-	-	5SV3612-6KK01	5SV3612-8	-
-	-	5SV3614-6KK01	5SV3614-8	5SV3614-8KL
-	-	5SV3616-6KK01	5SV3616-8	5SV3616-8KL
-	-	5SV3617-6KK01	5SV3617-8	-

## Accessories

Auxiliary switches (AS)			Shunt trips (ST)		
1 NO + 1 NC	Standard	Article No. 5ST3010	110 ... 415 V AC, 110 ... 220 V DC		Article No. 5ST3030
	For low power	5ST3013	24 ... 48 V AC/DC		5ST3031
	For low power (with diode)	5ST3013-0XX01	12 V DC		5ST3031-0XX01
2 NO	Standard	5ST3011	<b>Undervoltage releases (UR)</b>		
	For low power	5ST3014	Article No.		
2 NC	Standard	5ST3012	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3015		110 V DC	5ST3041
1 CO	Standard	5ST3016		24 V DC	5ST3042
<b>Fault signal contacts (FC)</b>			Without integrated auxiliary switch	230 V AC	5ST3043
1 NO + 1 NC		Article No. 5ST3020		110 V DC	5ST3044
2 NO		5ST3021		24 V DC	5ST3045
2 NC		5ST3022	<b>Remote controlled (RC) mechanisms</b>		
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>			Article No.		
1 CO (AS) + 1 CO (FC)		5ST3062	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC		177 ... 270 V AC	5ST3056
			Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
				177 ... 270 V AC	5ST3058
			Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
			<b>Adapter for RC mechanism</b>		
			2 MW		Article No. 5ST3820-6

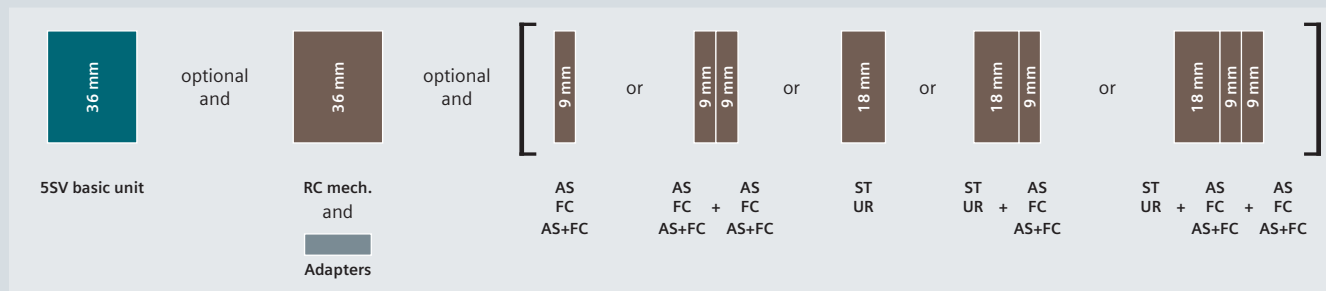
# 5SV RCCBs

Type F, 1P+N (2 MW)

N connection	Super resistant [K]	Selective [S]
	230 V AC	230 V AC
Right		

$I_{\Delta n}$	$I_n$		
<b>Type F</b>			
30 mA	25 A	5SV3312-3	–
	40 A	5SV3314-3	–
	63 A	5SV3316-3	–
	80 A	5SV3317-3	–
300 mA	25 A	5SV3612-3	–
	40 A	5SV3614-3	5SV3614-7
	63 A	5SV3616-3	–
	80 A	5SV3617-3	5SV3617-7

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
2 MW		5ST3820-6

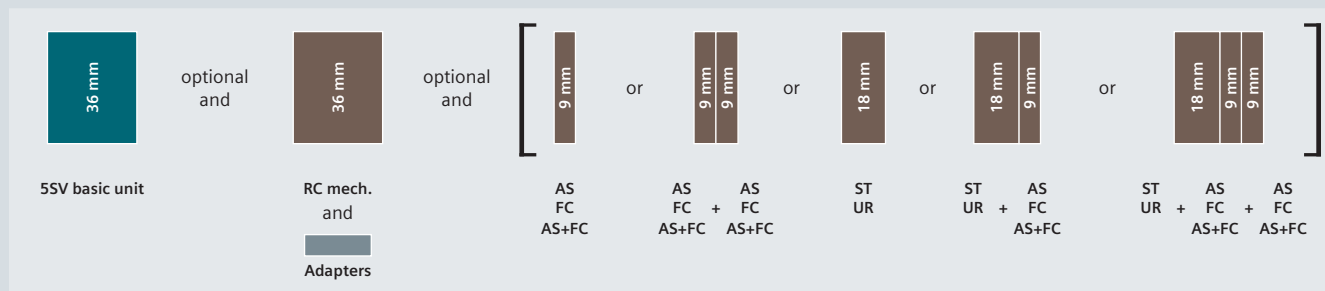
# 5SV RCCBs

## Type AC, 1P+N (2 MW)



$I_{\Delta n}$	$I_n$	Bulk packaging (36 units)			
Type AC					
10 mA	16 A	–	5SV4111-0	5SV4111-0KL	–
	25 A	–	5SV4112-0 <b>new</b>	–	–
30 mA	16 A	–	5SV4311-0	5SV4311-0KL	5SV4311-0KK13
	25 A	–	5SV4312-0	5SV4312-0KL	5SV4312-0KK13
		■	5SV4312-0GV01	–	–
	40 A	–	5SV4314-0	5SV4314-0KL	5SV4314-0KK13
		■	5SV4314-0GV01	5SV4314-0GV02	–
	63 A	–	5SV4316-0	5SV4316-0KL	5SV4316-0KK13
100 mA	80 A	–	5SV4317-0	5SV4317-0KL	–
	25 A	–	5SV4412-0	–	–
	40 A	–	5SV4414-0	5SV4414-0KL	–
	63 A	–	5SV4416-0	5SV4416-0KL	–
300 mA	80 A	–	5SV4417-0	–	–
	25 A	–	5SV4612-0	5SV4612-0KL	–
	40 A	–	5SV4614-0	5SV4614-0KL	–
	63 A	–	5SV4616-0	5SV4616-0KL	–
	80 A	–	5SV4617-0	5SV4617-0KL	–

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

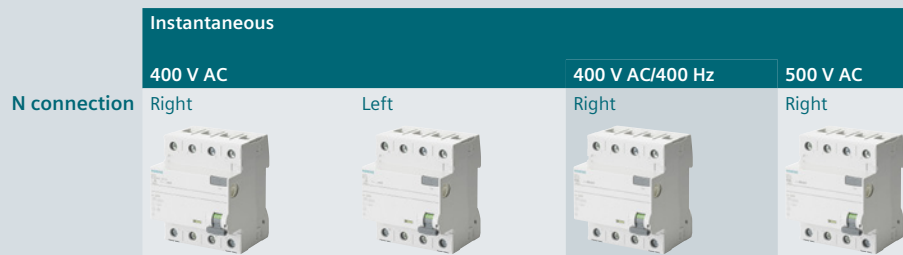
## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
2 MW		5ST3820-6

# 5SV RCCBs

## Type A, 3P+N (4 MW)

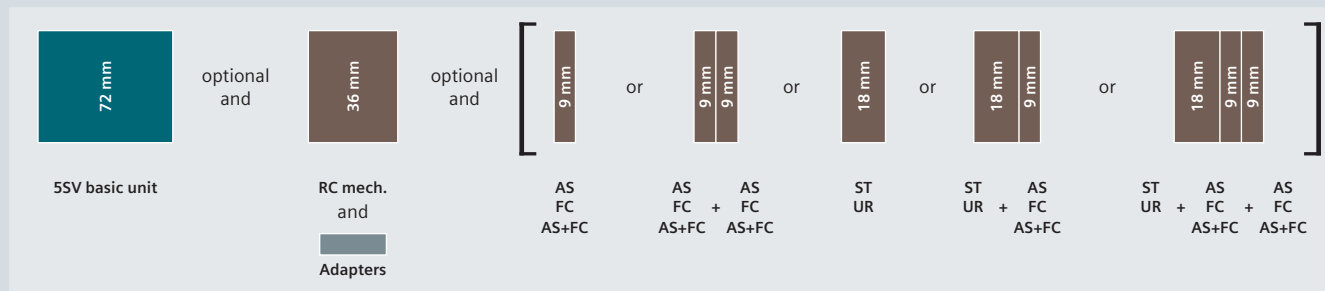


$I_{\Delta n}$	$I_n$	Thermal overload protection <sup>1)</sup>	Bulk packaging (18 units)	Instantaneous			
				400 V AC Right	400 V AC/400 Hz Right	500 V AC Right	400 V AC Left
<b>Type A</b>							
30 mA	25 A	–	–	5SV3342-6	5SV3342-6KL	5SV3342-6KK03	5SV3352-6
		–	■	5SV3342-6GV01	–	–	–
	40 A	–	–	5SV3344-6	5SV3344-6KL	5SV3344-6KK03	5SV3354-6
		–	■	5SV3344-6GV01	5SV3344-6GV02	–	–
	63 A	–	–	5SV3344-6LA	–	–	–
		–	■	5SV3346-6	5SV3346-6KL	–	5SV3356-6
100 mA	25 A	–	–	5SV3346-6GV01	–	–	–
		–	■	5SV3346-6LA	–	–	–
	40 A	–	–	5SV3347-6	5SV3347-6KL	–	5SV3357-6
		–	■	5SV3442-6	–	–	–
	63 A	–	–	5SV3444-6	–	–	–
		–	■	5SV3444-6LA	–	–	–
300 mA	25 A	–	–	5SV3446-6	–	–	–
		–	■	5SV3446-6LA	–	–	–
	40 A	–	–	5SV3447-6	–	–	–
		–	■	5SV3642-6	5SV3642-6KL	–	5SV3652-6
	63 A	–	–	5SV3644-6	5SV3644-6KL	–	5SV3654-6
		–	■	–	–	–	–
500 mA	25 A	–	–	5SV3646-6	5SV3646-6KL	–	5SV3656-6
		–	■	–	–	–	–
	40 A	–	–	5SV3647-6	5SV3647-6KL	–	5SV3657-6
		–	■	5SV3742-6	–	–	–
	63 A	–	–	5SV3744-6	–	–	–
		–	■	5SV3746-6	5SV3746-6KL	–	–
1000 mA	63 A	–	–	5SV3746-6GV01	–	–	–
		–	■	5SV3747-6	–	–	–

<sup>1)</sup> Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).

<sup>2)</sup> These products cannot be used in France according to NF C 15-100. Product complies with the specifications of the Belgian market only. (Simultaneous tripping of the 3 poles and the N conductor.) Available for the export market only.

## Mounting concept










AS Auxiliary switch  
FC Fault signal contact  
AS+FC Auxiliary switch and fault signal contact

See page 4/58  
See page 4/60  
See page 4/61

ST Shunt trips  
UR Undervoltage release  
RC mech. Remote controlled mechanism

See page 4/64  
See page 4/65  
See page 4/66

Instantaneous (only available in Belgium) <sup>2)</sup> 400 V AC	SIGRES, instantaneous 400 V AC	Short-time delayed [G] 400 V AC	Super resistant [K] 400 V AC	Selective [S] 400 V AC		SIGRES, selective [S] 400 V AC
Right	Right	Right	Right	Right	Left	Right
						
5SV3342-6BA	5SV3342-6KK12	–	5SV3342-6KK01	–	–	–
–	–	–	–	–	–	–
5SV3344-6BA	5SV3344-6KK12	5SV3344-6LB01	5SV3344-6KK01	–	–	–
–	–	–	–	–	–	–
–	–	5SV3344-6LA01	–	–	–	–
5SV3346-6BA	5SV3346-6KK12	5SV3346-6LB01	5SV3346-6KK01	–	–	–
–	–	–	–	–	–	–
–	–	5SV3346-6LA01	–	–	–	–
–	5SV3347-6KK12	5SV3347-6LB01	5SV3347-6KK01	–	–	–
–	–	–	–	–	–	–
–	–	5SV3444-6LB01	–	5SV3444-8	–	–
–	–	5SV3444-6LA01	–	5SV3444-8LA	–	–
–	–	5SV3446-6LB01	–	5SV3446-8	–	–
–	–	5SV3446-6LA01	–	5SV3446-8LA	–	–
–	–	–	–	–	–	–
5SV3642-6BA	5SV3642-6KK12	–	5SV3642-6KK01	5SV3642-8	–	–
5SV3644-6BA	5SV3644-6KK12	–	5SV3644-6KK01	5SV3644-8	–	–
–	–	–	–	5SV3644-8LA	–	–
5SV3646-6BA	5SV3646-6KK12	–	5SV3646-6KK01	5SV3646-8	5SV3646-8KL	5SV3646-8KK12
–	–	–	–	5SV3646-8LA	–	–
–	5SV3647-6KK12	–	5SV3647-6KK01	5SV3647-8	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	5SV3846-8	–	–

## Accessories


Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
4 MW		5ST3820-6



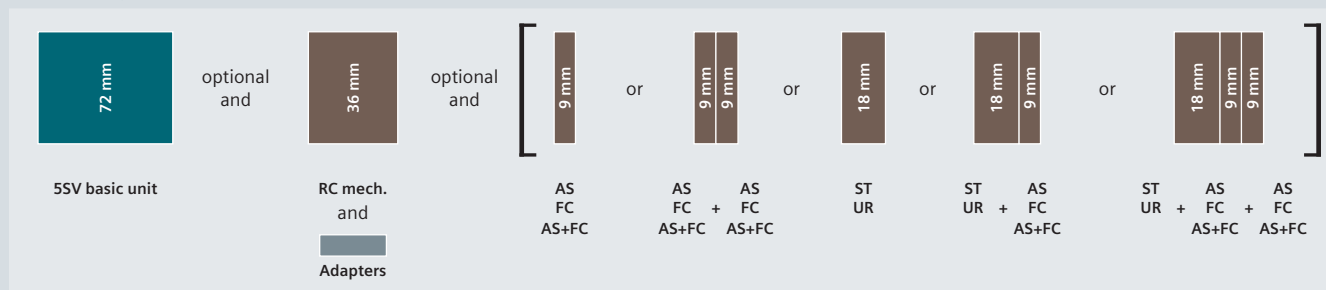
# 5SV RCCBs

## Type F, 3P+N (4 MW)

N connection	Super resistant [K] 400 V AC	Selective [S] 400 V AC
	Right	

$I_{\Delta n}$	$I_n$		
<b>Type F</b>			
30 mA	25 A	5SV3342-3	–
	40 A	5SV3344-3	–
	63 A	5SV3346-3	–
	80 A	5SV3347-3	–
300 mA	25 A	5SV3642-3	–
	40 A	5SV3644-3	5SV3644-7
	63 A	5SV3646-3	–
	80 A	5SV3647-3	5SV3647-7

### Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
4 MW		5ST3820-6

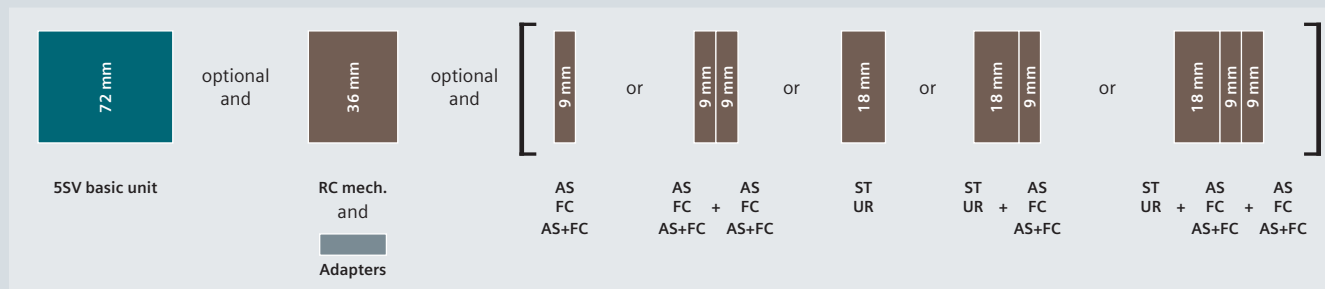
# 5SV RCCBs

Type AC, 3P+N (4 MW)



$I_{\Delta n}$	$I_n$	Bulk packaging (18 units)		
<b>Type AC</b>				
30 mA	25 A	–	5SV4342-0	5SV4342-0KL
		■	5SV4342-0GV01	–
	40 A	–	5SV4344-0	5SV4344-0KL
		■	5SV4344-0GV01	–
		–	5SV4346-0	5SV4346-0KL
80 A	–	5SV4347-0	5SV4347-0KL	
	–	–	–	
100 mA	25 A	–	5SV4442-0	–
	40 A	–	5SV4444-0	–
	63 A	–	5SV4446-0	–
	80 A	–	5SV4447-0	–
300 mA	25 A	–	5SV4642-0	5SV4642-0KL
	40 A	–	5SV4644-0	5SV4644-0KL
	63 A	–	5SV4646-0	5SV4646-0KL
	80 A	–	5SV4647-0	5SV4647-0KL
500 mA	25 A	–	5SV4742-0	–
	40 A	–	5SV4744-0	–
	63 A	–	5SV4746-0	–
	80 A	–	5SV4747-0	–

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-OXX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		ST3062-OMC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-OXX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
4 MW		5ST3820-6

# 5SV3 RCCBs (SIQUENCE)

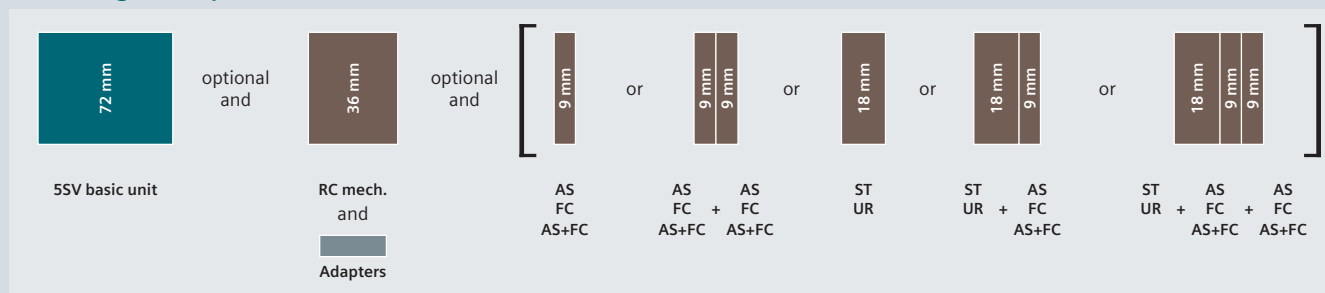
Type B, 1P+N (4 MW)

N connection Right  
SIGRES, super resistant [K]  
230 V AC



$I_{\Delta n}$	$I_n$	Bulk packaging (18 units)	
<b>Type B</b>			
30 mA	16 A	–	5SV3321-4
	25 A	–	5SV3322-4
	40 A	–	5SV3324-4
		■	5SV3324-4GV01
	63 A	–	5SV3326-4
300 mA	16 A	–	5SV3621-4
	25 A	–	5SV3622-4
	40 A	–	5SV3624-4
	63 A	–	5SV3626-4

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
4 MW		5ST3820-6

# 5SV3 RCCBs (SIQUENCE)

Type B and B+, 3P+N (4 MW)

N connection

SIGRES, super resistant [K]

230 ... 400 V AC

SIGRES, selective [S]

230 ... 400 V AC

Right

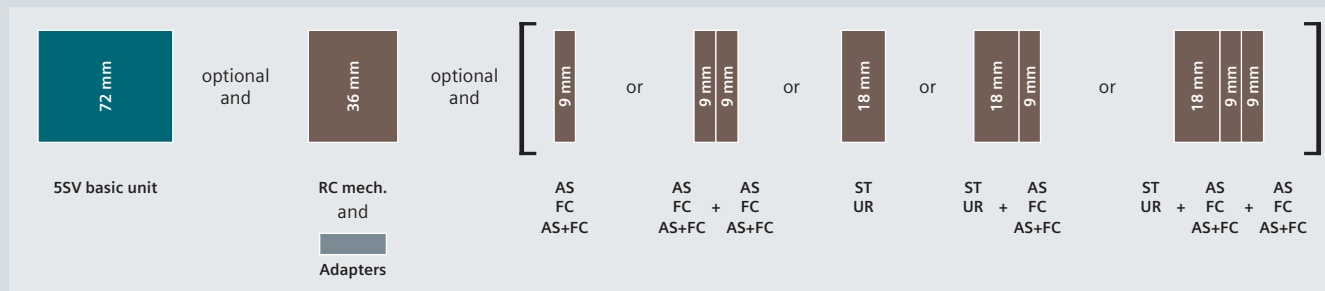


Right



$I_{\Delta n}$	$I_n$	Bulk packaging (18 units)		
<b>Type B</b>				
30 mA	25 A	–	5SV3342-4	–
		■	5SV3342-4GV01	–
	40 A	–	5SV3344-4	–
		■	5SV3344-4GV01	–
	63 A	–	5SV3346-4	–
		■	5SV3346-4GV01	–
	80 A	–	5SV3347-4	–
300 mA	25 A	–	5SV3642-4	–
		■	5SV3642-4GV01	–
	40 A	–	5SV3644-4	–
		■	5SV3644-4GV01	–
	63 A	–	5SV3646-4	5SV3646-5
		■	5SV3646-4GV01	–
	80 A	–	5SV3647-4	5SV3647-5
500 mA	25 A	–	5SV3742-4	–
	40 A	–	5SV3744-4	–
	63 A	–	5SV3746-4	5SV3746-5
	80 A	–	5SV3747-4	5SV3747-5
	<b>Type B+</b>			
30 mA	25 A	–	5SV3342-4KK14	–
	40 A	–	5SV3344-4KK14	–
	63 A	–	5SV3346-4KK14	–
	80 A	–	5SV3347-4KK14	–
300 mA	25 A	–	5SV3642-4KK14	–
	40 A	–	5SV3644-4KK14	–
	63 A	–	5SV3646-4KK14	5SV3646-5KK14
	80 A	–	5SV3647-4KK14	5SV3647-5KK14

## Mounting concept



AS	Auxiliary switch	<a href="#">See page 4/58</a>
FC	Fault signal contact	<a href="#">See page 4/60</a>
AS+FC	Auxiliary switch and fault signal contact	<a href="#">See page 4/61</a>
ST	Shunt trips	<a href="#">See page 4/64</a>
UR	Undervoltage release	<a href="#">See page 4/65</a>
RC mech.	Remote controlled mechanism	<a href="#">See page 4/66</a>

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		ST3062-0MC

Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01
Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
4 MW		5ST3820-6



# 5SM3 RCCBs

Type A and AC, 1P+N (2 MW), high-current



$I_{\Delta n}$	$I_n$	
<b>Type A</b>		
30 mA	100 A	5SM3318-6KK
	125 A	5SM3315-6KK
100 mA	100 A	5SM3418-6KK
	125 A	5SM3415-6KK
300 mA	100 A	5SM3618-6KK
	125 A	5SM3615-6KK
<b>Type AC</b>		
30 mA	100 A	5SM3318-0KK
	125 A	5SM3315-0KK
100 mA	100 A	5SM3418-0KK
	125 A	5SM3415-0KK
300 mA	100 A	5SM3618-0KK
	125 A	5SM3615-0KK

## Type A and AC, 3P+N (4 MW), high-current



$I_{\Delta n}$	$I_n$		
<b>Type A</b>			
30 mA	100 A	5SM3348-6	–
	125 A	5SM3345-6	–
100 mA	100 A	5SM3448-6	–
	125 A	5SM3445-6	–
300 mA	100 A	5SM3648-6	5SM3648-8
	125 A	5SM3645-6	5SM3645-8
500 mA	100 A	5SM3748-6	–
	125 A	5SM3745-6	5SM3745-8
<b>Type AC</b>			
30 mA	100 A	5SM3348-0	–
	125 A	5SM3345-0	–
100 mA	100 A	5SM3448-0	–
	125 A	5SM3445-0	–
300 mA	100 A	5SM3648-0	5SM3648-2
	125 A	5SM3645-0	–
500 mA	100 A	5SM3748-0	–
	125 A	5SM3745-0	–

# 5SM2 RC units

Type A, F and AC, 2-pole

For 5SY miniature circuit breakers<sup>1)</sup>

230 V AC

Version  
Mounting width

Instantaneous

Super resistant [K]

Selective [S]

2 MW

2 MW

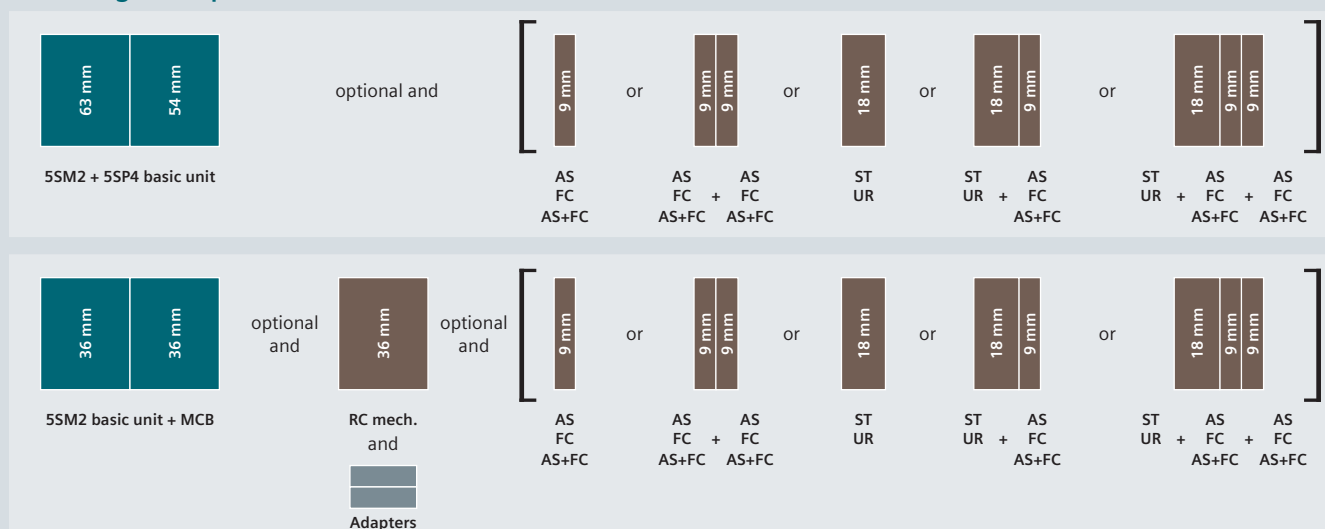
2 MW



$I_{\Delta n}$	$I_n$			
<b>Type A</b>				
10 mA	0.3 ... 16 A	5SM2121-6	–	–
30 mA	0.3 ... 40 A	5SM2322-6	5SM2322-6KK01	–
	0.3 ... 63 A	5SM2325-6	5SM2325-6KK01	–
100 mA	80 ... 100 A	–	–	–
	0.3 ... 63 A	5SM2425-6	–	–
300 mA	0.3 ... 40 A	5SM2622-6	–	5SM2622-8
	0.3 ... 63 A	5SM2625-6	–	5SM2625-8
	80 ... 100 A	–	–	–
500 mA	0.3 ... 63 A	5SM2725-6	–	–
1000 mA	0.3 ... 40 A	–	–	5SM2822-8
	0.3 ... 63 A	–	–	5SM2825-8
	80 ... 100 A	–	–	–
<b>Type F</b>				
30 mA	0.3 ... 40 A	–	5SM2322-3	–
	0.3 ... 63 A	–	5SM2325-3	–
<b>Type AC</b>				
10 mA	0.3 ... 40 A	5SM2121-0	–	–
30 mA	0.3 ... 40 A	5SM2322-0	–	–
	0.3 ... 63 A	5SM2325-0	–	–
	80 ... 100 A	–	–	–
300 mA	0.3 ... 40 A	5SM2622-0	–	5SM2622-2
	0.3 ... 63 A	5SM2625-0	–	5SM2625-2
	80 ... 100 A	–	–	–
500 mA	0.3 ... 63 A	5SM2725-0	–	–
1000 mA	0.3 ... 63 A	5SM2825-0	–	–





<sup>1)</sup> Not suitable for use with 5SY5 and type A + type F not suitable for use with 5SY8

## Mounting concept



MCB Miniature circuit breaker [See page 3/1](#)  
 AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)  
 ST Shunt trips [See page 4/64](#)

UR Undervoltage release [See page 4/65](#)  
 RC mech. Remote controlled mechanism [See page 4/66](#)





For 5SL4 miniature circuit breakers 230 V AC		For 5SP4 miniature circuit breakers (B and C characteristics) 230 V AC	
Instantaneous	Selective [S]	Instantaneous	Selective [S]
2 MW	2 MW	3.5 MW	3.5 MW
			
-	-	-	-
5SM2323-6	-	-	-
5SM2326-6	-	-	-
-	-	5SM2327-6	-
-	-	-	-
5SM2623-6	5SM2623-8	-	-
5SM2626-6	5SM2626-8	-	-
-	-	5SM2627-6	5SM2627-8
-	-	-	-
-	-	-	-
-	-	-	5SM2827-8
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
5SM2323-0	-	-	-
5SM2326-0	-	-	-
-	-	-	-
5SM2623-0	5SM2623-2	5SM2327-0	-
5SM2626-0	5SM2626-2	5SM2627-0	-
-	-	-	-
-	-	-	-
-	-	-	-

## Accessories

Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-OXX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015	<b>Remote controlled (RC) mechanisms</b>		<b>Article No.</b>
1 CO	Standard	5ST3016	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
<b>Fault signal contacts (FC)</b>				177 ... 270 V AC	5ST3056
1 NO + 1 NC		5ST3020	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
2 NO		5ST3021		177 ... 270 V AC	5ST3058
2 NC		5ST3022	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>			<b>Adapter for RC mechanism</b>		<b>Article No.</b>
1 CO (AS) + 1 CO (FC)		5ST3062	5SM2 with 5SY (2P)		5ST3820-3 + 5ST3820-1
5ST3 COM (AS+FC) <b>new</b>		5ST3062-OMC	5SM2 with 5SL (2P)		5ST3820-3 + 5ST3820-6
<b>Shunt trips (ST)</b>					
110 ... 415 V AC, 110 ... 220 V DC		5ST3030			
24 ... 48 V AC/DC		5ST3031			
12 V DC		5ST3031-OXX01			

# 5SM2 RC units

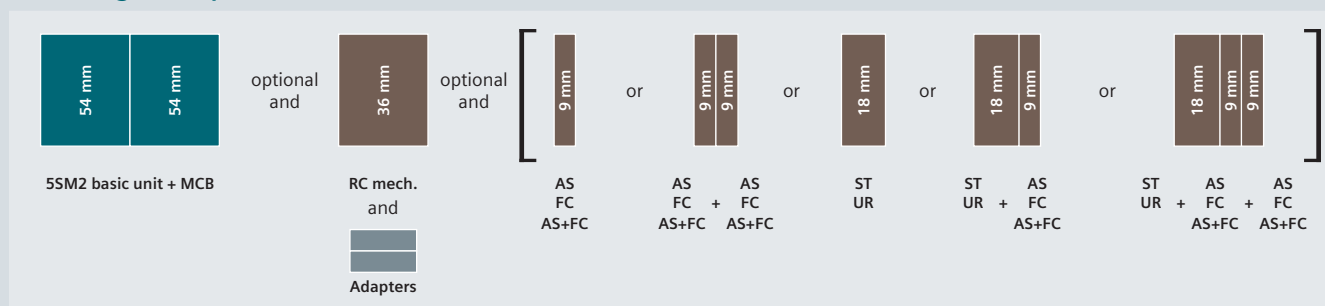
## Type A and AC, 3-pole

Version Mounting width	For 5SY miniature circuit breakers <sup>1)</sup> 400 V AC			For 5SL4 miniature circuit breakers 400 V AC	
	Instantaneous	Super resistant [K]	Selective [S]	Instantaneous	Selective [S]
3 MW					

$I_{\Delta n}$	$I_n$	For 5SY miniature circuit breakers <sup>1)</sup> 400 V AC		For 5SL4 miniature circuit breakers 400 V AC	
<b>Type A</b>					
30 mA	0.3 ... 40 A	5SM2332-6	5SM2332-6KK01	–	5SM2333-6
	0.3 ... 63 A	5SM2335-6	5SM2335-6KK01	–	5SM2336-6
100 mA	0.3 ... 63 A	5SM2435-6	–	–	–
	0.3 ... 40 A	5SM2632-6	–	–	5SM2633-6
300 mA	0.3 ... 63 A	5SM2635-6	–	5SM2635-8	5SM2636-6
	0.3 ... 40 A	5SM2735-6	–	5SM2735-8	–
500 mA	0.3 ... 63 A	–	–	5SM2832-8	–
	0.3 ... 40 A	–	–	5SM2835-8	–
<b>Type AC</b>					
30 mA	0.3 ... 40 A	5SM2332-0	–	–	5SM2333-0
	0.3 ... 63 A	5SM2335-0	–	–	5SM2336-0
300 mA	0.3 ... 40 A	5SM2632-0	–	–	5SM2633-0
	0.3 ... 63 A	5SM2635-0	–	–	5SM2636-0
500 mA	0.3 ... 63 A	5SM2735-0	–	–	–
	0.3 ... 40 A	–	–	–	–

<sup>1)</sup> Not suitable for use with 5SY5 and type A not suitable for use with 5SY8

## Mounting concept



MCB    Miniature circuit breaker    [See page 3/1](#)

AS    Auxiliary switch    [See page 4/58](#)

FC    Fault signal contact    [See page 4/60](#)

AS+FC    Auxiliary switch and fault signal contact    [See page 4/61](#)

ST    Shunt trips    [See page 4/64](#)

UR    Undervoltage release    [See page 4/65](#)

RC mech.    Remote controlled mechanism    [See page 4/66](#)

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Remote controlled (RC) mechanisms		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
Adapter for RC mechanism		Article No.
5SM2 with 5SY (2P)		5ST3820-3 + 5ST3820-1
		5ST3820-3 + 5ST3820-6
5SM2 with 5SL (2P)		

# 5SM2 RC units

## Type A and AC, 4-pole

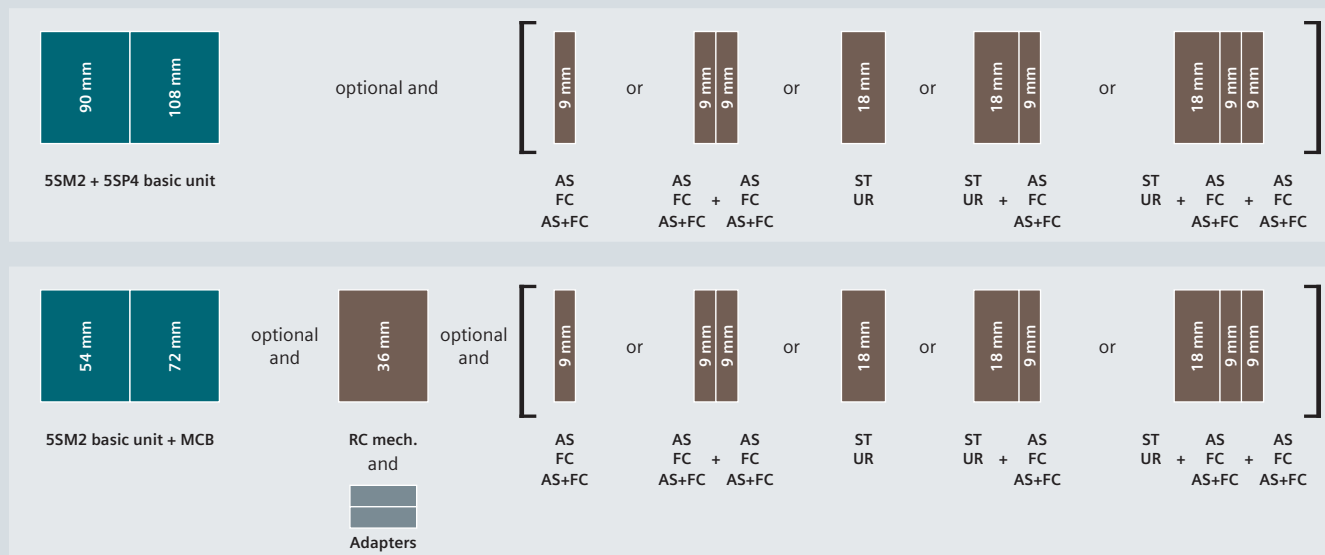
For 5SY miniature circuit breakers<sup>1)</sup>  
400 V AC

Version	Instantaneous	Super resistant [K]	Selective [S]
Mounting width	3 MW	3 MW	3 MW
			

$I_{\Delta n}$	$I_n$			
<b>Type A</b>				
30 mA	0.3 ... 40 A	5SM2342-6	5SM2342-6KK01	–
	0.3 ... 63 A	5SM2345-6	5SM2345-6KK01	–
	80 ... 100 A	–	–	–
100 mA	0.3 ... 63 A	5SM2445-6	–	–
	80 ... 100 A	–	–	–
300 mA	0.3 ... 40 A	5SM2642-6	–	–
	0.3 ... 63 A	5SM2645-6	–	5SM2645-8
	80 ... 100 A	–	–	–
500 mA	0.3 ... 63 A	5SM2745-6	–	5SM2845-8
1000 mA	0.3 ... 40 A	–	–	5SM2842-8
	0.3 ... 63 A	–	–	5SM2845-8
	80 ... 100 A	–	–	–
<b>Type AC</b>				
30 mA	0.3 ... 40 A	5SM2342-0	–	–
	0.3 ... 63 A	5SM2345-0	–	–
	80 ... 100 A	–	–	–
300 mA	0.3 ... 40 A	5SM2642-0	–	–
	0.3 ... 63 A	5SM2645-0	–	5SM2645-2
	80 ... 100 A	–	–	–
500 mA	0.3 ... 63 A	5SM2745-0	–	–
1000 mA	0.3 ... 63 A	–	–	5SM2845-2

<sup>1)</sup> Not suitable for use with 5SY5 and type A not suitable for use with 5SY8

## Mounting concept



MCB Miniature circuit breaker [See page 3/1](#)

AS Auxiliary switch [See page 4/58](#)

FC Fault signal contact [See page 4/60](#)

AS+FC Auxiliary switch and

fault signal contact

ST Shunt trips

[See page 4/61](#)





[See page 4/64](#)

UR Undervoltage release

RC mech. Remote controlled mechanism

[See page 4/65](#)

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For 5SL4 miniature circuit breakers 400 V AC		For 5SP4 miniature circuit breakers (B and C characteristics) 400 V AC	
Instantaneous	Selective [S]	Instantaneous	Selective [S]
3 MW	3 MW	5 MW	5 MW
			
5SM2343-6	–	–	–
5SM2346-6	–	–	–
–	–	5SM2347-6	–
–	–	–	–
5SM2643-6	–	–	–
5SM2646-6	5SM2646-8	–	–
–	–	5SM2647-6	5SM2647-8
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	5SM2847-8
5SM2343-0	–	–	–
5SM2346-0	–	–	–
–	–	5SM2347-0	–
5SM2643-0	–	–	–
5SM2646-0	5SM2646-2	–	–
–	–	5SM2647-0	–
–	–	–	–
–	–	–	–

## Accessories

Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-0XX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015	<b>Remote controlled (RC) mechanisms</b>		<b>Article No.</b>
1 CO	Standard	5ST3016	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
<b>Fault signal contacts (FC)</b>		<b>Article No.</b>		177 ... 270 V AC	5ST3056
1 NO + 1 NC		5ST3020	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
2 NO		5ST3021		177 ... 270 V AC	5ST3058
2 NC		5ST3022	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>		<b>Article No.</b>	<b>Adapter for RC mechanism</b>		<b>Article No.</b>
1 CO (AS) + 1 CO (FC)		5ST3062	5SM2 with 5SY (4P)		5ST3820-3 + 5ST3820-2
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC	5SM2 with 5SL (4P)		5ST3820-3 + 5ST3820-7
<b>Shunt trips (ST)</b>		<b>Article No.</b>			
110 ... 415 V AC, 110 ... 220 V DC		5ST3030			
24 ... 48 V AC/DC		5ST3031			
12 V DC		5ST3031-0XX01			



# 5SU1 RCBOs

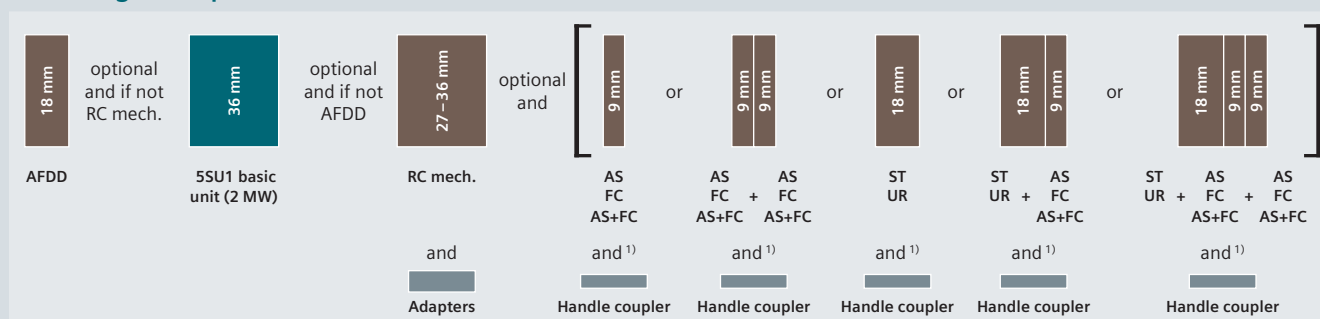
## Type A, 1P+N

Mounting width	Instantaneous 230 V AC		
	2 MW	2 MW	2 MW
Short-circuit breaking capacity	4.5 kA	4.5 kA	6 kA
N connection	Right	Left	Right



$I_{\Delta n}$	$I_n$	Bulk packaging (36 units)	Characteristic C		Characteristic B	
			C	C	B	C
<b>Type A</b>						
10 mA	6 A	–	–	–	–	–
	10 A	–	–	–	–	–
	13 A	–	–	–	–	–
	16 A	–	–	–	–	–
30 mA	6 A	–	5SU1353-7KK06	5SU1353-7KL06	5SU1356-6KK06	5SU1356-7KK06
		■	–	–	5SU1356-6GV06	5SU1356-7GV06
	8 A	–	5SU1353-7KK08	–	–	5SU1356-7KK08
	10 A	–	5SU1353-7KK10	5SU1353-7KL10	5SU1356-6KK10	5SU1356-7KK10
		■	–	–	5SU1356-6GV10	5SU1356-7GV10
	13 A	–	5SU1353-7KK13	–	5SU1356-6KK13	5SU1356-7KK13
	16 A	–	5SU1353-7KK16	5SU1353-7KL16	5SU1356-6KK16	5SU1356-7KK16
		■	–	–	5SU1356-6GV16	5SU1356-7GV16
	20 A	–	5SU1353-7KK20	5SU1353-7KL20	5SU1356-6KK20	5SU1356-7KK20
	25 A	–	5SU1353-7KK25	5SU1353-7KL25	5SU1356-6KK25	5SU1356-7KK25
	32 A	–	5SU1353-7KK32	5SU1353-7KL32	5SU1356-6KK32	5SU1356-7KK32
	40 A	–	5SU1353-7KK40	5SU1353-7KL40	5SU1356-6KK40	5SU1356-7KK40
300 mA	6 A	–	5SU1653-7KK06	–	5SU1656-6KK06	5SU1656-7KK06
	10 A	–	5SU1653-7KK10	–	5SU1656-6KK10	5SU1656-7KK10
	13 A	–	5SU1653-7KK13	–	5SU1656-6KK13	5SU1656-7KK13
	16 A	–	5SU1653-7KK16	–	5SU1656-6KK16	5SU1656-7KK16
	20 A	–	5SU1653-7KK20	–	5SU1656-6KK20	5SU1656-7KK20
	25 A	–	5SU1653-7KK25	–	5SU1656-6KK25	5SU1656-7KK25
	32 A	–	5SU1653-7KK32	–	5SU1656-6KK32	5SU1656-7KK32
	40 A	–	5SU1653-7KK40	–	5SU1656-6KK40	5SU1656-7KK40

### Mounting concept





<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit  
 AS Auxiliary switch  
 FC Fault signal contact  
 AS+FC Auxiliary switch and fault signal contact

[See page 4/52](#)  
[See page 4/58](#)  
[See page 4/60](#)  
[See page 4/61](#)

ST Shunt trips  
 UR Undervoltage release  
 RC mech. Remote controlled mechanism

[See page 4/64](#)  
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[See page 4/66](#)

Instantaneous 230 V AC		Short-time delayed [G], super resistant [K] 230 V AC	
2 MW		2 MW	
10 kA		10 kA	
Right		Right	
			
Characteristic B	C	Characteristic B	C
5SU1154-6KK06	5SU1154-7KK06	–	–
5SU1154-6KK10	5SU1154-7KK10	–	–
5SU1154-6KK13	5SU1154-7KK13	–	–
5SU1154-6KK16	5SU1154-7KK16	–	–
5SU1354-6KK06	5SU1354-7KK06	–	–
5SU1354-6GV06	5SU1354-7GV06	–	–
–	5SU1354-7KK08	–	–
5SU1354-6KK10	5SU1354-7KK10	5SU1354-6LB10	5SU1354-7LB10
5SU1354-6GV10	5SU1354-7GV10	–	–
5SU1354-6KK13	5SU1354-7KK13	5SU1354-6LB13	5SU1354-7LB13
5SU1354-6KK16	5SU1354-7KK16	5SU1354-6LB16	5SU1354-7LB16
5SU1354-6GV16	5SU1354-7GV16	–	–
5SU1354-6KK20	5SU1354-7KK20	5SU1354-6LB20	5SU1354-7LB20
5SU1354-6KK25	5SU1354-7KK25	5SU1354-6LB25	5SU1354-7LB25
5SU1354-6KK32	5SU1354-7KK32	5SU1354-6LB32	5SU1354-7LB32
5SU1354-6KK40	5SU1354-7KK40	5SU1354-6LB40	5SU1354-7LB40
5SU1654-6KK06	5SU1654-7KK06	–	–
5SU1654-6KK10	5SU1654-7KK10	–	–
5SU1654-6KK13	5SU1654-7KK13	–	–
5SU1654-6KK16	5SU1654-7KK16	–	–
5SU1654-6KK20	5SU1654-7KK20	–	–
5SU1654-6KK25	5SU1654-7KK25	–	–
5SU1654-6KK32	5SU1654-7KK32	–	–
5SU1654-6KK40	5SU1654-7KK40	–	–

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Handle couplers for AS, FC, AS+FC, ST and UR		Article No.
1 set = 5 units		5ST3805-1
Remote controlled (RC) mechanisms		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with ext. function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
2 MW		5ST3820-5
Arc fault detection units (AFDD)		Article No.
For 5SU1 basic units	$I_n$ up to 16 A	5SM6021-2
	$I_n$ up to 40 A	5SM6024-2

# 5SU1 RCBOs

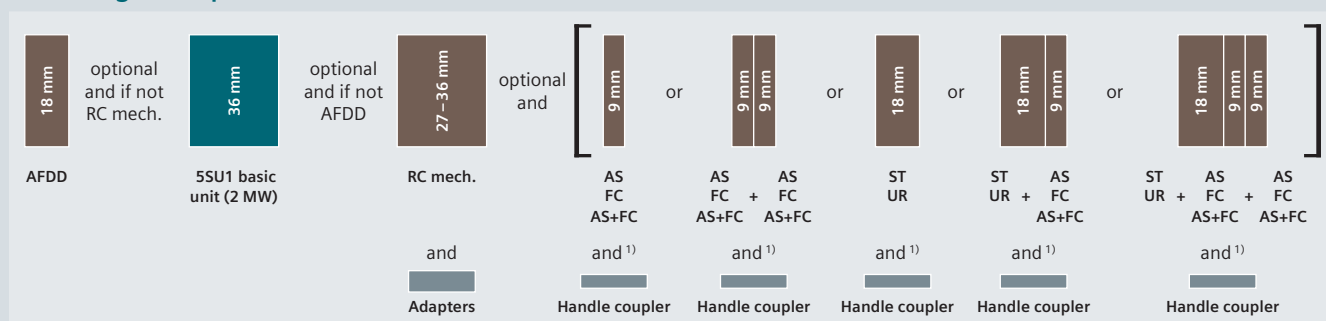
## Type F, 1P+N

	<b>Super resistant [K]</b>
	<b>230 V AC</b>
<b>Mounting width</b>	2 MW
<b>Short-circuit breaking capacity</b>	10 kA
<b>N connection</b>	Right



$I_{\Delta n}$	$I_n$	Characteristic	
		B	C
<b>Type F</b>			
30 mA	6 A	5SU1354-3KK06	5SU1354-4KK06
	10 A	5SU1354-3KK10	5SU1354-4KK10
	13 A	5SU1354-3KK13	5SU1354-4KK13
	16 A	5SU1354-3KK16	5SU1354-4KK16
	20 A	5SU1354-3KK20	5SU1354-4KK20
	25 A	5SU1354-3KK25	5SU1354-4KK25
	32 A	5SU1354-3KK32	5SU1354-4KK32
	40 A	5SU1354-3KK40	5SU1354-4KK40

### Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit [See page 4/52](#)  
 AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)




ST Shunt trips [See page 4/64](#)  
 UR Undervoltage release [See page 4/65](#)  
 RC mech. Remote controlled mechanism [See page 4/66](#)

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5T3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Handle couplers for AS, FC, AS+FC, ST and UR		Article No.
1 set = 5 units		5ST3805-1
Remote controlled (RC) mechanisms		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with ext. function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
	AC 170 ... 277 V, DC 77 ... 286 V	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
2 MW		5ST3820-5
Arc fault detection units (AFDD)		Article No.
For 5SU1 basic units	$I_n$ up to 16 A	5SM6021-2
	$I_n$ up to 40 A	5SM6024-2

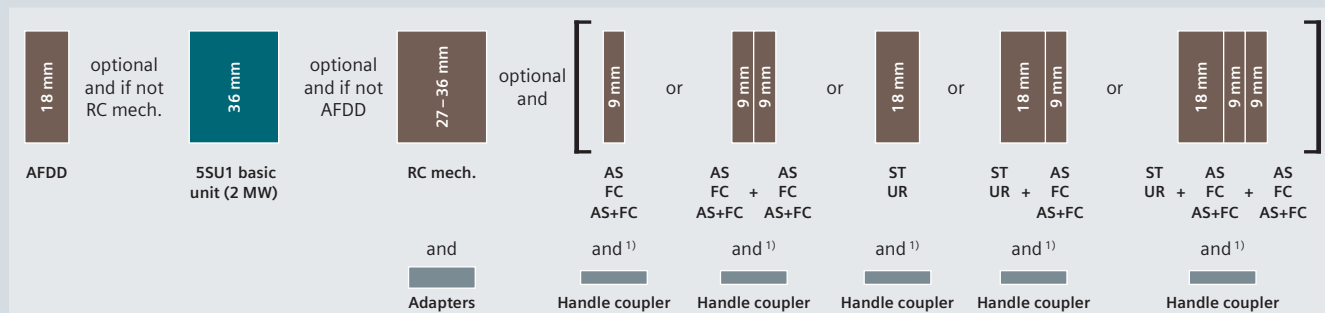
# 5SU1 RCBOs

## Type AC, 1P+N

Mounting width Short-circuit breaking capacity N connection	Instantaneous 230 V AC		
	2 MW 4.5 kA Right	2 MW 4.5 kA Left	2 MW 6 kA Right
			

$I_{\Delta n}$	$I_n$	Bulk packaging (36 units)	Characteristic C		Characteristic B	
			C	C	B	C
<b>Type AC</b>						
30 mA	6 A	–	5SU1353-1KK06	5SU1353-1KL06	5SU1356-0KK06	5SU1356-1KK06
	8 A	–	5SU1353-1KK08	–	–	5SU1356-1KK08
	10 A	–	5SU1353-1KK10	5SU1353-1KL10	5SU1356-0KK10	5SU1356-1KK10
		■	5SU1353-1GV10	–	–	–
	13 A	–	5SU1353-1KK13	5SU1353-1KL13	5SU1356-0KK13	5SU1356-1KK13
	16 A	–	5SU1353-1KK16	5SU1353-1KL16	5SU1356-0KK16	5SU1356-1KK16
		■	5SU1353-1GV16	–	–	5SU1356-1GV16
	20 A	–	5SU1353-1KK20	5SU1353-1KL20	5SU1356-0KK20	5SU1356-1KK20
	25 A	–	5SU1353-1KK25	5SU1353-1KL25	5SU1356-0KK25	5SU1356-1KK25
	32 A	–	5SU1353-1KK32	5SU1353-1KL32	5SU1356-0KK32	5SU1356-1KK32
40 A	–	5SU1353-1KK40	5SU1353-1KL40	5SU1356-0KK40	5SU1356-1KK40	
100 mA	6 A	–	–	–	–	–
	10 A	–	–	–	–	–
	13 A	–	–	–	–	–
	16 A	–	–	–	–	–
	20 A	–	–	–	–	–
	25 A	–	–	–	–	–
	32 A	–	–	–	–	–
300 mA	6 A	–	5SU1653-1KK06	5SU1653-1KL06	5SU1656-0KK06	5SU1656-1KK06
	10 A	–	5SU1653-1KK10	5SU1653-1KL10	5SU1656-0KK10	5SU1656-1KK10
	13 A	–	5SU1653-1KK13	5SU1653-1KL16	5SU1656-0KK13	5SU1656-1KK13
	16 A	–	5SU1653-1KK16	–	5SU1656-0KK16	5SU1656-1KK16
		■	5SU1653-1GV16	–	–	–
	20 A	–	5SU1653-1KK20	5SU1653-1KL20	5SU1656-0KK20	5SU1656-1KK20
	25 A	–	5SU1653-1KK25	5SU1653-1KL25	5SU1656-0KK25	5SU1656-1KK25
	32 A	–	5SU1653-1KK32	5SU1653-1KL32	5SU1656-0KK32	5SU1656-1KK32
40 A	–	5SU1653-1KK40	5SU1653-1KL40	5SU1656-0KK40	5SU1656-1KK40	

### Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit

AS Auxiliary switch

FC Fault signal contact

AS+FC Auxiliary switch and fault signal contact

[See page 4/52](#)

[See page 4/58](#)

[See page 4/60](#)

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ST Shunt trips



UR Undervoltage release

RC mech. Remote controlled mechanism

[See page 4/64](#)

[See page 4/65](#)

[See page 4/66](#)

Instantaneous 230 V AC		Short-time delayed [G], super resistant [K] 230 V AC	
2 MW		2 MW	
10 kA		10 kA	
Right		Right	
			
Characteristic		Characteristic	
B	C	B	C
5SU1354-0KK06	5SU1354-1KK06	–	–
–	5SU1354-1KK08	–	–
5SU1354-0KK10	5SU1354-1KK10	5SU1354-0LB10	5SU1354-1LB10
–	–	–	–
5SU1354-0KK13	5SU1354-1KK13	5SU1354-0LB13	5SU1354-1LB13
5SU1354-0KK16	5SU1354-1KK16	5SU1354-0LB16	5SU1354-1LB16
–	–	–	–
5SU1354-0KK20	5SU1354-1KK20	5SU1354-0LB20	5SU1354-1LB20
5SU1354-0KK25	5SU1354-1KK25	5SU1354-0LB25	5SU1354-1LB25
5SU1354-0KK32	5SU1354-1KK32	5SU1354-0LB32	5SU1354-1LB32
5SU1354-0KK40	5SU1354-1KK40	5SU1354-0LB40	5SU1354-1LB40
–	5SU1454-1KK06	–	–
–	5SU1454-1KK10	–	–
–	5SU1454-1KK13	–	–
–	5SU1454-1KK16	–	–
–	5SU1454-1KK20	–	–
–	5SU1454-1KK25	–	–
–	5SU1454-1KK32	–	–
–	5SU1454-1KK40	–	–
5SU1654-0KK06	5SU1654-1KK06	–	–
5SU1654-0KK10	5SU1654-1KK10	–	–
5SU1654-0KK13	5SU1654-1KK13	–	–
5SU1654-0KK16	5SU1654-1KK16	–	–
–	–	–	–
5SU1654-0KK20	5SU1654-1KK20	–	–
5SU1654-0KK25	5SU1654-1KK25	–	–
5SU1654-0KK32	5SU1654-1KK32	–	–
5SU1654-0KK40	5SU1654-1KK40	–	–

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5ST3062-0MC
Shunt trips (ST)		Article No.
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC		5ST3031-0XX01

Undervoltage releases (UR)		Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045
Handle couplers for AS, FC, AS+FC, ST and UR		Article No.
1 set = 5 units		5ST3805-1
Remote controlled (RC) mechanisms		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
Power	177 ... 270 V AC	5ST3056
	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
Power with ARD	177 ... 270 V AC	5ST3058
	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
Power with ext. function	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism		Article No.
2 MW		5ST3820-5
Arc fault detection units (AFDD)		Article No.
For 5SU1 basic units	$I_n$ up to 16 A	5SM6021-2
	$I_n$ up to 40 A	5SM6024-2

# 5SU1 RCBOs

Type A, 2/3/4-pole with residual current tripped indication **new**

Short-circuit breaking capacity

2-pole  
Instantaneous  
230 V AC

6 kA

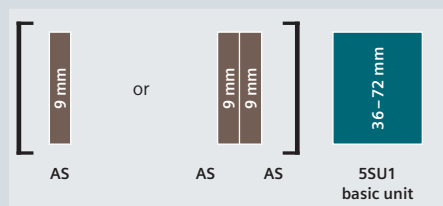


10 kA



$I_{\Delta n}$	$I_n$	Characteristic		Characteristic	
		B	C	B	C
30 mA	6 A	5SU1326-6FP06	5SU1326-7FP06	5SU1324-6FP06	5SU1324-7FP06
	10 A	5SU1326-6FP10	5SU1326-7FP10	5SU1324-6FP10	5SU1324-7FP10
	13 A	5SU1326-6FP13	5SU1326-7FP13	5SU1324-6FP13	5SU1324-7FP13
	16 A	5SU1326-6FP16	5SU1326-7FP16	5SU1324-6FP16	5SU1324-7FP16
	20 A	5SU1326-6FP20	5SU1326-7FP20	5SU1324-6FP20	5SU1324-7FP20
	25 A	5SU1326-6FP25	5SU1326-7FP25	5SU1324-6FP25	5SU1324-7FP25
	32 A	5SU1326-6FP32	5SU1326-7FP32	5SU1324-6FP32	5SU1324-7FP32
300 mA	6 A	–	–	–	–
	10 A	–	–	–	–
	16 A	–	–	–	–
	20 A	–	–	–	–
	25 A	–	–	–	–
	32 A	–	–	–	–




## Mounting concept



AS

Auxiliary switch

[See page 4/58](#)

2-pole Short-time delayed, super resistant [K] 230 V AC 10 kA		3-pole Instantaneous 400 V AC 6 kA		4-pole Instantaneous 400 V AC 6 kA	
					
Characteristic		Characteristic		Characteristic	
B	C	B	C	B	C
–	5SU1324-7FR06	5SU1336-6FP06	5SU1336-7FP06	5SU1346-6FP06	5SU1346-7FP06
–	5SU1324-7FR10	5SU1336-6FP10	5SU1336-7FP10	5SU1346-6FP10	5SU1346-7FP10
–	–	5SU1336-6FP13	5SU1336-7FP13	5SU1346-6FP13	5SU1346-7FP13
5SU1324-6FR16	5SU1324-7FR16	5SU1336-6FP16	5SU1336-7FP16	5SU1346-6FP16	5SU1346-7FP16
5SU1324-6FR20	5SU1324-7FR20	5SU1336-6FP20	5SU1336-7FP20	5SU1346-6FP20	5SU1346-7FP20
5SU1324-6FR25	5SU1324-7FR25	5SU1336-6FP25	5SU1336-7FP25	5SU1346-6FP25	5SU1346-7FP25
–	5SU1324-7FR32	5SU1336-6FP32	5SU1336-7FP32	5SU1346-6FP32	5SU1346-7FP32
–	–	5SU1636-6FP06	5SU1636-7FP06	5SU1646-6FP06	5SU1646-7FP06
–	–	5SU1636-6FP10	5SU1636-7FP10	5SU1646-6FP10	5SU1646-7FP10
–	–	5SU1636-6FP16	5SU1636-7FP16	5SU1646-6FP16	5SU1646-7FP16
–	–	5SU1636-6FP20	5SU1636-7FP20	5SU1646-6FP20	5SU1646-7FP20
–	–	5SU1636-6FP25	5SU1636-7FP25	5SU1646-6FP25	5SU1646-7FP25
–	–	5SU1636-6FP32	5SU1636-7FP32	5SU1646-6FP32	5SU1646-7FP32

## Accessories

Auxiliary switch (AS)		Article No.
1 CO	Standard	5ST1010-0FP <b>new</b>



# 5SU1 RCBOs

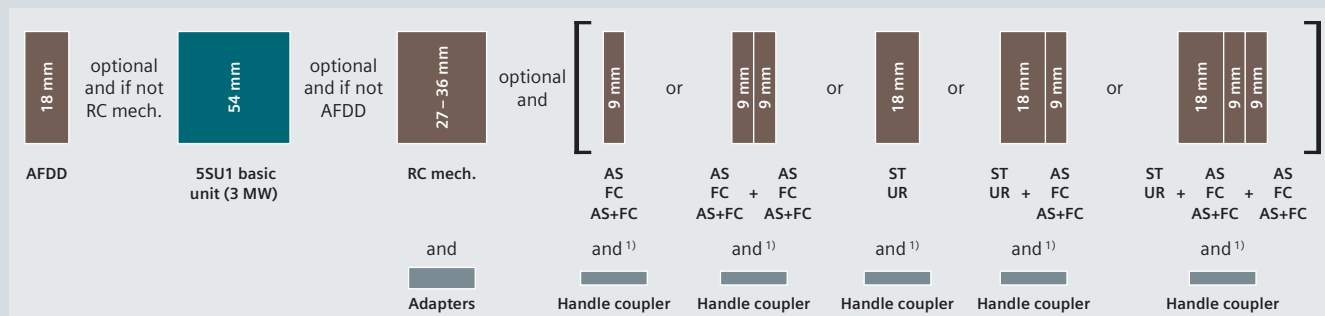
## Type A and AC, 2-pole

Mounting width	Instantaneous	
	110 V AC	230 V AC
Short-circuit breaking capacity	3 MW	3 MW
	10 kA	10 kA

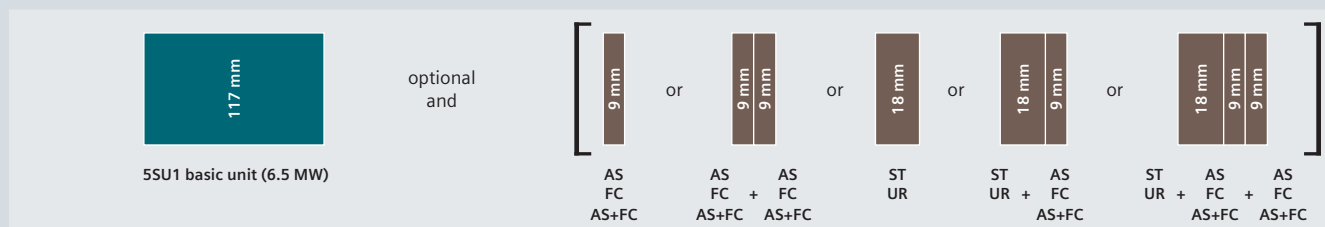


$I_{\Delta n}$	$I_n$	Characteristic		Characteristic
		B	C	B
<b>Type A</b>				
30 mA	6 A	5SU1324-6KX06	5SU1324-7KX06	5SU1324-6FA06
	10 A	5SU1324-6KX10	5SU1324-7KX10	5SU1324-6FA10
	13 A	5SU1324-6KX13	5SU1324-7KX13	5SU1324-6FA13
	16 A	5SU1324-6KX16	5SU1324-7KX16	5SU1324-6FA16
	20 A	5SU1324-6KX20	5SU1324-7KX20	5SU1324-6FA20
	25 A	5SU1324-6KX25	5SU1324-7KX25	5SU1324-6FA25
	32 A	5SU1324-6KX32	5SU1324-7KX32	5SU1324-6FA32
	40 A	5SU1324-6KX40	5SU1324-7KX40	5SU1324-6FA40
	125 A	–	–	–
	125 A	–	–	–
<b>Type AC</b>				
30 mA	125 A	–	–	–
300 mA	125 A	–	–	–

### Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.



AFDD Arc fault detection unit  
AS Auxiliary switch  
FC Fault signal contact



See page 4/52  
See page 4/58  
See page 4/60

AS+FC Auxiliary switch and  
fault signal contact  
ST Shunt trips

See page 4/61  
See page 4/64

UR Undervoltage release  
RC mech. Remote controlled mechanism

See page 4/65  
See page 4/66

		Selective [S] 230 V AC	
6.5 MW 10 kA		6.5 MW 10 kA	
			
C	Characteristic B	C	Characteristic B
			C
5SU1324-7FA06	–	–	–
5SU1324-7FA10	–	–	–
5SU1324-7FA13	–	–	–
5SU1324-7FA16	–	–	–
5SU1324-7FA20	–	–	–
5SU1324-7FA25	–	–	–
5SU1324-7FA32	–	–	–
5SU1324-7FA40	–	–	–
–	5SU1324-6KK82	5SU1324-7KK82	–
–	5SU1624-6KK82	5SU1624-7KK82	5SU1624-6WK82
–	5SU1324-0KK82	5SU1324-1KK82	–
–	5SU1624-0KK82	5SU1624-1KK82	–

## Accessories

Auxiliary switches (AS)		Article No.	Undervoltage releases (UR)		Article No.
1 NO + 1 NC	Standard	5ST3010	With integrated auxiliary switch	230 V AC	5ST3040
	For low power	5ST3013		110 V DC	5ST3041
	For low power (with diode)	5ST3013-0XX01		24 V DC	5ST3042
2 NO	Standard	5ST3011	Without integrated auxiliary switch	230 V AC	5ST3043
	For low power	5ST3014		110 V DC	5ST3044
2 NC	Standard	5ST3012		24 V DC	5ST3045
	For low power	5ST3015	<b>Handle couplers for AS, FC, AS+FC, ST and UR</b>		<b>Article No.</b>
1 CO	Standard	5ST3016	1 set = 5 units		5ST3805-1
Fault signal contacts (FC)		Article No.	Remote controlled (RC) mechanisms		Article No.
1 NO + 1 NC		5ST3020	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
		5ST3021		177 ... 270 V AC	5ST3054
2 NO		5ST3022	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
		5ST3022		177 ... 270 V AC	5ST3056
2 NC		5ST3022	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
		5ST3022		177 ... 270 V AC	5ST3058
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>		<b>Article No.</b>	Power with ext. function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
1 CO (AS) + 1 CO (FC)		5ST3062		170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
5ST3 COM (AS+FC) <b>new</b>		ST3062-OMC	<b>Adapter for RC mechanism</b>		<b>Article No.</b>
<b>Shunt trips (ST)</b>		<b>Article No.</b>	2 MW		5ST3820-5
110 ... 415 V AC, 110 ... 220 V DC		5ST3030	<b>Arc fault detection units (AFDD)</b>		<b>Article No.</b>
24 ... 48 V AC/DC		5ST3031	For 5SU1 basic units (3 MW)	$I_n$ up to 16 A	5SM6021-2
12 V DC		5ST3031-0XX01		$I_n$ up to 40 A	5SM6024-2

# 5SU1 RCBOs

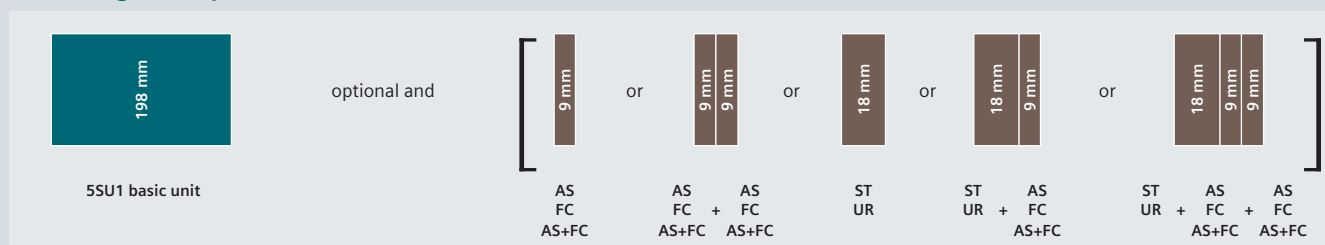
Type A and AC, 4-pole

Mounting width Short-circuit breaking capacity	Instantaneous 400 V AC	Selective [S] 400 V AC
	11 MW 10 kA	11 MW 10 kA



$I_{\Delta n}$	$I_n$	Characteristic		Characteristic	
		B	C	B	C
<b>Type A</b>					
30 mA	125 A	5SU1344-6KK82	5SU1344-7KK82	–	–
300 mA	125 A	5SU1644-6KK82	5SU1644-7KK82	5SU1644-6WK82	5SU1644-7WK82
1000 mA	125 A	–	–	5SU1844-6WK82	5SU1844-7WK82
<b>Type AC</b>					
30 mA	125 A	5SU1344-0KK82	5SU1344-1KK82	–	–
300 mA	125 A	5SU1644-0KK82	5SU1644-1KK82	–	–

## Mounting concept





AS Auxiliary switch  
FC Fault signal contact  
AS+FC Auxiliary switch and fault signal contact

[See page 4/58](#)  
[See page 4/60](#)  
[See page 4/61](#)

ST Shunt trips  
UR Undervoltage release

[See page 4/64](#)  
[See page 4/65](#)

## Type B and B+, 4-pole

		Super resistant [K]		Selective [S]	
		400 V AC		480 V AC	
Mounting width	11 MW				
	10 kA				
Short-circuit breaking capacity	11 MW				
	10 kA				
$I_{\Delta n}$	$I_n$	Characteristic		Characteristic	
		C	D	C	D
<b>Type B</b>					
30 mA	100 A	5SU1374-7AK81	5SU1374-8AK81	–	–
	125 A	5SU1374-7AK82	–	–	–
300 mA	100 A	5SU1674-7AK81	5SU1674-8AK81	5SU1674-7CK81	–
	125 A	5SU1674-7AK82	–	5SU1674-7CK82	5SU1674-7BK82
<b>Type B+</b>					
30 mA	100 A	5SU1374-7DK81	5SU1374-8DK81	–	–
	125 A	5SU1374-7DK82	–	–	–
300 mA	100 A	5SU1674-7DK81	5SU1674-8DK81	5SU1674-7FK81	–
	125 A	5SU1674-7DK82	–	5SU1674-7FK82	5SU1674-7EK82




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## Accessories

Auxiliary switches (AS)		Article No.	Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 NO + 1 NC	Standard	5ST3010	1 CO (AS) + 1 CO (FC)		5ST3062
	For low power	5ST3013	5ST3 COM (AS+FC) <b>new</b>		ST3062-OMC
	For low power (with diode)	5ST3013-0XX01	<b>Shunt trips (ST)</b>		<b>Article No.</b>
2 NO	Standard	5ST3011	110 ... 415 V AC, 110 ... 220 V DC		5ST3030
	For low power	5ST3014	24 ... 48 V AC/DC		5ST3031
2 NC	Standard	5ST3012	12 V DC		5ST3031-0XX01
	For low power	5ST3015	<b>Undervoltage releases (UR)</b>		<b>Article No.</b>
1 CO	Standard	5ST3016	With integrated auxiliary switch	230 V AC	5ST3040
<b>Fault signal contacts (FC)</b>		<b>Article No.</b>		110 V DC	5ST3041
1 NO + 1 NC		5ST3020		24 V DC	5ST3042
2 NO		5ST3021	Without integrated auxiliary switch	230 V AC	5ST3043
2 NC		5ST3022		110 V DC	5ST3044
				24 V DC	5ST3045

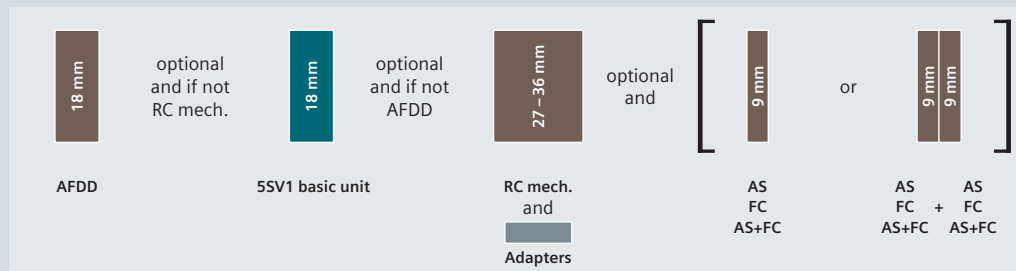
# 5SV1 RCBOs

## Type A, 1P+N

	Instantaneous		Short-time delayed [G], Super resistant [K]
	230 V AC		230 V AC
Mounting width	1 MW	1 MW	1 MW
Short-circuit breaking capacity	4.5 kA	6 kA	6 kA
N connection	Right	Right	Right
			

$I_{\Delta n}$	$I_n$	Bulk packaging (12 units)	Characteristic		Characteristic		Characteristic	
			B	C	B	C	B	C
<b>Typ A</b>								
30 mA	2 A	–	–	5SV1313-7KK02	–	5SV1316-7KK02	–	–
	4 A	–	–	5SV1313-7KK04	–	5SV1316-7KK04	–	–
	6 A	–	5SV1313-6KK06	5SV1313-7KK06	5SV1316-6KK06	5SV1316-7KK06	5SV1316-6LK06	5SV1316-7LK06
		■	–	–	5SV1316-6GV06	5SV1316-7GV06	–	–
	10 A	–	5SV1313-6KK10	5SV1313-7KK10	5SV1316-6KK10	5SV1316-7KK10	5SV1316-6LK10	5SV1316-7LK10
		■	–	–	5SV1316-6GV10	5SV1316-7GV10	–	–
	13 A	–	5SV1313-6KK13	5SV1313-7KK13	5SV1316-6KK13	5SV1316-7KK13	5SV1316-6LK13	5SV1316-7LK13
■		–	–	5SV1316-6GV13	5SV1316-7GV13	–	–	
16 A	–	5SV1313-6KK16	5SV1313-7KK16	5SV1316-6KK16	5SV1316-7KK16	5SV1316-6LK16	5SV1316-7LK16	
	■	–	–	5SV1316-6GV16	5SV1316-7GV16	–	–	
300 mA	2 A	–	–	5SV1613-7KK02	–	5SV1616-7KK02	–	–
	4 A	–	–	5SV1613-7KK04	–	5SV1616-7KK04	–	–
	6 A	–	5SV1613-6KK06	5SV1613-7KK06	5SV1616-6KK06	5SV1616-7KK06	–	–
	10 A	–	5SV1613-6KK10	5SV1613-7KK10	5SV1616-6KK10	5SV1616-7KK10	–	–
	13 A	–	5SV1613-6KK13	5SV1613-7KK13	5SV1616-6KK13	5SV1616-7KK13	–	–
	16 A	–	5SV1613-6KK16	5SV1613-7KK16	5SV1616-6KK16	5SV1616-7KK16	–	–




### Mounting concept



AFDD Arc fault detection units [See page 4/52](#)  
 AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)

AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)  
 RC mech. Remote controlled mechanism [See page 4/66](#)

## Type F and AC, 1P+N

Mounting width	Instantaneous 230 V AC		Super resistant [K]
	1 MW	1 MW	230 V AC
Short-circuit breaking capacity	4.5 kA	6 kA	6 kA
N connection	Right	Right	Right
			

$I_{\Delta n}$	$I_n$	Bulk packaging (12 units)	Characteristic			Characteristic	
			C	B	C	B	C
<b>Type F</b>							
30 mA	6 A	–	–	–	–	5SV1316-3KK06	5SV1316-4KK06
	10 A	–	–	–	–	5SV1316-3KK10	5SV1316-4KK10
	13 A	–	–	–	–	5SV1316-3KK13	5SV1316-4KK13
	16 A	–	–	–	–	5SV1316-3KK16	5SV1316-4KK16
<b>Type AC</b>							
30 mA	2 A	–	5SV1313-1KK02	–	5SV1316-1KK02	–	–
	4 A	–	5SV1313-1KK04	–	5SV1316-1KK04	–	–
	6 A	–	5SV1313-1KK06	5SV1316-0KK06	5SV1316-1KK06	–	–
	10 A	–	5SV1313-1KK10	5SV1316-0KK10	5SV1316-1KK10	–	–
		■	5SV1313-1GV10	–	5SV1316-1GV10	–	–
	13 A	–	5SV1313-1KK13	5SV1316-0KK13	5SV1316-1KK13	–	–
	16 A	–	5SV1313-1KK16	5SV1316-0KK16	5SV1316-1KK16	–	–
		■	5SV1313-1GV16	–	5SV1316-1GV16	–	–
300 mA	2 A	–	5SV1613-1KK02	–	5SV1616-1KK02	–	–
	4 A	–	5SV1613-1KK04	–	5SV1616-1KK04	–	–
	6 A	–	5SV1613-1KK06	5SV1616-0KK06	5SV1616-1KK06	–	–
	10 A	–	5SV1613-1KK10	5SV1616-0KK10	5SV1616-1KK10	–	–
	13 A	–	5SV1613-1KK13	5SV1616-0KK13	5SV1616-1KK13	–	–
	16 A	–	5SV1613-1KK16	5SV1616-0KK16	5SV1616-1KK16	–	–

4

## Accessories

Auxiliary switches (AS)	Article No.	
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-OXX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)	Article No.	
1 NO + 1 NC	5ST3020	
2 NO	5ST3021	
2 NC	5ST3022	
Auxiliary switches and fault signal contacts (AS+FC)	Article No.	
1 CO (AS) + 1 CO (FC)	5ST3062	
5ST3 COM (AS+FC) <b>new</b>	5ST3062-OMC	

Remote controlled (RC) mechanisms	Article No.	
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
Power	177 ... 270 V AC	5ST3056
	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
Power with ARD	177 ... 270 V AC	5ST3058
	12 ... 30 V AC, 12 ... 48 V DC	5ST3070
Power with extended function	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
	170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>
Adapter for RC mechanism	Article No.	
1 MW	5ST3820-6	
Arc fault detection units (AFDD)	Article No.	
For 5SV1 basic units $I_n$ up to 16 A	5SM6011-2	

# 5SM6 arc fault detection units

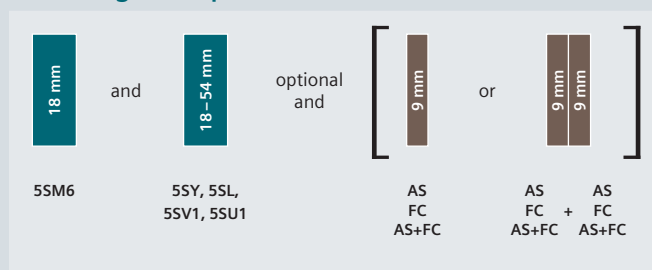
For combination with an MCB or RCBO



For combination with basic units			Rated current $I_n$	
Width of basic unit	Miniature circuit breakers	RCBO		
1 MW	5SL60 (no KL types)	5SV1	Up to 16 A	5SM6011-2
			Up to 40 A	5SM6014-2
2 MW	5SY <sup>1)</sup> , 5SL4 (only 1+N devices)	5SU1 (2 MW, 3 MW)	Up to 16 A	5SM6021-2
			Up to 40 A	5SM6024-2

<sup>1)</sup> Not suitable for use with 5SY5 or 5SY8

## Mounting concept



AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)

The mounting concept shown is only one example of how devices and accessories can be combined.

## Accessories

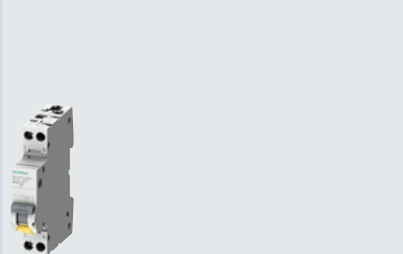
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5T3062-0MC

See suitable busbars, [page 4/70 onwards](#)  
 See suitable terminals and end caps, [page 4/70 onwards](#)

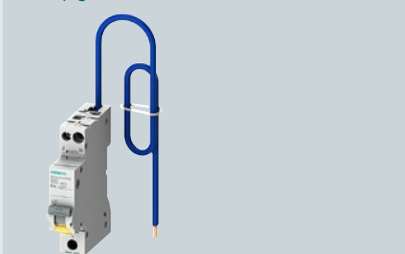
# 5SV6 AFDD/MCB

Mounting width

1 MW



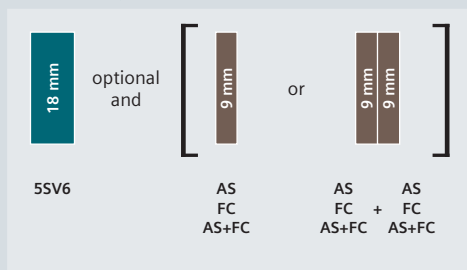
1 MW pigtail



Rated current $I_n$	Bulk packaging (12 units)	Characteristic		Characteristic	
		B	C	B	C
6 A	– ■	5SV6016-6KK06 5SV6016-6GV06	5SV6016-7KK06 5SV6016-7GV06	5SV6016-6KP06 –	5SV6016-7KP06 –
10 A	– ■	5SV6016-6KK10 5SV6016-6GV10	5SV6016-7KK10 5SV6016-7GV10	5SV6016-6KP10 –	5SV6016-7KP10 –
13 A	– ■	5SV6016-6KK13 5SV6016-6GV13	5SV6016-7KK13 –	5SV6016-6KP13 –	5SV6016-7KP13 –
16 A	– ■	5SV6016-6KK16 5SV6016-6GV16	5SV6016-7KK16 5SV6016-7GV16	5SV6016-6KP16 –	5SV6016-7KP16 –
20 A	–	5SV6016-6KK20	5SV6016-7KK20	5SV6016-6KP20	5SV6016-7KP20
25 A	– ■	5SV6016-6KK25 5SV6016-6GV25	5SV6016-7KK25 –	5SV6016-6KP25 –	5SV6016-7KP25 –
32 A	–	5SV6016-6KK32	5SV6016-7KK32	5SV6016-6KP32	5SV6016-7KP32
40 A	–	5SV6016-6KK40	5SV6016-7KK40	5SV6016-6KP40	5SV6016-7KP40

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## Mounting concept



AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)

## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5T3062-0MC

See suitable busbars, [page 4/70 onwards](#)  
 See suitable terminals and end caps, [page 4/70 onwards](#)



# 5SV6 COM AFDD/MCB **new**

With communication and measuring function

Mounting width 1 MW



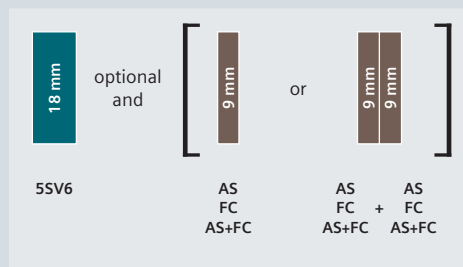
Rated current $I_n$	Characteristic	
	B	C
6 A	5SV6016-6MC06	5SV6016-7MC06
10 A	5SV6016-6MC10	5SV6016-7MC10
13 A	5SV6016-6MC13	5SV6016-7MC13
16 A	5SV6016-6MC16	5SV6016-7MC16
20 A	5SV6016-6MC20	5SV6016-7MC20
25 A	5SV6016-6MC25	5SV6016-7MC25
32 A	5SV6016-6MC32	5SV6016-7MC32

## Note:

Please note the country-specific radio licenses of the products in SIOS:

[www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

## Mounting concept



AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)

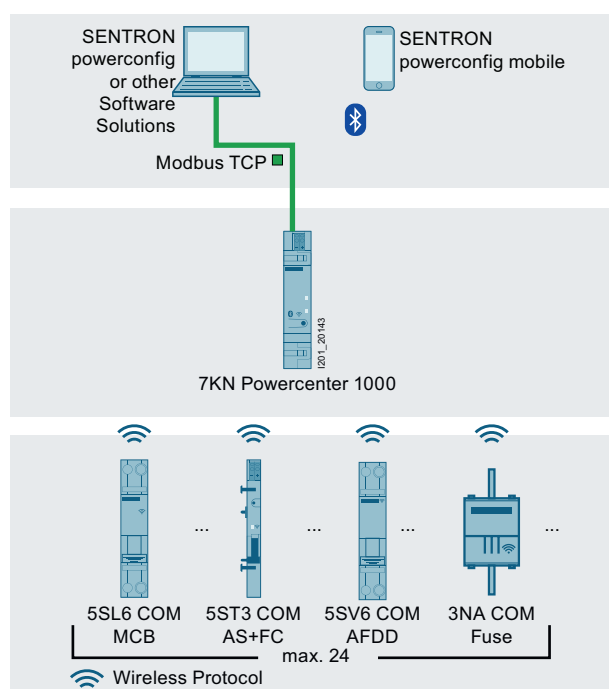
## Accessories

Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		Article No.
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
5ST3 COM (AS+FC) <b>new</b>		5T3062-0MC

See suitable busbars, [page 4/75 onwards](#)  
 See suitable terminals and end caps, [page 4/72 onwards](#)



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



<b>7KN Powercenter 1000</b>	<b>Article No.</b>
	7KN1110-0MC00

See page 10/17

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function (109791805)



System manual – Circuit protection devices with communication and measuring function (109791806)



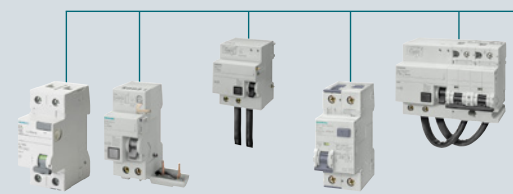
## Monitoring functions with limit monitoring

- Trip monitoring
- Counters incl. limit monitoring for:
  - Operating hours
  - Operating hours with load current
  - Operating cycles (ON/OFF)
  - Tripping operations
  - Short circuits
- Limit values for:
  - Overcurrent alarm 1 and alarm 2
  - Undercurrent alarm 1 and alarm 2
  - Overvoltage alarms 1 and 2
  - Undervoltage alarms 1 and 2
  - Lower voltage threshold for AFDD tripping
  - Temperature










Measured values	Unit	Memory
Temperature	°C	1 hour in 1-minute intervals; 7 days in 15-minute intervals
Average temperature	°C	
Current	A	Min. and max. values over 10 days; 1 hour in 10-second intervals; 7 days in 15-minute intervals
Average current	A	
Maximum current	A	
Voltage	V	Min. and max. values over 10 days
Line frequency	Hz	Min. and max. values over 10 days
Active power	W	Min. and max. values over 10 days
Apparent power	VA	Min. and max. values over 10 days
Reactive power	Var	
Power factor		
Active energy imported	Wh	7 days in 15-minute intervals; 30 days in 1-day intervals
Active energy exported	Wh	
Reactive energy imported	Varh	
Reactive energy exported	Varh	

# Overview of modular system

## Residual current protective devices



5SV    5SM2+LS    5SM2+5SP4    5SU1    5SU1 (125 A)

			Article No.	5SV	5SM2+LS	5SM2+5SP4	5SU1	5SU1 (125 A)
	<b>5SM6 arc fault detection units</b>							
	Rated current up to 16 A	Standard	5SM6021-2	–	–	–	■	–
		For compact devices 1P+N in 1 MW	5SM6011-2	–	–	–	–	–
	Rated current up to 40 A	Standard	5SM6024-2	–	–	–	■	–
For compact devices 1P+N in 1 MW		5SM6014-2	–	–	–	–	–	
	<b>Auxiliary switches (AS)</b>							
	1 NO + 1 NC	Standard	5ST3010	■	■	■	■	■
		For low power	5ST3013	■	■	■	■	■
		For low power (with diode)	5ST3013-0XX01	■	■	■	■	■
	2 NO	Standard	5ST3011	■	■	■	■	■
		For low power	5ST3014	■	■	■	■	■
	2 NC	Standard	5ST3012	■	■	■	■	■
		For low power	5ST3015	■	■	■	■	■
	1 CO	Standard	5ST3016	■	■	■	■	■
			5ST1010-0FP <b>new</b>	–	–	–	–	–
	<b>Fault signal contacts (FC)</b>							
	1 NO + 1 NC		5ST3020	■	■	■	■	■
	2 NO		5ST3021	■	■	■	■	■
	2 NC		5ST3022	■	■	■	■	■
	<b>Auxiliary switches and fault signal contacts (AS+FC)</b>							
	1 CO (AS) + 1 CO (FC)	Standard	5ST3062	■	■	■	■	■
	5ST3 COM (AS+FC) <b>new</b>	With communication and measuring function	5ST3062-0MC	■	■	■	■	■
	<b>Shunt trips (ST)</b>							
	110 ... 415 V AC, 110 ... 220 V DC		5ST3030	■	■	■	■	■
	24 ... 48 V AC/DC		5ST3031	■	■	■	■	■
	12 V DC		5ST3031-0XX01	■	■	■	■	■
	<b>Undervoltage releases (UR)</b>							
	With integrated auxiliary switch	230 V AC	5ST3040	■	■	■	■	■
		110 V DC	5ST3041	■	■	■	■	■
		24 V DC	5ST3042	■	■	■	■	■
	Without integrated auxiliary switch	230 V AC	5ST3043	■	■	■	■	■
		110 V DC	5ST3044	■	■	■	■	■
		24 V DC	5ST3045	■	■	■	■	■
	<b>Remote controlled (RC) mechanisms</b>							
	Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053	–	–	–	■	–
		177 ... 270 V AC	5ST3054	–	–	–	■	–
	Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055	■	■	–	■	–
		177 ... 270 V AC	5ST3056	■	■	–	■	–
	Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057	■	■	–	■	–
		177 ... 270 V AC	5ST3058	■	■	–	■	–
	Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070	■	■	–	■	–
		170 ... 277 V AC, 77 ... 286 V DC	5ST3071 <b>new</b>	■	–	–	■	–
		<b>Standard busbars</b>						
Cannot be cut			5ST36..	■	■	■	■	■
Can be cut		5ST37..	■	■	■	■	■	
	<b>Compact busbars</b>							
	Cannot be cut		5ST36..	■	–	–	–	–
Can be cut		5ST37..	■	–	–	–	–	

From page 4/18

■ Suitable for all versions

□ Suitable for some versions



# Electrical accessories



## Auxiliary switches (AS)

- Signals contact point of the mounted device
- Version for the switching of small currents and voltages for the control of programmable control systems (PLCs) according to EN 61131-2
- Test button enables the testing of control circuits without the need to switch the mounted device

For combination with basic units						Contacts	Version	Width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices	ON/OFF switches				
<b>Auxiliary switches (AS)</b>									
–	–	5SM3 (3P+N, 100/125 A)	–	–	–	1 NO + 1 NC	Standard	0.5 MW	5SW3330
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	5TL1, 5TE8	1 NO + 1 NC	Standard	0.5 MW	5ST3010
							For low power	0.5 MW	5ST3013
							For low power (with diode)	0.5 MW	5ST3013-0XX01
						2 NO	Standard	0.5 MW	5ST3011
							For low power	0.5 MW	5ST3014
						2 NC	Standard	0.5 MW	5ST3012
							For low power	0.5 MW	5ST3015
1 CO	Standard	0.5 MW	5ST3016						
–	–	–	5SU1... FP/FR	–	–	1 CO	Standard	0.5 MW	5ST1010-0FP <b>new</b>
<b>Auxiliary switches (AS) with TEST button</b>									
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	5TL1, 5TE8	1 NO + 1 NC	Standard	0.5 MW	5ST3010-2
							For low power	0.5 MW	5ST3013-2
						2 NO	Standard	0.5 MW	5ST3011-2
							For low power	0.5 MW	5ST3014-2
						2 NC	Standard	0.5 MW	5ST3012-2
							For low power	0.5 MW	5ST3015-2

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

		5ST3010, 5ST3011, 5ST3012, 5ST3016	5ST3010-2, 5ST3011-2, 5ST3012-2	5ST3013, 5ST3014, 5ST3015, 5ST3013-0XX01 <sup>1)</sup>	5ST3013-2, 5ST3014-2, 5ST3015-2	5SW3330	5ST1010-OFP
<b>Standards</b>							
Standards	IEC/EN UL, CSA	IEC/EN 62019, IEC/EN 60947-5-1			IEC/EN 62019		
		UL 1077, CSA C22.2 No. 235	–	UL 1077, CSA C22.2 No. 235	–		
<b>Contacts</b>							
Minimum contact load		50 mA, 24 V		1 mA, 5 V DC	5 mA, 5 V DC	50 mA, 24 V	5 mA, 24 V DC
Maximum contact load		–		100 mA, 30 V DC	50 mA, 30 V DC	–	–
Contact load according to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-12	–				5/–	6 A/–
	230 V AC, AC-13	6 A/6 A		–			
	400 V AC, AC-13	2 A/2 A		–			
	230 V AC, AC-14	6 A/6 A		–			
	400 V AC, AC-14	2 A/2 A		–			
	24 V DC, DC-13	6 A/3 A		–			
	30 V DC, DC-14	–		0.1 A		–	
	60 V DC, DC-13	3 A/1.5 A		–			
	110 V DC, DC-13	1 A/0.75 A		–			
	220 V DC, DC-12	–				0.5/–	1 A/–
	220 V DC, DC-13	1 A/0.5 A		–			
Contact load according to UL	120 V AC	–					
	125 V AC	3 A	–				
	240 V AC	4 A	–				
	277 V AC	–					
	480 V AC	–					
	60 V DC	–					
	125 V DC	1.1 A	–				
	250 V DC	0.55 A	–				
Service life, on average, with rated load	Actuations	20000				–	8000
<b>Safety</b>							
Short-circuit protection		Miniature circuit breakers 5SY... 6 A or gG 6 A fuse				B6 or C6 or gL/gG 6 A fuse	
<b>Connections</b>							
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)				0.75 ... 2.5 mm <sup>2</sup>	
Terminals	Max. tightening torque	0.5 Nm (4.5 lb-in)				–	0.6 Nm
<b>Environmental conditions</b>							
Permissible ambient temperature		–40 ... +70 °C				–25 ... +60 °C	
Permissible storage temperature		–40 ... +75 °C				–40 ... +70 °C	
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles					
Mounting position		Any					
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>				–	
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>				–	

<sup>1)</sup> No approvals

# Electrical accessories



## Fault signal contacts (FC)

- Signals the automatic tripping of the protective device in the event of a fault, such as an overload or a short circuit
- If the fault signal contact is activated, the contact position does not change if the in-built protective device is tripped manually
- Version with TEST and RESET buttons enables the testing of control circuits without the need to trip the protective device
- Red RESET button in the operating handle indicates automatic shutdown of the mounted protective device

For combination with basic units					Contacts	Width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBO	Arc fault detection devices			
<b>Fault signal contacts (FC)</b>							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 NO + 1 NC	0.5 MW	5ST3020
					2 NO	0.5 MW	5ST3021
					2 NC	0.5 MW	5ST3022
<b>Fault signal contacts (FC) with Test and Reset buttons</b>							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 NO + 1 NC	0.5 MW	5ST3020-2
					2 NO	0.5 MW	5ST3021-2
					2 NC	0.5 MW	5ST3022-2

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

<b>Standards</b>			
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1	
	UL, CSA	UL 1077, CSA C22.2 No. 235	–
<b>Contacts</b>			
Minimum contact load		50 mA, 24 V	
Contact load according to IEC/EN 62019/IEC/EN 60947-5-1	230 V AC, AC-13	6 A/6 A	
	400 V AC, AC-13	6 A/6 A	
	230 V AC, AC-14	2 A/2A	
	400 V AC, AC-14	2 A/2A	
	24 V DC, DC-13	6 A/3 A	
	60 V DC, DC-13	3 A/1.5 A	
	110 V DC, DC-13	1 A/0.75 A	
	220 V DC, DC-13	1 A/0.5 A	
Contact load according to UL	120 V AC	–	
	AC 125 V	3 A	–
	AC 240 V	4 A	–
	AC 277 V	–	
	AC 480 V	1.5 A	–
	DC 60 V	–	
	DC 125 V	1.1 A	–
	DC 250 V	0.55 A	–
Service life, on average, with rated load	Actuations	20000	
<b>Safety</b>			
Short-circuit protection		Miniature circuit breakers or gG 6 A fuse	
<b>Connections</b>			
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)	
Terminals	Max. tightening torque	0.5 Nm [4.5 lb-in]	
<b>Environmental conditions</b>			
Permissible ambient temperature		–25 ... +55 °C	
Permissible storage temperature		–40 ... +75 °C	
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles	
Mounting position		Any	
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>	
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>	

**5ST3020,  
5ST3021,  
5ST3022**

**5ST3020-2,  
5ST3021-2,  
5ST3022-2**



## Auxiliary switches and fault signal contacts (AS+FC)

- Combine the properties of both switches in a width of only 0.5 MW (9 mm)
- Signal contact point of the mounted device
- Signal the automatic tripping of the protective device in the event of a fault, such as an overload, short circuit or residual current
- If the fault signal contact is activated, the contact position does not change if the in-built protective device is tripped manually

For combination with basic units				Contacts	Width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBO	Arc fault detection devices		
<b>Auxiliary switches and fault signal contacts (AS+FC)</b>						
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	1 CO (AS) + 1 CO (FC)	0.5 MW 5ST3062

<sup>1)</sup> 5ST3805-1 handle coupler required

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### Further technical specifications

5ST3062

Standards		
Standards	IEC/EN UL, CSA	IEC/EN 62019, IEC/EN 60947-5-1 UL 1077, CSA C22.2 No. 235
Contacts		
Minimum contact load		50 mA, 24 V
Maximum contact load		–
Contact load according to IEC/EN 62019/ IEC/EN 60947-5-1	230 V AC, AC-13	6 A/6 A
	400 V AC, AC-14	2 A/2 A
Contact load according to IEC/EN 62019/ IEC/EN 60947-5-1	24 V DC, DC-13	3 A/3 A
	60 V DC, DC-13	3 A/1 A
	110 V DC, DC-13	0.5 A/0.5 A
	220 V DC, DC-13	0.5 A/0.3 A
Contact load according to UL	125 V AC	2 A
	240 V AC	1.5 A
	480 V AC	0.75 A
	125 V DC	0.5 A
	250 V DC	0.3 A
Service life, on average, with rated load	Actuations	20000
Safety		
Short-circuit protection		Miniature circuit breakers or gG 6 A fuse
Connections		
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> /AWG 22 ... 14
Terminals	Max. tightening torque	0.5 Nm [4.5 lb-in]
Environmental conditions		
Permissible ambient temperature		–25 ... +55 °C
Permissible storage temperature		–40 ... +75 °C
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles
Mounting position		Any
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>



# Electrical accessories

5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function **new**



For combining with basic units					Mounting width	Article No.
Miniature circuit breakers	Device protection switches	RCCBs	RCBOs	Arc fault detection devices	(1 MW = 18 mm)	
<b>5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function</b>						
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 <sup>1)</sup> , 5SV1	5SV6	Radio link to 7KN Powercenter 1000	0.5 MW 5ST3062-0MC

<sup>1)</sup> 5ST3805-1 handle coupler required

## Note:

Please note the country-specific radio licenses of the products in SIOS:

[www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

4

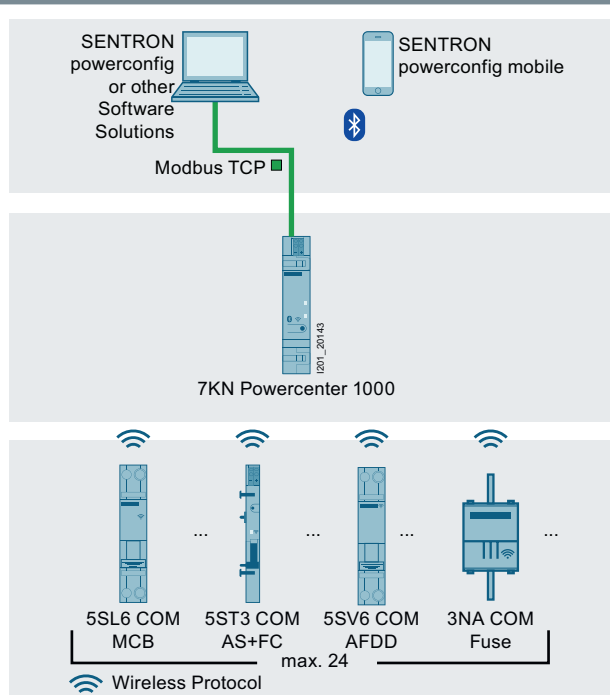
## Further technical specifications

5ST3062-0MC

Standards			
Standards		IEC/EN; UL, CSA RED	60669-2-5 2014/53/EU
Power supply			
Power supply			24 V DC ±20%, SELV
Conductor cross-sections			0.2 ... 1.5 mm <sup>2</sup>
Connection type			Plug-in terminal
Safety			
Pollution degree for overvoltage category			2/II
Degree of protection			IP40, with front cover
Ambient conditions			
Permissible ambient temperature			-25 ... +60 °C
Permissible storage temperature			-40 ... +85 °C
Humidity			93% at 40 °C
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles
Mounting position			Any
Schock			150 m/s <sup>2</sup>
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6		50 m/s <sup>2</sup>
Service life			10000
Communication			
Interface	7KN Powercenter 1000		Radio link
Temperature			Accuracy of 2.5°C with limit monitoring incl. storage (1 hour in 1-minute intervals and 7 days in 15-minute intervals)
Operating cycle counters			Mechanical operation with limit monitoring
Trip counter			Trip of the mounted circuit protection device with limit monitoring



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000

Article No.

7KN1110-0MC00

### See page 10/17

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function [\(109791805\)](#)



System manual – Circuit protection devices with communication and measuring function [\(109791806\)](#)



# Electrical accessories



## Shunt trips (ST)

- For remote-controlled tripping of the mounted device

For combination with basic units			Rated operational voltage $U_e$	Width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	RCCBs	RCBO			
<b>Shunt trips (ST)</b>					
5SL4, 5SY, 5SP4	5SV	5SU1 <sup>1)</sup>	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030
			24 ... 48 V AC/DC	1 MW	5ST3031
			12 V DC	1 MW	5ST3031-0XX01

<sup>1)</sup> 5ST3805-1 handle coupler required

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### Further technical specifications

	5ST3030	5ST3031	5ST3031-0XX01
<b>Standards</b>			
Standards	IEC/EN		EN 60947-1
<b>Supply</b>			
Primary operating range	0.7 ... 1.1 × $U_n$		
Rated frequency $f_n$	50 ... 60 Hz		–
<b>Contacts</b>			
Minimum contact load	50 mA, 24 V		1 mA, 5 V
Tripping operations	Max. 2000		
Service life, on average, with rated load	Actuations		20000
<b>Safety</b>			
Short-circuit protection	Miniature circuit breakers B/C 6 A or fuse gG 6 A		
<b>Connections</b>			
Conductor cross-sections	0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)		
Terminals	Max. tightening torque		0.8 Nm [6.8 lb-in]
<b>Environmental conditions</b>			
Permissible ambient temperature	–25 ... +55 °C		–40 ... +70 °C
Permissible storage temperature	–40 ... +75 °C		
Resistance to climate	Acc. to IEC 60068-2-30		28 cycles
Mounting position	Any		
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27		150 m/s <sup>2</sup>
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6		50 m/s <sup>2</sup>



## Undervoltage releases (UR)

- Integrated, for example, in EMERGENCY-STOP loops
- Ensure that the mounted device trips in the event of an emergency, guaranteeing disconnection of the control circuit according to EN 60204
- Trip the mounted device if the voltage is interrupted or too low, i.e. prevents activation of the mounted device.
- Combination with 5SV RCCB not suitable for implementation of emergency off/ emergency stop circuits

For combination with basic units			Rated operational voltage $U_e$	Width (1 MW = 18 mm)	Article No.
Miniature circuit breakers	RCCBs	RCBO			
<b>With integrated auxiliary switch</b>					
5SL4, 5SY, 5SP4	5SV	5SU1 <sup>1)</sup>	230 V AC	1 MW	5ST3040
			110 V DC	1 MW	5ST3041
			24 V DC	1 MW	5ST3042
<b>Without integrated auxiliary switch</b>					
5SL4, 5SY, 5SP4	5SV	5SU1 <sup>1)</sup>	230 V AC	1 MW	5ST3043
			110 V DC	1 MW	5ST3044
			24 V DC	1 MW	5ST3045

<sup>1)</sup> 5ST3805-1 handle coupler required

### Further technical specifications

5ST304.

<b>Standards</b>		
Standards	IEC/EN	EN 60947-1
<b>Supply</b>		
Primary operating range		0.85 ... 1.1 × $U_n$
Rated frequency $f_n$		50/60 Hz
<b>Contacts</b>		
Minimum contact load		50 mA, 24 V
Tripping operations		Max. 2000
Service life, on average, with rated load	Actuations	20000
<b>Safety</b>		
Short-circuit protection		Miniature circuit breakers B/C 6 A or fuse gG 6 A
<b>Connections</b>		
Conductor cross-sections		0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)
Terminals	Max. tightening torque	0.8 Nm [6.8 lb-in]
<b>Environmental conditions</b>		
Permissible ambient temperature		−25 ... +55 °C
Permissible storage temperature		−40 ... +75 °C
Resistance to climate	Acc. to IEC 60068-2-30	28 cycles
Mounting position		Any
Shock at 11 ms half-sine	Acc. to IEC 60068-2-27	150 m/s <sup>2</sup>
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s <sup>2</sup>

# Electrical accessories



## 5ST3 remote controlled (RC) mechanisms

- For operating facilities that are extensive or not continuously staffed
- Allow direct and immediate access to the plant even if it is remote or in a location that is hard to reach
- Permit fast restarts following a fault
- Version with ARD with automatic restart
- Versions with ARD and Power with integrated auxiliary switches and fault signal contacts

Remote controlled type	Display	Ambient temperature	Vibration and shock requirements	Rated operational voltage $U_e$	Width (1 MW = 18 mm)	Article No.
Basic	–	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	1.5 MW	5ST3053
				177 ... 270 V AC	2 MW	5ST3054
Power	LED	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3055
				177 ... 270 V AC	2 MW	5ST3056
Power with ARD	LED	–25 °C ... +45 °C	–	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3057
				177 ... 270 V AC	2 MW	5ST3058
Power with extended function	LED	–40 °C ... +70 °C	Acc. to EN 61373/ EN 50155 "1B"	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3070
				170 ... 277 V AC, 77 ... 286 V DC	2 TE	5ST3071 <b>new</b>

### Further technical specifications

	5ST3053	5ST3054	5ST3055	5ST3056	5ST3057	5ST3058	5ST3070	5ST3071
<b>Standards</b>								
Standards	EN 50557 (VDE 0640-20)							
<b>Supply</b>								
Rated frequency $f_n$	50 ... 60 Hz							
Rated power dissipation on standby	≤1 VA							
<b>Contacts</b>								
Service life, on average, with rated load	Actuations	10000						
Number of remote switching operations per minute	2							
Number of automatic reclose attempts	–				3	–		
Cable length in the control circuit	≤1500 m							≤1500 m (DC)/ ≤200 m (AC)
Sliding selector with locking device	–	■						
Integrated auxiliary switches	–			1CO; 2 A; 250 V				
Integrated fault signal contacts	–			1CO; 2 A; 250 V				
<b>Connections</b>								
Conductor cross-sections	0.5 ... 1.5 mm <sup>2</sup> (AWG 14 ... 30)							
Terminal tightening torque	0.2 ... 0.25 Nm (2.0 lb-in)							
<b>Environmental conditions</b>								
Permissible storage temperature	–40 ... +55 °C						–40 ... +70 °C	
Degree of protection	IP20							
Pollution degree for overvoltage category	3/II							

### Suitable adapters for combination with basic units



Basic units	Mounting width							Article No.
	1 MW	2 MW	3 MW	4 MW	2-pole	3-pole	4-pole	
5SU1	–	■	■	–	–	–	–	5ST3820-5
5SV1	■	–	–	–	–	–	–	5ST3820-6
5SV3	–	■	–	■	–	–	–	5ST3820-6
5SM2 with 5SY	–	–	–	–	■	–	–	5ST3820-3 + 5ST3820-1
	–	–	–	–	–	■	■	5ST3820-3 + 5ST3820-2
5SM2 with 5SL	–	–	–	–	■	–	–	5ST3820-3 + 5ST3820-6
	–	–	–	–	–	■	■	5ST3820-3 + 5ST3820-7

# Mechanical accessories

Handle couplers for additional components	
	<ul style="list-style-type: none"> <li>Necessary for mounting the additional components auxiliary switches, fault signal contacts, shunt trips and undervoltage releases onto the 5SU1 RCBO</li> <li>1 set = 5 units</li> </ul>
	<b>Article No.</b> 5ST3805-1
Handle locking devices	
	<ul style="list-style-type: none"> <li>To prevent undesired mechanical ON/OFF switching</li> <li>Sealable and lockable</li> <li>For padlock with 3 ... 6 mm shackle</li> </ul>
	<b>Version</b> For 5SV RCCBs, 5SV1 RCBOs, 5SV6 AFDD/MCB
	<b>Article No.</b> 5ST3806
	For 5SU1 RCBOs
	5ST3801-1
Locking device	
	<ul style="list-style-type: none"> <li>For 5SV RCCBs, 5SV1 RCBOs, 5SV6 AFDD/MCB</li> </ul>
	<b>Comprising:</b> 5ST3806 handle locking device and 5ST3802 padlock
	<b>Article No.</b> 5ST3807
Padlock	
	<ul style="list-style-type: none"> <li>For 5ST3801 and 5ST3806 handle locking devices and 5ST3054 ... 58, 5ST3070 remote controlled mechanisms</li> </ul>
	<b>Article No.</b> 5ST3802
Device labels	
	<ul style="list-style-type: none"> <li>For adhesive attachment</li> <li>For modular installation devices, such as 5SY, 5SL, 5TL1</li> </ul>
	<b>Types</b> 15 mm x 6 mm, white (WIN 098) 15 mm x 6 mm, yellow (WIN 099)
	<b>Article No.</b> 8WH8210-0AA35 8WH8210-0AA36
Covers for connection terminals	
	<ul style="list-style-type: none"> <li>For 5SV3 and 5SV4 residual current operated circuit breakers, sealable (2 units in plastic bag)</li> </ul>
	<b>Mounting width</b> 2 MW 4 MW
	<b>Article No.</b> 5SW3010 5SW3008
Terminal covers, gray	
	<ul style="list-style-type: none"> <li>For surface mounting, IP40 degree of protection</li> <li>Sealable</li> <li>Can be used with 35 mm DIN rail</li> </ul>
	<b>For width up to</b> 2.5 MW 4.5 MW
	<b>Article No.</b> 5SW3004 5SW3005
Wall enclosures, gray	
	<ul style="list-style-type: none"> <li>For flush mounting, IP40 degree of protection</li> <li>Can be used with 35 mm DIN rail</li> </ul>
	<b>For width up to</b> 2.5 MW 4.5 MW
	<b>Article No.</b> 5SW3006 5SW3007

# RCCB protective socket outlets

Acc. to VDE 0664

## Covers



- Can be assembled as mini-distribution board
- Suitable for all devices
- Cover parts prepared for rail mounting of conventional label caps

Comprising	Article No.
End plates	5ST2134
Angled profile	5ST2135
Flat profile as alternative	5ST2136

## RCCB protective socket outlets in molded-plastic enclosures



- Equipped with RCCB and flush-mounted SCHUKO® socket outlet
- IP54 degree of protection

Rated residual current $I_{\Delta n}$	Rated current $I_n$	Article No.
10 mA	16 A	5SZ9206
30 mA	16 A	5SZ9216

4





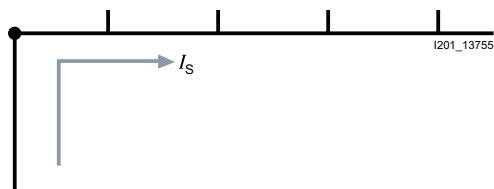
# Standard busbars

## General information



### Infeed

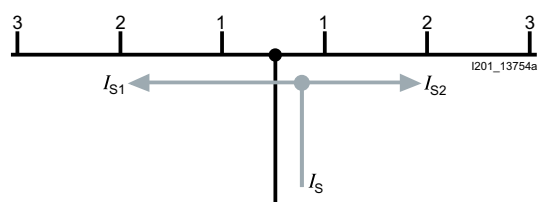
#### At the start or end of the busbar



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 63 A
- Cross-section 16 mm<sup>2</sup>: 80 A

#### Along the busbar or midpoint infeed



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 100 A
- Cross-section 16 mm<sup>2</sup>: 130 A

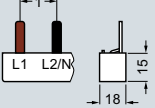
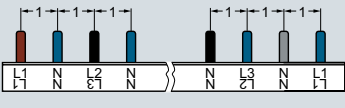
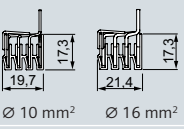
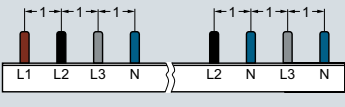



## Fixed lengths, cannot be cut


Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	Conductor cross-section 10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>2-phase/1-phase + N</b> <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 6× 2MW devices (2P)	12 MW	210 mm	Article No. 5ST3608	Article No. 5ST3638
<b>3-phase, for MCBs with RCCB</b> <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 8 MCBs 1P with 1 RCCB 3P+N, N right	12 MW	210 mm	Article No. 5ST3624	Article No. 5ST3654
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 10 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCBs 3P and 7 MCBs 1P	14 MW	249 mm	5ST3624-4 <b>new</b>	–
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 6 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCBs 3P and 3 MCBs 1P	10 MW	176 mm	5ST3624-1 <b>new</b>	–
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 8 MCBs 1P with 1 RCCB 3P+N, N left	11 MW	192 mm	5ST3667	5ST3668
<b>4-phase/3-phase + N</b> <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 6× 2MW devices (1P+N)	12 MW	215 mm	Article No. 5ST3623	Article No. 5ST3653
<b>4-phase/3-phase + N, for MCBs with RCCB</b> <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 1 RCCB 3P+N, 1 MCBs 3P+N and 6 LS 1P	14 MW	248 mm	5ST3724-4 <b>new</b>	–
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 1 RCCB 3P+N, 1 MCBs 3P+N and 3 LS 1P+N	14 MW	248 mm	5ST3725-4 <b>new</b>	–
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 1 RCCB 3P+N, 1 MCBs 3P and 3 LS 1P+N	13 MW	230 mm	5ST3725-3 <b>new</b>	–
<p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>	For 1 RCCB 3P+N and 5 MCBs 1P+N	14 MW	248 mm	5ST3625-4 <b>new</b>	–

# Standard busbars

Can be cut

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Conductor cross-section	
					10 mm <sup>2</sup>	16 mm <sup>2</sup>
<b>2-phase/1-phase + N</b>						
	For 2 MW units (2P/1+N)	12 MW	214 mm	■	Article No.	Article No.
		56 MW	1016 mm	–	5ST3734	5ST3704
<b>4-phase/3-phase + N, for MCBs with RCCB</b>						
	For RCBOs or MCBs 1P+N	56 MW	1000 mm	–	Article No.	Article No.
					5ST3770-2	5ST3770-3
						
		$\varnothing$ 10 mm <sup>2</sup> $\varnothing$ 16 mm <sup>2</sup>				
	For 6 MCBs 1P+N with 1 RCCB 3P+N, N right	16 MW	292 mm	■	Article No.	Article No.
					5ST3770-4	5ST3770-5
						

## Accessories for busbars 5ST36 and 5ST37

End caps for 5ST37		
	Version	Article No.
		For 2-phase and 3-phase busbars
	For 4-phase busbars	5ST3718



## 5ST36 and 5ST37

### Fixed lengths, cannot be cut, for devices with add-on 5SM6 arc fault detection units

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Color	Conductor cross-section 10 mm <sup>2</sup>
<b>3-phase</b>						<b>Article No.</b>
	For 5SM601.	12 MW	210 mm	–	Gray	5ST3615-1

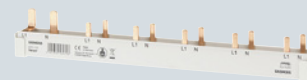
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### Can be cut, for devices with add-on 5SM6 arc fault detection units

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Color	Conductor cross-section 10 mm <sup>2</sup>
<b>1-phase, straight</b>						<b>Article No.</b>
	For 5SM601.	56 MW	1000 mm	–	Gray Blue	5ST3764-1 5ST3765-2
<b>1-phase, angled 45°</b>						<b>Article No.</b>
	For 5SM601.	56 MW	1000 mm	–	Blue	5ST3765-1
<b>2-phase/1-phase + N</b>						<b>Article No.</b>
	For 5SM602. (1P+N)	56 MW	1000 mm	–	Gray	5ST3735-1
<b>3-phase</b>						<b>Article No.</b>
	For 5SM601.	60 MW	1050 mm	–	Gray	5ST3740-1
<b>4-phase/3-phase + N</b>						<b>Article No.</b>
	For 5SM602.	52 MW	950 mm	–	Gray	5ST3746-1

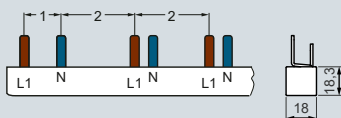
# Standard busbars

## 5ST36 and 5ST37



Can be cut, for devices with add-on 5SM6 arc fault detection units and infeed via RCCB

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Color	Conductor cross-section 16 mm <sup>2</sup>	Article No.
2-phase/1-phase + N	For RCCB 2P N-right and 5 AFDD (5SM601.) + compact device	12 MW	214 mm	■	Gray		5ST3772



## Accessories

<b>Terminals for infeed at side</b>		<b>Article No.</b>
For conductors up to 25 mm <sup>2</sup>	Short	5ST3768
	Short, IP20	5ST3771-2
	Long	5ST3771-1
<b>End caps</b>		<b>Article No.</b>
For 1-phase busbars	Gray	5ST3766
	Blue	5ST3767
For 2 and 3-phase busbars		5ST3750
For 4-phase busbars		5ST3718
<b>Touch protection</b>		<b>Article No.</b>
For free connections, yellow (RAL 1004) 5x 1 pin		5ST3655

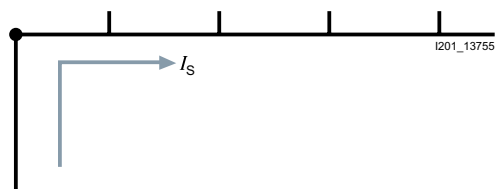
# Compact busbars

## General information



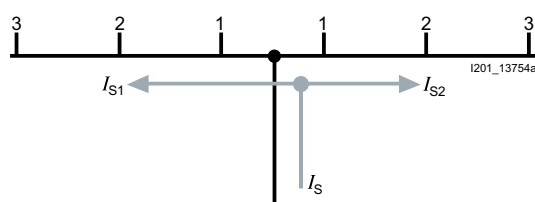
### Infeed

At the start or end of the busbar



- Maximum busbar current  $I_s$ /phase
- Cross-section 10 mm<sup>2</sup>: 63 A
  - Cross-section 16 mm<sup>2</sup>: 80 A

Along the busbar or midpoint infeed



- Maximum busbar current  $I_s$ /phase
- Cross-section 10 mm<sup>2</sup>: 100 A
  - Cross-section 16 mm<sup>2</sup>: 130 A

# Compact busbars

5ST36, fixed lengths, cannot be cut

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Conductor cross-section 10 mm <sup>2</sup>
<b>2-phase/1-phase + N, for infeed via RCCB</b>					
	For 1 x RCCB 1P+N and 5 x compact devices equipped with 5SM6 arc fault detection unit	12 MW	216 mm	■	Article No. 5ST3685-0
<b>2-phase/1-phase + N</b>					
	For compact devices	6 MW 9 MW 12 MW	113 mm 166 mm 218 mm	■ ■ ■	Article No. 5ST3674-6 5ST3674-7 5ST3674-0
	For 6x compact devices with 5SM6 arc fault detection unit	12 MW	200 mm	■	5ST3676-0
<b>4-phase/3-phase + N</b>					
	For compact devices	6 MW 9 MW 12 MW 14 MW	113 mm 166 mm 218 mm 254 mm	■ ■ ■ ■	Article No. 5ST3673-6 5ST3673-7 5ST3673-0 5ST3673-4
	For 6x compact devices with 5SM6 arc fault detection unit	11 MW	200 mm	■	5ST3675-0

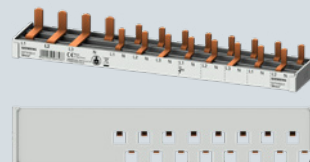


## 5ST37, can be cut

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Conductor cross-section 10 mm <sup>2</sup>	Article No.
<b>2-phase/1-phase + N, for infeed via RCCB</b>						
	For 1× RCCB 1P+N and 10× compact devices	12 MW	215 mm	■		5ST3784-0
	For 1× RCCB 1P+N (RCCB N left only) and 10× compact devices	12 MW	215 mm	■		5ST3784-0KL
<b>2-phase/1-phase + N</b>						
	For compact devices	60 MW	1060 mm	–		5ST3774-0
	For compact devices with 5SM6 arc fault detection unit	59 MW	1042 mm	–		5ST3776-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–		5ST3778-0
	For compact devices with 5SM6 arc fault detection unit and auxiliary switch	58.5 MW	1036 mm	–		5ST3780-0
	For 2 MW units (MCBs or RCBOs) with 5SM6 arc fault detection device and auxiliary switch	54 MW	956 mm	–		5ST3786-0







Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Conductor cross-section 10 mm <sup>2</sup>
<b>4-phase/3-phase + N</b> 	For compact devices	60 MW	1060 mm	–	<b>Article No.</b> 5ST3773-0
	For compact devices equipped with 5SM6 arc fault detection unit	59 MW	1042 mm	–	5ST3775-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3777-0

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### Accessories for 5ST3 compact busbars, versions that can and cannot be cut

Touch protection for 5ST3				
Version	Color	Article No.		
	For free connections, for pins L1, N	Yellow (RAL1004)	5ST3655	
	For pins L2/L3	Yellow (RAL1004)	5ST3655-0HG	
End caps for 5ST3				
Version	Color	Article No.		
	For 2-phase and 4-phase busbars	Gray	5ST3788-0	
Terminals, short, IP20				
Version	For conductors	Infeed	Article No.	
	Infeed terminal for connection of larger cross section	Up to 25 mm <sup>2</sup>	Lateral	5ST3771-2



## Electrical switching – on the safe side

Control and automatic functions always employ electrical switching.

Remote control switches for pulse controls, switching relays, or Insta contactors switch electrical loads.

Our low-voltage circuit protection technology offers a wide variety of contact versions and rated currents for the different requirements of these devices.

Safety, convenience and energy savings – these characterize automatic switching.



# Switching Devices



All the information you need	5/2
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Installation switching devices	5/6
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5TE48 pushbuttons	5/8
5TE58 light indicators	5/10
5TE81/82 On/Off switches	5/12
5TL1 On/Off switches	5/14
5TE DC isolator	5/16
5TE busbars	5/18
5TT41 remote control switches	5/20
5TT44 remote control switches	5/24
5TT4 auxiliary switches	5/26
5TT42 switching relays	5/28
5TT50 Insta contactors	5/30
5TT58 Insta contactors	5/32
5TT5 auxiliary switches	5/34
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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about switching devices, please visit our website [www.siemens.com/switching-devices](http://www.siemens.com/switching-devices)

### Your product in detail

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Switching devices [sie.ag/2m4eG5M](http://sie.ag/2m4eG5M)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

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### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at [www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Switching devices ([45315361](#))

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- Basic principles of electrical engineering (WT-LVBGET)

### Technical overview – Switching devices



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on switching devices

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109769083](#))

# System overview

## Basic units and accessories

### Installation switching devices



5TE8  
control switches



5TE48  
pushbuttons



5TE58  
light indicators



5TE81/82, 5TL1  
On/Off switches



5TE  
DC isolators



5TE  
busbars



5TT41, 5TT44  
remote control  
switches



5TT4, 5TT5  
auxiliary switches



5TT42  
switching relays



5TT50, 5TT58  
Insta contactors



5TT3  
soft-starting devices

5

### Accessories



Auxiliary switches  
(AS)



Shunt trips  
(ST)



Undervoltage  
releases (UR)



Remote controlled  
mechanisms  
(RC mech.)



Handle locking  
devices



LEDs



Caps/covers



Connectors

### Timers



7LF4 digital  
time switches



7LF5 mechanical  
time switches



7LF6 timers for  
buildings



5TT3 timers for  
industrial applications

### Accessories



Holders


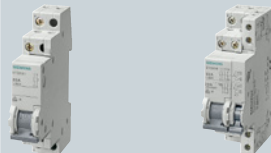

#### Note:

You will find a detailed range of accessories with the basic units.





# 5TE8 control switches

	Control switches	Two-way switches	Group switches with center position
Rated operational current $I_e$ per conducting path	20 A	20 A	20 A
Rigid conductor cross-section	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
			

Contacts	$U_e$ AC	Mounting width	Auxiliary switches		Auxiliary switches		Auxiliary switches
			Cannot be retrofitted	Mounted	Cannot be retrofitted	Mounted	Cannot be retrofitted
1 NO	48 V	1 MW	5TE8101-3	–	–	–	–
	230 V	1 MW	5TE8101	–	–	–	–
2 NO	400 V	1 MW	5TE8102	–	–	–	–
		1.5 MW	–	5TE8108	–	–	–
3 NO	400 V	1 MW	5TE8103	–	–	–	–
1 NO + 1 NC	400 V	1 MW	–	–	–	5TE8151	–
2 NO + 2 NC	400 V	1 MW	–	–	5TE8152	–	–
3 NO + 1 NC	400 V	1 MW	–	–	5TE8153	–	–
1 CO	230 V	1 MW	–	–	5TE8161	–	–
2 CO	400 V	1 MW	–	–	5TE8162	–	–
1 toggle switch	230 V	1 MW	–	–	–	–	5TE8141
2 toggle switches	400 V	1 MW	–	–	–	–	5TE8142

## Further technical specifications

## 5TE8

<b>Standards</b>		
Standards	IEC/EN 60947-3 (VDE 0660-107), IEC/EN 60669-1 (VDE 0632-1)	
Approvals	IEC/EN 60947-3 (VDE 0660-107), GB14048.3-2008 CCC	
<b>Supply</b>		
Rated power dissipation $P_v$	Per pole 0.7 VA	
<b>Contacts</b>		
Minimum contact load	10 V; 300 mA	
Rated making/rated breaking capacity	At p.f. = 0.65 60 A/60 A	
Rated short-time withstand current $I_{cw}$ per conducting path at p.f. = 0.7	Up to 0.2 s	650 A
	Up to 0.5 s	400 A
	Up to 1 s	290 A
	Up to 3 s	170 A
Thermal rated current $I_{th}$	20 A	
Electrical endurance/mechanical service life	Actuations 10000/25000	
<b>Safety</b>		
Clearances	Open contacts	2x >2 mm
	Between the poles	>7 mm
Creepage distances	>7 mm	
Sealable switch position	Yes	
Separate handle locking device	Yes	
Rated short-circuit making capacity $I_{cm}$	10 kA	
Rated impulse withstand voltage $U_{imp}$	>5 kV	
<b>Connections</b>		
Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	0.8 ... 1.0 Nm
<b>Environmental conditions</b>		
Permissible ambient temperature	–5 ... +40 °C	
Resistance to climate at 95% relative humidity	Acc. to DIN 50015 45 °C	

## Accessories

### Handle locking device



- To prevent undesired mechanical On/Off switching
- Sealable
- For padlock with max. 3 mm shackle

Article No.

5ST3801

### Spacer



- Contour for modular devices with a mounting depth of 70 mm
- Can be snapped onto either side of the busbar for convenient cable routing
- Spacer is recommended for better heat dissipation

Article No.

5TG8240

### Set of mixed caps






- For manual changing of the luminous plates for the control switches

Article No.

5TG8068

# 5TE48 pushbuttons

With/without LED

	Pushbuttons without maintained-contact function	Pushbuttons with maintained-contact function	Control pushbuttons with maintained-contact function or momentary-contact function
	Without LED	Without LED	With LED
Rated operational current $I_e$ per conducting path	20 A	20 A	20 A
Rigid/flexible conductor cross-section	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
Max. cable length	Standard	Standard	Standard
			

Contacts	$U_e$ AC	Mounting width						
1 NO	230 V	1 MW	–	–	–	–	1 x red	5TE4821
			–	–	–	–	–	–
2x 1 NO	400 V	1 MW	1 x green, 1 x blue	5TE4804	–	–	–	–
2 NO	400 V	1 MW	–	–	1 x gray	5TE4811	1 x red	5TE4823
1 NO + 1 NC	400 V	1 MW	1 x gray	5TE4800	1 x gray	5TE4810	–	–
			1 x red	5TE4805	–	–	1 x red	5TE4820
			1 x green	5TE4806	–	–	–	–
			1 x yellow	5TE4807	–	–	–	–
			1 x blue	5TE4808	–	–	–	–
2x (1 NO + 1 NC)	400 V	1 MW	–	–	–	–	–	–
2 NO + 2 NC	400 V	1 MW	1 x gray	5TE4801-2	1 x gray	5TE4811-2	–	–
3 NO + 1 NC	400 V	1 MW	1 x gray	5TE4802	1 x gray	5TE4812-1	–	–
3 NO + N	400 V	1 MW	–	–	1 x gray	5TE4812	–	–
2 NC	400 V	1 MW	–	–	–	–	1 x red	5TE4824
4 NC	400 V	1 MW	–	–	1 x gray	5TE4813	–	–
2 CO	400 V	1 MW	–	–	1 x gray	5TE4814	–	–

## Further technical specifications

5TE48

<b>Standards</b>		
Standards		IEC/EN 60947-3 (VDE 0660-107), IEC/EN 60669-1 (VDE 0632-1)
Approvals		IEC/EN 60947-3 (VDE 0660-107)
<b>Supply</b>		
Rated power dissipation $P_v$	Per pole	0.6 VA
<b>Contacts</b>		
Minimum contact load		10 V; 300 mA
Rated making/rated breaking capacity	At p.f. = 0.65	60 A/60 A
Rated short-time withstand current $I_{cw}$ per conducting path at p.f. = 0.7	Up to 0.2 s	650 A
	Up to 0.5 s	400 A
	Up to 1 s	290 A
	Up to 3 s	170 A
Thermal rated current $I_{th}$		20 A
Mechanical service life	Actuations	25000
<b>Safety</b>		
Clearances	Open contacts	2x >2 mm
	Between the poles	>7 mm
Creepage distances		>7 mm
Rated impulse withstand voltage $U_{imp}$		>5 kV
<b>Connections</b>		
Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	0.8 ... 1.0 Nm
<b>Environmental conditions</b>		
Permissible ambient temperature		–5 ... +40 °C
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

### Double pushbuttons with maintained-contact function and/or momentary-contact function

With LED		Without LED	With LED		
20 A		20 A			
1 ... 6 mm <sup>2</sup>		1 ... 6 mm <sup>2</sup>			
150 m		Standard			
					
1× red	5TE4822	–	–	–	
1× blue	5TE4822-1	–	–	–	
–	–	–	1× green, 1× red	5TE4840	
–	–	–	–	–	
–	–	–	–	–	
–	–	–	–	–	
–	–	1× green, 1× red	5TE4830	1× green, 1× red	5TE4841
–	–	–	–	–	
–	–	–	–	–	
–	–	1× green, 1× red	5TE4831	–	–
–	–	–	–	–	
–	–	–	–	–	
–	–	–	–	–	
–	–	–	–	–	
–	–	–	–	–	

### Accessories

#### LEDs for manual spare part

	$I_e$	$U_e$	Color	Article No.
	0.4 A	12 ... 60 V AC/DC	White	5TG8056-0
			Red	5TG8056-1
			Yellow	5TG8056-2
			Green	5TG8056-3
	115 V AC/DC		Blue	5TG8056-4
			White	5TG8057-0
			Red	5TG8057-1
			Yellow	5TG8057-2
	230 V AC		Green	5TG8057-3
			Blue	5TG8057-4
			White	5TG8058-0
			Red	5TG8058-1
			Yellow	5TG8058-2
			Green	5TG8058-3
			Blue	5TG8058-4



#### Cap sets

- For manual changing of colored caps with or without lamps
- 1 set = 5 units

Color	Article No.
 Red, transparent	5TG8061
 Green, transparent	5TG8062
 Yellow, transparent	5TG8063
 Blue, transparent	5TG8064
 Black, non-transparent	5TG8065
 White, transparent	5TG8066
 Gray, non-transparent	5TG8060

#### Sets of mixed caps

- For manual changing of colored caps with or without lamps

Color	Article No.
 10× each of red/green + 5× each of yellow/blue/white	5TG8067
 1× each of red/green/yellow	5TG8070

#### Color coding according to IEC 60073

Color	Safety of people/ environment	Process state	System state
Red	Danger	Emergency	Faulty
Green	Safety	Normal	Normal
Yellow	Warning/Caution	Abnormal	Abnormal
Blue	Stipulation		
Black, white, gray	No special significance assigned		

# 5TE58 light indicators

With LED

## 5TE58 light indicators

Rigid conductor cross-section	1.5 ... 6 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
Max. cable length	Standard	250 m



U <sub>e</sub> AC	Mounting width				
230 V	1 MW	1× red	5TE5800	1× red	5TE5804
		1× green, 1× red	5TE5801		–
		3× green	5TE5802		–
		1× red, 1× yellow, 1× green	5TE5803		–
12 ... 60 V	1 MW	1× red	5TE5810		–
		1× green	5TE5810-1		–
		1× green, 1× red	5TE5811		–
		3× green	5TE5812		–
		1× red, 1× yellow, 1× green	5TE5812-1		–

## Further technical specifications

## 5TE58

### Standards

Standards	DIN VDE 0710-1-11
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### Supply

Rated power dissipation P <sub>v</sub>	LED	0.4 VA
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### Safety

Clearances	Between the terminals	>7 mm
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### Connections

Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	1.2 Nm

### Environmental conditions

Permissible ambient temperature		–5 ... +40 °C
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

## Accessories

### LEDs for manual spare part



$I_e$	$U_e$	Color	Article No.
0.4 A	12 ... 60 V AC/DC	White	5TG8056-0
		Red	5TG8056-1
		Yellow	5TG8056-2
		Green	5TG8056-3
	115 V AC/DC	Blue	5TG8056-4
		White	5TG8057-0
		Red	5TG8057-1
		Yellow	5TG8057-2
	230 V AC	Green	5TG8057-3
		Blue	5TG8057-4
		White	5TG8058-0
		Red	5TG8058-1
		Yellow	5TG8058-2
		Green	5TG8058-3
		Blue	5TG8058-4

### Cap sets

- For manual changing of colored caps
- 1 set = 5 units

Color	Article No.
Red, transparent	5TG8061
Green, transparent	5TG8062
Yellow, transparent	5TG8063
Blue, transparent	5TG8064
White, transparent	5TG8066

### Sets of mixed caps

- For manual changing of colored caps

Color	Article No.
10× each of red/green + 5× each of yellow/blue/white	5TG8067
1× each of red/green/yellow	5TG8070

### Color coding according to IEC 60073

Color	Safety of people/ environment	Process state	System state
Red	Danger	Emergency	Faulty
Green	Safety	Normal	Normal
Yellow	Warning/Caution	Abnormal	Abnormal
Blue	Stipulation		
Black, white, gray	No special significance assigned		

# 5TE81/82 On/Off switches

	5TE81 On/Off switches	5TE82 On/Off switches
Rated operational current $I_e$ per conducting path	20 A	32 A
Rigid conductor cross-section	1.5 ... 6 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>



Contacts	$U_e$ AC	Mounting width	Auxiliary switches			Auxiliary switches		
			Can be retrofitted	Cannot be retrofitted	Mounted	Can be retrofitted	Cannot be retrofitted	Mounted
1 NO	230 V	1 MW	5TE8111	–	–	5TE8211	–	–
2 NO	400 V	1 MW	5TE8112	–	–	5TE8212	–	–
3 NO	400 V	1 MW	5TE8113	–	–	5TE8213	–	–
3 NO + N	400 V	1 MW	–	5TE8114	–	–	5TE8214	–
		1.5 MW	–	–	5TE8118	–	–	5TE8218

## Further technical specifications

Further technical specifications	5TE81	5TE82
<b>Standards</b>		
Standards	IEC/EN 60947-3 (VDE 0660-107), IEC/EN 60669-1	IEC/EN 60947-3 (VDE 0660-107)
Approvals	IEC/EN 60947-3 (VDE 0660-107)	
<b>Supply</b>		
Rated power dissipation $P_v$	Per pole	0.7 VA
<b>Contacts</b>		
Minimum contact load	10 V; 300 mA	
Rated making/rated breaking capacity	At p.f. = 0.65	60 A/60 A
Rated short-time withstand current $I_{c,w}$ per conducting path at p.f. = 0.7	Up to 0.2 s	650 A
	Up to 0.5 s	400 A
	Up to 1 s	290 A
	Up to 3 s	170 A
Thermal rated current $I_{th}$	20 A	32 A
Electrical endurance/mechanical service life	Actuations	10000/25000
<b>Safety</b>		
Clearances	Open contacts	2× >2 mm
	Between the poles	>7 mm
Creepage distances	>7 mm	
Rated short-circuit making capacity $I_{cm}$	10 kA	
Rated impulse withstand voltage $U_{imp}$	>5 kV	
<b>Connections</b>		
Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	1.2 Nm
<b>Environmental conditions</b>		
Permissible ambient temperature	–5 ... +40 °C	
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

## Accessories

### Auxiliary switches (AS)



- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Type	Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

### Handle locking device



- To prevent undesired mechanical On/Off switching
- Sealable
- For padlock with max. 3 mm shackle

Article No.
5ST3801

### Terminal cover



- For covering screw openings
- Sealable

Article No.
5ST3800

### Spacer



- Contour for modular devices with a mounting depth of 70 mm
- Can be snapped onto either side of the busbar for convenient cable routing
- Spacer is recommended for better heat dissipation

Article No.
5TG8240





# 5TL1 On/Off switches

			Rated operational current $I_e$ per conducting path					
			32 A	40 A	63 A		80 A	100 A
Rigid conductor cross-section			1 ... 35 mm <sup>2</sup>	1 ... 35 mm <sup>2</sup>	1 ... 35 mm <sup>2</sup>		2.5 ... 50 mm <sup>2</sup>	2.5 ... 50 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve			1 ... 25 mm <sup>2</sup>	1 ... 25 mm <sup>2</sup>	1 ... 25 mm <sup>2</sup>		2.5 ... 50 mm <sup>2</sup>	2.5 ... 50 mm <sup>2</sup>
								
Contacts	Rated operational voltage $U_e$ AC	Mounting width	Gray handle	Gray handle	Gray handle	Red handle	Gray handle	Gray handle
1 NO	230 V	1 MW	5TL1132-0	5TL1140-0	5TL1163-0	5TL1163-1	5TL1180-0	5TL1191-0
2 NO	400 V	2 MW	5TL1232-0	5TL1240-0	5TL1263-0	5TL1263-1	5TL1280-0	5TL1291-0
3 NO	400 V	3 MW	5TL1332-0	5TL1340-0	5TL1363-0	5TL1363-1	5TL1380-0	5TL1391-0
4 NO	400 V	4 MW	5TL1432-0	5TL1440-0	5TL1463-0	–	5TL1480-0	5TL1491-0
3 NO + N	400 V	4 MW	5TL1632-0	5TL1640-0	5TL1663-0	5TL1663-1	5TL1680-0	5TL1691-0

## Further technical specifications

		5TL1.32	5TL1.40	5TL1.63	5TL1.80	5TL1.91	5TL1.92
<b>Standards</b>							
Standards		IEC/EN 60947-3 (VDE 0660-107)					
Approvals		IEC/EN 60947-3 (VDE 0660-107)					
<b>Supply</b>							
Rated power dissipation $P_v$		Per pole, max.	0.7 VA	0.9 VA	2.2 VA	3.5 VA	8.6 VA
<b>Contacts</b>							
Minimum contact load		24 V; 300 mA					
Rated making/rated breaking capacity AC-22A		At p.f. = 0.65	96 A/96 A	120 A/120 A	196 A/196 A	240 A/240 A	300 A/300 A
Rated short-time withstand current $I_{cw}$ per conducting path at p.f. = 0.7 <sup>1)</sup>		Up to 0.2 s	760 A	950 A	1500 A	2700 A	3400 A
		Up to 0.5 s	500 A	630 A	1000 A	1650 A	2100 A
		Up to 1 s	400 A	500 A	800 A	1350 A	1700 A
		Up to 3 s	280 A	350 A	560 A	800 A	1000 A
Thermal rated current $I_{th}$			32 A	40 A	63 A	80 A	100 A
Electrical endurance/mechanical service life		Switching cycles	10000/20000	10000	5000	2000	125 A
Rated power for the switching of resistive load including moderate overload AC-21		1-pole	5 kW	6.5 kW	10 kW	13 kW	16 kW
		2-pole	9 kW	11 kW	18 kW	22 kW	28 kW
		3/4-pole	15 kW		30 kW	39 kW	48 kW
<b>Safety</b>							
Creepage distances			>7 mm				
Clearances		Open contacts	>7 mm				
		Between the poles	>7 mm				
Rated short-circuit making capacity $I_{cm}$ (in conjunction with fuse of the same rated operational current EN 60269 gLgG)			10 kA				
Rated impulse withstand voltage $U_{imp}$			6 kV				
<b>Connections</b>							
Terminals		± Screw (Pozidriv)	PZ 2				
		Max. tightening torque	3.5 Nm				
<b>Environmental conditions</b>							
Permissible ambient temperature			–5 ... +40 °C				
Resistance to climate at 95% relative humidity		Acc. to DIN 50015	45 °C				

125 A	
	2.5 ... 50 mm <sup>2</sup>
	2.5 ... 50 mm <sup>2</sup>
	
Red handle	Gray handle
5TL1191-1	5TL1192-0
5TL1291-1	5TL1292-0
5TL1391-1	5TL1392-0
–	5TL1492-0
5TL1691-1	5TL1692-0

## Accessories

### Auxiliary switches (AS)



- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Type	Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

### Remote controlled mechanisms (RC mech.)



Type	U <sub>e</sub>	Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058

### Adapters for remote controlled mechanisms (RC mech.)



Mounting width	Article No.
1–2 MW	5ST3820-6
3–4 MW	5ST3820-7

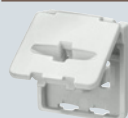
### Handle locking device



- To prevent undesired mechanical On/Off switching
- Sealable
- For padlock with max. 3 mm shackle

Article No.
5ST3806

### Terminal cover



- For covering screw openings
- Sealable

Article No.
5ST3800

### Spacer



- Contour for modular devices with a mounting depth of 70 mm
- Can be snapped onto either side of the busbar for convenient cable routing
- Spacer is recommended for better heat dissipation

Article No.
5TG8240

### Phase connectors



- For easy wiring in various circuit versions and bus mountings
- As a support terminal for conductors from 2.5 to 50 mm<sup>2</sup>

Number of poles	I <sub>e</sub>	U <sub>e</sub> AC	Mounting width	Article No.
1-pole	125 A	230 V	1 MW	5TL1192-4

### N conductor connectors



- For easy wiring in various circuit versions and bus mountings
- As a support terminal for N conductors from 2.5 to 50 mm<sup>2</sup> with blue color marking

Number of poles	I <sub>e</sub>	U <sub>e</sub> AC	Mounting width	Article No.
1-pole	125 A	230 V	1 MW	5TL1192-3

# 5TE DC isolator

Can be used as switch disconnectors according to EN 60947-3

Rated operational current  $I_e$   
63 A

Rigid conductor cross-section 0.75 ... 35 mm<sup>2</sup>  
Flexible conductor cross-section, with end sleeve 0.75 ... 25 mm<sup>2</sup>



Contacts	Max. operational voltage $U_{max}$ DC	Mounting width	Auxiliary switches can be retrofitted
4 NO	1000 V	4 MW	5TE2515-1

## Further technical specifications

Standards		
Standards	IEC/EN 60947-3; IEC/EN 60669-1; GB14048.3-2008 CCC	
Supply		
Rated operational voltage $U_e$	For 4 poles in series	880 V DC
Rated power dissipation $P_v$	Per pole, max.	4.4 W
Contacts		
Minimum contact load	24 V; 300 mA	
Rated short-time withstand current $I_{cw}$	1000 V DC, 4-pole	760 A
Electrical endurance/mechanical service life	Actuations	5000/10000
Safety		
Rated short-circuit making capacity $I_{cm}$	1000 V DC, 4-pole	500 A
Rated impulse withstand voltage $U_{imp}$	>5 kV	
Overvoltage category	At $U = 440 \dots 880$ V	II
	At $U = 1000$ V	I
Utilization category	DC-21B	
Connections		
Terminals	± Screw (Pozidriv)	PZ 2
	Max. tightening torque	2.5 ... 3 Nm
Environmental conditions		
Permissible ambient temperature	-25 ... +40 °C	
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

## Accessories

### Auxiliary switches (AS)



- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Type	Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

### Shunt trips (ST)



Rated operational voltage $U_e$	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V AC/DC	5ST3031-0XX01

### Undervoltage releases (UR)



Type	Rated operational voltage $U_e$	Article No.
With integrated auxiliary switch	230 V AC	5ST3040
	110 V DC	5ST3041
	24 V DC	5ST3042
Without integrated auxiliary switch	230 V AC	5ST3043
	110 V DC	5ST3044
	24 V DC	5ST3045

# 5TE busbars

## For modular installation devices

### 1-phase busbar



- For all 5TE8 switches, 20 A and 32 A
- For the cutting of unused terminal lugs and to ensure insulation clearances if one device terminal is to be supplied separately despite being mounted on the bus
- Infeed to unit terminal with conductor cross-section of 6 mm<sup>2</sup> up to 32 A
- Can be mounted from either top or bottom, in the front or rear terminal area
- An end cap is not required on 1-phase busbars

Length	Division	Article No.
210 mm	12 MW version with 1 MW modular clearance	5TE9100

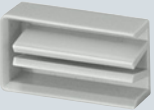
### 2-phase busbar



- For all 5TE8 switches, 20 A and 32 A
- Infeed to unit terminal with conductor cross-section of 6 mm<sup>2</sup> up to 32 A
- Can be mounted from either top or bottom, in the front and/or rear terminal area, thus allowing realization of a 4-wire connection using 2 2-phase busbars
- Both copper conductors of the 2-phase busbar are insulated together

Length	Division	Article No.
220 mm	12 MW version each with 1 MW modular clearance, phases offset by 0.5 MW	5TE9101

### End caps for 2-phase busbars



- End caps for 5TE9101 2-phase busbars to maintain insulation clearances when the bar is being cut
- 1 set = 10 units

Article No.
5TE9102



# 5TT41 remote control switches

Rated current 16 A

Rated operational current  $I_e$

16 A

Rigid conductor cross-section

1 ... 6 mm<sup>2</sup>

Flexible conductor cross-section, with end sleeve

1 ... 6 mm<sup>2</sup>



Contacts	$U_e$	$U_c$ AC	$U_c$ DC	Mounting width		Auxiliary switches can be retrofitted
				1 MW	2 MW	
1 NO	250 V	230 V	–	■	–	5TT4101-0
		115 V	–	■	–	5TT4101-1
		24 V	–	■	–	5TT4101-2
		12 V	–	■	–	5TT4101-3
		8 V	–	■	–	5TT4101-4
		–	110 V	■	–	5TT4111-1
		–	24 V	■	–	5TT4111-2
		–	12 V	■	–	5TT4111-3
		1 NO + 1 NC	250 V	230 V	–	■
115 V	–			■	–	5TT4105-1
24 V	–			■	–	5TT4105-2
12 V	–			■	–	5TT4105-3
8 V	–			■	–	5TT4105-4
–	110 V			■	–	5TT4115-1
–	24 V			■	–	5TT4115-2
–	12 V			■	–	5TT4115-3
2 NO	400 V			230 V	–	■
		115 V	–	■	–	5TT4102-1
		24 V	–	■	–	5TT4102-2
		12 V	–	■	–	5TT4102-3
		8 V	–	■	–	5TT4102-4
		–	110 V	■	–	5TT4112-1
		–	24 V	■	–	5TT4112-2
		–	12 V	■	–	5TT4112-3
		3 NO	400 V	230 V	–	–
24 V	–			–	■	5TT4103-2
4 NO	400 V	230 V	–	–	■	5TT4104-0
		24 V	–	–	■	5TT4104-2
		–	110 V	–	■	5TT4114-1
		24 V	–	–	■	5TT4114-2

## Further technical specifications

		5TT4101 5TT4102 5TT4105	5TT4111 5TT4112 5TT4115	5TT4103 5TT4104 5TT4114
<b>Standards</b>				
Standards		IEC 60669-1, IEC 60669-2, IEC 60669-3, EN 60669 (VDE 0632), EN 60669-2-2, EN 60669-2-2/A1		
Approvals		VDE		
<b>Supply</b>				
Rated operational current $I_e$	At p.f. = 0.6 ... 1 (AC-15)	16 A		
Primary operating range		0.8 ... 1.1 × $U_c$		
Rated frequency $f_c$		50 Hz		
Rated power dissipation $P_v$	Magnet coil, only pulse Per pole, max.	4.5 W/7 VA	9 W/13 VA	
<b>Contacts</b>				
Contact gap		>1.2 mm		
Minimum contact load		10 V; 100 mA		
Electrical endurance at $I_e/U_e$ , p.f. = 0.6, incandescent lamp load 600 W	Operating cycles	50000		
Incandescent lamp load (switching of incandescent lamps for 15000 switching cycles)	At AC-5b (230 V)	1200 W		
Glow lamp load at 230 V		5 mA		
	With 1 5TT4920 compensator	25 mA		
	With 2 5TT4920 compensators	45 mA		
Minimum pulse duration		50 ms		
<b>Safety</b>				
Different phases between magnet coil and contact		Permissible		
Clearances	Between magnet coil and contact	>6 mm		
Creepage distances	Between magnet coil and contact	>6 mm		
Rated impulse withstand voltage $U_{imp}$		4 kV		
<b>Function</b>				
Manual operation		Yes		
Switching position indication		Yes		
<b>Connections</b>				
Terminals	± Screw (Pozidriv) Max. tightening torque	PZ 1 0.8 ... 1 Nm		
<b>Environmental conditions</b>				
Permissible ambient temperature		-10 ... +40 °C		
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	35 °C		
Degree of protection	Acc. to EN 60529	IP20, with connected conductors		

## Accessories

### Auxiliary switches



- One device per remote control switch can be retrofitted

Contacts	Type	$I_e$	$U_e$	Mounting width	Article No.
1 CO	Standard	5 A	250 V AC	0.5 MW	5TT4900
	For low power	0.1 A	30 V AC/DC	0.5 MW	5TT4901

### Compensator





- For increasing the glow lamp load by 20 mA



$U_e$	Mounting width	Article No.
250 V AC	1 MW	5TT4920



# 5TT41 remote control switches

For special applications, rated current 16 A

				Remote control switches with central On/Off switching	Remote control switches with central and group On/Off switching
Rigid conductor cross-section				1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve				1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
					
Contacts	U <sub>e</sub>	U <sub>c</sub> AC	Mounting width	Auxiliary switches cannot be retrofitted	Auxiliary switches cannot be retrofitted
1 NO	250 V	230 V	1.5 MW	5TT4121-0	5TT4151-0
		24 V	1.5 MW	5TT4121-2	5TT4151-2
2 NO	400 V	230 V	1.5 MW	5TT4122-0	5TT4152-0
		24 V	1.5 MW	5TT4122-2	5TT4152-2
3 NO	400 V	230 V	2.5 MW	5TT4123-0	–
1 NO + 1 NC	250 V	115 V	1.5 MW	5TT4125-0	–

				Series remote control switch contact sequence 1 – 2 – 1+2 – 0	Shutter/blind remote control switch contact sequence 1 – 0 – 2 – 0
Rigid conductor cross-section				1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve				1 ... 6 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>
					
Contacts	U <sub>e</sub>	U <sub>c</sub> AC	Mounting width	Auxiliary switches cannot be retrofitted	Auxiliary switches cannot be retrofitted
2 NO	250 V	230 V	1 MW	5TT4132-0	5TT4142-0
		24 V	1 MW	–	5TT4142-2
		12 V	1 MW	5TT4132-3	5TT4142-3

Further technical specifications		5TT412 5TT415	5TT413 5TT414
<b>Standards</b>			
Standards		IEC 60669-1, IEC 60669-2, IEC 60669-3, EN 60669 (VDE 0632), EN 60669-2-2, EN 60669-2-2/A1	
Approvals		VDE	
<b>Supply</b>			
Rated operational current $I_c$	At p.f. = 0.6 ... 1 (AC-15)	16 A	
Primary operating range		0.8 ... 1.1 × $U_c$	
Rated frequency $f_c$		50 Hz	
Rated power dissipation $P_v$	Magnet coil, only pulse	4.5 W/7 VA	
	Per pole, max.	1.2 W	
<b>Contacts</b>			
Contact gap		>1.2 mm	
Minimum contact load		10 V; 100 mA	
Electrical endurance at $I_e/U_e$ , p.f. = 0.6, incandescent lamp load 600 W	Operating cycles	50000	
Incandescent lamp load (switching of incandescent lamps for 15000 switching cycles)	At AC-5b (230 V)	1200 W	
Glow lamp load at 230 V		5 mA	
	With 1 5TT4920 compensator	25 mA	
	With 2 5TT4920 compensators	45 mA	
Minimum pulse duration		50 ms	
<b>Safety</b>			
Different phases between magnet coil and contact		Permissible	
Clearances	Between magnet coil and contact	>6 mm	
Creepage distances	Between magnet coil and contact	>6 mm	
Rated impulse withstand voltage $U_{imp}$		4 kV	
<b>Function</b>			
Manual operation		Yes	
Switching position indication		Yes	–
<b>Connections</b>			
Terminals	± Screw (Pozidriv)	PZ 1	
	Max. tightening torque	0.8 ... 1 Nm	
<b>Environmental conditions</b>			
Permissible ambient temperature		–10 ... +40 °C	
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	35 °C	
Degree of protection	Acc. to EN 60529	IP20, with connected conductors	

## Accessories

### Auxiliary switches



- One device per remote control switch can be retrofitted

Contacts	Type	$I_e$	$U_e$	Mounting width	Article No.
1 CO	Standard	5 A	250 V AC	0.5 MW	5TT4900
	For low power	0.1 A	30 V AC/DC	0.5 MW	5TT4901

### Compensator








- For increasing the glow lamp load by 20 mA

$U_e$	Mounting width	Article No.
250 V AC	1 MW	5TT4920

# 5TT44 remote control switches




Rated current 20 A – 63 A

	Rated operational current $I_e$				
	20 A	25 A	32 A	40 A	63 A
Rigid conductor cross-section	1 ... 10 mm <sup>2</sup>	1 ... 10 mm <sup>2</sup>	1 ... 10 mm <sup>2</sup>	2.5 ... 25 mm <sup>2</sup>	2.5 ... 25 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	1 ... 10 mm <sup>2</sup>	1 ... 10 mm <sup>2</sup>	1 ... 10 mm <sup>2</sup>	2.5 ... 25 mm <sup>2</sup>	2.5 ... 25 mm <sup>2</sup>
					

Contacts	$U_e$	$U_c$ AC	$U_c$ DC	Mounting width					
<b>For AC applications – auxiliary switches can be retrofitted</b>									
1 NO + 1 NC	440 V	230 V	–	1 MW	5TT4405-0	5TT4425-0	5TT4455-0	–	–
				2 MW	–	–	–	5TT4465-0	5TT4475-0
	24 V	–	–	1 MW	5TT4405-2	5TT4425-2	5TT4455-2	–	–
				2 MW	–	–	–	5TT4465-2	5TT4475-2
1 CO	250 V	230 V	–	1 MW	5TT4407-0	–	–	–	–
				1 MW	5TT4407-2	–	–	–	–
2 NO	440 V	230 V	–	1 MW	5TT4402-0	5TT4422-0	5TT4452-0	–	–
				2 MW	–	–	–	5TT4462-0	5TT4472-0
	24 V	–	–	1 MW	5TT4402-2	5TT4422-2	5TT4452-2	–	–
				2 MW	–	–	–	5TT4462-2	5TT4472-2
2 CO	440 V	230 V	–	2 MW	–	5TT4428-0	5TT4458-0	5TT4468-0	5TT4478-0
				2 MW	–	5TT4428-2	5TT4458-2	5TT4468-2	5TT4478-2
4 NO	440 V	230 V	–	2 MW	–	5TT4424-0	5TT4454-0	–	–
				4 MW	–	–	–	5TT4464-0	5TT4474-0
	24 V	–	–	2 MW	–	5TT4424-2	5TT4454-2	–	–
				4 MW	–	–	–	5TT4464-2	5TT4474-2
2 NO + 2 NC	440 V	230 V	–	2 MW	–	5TT4426-0	5TT4456-0	–	–
				4 MW	–	–	–	5TT4466-0	5TT4476-0
	24 V	–	–	2 MW	–	5TT4426-2	5TT4456-2	–	–
				4 MW	–	–	–	5TT4466-2	5TT4476-2
<b>For DC applications</b>									
1 NO	250 V	–	24 V	1 MW	5TT4411-5	5TT4431-5	5TT4451-5	–	–
2 NO	440 V	–	24 V	1 MW	5TT4412-5	5TT4432-5	5TT4452-5	–	–
1 NO + 1 NC	440 V	–	24 V	1 MW	5TT4415-5	5TT4435-5	5TT4455-5	–	–
1 CO	250 V	–	24 V	1 MW	5TT4417-5	5TT4437-5	5TT4457-5	–	–

Further technical specifications		5TT440	5TT442	5TT445	5TT446	5TT447
<b>Standards</b>						
Standards		IEC 60669-2-2			IEC/EN 60947-4-1	
Approvals		CE				
<b>Supply</b>						
Rated operational current $I_e$	At p.f. = 0.6 ... 1 (AC-15)	20 A	25 A	32 A	40 A	63 A
Rated frequency $f_c$		50/60 Hz				
Rated power dissipation $P_v$	Magnet coil, "On" pulse	13 W/18 VA			12 W/26 VA	
	Per pole, max.	1.5 W	2 W	3 W		3.5 W
Rated operational power (AC-3)	1-phase, at 230 V	0.5 kW	0.75 kW	1.1 kW	2.2 kW	4 kW
	3-phase, at 230 V	1.5 kW	2.2 kW	3 kW	5.5 kW	11 kW
	3-phase, at 400 V	3 kW	4 kW	5.5 kW	11 kW	18.5 kW
<b>Contacts</b>						
Contact gap		>3 mm				
Minimum contact load AC		10 V; 100 mA				
Electrical endurance at $I_e/U_e$ , p. f. = 0.6, incandescent lamp load 600 W	Operating cycles	50000				
Incandescent lamp load (switching of incandescent lamps for 15000 switching cycles)	At AC-5b (230 V)	4400 W	5500 W	7000 W	8800 W	13800 W
Max. switching speed	In switching cycles per hour	600 h <sup>-1</sup>	450 h <sup>-1</sup>		360 h <sup>-1</sup>	
<b>Safety</b>						
Different phases between magnet coil and contact		Permissible				
Rated impulse withstand voltage $U_{imp}$		3 kV				
<b>Function</b>						
Manual operation		Yes				
Switching position indication		Yes				
<b>Connections</b>						
Terminals	± Screw (Pozidriv)	Coil: PZ 1, contact: PZ 2				
	Max. tightening torque	Coil: 0.6 Nm, contact: 1.2 Nm			Coil: 0.6 Nm, contact: 2 Nm	
Coil conductor cross-sections		1 ... 4 mm <sup>2</sup>				
<b>Environmental conditions</b>						
Permissible ambient temperature	For operation/for storage	-25 ... +55 °C/-30 ... +80 °C				
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	55 °C				
Degree of protection	Acc. to EN 60529	IP20				
Mounting position		Any (not upside down)				

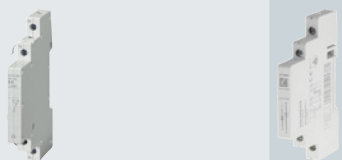
## Accessories

Auxiliary switch						
	Contacts	$U_e$	$I_e$	Mounting width	Article No.	
	1 NO + 1 NC	250 V AC	16 A	0.5 MW	5TT4930	
Auxiliary switches, central with diode						
	• For central function (no auxiliary switch)					
	$U_e$	Mounting width	Article No.			
	250 V AC	0.5 MW	5TT4931			
Auxiliary switches, group with several diodes						
	• For group function (no auxiliary switch)					
	$U_e$	Mounting width	Article No.			
	250 V AC	0.5 MW	5TT4932			

# 5TT4 auxiliary switches

For 5TT4 remote control switches

	Auxiliary switches for 5TT41	Auxiliary switches for 5TT44
Rigid conductor cross-section	0.5 ... 2.5 mm <sup>2</sup>	1 ... 4 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	0.5 ... 2.5 mm <sup>2</sup>	1 ... 4 mm <sup>2</sup>



Contacts	Type	$I_e$	$U_e$	Mounting width		
<b>Auxiliary switches</b>						
1 NO + 1 NC	Standard	16 A	250 V AC	0.5 MW	–	5TT4930
1 CO	Standard	5 A	250 V AC	0.5 MW	5TT4900	–
	For low power	0.1 A	30 V AC/DC	0.5 MW	5TT4901	–
<b>Auxiliary switches, central with diode for central function (no auxiliary switch)</b>						
			250 V AC	0.5 MW	–	5TT4931
<b>Auxiliary switches, group with several diodes for group function (no auxiliary switch)</b>						
			250 V AC	0.5 MW	–	5TT4932

Further technical specifications		Auxiliary switches for 5TT41		Auxiliary switches for 5TT44		
		5TT4900	5TT4901	5TT4930	5TT4931	5TT4932
<b>Standards</b>						
Standards		EN 60947-1 (VDE 0660 Part 100) EN 60947-5-1 (VDE 0660 Part 200)		IEC/EN 60947-5-1		
Approvals		–		CE, EAC		
<b>Supply</b>						
Rated operational current $I_e$	At p.f. = 0.6 ... 1 (AC-15)	16 A		4 A	–	
Rated frequency $f_c$		–		50/60 Hz		
Rated power dissipation $P_v$	Per pole, max.	–		0.3 W		
<b>Contacts</b>						
Contact gap		<1.2 mm		>3 mm		
Minimum contact load		5 V; 1 mA		12 V; 5 mA		
Electrical endurance at $I_e/U_e$ , p.f. = 0.6, incandescent lamp load 600 W		Operating cycles		100000	–	
<b>Safety</b>						
Clearances		Between magnet coil and contact	>6 mm	–		
Creepage distances		Between magnet coil and contact	>6 mm	–		
Rated impulse withstand voltage $U_{imp}$			1 kV	1 kV		
Pushbutton malfunction protected against continuous voltage, safe due to design			Yes	–		
<b>Function</b>						
Manual operation			–	No		
Switching position indication			–	No		
<b>Connections</b>						
Terminals		± Screw (Pozidriv)	PZ 1	PZ 1		
		Max. tightening torque	0.5 Nm	0.8 Nm		
<b>Environmental conditions</b>						
Permissible ambient temperature		For operation/for storage	–10 ... +40 °C/–10 ... +40 °C	–25 ... +70 °C/–30 ... +80 °C		
Resistance to climate at 95% relative humidity		Acc. to DIN 50015	35 °C	55 °C		
Degree of protection		Acc. to EN 60529	IP20, with connected conductors	IP20		
Mounting position			Any	Any (not upside down)		

## Accessories

### Compensator



- For increasing the glow lamp load by 20 mA

$U_e$	Mounting width	Article No.
250 V AC	1 MW	5TT4920

# 5TT42 switching relays

Rated current 16 A

Rated operational current  $I_e$   
16 A

Rigid conductor cross-section 1 ... 6 mm<sup>2</sup>  
Flexible conductor cross-section, with end sleeve 1 ... 6 mm<sup>2</sup>



Contacts	$U_e$	$U_c$ AC	$U_c$ DC	Mounting width	
1 NO	250 V	230 V	–	1 MW	5TT4201-0
		115 V	–	1 MW	5TT4201-1
		24 V	–	1 MW	5TT4201-2
		12 V	–	1 MW	5TT4201-3
		8 V	–	1 MW	5TT4201-4
2 NO	400 V	230 V	–	1 MW	5TT4202-0
		115 V	–	1 MW	5TT4202-1
		24 V	–	1 MW	5TT4202-2
		12 V	–	1 MW	5TT4202-3
		8 V	–	1 MW	5TT4202-4
4 NO	400 V	230 V	–	1 MW	5TT4204-0
		115 V	–	1 MW	5TT4204-1
		24 V	–	1 MW	5TT4204-2
		12 V	–	1 MW	5TT4204-3
		8 V	–	1 MW	5TT4204-4
1 NO + 1 NC	400 V	230 V	–	1 MW	5TT4205-0
		115 V	–	1 MW	5TT4205-1
		24 V	–	1 MW	5TT4205-2
		12 V	–	1 MW	5TT4205-3
		8 V	–	1 MW	5TT4205-4
1 CO	250 V	230 V	–	1 MW	5TT4206-0
		115 V	–	1 MW	5TT4206-1
		24 V	–	1 MW	5TT4206-2
		12 V	–	1 MW	5TT4206-3
		8 V	–	1 MW	5TT4206-4
2 CO	400 V	230 V	–	1 MW	5TT4207-0
		115 V	–	1 MW	5TT4207-1
		24 V	–	1 MW	5TT4207-2
		12 V	–	1 MW	5TT4207-3
		8 V	–	1 MW	5TT4207-4
		–	110 V	1 MW	5TT4217-1
		–	30 V	1 MW	5TT4217-6
		–	24 V	1 MW	5TT4217-2
		–	12 V	1 MW	5TT4217-3
		–	–	–	–

Further technical specifications		5TT4201-	5TT4202-	5TT4204-	5TT4205-	5TT4206-	5TT4207-	5TT4217-
<b>Standards</b>								
Standards		EN 60947-5-1, EN 60669-2-2						
Approvals		VDE, CCC						
<b>Supply</b>								
Rated operational current $I_e$	At p.f. = 0.6 ... 1	16 A						
Primary operating range		0.8...1.1 × $U_c$						
Rated frequency $f_c$		50 Hz						
Rated power dissipation $P_v$	Magnet coil	2.4 W 3.0 VA		4.8 W 6.0 VA		2.4 W 3.0 VA		1.7 W 1.7 VA
	Per pole, max.	1.0 W						
<b>Contacts</b>								
Contact gap		>1.2 mm						
Minimum contact load		10 V AC; 100 mA						
Electrical endurance at $I_e/U_e$ , p.f. = 0.6, incandescent lamp load 600 W	Operating cycles	50000						
<b>Safety</b>								
Different phases between magnet coil and contact		Permissible						
Safe separation		>6 mm						
Rated impulse withstand voltage $U_{imp}$		4 kV						
<b>Function</b>								
Manual operation		Yes						
<b>Connections</b>								
Terminals	± Screw (Pozidriv)	PZ 1						
	Max. tightening torque	0.8 ... 1 Nm						
<b>Environmental conditions</b>								
Permissible ambient temperature		-10 ... +40 °C						
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	35 °C						
Degree of protection	Acc. to EN 60529	IP20, with connected conductors						

## Accessories

### Spacer



- Contour for modular devices with a mounting depth of 70 mm
- Can be snapped onto either side of the busbar for convenient cable routing
- Spacer is recommended for better heat dissipation

Article No.

5TG8240



# 5TT50 Insta contactors

## AC/DC technology

	Rated operational current $I_e$			
	20 A	25 A	40 A	63 A
Main connection conductor cross-section, solid	1.0 ... 10 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>
Main connection conductor cross-section, stranded with end sleeve	1.0 ... 6 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>
Main connection conductor cross-section, AWG	16 ... 8	16 ... 4	16 ... 4	16 ... 4



Contacts	$U_e$	$U_c$ AC	$U_c$ DC	Mounting width					
<b>Insta contactors with manual switch</b>									
2 NO	230 V	230 V	220 V	1 MW	5TT5000-0	–	–	–	
		24 V	24 V	1 MW	5TT5000-2	–	–	–	
4 NO	400 V	230 V	220 V	2 MW	–	5TT5030-0	–	–	
				3 MW	–	–	5TT5040-0	5TT5050-0	
		115 V	110 V	2 MW	–	5TT5030-1	–	–	
				24 V	24 V	2 MW	–	5TT5030-2	–
				3 MW	–	–	5TT5040-2	5TT5050-2	
2 NC	230 V	230 V	220 V	1 MW	5TT5002-0	–	–		
		24 V	24 V	1 MW	5TT5002-2	–	–		
4 NC	400 V	230 V	220 V	2 MW	–	5TT5033-0	–	–	
				3 MW	–	–	5TT5043-0	–	
		24 V	24 V	2 MW	–	5TT5033-2	–	–	
				3 MW	–	–	5TT5043-2	–	
				–	–	–	–	–	
1 NO + 1 NC	230 V	230 V	220 V	1 MW	5TT5001-0	–	–		
		24 V	24 V	1 MW	5TT5001-2	–	–		
2 NO + 2 NC	400 V	230 V	220 V	2 MW	–	5TT5032-0	–	–	
				3 MW	–	–	5TT5042-0	5TT5052-0	
		24 V	24 V	2 MW	–	5TT5032-2	–	–	
				3 MW	–	–	5TT5042-2	5TT5052-2	
				–	–	–	–	–	
3 NO + 1 NC	400 V	230 V	220 V	2 MW	–	5TT5031-0	–	–	
				3 MW	–	–	5TT5041-0	5TT5051-0	
		24 V	24 V	2 MW	–	5TT5031-2	–	–	
				3 MW	–	–	5TT5041-2	5TT5051-2	
				–	–	–	–	–	
<b>Insta contactors with O//Automatic</b>									
2 NO	230 V	230 V	220 V	1 MW	5TT5000-6	–	–		
		24 V	24 V	1 MW	5TT5000-8	–	–		
4 NO	400 V	230 V	220 V	2 MW	–	5TT5030-6	–		
		24 V	24 V	2 MW	–	5TT5030-8	–		
1 NO + 1 NC	230 V	230 V	220 V	1 MW	5TT5001-6	–	–		
		24 V	24 V	1 MW	5TT5001-8	–	–		
3 NO + 1 NC	400 V	230 V	220 V	2 MW	–	5TT5031-6	–		
		24 V	24 V	2 MW	–	5TT5031-8	–		

### Note:

Provision must be made for spacers to ensure heat dissipation.

See Configuration manual – Switching devices ([45315361](#)).

### Accessories

#### Spacer



- Contour for modular devices with a mounting depth of 70 mm
- Can be snapped onto either side of the busbar for convenient cable routing
- Spacer is recommended for better heat dissipation

Article No.

5TG8240

## Further technical specifications

		5TT500	5TT503	5TT504	5TT505
<b>Standards</b>					
Standards		EN 60947-4-1; EN 60947-5-1; EN 61095			
Approvals		UL 508; UL File No. E303328			
<b>Supply</b>					
Rated operational current $I_e$	AC-1/AC-7a, NO contacts/NC contacts	20 A/20 A	25 A/25 A	40 A/40 A	63 A/63 A
	AC-3/AC-7b, NO contacts/NC contacts	9 A/6 A	8.5 A/8.5 A	22 A/22 A	30 A/30 A
Primary operating range		0.85 ... 1.1 × $U_c$			
Rated frequency $f_c$ at AC		50/60 Hz			
Rated power dissipation $P_v$	Pick-up power (without manual switch or with manual switch in "I" position)	2.1 VA/2.1 W	2.6 VA/2.6 W	5 VA/5 W	
	Pick-up power (with manual switch in "AUTO" position)	2.1 VA/4.1 W	2.6 VA/2.6 W	5 VA/5 W	
	Holding power	2.1 VA/2.1 W	2.6 VA/2.6 W	5 VA/5 W	
	Per contact AC-1/AC-7a	1.7 VA	2.2 VA	4 VA	8 VA
<b>Contacts</b>					
Contact gap (NO contacts)	Min.	3.6 mm			
Minimum switching capacity	(= minimum contact load)	≥17 V; 50 mA			
Electrical endurance at $I_e$ and load	AC-1/AC-7a operating cycles	200000		100000	
	AC-3/AC-7b operating cycles	300000	500000	150000	
Mechanical service life	Operating cycles	3 million			
Switching of resistive loads AC-1 at rated operational power $P_s$	1-phase (NO contacts)	4 kW (230 V)	5.4 kW (400 V)	8.7 kW (400 V)	13.3 kW (400 V)
	3-phase (NO contacts)	–	16 kW (400 V)	26 kW (400 V)	40 kW (400 V)
Switching of 3-phase asynchronous motors AC-3 at rated operational power $P_s$	1-phase (NO contacts)	1.3 kW/0.75 kW	1.3 kW/1.3 kW	3.7 kW/3.7 kW	5/5 kW
	3-phase (NO contacts)	–	4 kW	11 kW	15 kW
Maximum switching frequency at load	AC-1/AC-7a/AC-3/AC-7b	600 h <sup>-1</sup>			
<b>Safety</b>					
Rated impulse withstand voltage $U_{imp}$		≤4 kV			
Short-circuit protection, according to coordination type 1	Back-up fuse characteristic gL/gG	20 A	25 A	63 A	80 A
Overload withstand capability at 10 s	Per conducting path (NO contacts only)	72 A	68 A	176 A	240 A
<b>Function</b>					
Switching times	Closing (NO contacts)	15 ... 45 ms		15 ... 20 ms	
	Opening (NO contacts)	20 ... 50 ms	20 ... 70 ms	35 ... 45 ms	
<b>Connections</b>					
Coil/main connection terminals	± Screw (Pozidriv)	PZ 1/PZ 1	PZ 1/PZ 2		
Coil connection conductor cross-section	Solid	1.0 ... 2.5 mm <sup>2</sup>			
	Stranded, with end sleeve	1.0 ... 2.5 mm <sup>2</sup>			
	AWG cables	16 ... 10			
Main connection conductor cross-section	Solid	1.0 ... 10 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>		
	Stranded, with end sleeve	1.0 ... 6 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>		
	AWG cables	16 ... 8	16 ... 4		
Tightening torque	Coil connection	0.6 Nm/8 lbs/in.			
	Main connection	1.2 Nm/9 lbs/in.	3.5 Nm/20 lbs/in.		
<b>Environmental conditions</b>					
Permissible ambient temperature	For operation <sup>1)</sup> /For storage	–15 ... +55 °C/–50 ... +80 °C			
Degree of protection	Acc. to EN 60529	IP20, with connected conductors			
<b>Characteristics according to UL 508</b>					
Rated operational current $I_n$		20 A	25 A	40 A	63 A
UL 508 General Use 240 V/480 V	FLA	20 A	25 A	40 A	63 A
UL 508 AC discharge lamps		20 A	25 A	30 A	40 A
UL 508 motor load	Power 240 V/480 V	1 hp/–	3 hp/5 hp	7.5 hp/15 hp	10 hp/20 hp
UL 508 short-circuit at 480 V	K5 fuses	20 A	25 A	60 A	70 A

<sup>1)</sup> Contactors can be operated at ambient temperatures of between –25 °C and +70 °C, but only under special conditions.

For more information, please contact Siemens Support. For questions concerning heat dissipation, please refer to the instructions in the Configuration Manual "Switching Devices".

## Accessories

## Auxiliary switches



- For right-hand-side retrofitting
- Max. one auxiliary switch per Insta contactor

Contacts	Mounting width	Article No.
2 NO	0.5 MW	5TT5910-0
1 NO + 1 NC	0.5 MW	5TT5910-1

## Sealable terminal covers



For Insta contactor	Mounting width	Article No.
20 A	1 MW	5TT5910-5
25 A	2 MW	5TT5910-6
40 A and 63 A	3 MW	5TT5910-7


# 5TT58 Insta contactors

## AC technology

Main connection conductor cross-section, rigid

Main connection conductor cross-section, flexible with end sleeve

	Rated operational current $I_e$			
	20 A	25 A	40 A	63 A
Main connection conductor cross-section, rigid	1.0 ... 10 mm <sup>2</sup>	1.0 ... 10 mm <sup>2</sup>	1 ... 25 mm <sup>2</sup>	1 ... 25 mm <sup>2</sup>
Main connection conductor cross-section, flexible with end sleeve	1.0 ... 6 mm <sup>2</sup>	1.0 ... 6 mm <sup>2</sup>	1 ... 16 mm <sup>2</sup>	1 ... 16 mm <sup>2</sup>



Contacts	$U_e$	$U_c$ AC	Mounting width				
<b>Insta contactors without manual switch</b>							
2 NO	230 V	230 V	1 MW	5TT5800-0	–	–	–
		24 V	1 MW	5TT5800-2	–	–	–
4 NO	400 V	230 V	Standard	2 MW	–	5TT5830-0	–
				3 MW	–	–	5TT5840-0
		Capacitive loads up to 150 µF	2 MW	–	5TT5820-0	–	–
			115 V	2 MW	–	5TT5830-1	–
		24 V	2 MW	–	5TT5830-2	–	–
			3 MW	–	–	5TT5840-2	5TT5850-2
2 NC	230 V	230 V	1 MW	5TT5802-0	–	–	–
		24 V	1 MW	5TT5802-2	–	–	–
4 NC	400 V	230 V	2 MW	–	5TT5833-0	–	–
			3 MW	–	–	5TT5843-0	5TT5853-0
			2 MW	–	5TT5833-2	–	–
3 MW	–	–	5TT5843-2	5TT5853-2			
	230 V	230 V	1 MW	5TT5801-0	–	–	–
	24 V	1 MW	5TT5801-2	–	–	–	
2 NO + 2 NC	400 V	230 V	2 MW	–	5TT5832-0	–	–
			3 MW	–	–	5TT5842-0	5TT5852-0
			2 MW	–	5TT5832-2	–	–
3 MW	–	–	5TT5842-2	5TT5852-2			
	230 V	230 V	2 MW	–	5TT5831-0	–	–
	3 MW	–	–	5TT5841-0	5TT5851-0		
115 V	2 MW	–	–	5TT5831-1	–	–	
		24 V	2 MW	–	5TT5831-2	–	–
		3 MW	–	–	5TT5841-2	5TT5851-2	
<b>Insta contactors with manual switch O/I/Automatic</b>							
2 NO	230 V	230 V	1 MW	5TT5800-6	–	–	–
		24 V	1 MW	5TT5800-8	–	–	–
4 NO	400 V	230 V	2 MW	–	5TT5830-6	–	–
			3 MW	–	–	5TT5840-6	5TT5850-6
			2 MW	–	5TT5830-8	–	–
3 MW	–	–	5TT5840-8	–	–		
	230 V	230 V	1 MW	5TT5801-6	–	–	–
	24 V	1 MW	5TT5801-8	–	–	–	
3 NO + 1 NC	400 V	230 V	2 MW	–	5TT5831-6	–	–
			3 MW	–	–	5TT5841-6	–
			2 MW	–	5TT5831-8	–	–
3 MW	–	–	5TT5841-8	–	–		

### Note:

Provision must be made for spacers to ensure heat dissipation.



See Configuration manual – Switching devices ([45315361](#)).


## Further technical specifications

		5TT580.	5TT582. 5TT583.	5TT584.	5TT585.
<b>Standards</b>					
Standards		IEC 60947-4-1, IEC 60947-5-1, IEC 61095; EN 60947-4-1, EN 60947-5-1, EN 61095, VDE 0660			
<b>Supply</b>					
Number of poles		2	4		
Rated operational current $I_e$		20 A	25 A	40 A	63 A
Primary operating range		0.85 ... 1.1 × $U_c$			
Rated frequency $f_c$ at AC		50/60 Hz			
Rated power dissipation $P_v$	Pick-up power (without manual switch or manual switch in "I" position)	6 VA/3.8 W	10 VA/5 W	15.4 VA/4.6 W	
	Pick-up power (with manual switch in "AUTO" position)	12 VA/10 W	33 VA/25 W	62 VA/50 W	
	Holding power	2.8 VA/1.2 W	5.5 VA/1.6 W	7.7 VA/3 W	
	Per contact AC-1/AC-7a	1.7 VA	2.2 VA	4 VA	8 VA
<b>Contacts</b>					
Contact gap	Minimum	3.6 mm		3.4 mm	
Minimum switching capacity	(= minimum contact load)	≥17 V; 50 mA			
Electrical endurance at $I_e$ and load	AC-1/AC-7a operating cycles	200000		100000	
	AC-3/AC-7b operating cycles	300000	500000	150000	
Mechanical service life	Operating cycles	3 million			
Switching of resistive loads AC-1/AC-7a for rated operational power $P_s$	1-phase (230 V) (NO contacts)	4 kW	5.4 kW	8.7 kW	13.3 kW
	3-phase (400 V) (NO contacts)	–	16 kW	26 kW	40 kW
Switching of 3-phase asynchronous motors AC-3/AC-7b for rated operational power $P_s$	1-phase (230 V) (NO contacts)	1.3 kW <sup>1)</sup>	1.3 kW	3.7 kW	5 kW
	3-phase (400 V) (NO contacts)	–	4 kW	11 kW	15 kW
Maximum switching frequency at load		600 h <sup>-1</sup>			
<b>Safety</b>					
Rated insulation voltage $U_i$		440 V		500 V	
Rated impulse withstand voltage $U_{imp}$		4 kV			
Short-circuit protection, according to coordination type 1	Back-up fuse characteristic gL/GG	20 A	25 A	63 A	80 A
Overload withstand capability at 10 s	Per conducting path (NO contacts only)	72 A	68 A	176 A	240 A
<b>Function</b>					
Switching times	Closing (NO contacts)	15 ... 25 ms	10 ... 20 ms	15 ... 20 ms	
	Opening (NO contacts)	20 ms		10 ms	
	Closing (NC contacts)	20 ... 30 ms		5 ... 10 ms	
	Opening (NC contacts)	10 ms		10 ... 15 ms	
<b>Connections</b>					
Coil connection terminals	± Screw (Pozidriv)	PZ 1			
Main connection terminals	± Screw (Pozidriv)	PZ 1		PZ 2	
Coil connection conductor cross-section	Rigid	1.0 ... 2.5 mm <sup>2</sup>			
	Flexible, with end sleeve	1.0 ... 2.5 mm <sup>2</sup>			
Main connection conductor cross-section	Rigid	1.0 ... 10 mm <sup>2</sup>		1 ... 25 mm <sup>2</sup>	
	Flexible, with end sleeve	1.0 ... 6 mm <sup>2</sup>		1 ... 16 mm <sup>2</sup>	
Tightening torque	Coil connection	0.6 Nm			
	Main connection	1.2 Nm		3.5 Nm	
<b>Environmental conditions</b>					
Permissible ambient temperature	For operation/for storage	–5 ... +55 °C/–30 ... +80 °C			
Degree of protection	Acc. to EN 60529	IP20, with connected conductors			

<sup>1)</sup> For NO contacts only.

## Accessories

Auxiliary switches			
	<ul style="list-style-type: none"> <li>For right-hand-side retrofitting</li> <li>Max. one auxiliary switch per Insta contactor</li> </ul>		
	Contacts	Mounting width	Article No.
	2 NO	0.5 MW	5TT5910-0
1 NO + 1 NC	0.5 MW	5TT5910-1	
Sealable terminal covers			
	For Insta contactor	Mounting width	Article No.
	20 A	1 MW	5TT5910-5
	25 A	2 MW	5TT5910-6
	40 A and 63 A	3 MW	5TT5910-7

Spacer	
	<ul style="list-style-type: none"> <li>Contour for modular devices with a mounting depth of 70 mm</li> <li>Can be snapped onto either side of the busbar for convenient cable routing</li> <li>Spacer is recommended for better heat dissipation</li> </ul>
	Article No.
	5TG8240

# 5TT5 auxiliary switches

For 5TT5 Insta contactor

Rigid conductor cross-section	1 ... 2.5 mm <sup>2</sup>
Flexible conductor cross-section, with end sleeve	1 ... 2.5 mm <sup>2</sup>



Contacts	$U_e$ AC	Mounting width	
2 NO	230 V/400 V	0.5 MW	5TT5910-0
1 NO + 1 NC	230 V/400 V	0.5 MW	5TT5910-1

5

## Further technical specifications

5TT5910

Standards		
Standards		IEC 60947-5-1
Approvals		CCC
Supply		
Number of poles		2
Rated operational current $I_e$	230 V	6 A
	400 V	4 A
Rated frequency $f_c$ at AC		50/60 Hz
Contacts		
Contact gap	Minimum	4 mm
Minimum switching capacity	(= minimum contact load)	$\geq 12$ V; 5 mA
Mechanical service life	Operating cycles	3 million
Maximum switching frequency at load		600 h <sup>-1</sup>
Safety		
Rated insulation voltage $U_i$		500 V
Rated impulse withstand voltage $U_{imp}$		4 kV
Short-circuit protection, according to coordination type 1	Back-up fuse characteristic gL/gG	6 A
Connections		
Terminals	$\pm$ Screw (Pozidriv)	PZ 1
Conductor cross-section	Rigid	1 ... 2.5 mm <sup>2</sup>
	Flexible, with end sleeve	1 ... 2.5 mm <sup>2</sup>
Tightening torque		0.8 Nm
Environmental conditions		
Permissible ambient temperature	For operation/for storage	-5 ... +55 °C/-30 ... +80 °C
Degree of protection	Acc. to EN 60529	IP20, with connected conductors

# 5TT3 soft-starting devices

For 2-phase motor control

Rigid conductor cross-section Max. 2 × 2.5 mm<sup>2</sup>  
Flexible conductor cross-section, with end sleeve Min. 1 × 0.5 mm<sup>2</sup>



Version	$U_e$ AC	Mounting width	
3-phase	400 V	6 MW	5TT3440

## Further technical specifications

5TT3440

Standards		
Standards		EN 60947-4-2 (VDE 0660-117)
Supply		
Line/motor voltage		400 V AC
Primary operating range		0.8 ... 1.1 × $U_c$
Rated frequency $f_c$ at AC		50/60 Hz
Rated power		3.5 VA
Rated power dissipation $P_v$ at rated operational current	Coil/drive	3.5 VA
	Per contact	4.6 VA
Rated output of motor at 400 V	Max.	5500 VA
	Min.	300 VA
Startup voltage		30 ... 70%
Starting ramp		0.1 ... 10 s
Safety		
Quick-acting semiconductor fuse		35 A
Function		
Switching frequency $3 \times I_N, T_{AN} = 10$ s, $v_u = 20\%$	Operating cycles (up to 3 kW)	36 h <sup>-1</sup>
	Operating cycles (from 3 ... 5.5 kW)	20 h <sup>-1</sup>
Recovery time		100 ms
Connections		
Conductor cross-section	Rigid	Max. 2 × 2.5 mm <sup>2</sup>
	Flexible, with end sleeve	Min. 1 × 0.5 mm <sup>2</sup>
Environmental conditions		
Permissible ambient temperature		-20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/60/4

# 7LF4 digital time switches

## Mini



- Weekly program
- 28 programs
- Automatic daylight-saving adjustment

Contacts	$U_c$	Channels	Mounting width	
1 NO	230 V AC	1	1 MW	7LF4501-5

### Further technical specifications

Mini

Standards		
Standards		EN 60730-1, -2-7; VDE 0631-1, -2-7
Supply		
Primary operating range		0.85 ... 1.1 × $U_c$
Frequency range		50/60 Hz
Rated power dissipation $P_v$		0.9 VA
Channels		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$ At p.f. = 1		16 A
At p.f. = 0.6		10 A
Contacts		
Minimum contact load		12 V/100 mA
Electrical operating cycles At p.f. = 1		6000 (20 A)
Mechanical operating cycles		>5 million
Incandescent lamp load		5 A
Energy-saving lamp load		300 W
Fluorescent lamp load		60 VA
Parallel p.f. correction 70 μF		
Uncorrected		2500 VA
Safety		
Different phases between operating mechanism and contact		Permissible
Rated impulse withstand voltage $U_{imp}$		4 kV
Electrostatic discharge Acc. to IEC 61000-4-2		>8.0 kV
EMC: Burst Acc. to IEC 61000-4-4		>4.4 kV
EMC: Surge Acc. to IEC 61000-4-5		>2.0 kV
Overvoltage category Acc. to EN 61010-1		III
Function		
Clock errors per day Typical		±1 s/day
Power reserve storage Battery		3 years
Make and break cycles		1 min
Minimum switching sequences		1 min
Control input Terminal S		–
Programs <sup>1)</sup>		28
Battery type		Li primary cell
Connections		
Terminals ± Screw (Pozidriv)		PZ 1
Conductor cross-sections of main current path Rigid		1.5 ... 4 mm <sup>2</sup>
Flexible, with end sleeve		Max. 2.5 mm <sup>2</sup>
Environmental conditions		
Permissible ambient temperature For operation/ for storage		–10 ... +55 °C/ –20 ... +60 °C
Resistance to climate Acc. to EN 60068-1		10/055/21
Degree of protection Acc. to EN 60529		IP20, with connected conductors
Safety class Acc. to EN 61140		II

<sup>1)</sup> A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.

## Top



- Weekly program
- 28 programs
- Text-assisted programming concept
  - Language: English
- Manual daylight-saving adjustment

Contacts	$U_c$	Channels	Mounting width	
1 CO	230 V AC	1	2 MW	7LF4511-0
2 CO	230 V AC	2	2 MW	7LF4512-0

## Further technical specifications

Further technical specifications		Top
<b>Standards</b>		
Standards		EN 60730-1, -2-7; VDE 0631-1, -2-7
<b>Supply</b>		
Primary operating range		0.85 ... 1.1 × $U_c$
Frequency range		50/60 Hz
Rated power dissipation $P_v$		2 VA
<b>Channels</b>		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$	At p.f. = 1	16 A
	At p.f. = 0.6	10 A
<b>Contacts</b>		
Minimum contact load		12 V/100 mA
Electrical operating cycles	At p.f. = 1	100000
Mechanical operating cycles		10 million
Incandescent lamp load		8 A
Energy-saving lamp load		60 VA
Fluorescent lamp load	Parallel p.f. correction 70 μF	60 VA
	Uncorrected	2300 VA
<b>Safety</b>		
Different phases between operating mechanism and contact		Permissible <sup>2)</sup>
Rated impulse withstand voltage $U_{imp}$		4 kV
Electrostatic discharge	Acc. to IEC 61000-4-2	>8.0 kV
EMC: Burst	Acc. to IEC 61000-4-4	>4.4 kV
EMC: Surge	Acc. to IEC 61000-4-5	>2.0 kV
Oversvoltage category	Acc. to EN 61010-1	III
<b>Function</b>		
Clock errors per day	Typical	±1.5 s/day
Power reserve storage	Battery	3 years
Make and break cycles		1 min
Minimum switching sequences		1 min
Control input	Terminal S	No
Programs <sup>1)</sup>		28 (14 per channel)
Program memory	Captive	No
Battery type		Li primary cell
<b>Connections</b>		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm <sup>2</sup>
	Flexible, with end sleeve	Max. 2.5 mm <sup>2</sup>
<b>Environmental conditions</b>		
Permissible ambient temperature	For operation/ for storage	–20 ... +55 °C/ –20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/055/21
Degree of protection	Acc. to EN 60529	IP20, with connected conductors
Safety class	Acc. to EN 61140	II

<sup>1)</sup> A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.

<sup>2)</sup> The combination of line voltage (230 V) and SELV is not permissible in conjunction with a 2-channel time switch. This requirement is, however, admissible in the case of 1-channel time switch.



# 7LF4 digital time switches

## Profi



- Weekly program
- Vacation program
- Random program
- Expert mode
- Cycle function
- Text-assisted programming concept
  - 15 languages
- Simple program creation on a PC using the supplied software, with 7LF4941-0 USB adapter
- Automatic daylight-saving adjustment
- Operating hours counter, counting range: 65535 h
- Accurate to the second hh:mm:ss
- Synchronization 50/60 Hz

Contacts	$U_c$	Channels	Mounting width	
1 CO	230 V AC	1	2 MW	7LF4521-0
	24 V AC/DC	1	2 MW	7LF4521-2
2 CO	230 V AC	2	2 MW	7LF4522-0
	24 V AC/DC	2	2 MW	7LF4522-2

### Further technical specifications

### Profi

Standards		
Standards		EN 60730-1, -2-7; VDE 0631-1, -2-7
Approvals		UL File No. E301698
Supply		
Primary operating range	$U_c$ 230 V	0.85 ... 1.1 × $U_c$
	$U_c$ 24 V	0.9 ... 1.1 × $U_c$
Frequency range	$U_c$ 230 V	50/60 Hz
	$U_c$ 24 V	50/60 Hz
Rated power dissipation $P_v$	$U_c$ 230 V	2 VA
	$U_c$ 24 V	2 VA
Channels		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$	At p.f. = 1	16 A
	At p.f. = 0.6	10 A
Contacts		
Minimum contact load		12 V/100 mA
Electrical operating cycles At p.f. = 1		100000
Mechanical operating cycles		10 million
Incandescent lamp load		8 A
Energy-saving lamp load		1000 W
Fluorescent lamp load	Parallel p.f. correction 70 μF	600 VA
	Uncorrected	2000 VA
Safety		
Different phases between operating mechanism and contact		Permissible <sup>2)</sup>
Rated impulse withstand voltage $U_{imp}$		4 kV
Electrostatic discharge		Acc. to IEC 61000-4-2 >8.0 kV
EMC: Burst		Acc. to IEC 61000-4-4 >4.4 kV
EMC: Surge		Acc. to IEC 61000-4-5 >2.0 kV
Overvoltage category		Acc. to EN 61010-1 III
Function		
Clock errors per day	Typical	±0.1 s/day
Power reserve storage	Battery	5 years
Make and break cycles		1 s
Minimum switching sequences		1 s
Control input	Terminal S	No
Programs <sup>1)</sup>		28
Program memory		Captive Yes
Battery type		Li primary cell
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm <sup>2</sup>
	Flexible, with end sleeve	Max. 2.5 mm <sup>2</sup>
Environmental conditions		
Permissible ambient temperature	For operation/for storage	-20 ... +55 °C/ -20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/055/21
Degree of protection	Acc. to EN 60529	IP20, with connected conductors
Safety class	Acc. to EN 61140	II

<sup>1)</sup> A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.

<sup>2)</sup> The combination of line voltage (230 V) and SELV is not permissible in conjunction with a 2-channel time switch. This requirement is, however, admissible in the case of 1-channel time switch.

## Astro



- Weekly program
- Vacation program
- Random program
- Expert mode
- Astro function
- Text-assisted programming concept
  - 15 languages
- Simple program creation on a PC using the supplied software, with 7LF4941-0 USB adapter
- Automatic daylight-saving adjustment
- Operating hours counter, counting range: 65535 h
- Accurate to the second hh:mm:ss
- Synchronization 50/60 Hz
- Input disable via PIN code
- Daylight-saving correction
- 1 h test

Contacts	$U_c$	Channels	Mounting width	
1 CO	230 V AC	1	2 MW	7LF4531-0
2 CO	230 V AC	2	2 MW	7LF4532-0

## Further technical specifications

Astro




Standards		
Standards		EN 60730-1, -2-7; VDE 0631-1, -2-7
Approvals		UL File No. E301698
Supply		
Primary operating range		0.85 ... 1.1 × $U_c$
Frequency range		50/60 Hz
Rated power dissipation $P_v$		2 VA
Channels		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$	At p.f. = 1	16 A
	At p.f. = 0.6	10 A
Contacts		
Minimum contact load		12 V/100 mA
Electrical operating cycles	At p.f. = 1	100000
Mechanical operating cycles		10 million
Incandescent lamp load		8 A
Energy-saving lamp load		1000 W
Fluorescent lamp load	Parallel p.f. correction 70 μF	600 VA
	Uncorrected	2000 VA
Safety		
Different phases between operating mechanism and contact		Permissible <sup>2)</sup>
Rated impulse withstand voltage $U_{imp}$		4 kV
Electrostatic discharge	Acc. to IEC 61000-4-2	>8.0 kV
EMC: Burst	Acc. to IEC 61000-4-4	>4.4 kV
EMC: Surge	Acc. to IEC 61000-4-5	>2.0 kV
Overvoltage category	Acc. to EN 61010-1	III
Function		
Clock errors per day	Typical	±0.1 s/day
Power reserve storage	Battery	5 years
Make and break cycles		1 s
Minimum switching sequences		1 s
Control input	Terminal S	Yes (with 1K clock)
Programs <sup>1)</sup>		56 (2 × 28)
Program memory	Captive	Yes
Battery type		Li primary cell
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm <sup>2</sup>
	Flexible, with end sleeve	Max. 2.5 mm <sup>2</sup>
Environmental conditions		
Permissible ambient temperature	For operation/	–20 ... +55 °C/
	for storage	–20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/055/21
Degree of protection	Acc. to EN 60529	IP20, with connected conductors
Safety class	Acc. to EN 61140	II

<sup>1)</sup> A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.

<sup>2)</sup> The combination of line voltage (230 V) and SELV is not permissible in conjunction with a 2-channel time switch. This requirement is, however, admissible in the case of 1-channel time switch.

# 7LF4 digital time switches

## Accessories

		Mini	Top	Profi	Astro
<b>Data keys</b>					
	<ul style="list-style-type: none"> <li>For Profi and Astro digital time switches</li> <li>Programming at the PC (7LF4941-0 USB adapter and software required)</li> <li>Read-in of programs to the time switch</li> <li>Writing of programs from the time switch</li> <li>Transfer of programs               <ul style="list-style-type: none"> <li>From PC to time switch and vice versa</li> <li>From time switch to time switch</li> </ul> </li> </ul>				
	<b>Article No.</b>				
	7LF4941-1	–	–	■	■
<b>USB adapter and software</b>					
	<ul style="list-style-type: none"> <li>For Profi and Astro digital time switches</li> <li>For the reading and writing of data keys at the PC</li> <li>Including programming software</li> <li>Including 7LF4941-1 data key for Profi and Astro</li> <li>Compatible with 7LF4940-1 data key (predecessor model) and 7LF4940-2 data key</li> <li>Can be connected via USB interface</li> <li>System requirements:               <ul style="list-style-type: none"> <li>Windows 7, Windows Vista, Windows 2000, Windows ME, Windows XP or Windows 98 Second Edition</li> <li>USB connection</li> <li>40 MB free disk space</li> </ul> </li> </ul>				
	<b>Article No.</b>				
	7LF4941-0	–	–	■	■
<b>Holders for front panel installation</b>					
	<ul style="list-style-type: none"> <li>Universal application for devices from 1 MW ... 6 MW</li> <li>Cutout dimensions:               <ul style="list-style-type: none"> <li>Height 45<sup>+0.5</sup> mm</li> <li>Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm</li> </ul> </li> </ul>				
	<b>Article No.</b>				
	7LF9006	■	■	■	■



# 7LF5 mechanical time switches

Time switches without power reserve

For standard mounting rail

For wall mounting  
(surface mounting)



Contacts	Mounting width			
<b>With day disk</b>				
1 NO	1 MW	7LF5300-1	–	–
1 CO	3 MW	–	7LF5300-5	–
	–	–	–	7LF5301-0
<b>With week disk</b>				
1 CO	3 MW	–	7LF5300-6	–

Further technical specifications		7LF5300-1	7LF5300-5	7LF5300-6	7LF5301-0
<b>Standards</b>					
Standards		EN 60730-1, -2-7, UL 917, UL 917, CSA C22.2 No. 14 and 177			
Approvals		VDE, UL file: E301698			
<b>Supply</b>					
Rated control supply voltage $U_c$		230 V AC			
Primary operating range $U_c$ 230 V AC		0.85 ... 1.1 × $U_c$			
Rated frequency		50 Hz			
Frequency range		50 Hz			
Rated power dissipation $P_v$		1 VA			
<b>Channels</b>					
Rated operational voltage $U_e$		250 V AC			
Rated operational current $I_e$		At p.f. = 1		16 A	
		At p.f. = 0.6		4 A	
<b>Contacts</b>					
Minimum contact load		4 V/1 mA			
Electrical operating cycles		At p.f. = 1		100000	
Mechanical operating cycles		20 million			
Incandescent lamp load		5 A			
Fluorescent lamp load		Parallel p.f. correction 70 μF		60 VA	
		Uncorrected		1400 VA	
<b>Safety</b>					
Different phases between operating mechanism and contact		Permissible			
Electrical isolation, creepage distances and clearances		Operating mechanism		8 mm	
		Contact		6 mm	
Rated impulse withstand voltage $U_{imp}$		4 kV			
Electrostatic discharge		Acc. to IEC 61000-4-2		>8.0 kV	
EMC: Burst		Acc. to IEC 61000-4-4		>4.4 kV	
EMC: Surge		Acc. to IEC 61000-4-5		>2.0 kV	
Overvoltage category		Acc. to EN 61010-1		III	
<b>Function</b>					
Switching accuracy		±5 min		±30 min	±5 min
Clock errors		System-synchronized			
Make and break cycles		15 min		120 min	10 min
Minimum switching sequences		30 min		240 min	30 min
<b>Connections</b>					
Terminals		± Screw (Pozidriv)		PZ 1	
Conductor cross-sections of main current path		Rigid		1.5 ... 4 mm <sup>2</sup>	
		Flexible, with end sleeve		Max. 2.5 mm <sup>2</sup>	
		Flexible, without end sleeve		Max. 4 mm <sup>2</sup>	
<b>Environmental conditions</b>					
Permissible ambient temperature		For operation/for storage		-10 ... +55 °C/-10 ... +60 °C	
Resistance to climate		Acc. to EN 60068-1		10/055/21	
Degree of protection		Acc. to EN 60529		IP20, with connected conductors	
Safety class		Acc. to EN 61140		II	

## Accessories

### Holders for front panel installation







- Universal application for devices from 1 MW ... 6 MW
- Cutout dimensions:
  - Height 45<sup>+0.5</sup> mm
  - Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm

Article No.

7LF9006

# 7LF5 mechanical time switches

Time switches with power reserve

		For standard mounting rail		For wall mounting (surface mounting)	
Time buffering in the event of a power failure	–	–	■	–	–
Automatic daylight-saving adjustment	–	–	■	–	–
Automatic time setting for Central European time zone during commissioning	–	–	■	–	–
					
Contacts	Mounting width				
<b>With day disk</b>					
1 NO	1 MW	7LF5301-1	–	–	–
1 CO	3 MW	–	7LF5301-6	7LF5301-4	–
	–	–	–	–	7LF5305-0
<b>With week disk</b>					
1 CO	3 MW	–	7LF5301-7	7LF5301-5	–

Further technical specifications		7LF5301-1	7LF5301-4	7LF5301-5	7LF5301-6	7LF5301-7	7LF5305-0
<b>Standards</b>							
Standards	EN 60730-1, -2-7, UL 917, UL 917, CSA C22.2 No. 14 and 177						
Approvals	VDE, UL file: E301698						
<b>Supply</b>							
Rated control supply voltage $U_c$	230 V AC						
Primary operating range	0.85 ... 1.1 × $U_c$						
Rated frequency	50 Hz						
Frequency range	50/60 Hz						
Rated power dissipation $P_v$	1 VA	0.2 VA		1 VA			
<b>Channels</b>							
Rated operational voltage $U_e$	250 V AC						
Rated operational current $I_e$	At p.f. = 1	16 A					
	At p.f. = 0.6	4 A					
<b>Contacts</b>							
Minimum contact load	4 V/1 mA						
Electrical operating cycles	At p.f. = 1	100000					
Mechanical operating cycles	20 million						
Incandescent lamp load	5 A						
Fluorescent lamp load	Parallel p.f. correction 70 μF	60 VA					
	Uncorrected	1400 VA					
<b>Safety</b>							
Different phases between operating mechanism and contact	Permissible						
Electrical isolation, creepage distances and clearances	Operating mechanism	8 mm					
	Contact	6 mm					
Rated impulse withstand voltage $U_{imp}$	4 kV						
Electrostatic discharge	Acc. to IEC 61000-4-2	>8.0 kV					
EMC: Burst	Acc. to IEC 61000-4-4	>4.4 kV					
EMC: Surge	Acc. to IEC 61000-4-5	>2.0 kV					
Overvoltage category	Acc. to EN 61010-1	III					
<b>Function</b>							
Switching accuracy	±5 min		±30 min		±5 min	±30 min	±5 min
Clock errors	±2.5 s/day	±0.2 s/day	±60 s/day		±2.5 s/day		
Power reserve storage	100 h	6 years		100 h			
Make and break cycles	15 min		120 min		15 min	120 min	15 min
Minimum switching sequences	30 min		240 min		30 min	240 min	30 min
Battery type	NiMH cell	Li primary cell		NiMH cell			
Minimum loading time	48 h		–		48 h		
Service life of battery	At 20 °C	6 years		10 years		6 years	
	At 40 °C	5 years					
<b>Connections</b>							
Terminals	± Screw (Pozidriv)	PZ 1					
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm <sup>2</sup>					
	Flexible, with end sleeve	Max. 2.5 mm <sup>2</sup>					
	Flexible, without end sleeve	Max. 4 mm <sup>2</sup>					
<b>Environmental conditions</b>							
Permissible ambient temperature	Storage/operation	–10 ... +60 °C/–10 ... +55 °C					
Resistance to climate	Acc. to EN 60068-1	10/055/21					
Degree of protection	Acc. to EN 60529	IP20, with connected conductors					
Safety class	Acc. to EN 61140	II					

## Accessories

### Holders for front panel installation





- Universal application for devices from 1 MW ... 6 MW
- Cutout dimensions:
  - Height 45<sup>+0.5</sup> mm
  - Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm

Article No.

7LF9006



# 7LF6 timers for buildings



	Standard stairwell lighting timers	Multi stairwell lighting timers
3-wire circuit	■	■
4-wire circuit	■	■
Zero crossing circuit	■	■
Operation	Resettable	Resettable
		
<b>Contacts</b>	<b>Warning of impending switch-off</b>	<b>Mounting width</b>
1 NO	– Flickering	1 MW 1 MW
		7LF6310 –
		– 7LF6311

## Further technical specifications

		7LF6310	7LF6311
<b>Supply</b>			
Rated operational current $I_e$	At p.f. = 1	16 A	
Rated operational voltage $U_e$		250 V AC	
Rated control supply voltage $U_c$		230 V AC	
Frequency range		50/60 Hz	
Rated power dissipation $P_v$		1 W	
Rated impulse withstand voltage		4 kV	
<b>Contacts</b>			
Channels		1	
Max. glow lamp load		25 mA	50 mA
Separate multi-voltage input		–	8 ... 230 V AC/DC
Switching capacity	Inductive p.f. = 0.6	2000 VA	
Incandescent lamp load	Max.	3680 W	
Fluorescent lamp load	Series p.f. correction	2000 VA	
	Parallel p.f. correction at 70 $\mu$ F	1000 W	
Compact fluorescent lamp load		1000 W	
LED		1000 W	
Electronic transformers		2000 VA	
Conventional transformers		2000 VA	
<b>Function</b>			
Setting range		0.5 ... 10 min	0.5 ... 12 min
Manual switches		Yes	
Programs		–	7 <sup>1)</sup>
<b>Environmental conditions</b>			
Permissible ambient temperature	For operation	–20 ... +55 °C	
	For storage	–20 ... +60 °C	
Degree of protection	Installed	IP30	
Pollution degree		2	

<sup>1)</sup> 7 functions, can be selected using selector switch on the device

# 5TT3 timers for industrial applications

	Multifunction timers	Delay timers
Programmable for:	<ul style="list-style-type: none"> <li>• Response delay</li> <li>• Passing make contact function</li> <li>• Pulse generator, delayed</li> <li>• Clock generator, starting with impulse</li> <li>• OFF-delay</li> <li>• Pulse converter</li> <li>• Passing break contact function</li> <li>• Response delay/OFF-delay</li> </ul>	–
		
<b>Contacts</b>	<b>Mounting width</b>	
1 CO	1 MW	
	5TT3185	5TT3181

Further technical specifications		5TT3185	5TT3181
<b>Standards</b>			
Standards		EN 60255; DIN VDE 0435-110	
<b>Supply</b>			
Rated operational current $I_e$		4 A	8 A
Rated operational voltage $U_e$		250 V AC	
Rated control supply voltage $U_c$		12 ... 240 V AC	220 ... 240 V AC
		12 ... 240 V DC	–
Primary operating range	$U_c$ 230 V AC, 50/60 Hz	0.8 ... 1.1 × $U_c$	
Rated frequency $f_n$		45 ... 400 Hz	50/60 Hz
Rated power dissipation $P_v$		Approx. 3 VA	Approx. 5 VA
<b>Contacts</b>			
Contact gap		µm contact	
Minimum contact load		10 V/300 mA	
Electrical service life	Switching cycles	1.5 × 10 <sup>5</sup>	–
	At AC-15	–	1.5 × 10 <sup>5</sup>
<b>Safety</b>			
Rated impulse withstand voltage $U_{imp}$	Input/output	>4 kV	
<b>Function</b>			
Setting range		1 s ... 300 h	
Recovery time		15 ... 80 ms	Approx. 40 ms
<b>Connections</b>			
Terminals	± Screw (Pozidriv)	PZ 2	
Conductor cross-sections of main current path	Rigid	Max. 2 × 2.5 mm <sup>2</sup>	
	Flexible, with end sleeve	Min. 2 × 1.5 mm <sup>2</sup>	
<b>Environmental conditions</b>			
Permissible ambient temperature		–40 ... +60 °C	
Resistance to climate	Acc. to EN 60068-1	40/60/4	



## Overvoltage protection devices

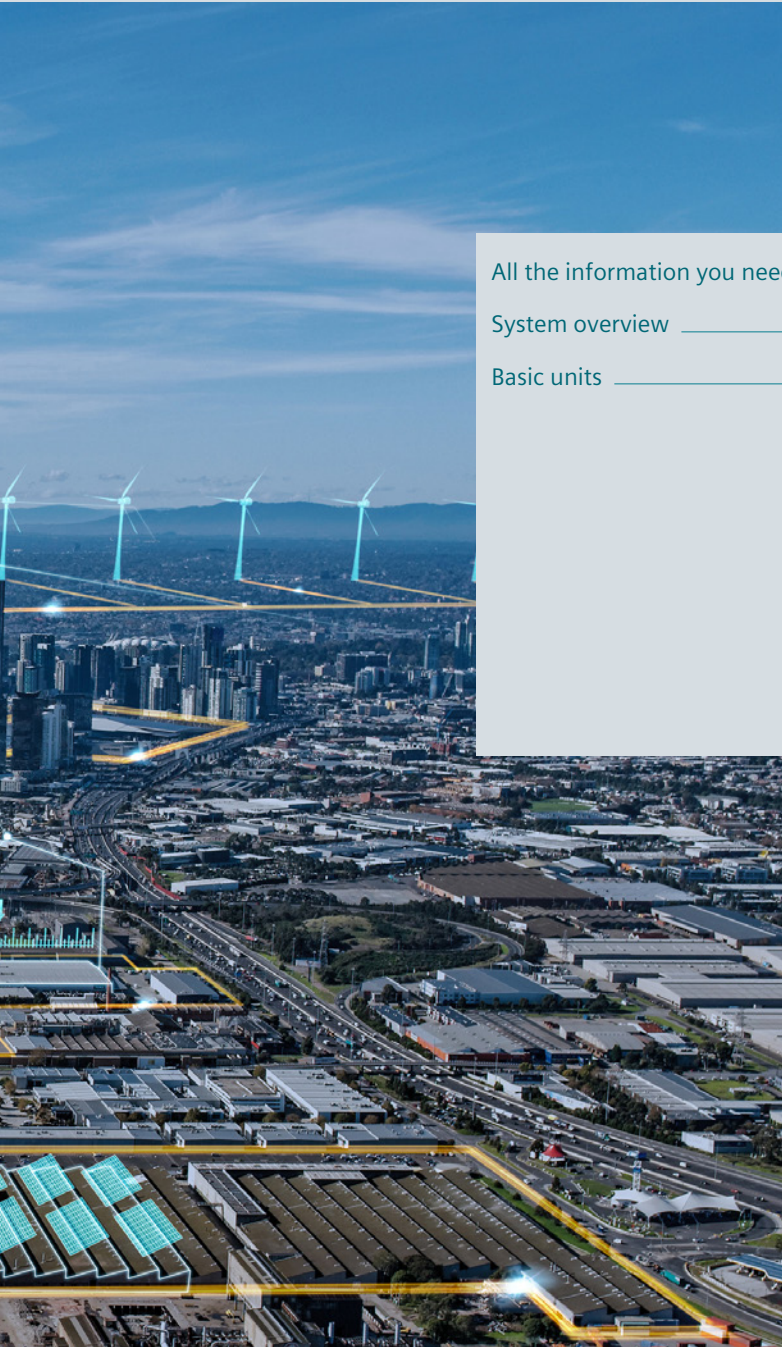
The more than one million lightning strikes in Germany every year pose a considerable risk for buildings and systems that can be damaged due to the unhindered effect of lightning currents, overvoltage and power surges. In many cases however, it is not apparent that such damage has been caused by lightning currents, overvoltage and power surges.

Overvoltage results in considerable damage to electrical and electronic equipment. Even brief transients in power supply lines or between electrical lines and other conductive parts (e.g. grounded metallic parts, ground) are sufficient to cause such damage. The damage patterns of destroyed lines, circuit boards or switchgear demonstrate this. Such damage can be prevented employing suitable overvoltage protection means.

Reliably protected by Siemens lightning and surge arresters!



# Overvoltage Protection Devices



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5SD74 combination surge arresters, type 1 + type 2	6/8
5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system <b>new</b>	6/10
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5SD74 surge arresters, type 2	6/14
5SD74 surge arresters, type 3	6/18

# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about overvoltage protection devices, please visit our website  
[www.siemens.com/overvoltage-protection](http://www.siemens.com/overvoltage-protection)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technology primer – Overvoltage protection devices (109756965)

The relevant tender specifications can be found at  
[www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Overvoltage protection devices [sie.ag/2kTfyTV](http://sie.ag/2kTfyTV)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number  
[www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

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### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at  
[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at  
[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at  
[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Overvoltage protection devices (45315289)

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- Basic principles of electrical engineering (WT-LVBGET)
- Protection concept (WT-LVBPC)

### Technical overview – Overvoltage protection devices



## The fast way to get you to our online services

This page provides you with comprehensive information and links on overvoltage protection devices

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769084)

# System overview

## Basic units



5SD74 lightning arresters, type 1



5SD74 combination surge arresters, type 1 + type 2



5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system **new**



5SD74 combination surge arresters, type 1/type 2



5SD74 surge arresters, type 2 (standard design)



5SD74 surge arresters, type 3



5SD74 surge arresters, type 3

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## Spare part plugs



N-PE



L-N, L-PEN (type 1)



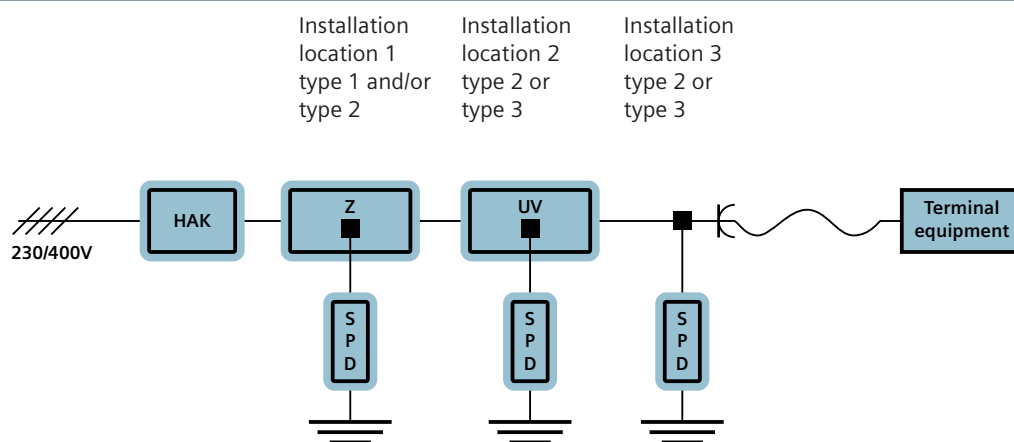
L-PEN

**Note:**

You will find a detailed range of accessories with the basic units.



## Installation locations for surge protection devices (SPDs)



HAK: Main terminal box





Z/HV: In or close to the central meter system/main distribution board

UV: Subdistribution board

Installation location 1 must be as close as possible to the supply point for the electrical system, so that the downstream installations are protected. The SPDs at installation locations 2 and 3 shall not be used without SPDs at installation location 1, and they must be coordinated with these SPDs (i.e. SPDs all from the same manufacturer).



# 5SD74 lightning arresters, type 1

	For TN-C and IT systems	For TN-C systems	For TN-S and TT systems	
Protection paths	L-PE	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE
Rated voltage $U_n$	690 V AC	240/415 V AC	240 V AC	240/415 V AC
Maximum continuous voltage $U_c$	800 V AC	350 V AC	350 V AC	350 V AC
				

Circuit	Mounting width			
<b>With remote signaling</b>				
1 + 0	— <sup>1)</sup>	5SD7411-2	—	—
1 + 1	4 MW	—	—	5SD7412-1
3 + 0	6 MW	—	5SD7413-1	—
3 + 1	8 MW	—	—	5SD7414-1

<sup>1)</sup> No modular installation device.

## Further technical specifications

		5SD7411-2	5SD7412-1	5SD7413-1	5SD7414-1
<b>Standards</b>					
Standards		IEC 61643-11, EN 61643-11			
Approvals		—	KEMA, UL/cUL		
<b>Voltage</b>					
Protection level $U_p$	L-N and L-PEN	≤4.50 kV	≤1.50 kV		
	L-PE	—	≤2.50 kV	—	≤2.50 kV
	N-PE	—	≤1.50 kV	—	≤1.50 kV
<b>Current</b>					
Lightning impulse current $I_{imp}$ (10/350 μs)	L-N and L-PEN, 1P/3P	35 kA	25 kA	25/75 kA	
	N-PE	—	100 kA	—	100 kA
Rated discharge surge current $I_n$ (8/20 μs)	L-N and L-PEN, 1P/3P	35 kA	25 kA	25/75 kA	
	N-PE	—	100 kA	—	100 kA
Follow current discharge capacity $I_{fi}$ (AC)	L-N and L-PEN for 264/350 V	—	50/25 kA		—
	N-PE	—	100 A	—	100 A
<b>Function</b>					
Response time $t_A$	L-N and L-PEN	≤100 ns			
	L-N and N-PE	—	≤100 ns	—	≤100 ns
<b>Connections</b>					
Conductor cross-section	Finely stranded	16 ... 50 mm <sup>2</sup>	2.5 ... 25 mm <sup>2</sup>		
	Solid	16 ... 50 mm <sup>2</sup>	2.5 ... 35 mm <sup>2</sup>		
<b>Protection devices</b>					
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	400 A	315 A		
	For V wiring (gL/gG)	125 A	125 A		
Short-circuit withstand current	With max. back-up fuse	50 kA	50 kA		
<b>Environmental conditions</b>					
Degree of protection		IP20, with connected conductors			
Temperature range		-40 ... +80 °C			

## Accessories

### Spare part plugs



Protection paths	Basic units	Article No.
N-PE	5SD7412-1 and 5SD7414-1	5SD7418-0
L-N and L-PEN	For 5SD7412-1, 5SD7413-1 and 5SD7414-1	5SD7418-1

# 5SD74 combination surge arresters, type 1 + type 2

	For TN-C systems	For TN-S and TT systems	
Protection paths	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE
Rated voltage $U_n$	240/415 V AC	240 V AC	240 V AC
Maximum continuous voltage $U_c$	350 V AC	350 V AC	350 V AC



Circuit	Mounting width		
<b>With remote signaling</b>			
1 + 1	4 MW	–	5SD7442-1
3 + 0	6 MW	5SD7443-1	–
3 + 1	8 MW	–	5SD7444-1

## Further technical specifications

		5SD7442-1	5SD7443-1	5SD7444-1
<b>Standards</b>				
Standards		IEC 61643-11; EN 61643-11		
Approvals		KEMA, UL/cUL		
<b>Voltage</b>				
Protection level $U_p$	L-N and L-PEN	≤1.50 kV		
	L-PE	≤2.20 kV	–	≤2.20 kV
	N-PE	≤1.50 kV	–	≤1.50 kV
<b>Current</b>				
Lightning impulse current $I_{imp}$ (10/350 μs)	L-N and L-PEN	25 kA		
	N-PE	100 kA	–	100 kA
Rated discharge surge current $I_n$ (8/20 μs)	L-N and L-PEN	25 kA		
	N-PE	100 kA	–	100 kA
Follow current discharge capacity $I_{fi}$ (AC)	L-N and L-PEN	25 kA		
	N-PE	100 A	–	100 A
<b>Function</b>				
Response time $t_A$	L-N and L-PEN	≤25 ns		
	L-N and N-PE	≤100 ns	–	≤100 ns
<b>Connections</b>				
Conductor cross-section	Finely stranded	2.5 ... 25 mm <sup>2</sup>		
	Solid	2.5 ... 35 mm <sup>2</sup>		
<b>Protection devices</b>				
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A		
	For V wiring (gL/gG)	125 A		
Short-circuit withstand current	With max. back-up fuse	25 kA		
<b>Environmental conditions</b>				
Degree of protection		IP20, with connected conductors		
Temperature range		–40 ... +80 °C		
<b>Display</b>				
Visual function/fault indication		Yes		

## Accessories

### Spare part plugs



Protection paths	Type	Basic units	Article No.
N-PE	–	5SD7442-1 and 5SD7444-1	5SD7418-0
L-N and L-PEN	1	5SD7442-1, 5SD7443-1 and 5SD7444-1	5SD7448-1
	2	5SD7442-1, 5SD7443-1 and 5SD7444-1	5SD7428-1

# 5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system **new**

	For TN-C systems			
Protection paths	L-PEN			
Rated voltage $U_n$	240/415 V AC	240/415 V AC	240/415 V AC	240/415 V AC
Maximum continuous voltage $U_c$	350 V AC	350 V AC	350 V AC	350 V AC



Circuit	Mounting width				
<b>With remote signaling</b>					
3 + 0	47 mm	5SD7443-8KK21	–	5SD7443-8KK11	–
3 + 1	47 mm	–	–	–	–
<b>With remote signaling and phase tap</b>					
3 + 0	47 mm	–	5SD7443-8KK22	–	5SD7443-8KK12
3 + 1	47 mm	–	–	–	–

## Further technical specifications

<b>Standards</b>					
Standards	IEC 61643-11				
Approvals	VDE				
<b>Voltage</b>					
Protection level $U_p$	L-N and L-PEN	≤1.50 kV			
	L-N/N-PE	–			≤1,5/1.5 kV
<b>Current</b>					
Lightning impulse current $I_{imp}$ (10/350 μs)	L-N/N-PEN and N-PE	12.5 kA	7.5 kA	12.5/50 kA	
		20 kA		20/80 kA	
Rated discharge surge current $I_n$ (8/20 μs)	L-N/L-PEN and N-PE	20 kA		20/80 kA	
Follow current discharge capacity $I_{fi}$ (AC)	N-PE	–			100 A RMS
<b>Connections</b>					
Conductor cross-section	Finely stranded	25 mm <sup>2</sup>			
	Solid	35 mm <sup>2</sup>			
<b>Type of mounting</b>					
40 mm busbar system	5 and 10 mm				
<b>Protection devices</b>					
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A			
Short-circuit withstand current	With max. back-up fuse	25 kA			
<b>Environmental conditions</b>					
Degree of protection	IP20				
Temperature range	–40 ... +80 °C				
<b>Display</b>					
Visual function/fault indication	Yes				

For TN-S and TT systems






L-N, L-PE and N-PE

240/415 V AC	240/415 V AC	240/415 V AC	240/415 V AC
350 V AC	350 V AC	350 V AC	350 V AC



-	-	-	-
5SD7444-8KK21	-	5SD7444-8KK11	-
-	-	-	-
-	5SD7444-8KK22	-	5SD7444-8KK12

# 5SD74 combination surge arresters, type 1/type 2

	For TN-C and IT systems	For TN-C systems	For TN-S and TT systems		For photovoltaic systems
Protection paths	L-PE	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE	(L+) – (L–)
Rated voltage $U_n$	690 V AC	240/415 V AC	240 V AC	240/415 V AC	–
Maximum continuous voltage $U_c$	800 V AC	335 V AC	335 V AC	335 V AC	1000 V DC
					

Circuit	Mounting width					Plug-in
<b>With remote signaling</b>						
1 + 0	– <sup>1)</sup>	5SD7411-2	–	–	–	–
3 + 0	3 MW	–	5SD7413-3	–	–	–
3 + 1	4 MW	–	–	–	5SD7414-3	–
<b>Without remote signaling</b>						
1 + 1	2 MW	–	–	5SD7412-2	–	–
3 + 0	3 MW	–	5SD7413-2	–	–	5SD7483-6
3 + 1	4 MW	–	–	–	5SD7414-2	–

<sup>1)</sup> No modular installation device.

Further technical specifications		5SD7411-2	5SD7412-2	5SD7413-2 5SD7413-3	5SD7414-2 5SD7414-3	5SD7483-6
<b>Standards</b>						
Standards		IEC 61643-11				EN 50539
Approvals		–	KEMA			–
<b>Voltage</b>						
Protection level $U_p$	L-N and L-PEN	≤4.50 kV	≤1.20 kV		–	≤3.50 kV
	L-PE	–	–	–	≤2.0 kV	–
	N-PE	–	≤1.70 kV	–	≤1.70 kV	–
<b>Current</b>						
Lightning impulse current $I_{imp}$ (10/350 μs)	L-N and L-PEN	35 kA	12.5 kA		–	≤5 kA
	N-PE	–	50 kA		50 kA	–
Rated discharge surge current $I_n$ (8/20 μs)	L-N and L-PEN	35 kA	12.5 kA		–	15 kA
	N-PE	–	50 kA		–	–
Max. discharge surge current $I_{max}$ (8/20 μs)	L-N	100 kA	12.5 kA		50 kA	40 kA
	N-PE	–	50 kA		–	50 kA
<b>Function</b>						
Response time $t_A$	L-N and L-PEN	<100 ns	≤25 ns		–	–
	L-N and N-PE	–	≤100 ns		–	≤100 ns
<b>Connections</b>						
Conductor cross-section	Finely stranded	16 ... 50 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>		–	–
	Solid	16 ... 50 mm <sup>2</sup>	1.5 ... 35 mm <sup>2</sup>		–	–
<b>Protection devices</b>						
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	400 A	160 A		–	–
	For V wiring (gL/gG)	125 A	80 A		–	–
Short-circuit withstand current	With max. back-up fuse	50 kA	25 kA		–	–
<b>Environmental conditions</b>						
Degree of protection		IP20, with connected conductors				
Temperature range		–40 ... +80 °C				

## Accessories

### Spare part plugs



Protection paths	Type	Basic units	Article No.
N-PE	–	5SD7412-2, 5SD7412-3, 5SD7414-2 and 5SD7414-3	5SD7418-2
L-N and L-PEN	1	5SD7412-2, 5SD7412-3, 5SD7413-2, 5SD7413-3, 5SD7414-2 and 5SD7414-3	5SD7418-3
L-PE (PV)	2	5SD7483-6	5SD7498-3



# 5SD74 surge arresters, type 2

## Standard design

	For TN and TT systems		For TN-C and IT systems	For TN-C systems	For IT systems		For TN-S and TT systems
Protection paths	N-PE	L-PEN and L-N	L-PEN and L-N	L-PEN	L-PEN and L-PE	L-PEN and L-PE	L-N, L-PE and N-PE
Rated voltage $U_n$	240/415 V AC	240/415 V AC	400/690 V AC	240/415 V AC	400/690 V AC	554/960 V AC	240/415 V AC
Maximum continuous voltage $U_c$	260 V AC	350 V AC	800 V AC	350 V AC	580 V AC	760 V AC	350 V AC (L-N, L-PE) 260 V AC (N-PE)



Circuit	Mounting width							
<b>With remote signaling</b>								
1 + 0	1 MW	–	5SD7461-1	–	–	–	–	–
	2 MW	–	–	5SD7481-1	–	–	–	–
3 + 0	3 MW	–	–	–	5SD7463-1	5SD7473-1	5SD7483-5	–
3 + 1	4 MW	–	–	–	–	–	–	5SD7464-1
<b>Without remote signaling</b>								
1 + 0	1 MW	5SD7481-0	5SD7461-0	–	–	–	–	–
3 + 0	3 MW	–	–	–	5SD7463-0	–	–	–
3 + 1	4 MW	–	–	–	–	–	–	5SD7464-0

Further technical specifications	5SD7481-0	5SD7461-0 5SD7461-1	5SD7481-1	5SD7463-0 5SD7463-1	5SD7464-0 5SD7464-1	5SD7473-1	5SD7483-5	
<b>Standards</b>								
Standards	IEC 61643-11; EN 61643-11							
Approvals	KEMA						–	KEMA, UL/cUL
<b>Voltage</b>								
Protection level $U_p$	L-N and L-PEN	–	≤1.50 kV	≤5 kV	≤1.50 kV	≤1.60 kV	≤2.50 kV	≤2.90 kV
	L-PE	–	–	–	–	≤1.90 kV	–	–
	N-PE	≤1.50 kV	–	–	–	≤1.50 kV	–	–
<b>Current</b>								
Rated discharge surge current $I_n$ (8/20 μs)	L-N and L-PEN	–	20 kA	15 kA	20 kA	–	15 kA	
	N-PE	20 kA	–	–	–	20 kA	–	
Max. discharge surge current $I_{max}$ (8/20 μs)	L-N	–	40 kA	30 kA	40 kA	–	30 kA	
	N-PE	40 kA	–	–	–	40 kA	–	
<b>Function</b>								
Response time $t_A$	L-N and L-PEN	–	≤25 ns	≤100 ns	≤25 ns	–	–	
	L-N and N-PE	≤100 ns	–	–	–	≤100 ns	–	
<b>Connections</b>								
Conductor cross-section	Finely stranded	1.5 ... 25 mm <sup>2</sup>						
	Solid	1.5 ... 35 mm <sup>2</sup>						
<b>Protection devices</b>								
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	–	125 A	100 A	125 A	–	100 A	
	For V wiring (gL/gG)	–	–	80 A	–	–	–	
Short-circuit withstand current	With max. back-up fuse	25 kA						
<b>Environmental conditions</b>								
Degree of protection	IP20, with connected conductors							
Temperature range	–40 ... +80 °C							

## Accessories

### Spare part plugs



Protection paths	Basic units	Article No.
N-PE	5SD7481-0, 5SD7464-0 and 5SD7464-1	5SD7488-0
L-N and L-PEN	5SD7461-0, 5SD7461-1, 5SD7463-0, 5SD7463-1, 5SD7464-0 and 5SD7464-1	5SD7468-1
L-PEN	5SD7481-1 and 5SD7483-5	5SD7488-2
	5SD7481-1	5SD7488-4

# 5SD74 surge arresters, type 2

## Narrow design

### For TN-S and TT systems

Protection paths	L-N and N-PE	L-N and N-PE
Rated voltage $U_n$	240 V AC	240/415 V AC
Rated arrester voltage $U_C$ ; L-N, N-PE, L-(PE)N	350 V AC	350 V AC
Rated arrester voltage $U_C$ ; N-PE	264 V AC	264 V AC



Circuit	Mounting width	Rated discharge surge current $I_n$ (8/20 $\mu$ s)		5SD7422-0	5SD7422-1	5SD7424-0	5SD7424-1
		L-N or L-(PE)N	N-PE				
<b>With remote signaling</b>							
1 + 1	24 mm (1 1/3 MW)	20 kA	20 kA	5SD7422-1	–	–	–
3 + 1	48 mm (2 2/3 MW)	20 kA	20 kA	–	–	5SD7424-1	–
		20 kA	40 kA	–	–	–	–
<b>Without remote signaling</b>							
1 + 1	24 mm (1 1/3 MW)	20 kA	20 kA	5SD7422-0	–	–	–
3 + 1	48 mm (2 2/3 MW)	20 kA	20 kA	–	–	5SD7424-0	–
		20 kA	40 kA	–	–	–	–

## Further technical specifications

		5SD7422-0 5SD7422-1	5SD7424-0 5SD7424-1
<b>Standards</b>			
Standards		IEC 61643-11, EN 61643-11	
Approvals		KEMA/UL/cUL	
<b>Voltage</b>			
Protection level $U_p$	L-N and L-PEN	$\leq 1.50$ kV	
	L-PE	$\leq 1.90$ kV	
	N-PE	$\leq 1.50$ kV	
<b>Current</b>			
Rated discharge surge current $I_n$ (8/20 $\mu$ s)	L-N and L-PEN	20 kA	
	N-PE	20 kA	
Max. discharge surge current $I_{max}$ (8/20 $\mu$ s)	L-N	40 kA	
	N-PE	40 kA	
<b>Function</b>			
Response time $t_A$	L-N and L-PEN	$\leq 25$ ns	
	L-N and N-PE	$\leq 100$ ns	
<b>Connections</b>			
Conductor cross-section	Finely stranded	2.5 ... 16 mm <sup>2</sup>	
	Solid	2.5 ... 25 mm <sup>2</sup>	
<b>Protection devices</b>			
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A	
	For V wiring (gL/gG)	63 A	
Short-circuit withstand current	With max. back-up fuse	25 kA	
<b>Environmental conditions</b>			
Degree of protection		IP20, with connected conductors	
Temperature range		–40 ... +80 °C	




## Accessories

### Spare part plugs



Protection paths	Basic units	Article No.
N-PE	5SD7422-0, 5SD7422-1, 5SD7424-0 and 5SD7424-1	5SD7428-0
L-N and L-PEN	5SD7422-0, 5SD7422-1, 5SD7424-0 and 5SD7424-1	5SD7428-1

# 5SD74 surge arresters, type 3

	For TN-S and TT systems		
Protection paths	L-N, L-PE, N-PE, (L+) – (L-) and (L+/L-) – PE	L-N, L-PE, N-PE, (L+) – (L-) and (L+/L-) – PE	L-N, L-PE, N-PE, (L+) – (L-) and (L+/L-) – PE
Rated voltage $U_n$	24 V AC	120 V AC	230 V AC
Rated arrester voltage $U_c$	34 V AC	150 V AC	264 V AC
			

Circuit	Mounting width			
<b>With remote signaling</b>				
1 + 0	1 MW	5SD7432-5	5SD7432-6	5SD7432-7

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## Further technical specifications

	5SD7432-5	5SD7432-6	5SD7432-7	
<b>Standards</b>				
Standards	IEC 61643-11; EN 61643-11			
Approvals	KEMA/UL/cUL			
<b>Voltage</b>				
Protection level $U_p$	L-N, L-PE and N-PE	≤200/≤600 V	≤750/≤850 V	≤1250/≤1400 V
<b>Current</b>				
Rated load current $I_L$ (at 30 °C)	26 A			
Rated discharge surge current $I_n$ (8/20 μs)	1 kA	5 kA		
Combined surge $U_{open collector}$	2 kV	6 kV		
<b>Function</b>				
Response time $t_A$	≤100 ns			
<b>Connections</b>				
Conductor cross-section	Finely stranded	0.2 ... 2.5 mm <sup>2</sup>		
	Solid	0.2 ... 4 mm <sup>2</sup>		
<b>Protection devices</b>				
Required back-up fuse, max.	(gG/B/C)	25 A		
<b>Environmental conditions</b>				
Degree of protection	IP20, with connected conductors			
Temperature range	-40 ... +80 °C			
<b>Display</b>				
Visual function/fault indication	Yes			



## Mandatory basic protection in electrical installations

Overcurrents in electrical installations occur as a result of excessive load or short-circuits and can cause serious accidents, fires and financial damage. Appropriate protection devices have therefore been mandatory ever since electricity was first harnessed to power equipment. As a pioneer in fuse systems, we offer you the complete range of devices for the protection of cables as well as electrical devices and installations in the event of overloads and short-circuits.

Fuses are capable of safely switching off circuits as soon as an overload or short-circuit occurs. This prevents damage to electrical equipment or extended power failures. Specific variants of fuse systems are used for different applications.

Among other things, our fuses are used for protecting cables and lines, switching devices and semiconductors as well as in photovoltaics and wind power.





# Fuse Systems



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about fuse systems, please visit our website  
[www.siemens.com/fuses](http://www.siemens.com/fuses)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technology primer – Fuse systems (109482303)

The relevant tender specifications can be found at  
[www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products  
[www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- Siemens fuse systems [bit.ly/2kWaepz](https://bit.ly/2kWaepz)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Fuse systems [sie.ag/2kW3pnU](https://sie.ag/2kW3pnU)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number  
[www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations. Configure your SITOR semiconductor fuse at

[www.siemens.com/lowvoltage/sitor-configurator](http://www.siemens.com/lowvoltage/sitor-configurator)

## The fast track to the experts

### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at  
[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at  
[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at  
[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the

[App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Fuse systems  
([45314810](#))
- Planning manual – Planning with SIVACON 8PS  
([109478425](#))
- Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))
- System manual – Circuit protection devices with communication and measuring function ([109791806](#))

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- SENTRON circuit protection devices with measuring and communication function (WT-LVBCOM)

### Technical overview – Fuse systems



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on fuse systems

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109769085](#))

# System overview

## Fuse holders and bases

### IEC fuse holders and bases



MINIZED



NEOZED



DIAZED



Bus-mounting bases for busbars



Photovoltaic cumulative fuses

### IEC/UL fuse holders and bases



LV HRC fuses



Cylindrical fuses



SITOR semiconductor fuses (LV HRC design)



SITOR semiconductor fuses (cylindrical fuse design)



Photovoltaic cylindrical fuses

### UL fuse holders and bases

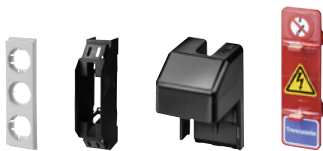


Class CC



Class J

### Accessories for fuse holders and bases



Covers



Screw caps



Adapter sleeves



Isolating blades

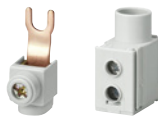


LV HRC signal detectors

### Busbars and accessories



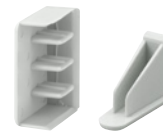
Can be cut



Terminals



Touch protection



End caps

**Note:**

You will find a detailed range of accessories with the basic units.

## Fuse links

### IEC fuse links



NEOZED



DIAZED



LV HRC

LV HRC  
(3NA COM) **new**Cylindrical  
fuses

SILIZED



SILIZED

Photovoltaic  
cumulative fusesPhotovoltaic  
cylindrical fusesPhotovoltaic  
cylindrical fuses

### IEC/UL fuse links

SITOR semiconductor fuses  
(LV HRC design)SITOR semiconductor fuses  
(cylindrical fuse design)

### UL fuse links










Class CC

#### Note:

You will find a detailed range of accessories with the basic units.



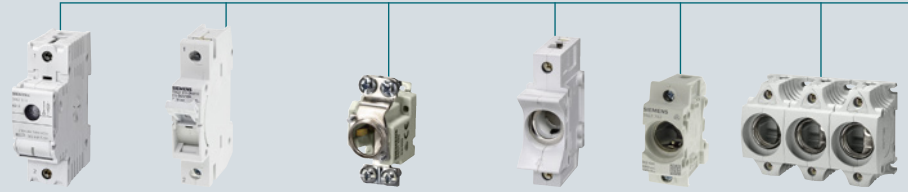
Overview, see page 7/30

																	
IEC	IEC	IEC	IEC	IEC/UL	IEC/UL	IEC/UL	IEC	IEC	IEC	IEC	UL	UL	UL	UL			
2 ... 1250 A	80 ... 315 A	0.5 ... 100 A	2 ... 2400 A	1 ... 125 A	2 ... 630 A	0.5 ... 30 A	400 ... 690 V	400 V	400 ... 690 V	500 ... 2500 V	600 ... 1500 V	600 V	250 ... 400 V	250 V	-	600 V	150 ... 300 V
LV HRC	LV HRC	Cylindrical	SITOR LV HRC	SITOR cylindrical	Photovoltaic	Class CC											
■	■	■	-	-	-	■	-	-	-	-	■	■	-	-	-	-	-
■	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	■	-	-	-	-	-	-	-
-	-	-	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-
3NA, 3ND	3NA COM	3NW6, 3NW8	3NE, 3NC	3NC10	3NE..., 3NW...	3NW1, 3NW2, 3NW3											
<a href="#">See page 7/36</a>	<a href="#">See page 7/36</a>	<a href="#">See page 7/12</a>	<a href="#">See page 7/46</a>	<a href="#">See page 7/63</a>	<a href="#">See page 7/35</a> <a href="#">See page 7/68</a>	<a href="#">See page 7/69</a>											

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
■	■	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
■	■	-	(■)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

# Quick selection guide of fuse holders, bases and D0 fuse switching devices

## IEC



	MINIZED switch disconnectors with fuses	MINIZED fuse switch disconnectors	NEOZED fuse bases			NEOZED comfort bases	NEOZED fuse bases	DIAZED fuse bases
--	---	-----------------------------------	-------------------	--	--	----------------------	-------------------	-------------------

Basic data											
Size/for fuses of size			D02	D01	D01	D02	D03	D01, D02	D01, D02	NDz, DII, DIII	
Type			5SG71	5SG76	5SG15 5SG55	5SG16 5SG56	5SG18	5SG1301 5SG1701 5SG5301 5SG5701	5SG1302 5SG1702 5SG5302 5SG5702	5SF	
Standards											
Standards			DIN VDE 0638; EN 60947-3 (VDE 0660-107) EC/EN 60947-3	DIN VDE 0638; EN 60947-3 (VDE 0660-107) EC/EN 60947-3	IEC 60269-3; DIN VDE 0636-3			IEC 60269-3; DIN VDE 0636-3	IEC 60269-3; DIN VDE 0636-3	IEC 60269-3; DIN VDE 0635; DIN VDE 0636-3; CEE 16	
Approvals			–	–	–	–	–	–	–	–	
Certifications			–	–	–	–	–	–	–	–	
Technical specifications AC											
Rated voltage		$U_n$	V AC	230/400, 240/415	230/400, 240/415	400	400	400	–	–	500, 690, 750
Rated insulation voltage			V AC	500	690	–	–	–	–	–	–
Short-circuit strength			kA AC	50	50	50	50	50	50	50	50
Rated current		$I_n$	A	63	16	16	63	100	16/63	16/63	2 ... 100
		$I_n$ acc. to UL/CSA	A	–	–	–	–	–	–	–	–
Rated impulse withstand voltage			kV AC	6	6	–	–	–	–	–	–
Utilization category		Acc. to VDE 0638	A	AC-22	AC-22	–	–	–	–	–	–
		Acc. to EN 60947-3	A	AC-22B, AC-23B (35A)	AC-22A	–	–	–	–	–	–
Technical specifications DC											
Rated voltage		$U_n$	V DC	65 (1P), 130 (2P)	48 (1P), 110 (2P)	250	250	250	–	–	500, 600, 750
		$U_n$ acc. to UL	V DC	–	–	–	–	–	–	–	–
Short-circuit strength			kA DC	–	–	8	8	8	8	8	–
Utilization category		Acc. to EN 60947-3	A	DC-22B	–	–	–	–	–	–	–
Further technical specifications											
Overvoltage category				IV	IV	–	–	–	–	–	III; II (DIAZED fuse bases made of molded plastic for use at 690 V AC/ 600 V DC)
Max. power dissipation of fuse links (conductor cross-section used)			W	–	–	–	–	–	–	–	–
Pollution degree				–	–	–	–	–	–	–	–
Further information											
			See page 7/13	See page 7/12	See page 7/16				See page 7/18		

<sup>1)</sup> Extended rated voltage up to 1000 V

## IEC

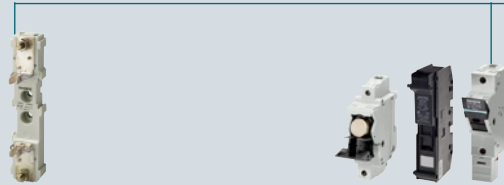


Cylindrical fuse holders		LV HRC fuse bases							Photovoltaic cumulative fuse bases						NEOZED bus-mounting bases for 8US 60 mm compact busbar systems		NEOZED bus-mounting bases for 8US 60 mm busbar systems		DIAZED bus-mounting bases for 8US 60 mm busbar systems	
8×32 mm	22×58 mm	000/00	0	1	2	3	4	1	1L	2L	3L	1XL	2XL	D02	D02	DII	DII			
3NW73..	3NW72..	-	-	-	-	-	-	3NH7...-4						5SG6208	5SG6202 5SG6206 5SG6207	5SF6014 5SF6015 5SF6020	5SF6214 5SF6215 5SF6220			
IEC 60269-1, -2, -3; NF C 60-200, NF C 63-210, -211; NBN C 63269-2-1; CEI 32-4, -12; UL 4248-1		IEC 60269-1, -2; EN 60269-1; DIN VDE 0636-2, UL 4248-1 (only downstream from the branch protection)							IEC 60269, IEC 60269-2, IEC 60947						IEC 60269-3, DIN VDE 0636-3		IEC 60269-3, DIN VDE 0636-3		IEC 60269-3, IEC 60269-3, DIN VDE 0636-3	
UL File number E171267		KEMA; UL file number E171267-IZLT2							-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
400	690	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690	-	-	-	-	-	-	400	400	500	690			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
20	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
20	100	160	160	250	400	630	1250	160	250	400	630	250	400	63	63	25	63			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
AC-20B (switching without load)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	250	440	440	440	440	440	1000	1000	1000	1000	1500	1500	250	250	-	600			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	25	25	25	25	25	25	-	-	-	-	-	-	8	8	8	8			
DC-20B (switching without load)		-	-	-	-	-	-	DC-20B (switching without load)						-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	12	25	32	45	60	90	40	90	110	130	90	110	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
See page 7/22		See page 7/22							See page 7/21						See page 7/20					



# Quick selection guide of fuse holders, bases and D0 fuse switching devices

IEC/UL



			LV HRC fuse bases					Fuse holders for SITOR semiconductor fuses (cylindrical fuse design)				
Basic data			000/00	0	1	2	3	10 × 38 mm	14 × 51 mm	22 × 58 mm	22 × 127 mm	
Size/for fuses of size			3NH3030 3NH4030		3NH3120	3NH3220 3NH3230 3NH4230	3NH3320 3NH3330	3NH3420 3NH3430	3NC10	3NC14	3NC22	3NC23
Type <sup>2)</sup>			IEC 60269-1, -2; EN 60269-1; DIN VDE 0636-2, UL 4248-1 (only downstream from the branch protection)					UL 4248-1; CSA C22.2; IEC 60269-2, IEC 60947-3	UL 4248-1; CSA C22.2; IEC 60269-2, IEC 60947-3	UL 4248-1; CSA C22.2; IEC 60269-2, IEC 60947-3	IEC 60269-2, IEC 60947-3	
Standards			KEMA, UL file number E171267-IZLT2					UL 4248-1; UL File number E171267; CSA C22.2 No. 39-M				
Approvals			-					UL, CE	UL, CE	UL, CE	-	
Certifications			-					-	-	-	-	
Technical specifications AC												
Rated voltage	$U_n$	V AC	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690	690	690	1500	
	$U_n$ acc. to UL	V AC	690	690	1000	1000	1000	600	600	600	-	
	$U_n$ acc. to CSA	V AC	600	600	600	600	600	-	-	-	-	
Rated insulation voltage		V AC	-	-	-	-	-	-	-	-	-	
Short-circuit strength		kA AC	-	-	-	-	-	50	50 (100 at 400 V)	50 (100 at 500 V)	30	
Rated current	$I_n$	A	160	160	250	400	630	32	50	100	63	
	$I_n$ acc. to UL	A	160	160	250	-	500	30	50	80	-	
	$I_n$ acc. to CSA	A	160	160	250	-	850	30	40	80	-	
Rated impulse withstand voltage		kV AC	-	-	-	-	-	6	6	6	-	
Utilization category	Acc. to VDE 0638	A	-	-	-	-	-	-	-	-	-	
	Acc. to EN 60947-3	A	-	-	-	-	-	AC-22B (400 V)	AC-22B (400 V)	AC-20B (690 V)	AC-20B	
Technical specifications DC												
Rated voltage	$U_n$	V DC	250	440	440	440	440	800			1000	
	$U_n$ acc. to UL	V DC	-	-	-	-	-	-	-	-	-	
Short-circuit strength		kA DC	25	25	25	25	25	-	-	-	50	
Utilization category		Acc. to EN 60947-3	A	-	-	-	-	-	-	-	DC-20B	
Further technical specifications												
Overvoltage category			-	-	-	-	-	-	-	-	-	
Max. power dissipation of fuse links (conductor cross-section used)		W	12	25	32	45	60	3 (6 mm <sup>2</sup> ), 4.3 (10 mm <sup>2</sup> )	5 (10 mm <sup>2</sup> ), 6.5 (25 mm <sup>2</sup> )	9.5 (35 mm <sup>2</sup> ), 11 (50 mm <sup>2</sup> )	15 (1 ... 50 mm <sup>2</sup> )	
Pollution degree			-	-	-	-	-	2	2	2	-	
Further information												
						See page 7/22			See page 7/64			

<sup>1)</sup> Extended rated voltage up to 1000 V

<sup>2)</sup> Types with UL approval and types with CSA approval may differ

## IEC/UL






## UL




Cylindrical fuse holders		Photovoltaic cylindrical fuse holders		Class CC fuse holders	Class J fuse holders					
10 x 38 mm	14 x 51 mm	10 x 38 mm	10 x 85 mm	–	–					
3NW70.. 3NW703.-1	3NW71..	3NW70..-4	3NW76..-4	3NW75.3-0HG 3NW753.-1HG	3NW75.3-3HG, 3NW75.3-5HG, 3NW75.3-6HG, 3NW75.3-7HG, 3NW75.3-8HG, 3NW7431-6HG, 3NW7431-7HG, 3NW7431-8HG					
IEC 60269-1, -2, -3; NF C 60-200, NF C 63-210, -211; NBN C 63269-2-1; CEI 32-4, -12; UL 4248-1		IEC 60269, IEC 60269-2, IEC 60947, UL 4248-1, -18	IEC 60269, IEC 60269-2, IEC 60947, UL 4248-1, -18	UL 4248-1; CSA C22.2	UL 4248-1 Ed.1, UL 4248-8 Ed.1					
UL File number E171267		UL (File number E469670, CCC) (types without signal detector)	UL (E355487)	UL 4248-1; UL File number E171267; CSA C22.2	UL File number E171267; CSA File number 233322; Class number 6225-01					
		–	–	–						Busbar device:
690	690	–	–	–	–	–	–	–	–	–
600	700	–	–	600	600	600	600	600	600	600
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
100	100	–	–	200	200	200	200	200	200	200
32	50	30	32	30	30	60	100	200	400	–
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
–	–	6	–	6	No information as the devices are only tested and certified to UL/CSA and not to IEC					
–	–	–	–	–	–	–	–	–	–	–
AC-20B (switching without load)		–	–	AC-20B (switching without load)	AC-20B (switching without load)					
–	–	1000	1500	300	–	–	–	–	–	–
–	–	–	–	–	600	600	600	600	600	600
–	–	–	–	–	–	–	–	–	–	–
DC-20B (switching without load)		–	–	DC-20B (switching without load)	DC-20B (switching without load)					
–	–	II	–	II	No information as the devices are only tested and certified to UL/CSA and not to IEC					
–	–	4	6	3 (6 mm <sup>2</sup> ), 4.3 (10 mm <sup>2</sup> )	–					
–	–	2	–	2	No information as the devices are only tested and certified to UL/CSA and not to IEC					
See page 7/24		See page 7/26		See page 7/28	See page 7/27					

# MINIZED fuse switch disconnectors

		Number of poles				
		1P	1P+N	2P	3P	3P+N
						
Size	Rated current					
D01	2 ... 6 A	5SG7611-0KK06	–	–	5SG7631-0KK06	–
	10 A	5SG7611-0KK10	–	–	5SG7631-0KK10	–
	16 A	5SG7611-0KK16	5SG7651-0KK16	5SG7621-0KK16	5SG7631-0KK16	5SG7661-0KK16

**Note:**  
NEOZED adapter sleeves are not required for these devices

## Accessories

Electronic fuse monitor				
	<ul style="list-style-type: none"> <li>• For all low-voltage fuse systems</li> <li>• For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact</li> <li>• Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors</li> <li>• Signal also for disconnected loads</li> </ul>			
	$U_e$ AC	$I_n$	$U_c$	Article No.
230 V	4 A	3 AC 380 ... 415 V	5TT3170	

# MINIZED switch disconnectors with fuses






Size	Rated current	Number of poles				
		1P	1P+N	2P	3P	3P+N
D02	25 A	–	–	–	5SG7133-8BA25 <sup>1)</sup>	–
	35 A	–	–	–	5SG7133-8BA35 <sup>1)</sup>	–
	50 A	–	–	–	5SG7133-8BA50 <sup>1)</sup>	–
	63 A	5SG7113	5SG7153	5SG7123	5SG7133	5SG7163

<sup>1)</sup> Versions for Austria only, with permanently fitted adapter sleeves and incl. fuse link

## Note:




NEOZED adapter sleeves are required for these devices, [see page 7/16](#)

## Accessories

Reducers		Article No.
	<b>Use</b> For D01 fuse links in MINIZED switch disconnectors with fuses D02	5SH5527
Auxiliary switches (AS)		
	<b>Version</b> 1 NO + 1 NC	5ST3010
	2 NO	5ST3011
	2 NC	5ST3012
Auxiliary switches (AS) with TEST button		
	<b>Version</b> 1 NO + 1 NC	5ST3010-2
	2 NO	5ST3011-2
	2 NC	5ST3012-2
5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function		
	<b>Version</b>	Article No. 5ST3062-OMC
Electronic fuse monitor		
	<ul style="list-style-type: none"> <li>• For all low-voltage fuse systems</li> <li>• For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact</li> <li>• Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors</li> <li>• Signal also for disconnected loads</li> </ul>	
	<b>U<sub>e</sub> AC</b> 230 V	<b>I<sub>n</sub></b> 4 A
		<b>Article No.</b> 5TT3170

# NEOZED bus-mounting switch disconnectors with fuses

For 8US 60 mm busbar systems

Mounting width	Size D02		
	1.5 MW	1.5 MW	1.5 MW
			

For flat copper profiles	Rated current		Rated voltage		Standard	Without LED signal detector		With LED signal detector	
	IEC	UL 508	IEC AC	IEC DC		UL 508			
<b>Box terminals</b>									
5 mm and 10 mm	63 A <sup>1)</sup>	–	400 V AC	–	–	IEC	5SG7234-1	–	5SG7234-2
	63 A <sup>2)</sup>	–	400 V AC	110 V DC	–	IEC	–	5SG7230	–

<sup>1)</sup> In the case of permanent load over 35 A, we recommend the use of lateral module 5SH5533. Please observe EN 60439-1, Table 1.

<sup>2)</sup> In the case of permanent load over 35 A, we recommend the use of lateral module 5SH5526. Please observe EN 60439-1, Table 1.

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## Suitable accessories

### Auxiliary switches



- For signaling the switching state for bus-mounting switch disconnectors

Contacts	Mounting width	Article No.	Article No.	Article No.
1 CO	0.5 MW	–	5SH5525	–

### Lateral modules



- For greater heat dissipation for loads from 35 A

Mounting width	Article No.	Article No.	Article No.
0.5 MW	5SH5533	5SH5526	5SH5533

### Reducers



- Use
- For NEOZED D01 fuse links in SR60 bus-mounting switch disconnectors

Use	Article No.	Article No.	Article No.
For NEOZED D01 fuse links in SR60 bus-mounting switch disconnectors	5SH5527	5SH5527	5SH5527

### Electronic fuse monitor



- For all low-voltage fuse systems
- For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact
- Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors
- Signal also for disconnected loads

$U_e$ AC	$I_n$	$U_c$	Article No.	Article No.	Article No.
230 V	4 A	3 AC 380 ... 415 V AC	5TT3170	5TT3170	5TT3170

See SITOR semiconductor fuse links (cylindrical fuse design) [from page 13/1](#)



# NEOZED fuse bases

Number of poles	Comfort bases made of molded plastic		Fuse bases made of molded plastic				
	1P	3P	Without LED signal detector		With LED signal detector		
Size	Rated current						
D01	16 A	5SG1301	5SG5301	5SG1302	5SG5302	5SG1302-1	5SG5302-1
D02	63 A	5SG1701	5SG5701	5SG1702	5SG5702	5SG1702-1	5SG5702-1
D03	100 A	–	–	–	–	–	–

## Accessories

### NEOZED screw caps

	Material	Version	Fuse size	Article No.
	Molded plastic	With inspection hole	D01	5SH4116
			D02	5SH4163
	Ceramic	Without inspection hole, sealable	D01	5SH4316
			D02	5SH4363
		Without inspection hole	D03	5SH4100
			With inspection hole	D01
D02	5SH4362			

### NEOZED adapter sleeves

	Fuse size	$I_n$	Color	Article No.
	D01	2 A	Pink	5SH5002
		4 A	Brown	5SH5004
		6 A	Green	5SH5006
		10/13 A	Red	5SH5010
		D02	20 A	Blue
	D02	25 A	Yellow	5SH5025
		32 A	Violet	5SH5032
		35/40 A	Black	5SH5035
		50 A	White	5SH5050
		D03	80 A	Silver
	D01 fuse links in D02 base or MINIZED switch disconnectors with fuses D02	2 A	Pink	5SH5402
		4 A	Brown	5SH5404
		6 A	Green	5SH5406
		10/13 A	Red	5SH5410
		16 A	Gray	5SH5416

## Fuse bases made of ceramic

With clamp-type terminal, on both sides

With saddle terminal, on both sides

With screw head contact at incoming feeder,  
clamp-type terminal at outgoing feeder

1P

3P

1P

3P

1P

3P



5SG1553

5SG5553

–

–

–

–

–

–

5SG1653

5SG5653

5SG1693

5SG5693

–

–

–

–

5SG1812

–

## NEOZED covers



Fuse size

D03

Article No.

5SH5233

## NEOZED adapter sleeve fitters



Article No.

5SH5100

## NEOZED retaining springs



Use

For D01 fuse links in D02 screw caps, 2 ... 16 A

Article No.

5SH5400

## Electronic fuse monitor



- For all low-voltage fuse systems
- For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact
- Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors
- Signal also for disconnected loads

 $U_e$  AC

230 V

 $I_n$ 

4 A

 $U_c$ 





3 AC 380 ... 415 V

Article No.

5TT3170




# DIAZED fuse bases

	Number of poles	Fuse bases made of molded plastic With box terminal		Fuse bases made of ceramic With clamp-type terminal, on both sides	Fuse bases made of ceramic With clamp-type terminal at incoming feeder, saddle terminal at outgoing feeder
		1P	3P	1P	1P
					
Size	Rated current	$U_n$ AC/DC 500/500 V	$U_n$ AC/DC 500/500 V	$U_n$ AC/DC 500/500 V	$U_n$ AC/DC 500/500 V
DII	25 A	5SF1060	5SF5068	5SF1005	–
DIII	63 A	5SF1260 <sup>1)</sup>	5SF5268 <sup>1)</sup>	–	5SF1205 <sup>1)</sup>

<sup>1)</sup> Can also be used for 690 V AC/600 V DC.

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## Accessories

DIAZED screw caps						
	Material	Version	Fuse size	Rated voltage AC/DC	Article No.	
	Molded plastic	With inspection hole	NDz	500/500 V	5SH1112	
			DII	500/500 V	5SH1221	
			DIII	500/500 V	5SH1231	
	Ceramic	Without inspection hole		DII	500/500 V	5SH112
				DIII	500/500 V	5SH113
		With inspection hole, sealable		DII	500/500 V	5SH122
				DIII	500/500 V	5SH123
		Extended version		DIII	690/600 V	5SH1170
		With fine thread		DIII	750/750 V	5SH1161

DIAZED screw adapters		
• Also for 5SF230 up to 750 V		
Fuse size	$I_n$	Article No.
DII	2 A	5SH310
	4 A	5SH311
	6 A	5SH312
	10 A	5SH313
	16 A	5SH314
	20 A	5SH315
	25 A	5SH316
DIII	32 A	5SH327
	35 A	5SH317
	50 A	5SH318
	63 A	5SH320

With screw head contact,  
on both sides

1P



$U_n$  AC/DC  
750/750 V

5SF4230

7

#### DIAZED reduction sleeves for screw caps



##### Use

For DII fuse links in DIII base

##### Article No.

5SH302

#### DIAZED adapter sleeve fitters



##### Use

For DII/DIII screw adapters

##### Article No.

5SH3703

#### DIAZED cover rings



##### Fuse size

##### Material

##### Article No.

DII

Molded plastic

5SH3401

DIII

Molded plastic

5SH3411

#### DIAZED caps



##### Fuse size

##### Material

##### Article No.

DII

Molded plastic

5SH202

DIII

Molded plastic

5SH222

#### Electronic fuse monitor



- For all low-voltage fuse systems
- For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact
- Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors
- Signal also for disconnected loads

##### $U_e$ AC

##### $I_n$

##### $U_c$

##### Article No.

230 V







4 A

3 AC 380 ... 415 V

5TT3170

# Bus-mounting bases

For 8US busbar systems

				60 mm compact busbar systems		60 mm busbar systems		
				NEOZED design		NEOZED design		DIAZED design
				3P		3P		3P
								
								
Size	$I_n$	Mounting width	$U_n$ AC/DC	With touch protection cover	Standard	With touch protection cover	Standard	With touch protection cover
D02	63 A	1.5 MW	–	–	5SG6202	5SG6206	–	–
		2 MW	–	5SG6208	–	5SG6207	–	–
DII	25 A	–	500/500 V	–	–	–	5SF6015	5SF6020
DIII	63 A	–	500/500 V <sup>1)</sup>	–	–	–	5SF6215	5SF6220




<sup>1)</sup> Can also be used for 690 V AC/600 V DC.

**Note:**

NEOZED adapter sleeves and DIAZED screw adapters as well as the respective screw caps are required, [see page 7/16](#) and [7/18](#)

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## Accessories

Covers for bus-mounting base standard version for 60 mm busbar systems					
	Design	Fuse size	Version	Mounting width (1 MW = 18 mm)	Article No.
	NEOZED	D02	Standard	1.5 MW	5SH5241
			Extra wide	2 MW	5SH5242
			Double width	3 MW	5SH5243
	DIAZED	DII			5SH2042
		DIII			5SH2242
Electronic fuse monitor					
	<ul style="list-style-type: none"> <li>For all low-voltage fuse systems</li> <li>For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact</li> <li>Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors</li> <li>Signal also for disconnected loads</li> </ul>				
	$U_e$ AC	$I_n$	$U_c$	Article No.	
230 V	4 A	3 AC 380 ... 415 V		5TT3170	

See Busbar systems [from page 13/1](#)

# Photovoltaic cumulative fuse bases



Size	Rated current	Rated voltage DC			
1	250 A	1000 V	3NH3230	–	3NH7262-4KK01
1L	250 A	1000 V	–	3NH7260-4	–
2L	400 A	1000 V	–	3NH7360-4	3NH7360-4KK01
3L	630 A	1000/1500 V	–	3NH7460-4	–
1XL	250 A	1500 V	–	3NH7261-4	–
2XL	400 A	1500 V	–	3NH7361-4	–

7

## Accessories

### Terminal covers for PV fuse bases with swiveling mechanism

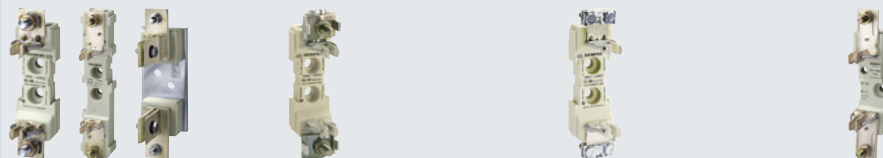


Fuse link size	Article No.
1, 1L, 1XL	3NX3121
2L, 2XL	3NX3122
3L	3NX3123

# LV HRC fuse bases

Number of poles 1P

Ceramic



Size	Rated current	Flat terminals	Plug-in terminal	Saddle-type terminal	Double busbar terminal
000/00	160 A	3NH3030	3NH3031	3NH3032	–
0 <sup>1)</sup>	160 A	3NH3120	–	–	–
1	250 A	3NH3230	–	–	3NH3220
2	400 A	3NH3330	–	–	3NH3320
3	630 A	3NH3430	–	–	3NH3420
4	1250 A	3NH3530	–	–	–
4a	1250 A	–	–	–	–

<sup>1)</sup> No longer to be used for new installations!

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## Accessories

### LV HRC protective covers for LV HRC fuse bases



- As touch protection for contact pieces

Size	Article No.
000/00	3NX3105
0	3NX3114
1	3NX3106
2	3NX3107
3	3NX3108

### LV HRC partitions for LV HRC fuse bases



- As intermediate phase and end barrier

Size	Type	Article No.
000/00	3NH30/3NH40	3NX2023
0	3NH31	3NX2030
1	3NH32	3NX2024
2	3NH33	3NX2025
3	3NH34	3NX2026

### LV HRC protective covers



Size	Number of poles	Article No.
000/00	1P and 3P	3NX3115

### Grip lug cover for plugging into the LV HRC protective cover



Size	Use	Article No.
000/00	When using fuse links with non-insulated grip lugs	3NX3116

3P		Molded plastic		With swivel device	
					
Flat terminals	Saddle-type terminal	Flat terminals	Flat terminals		
3NH4030	3NH4032	3NH3051	–		
–	–	–	–		
3NH4230	–	–	–		
–	–	–	–		
–	–	–	–		
–	–	–	–		
–	–	–	–		
–	–	–	–		3NH7520

## Blanking covers for LV HRC fuse bases (instead of LV HRC fuse link)



- Red color
- With inscription "Isolating point"
- Observe width 60 mm of the blank insert when using for size 1

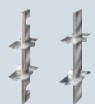
Size	Article No.
000/00	3NX1003
1, 2, 3	3NX1004

## Fuse pullers for LV HRC fuse links



Size	Version	Article No.
000 ... 3	Without sleeve	3NX1013
	With sleeve	3NX1014

## Isolating blades for LV HRC fuse bases and fuse switch disconnectors



Version	Contacts	Size	Article No.
With insulated grip lugs	Silver-plated	000/00	3NG1002
		0	3NG1102
		1	3NG1202
		2	3NG1302
		3	3NG1402
With non-insulated grip lugs	Tin-coated	4	3NG1503
	Nickel-plated	4a	3NG1505

# Cylindrical fuse holders

Number of poles

1P

1P+N

2P

3P

3P+N



For fuses of size	Rated current	Standard	Standard	Standard	Standard	Compact	Bus-mounting fuse holders	Standard
<b>Without LED signal detector</b>								
8 × 32 mm	20 A	3NW7313	3NW7353	3NW7323	3NW7333	–	–	3NW7363
10 × 38 mm	30 A	–	–	–	–	–	3NW7431	–
	32 A	3NW7013	3NW7053	3NW7023	3NW7033	3NW7033-1	–	3NW7063
14 × 51 mm	50 A	3NW7111	3NW7151	3NW7121	3NW7131	–	–	3NW7161
22 × 58 mm	100 A	3NW7211	3NW7251	3NW7221	3NW7231	–	–	3NW7261
<b>With LED signal detector</b>								
8 × 32 mm	20 A	3NW7314	3NW7354	3NW7324	3NW7334	–	–	3NW7364
10 × 38 mm	32 A	3NW7014	3NW7054	3NW7024	3NW7034	3NW7034-1	–	3NW7064
14 × 51 mm	50 A	3NW7112	3NW7152	3NW7122	3NW7132	–	–	3NW7162
22 × 58 mm	100 A	3NW7212	3NW7252	3NW7222	3NW7232	–	–	3NW7262

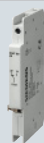
**Note:**

Semiconductor fuses heat up substantially more than standard fuses of operational classes gG and aM.

We therefore recommend only using SITOR cylindrical fuses in the intended SITOR fuse holders and complying with the maximum permissible current-carrying capacity.

## Accessories

### Auxiliary switches for cylindrical fuse holders, standard



- For retrofitting using the factory-fitted brackets

Display	Fuse link size	Article No.
Disconnection of fuse link, for striker fuse links	14 × 51 mm	3NW7901
	22 × 58 mm	3NW7902
Switching state of fuse holder	8 × 32 mm and 10 × 38 mm	3NW7903

### Auxiliary switches for cylindrical fuse holders, compact



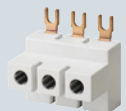
In/AC-12	$U_n$	Contacts	Article No.
5 A	Max. 250 V	1 NO + 1 NC	3NW7903-1

### Busbars for cylindrical fuse holders, compact



Number of poles	$I_n$	Pin spacing	Length	Article No.
2 × 3P	63 A	15 mm	45 mm	5ST2601
3 × 3P	63 A	15 mm	90 mm	5ST2602
4 × 3P	63 A	15 mm	135 mm	5ST2603
5 × 3P	63 A	15 mm	180 mm	5ST2604

### Terminals for cylindrical fuse holders, compact



Version	Article No.
For conductor cross-sections 2.5 ... 35 mm <sup>2</sup>	5ST2600

See Busbar systems [from page 13/1](#)

# Fuse holders and bases for SITOR semiconductor fuses

For SITOR fuses with bolt-on links or blade contacts



Rated current	Rated voltage AC/DC	For fuse series	Mounting dimensions		
50 A	690 V	3NC18	75 mm	3NH5723	–
315 A	690 V	3NE87, 3NC26	80 mm	3NH5023	–
400 A	690 V	3NE80...3MK	80 mm	3NH5323	–
630 A	1800 V	3NE53, 3NE56	170 mm	–	3NH5473
1250 A	1250 V	3NC24, 3NC33...-1U, 3NC34...-1U, 3NC84, 3NE1...-3, NE32, 3NE33	110 mm	–	3NH5463
1600 A	690 V	3NE82...3MK	80 mm	–	3NH5423

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For cylindrical fuses

Cylindrical fuse holders, can be used as fuse switch disconnectors

Number of poles

1P



2P



3P



For fuses of size	Rated voltage AC/DC		With signaling switch		
10 × 38 mm	600/- V	–	–	–	–
	690/800 V	3NC1091	–	3NC1092	3NC1093
14 × 51 mm	690/800 V	3NC1491	3NC1491-5	3NC1492	3NC1493
22 × 58 mm	690/800 V	3NC2291	3NC2291-5	3NC2292	3NC2293
22 × 127 mm	1500/1000 V	3NC2391-0MK	–	3NC2392-0MK	3NC2393-0MK

## Note:

Please comply with the maximum permissible current-carrying capacity.

## Accessories

### Fuse tongs



#### For fuses of size






10 × 38 mm  
14 × 51 mm  
22 × 58 mm

#### Article No.








3NC1000








# Photovoltaic cylindrical fuse holders

		Without signal detector			With signal detector	
Number of poles		1P	1P	2P	1P	2P
						
For fuses of size	Rated current	$U_n$ DC 1000 V	$U_n$ DC 1500 V	$U_n$ DC 1000 V	$U_n$ DC 1000 V	$U_n$ DC 1000 V
10 × 38 mm	30 A	3NW7013-4	–	3NW7023-4	3NW7014-4	3NW7024-4
10 × 85 mm	32 A	–	3NW7613-4	–	–	–

# Class J fuse holders




	For mounting on DIN mounting rail			For screwing onto mounting plate	Bus-mounting fuse holders for 8US 60 mm busbar systems			
	Number of poles	1P	2P	3P	3P	3P	3P	
								
For fuses of size	Rated current	Rated voltage						
21 × 57 mm	30 A	600 V	3NW7511-3HG	3NW7521-3HG	3NW7531-3HG	–	–	–
27 × 60 mm	60 A	600 V	3NW7511-5HG	3NW7521-5HG	3NW7531-5HG	–	–	–
28 × 118 mm	100 A	600 V	–	–	–	3NW7531-6HG	3NW7431-6HG	–
41 × 146 mm	200 A	600 V	–	–	–	3NW7531-7HG	–	3NW7431-7HG
54 × 181 mm	400 A	600 V	–	–	–	3NW7531-8HG	–	3NW7431-8HG

# Class CC fuse holders

	Standard			Compact		Bus-mounting fuse holders for 8US 60 mm busbar systems
	Number of poles	1P	2P	3P	3P	3P
						
Rated current	Rated voltage	Signal detector			without	with
30 A	600 V	3NW7513-0HG	3NW7523-0HG	3NW7533-0HG	3NW7533-1HG	3NW7534-1HG
					3NW7431-0HG	

Accessories for standard Class CC fuse holders, see busbar systems [from page 13/1](#)

## Accessories

Auxiliary switches for cylindrical fuse holders, compact				
	<b>In/AC-12</b>	$U_n$	<b>Contacts</b>	<b>Article No.</b>
	5 A	Max. 250 V	1 NO + 1 NC	3NW7903-1
Busbars for Class CC fuse holders, compact				
	<b>Number of poles</b>	$I_n$	<b>Pin spacing</b>	<b>Length</b>
	2x 3P	63 A	15 mm	45 mm
	3x 3P	63 A	15 mm	90 mm
	4x 3P	63 A	15 mm	135 mm
	5x 3P	63 A	15 mm	180 mm
				5ST2604
Terminals for Class CC fuse holders, compact				
	<b>Version</b>			<b>Article No.</b>
	For conductor cross-sections 2.5 ... 35 mm <sup>2</sup>			5ST2600

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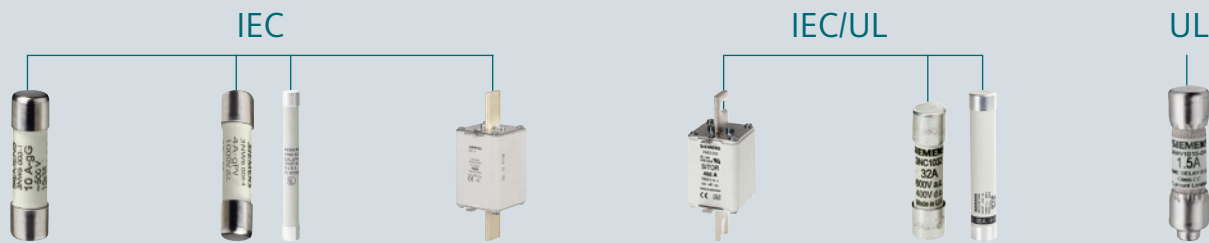
# Quick selection guide of fuse links

IEC



	NEOZED fuse links	DIAZED fuse links	SILIZED fuse links	LV HRC fuse links	3NA COM LV HRC fuse links <sup>1)</sup>
<b>Basic data</b>					
Design	NEOZED	DIAZED	NEOZED, DIAZED	LV HRC	LV HRC
Size/for fuses of size	D01, D02, D03	NDz, DII, DIII	D01, D02, DII, DIII, DIV	000/00, 0, 1, 2, 3, 4, 4a	2
Operational class	gG	gG	gR	gG, aM	gG, gFF
Rated current	A	2...100	2...100	10...100	2...1250
<b>Standards</b>					
Standard	IEC 60269-3 DIN VDE 0636-3	IEC 60269-3 DIN VDE 0635 DIN VDE 0636-3 CEE 16	IEC 60269-3/-4 DIN VDE 0636-3 EN 60269-4 (VDE 0636-4)	IEC 60269-1/-2 EN 60269-1/-2 DIN VDE 0636-1/-2	IEC 60269-1/-2 EN 60269-1/-2 DIN VDE 0636-1/-2
Approvals	–	–	–	CSA 22.2	VDE, KEMA
<b>Technical specifications AC</b>					
Rated voltage AC	V	400	500...750	400...500	400...690 600 (CSA)
Rated breaking capacity AC	kA	50	50	50	120
<b>Technical specifications DC</b>					
Rated voltage DC	V	250	500...750	250...500	250...440
Rated breaking capacity DC	kA	8	8	8	25
<b>Further information</b>					
	<a href="#">See page 7/33</a>	<a href="#">See page 7/33</a>	<a href="#">See page 7/34</a>	<a href="#">See page 7/42</a>	<a href="#">See page 7/42</a>

<sup>1)</sup> With current measuring function and wireless communication





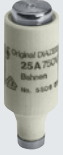


Cylindrical fuse links	Photovoltaic cylindrical fuse links	Photovoltaic cumulative fuse links	SITOR LV HRC semiconductor fuse links	SITOR cylindrical semiconductor fuse links	Class CC fuse links
Cylindrical 8 × 32 mm, 10 × 38 mm, 14 × 51 mm, 22 × 58 mm	Cylindrical 10 × 38 mm, 10 × 85 mm	LV HRC 1, 1L, 2L, 3L, 1XL, 2XL	LV HRC 000, 00, 1, 2, 3	Cylindrical 10 × 38 mm, 14 × 51 mm, 22 × 58 mm	Cylindrical –
gG, aM 0.5 ... 100	gPV 2 ... 20	gPV 63 ... 630	gS, gR, aR 6 ... 2400	gS, gR, aR 1 ... 125	– 0.6 ... 30
IEC 60269-1/-2 NF C 60-200 NF C 63-210/-211 NBN C 63269-2 CEI 32-4/-12 UL 4248-1; CSA	IEC 60269-6	IEC 60269-6	IEC 60269-4	IEC 60269-2	–
–	–	–	UL 4248-1 UL 4248-13	UL 4248-1 UL 4248-13	UL 4248-1 CSA C22.2
400 ... 690 400 ... 600 (UL/CSA) 20 ... 120	–	–	500 ... 2500 100 ... 150	690 ... 1500 600 ... 1500 (UL/CSA) 100	600 200
–	1000 ... 1500	1000 ... 1500	400 ... 1500	250 ... 1000	150 ... 300
–	30	30	–	–	–
See page 7/42	See page 7/42	See page 7/42	See page 7/42	See page 7/42	See page 7/42

# NEOZED fuse links

Operational class gG

			Size D01	Size D02	Size D03
					
$I_n$	Identification color	Contacts	$U_n$ AC/DC 400/250 V	$U_n$ AC/DC 400/250 V	$U_n$ AC/DC 400/250 V
2 A	Pink	–	5SE2302	–	–
4 A	Brown	–	5SE2304	–	–
6 A	Green	–	5SE2306	–	–
10 A	Red	–	5SE2310	–	–
13 A	Black	–	5SE2013-2A	–	–
16 A	Gray	–	5SE2316	–	–
20 A	Blue	Tin-coated	–	5SE2320	–
25 A	Yellow	Tin-coated	–	5SE2325	–
32 A	Violet	Tin-coated	–	5SE2332	–
35 A	Black	Tin-coated	–	5SE2335	–
40 A	Black	Silver-plated	–	5SE2340	–
50 A	White	Silver-plated	–	5SE2350	–
63 A	Copper	Silver-plated	–	5SE2363	–
80 A	Blue	–	–	–	5SE2280
100 A	Red	–	–	–	5SE2300

# DIAZED fuse links

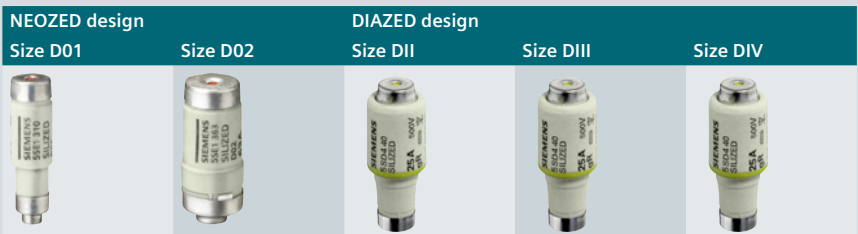
		Size DII E27		Size DIII <sup>1)</sup> E33			Size DIV R 1¼"		Size TNDz E16	
Operational class		gG		gG			quick	gG	slow	
										
$I_n$	Identification color	$U_n$ AC/DC 500/440 V    500/500 V		$U_n$ AC/DC 500/440 V    690/600 V    750/750 V			$U_n$ AC/DC 500/400 V	$U_n$ AC/DC 500/440 V    500/500 V		
2 A	Pink	–	5SB211	–	5SD8002	5SD601	–	–	5SA211	
4 A	Brown	–	5SB221	–	5SD8004	5SD602	–	–	5SA221	
6 A	Green	–	5SB231	–	5SD8006	5SD603	–	–	5SA231	
10 A	Red	–	5SB251	–	5SD8010	5SD604	–	–	5SA251	
16 A	Gray	5SB2611	–	–	5SD8016	5SD605	–	5SA2611	–	
20 A	Blue	5SB2711	–	–	5SD8020	5SD606	–	5SA2711	–	
25 A	Yellow	5SB2811	–	–	5SD8025	5SD607	–	5SA2811	–	
32 A	Violet	–	–	5SB4011	–	–	–	–	–	
35 A	Black	–	–	5SB4111	5SD8035	5SD608	–	–	–	
50 A	White	–	–	5SB4211	5SD8050	5SD610	–	–	–	
63 A	Copper	–	–	5SB4311	5SD8063	5SD611	–	–	–	
80 A	Silver	–	–	–	–	–	5SC211	–	–	
100 A	Red	–	–	–	–	–	5SC221	–	–	

<sup>1)</sup> For 2 ... 25 A use screw adaptor DII



# SILIZED fuse links

Operational class gR



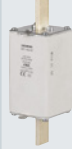
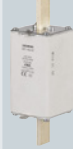




$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	NEOZED design		DIAZED design		
			Size D01	Size D02	Size DII	Size DIII	Size DIV
			$U_n$ AC/DC 400/250 V	$U_n$ AC/DC 400/250 V	$U_n$ AC/DC 500/500 V	$U_n$ AC/DC 500/500 V	$U_n$ AC/DC 500/500 V
10 A	73 A <sup>2</sup> s	6.9 W	5SE1310	–	–	–	–
16 A	60 A <sup>2</sup> s	12.1 W	–	–	5SD420	–	–
	120 A <sup>2</sup> s	6.2 W	5SE1316	–	–	–	–
20 A	139 A <sup>2</sup> s	12.3 W	–	–	5SD430	–	–
	190 A <sup>2</sup> s	8.1 W	–	5SE1320	–	–	–
25 A	205 A <sup>2</sup> s	12.5 W	–	–	5SD440	–	–
	215 A <sup>2</sup> s	8.2 W	–	5SE1325	–	–	–
30 A	310 A <sup>2</sup> s	13.5 W	–	–	5SD480	–	–
35 A	470 A <sup>2</sup> s	16.7 W	–	5SE1335	–	–	–
	539 A <sup>2</sup> s	14.8 W	–	–	–	5SD450	–
50 A	1250 A <sup>2</sup> s	18.5 W	–	–	–	5SD460	–
	1960 A <sup>2</sup> s	12.0 W	–	5SE1350	–	–	–
63 A	1890 A <sup>2</sup> s	28 W	–	–	–	5SD470	–
	4230 A <sup>2</sup> s	15.5 W	–	5SE1363	–	–	–
80 A	4200 A <sup>2</sup> s	34.3 W	–	–	–	–	5SD510
100 A	8450 A <sup>2</sup> s	41.5 W	–	–	–	–	5SD520

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# Photovoltaic cumulative fuse links

Operational class gPV

		Size 1	Size 1L	Size 2L	Size 3L	Size 1XL	Size 2XL
							
$I_n$ DC	Power loss $P_v$	$U_n$ DC 1000 V	$U_n$ DC 1000 V	$U_n$ DC 1000 V	$U_n$ DC 1000 V	$U_n$ DC 1500 V	$U_n$ DC 1500 V
63 A	19 W	3NE1218-4	–	–	–	–	–
	20 W	–	–	–	–	3NE1218-5E	–
80 A	20 W	3NE1220-4	–	–	–	–	–
	25 W	–	–	–	–	3NE1220-5E	–
100 A	24 W	3NE1221-4	–	–	–	–	–
	30 W	–	–	–	–	3NE1221-5E	–
125 A	26 W	3NE1222-4	–	–	–	–	–
	29 W	–	–	–	–	3NE1222-5E	–
160 A	32 W	3NE1224-4	–	–	–	–	–
	34 W	–	–	–	–	3NE1224-5E	–
200 A	41 W	–	–	–	–	3NE1225-5E	–
	51 W	–	3NE1225-4D	–	–	–	–
250 A	53 W	–	–	–	–	–	3NE1327-5E
	54 W	–	3NE1227-4D	–	–	–	–
315 A	63 W	–	–	–	–	–	3NE1330-5E
	73 W	–	–	3NE1330-4D	–	–	–
400 A	82 W	–	–	3NE1332-4D	–	–	–
500 A	100 W	–	–	–	3NE1434-4E	–	–
630 A	110 W	–	–	–	3NE1436-4E	–	–

7

# LV HRC fuse links

Operational class gG, with combination alarm



$I_n$	Size 000			Size 00			Size 1		
	$U_n$ AC 400 V	$U_n$ AC/DC 500/250 V	690 <sup>1)</sup> /250 V	$U_n$ AC 400 V	$U_n$ AC/DC 500/250 V	690 <sup>1)</sup> /250 V	$U_n$ AC 400 V	$U_n$ AC/DC 500/440 V	690 <sup>1)</sup> /440 V
<b>Insulated grip lugs</b>									
2 A	–	3NA6802	3NA6802-6	–	–	–	–	–	–
4 A	–	3NA6804	3NA6804-6	–	–	–	–	–	–
6 A	–	3NA6801	3NA6801-6	–	–	–	–	–	–
10 A	3NA6803-4	3NA6803	3NA6803-6	–	–	–	–	–	–
16 A	3NA6805-4	3NA6805	3NA6805-6	–	–	–	–	3NA6105	–
20 A	3NA6807-4	3NA6807	3NA6807-6	–	–	–	–	3NA6107	–
25 A	3NA6810-4	3NA6810	3NA6810-6	–	–	–	–	3NA6110	–
32 A	3NA6812-4	3NA6812	3NA6812-6	–	–	–	–	–	–
35 A	3NA6814-4	3NA6814	3NA6814-6	–	–	–	3NA6114-4	3NA6114	–
40 A	3NA6817-4	3NA6817	3NA6817-6KJ	–	–	3NA6817-6	3NA6117-4	3NA6117	–
50 A	3NA6820-4	3NA6820	3NA6820-6KJ	–	–	3NA6820-6	3NA6120-4	3NA6120	3NA6120-6
63 A	3NA6822-4	3NA6822	–	–	–	3NA6822-6	3NA6122-4	3NA6122	3NA6122-6
80 A	3NA6824-4	3NA6824	–	3NA6824-4KK	3NA6824-7	3NA6824-6	3NA6124-4	3NA6124	3NA6124-6
100 A	3NA6830-4	3NA6830	–	3NA6830-4KK	3NA6830-7	3NA6830-6	3NA6130-4	3NA6130	3NA6130-6
125 A	–	–	–	3NA6832-4	3NA6832	–	3NA6132-4	3NA6132	3NA6132-6
160 A	–	–	–	3NA6836-4	3NA6836	–	3NA6136-4	3NA6136	3NA6136-6
200 A	–	–	–	–	–	–	–	–	–
224 A	–	–	–	–	–	–	–	–	–
250 A	–	–	–	–	–	–	–	–	–
300 A	–	–	–	–	–	–	–	–	–
315 A	–	–	–	–	–	–	–	–	–
355 A	–	–	–	–	–	–	–	–	–
400 A	–	–	–	–	–	–	–	–	–
<b>Non-insulated grip lugs</b>									
2 A	–	3NA7802	3NA7802-6	–	–	–	–	–	–
4 A	–	3NA7804	3NA7804-6	–	–	–	–	–	–
6 A	–	3NA7801	3NA7801-6	–	–	–	–	–	–
10 A	–	3NA7803	3NA7803-6	–	–	–	–	–	–
16 A	–	3NA7805	3NA7805-6	–	–	–	–	3NA7105	–
20 A	–	3NA7807	3NA7807-6	–	–	–	–	3NA7107	–
25 A	–	3NA7810	3NA7810-6	–	–	–	–	3NA7110	–
32 A	–	3NA7812	3NA7812-6	–	–	–	–	–	–
35 A	–	3NA7814	3NA7814-6	–	–	–	–	3NA7114	–
40 A	–	3NA7817	3NA7817-6KJ	–	–	3NA7817-6	–	3NA7117	–
50 A	–	3NA7820	3NA7820-6KJ	–	–	3NA7820-6	–	3NA7120	3NA7120-6
63 A	–	3NA7822	–	–	–	3NA7822-6	–	3NA7122	3NA7122-6
80 A	–	3NA7824	–	–	3NA7824-7	3NA7824-6	–	3NA7124	3NA7124-6
100 A	–	3NA7830	–	–	3NA7830-7	3NA7830-6	–	3NA7130	3NA7130-6
125 A	–	–	–	–	3NA7832	–	–	3NA7132	3NA7132-6
160 A	–	–	–	–	3NA7836	–	–	3NA7136	3NA7136-6
200 A	–	–	–	–	–	–	–	–	–
224 A	–	–	–	–	–	–	–	–	–
250 A	–	–	–	–	–	–	–	–	–
300 A	–	–	–	–	–	–	–	–	–
315 A	–	–	–	–	–	–	–	–	–
355 A	–	–	–	–	–	–	–	–	–
400 A	–	–	–	–	–	–	–	–	–

<sup>1)</sup> Manufacturer's confirmation for 690 V +10% rated voltage available on request.









# LV HRC fuse links

Operational class gG, with front indicator









	Size 000			Size 00		Size 0	Size 1				
Mounting width	21 mm			30 mm		30 mm	30 mm			47.2 mm	
$I_n$	$U_n$ AC/DC 400/250 V    500/250 V    690 <sup>1)</sup> /250 V			$U_n$ AC/DC 500/250 V    690 <sup>1)</sup> /250 V		$U_n$ AC/DC 500/440 V	$U_n$ AC/DC 500/440 V    690 <sup>1)</sup> /440 V			$U_n$ AC/DC 500/440 V    690 <sup>1)</sup> /440 V	
<b>Non-insulated grip lugs</b>											
2 A	-	3NA3802	3NA3802-6	-	-	-	-	-	-	-	-
4 A	-	3NA3804	3NA3804-6	-	-	-	-	-	-	-	-
6 A	-	3NA3801	3NA3801-6	-	-	3NA3001	-	-	-	-	-
10 A	-	3NA3803	3NA3803-6	-	-	3NA3003	-	-	-	-	-
16 A	-	3NA3805	3NA3805-6	-	-	3NA3005	3NA3105	-	-	-	-
20 A	-	3NA3807	3NA3807-6	-	-	3NA3007	3NA3107	-	-	-	-
25 A	-	3NA3810	3NA3810-6	-	-	3NA3010	3NA3110	-	-	-	-
32 A	-	3NA3812	3NA3812-6	-	-	3NA3012	-	-	-	-	-
35 A	-	3NA3814	3NA3814-6	3NA3814-7	-	3NA3014	3NA3114	-	-	-	-
40 A	-	3NA3817	3NA3817-6KJ	-	3NA3817-6	3NA3017	3NA3117	-	-	-	-
50 A	-	3NA3820	3NA3820-6KJ	3NA3820-7	3NA3820-6	3NA3020	3NA3120	3NA3120-6	-	-	-
63 A	-	3NA3822	-	3NA3822-7	3NA3822-6	3NA3022	3NA3122	3NA3122-6	-	-	-
80 A	-	3NA3824	-	3NA3824-7	3NA3824-6	3NA3024	3NA3124	3NA3124-6	-	-	-
100 A	-	3NA3830	-	3NA3830-7	3NA3830-6	3NA3030	3NA3130	3NA3130-6	-	-	-
125 A	3NA3832-8	-	-	3NA3832	-	3NA3032	3NA3132	3NA3132-6	-	-	-
160 A	3NA3836-8	-	-	3NA3836	-	3NA3036	3NA3136	3NA3136-6	-	-	-
200 A	-	-	-	-	-	-	-	-	3NA3140	3NA3140-6	-
224 A	-	-	-	-	-	-	-	-	3NA3142	-	-
250 A	-	-	-	-	-	-	-	-	3NA3144	3NA3144-6	-
300 A	-	-	-	-	-	-	-	-	-	-	-
315 A	-	-	-	-	-	-	-	-	-	-	-
355 A	-	-	-	-	-	-	-	-	-	-	-
400 A	-	-	-	-	-	-	-	-	-	-	-
425 A	-	-	-	-	-	-	-	-	-	-	-
500 A	-	-	-	-	-	-	-	-	-	-	-
630 A	-	-	-	-	-	-	-	-	-	-	-
800 A	-	-	-	-	-	-	-	-	-	-	-
1000 A	-	-	-	-	-	-	-	-	-	-	-
1250 A	-	-	-	-	-	-	-	-	-	-	-

<sup>1)</sup> Manufacturer's confirmation for 690 V +10% rated voltage available on request.

Size 2		Size 3				Size 4 (IEC design)		Size 4a	
47.2 mm		57.8 mm		57.8 mm		71.2 mm		101.8 mm	101.8 mm
									
$U_n$ AC/DC	$690^{1)}/440$ V	$U_n$ AC/DC	$690^{1)}/440$ V	$U_n$ AC/DC	$690^{1)}/440$ V	$U_n$ AC/DC	$690^{1)}/440$ V	$U_n$ AC/DC	$U_n$ AC/DC
500/440 V	690 <sup>1)</sup> /440 V	500/440 V	690 <sup>1)</sup> /440 V	500/440 V	690 <sup>1)</sup> /440 V	500/440 V	690 <sup>1)</sup> /440 V	500/440 V	500/440 V
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
3NA3214	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
3NA3220	-	-	-	-	-	-	-	-	-
3NA3222	-	-	-	-	-	-	-	-	-
3NA3224	3NA3224-6	-	-	-	-	-	-	-	-
3NA3230	3NA3230-6	-	-	-	-	-	-	-	-
3NA3232	3NA3232-6	-	-	-	-	-	-	-	-
3NA3236	3NA3236-6	-	-	-	-	-	-	-	-
3NA3240	3NA3240-6	-	-	3NA3340	-	-	-	-	-
3NA3242	-	-	3NA3242-6	3NA3342	-	-	-	-	-
3NA3244	-	-	3NA3244-6	3NA3344	3NA3344-6	-	-	-	-
-	-	3NA3250	3NA3250-6	3NA3350	-	-	-	-	-
-	-	3NA3252	3NA3252-6	3NA3352	3NA3352-6	-	-	-	-
-	-	3NA3254	-	3NA3354	-	-	3NA3354-6	-	-
-	-	3NA3260	-	3NA3360	-	-	3NA3360-6	-	-
-	-	-	-	-	-	3NA3362	3NA3362-6	-	-
-	-	-	-	-	-	3NA3365	3NA3365-6	-	3NA3665
-	-	-	-	-	-	3NA3372	-	3NA3472	3NA3672
-	-	-	-	-	-	-	-	3NA3475	3NA3675
-	-	-	-	-	-	-	-	3NA3480	3NA3680
-	-	-	-	-	-	-	-	3NA3482	3NA3682

# LV HRC fuse links

Operational class aM, with front indicator

	Size 000	Size 00	Size 1	Size 2	Size 2	Size 3	Size 3	
Mounting width	21 mm	30 mm	30 mm	47.2 mm	47.2 mm	57.8 mm	57.8 mm	71.2 mm
								
$I_n$	$U_n$ AC	$U_n$ AC	$U_n$ AC	$U_n$ AC	$U_n$ AC	$U_n$ AC	$U_n$ AC	$U_n$ AC
	500 V	500 V	690 V	690 V	690 V	690 V	690 V	690 V
Non-insulated grip lugs								
6 A	3ND1801	–	–	–	–	–	–	–
10 A	3ND1803	–	–	–	–	–	–	–
16 A	3ND1805	–	–	–	–	–	–	–
20 A	3ND1807	–	–	–	–	–	–	–
25 A	3ND1810	–	–	–	–	–	–	–
32 A	3ND1812	–	–	–	–	–	–	–
35 A	3ND1814	–	–	–	–	–	–	–
40 A	3ND1817	–	–	–	–	–	–	–
50 A	3ND1820	–	–	–	–	–	–	–
63 A	3ND1822	–	3ND2122	–	–	–	–	–
80 A	3ND1824	–	3ND2124	–	–	–	–	–
100 A	3ND1830-8	3ND1830	3ND2130	–	–	–	–	–
125 A	–	3ND1832	–	3ND2132	3ND2232	–	–	–
160 A	–	3ND1836	–	3ND2136	3ND2236	–	–	–
200 A	–	–	–	3ND2140	3ND2240	–	–	–
250 A	–	–	–	3ND2144	3ND2244	–	–	–
315 A	–	–	–	–	–	3ND2252	3ND2352	–
355 A	–	–	–	–	–	3ND2254	3ND2354	–
400 A	–	–	–	–	–	3ND2260	3ND2360	–
500 A	–	–	–	–	–	–	–	3ND1365
630 A	–	–	–	–	–	–	–	3ND1372





# 3NA COM LV HRC fuse links with communication and measuring function **new**

With front indicator and non-insulated grip lugs

	Size 2, with electronic module <sup>1)</sup>		Size 2, without electronic module <sup>2)</sup>	
	Operational class gG	Operational class gFF (for the Netherlands)	Operational class gG	Operational class gFF (for the Netherlands)
Mounting width	59 mm	59 mm	59 mm	59 mm
$I_n$	$U_n$ AC 400 V	$U_n$ AC 400 V	$U_n$ AC 400 V	$U_n$ AC 400 V
80 A	–	3NA3224-4KK03	–	3NA3224-4KK04
100 A	3NA3230-4KK01	3NA3230-4KK03	3NA3230-4KK02	3NA3230-4KK04
125 A	3NA3232-4KK01	3NA3232-4KK03	3NA3232-4KK02	3NA3232-4KK04
160 A	3NA3236-4KK01	3NA3236-4KK03	3NA3236-4KK02	3NA3236-4KK04
200 A	3NA3240-4KK01	3NA3240-4KK03	3NA3240-4KK02	3NA3240-4KK04
224 A	3NA3242-4KK01	–	3NA3242-4KK02	–
250 A	3NA3244-4KK01	3NA3244-4KK03	3NA3244-4KK02	3NA3244-4KK04
315 A	3NA3252-4KK01	–	3NA3252-4KK02	–

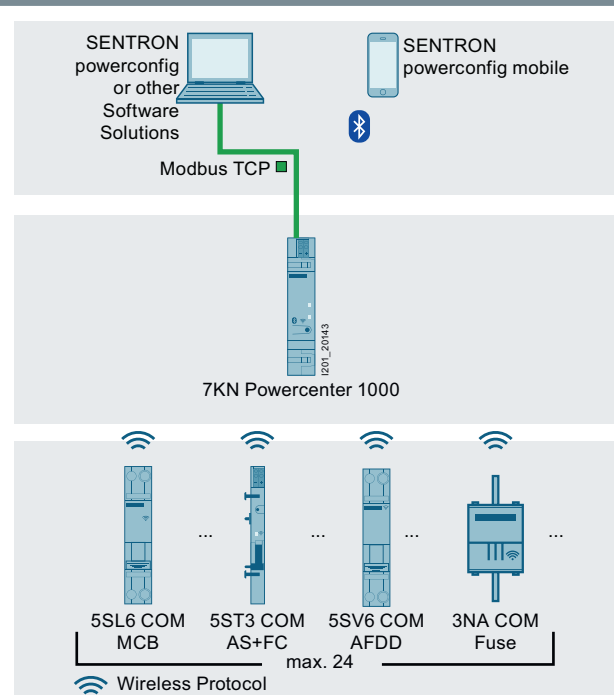
<sup>1)</sup> Electronic module is mounted by simple insertion

<sup>2)</sup> For spare part purposes (electronic module can be reused after the fuse has been replaced!)

7



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000	Article No.
	7KN1110-0MC00

See page 10/17

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))

System manual – Circuit protection devices with communication and measuring function ([109791806](#))



## Monitoring functions (alarm) with limit monitoring

- Limit values can be set for:
  - Current/overcurrent > Limit value 1
  - Current/overcurrent > Limit value 2
  - Overtemperature
  - Operating hours counter
  - Operating hours counter with load current > Limit value
  - Values

Technical specifications	Electronic module for 3NA COM		
Current measuring range	2.5 ... 440 A (rms value)		
Measuring accuracy of current measurement/5-minute average of rms value	<ul style="list-style-type: none"> <li>• At reference temperature 25 °C</li> <li>• In the range -10 °C ... +70 °C</li> </ul>		
Minimum current	5 A (to maintain the radio connection)		
Temperature measuring range	+20 ... +120 °C		
Measuring accuracy of temperature measurement	± 2.5 °C		
Active power input per phase during current measurement	50 mW		
Maximum transmit power	8 dBm		
Minimum/maximum ambient temperature during operation	-10 °C/+55 °C		
Minimum/maximum ambient temperature during storage	-10 °C/+70 °C		
Relative humidity at 25 °C without condensation	Max. 95 %		
Degree of protection IP	IP20		
Pollution degree	2		
Reference condition for measuring accuracy	IEC 61557-12		
Measuring method	TRMS		
Power supply	CT Harvesting		
<b>European standards</b>			
RED Safety	EN 60669-2-5		
RED Health	EN 62479		
RED EMV	EN 63044-3/-5-3, EN 301489-17, EN 300480-17		
RED Radio Spec	EN 300328		
<b>International standards</b>			
For EMC	EN 63044-5-3, IEC 61000-6-2, IEC 61000-4-2/-3/-4/-5/-6/-8/-11		
For shocks, bumps, free fall, environmental tests	IEC 60068-2-1/-2/-6/-27/-29/-30/-32		
Approvals	VDE, KEMA KEUR		
<b>Measured values</b>		<b>Measuring interval</b>	<b>Storage time</b>
<b>Current</b>			
Current (rms value)	A	10 s	1 h
Average current (rms value)	A	15 min	7 d
Minimum current	A	1 d	10 d
Maximum current	A	1 d	10 d
<b>Temperature</b>			
Temperature	°C	1 min	1 h
Average temperature	°C	15 min	7 d
Minimum temperature	°C	1 d	10 d
Maximum temperature	°C	1 d	10 d
<b>Operating hours counter</b>			
Operating hours counter	h	Unlimited	Unlimited
Operating hours counter with load current > Limit value	h	Unlimited	Unlimited

# Cylindrical fuse links

## Operational class gG

$I_n$	Size 8 × 32 mm		Size 10 × 38 mm		Size 14 × 51 mm		Size 22 × 58 mm	
	$U_n$ AC 400 V		$U_n$ AC 400 V	500 V	$U_n$ AC 500 V	690 V	$U_n$ AC 500 V	690 V
0.5 A	–		–	3NW6000-1	–	–	–	–
1 A	–		–	3NW6011-1	–	–	–	–
2 A	3NW6302-1		–	3NW6002-1	–	–	–	–
4 A	3NW6304-1		–	3NW6004-1	–	3NW6104-1	–	–
6 A	3NW6301-1		–	3NW6001-1	–	3NW6101-1	–	–
8 A	–		–	3NW6008-1	–	3NW6108-1	–	–
10 A	3NW6303-1		–	3NW6003-1	–	3NW6103-1	–	–
12 A	–		–	3NW6006-1	–	3NW6106-1	–	–
16 A	3NW6305-1		–	3NW6005-1	–	3NW6105-1	–	3NW6205-1
20 A	3NW6307-1		–	3NW6007-1	–	3NW6107-1	–	3NW6207-1
25 A	–		–	3NW6010-1	–	3NW6110-1	–	3NW6210-1
32 A	–		3NW6012-1	–	–	3NW6112-1	–	3NW6212-1
40 A	–		–	–	3NW6117-1	–	–	3NW6217-1
50 A	–		–	–	3NW6120-1	–	–	3NW6220-1
63 A	–		–	–	–	–	3NW6222-1	–
80 A	–		–	–	–	–	3NW6224-1	–
100 A	–		–	–	–	–	3NW6230-1	–

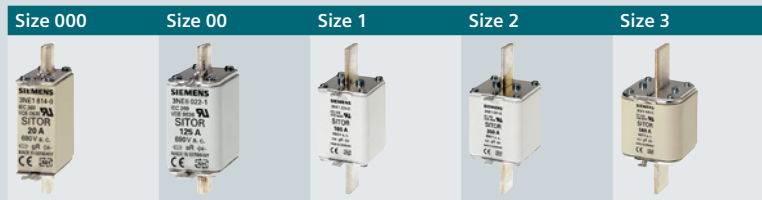
## Operational class aM

$I_n$	Size 10 × 38 mm		Size 14 × 51 mm			Size 22 × 58 mm	
	$U_n$ AC 400 V	500 V	$U_n$ AC 400 V	500 V	690 V	$U_n$ AC 500 V	690 V
0.5 A	–	3NW8000-1	–	–	–	–	–
1 A	–	3NW8011-1	–	–	–	–	–
2 A	–	3NW8002-1	–	–	3NW8102-1	–	–
4 A	–	3NW8004-1	–	–	3NW8104-1	–	–
6 A	–	3NW8001-1	–	–	3NW8101-1	–	–
8 A	–	3NW8008-1	–	–	3NW8108-1	–	–
10 A	–	3NW8003-1	–	–	3NW8103-1	–	–
12 A	–	3NW8006-1	–	–	3NW8106-1	–	–
16 A	–	3NW8005-1	–	3NW8105-1	–	–	3NW8205-1
20 A	3NW8007-1	–	–	3NW8107-1	–	–	3NW8207-1
25 A	3NW8010-1	–	–	3NW8110-1	–	–	3NW8210-1
32 A	3NW8012-1	–	–	3NW8112-1	–	–	3NW8212-1
40 A	–	–	–	3NW8117-1	–	–	3NW8217-1
50 A	–	–	3NW8120-1	–	–	–	3NW8220-1
63 A	–	–	–	–	–	3NW8222-1	–
80 A	–	–	–	–	–	3NW8224-1	–
100 A	–	–	–	–	–	3NW8230-1	–



# SITOR semiconductor fuse links (LV HRC design)



Operational class gS, with blade contacts without slots



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>
16 A	200 A <sup>2</sup> s	4 W	1.00	3NE1813-0	–	–	–	–
20 A	430 A <sup>2</sup> s	5 W	1.00	3NE1814-0	–	–	–	–
25 A	780 A <sup>2</sup> s	5 W	1.00	3NE1815-0	–	–	–	–
35 A	1700 A <sup>2</sup> s	3.5 W	1.00	3NE1803-0	–	–	–	–
40 A	3000 A <sup>2</sup> s	3 W	1.00	3NE1802-0	–	–	–	–
50 A	4400 A <sup>2</sup> s	6 W	1.00	3NE1817-0	–	–	–	–
63 A	9000 A <sup>2</sup> s	7 W	1.00	3NE1818-0	–	–	–	–
80 A	18000 A <sup>2</sup> s	8 W	1.00	3NE1820-0	–	–	–	–
100 A	33000 A <sup>2</sup> s	10 W	1.00	–	3NE1021-0	–	–	–
125 A	63000 A <sup>2</sup> s	11 W	1.00	–	3NE1022-0	–	–	–
160 A	60000 A <sup>2</sup> s	24 W	1.00	–	–	3NE1224-0	–	–
200 A	100000 A <sup>2</sup> s	27 W	1.00	–	–	3NE1225-0	–	–
250 A	200000 A <sup>2</sup> s	30 W	1.00	–	–	3NE1227-0	–	–
315 A	310000 A <sup>2</sup> s	38 W	1.00	–	–	3NE1230-0	–	–
350 A	430000 A <sup>2</sup> s	42 W	1.00	–	–	–	3NE1331-0	–
400 A	590000 A <sup>2</sup> s	45 W	1.00	–	–	–	3NE1332-0	–
450 A	750000 A <sup>2</sup> s	53 W	1.00	–	–	–	3NE1333-0	–
500 A	950000 A <sup>2</sup> s	56 W	1.00	–	–	–	3NE1334-0	–
560 A	1700000 A <sup>2</sup> s	50 W	1.00	–	–	–	–	3NE1435-0
630 A	2350000 A <sup>2</sup> s	55 W	1.00	–	–	–	–	3NE1436-0
710 A	3400000 A <sup>2</sup> s	58 W	1.00	–	–	–	–	3NE1437-0
800 A	5000000 A <sup>2</sup> s	58 W	1.00	–	–	–	–	3NE1438-0
<b>Further information</b>								
Installation in 3NH LV HRC fuse bases				■	■	■	■	■
Installation in 3NP and 3KF fuse switching devices				■	■	■	■	■

<sup>1)</sup> For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"

## Operational class gR, with bolt-on links

	Size 000	Size 00
Screw fixing, mounting dimension	M8, 80 mm	M10, 80 mm
		

$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC/DC 690/700 V	$U_n$ AC/DC 690/440 V
20 A	83 A <sup>2</sup> s	7 W	0.90	3NE8714-1	–
25 A	140 A <sup>2</sup> s	9 W	0.90	3NE8715-1	–
32 A	285 A <sup>2</sup> s	10 W	0.90	3NE8701-1	–
40 A	490 A <sup>2</sup> s	12 W	0.90	3NE8702-1	–
50 A	815 A <sup>2</sup> s	15 W	0.90	3NE8717-1	–
80 A	3200 A <sup>2</sup> s	23 W	On req.	–	3NE8020-3MK
100 A	5200 A <sup>2</sup> s	29 W	On req.	–	3NE8021-3MK
<b>Further information</b>					
Screw fixing				■	■
Installation in SITOR fuse bases				2× 3NH5023	2× 3NH5023
Further currents, operational class aR				<a href="#">See page 7/52</a>	<a href="#">See page 7/52</a>

# SITOR semiconductor fuse links (LV HRC design)

Operational class gR, with blade contacts without slots

Size 000



Size 00



Size 0



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC/DC 690/400 V	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 1000 V <sup>1)</sup>
6 A	37 A <sup>2</sup> s	2.7 W	On req.	3NE8810-OMK	–	–
10 A	50 A <sup>2</sup> s	4.5 W	On req.	3NE8812-OMK	–	–
16 A	73 A <sup>2</sup> s	6.7 W	On req.	3NE8813-OMK	–	–
20 A	90 A <sup>2</sup> s	8 W	On req.	3NE8814-OMK	–	–
25 A	150 A <sup>2</sup> s	8.1 W	On req.	3NE8815-OMK	–	–
	180 A <sup>2</sup> s	7 W	0.95	–	3NE8015-1	–
32 A	280 A <sup>2</sup> s	12 W	0.90	–	–	3NE4101
	350 A <sup>2</sup> s	10.5 W	On req.	3NE8801-OMK	–	–
35 A	400 A <sup>2</sup> s	9 W	0.95	–	3NE8003-1	–
40 A	480 A <sup>2</sup> s	12 W	On req.	3NE8802-OMK	–	–
	500 A <sup>2</sup> s	13 W	0.90	–	–	3NE4102
50 A	700 A <sup>2</sup> s	14 W	0.90	–	3NE8017-1	–
	800 A <sup>2</sup> s	16 W	0.90	–	–	3NE4117
	1050 A <sup>2</sup> s	14.5 W	On req.	3NE8817-OMK	–	–
63 A	1400 A <sup>2</sup> s	16 W	0.95	–	3NE8018-1	–
	1960 A <sup>2</sup> s	23 W	On req.	3NE8818-OMK	–	–
80 A	5800 A <sup>2</sup> s	10.5 W	1.00	–	3NE1020-2	–
100 A	11000 A <sup>2</sup> s	12 W	1.00	–	3NE1021-2	–
125 A	23000 A <sup>2</sup> s	13.5 W	1.00	–	3NE1022-2	–
160 A	18600 A <sup>2</sup> s	32 W	1.00	–	–	–
200 A	51800 A <sup>2</sup> s	35 W	1.00	–	–	–
250 A	80900 A <sup>2</sup> s	37 W	1.00	–	–	–
315 A	168000 A <sup>2</sup> s	40 W	1.00	–	–	–
350 A	177000 A <sup>2</sup> s	43 W	1.00	–	–	–
400 A	224000 A <sup>2</sup> s	50 W	1.00	–	–	–
450 A	276500 A <sup>2</sup> s	58 W	1.00	–	–	–
500 A	398000 A <sup>2</sup> s	64 W	1.00	–	–	–
560 A	890000 A <sup>2</sup> s	60 W	1.00	–	–	–
630 A	1390000 A <sup>2</sup> s	60 W	1.00	–	–	–
670 A	1640000 A <sup>2</sup> s	64 W	1.00	–	–	–
710 A	1818000 A <sup>2</sup> s	72 W	1.00	–	–	–
	2460000 A <sup>2</sup> s	65 W	1.00	–	–	–
800 A	2475000 A <sup>2</sup> s	84 W	1.00	–	–	–
	3350000 A <sup>2</sup> s	72 W	1.00	–	–	–
850 A	3640000 A <sup>2</sup> s	76 W	1.00	–	–	–

#### Further information

Installation in 3NH LV HRC fuse bases



Installation in 3NP and 3KF fuse switching devices



Further currents, operational class aR

[See page 7/53](#)



[See page 7/53](#)

<sup>1)</sup> For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"





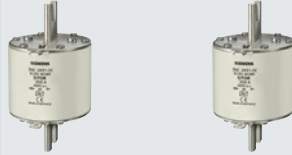
# SITOR semiconductor fuse links (LV HRC design)

Operational class gR, with slotted blade contacts

Screw fixing, mounting dimension (lateral)

With 2 oblong slots  
Size 3

M10, 110 mm



With oblong and transverse slots  
Size 1

M10, 110 mm





$I_n$	Switch-off $I^2t$ value	Power loss $P_V$	Varying load factor WL	$U_n$ AC		$U_n$ AC	
				500 V <sup>1)</sup>	690 V <sup>1)</sup>	690 V <sup>1)</sup>	1000/600 V
32 A	4500 A <sup>2</sup> s	9 W	On req.	–	–	–	3NE3201-OMK
40 A	900 A <sup>2</sup> s	26 W	On req.	–	–	–	–
	6000 A <sup>2</sup> s	13 W	On req.	–	–	–	3NE3202-OMK
50 A	1800 A <sup>2</sup> s	27 W	On req.	–	–	–	–
	8000 A <sup>2</sup> s	18 W	On req.	–	–	–	3NE3217-OMK
63 A	3100 A <sup>2</sup> s	34 W	On req.	–	–	–	–
	9000 A <sup>2</sup> s	25 W	On req.	–	–	–	3NE3218-OMK
150 A	17600 A <sup>2</sup> s	40 W	0.85	–	3NC8423-OC	–	–
	33000 A <sup>2</sup> s	35 W	0.85	3NC2423-OC	–	–	–
160 A	18600 A <sup>2</sup> s	32 W	1.00	–	–	3NE1224-3	–
200 A	38400 A <sup>2</sup> s	55 W	0.85	–	3NC8425-OC	–	–
	51800 A <sup>2</sup> s	35 W	1.00	–	–	3NE1225-3	–
	64000 A <sup>2</sup> s	40 W	0.85	3NC2425-OC	–	–	–
250 A	70400 A <sup>2</sup> s	72 W	0.85	–	3NC8427-OC	–	–
	80900 A <sup>2</sup> s	37 W	1.00	–	–	3NE1227-3	–
	99000 A <sup>2</sup> s	50 W	0.85	3NC2427-OC	–	–	–
300 A	132000 A <sup>2</sup> s	65 W	0.85	3NC2428-OC	–	–	–
315 A	168000 A <sup>2</sup> s	40 W	1.00	–	–	3NE1230-3	–
350 A	176000 A <sup>2</sup> s	95 W	0.85	–	3NC8431-OC	–	–
	177000 A <sup>2</sup> s	43 W	1.00	–	–	–	–
	249000 A <sup>2</sup> s	60 W	0.85	3NC2431-OC	–	–	–
400 A	224000 A <sup>2</sup> s	50 W	1.00	–	–	–	–
450 A	276500 A <sup>2</sup> s	58 W	1.00	–	–	–	–
500 A	398000 A <sup>2</sup> s	64 W	1.00	–	–	–	–
	448000 A <sup>2</sup> s	130 W	0.85	–	3NC8434-OC	–	–
560 A	890000 A <sup>2</sup> s	60 W	1.00	–	–	–	–
630 A	1390000 A <sup>2</sup> s	60 W	1.00	–	–	–	–
670 A	1640000 A <sup>2</sup> s	64 W	1.00	–	–	–	–
710 A	1818000 A <sup>2</sup> s	72 W	1.00	–	–	–	–
800 A	2475000 A <sup>2</sup> s	84 W	1.00	–	–	–	–
850 A	3640000 A <sup>2</sup> s	76 W	1.00	–	–	–	–
1000 A	1400000 A <sup>2</sup> s	138 W	1.00	–	–	–	–
1100 A	3000000 A <sup>2</sup> s	110 W	1.00	–	–	–	–
1250 A	4100000 A <sup>2</sup> s	104 W	1.00	–	–	–	–
1350 A	4800000 A <sup>2</sup> s	126 W	1.00	–	–	–	–
1400 A	5200000 A <sup>2</sup> s	127 W	1.00	–	–	–	–
1600 A	6900000 A <sup>2</sup> s	152 W	1.00	–	–	–	–
1700 A	6400000 A <sup>2</sup> s	179 W	1.00	–	–	–	–
1700 A	10000000 A <sup>2</sup> s	143 W	1.00	–	–	–	–
1900 A	8200000 A <sup>2</sup> s	196 W	1.00	–	–	–	–

#### Further information

Screw fixing	■	■	■	■
Installation in SITOR fuse bases	3NH5463	3NH5463	3NH5463	3NH5463
Installation in LV HRC fuse bases	■	■	■	■
Installation in fuse switching devices	■	■	■	■
Further currents, operational class aR	See page 7/56			


<sup>1)</sup> For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"

<sup>2)</sup> Minimum clearance 90 mm

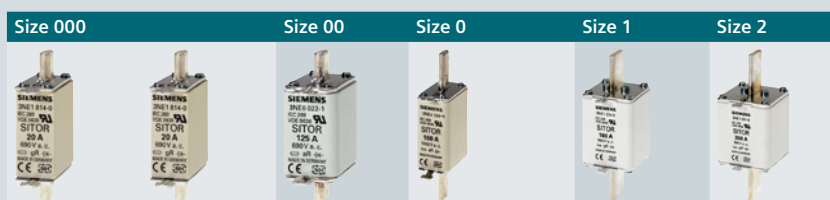
Size 2		Size 3		Size 3	Size 2 × 3	Size 3 × 3
M10, 110 (90) mm	M10, 170 mm	M10, 110 mm		M12, 110 mm	M12, 110 mm <sup>2)</sup>	M12, 110 mm <sup>2)</sup>
						
$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC/DC 1500/1000 V	$U_n$ AC 500 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 690 V <sup>1)</sup>
-	-	-	-	-	-	-
-	3NE5302-0MK06	-	-	-	-	-
-	-	-	-	-	-	-
-	3NE5317-0MK06	-	-	-	-	-
-	-	-	-	-	-	-
-	3NE5318-0MK06	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	3NC8423-3C	-	-	-
-	-	3NC2423-3C	-	-	-	-
-	-	-	-	-	-	-
-	-	-	3NC8425-3C	-	-	-
-	-	-	-	-	-	-
-	-	3NC2425-3C	-	-	-	-
-	-	-	3NC8427-3C	-	-	-
-	-	-	-	-	-	-
-	-	3NC2427-3C	-	-	-	-
-	-	3NC2428-3C	-	-	-	-
-	-	-	-	-	-	-
-	-	-	3NC8431-3C	-	-	-
3NE1331-3	-	-	-	-	-	-
-	-	3NC2431-3C	-	-	-	-
3NE1332-3	-	-	-	-	-	-
3NE1333-3	-	-	-	-	-	-
3NE1334-3	-	-	-	-	-	-
-	-	-	3NC8434-3C	-	-	-
-	-	-	-	3NE1435-3	-	-
-	-	-	-	3NE1436-3	-	-
-	-	-	-	3NE1447-3	-	-
-	-	-	-	3NE1437-3	-	-
-	-	-	-	3NE1438-3	-	-
-	-	-	-	3NE1448-3	-	-
-	-	-	-	-	3NB3350-1KK26	-
-	-	-	-	-	3NB3351-1KK26	-
-	-	-	-	-	3NB3352-1KK26	-
-	-	-	-	-	3NB3354-1KK26	-
-	-	-	-	-	3NB3355-1KK26	-
-	-	-	-	-	3NB3357-1KK26	-
-	-	-	-	-	-	3NB3358-1KK27
-	-	-	-	-	3NB3358-1KK26	-
-	-	-	-	-	-	3NB3362-1KK27
■	■	■	■	■	■	■
3NH5463	3NH5463	3NH5463	3NH5463	3NH5463	-	-
■	■	■	■	■	-	-
■	■	■	■	■	-	-
-	-	See page 7/56	See page 7/56	See page 7/56	-	-

# SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with bolt-on links

				Size 000	
Screw fixing, mounting dimension				M8, 80 mm	M10, 80 mm
					
$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC/DC 690/700 V	$U_n$ AC/DC 690/440 V
63 A	1550 A <sup>2</sup> s	16 W	0.95	3NE8718-1	–
80 A	2700 A <sup>2</sup> s	18 W	0.90	3NE8720-1	–
100 A	4950 A <sup>2</sup> s	19 W	0.95	3NE8721-1	–
125 A	9100 A <sup>2</sup> s	23 W	0.95	3NE8722-1	–
160 A	17000 A <sup>2</sup> s	31 W	0.90	3NE8724-1	–
200 A	30000 A <sup>2</sup> s	36 W	0.90	3NE8725-1	–
250 A	55000 A <sup>2</sup> s	42 W	0.90	3NE8727-1	–
315 A	85500 A <sup>2</sup> s	54 W	0.85	3NE8731-1	–
350 A	135000 A <sup>2</sup> s	58.8 W	On req.	–	3NE8031-3MK
400 A	170000 A <sup>2</sup> s	74.5 W	On req.	–	3NE8032-3MK
Further information					
Screw fixing				■	■
Installation in SITOR fuse bases				3NH5023	3NH5023
Further currents, operational class gR				<a href="#">See page 7/56</a>	<a href="#">See page 7/56</a>

## Operational class aR, with blade contacts without slots



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	Size 000		Size 00		Size 0		Size 1		Size 2	
				$U_n$ AC/DC 500/440 V	690/440 V	$U_n$ AC 690 V <sup>1)</sup>	$U_n$ AC 1000 V <sup>1)</sup>	$U_n$ AC/DC 690/440 V	$U_n$ AC/DC 690/440 V				
63 A	1500 A <sup>2</sup> s	20 W	0.90	–	–	–	–	3NE4118	–	–	–	–	–
80 A	2200 A <sup>2</sup> s	23.3 W	On req.	–	3NE8820-OMK	–	–	–	–	–	–	–	–
	2400 A <sup>2</sup> s	19 W	0.95	–	–	3NE8020-1	–	–	–	–	–	–	–
	3000 A <sup>2</sup> s	22 W	0.90	–	–	–	3NE4120	–	–	–	–	–	–
100 A	3650 A <sup>2</sup> s	27 W	On req.	–	3NE8821-OMK	–	–	–	–	–	–	–	–
	4200 A <sup>2</sup> s	22 W	0.95	–	–	3NE8021-1	–	–	–	–	–	–	–
	6000 A <sup>2</sup> s	24 W	0.90	–	–	–	3NE4121	–	–	–	–	–	–
	6050 A <sup>2</sup> s	25.5 W	On req.	–	–	–	–	–	3NE8221-OMK	–	–	–	–
125 A	6500 A <sup>2</sup> s	28 W	0.95	–	–	3NE8022-1	–	–	–	–	–	–	–
	7800 A <sup>2</sup> s	30 W	On req.	–	3NE8822-OMK	–	–	–	–	–	–	–	–
	8900 A <sup>2</sup> s	28.5 W	On req.	–	–	–	–	–	3NE8222-OMK	–	–	–	–
	14000 A <sup>2</sup> s	30 W	0.90	–	–	–	3NE4122	–	–	–	–	–	–
160 A	13000 A <sup>2</sup> s	38 W	0.95	–	–	3NE8024-1	–	–	–	–	–	–	–
	14000 A <sup>2</sup> s	34 W	On req.	3NE8824-OMK	–	–	–	–	–	–	–	–	–
	16200 A <sup>2</sup> s	37 W	On req.	–	–	–	–	–	3NE8224-OMK	–	–	–	–
	29000 A <sup>2</sup> s	35 W	0.90	–	–	–	3NE4124	–	–	–	–	–	–
200 A	26000 A <sup>2</sup> s	49 W	On req.	–	–	–	–	–	3NE8225-OMK	–	–	–	
250 A	59000 A <sup>2</sup> s	52 W	On req.	–	–	–	–	–	3NE8227-OMK	–	–	–	
315 A	120000 A <sup>2</sup> s	68 W	On req.	–	–	–	–	–	3NE8230-OMK	–	–	–	
350 A	83500 A <sup>2</sup> s	68.6 W	On req.	–	–	–	–	–	–	–	3NE8331-OMK	–	
400 A	136000 A <sup>2</sup> s	72.8 W	On req.	–	–	–	–	–	–	–	3NE8332-OMK	–	
450 A	207000 A <sup>2</sup> s	80.1 W	On req.	–	–	–	–	–	–	–	3NE8333-OMK	–	
500 A	318000 A <sup>2</sup> s	77.5 W	On req.	–	–	–	–	–	–	–	3NE8334-OMK	–	
550 A	399000 A <sup>2</sup> s	86.4 W	On req.	–	–	–	–	–	–	–	3NE8335-OMK	–	
630 A	740000 A <sup>2</sup> s	90.7 W	On req.	–	–	–	–	–	–	–	3NE8336-OMK	–	
<b>Further information</b>													
Installation in 3NH LV HRC fuse bases				■	–	■	■	■	■	■	–	–	–
Installation in 3NP and 3KF fuse switching devices				■	–	■	■	■	■	■	–	–	–
Further currents, operational class gR				See page 7/48			–	See page 7/48			–	–	–

<sup>1)</sup> For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"

# SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with slotted blade contacts



$I_n$	Switch-off $I^2t$ value	Power loss $P_V$	Varying load factor WL	$U_n$ AC 500 V <sup>1)</sup>	$U_n$ AC/DC 690/440 V	$U_n$ AC 1000 V <sup>1)</sup>	$U_n$ AC/DC 1000/600 V
80 A	3900 A <sup>2</sup> s	42 W	On req.	–	–	–	–
100 A	3200 A <sup>2</sup> s	25 W	On req.	–	3NE8221-3MK	–	–
	4800 A <sup>2</sup> s	28 W	0.95	–	–	3NE3221	–
	8700 A <sup>2</sup> s	45 W	On req.	–	–	–	–
125 A	6000 A <sup>2</sup> s	28 W	On req.	–	3NE8222-3MK	–	–
	7200 A <sup>2</sup> s	36 W	0.95	–	–	3NE3222	–
	11800 A <sup>2</sup> s	59 W	On req.	–	–	–	–
160 A	10500 A <sup>2</sup> s	35 W	On req.	–	3NE8224-3MK	–	–
	13000 A <sup>2</sup> s	42 W	1.00	–	–	3NE3224	–
	37000 A <sup>2</sup> s	54 W	On req.	–	–	–	–
200 A	17500 A <sup>2</sup> s	42 W	On req.	–	3NE8225-3MK	–	–
	30000 A <sup>2</sup> s	42 W	1.00	–	–	3NE3225	–
	70000 A <sup>2</sup> s	56 W	On req.	–	–	–	–
250 A	28500 A <sup>2</sup> s	53.5 W	On req.	–	3NE8227-3MK	–	–
	29700 A <sup>2</sup> s	105 W	0.85	–	–	–	–
	48000 A <sup>2</sup> s	50 W	1.00	–	–	3NE3227	–
	165000 A <sup>2</sup> s	59 W	On req.	–	–	–	–
315 A	53500 A <sup>2</sup> s	61 W	On req.	–	3NE8230-3MK	–	–
	60700 A <sup>2</sup> s	120 W	0.85	–	–	–	–
	80000 A <sup>2</sup> s	60 W	0.95	–	–	3NE3230-0B	–
	250000 A <sup>2</sup> s	76 W	On req.	–	–	–	–
	300000 A <sup>2</sup> s	245 W	On req.	–	–	–	–
350 A	66000 A <sup>2</sup> s	69 W	On req.	–	3NE8231-3MK	–	–
	100000 A <sup>2</sup> s	75 W	0.95	–	–	3NE3231	–
400 A	110000 A <sup>2</sup> s	70.5 W	On req.	–	3NE8232-3MK	–	–
	135000 A <sup>2</sup> s	80 W	1.00	–	–	–	–
		85 W	0.90	–	–	3NE3232-0B	–
	390000 A <sup>2</sup> s	50 W	0.85	3NC2432-0C	–	–	–
450 A	470000 A <sup>2</sup> s	89 W	On req.	–	–	–	–
	175000 A <sup>2</sup> s	90 W	1.00	–	–	–	–
		95 W	0.90	–	–	3NE3233	–
	180000 A <sup>2</sup> s	71 W	On req.	–	3NE8233-3MK	–	–
500 A	191000 A <sup>2</sup> s	140 W	0.85	–	–	–	–
	215000 A <sup>2</sup> s	84 W	On req.	–	3NE8234-3MK	–	–
	260000 A <sup>2</sup> s	90 W	1.00	–	–	–	–
	276000 A <sup>2</sup> s	155 W	0.85	–	–	–	–
	500000 A <sup>2</sup> s	105 W	On req.	–	–	–	3NE3234-0MK08
550 A	800000 A <sup>2</sup> s	109 W	On req.	–	–	–	–
	290000 A <sup>2</sup> s	87 W	On req.	–	3NE8235-3MK	–	–
560 A	700000 A <sup>2</sup> s	110 W	On req.	–	–	–	3NE3235-0MK08
	360000 A <sup>2</sup> s	95 W	1.00	–	–	–	–
630 A	440000 A <sup>2</sup> s	96 W	On req.	–	3NE8236-3MK	–	–
	600000 A <sup>2</sup> s	100 W	1.00	–	–	–	–
	850000 A <sup>2</sup> s	127 W	On req.	–	–	–	3NE3236-0MK08
	1100000 A <sup>2</sup> s	163 W	On req.	–	–	–	–
710 A	800000 A <sup>2</sup> s	105 W	1.00	–	–	–	–
	923000 A <sup>2</sup> s	155 W	0.95	–	–	–	–
800 A	850000 A <sup>2</sup> s	130 W	0.95	–	–	–	–
900 A	920000 A <sup>2</sup> s	165 W	0.95	–	–	–	–

#### Further information

Screw fixing	■	■	■	■
Installation in SITOR fuse bases	3NH5463	3NH5423	3NH5463	3NH5463
Installation in 3NH LV HRC fuse bases	■	–	■	–
Installation in 3NP and 3KF fuse switching devices	■	–	■	–
Further currents, operational class gR	See page 7/46	–	–	–

<sup>1)</sup> For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"

Size 2

M10, 110 mm



M10, 170 mm



M10, 190 mm



M12, 260 mm









$U_n$ AC 690 V <sup>1)</sup>	800 V <sup>1)</sup>	800 V <sup>1)</sup>	900 V <sup>1)</sup>	1000 V <sup>1)</sup>	$U_n$ AC/DC 1500/1000 V	$U_n$ AC/DC 1500/1000 V	$U_n$ DC 3000 V
-	-	-	-	-	3NE5320-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5321-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5322-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5324-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5325-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	3NE4327-0B	-	-	-	-	-
-	-	-	-	-	3NE5327-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	3NE4330-0B	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5330-0MK06	-	-
-	-	-	-	-	-	-	3NE9330-0MK07
-	-	-	-	-	-	-	-
-	-	-	-	3NE3332-0B	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5332-0MK06	-	-
-	-	-	-	3NE3333	-	-	-
-	-	-	-	-	-	-	-
-	-	3NE4333-0B	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	3NE3334-0B	-	-	-
-	-	3NE4334-0B	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5334-0MK06	-	-
-	-	-	-	-	-	-	-
-	-	-	-	3NE3335	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	3NE3336	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	3NE5336-0MK06	3NE5336-0MK66	-
-	-	-	3NE3337-8	-	-	-	-
-	-	3NE4337	-	-	-	-	-
-	3NE3338-8	-	-	-	-	-	-
3NE3340-8	-	-	-	-	-	-	-
■	■	■	■	■	■	■	■
3NH5463	3NH5463	3NH5463	3NH5463	3NH5463	3NH5473	3NH5473	-
■	■	■	■	■	-	-	-
■	■	■	■	■	-	-	-
-	-	-	-	-	See page 7/46	-	-

# SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with slotted blade contacts

Screw fixing, mounting dimension				With oblong and transverse slots Size 3					
				M10, 110 mm		M10, 130 mm	M10, 170 mm	M10, 210 mm	
$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC 500 V <sup>1)</sup>		$U_n$ AC 1000 V <sup>1)</sup>	$U_n$ AC 1500 V <sup>1)</sup>	$U_n$ AC 1500 V <sup>1)</sup>	$U_n$ AC 2000 V <sup>1)</sup>
					600 V <sup>1)</sup>				
100 A	13500 A <sup>2</sup> s	25 W	1.00	–	–	3NE3421-OC	–	–	–
125 A	34500 A <sup>2</sup> s	78 W	1.00	–	–	–	–	–	–
160 A	54000 A <sup>2</sup> s	56 W	1.00	–	–	–	–	3NE5424-OC	–
200 A	138000 A <sup>2</sup> s	75 W	1.00	–	–	–	–	–	3NE7425-OU
224 A	54000 A <sup>2</sup> s	85 W	1.00	–	–	3NE3626-OC	–	–	–
	138000 A <sup>2</sup> s	80 W	1.00	–	–	–	–	3NE5426-OC	–
250 A	84000 A <sup>2</sup> s	130 W	1.00	–	–	–	3NE5627-OC	–	–
	218000 A <sup>2</sup> s	110 W	1.00	–	–	–	–	–	3NE7427-OU
315 A	72500 A <sup>2</sup> s	80 W	0.95	–	–	–	–	–	–
	218000 A <sup>2</sup> s	80 W	1.00	–	–	3NE3430-OC	–	–	–
	311000 A <sup>2</sup> s	115 W	1.00	–	–	–	–	3NE5430-OC	–
350 A	428000 A <sup>2</sup> s	135 W	1.00	–	–	–	–	3NE5431-OC	–
	555000 A <sup>2</sup> s	120 W	1.00	–	–	–	–	–	3NE7431-OU
400 A	163000 A <sup>2</sup> s	95 W	0.95	–	–	–	–	–	–
	364000 A <sup>2</sup> s	110 W	1.00	–	–	3NE3432-OC	–	–	–
	390000 A <sup>2</sup> s	50 W	0.85	3NC2432-3C	–	–	–	–	–
	620000 A <sup>2</sup> s	205 W	1.00	–	–	–	–	–	–
	870000 A <sup>2</sup> s	150 W	1.00	–	–	–	–	–	3NE7432-OU
450 A	488000 A <sup>2</sup> s	110 W	1.00	–	–	3NE3635-OC	–	–	–
	590000 A <sup>2</sup> s	160 W	1.00	–	–	–	3NE5633-OC	–	–
	870000 A <sup>2</sup> s	145 W	0.95	–	–	–	–	3NE5433-OC	–
	960000 A <sup>2</sup> s	160 W	1.00	–	–	–	–	–	3NE7633-OU
500 A	290000 A <sup>2</sup> s	115 W	0.90	–	–	–	–	–	–
	870000 A <sup>2</sup> s	95 W	1.00	–	–	3NE3434-OC	–	–	–
	1270000 A <sup>2</sup> s	235 W	1.00	–	–	–	–	–	–
525 A	1120000 A <sup>2</sup> s	210 W	1.00	–	–	–	–	–	–
600 A	1950000 A <sup>2</sup> s	145 W	1.00	–	–	–	3NE5643-OC	–	–
630 A	244000 A <sup>2</sup> s	120 W	0.85	–	–	–	–	–	–
	418000 A <sup>2</sup> s	145 W	0.85	–	–	–	–	–	–
	650000 A <sup>2</sup> s	120 W	0.95	–	–	–	–	–	–
	1280000 A <sup>2</sup> s	132 W	1.00	–	–	3NE3636-OC	–	–	–
	1950000 A <sup>2</sup> s	220 W	1.00	–	–	–	–	–	3NE7636-OU
	2800000 A <sup>2</sup> s	275 W	1.00	–	–	–	–	–	–
710 A	346000 A <sup>2</sup> s	130 W	0.85	–	–	–	–	–	–
	569000 A <sup>2</sup> s	150 W	0.85	–	–	–	–	–	–
	1950000 A <sup>2</sup> s	145 W	1.00	–	–	3NE3637-OC	–	–	–
	3110000 A <sup>2</sup> s	275 W	1.00	–	–	–	–	–	–
800 A	498000 A <sup>2</sup> s	135 W	0.90	–	–	–	–	–	–
	819000 A <sup>2</sup> s	155 W	0.85	–	–	–	–	–	–
	985000 A <sup>2</sup> s	145 W	0.90	–	–	–	–	–	–
900 A	677000 A <sup>2</sup> s	145 W	0.90	–	–	–	–	–	–
	1160000 A <sup>2</sup> s	165 W	0.90	–	–	–	–	–	–
1000 A	975000 A <sup>2</sup> s	155 W	0.95	–	–	–	–	–	–
	1670000 A <sup>2</sup> s	170 W	0.90	–	–	–	–	–	–
	2480000 A <sup>2</sup> s	140 W	0.85	–	3NC8444-3C	–	–	–	–
1100 A	1382000 A <sup>2</sup> s	165 W	0.95	–	–	–	–	–	–
	1910000 A <sup>2</sup> s	185 W	0.90	–	–	–	–	–	–
1250 A	1990000 A <sup>2</sup> s	175 W	0.95	–	–	–	–	–	–
	2600000 A <sup>2</sup> s	210 W	0.90	–	–	–	–	–	–
1400 A	2100000 A <sup>2</sup> s	200 W	0.95	–	–	–	–	–	–
1600 A	2860000 A <sup>2</sup> s	240 W	0.90	–	–	–	–	–	–
<b>Further information</b>									
Screw fixing				■	■	■	■	■	■
Installation in SITOR fuse bases				3NH5463	3NH5463	–	3NH5463	–	–
Installation in 3NH LV HRC fuse bases				■	■	–	–	–	–
Installation in 3NP and 3KF fuse switching devices				■	■	–	–	–	–
Further currents, operational class gR				See page 7/50		–	–	–	–

<sup>1)</sup> For the max. DC voltage, see the Configuration Manual „Fuse Systems“, chapter “Configuration”, “Use with direct current”

M12, 80 mm		M12, 110 mm				M12, 140 mm	M12, 210 mm		M12, 260 mm
									
$U_n$ AC 500 V <sup>1)</sup>	690 V <sup>1)</sup>	$U_n$ AC 800 V <sup>1)</sup>	1000 V <sup>1)</sup>	1100 V <sup>1)</sup>	1250 V <sup>1)</sup>	$U_n$ AC 1000 V <sup>1)</sup>	$U_n$ AC 1500 V <sup>1)</sup>	2000 V <sup>1)</sup>	$U_n$ AC 2500 V <sup>1)</sup>
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	3NE9622-1C
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	3NC3430-1U	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	3NC3432-1U	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	3NE9632-1C
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	3NE5433-1C	-	-
-	-	-	-	-	-	-	-	3NE7633-1U	-
-	-	-	-	-	3NC3434-1U	-	-	-	-
-	-	-	-	-	-	-	-	-	3NE9634-1C
-	-	-	-	-	-	-	-	3NE7648-1U	-
-	-	-	-	-	-	-	-	-	-
-	3NC3236-1U	-	-	-	-	-	-	-	-
-	-	-	3NC3336-1U	-	-	-	-	-	-
-	-	-	-	-	3NC3436-1U	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	3NE7636-1U	-
-	-	-	-	-	-	-	-	-	3NE9636-1C
-	3NC3237-1U	-	-	-	-	-	-	-	-
-	-	-	3NC3337-1U	-	-	-	-	-	-
-	-	-	-	-	-	3NE3637-1C	-	-	-
-	-	-	-	-	-	-	-	3NE7637-1U	-
-	3NC3238-1U	-	-	-	-	-	-	-	-
-	-	-	3NC3338-1U	-	-	-	-	-	-
-	-	-	-	3NC3438-1U	-	-	-	-	-
-	3NC3240-1U	-	-	-	-	-	-	-	-
-	-	-	3NC3340-1U	-	-	-	-	-	-
-	3NC3241-1U	-	-	-	-	-	-	-	-
-	-	-	3NC3341-1U	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	3NC3242-1U	-	-	-	-	-	-	-	-
-	-	3NC3342-1U	-	-	-	-	-	-	-
-	3NC3243-1U	-	-	-	-	-	-	-	-
-	-	3NC3343-1U	-	-	-	-	-	-	-
3NC3244-1U	-	-	-	-	-	-	-	-	-
3NC3245-1U	-	-	-	-	-	-	-	-	-
■	■	■	■	■	■	■	■	■	■
-	-	3NH5463	3NH5463	3NH5463	3NH5463	-	-	-	-
-	-	■	■	■	■	-	-	-	-
-	-	■	■	■	■	-	-	-	-
-	-	-	-	-	-	-	-	-	-



# SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with female thread at both ends

Screw fixing, flange dimension

Size 3

M10, 109 mm



M12, 52 mm



$I_n$	Operating value $I^2t$	Power loss $P_v$	Varying load factor WL	$U_n$ AC		690 V
				1000 V	500 V	
315 A	72500 A <sup>2</sup> s	80 W	0.95	–	–	–
400 A	163000 A <sup>2</sup> s	95 W	0.95	–	–	–
450 A	488000 A <sup>2</sup> s	110 W	1.00	3NE3635-6	–	–
500 A	290000 A <sup>2</sup> s	115 W	0.90	–	–	–
630 A	244000 A <sup>2</sup> s	125 W	0.90	–	–	3NC3236-6U
	418000 A <sup>2</sup> s	130 W	0.90	–	–	–
	650000 A <sup>2</sup> s	120 W	0.95	–	–	–
710 A	346000 A <sup>2</sup> s	130 W	0.90	–	–	3NC3237-6U
	569000 A <sup>2</sup> s	140 W	0.90	–	–	–
800 A	498000 A <sup>2</sup> s	135 W	0.95	–	–	3NC3238-6U
	819000 A <sup>2</sup> s	150 W	0.90	–	–	–
	985000 A <sup>2</sup> s	145 W	0.95	–	–	–
900 A	677000 A <sup>2</sup> s	140 W	0.95	–	–	3NC3240-6U
	1160000 A <sup>2</sup> s	160 W	0.95	–	–	–
1000 A	975000 A <sup>2</sup> s	145 W	1.00	–	–	3NC3241-6U
	1670000 A <sup>2</sup> s	165 W	0.95	–	–	–
1100 A	1382000 A <sup>2</sup> s	150 W	1.00	–	–	3NC3242-6U
	1910000 A <sup>2</sup> s	175 W	0.95	–	–	–
1250 A	1990000 A <sup>2</sup> s	155 W	1.00	–	–	3NC3243-6U
	2600000 A <sup>2</sup> s	185 W	0.95	–	–	–
1400 A	2100000 A <sup>2</sup> s	175 W	1.00	–	3NC3244-6U	–
1600 A	2860000 A <sup>2</sup> s	195 W	0.95	–	3NC3245-6U	–

#### Further information

Screw fixing



M12, 73 mm



M12, 73 mm

 $U_n$  AC

800 V

1000 V

 $U_n$  AC

1100 V

1250 V

–	–	–	3NC3430-6U
–	–	–	3NC3432-6U
–	–	–	–
–	–	–	3NC3434-6U
–	–	–	–
–	3NC3336-6U	–	–
–	–	–	3NC3436-6U
–	–	–	–
–	3NC3337-6U	–	–
–	–	–	–
–	3NC3338-6U	–	–
–	–	3NC3438-6U	–
–	–	–	–
–	3NC3340-6U	–	–
–	–	–	–
–	3NC3341-6U	–	–
–	–	–	–
3NC3342-6U	–	–	–
–	–	–	–
3NC3343-6U	–	–	–
–	–	–	–
–	–	–	–



# SITOR semiconductor fuse links (LV HRC design)

Operational class gR, special designs

Screw fixing, flange dimension

Without installation bracket      With installation bracket  
For SITOR 6QG11 thyristor sets

M10, 89 mm



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ AC 600 V	$U_n$ AC 1000 V
50 A	1100 A <sup>2</sup> s	20 W	0.85	–	3NE4117-5
850 A	2480000 A <sup>2</sup> s	85 W	1.00	3NE9440-6	–
<b>Further information</b>					
Screw fixing				■	■

7

Operational class aR, special designs

Flange dimension

Without installation bracket  
For screwing onto water-cooled busbars

83 mm



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	Without installation bracket		With installation bracket	
				$U_n$ AC 600 V	$U_n$ AC 900 V	$U_n$ AC 800 V	$U_n$ AC 1000 V
100 A	7400 A <sup>2</sup> s	35 W	0.85	–	–	–	–
170 A	60500 A <sup>2</sup> s	43 W	0.85	–	–	–	–
200 A	44000 A <sup>2</sup> s	50 W	0.85	–	–	–	–
250 A	29700 A <sup>2</sup> s	105 W	0.85	–	–	–	–
	635000 A <sup>2</sup> s	25 W	0.90	–	–	–	–
315 A	60700 A <sup>2</sup> s	120 W	0.85	–	–	–	–
350 A	260000 A <sup>2</sup> s	80 W	0.90	–	–	3NC5531	–
	1430000 A <sup>2</sup> s	32 W	0.90	–	–	–	–
450 A	191000 A <sup>2</sup> s	140 W	0.85	–	–	–	–
	395000 A <sup>2</sup> s	90 W	0.85	–	–	–	–
500 A	276000 A <sup>2</sup> s	155 W	0.85	–	–	–	–
600 A	888000 A <sup>2</sup> s	150 W	0.90	–	–	–	3NC5840
630 A	888000 A <sup>2</sup> s	145 W	0.90	–	–	3NC5841	–
710 A	620000 A <sup>2</sup> s	150 W	0.90	–	3NE6437-7	–	–
	923000 A <sup>2</sup> s	155 W	0.95	–	–	–	–
800 A	1728000 A <sup>2</sup> s	170 W	0.90	–	–	–	3NC5838
900 A	1920000 A <sup>2</sup> s	170 W	0.90	–	–	–	–
1250 A	2480000 A <sup>2</sup> s	210 W	0.90	3NE9450-7	–	–	–
<b>Further information</b>				■	■	■	■
Screw fixing				■	■	■	■


For air-cooled rectifiers in electrolysis systems		For mounting directly in the railway supply rectifier		For SITOR 6QG12 thyristor sets		With installation bracket		For SITOR 6QG10 thyristor sets		For SITOR 6QG11 thyristor sets	
89 mm				77 mm							
											
$U_n$ AC 600 V	900 V	$U_n$ AC 680 V		$U_n$ AC 800 V		$U_n$ AC 1000 V		$U_n$ AC 1000 V			
-	-	-		-		-		3NE4121-5			
-	-	-		-		-		3NE4146-5			
-	-	-		-		3NE3525-5		-			
-	-	-		3NE4327-6B		-		-			
-	-	3NC7327-2		-		-		-			
-	-	-		3NE4330-6B		-		-			
-	-	-		-		-		-			
-	-	3NC7331-2		-		-		-			
-	-	-		3NE4333-6B		-		-			
-	-	-		-		3NE3535-5		-			
-	-	-		3NE4334-6B		-		-			
-	-	-		-		-		-			
-	-	-		-		-		-			
-	3NE6437	-		-		-		-			
-	-	-		3NE4337-6		-		-			
-	-	-		-		-		-			
-	3NE6444	-		-		-		-			
3NE9450	-	-		-		-		-			
■	■	■		■		■		■			

# SITOR semiconductor fuse links (LV HRC design)

DC fuses, operational class gR, with slotted blade contacts

Size 2L

Screw fixing M12



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	Varying load factor WL	$U_n$ DC 900 V
400 A	180000 A <sup>2</sup> s <sup>1)</sup>	75 W	–	3NB1234-3KK20

**Further information**

Screw fixing ■

<sup>1)</sup>  $I^2t$  at  $U_{VSI}$  1400 V is 240000 A<sup>2</sup>s

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DC fuses, operational class aR, with slotted blade contacts

$I_n$	Switch-off $I^2t$ value at $U_{VSI}$ 1500 V <sup>2)</sup>	Power loss $P_v$	Varying load factor WL	Size 1L	Size 2L	Size 3L	Size 2 × 3L	Size 3 × 3L
				M12	M12	M12	M12	M12
200 A	39000 A <sup>2</sup> s	50 W	–	3NB1126-4KK11	–	–	–	–
250 A	80500 A <sup>2</sup> s	51 W	–	3NB1128-4KK11	–	–	–	–
315 A	129000 A <sup>2</sup> s	63 W	–	–	3NB1231-4KK11	–	–	–
400 A	290000 A <sup>2</sup> s	68 W	–	–	3NB1234-4KK11	–	–	–
500 A	600000 A <sup>2</sup> s	89 W	–	–	–	3NB1337-4KK11	–	–
800 A	1910000 A <sup>2</sup> s	135 W	–	–	–	3NB1345-4KK11	–	–
800 A	1150000 A <sup>2</sup> s	160 W	–	–	–	–	3NB2345-4KK16	–
1000 A	2250000 A <sup>2</sup> s	195 W	–	–	–	–	3NB2350-4KK16	–
1400 A	5100000 A <sup>2</sup> s	250 W	–	–	–	–	3NB2355-4KK16	–
1600 A	7450000 A <sup>2</sup> s	275 W	–	–	–	–	3NB2357-4KK16	–
2100 A	11950000 A <sup>2</sup> s	365 W	–	–	–	–	–	3NB2364-4KK17
2400 A	18100000 A <sup>2</sup> s	445 W	–	–	–	–	–	3NB2366-4KK17

**Further information**

Screw fixing ■ ■ ■ ■ ■

<sup>2)</sup>  $I^2t$  at  $U_n$  1250 V is reduced by the factor  $k=0.79$ .

# SITOR semiconductor fuse links (cylindrical fuse design)

Cylindrical fuses, operational class gS

Size 22 × 127 mm



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	$U_n$ AC/DC 1500/1000 V
1 A	2 A <sup>2</sup> s	2 W	3NC2301-OMK
2 A	4.4 A <sup>2</sup> s	2.5 W	3NC2302-OMK
4 A	55 A <sup>2</sup> s	5.3 W	3NC2304-OMK
6 A	150 A <sup>2</sup> s	6.4 W	3NC2306-OMK
10 A	540 A <sup>2</sup> s	3.1 W	3NC2310-OMK
16 A	1120 A <sup>2</sup> s	4.7 W	3NC2316-OMK
20 A	2850 A <sup>2</sup> s	5.4 W	3NC2320-OMK
25 A	3300 A <sup>2</sup> s	6.9 W	3NC2325-OMK
32 A	9050 A <sup>2</sup> s	6.7 W	3NC2332-OMK
<b>Further information</b>			
Installation in SITOR fuse holders			3NC23
Further currents, operational class gR			<a href="#">See page 7/64</a>
Further currents, operational class aR			<a href="#">See page 7/66</a>

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# SITOR semiconductor fuse links (cylindrical fuse design)

Operational class gR

Size 10 × 38 mm







Size 14 × 51 mm



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	$U_n$ AC/DC		$U_n$ AC/DC			
			690/440 V	690/250 V	690/700 V <sup>1)</sup>	690/600 V	690/440 V	690/250 V
6 A	3.5 A <sup>2</sup> s	3.1 W	–	–	3NC1406-OMK	–	–	–
	6.5 A <sup>2</sup> s	2.5 W	3NC1006-OMK	–	–	–	–	–
10 A	15 A <sup>2</sup> s	4.6 W	–	–	3NC1410-OMK	–	–	–
	17 A <sup>2</sup> s	4.3 W	–	–	–	–	–	–
	18 A <sup>2</sup> s	3.3 W	3NC1010-OMK	–	–	–	–	–
12 A	35 A <sup>2</sup> s	4 W	3NC1012-OMK	–	–	–	–	–
16 A	32 A <sup>2</sup> s	6.7 W	–	–	–	3NC1416-OMK	–	–
	45 A <sup>2</sup> s	6 W	3NC1016-OMK	–	–	–	–	–
	52 A <sup>2</sup> s	4.4 W	–	–	–	–	–	–
20 A	68 A <sup>2</sup> s	7.4 W	–	–	–	3NC1420-OMK	–	–
	90 A <sup>2</sup> s	6.5 W	–	–	–	–	–	–
	110 A <sup>2</sup> s	7.8 W	–	3NC1020-OMK	–	–	–	–
25 A	108 A <sup>2</sup> s	8.4 W	–	–	–	3NC1425-OMK	–	–
	120 A <sup>2</sup> s	9.5 W	–	–	–	–	–	–
	140 A <sup>2</sup> s	8.7 W	–	3NC1025-OMK	–	–	–	–
	160 A <sup>2</sup> s	8.5 W	–	–	–	–	–	–
	180 A <sup>2</sup> s	8.1 W	–	–	–	–	–	–
32 A	175 A <sup>2</sup> s	12.3 W	–	–	–	3NC1432-OMK	–	–
	220 A <sup>2</sup> s	12.3 W	–	–	–	–	–	–
	400 A <sup>2</sup> s	8.9 W	–	–	–	–	–	–
	420 A <sup>2</sup> s	9 W	–	–	–	–	–	–
	450 A <sup>2</sup> s	12 W	–	3NC1032-OMK	–	–	–	–
40 A	400 A <sup>2</sup> s	14.8 W	–	–	–	–	–	–
	470 A <sup>2</sup> s	11.7 W	–	–	–	–	3NC1440-OMK	–
	600 A <sup>2</sup> s	11 W	–	–	–	–	–	–
	700 A <sup>2</sup> s	12.5 W	–	–	–	–	–	–
	1850 A <sup>2</sup> s	9.4 W	–	–	–	–	–	–
50 A	830 A <sup>2</sup> s	16.3 W	–	–	–	–	–	3NC1450-OMK
	980 A <sup>2</sup> s	17.5 W	–	–	–	–	–	–
	1250 A <sup>2</sup> s	13.8 W	–	–	–	–	–	–
	1250 A <sup>2</sup> s	15.2 W	–	–	–	–	–	–
63 A	2050 A <sup>2</sup> s	18.8 W	–	–	–	–	–	–
	2400 A <sup>2</sup> s	17.5 W	–	–	–	–	–	–
80 A	4400 A <sup>2</sup> s	23 W	–	–	–	–	–	–
100 A	11500 A <sup>2</sup> s	28.7 W	–	–	–	–	–	–
<b>Further information</b>			–	–	–	–	–	–
Screw fixing			–	–	–	–	–	–
Installation in SITOR fuse holders			3NC109.	3NC109.	3NC149.	3NC149.	3NC149.	3NC149.
Installation in SITOR fuse bases			–	–	–	–	–	–
Further currents, operational class gS			–	–	–	–	–	–
Further currents, operational class aR			–	–	–	–	–	–

<sup>1)</sup> DC voltage according to UL

Size 22 × 58 mm				Size 22 × 127 mm	With M8 bolt-on links Size 18 × 88 mm	Size 26 × 103 mm
						
$U_n$ AC/DC 690/700 V <sup>1)</sup>				$U_n$ AC/DC 1500/1000 V	$U_n$ AC/DC 690/440 V	$U_n$ AC/DC 690/440 V
690/600 V	690/440 V	690/250 V				
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	3NC1810-OMK	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	3NC1816-OMK	-
-	-	-	-	-	-	-
-	-	-	-	-	3NC1820-OMK	-
-	-	-	-	-	-	-
-	-	-	-	-	-	3NC2625-OMK
-	-	-	-	-	-	-
-	-	-	-	-	3NC1825-OMK	-
3NC2225-OMK	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	3NC2632-OMK
-	-	-	-	-	3NC1832-OMK	-
-	3NC2232-OMK	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	3NC2640-OMK
-	-	-	-	-	-	-
-	-	-	-	-	3NC1840-OMK	-
-	-	3NC2240-OMK	-	-	-	-
-	-	-	-	3NC2340-OMK	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	3NC2650-OMK
-	-	-	-	-	3NC1850-OMK	-
-	-	-	3NC2250-OMK	-	-	-
-	-	-	-	-	-	3NC2663-OMK
-	-	-	3NC2263-OMK	-	-	-
-	-	-	3NC2280-OMK	-	-	-
-	-	-	3NC2200-OMK	-	-	-
-	-	-	-	-	■	■
3NC229.	3NC229.	3NC229.	3NC229.	3NC23	-	-
-	-	-	-	-	3NH5723	3NH5023
-	-	-	-	See page 7/63	-	-
-	-	-	-	See page 7/66	-	-



# SITOR semiconductor fuse links (cylindrical fuse design)

Operational class aR

Size 10 × 38 mm<sup>1)</sup>



Size 14 × 51 mm

Standard



With striking pin



$I_n$	Switch-off $I^2t$ value	Power loss $P_v$	$U_n$ AC/DC 600/700 V <sup>2)</sup>	$U_n$ AC 600 V	$U_n$ AC 660 V	$U_n$ AC/DC 690/700 V <sup>2)</sup>	690/250 V	$U_n$ AC/DC 690/600 V <sup>1)</sup>
1 A	1.2 A <sup>2</sup> s	5 W	–	–	3NC1401	–	–	–
2 A	10 A <sup>2</sup> s	3 W	–	–	3NC1402	–	–	–
3 A	8 A <sup>2</sup> s	1.2 W	3NC1003	–	–	–	–	–
	15 A <sup>2</sup> s	2.5 W	–	–	3NC1403	–	–	–
4 A	25 A <sup>2</sup> s	3 W	–	–	3NC1404	–	–	–
5 A	11 A <sup>2</sup> s	1.5 W	–	–	–	3NC1405	–	–
6 A	11 A <sup>2</sup> s	1.5 W	–	–	–	3NC1406	–	–
	20 A <sup>2</sup> s	1.5 W	3NC1006	–	–	–	–	–
8 A	30 A <sup>2</sup> s	2 W	3NC1008	–	–	–	–	–
10 A	22 A <sup>2</sup> s	4 W	–	–	–	3NC1410	–	–
	32 A <sup>2</sup> s	4 W	–	–	–	–	–	3NC1410-5
	60 A <sup>2</sup> s	2.5 W	3NC1010	–	–	–	–	–
12 A	110 A <sup>2</sup> s	3 W	3NC1012	–	–	–	–	–
15 A	63 A <sup>2</sup> s	5.5 W	–	–	–	–	–	3NC1415-5
	70 A <sup>2</sup> s	5.5 W	–	–	–	3NC1415	–	–
16 A	150 A <sup>2</sup> s	3.5 W	3NC1016	–	–	–	–	–
20 A	100 A <sup>2</sup> s	6 W	–	–	–	3NC1420	–	–
	200 A <sup>2</sup> s	4.8 W	3NC1020	–	–	–	–	–
	220 A <sup>2</sup> s	4.6 W	–	–	–	–	–	–
	234 A <sup>2</sup> s	6 W	–	–	–	–	–	3NC1420-5
	240 A <sup>2</sup> s	5 W	–	–	–	–	–	–
25 A	250 A <sup>2</sup> s	6 W	3NC1025	–	–	–	–	–
	300 A <sup>2</sup> s	5.6 W	–	–	–	–	–	–
	320 A <sup>2</sup> s	7 W	–	–	–	3NC1425	–	–
	350 A <sup>2</sup> s	6 W	–	–	–	–	–	–
	378 A <sup>2</sup> s	7 W	–	–	–	–	–	3NC1425-5
30 A	400 A <sup>2</sup> s	9 W	–	–	–	3NC1430	–	–
	466 A <sup>2</sup> s	9 W	–	–	–	–	–	3NC1430-5
32 A	450 A <sup>2</sup> s	7 W	–	–	–	–	–	–
	500 A <sup>2</sup> s	7.5 W	–	3NC1032	–	–	–	–
	500 A <sup>2</sup> s	8 W	–	–	–	–	–	–
40 A	600 A <sup>2</sup> s	7.6 W	–	–	–	3NC1432	–	3NC1432-5
	700 A <sup>2</sup> s	8.5 W	–	–	–	–	–	–
	750 A <sup>2</sup> s	8 W	–	–	–	3NC1440	–	3NC1440-5
50 A	800 A <sup>2</sup> s	9 W	–	–	–	–	–	–
	1350 A <sup>2</sup> s	9.5 W	–	–	–	–	–	–
	1500 A <sup>2</sup> s	9.5 W	–	–	–	–	–	–
63 A	1800 A <sup>2</sup> s	9 W	–	–	–	3NC1450	–	3NC1450-5
	26000 A <sup>2</sup> s	11.6 W	–	–	–	–	–	–
	2100 A <sup>2</sup> s	16.7 W	–	–	–	–	3NC1463-0MK	–
	2600 A <sup>2</sup> s	11 W	–	–	–	–	–	–
80 A	3000 A <sup>2</sup> s	11 W	–	–	–	–	–	–
	3500 A <sup>2</sup> s	22.5 W	–	–	–	–	–	–
	5500 A <sup>2</sup> s	13.5 W	–	–	–	–	–	–
100 A	6000 A <sup>2</sup> s	13.5 W	–	–	–	–	–	–
	5400 A <sup>2</sup> s	31.5 W	–	–	–	–	–	–
	8000 A <sup>2</sup> s	16 W	–	–	–	–	–	–
125 A	8500 A <sup>2</sup> s	16 W	–	–	–	–	–	–
	11800 A <sup>2</sup> s	39 W	–	–	–	–	–	–
	29000 A <sup>2</sup> s	35.3 W	–	–	–	–	–	–

#### Further information

Screw fixing	–	–	–	–	–	–	–
Installation in SITOR fuse holders	3NC109.	3NC109.	3NC149	3NC149	3NC149.-5	3NC149.-5	
Installation in SITOR fuse bases	–	–	–	–	–	–	
Further currents, operational class gS	–	–	–	–	–	–	
Further currents, operational class aR	–	–	–	–	–	–	

<sup>1)</sup> Observe DC voltage acc. to UL, time constant and minimum breaking current MBC

<sup>2)</sup> CCC approval



# Photovoltaic cylindrical fuse links

Operational class gPV

Size 10 × 38 mm



Size 10 × 85 mm

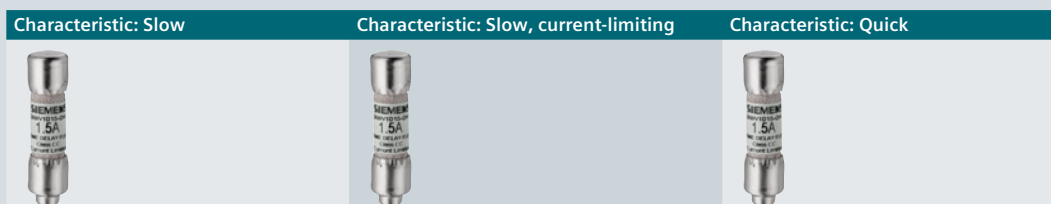


$I_n$ DC	Power loss $P_v$	Power loss $P_v$ at 70% <sup>1)</sup>	$U_n$ DC		
			1000 V	1200 V	1500 V
2 A	1.4 W	0.6 W	3NW6002-4	–	–
4 A	1.6 W	0.7 W	3NW6004-4	–	–
	2.7 W	1.1 W	–	–	3NW6604-4
6 A	1.7 W	0.7 W	3NW6001-4	–	–
	3.0 W	1.2 W	–	–	3NW6601-4
8 A	1.9 W	0.8 W	3NW6008-4	–	–
	3.6 W	1.5 W	–	–	3NW6608-4
10 A	2.3 W	1.0 W	3NW6003-4	–	–
	3.7 W	1.6 W	–	–	3NW6603-4
12 A	2.7 W	1.1 W	3NW6006-4	–	–
	3.3 W	1.4 W	–	–	3NW6606-4
16 A	3.2 W	1.3 W	3NW6005-4	–	–
	3.7 W	1.6 W	–	–	3NW6605-4
20 A	3.4 W	1.4 W	3NW6007-4	–	–
	4.0 W	1.7 W	–	3NW6607-4	–
<b>Further information</b>					
Installation in fuse holders			3NW70...-4	3NW76...-4	3NW76...-4

<sup>1)</sup> Tested in fuse holders 3NW7013-4 and 3NW7613-4.

# Class CC fuse links

Acc. to UL



$I_n$	$I_n^{1)}$			
0.6 A	6/10 A	3NW1006-OHG	–	–
0.8 A	8/10 A	3NW1008-OHG	–	–
1 A	–	3NW1010-OHG	3NW3010-OHG	3NW2010-OHG
1.5 A	1 ½ A	3NW1015-OHG	–	–
2 A	–	3NW1020-OHG	3NW3020-OHG	3NW2020-OHG
2.5 A	–	3NW1025-OHG	–	–
3 A	–	3NW1030-OHG	3NW3030-OHG	3NW2030-OHG
4 A	–	3NW1040-OHG	3NW3040-OHG	3NW2040-OHG
5 A	–	3NW1050-OHG	3NW3050-OHG	3NW2050-OHG
6 A	–	3NW1060-OHG	3NW3060-OHG	3NW2060-OHG
7.5 A	–	3NW1075-OHG	–	–
8 A	–	3NW1080-OHG	3NW3080-OHG	3NW2080-OHG
10 A	–	3NW1100-OHG	3NW3100-OHG	3NW2100-OHG
12 A	–	–	3NW3120-OHG	3NW2120-OHG
15 A	–	3NW1150-OHG	3NW3150-OHG	3NW2150-OHG
20 A	–	3NW1200-OHG	3NW3200-OHG	3NW2200-OHG
25 A	–	3NW1250-OHG	3NW3250-OHG	3NW2250-OHG
30 A	–	3NW1300-OHG	3NW3300-OHG	3NW2300-OHG

#### Further information

Installation in fuse holders

3NW75.3-OHG, 3NW753.-1HG,  
3NW7431-OHG

3NW75.3-OHG, 3NW753.-1HG,  
3NW7431-OHG

3NW75.3-OHG, 3NW753.-1HG,  
3NW7431-OHG

<sup>1)</sup> American English wording

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# Busbars

According to IEC, can be cut

## Pin spacing 1 MW

Pin spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase, angled</b> 	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm	214 mm	With end caps	16 mm <sup>2</sup>	5ST3700
		1016 mm	Without end caps	16 mm <sup>2</sup>	5ST3701
<b>2-phase</b> 	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm	214 mm	With end caps	16 mm <sup>2</sup>	5ST3704
		1016 mm	Without end caps	16 mm <sup>2</sup>	5ST3705
<b>3-phase</b> 	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm	214 mm	With end caps	16 mm <sup>2</sup>	5ST3708
		1016 mm	Without end caps	16 mm <sup>2</sup>	5ST3710


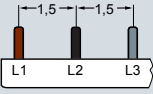
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## Fork spacing 1 MW

Fork spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase</b> 	For MINIZED D01 fuse switch disconnectors	1000 mm	Without end caps	16 mm <sup>2</sup>	5ST2190
<b>2-phase</b> 	For MINIZED D01 fuse switch disconnectors	1000 mm	Without end caps	16 mm <sup>2</sup>	5ST2191
<b>3-phase</b> 	For MINIZED D01 fuse switch disconnectors	1000 mm	Without end caps	16 mm <sup>2</sup>	5ST2192

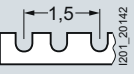
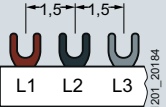
## According to IEC, can be cut

### Pin spacing 1.5 MW

Pin spacing in MW (1.5 MW = 27 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase, angled</b>					
	For 5SG71.3 MINIZED D02 switch disconnectors with fuses For NEOZED D01/D02 fuse bases made of molded plastic 5SG1301, 5SG1701, 5SG1302, 5SG1702 For NEOZED D01/D02 fuse bases made of ceramic with saddle terminals For cylindrical fuse holders 14 × 51 mm, 3NW7111 For SITOR cylindrical fuse holders 14 × 51 mm, 3NC1491	1016 mm	Without end caps	16 mm <sup>2</sup>	5ST3703
<b>3-phase</b>					
	For 5SG71.3 MINIZED D02 switch disconnectors with fuses For NEOZED D01/D02 fuse bases made of molded plastic 5SG5301, 5SG5701, 5SG5302, 5SG5702 For NEOZED D01/D02 fuse bases made of ceramic with saddle terminals For cylindrical fuse holders 14 × 51 mm, 3NW7131 For SITOR cylindrical fuse holders 14 × 51 mm, 3NC1493	1016 mm	Without end caps	16 mm <sup>2</sup>	5ST3714

7



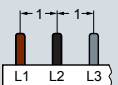
### Fork spacing 1.5 MW

Fork spacing in MW (1.5 MW = 27 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase</b>					
	For NEOZED D01/D02 fuse bases made of ceramic with clamp-type terminal and screw head contacts	1000 mm	Without end caps, non-insulated	36 mm <sup>2</sup>	5SH5322
<b>3-phase</b>					
	For NEOZED D01/D02 fuse bases made of ceramic with clamp-type terminals and screw head contacts	1000 mm	Without end caps	16 mm <sup>2</sup>	5SH5320

# Busbars

According to UL 508, can be cut



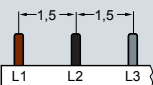
## Pin spacing 1 MW

Pin spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase</b> 	For Class CC fuse holders 10 × 38 mm (3NC1091, 3NW7513-0HG)	1000 mm	Without end caps	18 mm <sup>2</sup>	5ST3701-0HG
<b>2-phase</b> 	For Class CC fuse holders 10 × 38 mm (3NC1092, 3NW7523-0HG)	1000 mm	Without end caps	18 mm <sup>2</sup>	5ST3705-0HG
<b>3-phase</b> 	For Class CC fuse holders 10 × 38 mm (3NC1093, 3NW7533-0HG)	1000 mm	Without end caps	18 mm <sup>2</sup>	5ST3710-0HG

7

According to UL 508, can be cut

### Pin spacing 1.5 MW






Pin spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	Article No.
<b>1-phase</b> 	For fuse holders 14 × 51 mm (3NC1491, 3NW7111)	1000 mm	Without end caps	18 mm <sup>2</sup>	5ST3703-0HG
				25 mm <sup>2</sup>	5ST3701-2HG
<b>2-phase</b> 	For fuse holders 14 × 51 mm (3NC1492, 3NW7121)	1000 mm	Without end caps	25 mm <sup>2</sup>	5ST3705-2HG
<b>3-phase</b> 	For fuse holders 14 × 51 mm (3NC1493, 3NW7131)	1000 mm	Without end caps	18 mm <sup>2</sup>	5ST3714-0HG
				25 mm <sup>2</sup>	5ST3710-2HG



# Busbars

## Accessories

### For busbars according to IEC

Terminals			
	<ul style="list-style-type: none"> <li>For NEOZED D01/D02 fuse bases made of ceramic</li> <li>For DIAZED DII/DIII fuse bases made of ceramic</li> </ul>		
	Terminal version	Conductor cross-section	Article No.
	Terminal version S	2 ... 25 mm <sup>2</sup>	5SH5327
	Terminal versions B and K	6 ... 25 mm <sup>2</sup>	5SH5328
	Touch protection		
	<ul style="list-style-type: none"> <li>For free connections, yellow (RAL 1004) 5 × 1 pin</li> </ul>		
			Article No.
			5ST3655
End caps			
	Version	For busbar type	Article No.
	For 1-phase busbars	5ST2190	5ST2196
		5ST37 and 5SH55	5ST3748
	For 2-phase and 3-phase busbars	5ST2191 and 5ST2192	5ST2197
		5ST37 and 5SH5320	5ST3750
			

## For busbars according to UL 508

### Terminals according to UL 508



Version	Infeed	Article No.
For busbars 35 mm <sup>2</sup>	Device	5ST3770-0HG
For busbars 30 mm <sup>2</sup>	Busbar	5ST3770-1HG

### Busbar touch protection according to UL 508



- For free connections, yellow (RAL 1004) 5 × 1 pin

Article No.
5ST3655-0HG

### End caps for 5ST37. ..HG



Version	Article No.
For 1-phase busbars	5ST3748-0HG
For 2 and 3-phase busbars	5ST3750-0HG

# LV HRC signal detectors, electronic fuse monitoring

## LV HRC signal detectors



- Only for SIEMENS LV 3NA3, 3NA7, 3ND HRC fuse links with non-insulated grip lugs
- Rated voltage of up to 690 V AC/600 V DC
- Contact: Microswitches 250 V AC, 6 A
- Connection: flat connector 2.3 mm

Fuse size	Article No.
000 ... 4	3NX1021

## Signal detector links



- Rated voltage of up to 690 V AC/600 V DC

Fuse size	Response value	Application	Article No.
000 ... 4	>9 V/2.5 A	For standard applications	3NX1022
	>2 V/7 A	Only for meshed networks	3NX1023

## Signal detector tops



- Only for SIEMENS LV 3NA3, 3NA7, 3ND HRC fuse links with non-insulated grip lugs
- Rated voltage of up to 690 V AC/600 V DC
- Contact: Microswitch 230 V AC, 5 A, 1 CO
- Connection: flat connector 2.3 mm

Fuse size	Article No.
000, 00, 1, 2	3NX1024

## Electronic fuse monitor



- For all low-voltage fuse systems
- For monitoring all types and versions of melting fuses that cannot be equipped with a fault signal contact
- Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors
- Signal also for disconnected loads

$U_e$ AC	$I_n$	$U_c$	Article No.
230 V	4 A	3 AC 380 ... 415 V	5TT3170

## Electronic fuse monitoring for remote display of tripped fuses



- Remote display by auxiliary contact (1 CO)
- Local detection by integrated LED
- For all sizes
- For 3KF LV HRC and 3KF SITOR

$U_e$ AC	$I_n$	$U_c$	Article No.
230 V	1.5 A	3 AC 690 V	3KF9010-1AA00



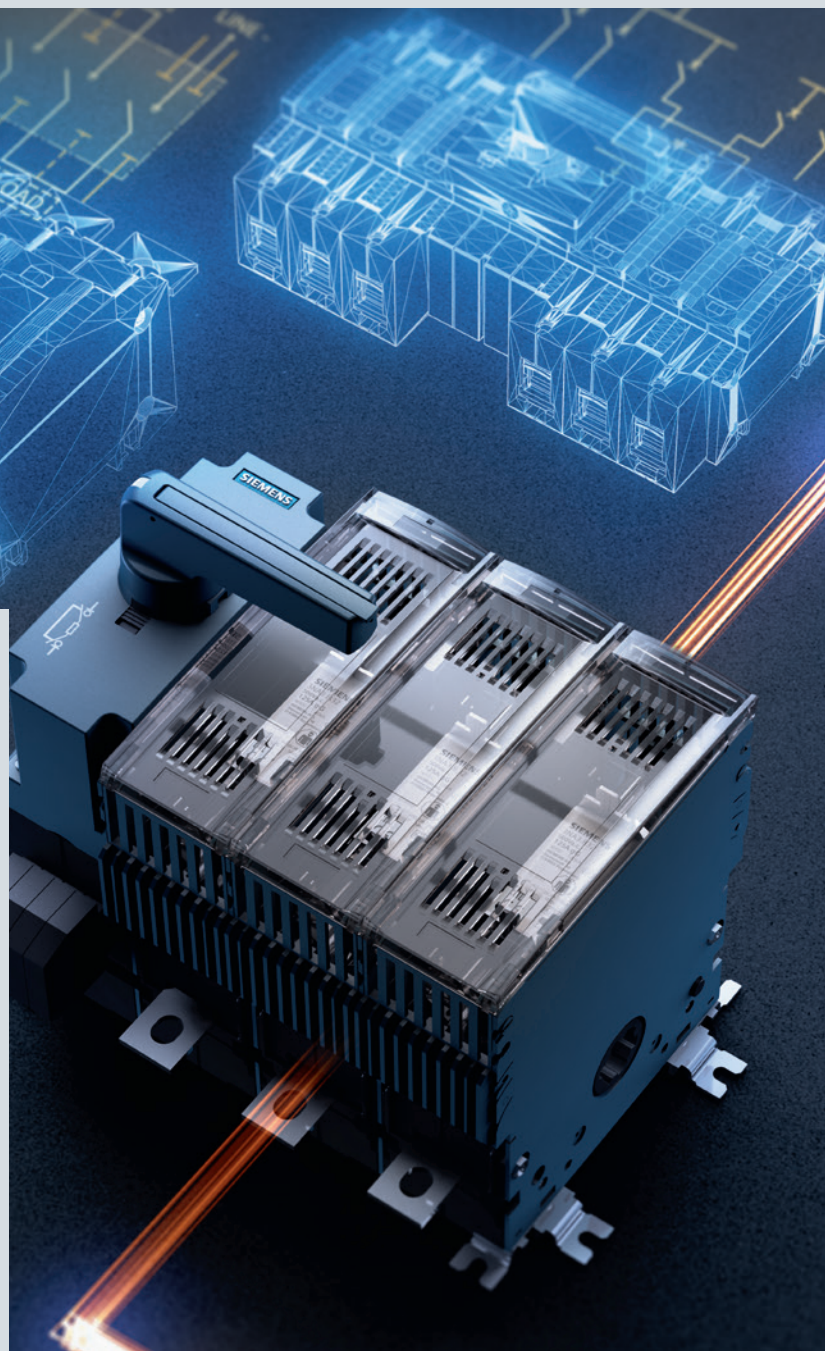
## End-to-end safety for user and systems

Assembly or maintenance: work on electrical installations and devices must be made sufficiently safe to prevent accidents or harm. The safety of the operating personnel is paramount.

To ensure this, it is necessary to be able to disconnect the installation safely from the power supply. Siemens switch disconnectors permit permanent switch-on and switch-off under a load and thus protect the user from electric shock. They also prevent unauthorized switching on of machines.

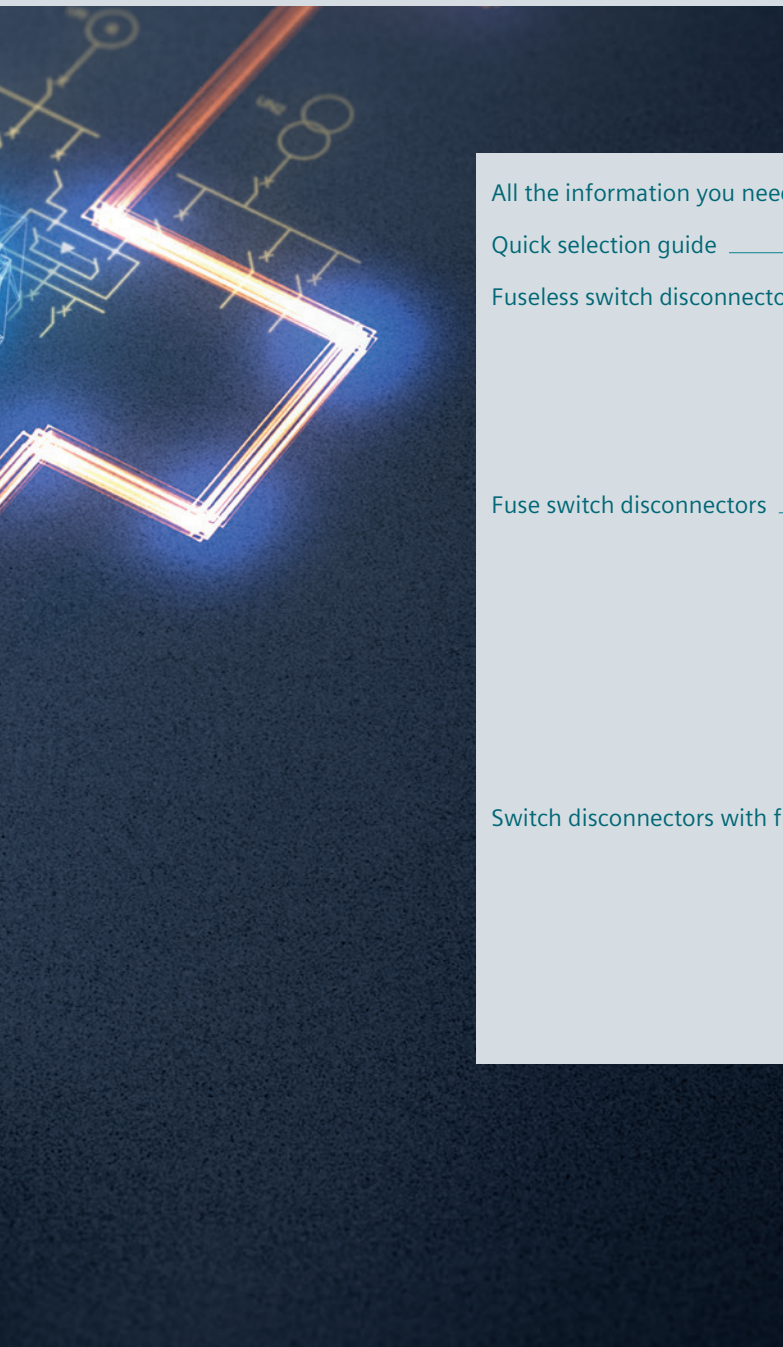
The devices are simply mounted and quickly commissioned. Additional functions can be retrofitted at any time – thanks to the modular design of the devices and a comprehensive range of accessories.

Convenient ordering processes and fast delivery optimize stock management and reduce the time and money expended. You can also make use of our CAx data for automated, simplified planning and configuring.





# Switch Disconnectors



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5SG switch disconnectors with fuses	8/140

# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about switch disconnectors, please visit our website  
[www.siemens.com/switching-devices](http://www.siemens.com/switching-devices)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – Switch disconnectors and transfer switching equipment (**109763354**)

The relevant tender specifications can be found at  
[www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations.

Configure your 3NJ63 switch disconnector at [www.siemens.com/lowvoltage/3nj63-configurator](http://www.siemens.com/lowvoltage/3nj63-configurator) and your 3NP1 fuse switch disconnector at [www.siemens.com/lowvoltage/3np1-configurator](http://www.siemens.com/lowvoltage/3np1-configurator)

Choose the right SITOR semiconductor fuse for your application  
[www.siemens.com/lowvoltage/sitor-configurator](http://www.siemens.com/lowvoltage/sitor-configurator)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Switching devices [sie.ag/2mryctm](http://sie.ag/2mryctm)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number  
[www.siemens.com/product?Article.No.](http://www.siemens.com/product?Article.No.)

You will find order support for the electrical wholesale trade carrying fast-selling items in the Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/catalogs](http://www.siemens.com/lowvoltage/catalogs)

- Order support – 3KD switch disconnectors – End-to-end safety for user and systems (**109750228**)
- Order support – 3LD2 main control and EMERGENCY-STOP-switching equipment – End-to-end safety for user and systems (**109755626**)
- Order support – 3NP1 fuse switch disconnectors – End-to-end safety for user and systems (**109755624**)
- Order support – 3KF switch disconnectors with fuses – End-to-end safety for user and systems (**109750229**)
- Order support – 3NJ63 switch disconnectors with fuses – End-to-end safety for user and systems (**109755619**)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at  
[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at  
[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at  
[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Switch disconnectors ([109769744](#))
- Configuration manual – Fuse systems ([45314810](#))
- Configuration manual – Transfer switching equipment and load transfer switches ([109769745](#))
- Configuration manual – Busbar systems ([109769746](#))
- System manual – SENTRON 3NJ62 In-Line Plug-In switch disconnectors with fuses ([31753460](#))
- Equipment manual – 3KD switch disconnectors ([109758120](#))
- System manual – SENTRON 3NP1 fuse switch disconnectors ([33515690](#))

### Technical overview – Switch disconnectors



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on switch disconnectors

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109764946](#))



# Quick selection guide

Load switching devices for all applications

## Fuseless switch disconnectors<sup>3)</sup>



### Functional switching<sup>1)</sup>



		Type	3LD3	3LD2	3LD5 UL	3KD	3VA
	Uninterrupted current $I_u$		16 ... 63 A	16 ... 250 A	30 ... 160 A	16 ... 2000 A	63 ... 630 A
	Short-circuit current max.		6 kA	50 kA	50 kA	100 kA	110 kA <sup>5)</sup>
Selection acc. to utilization category	AC max.		AC-3	AC-3	AC-3	AC-23A	AC-23A
	DC max.		–	DC-22A	–	DC-23A	DC-23A (up to 250 A)
	Suitable fuses		–	–	–	–	–
Types of mounting	Floor mounting		■	■	■	■	■
	Mounting on a standard mounting rail		■	■ (up to 125 A)	■ (up to 63 A)	■ (up to 250 A)	■ (up to 160 A)
	Front mounting		■	■	■	–	–
	Mounting on busbar systems (spacing of the busbars)		–	–	–	–	■
	Draw-out technology		–	–	–	–	■
Methods of operation	Manual from the front		■	■	■	■	■
	Manual from the side		–	–	–	■	■
	Remote-controllable		–	–	–	–	■
Number of poles	1-pole		–	–	–	–	–
	2-pole		–	–	–	–	–
	3-pole		■	■	■	■	■
	4-pole		■	■	■	■	■
	6-pole		–	■	–	■	–
Switching function	All poles		■	■	■	■	■
	Individual poles switchable		–	–	–	–	–
More information			from page 8/6			from page 2/1	

<sup>1)</sup> According to DIN VDE 0100-200, functional switching is an operation intended to switch on or off or vary the supply of electric energy to an electrical installation or parts of it for normal operating purposes.

<sup>2)</sup> Devices for occasional switching usually have a substantially lower electrical endurance and are switched no more than 1× per minute in the tests.

<sup>3)</sup> Pure switching without protection function

### Fuse switch disconnectors <sup>4)</sup>



Occasional switching <sup>2)</sup>



3NP1	3NP5	3NJ4	5SG76
160 ... 630 A	160 ... 630 A	160 ... 1600 A	16 A
120 kA	100 kA	120 kA	50 kA

AC-23B	AC-23B	AC-23B	AC-22A
DC-23B	DC-23B	-	-

IEC NH	IEC NH	IEC NH	Neozed
--------	--------	--------	--------

■	■	-	-
■	-	-	■
-	-	-	-
40/60 mm	40/60 mm	60/100/185 mm	-
-	-	-	-
■	■	■	■
-	-	-	-
-	-	-	-
■	-	-	■
■	-	-	■
■	■	■	■
■	-	-	■
-	-	-	-
■	■	■	■
-	-	■	-

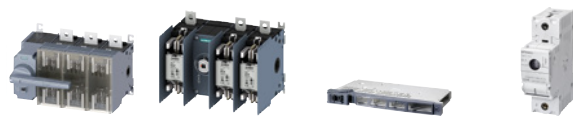
from page 8/80

### Switch disconnectors with fuse <sup>4)</sup>



Functional switching <sup>1)</sup>

Occasional switching <sup>2)</sup>



3KF NH	3KF SITOR	3NJ62	5SG71/72
32 ... 800 A	32 ... 800 A	63 ... 630 A	63 A
100 kA	100 kA	100 kA	50 kA

AC-23A	AC-23A	AC-23B	AC-23A
DC-23A	DC-23A	DC-23B	DC-22B

IEC NH	IEC LV HRC, optimized for semiconductor protection	IEC NH/BS	-
--------	--	-----------	---

■	■	-	-
■	■	-	-
-	-	-	-
-	-	185 mm	60 mm
-	-	■	-
■	■	■	■
■	■	-	-
-	-	■	-
-	-	-	■
■	■	■	■
■	■	■	■
-	-	-	-
■	■	■	■
-	-	-	-

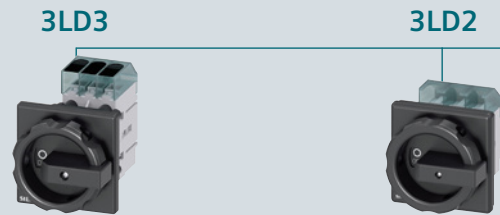
from page 8/114

<sup>4)</sup> The suitable fuses protect persons, motors, installations and generators against short circuit and overload

<sup>5)</sup> With a line-side fuse for 415 V

# Fuseless switch disconnectors

## Quick selection guide



Type		3LD30	3LD31	3LD32	3LD33	3LD34	3LD20	3LD21	3LD22	
<b>General technical specifications acc. to IEC 60947-3</b>										
<b>General technical specifications</b>										
Rated uninterrupted current $I_u$	A	16	25	32	40	63	16	25	32	
Rated operational voltage $U_e$	At 50/60 Hz AC	690					690			
	At DC – 2 conducting paths in series	–					–			
	At DC – 3 conducting paths in series	–					–			
	At DC – 4 conducting paths in series	–					–			
<b>Operating and short-circuit behavior</b>										
Rated operational current $I_e^{1)}$	At AC-20A AC-20B at 1000 V	A	–	–	–	–	–	–	–	
	At AC-21A AC-21B at 400 V	A	16	25	32	40	63	16	25	32
	At AC-21A AC-21B at 690 V	A	16	25	32	40	63	16	25	32
	At AC-22A AC-22B at 400 V	A	16	20	22	36	43	16	25	32
	At AC-22A AC-22B at 690 V	A	9	11	13	17	22	16	25	32
	At AC-22A AC-22B at 1000 V	A	–	–	–	–	–	–	–	–
	At AC-23A AC-23B at 400 V	A	16	20	22	36	43	16	20	22
	At AC-23A AC-23B at 690 V	A	9	11	13	17	22	9	11	13
	At DC-20A DC-20B at 1000 V	A	–	–	–	–	–	–	–	–
	At DC-21A DC-21B at 110 V	A	–	–	–	–	–	–	–	–
	At DC-21A DC-21B at 220 V	A	–	–	–	–	–	–	–	–
	At DC-21A DC-21B at 440 V	A	–	–	–	–	–	–	–	–
	At DC-22A DC-22B at 220 V	A	–	–	–	–	–	–	–	–
	At DC-22A DC-22B at 440 V	A	–	–	–	–	–	–	–	–
	At DC-23A DC-23B at 220 V	A	–	–	–	–	–	–	–	–
	At DC-23A DC-23B at 440 V	A	–	–	–	–	–	–	–	–
	Motor switching capacity	At AC-23A AC-23B at 400 V	kW	7.5	9.5	11.5	18.5	22	7.5	9.5
At AC-23A AC-23B at 690 V		kW	7.5	9	11.5	15	18.5	7.5	9.5	11.5
At AC-3  at 400 V		kW	5.5	7.5	9.5	11.5	18.5	5.5	7.5	9.5
At AC-3  at 690 V		kW	5.5	7.5	9.5	11.5	15	5.5	7.5	9.5
Rated short-time withstand current $I_{cw}$	At 690 V AC (t=1 s)	kA	0.5	0.5	0.5	1	1	0.34	0.64	0.64
	At 1000 V AC (t=1 s)	kA	–	–	–	–	–	–	–	–
Rated conditional short-circuit current with upstream fuse	At 400/415 V AC	kA	6	6	6	6	6	50	50	50
	At 690 V AC	kA	6	6	6	6	6	50	50	50
<b>Degree of protection</b>										
Maximum achievable IP degree of protection (with a rotary operating mechanism)		IP65					IP65			
<b>General technical specifications acc. to UL</b>										
<b>General technical specifications</b>										
Certification according to UL standard		UL 508					UL 508			
$I_n$ acc. to UL 508/UL60947-4-1   UL489	A	16 –	25 –	32 –	40 –	63 –	16 –	25 –	32 –	
$U_e$ acc. to UL 508/UL60947-4-1   UL489	V AC	600 –					600 –			
<b>Operating and short-circuit behavior</b>										
Operational power, 3-phase	At 480 V	hp	7.5	10	20	20	25	7.5	10	20
	At 600 V	hp	10	15	20	20	30	10	15	20
Short circuit current rating (SCCR)	At 480 V  at 600 V	kA	5 5					5 5	5 5	5 5
Upstream fuse according to UL		RK5					RK5			
<b>More information</b>										
		See page 8/12					See page 8/22			

## 3LD2

3LD5 UL **new**

3LD25	3LD27	3LD28	3LD23	3LD24	3LD50	3LD52	3LD54	3LD56	3LD58
63	100	125	160	250	32	63	100	125	160
		690					690		
		-					-		
		-					-		
		-					-		
-	-	-	-	-	-	-	-	-	-
63	100	125	160	250	32	63	100	125	160
63	100	125	160	250	32	63	100	125	160
63	100	125	140	230	32	63	100	125	160
63	100	125	140	230	32	63	100	125	160
-	-	-	-	-	-	-	-	-	-
43	70	80	132	224	32	63	100	125	160
22	34	39	47	58	22	39	39	47	58
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
22	37	45	75	132	15	30	45	55	75
18.5	30	37	45	55	18.5	37	37	45	55
18.5	30	37	50	110	15	30	45	55	75
15	22	30	37	45	-	-	30	37	45
1.26	2	2	4	4	1.26	2	4	4	4
-	-	-	-	-	-	-	-	-	-
50	50	25	50	50	50	50	50	50	50
50	50	25	50	50	50	50	50	50	30
		IP65					IP65		
		UL 508					UL60947-4-1/UL489		
63 -	100 -	125 -	160 -	250 -	30 30	60 60	100 100	125 125	150 150
		600 -					480 480		
40	60	75	75	100	20	30	60	75	100
50	75	100	50	75	-	-	-	-	-
5 5	10 10	10 10	10 10	10 10	50 -	65 -	65 -	65 -	50 -
		RK5			J CC	J	J	J	J
		See page 8/22					See page 8/54		

# Fuseless switch disconnectors

Quick selection guide for AC and AC/DC applications



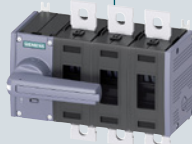
3KD



Type		3KD 01..-K	3KD 02..-K	3KD 03..-K	3KD 03..-L	3KD 04..-L	3KD 05..-L	3KD 06..-L	3KD 16	3KD 22	3KD 26	3KD 28..-M
<b>General technical specifications acc. to IEC 60947-3</b>												
<b>General technical specifications</b>												
Rated uninterrupted current $I_u$	A	16	32	63	63	80	100	125	16	32	63	80
Rated operational voltage $U_e$	At 50/60 Hz AC	V	690	690	415	690	690	690	1000	1000	1000	1000
	At DC – 2 conducting paths in series	V	–	–	–	–	–	–	220	220	220	220
	At DC – 3 conducting paths in series	V	–	–	–	–	–	–	440	440	440	440
	At DC – 4 conducting paths in series	V	–	–	–	–	–	–	–	–	–	–
<b>Operating and short-circuit behavior</b>												
Rated operational current $I_e$ <sup>1)</sup>	At AC-20A AC-20B at 1000 V	A	–	–	–	–	–	–	16	32	63	80
	At AC-21A AC-21B at 400 V	A	16	32	63	63	80	100	125	16	32	63
	At AC-21A AC-21B at 690 V	A	16	32	–	63	80	100	125	16	32	63
	At AC-22A AC-22B at 400 V	A	16	32	63	63	80	100	125	16	32	63
	At AC-22A AC-22B at 690 V	A	16	32	–	63	80	100	125	16	32	63
	At AC-22A AC-22B at 1000 V	A	–	–	–	–	–	–	–	16	32	63
	At AC-23A AC-23B at 400 V	A	16	32	63	63	75	80	90	16	32	63
	At AC-23A AC-23B at 690 V	A	14	17	–	22	30	35	39	16	32	63
	At DC-20A DC-20B at 1000 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-21A DC-21B at 110 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-21A DC-21B at 220 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-21A DC-21B at 440 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-22A DC-22B at 220 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-22A DC-22B at 440 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-23A DC-23B at 220 V	A	–	–	–	–	–	–	–	16	32	63
	At DC-23A DC-23B at 440 V	A	–	–	–	–	–	–	–	16	32	63
Motor switching capacity	At AC-23A AC-23B at 400 V	kW	7,5	15	30	30	37	45	45	7,5	15	30
	At AC-23A AC-23B at 690 V	kW	11	15	–	18,5	22	30	30	11	30	55
	At AC-3 at 400 V	kW	–	–	–	–	–	–	–	–	–	–
	At AC-3 at 690 V	kW	–	–	–	–	–	–	–	–	–	–
Rated short-time withstand current $I_{cw}$	At 690 V AC (t=1 s)	kA	1,26	1,26	1,26 <sup>1)</sup>	2,5	2,5	2,5	2,5	3	3	3
	At 1000 V AC (t=1 s)	kA	–	–	–	–	–	–	–	3	3	3
Rated conditional short-circuit current with upstream fuse	At 400/415 V AC	kA	50	50	50	50	50	50	100	100	100	100
	At 690 V AC	kA	50	50	–	50	50	50	20	100	100	100
<b>Degree of protection</b>												
Maximum achievable IP degree of protection (with a rotary operating mechanism)		IP65										
<b>General technical specifications acc. to UL</b>												
<b>General technical specifications</b>												
Certification according to UL standard		–										
$I_n$ acc. to UL 508/UL60947-4-1   UL489	A	–										
$U_e$ acc. to UL 508/UL60947-4-1   UL489	AC V	–										
<b>Operating and short-circuit behavior</b>												
Operational power, 3-phase	At 480 V	hp	–									
	At 600 V	hp	–									
Short circuit current rating (SCCR)	At 480 V at 600 V	kA	–									
Fuse type			–									
<b>More information</b>												
		See page 8/64										

<sup>1)</sup> Applies to 415 V AC

3KD



3KD 28..-N	3KD 30..-M.	3KD 30..-N.	3KD 32	3KD 34	3KD 36..-N	3KD 36..-P	3KD 38..-N.	3KD 38..-P.	3KD 40	3KD 42	3KD 44..-P.	3KD 44..-Q.	3KD 46	3KD 48	3KD 50..-Q.	3KD 50..-R.	3KD 52	3KD 54	3KD 56
80	100	100	125	160	200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	100	100	125	160	200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
80	100	100	125	160	200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
80	100	100	125	160	200	200	250	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
80	100	100	125	160	160	200	200	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
80	80	100	125	160	160	200	200	250	315	400	400	500	630	800	800	1000	1250	1600	1600
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	800	1000	1250	1600	1600
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	800	1000	1250	1600	1600
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	800	-	-	-	-
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	800	-	-	-	-
80	80	100	125	160	160	200	160	250	315	400	400	500	630	800	800	-	-	-	-
45	45	55	55	90	90	110	90	132	160	200	200	250	355	400	560	560	710	900	1000
75	75	90	110	110	110	185	110	250	315	315	315	500	630	800	1000	1000	1000	1000	1000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	3	4	4	4	4	13	4	13	13	13	13	30	30	30	30	55	55	55	55
4	3	4	4	4	4	13	4	13	13	13	13	30	30	30	30	55	55	55	55
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	80	80	80
80	100	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	100	100	65

IP65

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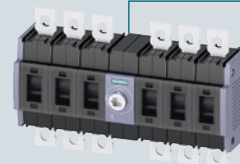
See page 8/64

# Fuseless switch disconnectors

## Quick selection guide for DC applications



3KD



Type		3KD 16	3KD 22	3KD 26	3KD 28	3KD 30	3KD 32	3KD 34	3KD 36	3KD 38
<b>General technical specifications acc. to IEC 60947-3</b>										
<b>General technical specifications</b>										
Rated uninterrupted current $I_u$	A	16	32	63	80	100	125	160	200	250
Rated operational voltage $U_e$	At DC - at degree of pollution 2	V	1200	1200	1200	1200	1200	1200	1200	1200
	At DC - at degree of pollution 3	V	1000	1000	1000	1000 <sup>1)</sup>	1000 <sup>1)</sup>	1000 <sup>1)</sup>	1000 <sup>1)</sup>	1200
<b>Operating and short-circuit behavior</b>										
Rated operational current $I_e$	At DC-21A at 1200 V	A	16	32	63	80	100	125	160	–
	At DC-21B at 1200 V	A	16	32	63	80	100	125	160	200
Rated short-time withstand current $I_{cw}$	At DC 1200 V (t=1 s)	kA	3	3	3	4	4	4	4	10
<b>Degree of protection</b>										
Maximum achievable IP degree of protection (with a rotary operating mechanism)		IP20								
<b>General technical specifications acc. to UL</b>										
<b>General technical specifications</b>										
Certification according to UL standard		–								
$I_n$ acc. to UL 508/UL60947-4-1   UL489	A	–								
$U_e$ acc. to UL 508/UL60947-4-1   UL489	AC V	–								
<b>Operating and short-circuit behavior</b>										
Operational power, 3-phase	At 480 V	hp	–							
	At 600 V	hp	–							
Short circuit current rating (SCCR)	At 480 V   at 600 V	kA	–							
Fuse type		–								
<b>More information</b>										
		See page 8/64								

<sup>1)</sup> Valid for version with box terminal, version with flat terminal max. 1200 V





# 3LD switch disconnectors

## System overview of 3LD3 main control and EMERGENCY-STOP switches

### Basic units for front mounting



3P rotary operating mechanisms



3P knob-operated mechanisms



3P+N rotary operating mechanisms



3P+N knob-operated mechanisms

### Basic units for floor mounting



3P rotary operating mechanisms



3P knob-operated mechanisms



3P+N rotary operating mechanisms



3P+N knob-operated mechanisms

### Basic units for installation in distribution boards



3P knob-operated mechanisms



3P basic switches without knob-operated mechanism



3P+N knob-operated mechanisms



3P+N basic switches without knob-operated mechanism

### Additional poles and auxiliary switches



N switching contacts



N/PE terminals



Auxiliary switches

### Operating mechanisms



Rotary operating mechanisms for front or floor mounting (center hole)



Knob-operated mechanisms for front or floor mounting (center hole)



Door-coupling rotary operating mechanisms



Door-coupling knob-operated mechanisms

### Other accessories



Terminal covers, 1 and 3-pole



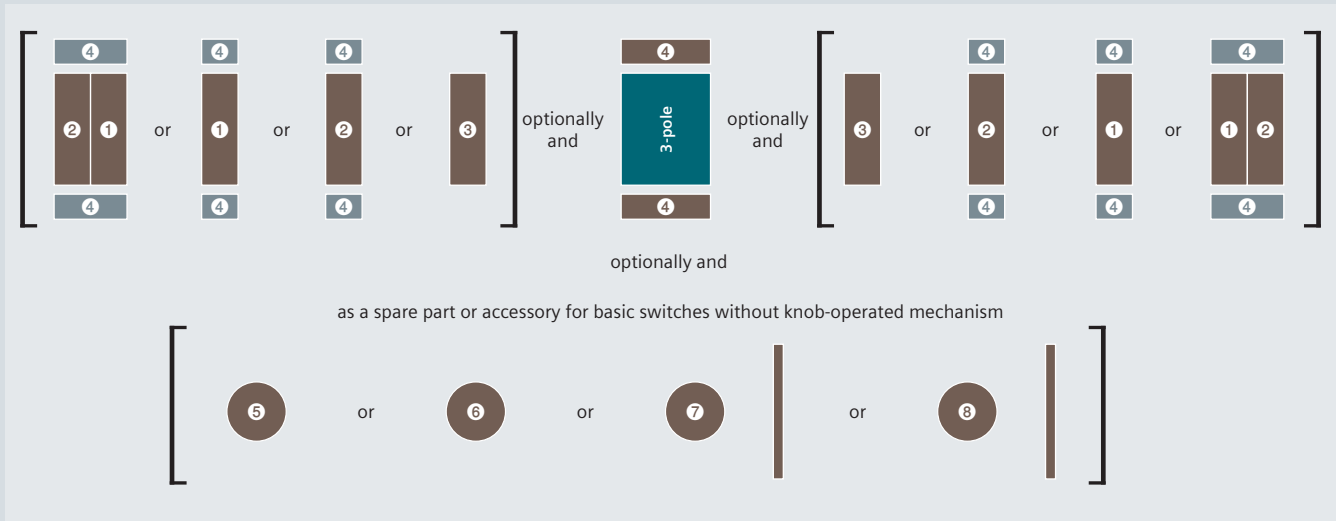
Inscription labels



#### Note:

You will find a detailed range of accessories with the basic units.

## Mounting concept and accessories



### Legend

- 1 N switching contact <sup>1)</sup>
- 2 N/PE terminal
- 3 Auxiliary switch
- 4 Terminal cover
- 5 Rotary operating mechanism, center-hole mounting
- 6 Knob-operated mechanism, center-hole mounting
- 7 Door-coupling rotary operating mechanism, center-hole mounting
- 8 Door-coupling knob-operated mechanism, center-hole mounting

<sup>1)</sup> The N switching contact 1 first has to be mounted on the basic unit



## Mounting types

### Front mounting



The switches for front mounting are mounted on the inside of covers, side panels or, if applicable, control cabinet doors (depending on the applicable standard and switching function). The switches are mounted via the 22.5 mm diameter center hole.

You will find further information under:  
[sie.ag/2UlrAvy](https://sie.ag/2UlrAvy)



### Floor mounting



The switches for floor mounting are snapped onto 35 mm standard mounting rails according to EN 60715 or screw-mounted on mounting panels. The actuators are connected to the lower section of the switch through a door coupling, which can be released in the 0 position, and a 300 mm long switch shaft. When the control cabinet door is open, the switch can be protected against inadvertent operation by removing the switch shaft from the lower section of the switch. The overall depth can be adapted to individual requirements by adjusting the switch shaft length.

### Distribution board mounting



The switches for distribution board mounting are suited for operation in distribution boards and for switching inside control cabinets or distributors. They have cap and mounting dimensions acc. to DIN 43880 and can be fitted under the same cover together with miniature circuit breakers. The selector switches can be locked in their OFF position with no more than one padlock with a shackle thickness of 4 to 6 mm.

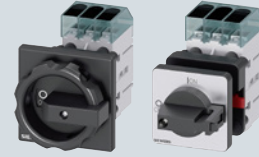
### Basic switches without knob-operated mechanism



For the basic switch variant without knob-operated mechanism, the appropriate door-coupling rotary operating mechanism can be ordered separately.

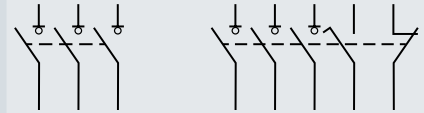
# 3LD switch disconnectors

3LD3 main control and EMERGENCY-STOP switches, front mounting, 6 kA<sub>rms</sub>



Operating mechanisms, black

Number of poles 3P



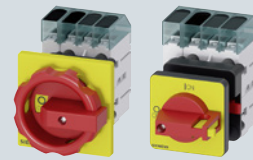
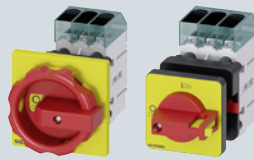
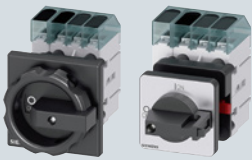
Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC
<b>Rotary operating mechanisms</b>				
16 A	7.5 kW	5.5 kW	3LD3054-0TK51	3LD3054-1TK51
25 A	9 kW	7.5 kW	3LD3154-0TK51	3LD3154-1TK51
32 A	11.5 kW	9.5 kW	3LD3254-0TK51	3LD3254-1TK51
40 A	18.5 kW	11.5 kW	3LD3354-0TK51	3LD3354-1TK51
63 A	22 kW	18.5 kW	3LD3454-0TK51	3LD3454-1TK51
<b>Knob-operated mechanisms</b>				
16 A	7.5 kW	5.5 kW	3LD3050-0TK11	3LD3050-1TK11
25 A	9 kW	7.5 kW	3LD3150-0TK11	3LD3150-1TK11
32 A	11.5 kW	9.5 kW	3LD3250-0TK11	3LD3250-1TK11
40 A	18.5 kW	11.5 kW	3LD3350-0TK11	3LD3350-1TK11
63 A	22 kW	18.5 kW	3LD3450-0TK11	3LD3450-1TK11

## Scope of supply:

- Including terminal covers for the infeed side

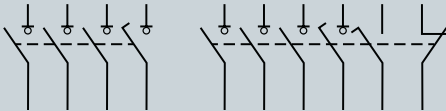
## Accessories

			3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)	
<b>Additional poles</b>								
	<b>Type</b>	<b>Contacts</b>	<b>Article No.</b>					
	Switching contact for N conductor (4th contact)	Leading switch-on, lagging switch-off	3LD9340-0B	■	■	■	■	■
	N terminal	Through-type	3LD9340-2B	■	■	■	■	■
	PE terminal	Through-type	3LD9340-3B	■	■	■	■	■
<b>Auxiliary switches</b>								
		<b>Contacts</b>	<b>Article No.</b>					
		1 NO + 1 NC	3LD9340-6B	■	■	■	■	■
<b>Rotary operating mechanisms</b>								
		<b>Color</b>	<b>Article No.</b>					
		Black	3LD9344-4C	■	■	■	■	■
		Red/yellow	3LD9344-5C	■	■	■	■	■
<b>Knob-operated mechanisms</b>								
		<b>Color</b>	<b>Article No.</b>					
		Black	3LD9343-6C	■	■	■	■	■
		Red/yellow	3LD9343-7C	■	■	■	■	■



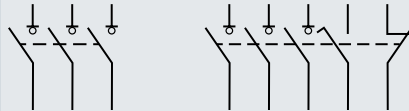
## Operating mechanisms, red/yellow

3P+N

Without  
auxiliary switch

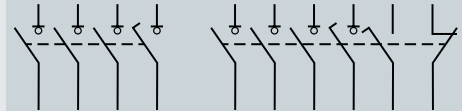
1 NO + 1 NC

3P

Without  
auxiliary switch

1 NO + 1 NC

3P+N

Without  
auxiliary switch

1 NO + 1 NC

3LD3054-OTL51	3LD3054-1TL51	3LD3054-OTK53	3LD3054-1TK53	3LD3054-OTL53	3LD3054-1TL53
3LD3154-OTL51	3LD3154-1TL51	3LD3154-OTK53	3LD3154-1TK53	3LD3154-OTL53	3LD3154-1TL53
3LD3254-OTL51	3LD3254-1TL51	3LD3254-OTK53	3LD3254-1TK53	3LD3254-OTL53	3LD3254-1TL53
3LD3354-OTL51	3LD3354-1TL51	3LD3354-OTK53	3LD3354-1TK53	3LD3354-OTL53	3LD3354-1TL53
3LD3454-OTL51	3LD3454-1TL51	3LD3454-OTK53	3LD3454-1TK53	3LD3454-OTL53	3LD3454-1TL53
3LD3050-OTL11	3LD3050-1TL11	3LD3050-OTK13	3LD3050-1TK13	3LD3050-OTL13	3LD3050-1TL13
3LD3150-OTL11	3LD3150-1TL11	3LD3150-OTK13	3LD3150-1TK13	3LD3150-OTL13	3LD3150-1TL13
3LD3250-OTL11	3LD3250-1TL11	3LD3250-OTK13	3LD3250-1TK13	3LD3250-OTL13	3LD3250-1TL13
3LD3350-OTL11	3LD3350-1TL11	3LD3350-OTK13	3LD3350-1TK13	3LD3350-OTL13	3LD3350-1TL13
3LD3450-OTL11	3LD3450-1TL11	3LD3450-OTK13	3LD3450-1TK13	3LD3450-OTL13	3LD3450-1TL13

8

3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
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## Terminal covers

- Pack of 4 units

## Version

## Article No.

For N switching contacts, N terminals or PE terminals

3LD9341-2A

For 3-pole 3LD3 switch disconnectors

3LD9341-0A

## Inscription labels

- Pack of 10 units

## Inscription

## Article No.

German/English (Hauptschalter/Main Switch)

3LD9346-1A

French/Spanish (Interrupteur Principal/Interruptor Principal)

3LD9346-2A

Without inscription

3LD9346-3A

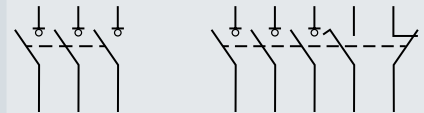
# 3LD switch disconnectors

3LD3 main control and EMERGENCY-STOP switches, floor mounting, 6 kA<sub>rms</sub>



Operating mechanisms, black

Number of poles 3P



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC
<b>Rotary operating mechanisms</b>				
16 A	7.5 kW	5.5 kW	3LD3048-OTK51	3LD3048-1TK51
25 A	9 kW	7.5 kW	3LD3148-OTK51	3LD3148-1TK51
32 A	11.5 kW	9.5 kW	3LD3248-OTK51	3LD3248-1TK51
40 A	18.5 kW	11.5 kW	3LD3348-OTK51	3LD3348-1TK51
63 A	22 kW	18.5 kW	3LD3448-OTK51	3LD3448-1TK51
<b>Knob-operated mechanisms</b>				
16 A	7.5 kW	5.5 kW	3LD3040-OTK11	3LD3040-1TK11
25 A	9 kW	7.5 kW	3LD3140-OTK11	3LD3140-1TK11
32 A	11.5 kW	9.5 kW	3LD3240-OTK11	3LD3240-1TK11
40 A	18.5 kW	11.5 kW	3LD3340-OTK11	3LD3340-1TK11
63 A	22 kW	18.5 kW	3LD3440-OTK11	3LD3440-1TK11

## Scope of supply:

- Including terminal covers for the infeed side

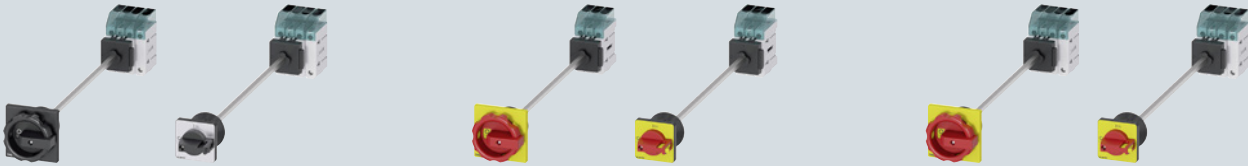
## Mounting:

- Using screws- or snap-on mounting on 35 mm mounting rails

## Accessories

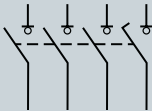
3LD30 (16 A) 3LD31 (25 A) 3LD32 (32 A) 3LD33 (40 A) 3LD34 (63 A)

Additional poles				3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
	<b>Type</b>	<b>Contacts</b>	<b>Article No.</b>					
	Switching contact for N conductor (4th contact)	Leading switch-on, lagging switch-off	3LD9340-0C	■	■	■	■	■
	N terminal	Through-type	3LD9340-2C	■	■	■	■	■
	PE terminal	Through-type	3LD9340-3C	■	■	■	■	■
<b>Auxiliary switches</b>								
		<b>Contacts</b>	<b>Article No.</b>					
		1 NO + 1 NC	3LD9340-6C	■	■	■	■	■
<b>Rotary operating mechanisms</b>								
	<b>Version</b>	<b>Color</b>	<b>Article No.</b>					
	Incl. funnel	Black	3LD9344-2C	■	■	■	■	■
		Red/yellow	3LD9344-3C	■	■	■	■	■
<b>Knob-operated mechanisms</b>								
	<b>Version</b>	<b>Color</b>	<b>Article No.</b>					
	Incl. funnel	Black	3LD9343-4C	■	■	■	■	■
		Red/yellow	3LD9343-5C	■	■	■	■	■
<b>Switch shafts</b>								
	<b>Cross-section</b>	<b>Length</b>	<b>Article No.</b>					
	6 × 6 mm	600 mm	3LD93451C	■	■	■	■	■

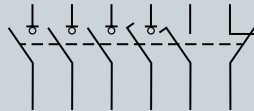


## Operating mechanisms, red/yellow

3P+N

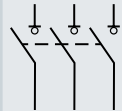


Without auxiliary switch

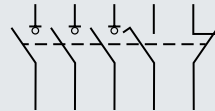


1 NO + 1 NC

3P

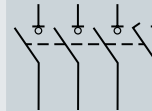


Without auxiliary switch

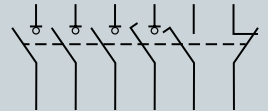


1 NO + 1 NC

3P+N



Without auxiliary switch



1 NO + 1 NC

3LD3048-OTL51	3LD3048-1TL51	3LD3048-OTK53	3LD3048-1TK53	3LD3048-OTL53	3LD3048-1TL53
3LD3148-OTL51	3LD3148-1TL51	3LD3148-OTK53	3LD3148-1TK53	3LD3148-OTL53	3LD3148-1TL53
3LD3248-OTL51	3LD3248-1TL51	3LD3248-OTK53	3LD3248-1TK53	3LD3248-OTL53	3LD3248-1TL53
3LD3348-OTL51	3LD3348-1TL51	3LD3348-OTK53	3LD3348-1TK53	3LD3348-OTL53	3LD3348-1TL53
3LD3448-OTL51	3LD3448-1TL51	3LD3448-OTK53	3LD3448-1TK53	3LD3448-OTL53	3LD3448-1TL53
3LD3040-OTL11	3LD3040-1TL11	3LD3040-OTK13	3LD3040-1TK13	3LD3040-OTL13	3LD3040-1TL13
3LD3140-OTL11	3LD3140-1TL11	3LD3140-OTK13	3LD3140-1TK13	3LD3140-OTL13	3LD3140-1TL13
3LD3240-OTL11	3LD3240-1TL11	3LD3240-OTK13	3LD3240-1TK13	3LD3240-OTL13	3LD3240-1TL13
3LD3340-OTL11	3LD3340-1TL11	3LD3340-OTK13	3LD3340-1TK13	3LD3340-OTL13	3LD3340-1TL13
3LD3440-OTL11	3LD3440-1TL11	3LD3440-OTK13	3LD3440-1TK13	3LD3440-OTL13	3LD3440-1TL13

8

3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
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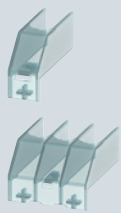
## Door-coupling rotary operating mechanisms



Type	Color	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Rotary operating mechanisms 66 × 66 mm	Black	3LD9344-2CA	■	■	■	■	■
	Red/yellow	3LD9344-3CA	■	■	■	■	■
Knob-operated mechanisms 48 × 48 mm	Black	3LD9343-4CA	■	■	■	■	■
	Red/yellow	3LD9343-5CA	■	■	■	■	■

## Terminal covers

- Pack of 4 units



Version	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
For N switching contacts, N terminals or PE terminals	3LD9341-2A	■	■	■	■	■
For 3LD3 3-pole switch disconnectors	3LD9341-0A	■	■	■	■	■

## Inscription labels



- Pack of 10 units

Inscription	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
German/English (Hauptschalter/Main Switch)	3LD9346-1A	■	■	■	■	■
French/Spanish (Interrupteur Principal/Interruptor Principal)	3LD9346-2A	■	■	■	■	■
Without inscription	3LD9346-3A	■	■	■	■	■

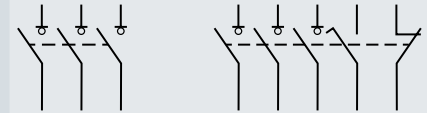
# 3LD switch disconnectors

3LD3 main control and EMERGENCY-STOP switches, installation in distribution boards and basic switches without direct operating mechanism,  $6kA_{rms}$



Operating mechanisms, black

Number of poles 3P



Uninterrupted current $I_n$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC
<b>Basic switch with masking plate and selector knob, standard rail mounting</b>				
16 A	7.5 kW	5.5 kW	3LD3030-0TK11	3LD3030-1TK11
25 A	9 kW	7.5 kW	3LD3130-0TK11	3LD3130-1TK11
32 A	11.5 kW	9.5 kW	3LD3230-0TK11	3LD3230-1TK11
40 A	18.5 kW	11.5 kW	3LD3330-0TK11	3LD3330-1TK11
63 A	22 kW	18.5 kW	3LD3430-0TK11	3LD3430-1TK11
<b>Basic switches without knob-operated mechanism</b>				
16 A	7.5 kW	5.5 kW	3LD3010-0TK05	3LD3010-1TK05
25 A	9 kW	7.5 kW	3LD3110-0TK05	3LD3110-1TK05
32 A	11.5 kW	9.5 kW	3LD3210-0TK05	3LD3210-1TK05
40 A	18.5 kW	11.5 kW	3LD3310-0TK05	3LD3310-1TK05
63 A	22 kW	18.5 kW	3LD3410-0TK05	3LD3410-1TK05

### Scope of supply:

- Basic switches without direct operating mechanism, incl. terminal covers for the infeed side

### Mounting:

- Using screws or snap-on mounting on 35 mm mounting rails

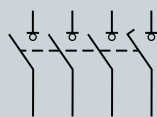
## Accessories for switches for installation in distribution boards and basic switches without knob-operated mechanism

	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
<b>Additional poles</b>					
	Type	Contacts	Article No.		
	Switching contact for N conductor (4th contact)	Leading switch-on, lagging switch-off	3LD9340-0C	■	■
	N terminal	Through-type	3LD9340-2C	■	■
	PE terminal	Through-type	3LD9340-3C	■	■
<b>Auxiliary switches</b>					
		Contacts	Article No.		
		1 NO + 1 NC	3LD9340-6C	■	■
<b>Terminal covers</b>					
	• Pack of 4 units				
	Version	Article No.			
	For N switching contacts, N terminals or PE terminals	3LD9341-2A	■	■	■
	For 3LD3 3-pole switch disconnectors	3LD9341-0A	■	■	■
<b>Switch shafts</b>					
	Cross-section	Length	Article No.		
	6 × 6 mm	600 mm	3LD93451C	■	■

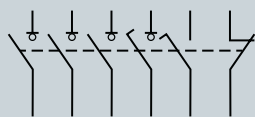


## Operating mechanisms, red/yellow

3P+N

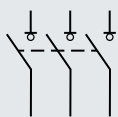


Without auxiliary switch

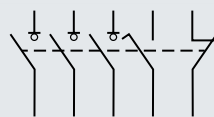


1 NO + 1 NC

3P

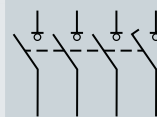


Without auxiliary switch

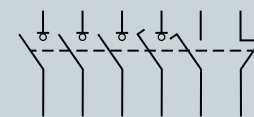


1 NO + 1 NC

3P+N



Without auxiliary switch



1 NO + 1 NC

3LD3030-OTL11	3LD3030-1TL11	3LD3030-OTK13	3LD3030-1TK13	3LD3030-OTL13	3LD3030-1TL13
3LD3130-OTL11	3LD3130-1TL11	3LD3130-OTK13	3LD3130-1TK13	3LD3130-OTL13	3LD3130-1TL13
3LD3230-OTL11	3LD3230-1TL11	3LD3230-OTK13	3LD3230-1TK13	3LD3230-OTL13	3LD3230-1TL13
3LD3330-OTL11	3LD3330-1TL11	3LD3330-OTK13	3LD3330-1TK13	3LD3330-OTL13	3LD3330-1TL13
3LD3430-OTL11	3LD3430-1TL11	3LD3430-OTK13	3LD3430-1TK13	3LD3430-OTL13	3LD3430-1TL13
3LD3010-OTL05	3LD3010-1TL05	–	–	–	–
3LD3110-OTL05	3LD3110-1TL05	–	–	–	–
3LD3210-OTL05	3LD3210-1TL05	–	–	–	–
3LD3310-OTL05	3LD3310-1TL05	–	–	–	–
3LD3410-OTL05	3LD3410-1TL05	–	–	–	–

## Accessories for basic switches without operating mechanism

3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
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## Rotary operating mechanisms



Version	Color	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Incl. funnel	Black	3LD9344-2C	■	■	■	■	■
	Red/yellow	3LD9344-3C	■	■	■	■	■

## Knob-operated mechanisms



Version	Color	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Incl. funnel	Black	3LD9343-4C	■	■	■	■	■
	Red/yellow	3LD9343-5C	■	■	■	■	■

## Door-coupling rotary operating mechanisms



Type	Color	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Rotary operating mechanisms 66 × 66 mm	Black	3LD9344-2CA	■	■	■	■	■
	Red/yellow	3LD9344-3CA	■	■	■	■	■



Knob-operated mechanisms 48 × 48 mm	Black	3LD9343-4CA	■	■	■	■	■
	Red/yellow	3LD9343-5CA	■	■	■	■	■

## Switch shafts



Cross-section	Length	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
6 × 6 mm	600 mm	3LD93451C	■	■	■	■	■

## Inscription labels








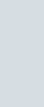


• Pack of 10 units							
Inscription	Article No.	3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)	
German/English (Hauptschalter/Main Switch)	3LD9346-1A	■	■	■	■	■	
French/Spanish (Interrupteur Principal/Interruptor Principal)	3LD9346-2A	■	■	■	■	■	
Without inscription	3LD9346-3A	■	■	■	■	■	



# 3LD switch disconnectors

## 3LD3 main control and EMERGENCY-STOP switches, accessories

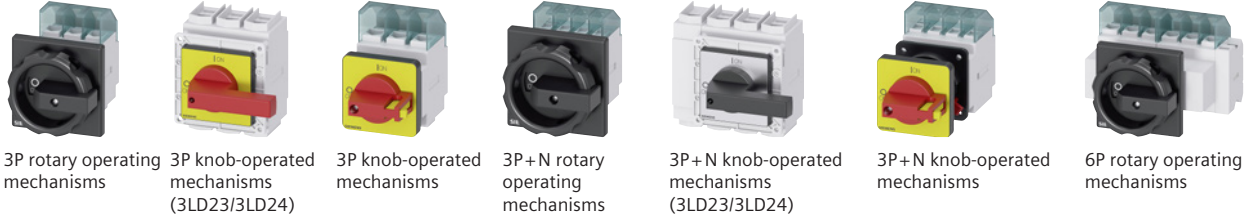
					3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
<b>Switching contacts for N conductor (4th contact)</b>									
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For front mounting	Leading switch-on, lagging switch-off	3LD9340-0B		■	■	■	■	■
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Leading switch-on, lagging switch-off	3LD9340-0C		■	■	■	■	■
<b>N terminals</b>									
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For front mounting	Through-type	3LD9340-2B		■	■	■	■	■
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Through-type	3LD9340-2C		■	■	■	■	■
<b>PE terminals</b>									
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For front mounting	Through-type	3LD9340-3B		■	■	■	■	■
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Through-type	3LD9340-3C		■	■	■	■	■
<b>Auxiliary switches</b>									
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For front mounting	1 NO + 1 NC	3LD9340-6B		■	■	■	■	■
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>						
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	1 NO + 1 NC	3LD9340-6C		■	■	■	■	■

					3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
<b>Rotary operating mechanisms</b>									
	<b>Version</b>		<b>Color</b>	<b>Article No.</b>					
	For front mounting, without funnel		Black	3LD9344-4C	■	■	■	■	■
			Red/ yellow	3LD9344-5C	■	■	■	■	■
	For floor mounting and basic switches without knob-operated mechanism, with funnel		Black	3LD9344-2C	■	■	■	■	■
			Red/ yellow	3LD9344-3C	■	■	■	■	■
<b>Knob-operated mechanisms</b>									
	<b>Version</b>		<b>Color</b>	<b>Article No.</b>					
	For front mounting, without funnel		Black	3LD9343-6C	■	■	■	■	■
			Red/ yellow	3LD9343-7C	■	■	■	■	■
	For floor mounting and basic switches without knob-operated mechanism, with funnel		Black	3LD9343-4C	■	■	■	■	■
			Red/ yellow	3LD9343-5C	■	■	■	■	■
<b>Door-coupling rotary operating mechanisms</b>									
	<b>Version</b>	<b>Type</b>	<b>Color</b>	<b>Article No.</b>					
	For floor mounting and basic switches without knob-operated mechanism	Rotary operating mechanisms 66 × 66 mm	Black	3LD9344-2CA	■	■	■	■	■
			Red/ yellow	3LD9344-3CA	■	■	■	■	■
		Knob-operated mechanisms 48 × 48 mm	Black	3LD9343-4CA	■	■	■	■	■
		Red/ yellow	3LD9343-5CA	■	■	■	■	■	
<b>Terminal covers</b>									
	<ul style="list-style-type: none"> <li>For front mounting, floor mounting, installation in distribution boards and basic switches without knob-operated mechanism</li> <li>Pack of 4 units</li> </ul>								
	<b>Number of poles</b>				<b>Article No.</b>				
	1-pole				3LD9341-2A	■	■	■	■
3-pole				3LD9341-0A	■	■	■	■	
<b>Switch shafts</b>									
	<b>Cross-section</b>	<b>Length</b>	<b>Article No.</b>						
	6 × 6 mm	600 mm	3LD93451C		■	■	■	■	■
<b>Inscription labels</b>									
	<ul style="list-style-type: none"> <li>Pack of 10 units</li> <li>Not for installation in distribution boards</li> </ul>								
	<b>Inscription</b>				<b>Article No.</b>				
	German/English (Hauptschalter/Main Switch)				3LD9346-1A	■	■	■	■
	French/Spanish (Interrupteur Principal/Interruptor Principal)				3LD9346-2A	■	■	■	■
Without inscription				3LD9346-3A	■	■	■	■	

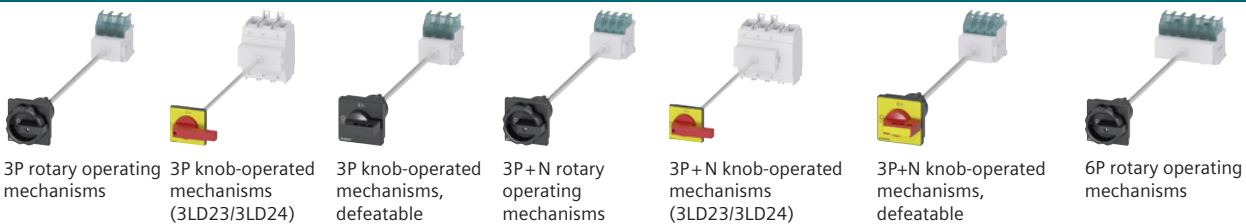
# 3LD switch disconnectors

## System overview of 3LD2 switch disconnectors

### Basic units for front mounting



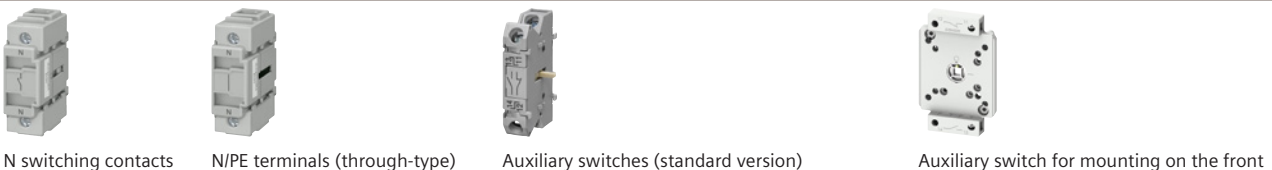
### Basic units for floor mounting



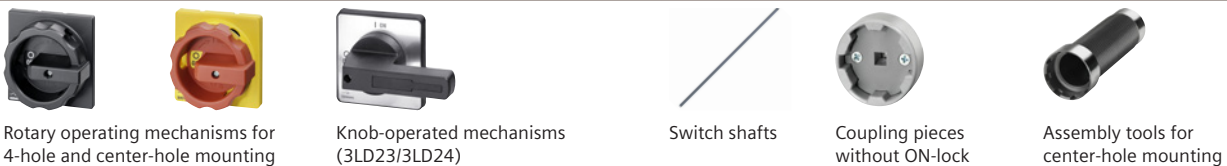
### Basic units for installation in distribution boards/enclosures, DC



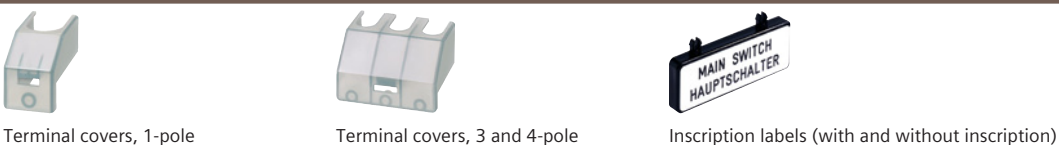
### Additional poles and auxiliary switches



### Operating mechanisms



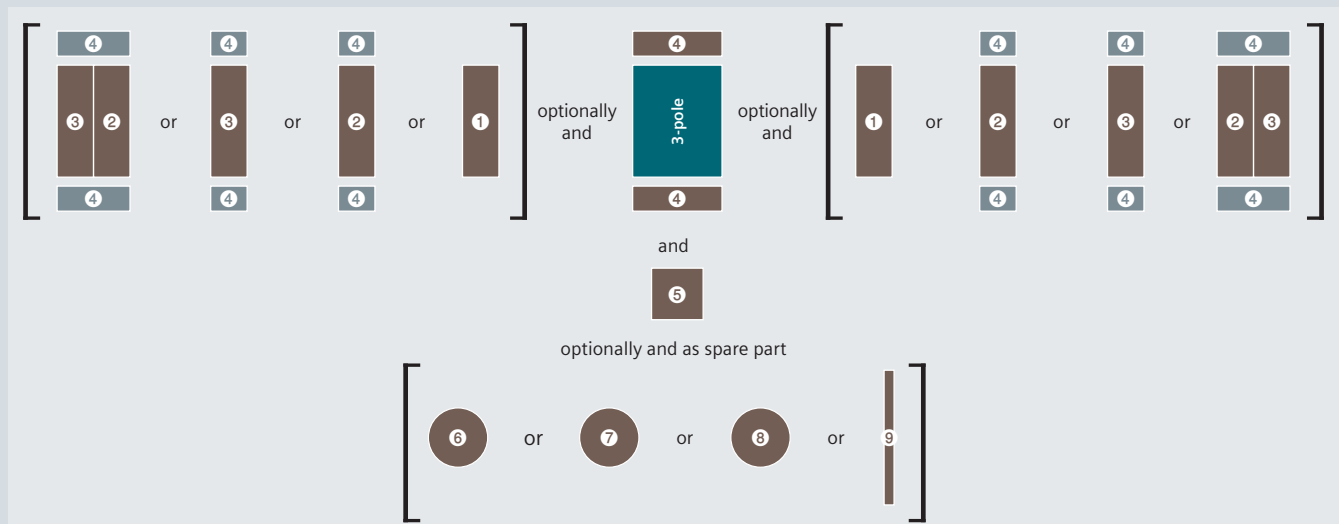
### Other accessories



#### Note:

You will find a detailed range of accessories with the basic units.

## Mounting concept and accessories



### Legend

- 1 Auxiliary switch
  - 2 N switching contact <sup>1)</sup>
  - 3 N/PE terminal
  - 4 Terminal cover
  - 5 Auxiliary switch for mounting on the front <sup>2)</sup>
  - 6 Rotary operating mechanism, center-hole mounting
  - 7 Rotary operating mechanism, four-hole mounting
  - 8 Knob-operated mechanism, four-hole mounting
  - 9 Switch shaft (300 or 600)
- <sup>1)</sup> The N switching contact 2 first has to be mounted on the basic unit  
<sup>2)</sup> Can only be used with four-hole front mounting and floor mounting



## Mounting types

### Front mounting



The switches for front mounting are mounted on the inside of covers, side panels or, if applicable, control cabinet doors (depending on the applicable standard and switching function). In addition to the 4-hole fastening of the handle, up to 63 A (3LD25) fastening with the 22.5 mm diameter center hole can also be chosen.

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



### Floor mounting



The switches for floor mounting up to 125 A (3LD28) are snapped onto 35 mm standard mounting rails according to EN 60715 or screw-mounted on mounting panels. The switches for 160 and 250 A (3LD23/3LD24) are exclusively screwed onto mounting panels. The actuators are connected to the lower section of the switch through a door coupling, which can be released in the 0 position, and a 300 mm long switch shaft. When the control cabinet door is open, the switch can be protected against inadvertent operation by removing the switch shaft from the lower section of the switch. The overall depth can be adapted to individual requirements by adjusting the switch shaft length.

### Distribution board mounting



The switches for distribution board mounting are suited for operation in distribution boards and for switching inside control cabinets or distributors. Up to 125 A (3LD28), they have cap and mounting dimensions acc. to DIN 43880 and can be fitted under the same cover together with miniature circuit breakers.

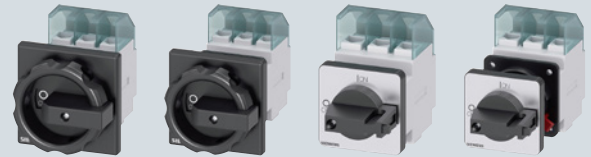
### DC isolators



The DC isolators in the enclosure are suitable for disconnecting loads of up to 800 V DC due to their 8-pole design. To provide additional safety, the isolators can be locked in the 0 position.

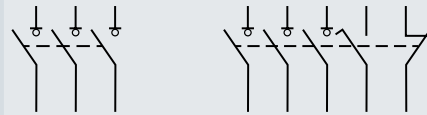
# 3LD switch disconnectors

3LD2 main control switches, front mounting, 25 ... 50 kA<sub>eff</sub>



Operating mechanisms, black

Number of poles 3P

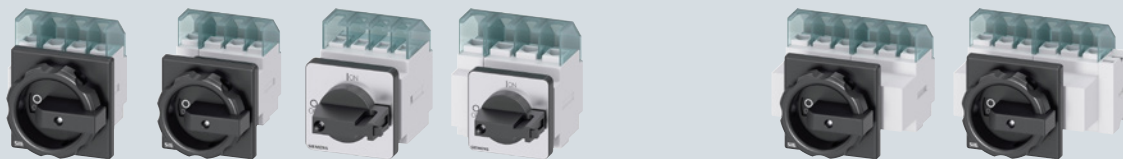


Uninterrupted current $I_n$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Rotary operating mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2003-OTK51	3LD2003-1TP51
25 A	9.5 kW	7.5 kW	3LD2103-OTK51	3LD2103-1TP51
32 A	11.5 kW	9.5 kW	3LD2203-OTK51	3LD2203-1TP51
63 A	22 kW	18.5 kW	3LD2504-OTK51	3LD2504-1TP51
100 A	37 kW	30 kW	3LD2704-OTK51	3LD2704-1TP51
125 A	45 kW	37 kW	3LD2804-OTK51	3LD2804-1TP51
160 A	75 kW	50 kW	3LD2305-OTK11	3LD2305-OTK11 + 3LD9200-5B
250 A	132 kW	110 kW	3LD2405-OTK11	3LD2405-OTK11 + 3LD9200-5B
<b>Rotary operating mechanism, center-hole mounting <math>\varnothing</math> 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2054-OTK51	3LD2054-1TP51
25 A	9.5 kW	7.5 kW	3LD2154-OTK51	3LD2154-1TP51
32 A	11.5 kW	9.5 kW	3LD2254-OTK51	3LD2254-OTK51 + 3LD9200-5B
63 A	22 kW	18.5 kW	3LD2555-OTK51	3LD2555-OTK51 + 3LD9200-5B
<b>Knob-operated mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2022-OTK11	3LD2022-OTK11 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2122-OTK11	3LD2122-OTK11 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2222-OTK11	3LD2222-OTK11 + 3LD9200-5B
<b>Knob-operated mechanism, center-hole mounting <math>\varnothing</math> 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2050-OTK11	3LD2050-OTK11 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2150-OTK11	3LD2150-OTK11 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2250-OTK11	3LD2250-OTK11 + 3LD9200-5B

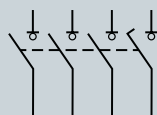
#### Scope of supply:

- Including terminal covers for the infeed side

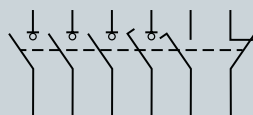
Accessories, see page 8/28



## 3P+N

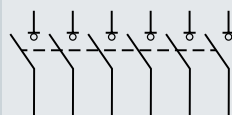


Without  
auxiliary switch

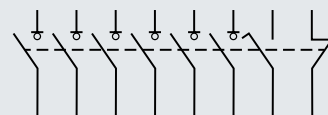


1 NO + 1 NC  
(standard version)

## 6P



Without  
auxiliary switch

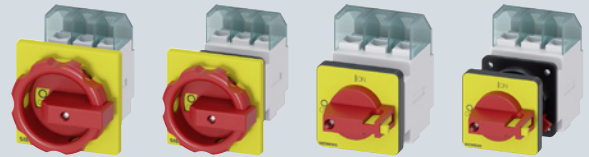


1 NO + 1 NC  
(standard version)

3LD2003-1TL51	3LD2003-2EP51	–	–
3LD2103-1TL51	3LD2103-2EP51	3LD2103-3VK51	3LD2103-4VP51
3LD2203-1TL51	3LD2203-1TL51 + 3LD9200-5B	3LD2203-3VK51	3LD2203-3VK51 + 3LD9200-5B
3LD2504-1TL51	3LD2504-1TP51 + 3LD9250-0BA	3LD2504-3VK51	3LD2504-3VK51 + 3LD9200-5B
3LD2704-0TK51 + 3LD9280-0B	3LD2704-0TK51 + 3LD9280-0B + 3LD9200-5B	–	–
3LD2804-0TK51 + 3LD9280-0B	3LD2804-0TK51 + 3LD9280-0B + 3LD9200-5B	–	–
3LD2305-1TL11	3LD2305-1TL11 + 3LD9200-5B	3LD2305-3VK11	3LD2305-3VK11 + 3LD9200-5B
3LD2405-1TL11	3LD2405-1TL11 + 3LD9200-5B	3LD2405-3VK11	3LD2405-3VK11 + 3LD9200-5B
3LD2054-1TL51	3LD2054-2EP51	–	–
3LD2154-1TL51	3LD2154-2EP51	–	–
3LD2254-1TL51	3LD2254-1TL51 + 3LD9200-5B	–	–
3LD2555-0TK51 + 3LD9250-0BA	3LD2555-0TK51 + 3LD9250-0BA + 3LD9200-5B	–	–
3LD2022-1TL11	3LD2022-1TL11 + 3LD9200-5B	–	–
3LD2122-1TL11	3LD2122-1TL11 + 3LD9200-5B	–	–
3LD2222-0TK11 + 3LD9220-0B	3LD2222-0TK11 + 3LD9220-0B + 3LD9200-5B	–	–
3LD2050-1TL11	3LD2050-1TL11 + 3LD9200-5B	–	–
3LD2150-0TK11 + 3LD9220-0B	3LD2150-0TK11 + 3LD9220-0B + 3LD9200-5B	–	–
3LD2250-0TK11 + 3LD9220-0B	3LD2250-0TK11 + 3LD9220-0B + 3LD9200-5B	–	–

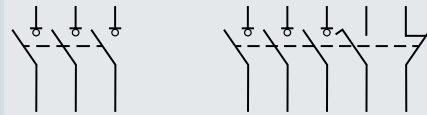
# 3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, front mounting, 25 ... 50 kA<sub>eff</sub>



Operating mechanisms, red/yellow

Number of poles 3P

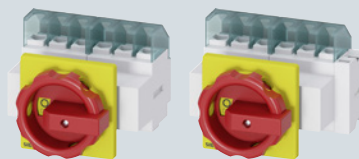
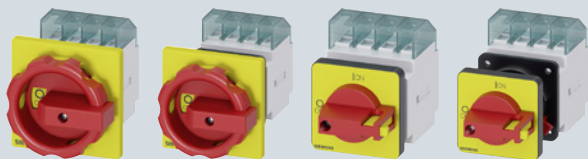


Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Rotary operating mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2003-OTK53	3LD2003-1TP53
25 A	9.5 kW	7.5 kW	3LD2103-OTK53	3LD2103-1TP53
32 A	11.5 kW	9.5 kW	3LD2203-OTK53	3LD2203-1TP53
63 A	22 kW	18.5 kW	3LD2504-OTK53	3LD2504-1TP53
100 A	37 kW	30 kW	3LD2704-OTK53	3LD2704-1TP53
125 A	45 kW	37 kW	3LD2804-OTK53	3LD2804-1TP53
160 A	75 kW	50 kW	3LD2305-OTK13	3LD2305-OTK13 + 3LD9200-5B
250 A	132 kW	110 kW	3LD2405-OTK13	3LD2405-OTK13 + 3LD9200-5B
<b>Rotary operating mechanism, center-hole mounting <math>\varnothing</math> 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2054-OTK53	3LD2054-1TP53
25 A	9.5 kW	7.5 kW	3LD2154-OTK53	3LD2154-1TP53
32 A	11.5 kW	9.5 kW	3LD2254-OTK53	3LD2254-OTK53 + 3LD9200-5B
63 A	22 kW	18.5 kW	3LD2555-OTK53	3LD2555-OTK53 + 3LD9200-5B
<b>Knob-operated mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2022-OTK13	3LD2022-OTK13 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2122-OTK13	3LD2122-OTK13 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2222-OTK13	3LD2222-OTK13 + 3LD9200-5B
<b>Knob-operated mechanism, center-hole mounting <math>\varnothing</math> 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2050-OTK13	3LD2050-OTK13 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2150-OTK13	3LD2150-OTK13 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2250-OTK13	3LD2250-OTK13 + 3LD9200-5B

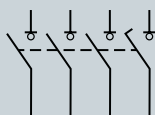
#### Scope of supply:

- Including terminal covers for the infeed side

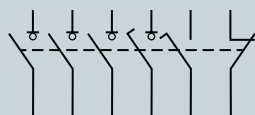
Accessories, see page 8/28



## 3+N

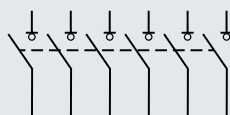


Without  
auxiliary switch

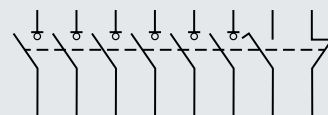


1 NO + 1 NC  
(standard version)

## 6P



Without  
auxiliary switch



1 NO + 1 NC  
(standard version)



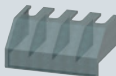


3LD2003-1TL53	3LD2003-2EP53	–	–
3LD2103-1TL53	3LD2103-2EP53	3LD2103-3VK53	3LD2103-4VP53
3LD2203-1TL53	3LD2203-1TL53 + 3LD9200-5B	3LD2203-3VK53	3LD2203-3VK53 + 3LD9200-5B
3LD2504-1TL53	3LD2504-1TP53 + 3LD9250-0BA	3LD2504-3VK53	3LD2504-3VK53 + 3LD9200-5B
3LD2704-0TK53 + 3LD9280-0B	3LD2704-0TK53 + 3LD9280-0B + 3LD9200-5B	–	–
3LD2804-0TK53 + 3LD9280-0B	3LD2804-0TK53 + 3LD9280-0B + 3LD9200-5B	–	–
3LD2305-1TL13	3LD2305-1TL13 + 3LD9200-5B	3LD2305-3VK13	3LD2305-3VK13 + 3LD9200-5B
3LD2405-1TL13	3LD2405-1TL13 + 3LD9200-5B	3LD2405-3VK13	3LD2405-3VK13 + 3LD9200-5B
3LD2054-1TL53	3LD2054-2EP53	–	–
3LD2154-1TL53	3LD2154-2EP53	–	–
3LD2254-1TL53	3LD2254-1TL53 + 3LD9200-5B	–	–
3LD2555-0TK53 + 3LD9250-0BA	3LD2555-0TK53 + 3LD9250-0BA + 3LD9200-5B	–	–
3LD2022-1TL13	3LD2022-1TL13 + 3LD9200-5B	–	–
3LD2122-1TL13	3LD2122-1TL13 + 3LD9200-5B	–	–
3LD2222-0TK13 + 3LD9220-0B	3LD2222-0TK13 + 3LD9220-0B + 3LD9200-5B	–	–
3LD2050-1TL13	3LD2050-1TL13 + 3LD9200-5B	–	–
3LD2150-0TK13 + 3LD9220-0B	3LD2150-0TK13 + 3LD9220-0B + 3LD9200-5B	–	–
3LD2250-0TK13 + 3LD9220-0B	3LD2250-0TK13 + 3LD9220-0B + 3LD9200-5B	–	–



# 3LD switch disconnectors

## Accessories for front mounting

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)		
<b>Switching contacts for N conductor (4th contact)</b>												
	<b>Contacts</b>	<b>Article No.</b>										
	Leading switch-on, lagging switch-off	3LD9220-0B		■	■							
		3LD9250-0BA				■						
		3LD9280-0B					■	■				
		3LD9240-0B							■	■		
<b>N/PE terminals</b>												
	<b>Contacts</b>	<b>Article No.</b>										
	Through-type	3LD9200-2B		■								
		3LD9220-2B			■	■						
		3LD9250-2BA					■					
		3LD9280-2B						■	■			
3LD9240-2B									■	■		
<b>Auxiliary switches (standard version)</b>												
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>											
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>									
	1 NO + 1 NC	Standard	3LD9200-5B	■	■	■	■	■	■	■	■	
Gold-plated		3LD9200-5BF	■	■	■	■	■	■	■	■		
<b>Auxiliary switch for mounting on the front</b>												
	<ul style="list-style-type: none"> <li>Mounted on the switch shaft</li> <li>For four-hole front mounting and floor mounting only</li> <li>For long leading times (20 ... 150 m)</li> <li>Not for 6-pole 3LD23 (160 A) and 3LD24 (250 A)</li> </ul>											
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>									
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■	■			
			3LD9240-5D							■	■	
		Gold-plated	3LD9280-5DF	■	■	■	■	■	■			
3LD9240-5DF									■	■		
<b>Rotary operating mechanisms</b>												
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>											
	<b>Version</b>	<b>Mounting</b>	<b>Article No.</b>									
	For main control switches	Center-hole mounting	3LD9224-1D	■	■	■						
			3LD9284-1D				■					
		Four-hole mounting	3LD9224-1B	■	■	■						
			3LD9284-1B				■	■	■			
	For EMERGENCY-STOP switches	Center-hole mounting	3LD9224-3D	■	■	■						
			3LD9284-3D				■					
		Four-hole mounting	3LD9224-3B	■	■	■						
			3LD9284-3B				■	■	■			
<b>Knob-operated mechanisms</b>												
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>											
	<b>Version</b>	<b>Mounting</b>	<b>Article No.</b>									
	For main control switches	Four-hole mounting	3LD9243-1B							■	■	
For EMERGENCY-STOP switches	Four-hole mounting	3LD9243-3B							■	■		

		3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
<b>Terminal covers</b>									
<ul style="list-style-type: none"> <li>Pack of 4 units</li> </ul>									
<b>Number of poles</b>		<b>Article No.</b>							
	1-pole	3LD9201-2A	■						
		3LD9221-2A		■	■				
		3LD9251-2A				■			
		3LD9281-2A					■	■	
		3LD9241-2A							■
	3-pole	3LD9221-0A		■	■				
		3LD9251-0A				■			
	4-pole	3LD9201-1A	■						
<b>Inscription labels</b>									
<ul style="list-style-type: none"> <li>Pack of 10 units</li> </ul>									
<b>Inscription</b>		<b>Article No.</b>							
	German/English (Hauptschalter/Main Switch)	3LD9286-1A	■	■	■	■	■	■	
	Without inscription	3LD9286-4A	■	■	■	■	■	■	
<b>Assembly tools</b>									
<ul style="list-style-type: none"> <li>For center-hole mounting with nut</li> <li>Pack of 5 units</li> </ul>									
<b>Version</b>		<b>Article No.</b>							
	For main control switches and EMERGENCY-STOP switches	3LD9256-0A	■	■	■	■			

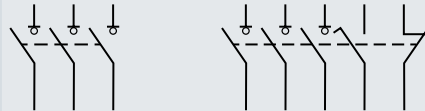
# 3LD switch disconnectors

3LD2 main control switches, floor mounting, 25 ... 50 kA<sub>eff</sub>



Operating mechanisms, black

Number of poles 3P



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Door-coupling rotary operating mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2013-OTK51	3LD2013-OTK51 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2113-OTK51	3LD2113-OTK51 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2213-OTK51	3LD2213-OTK51 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2514-OTK51	3LD2514-OTK51 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2714-OTK51	3LD2714-OTK51 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2814-OTK51	3LD2814-OTK51 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2318-OTK11	3LD2318-OTK11 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2418-OTK11	3LD2418-OTK11 + 3LD9200-5C
<b>Door-coupling rotary operating mechanism, center-hole mounting Ø 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2044-OTK51	3LD2044-OTK51 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2144-OTK51	3LD2144-OTK51 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2244-OTK51	3LD2244-OTK51 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2545-OTK51	3LD2545-OTK51 + 3LD9200-5C
<b>Defeatable door-coupling knob-operated mechanism, four-hole mounting</b>				
16 A	7,5 kW	5,5 kW	3LD2017-OTK11	3LD2017-OTK11 + 3LD9200-5C
32 A	11,5 kW	9,5 kW	3LD2217-OTK11	3LD2217-OTK11 + 3LD9200-5C
63 A	22 kW	18,5 kW	3LD2517-OTK11	3LD2517-OTK11 + 3LD9200-5C

#### Scope of supply:

- Including terminal covers for the infeed side
- Up to 125 A with integrated tolerance compensation

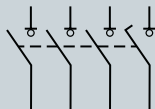
#### Mounting:

- Up to 125 A using screws or snap-on mounting on 35 mm mounting rails

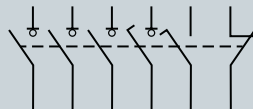
Accessories, see page 8/34



## 3P+N

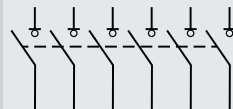


Without  
auxiliary switch

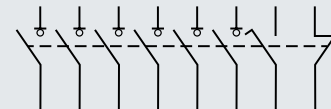


1 NO + 1 NC  
(standard version)

## 6P



Without  
auxiliary switch



1 NO + 1 NC  
(standard version)

3LD2013-1TL51	3LD2013-1TL51	+ 3LD9200-5C	–	–
3LD2113-1TL51	3LD2113-1TL51	+ 3LD9200-5C	3LD2113-3VK51	3LD2113-4VP51
3LD2213-1TL51	3LD2213-1TL51	+ 3LD9200-5C	–	–
3LD2514-1TL51	3LD2514-1TL51	+ 3LD9200-5C	–	–
3LD2714-0TK51 + 3LD9280-0C	3LD2714-0TK51 + 3LD9280-0C	+ 3LD9200-5C	–	–
3LD2814-0TK51 + 3LD9280-0C	3LD2814-0TK51 + 3LD9280-0C	+ 3LD9200-5C	–	–
3LD2318-1TL11	3LD2318-1TL11	+ 3LD9200-5C	3LD2318-3VK11	3LD2318-3VK11 + 3LD9200-5C
3LD2418-1TL11	3LD2418-1TL11	+ 3LD9200-5C	3LD2418-3VK11	3LD2418-3VK11 + 3LD9200-5C
3LD2044-1TL51	3LD2044-1TL51	+ 3LD9200-5C	–	–
3LD2144-1TL51	3LD2144-1TL51	+ 3LD9200-5C	–	–
3LD2244-1TL51	3LD2244-1TL51	+ 3LD9200-5C	–	–
3LD2545-0TK51 + 3LD9250-0CA	3LD2545-0TK51 + 3LD9250-0CA	+ 3LD9200-5C	–	–
3LD2017-1TL11	3LD2017-1TL11 + 3LD9200-5C		–	–
3LD2217-1TL11	3LD2217-1TL11 + 3LD9200-5C		–	–
3LD2517-1TL11	3LD2517-1TL11 + 3LD9200-5C		–	–

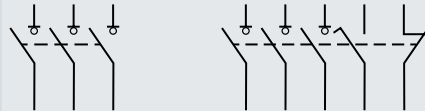
# 3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, floor mounting, 25 ... 50 kA<sub>eff</sub>



Operating mechanisms, red/yellow

Number of poles 3P



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Door-coupling rotary operating mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2013-OTK53	3LD2013-OTK53 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2113-OTK53	3LD2113-OTK53 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2213-OTK53	3LD2213-OTK53 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2514-OTK53	3LD2514-OTK53 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2714-OTK53	3LD2714-OTK53 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2814-OTK53	3LD2814-OTK53 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2318-OTK13	3LD2318-OTK13 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2418-OTK13	3LD2418-OTK13 + 3LD9200-5C
<b>Door-coupling rotary operating mechanism, center-hole mounting <math>\varnothing</math> 22.5 mm</b>				
16 A	7.5 kW	5.5 kW	3LD2044-OTK53	3LD2044-OTK53 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2144-OTK53	3LD2144-OTK53 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2244-OTK53	3LD2244-OTK53 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2545-OTK53	3LD2545-OTK53 + 3LD9200-5C
<b>Defeatable door-coupling knob-operated mechanism, four-hole mounting</b>				
16 A	7.5 kW	5.5 kW	3LD2017-OTK13	3LD2017-OTK13 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2217-OTK13	3LD2217-OTK13 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2517-OTK13	3LD2517-1TL13 + 3LD9200-5C

#### Scope of supply:

- Including terminal covers for the infeed side
- Up to 125 A with integrated tolerance compensation

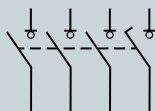
#### Mounting:

- Up to 125 A using screws or snap-on mounting on 35 mm mounting rails

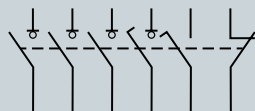
Accessories, see page 8/34



## 3P+N

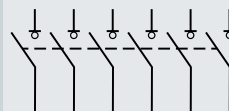


Without  
auxiliary switch

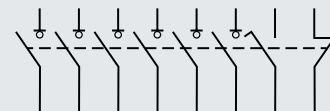


1 NO + 1 NC  
(standard version)

## 6P



Without  
auxiliary switch



1 NO + 1 NC  
(standard version)

3LD2013-1TL53	3LD2013-1TL53	+ 3LD9200-5C	–	–
3LD2113-1TL53	3LD2113-1TL53	+ 3LD9200-5C	3LD2113-3VK53	3LD2113-4VP53
3LD2213-1TL53	3LD2213-1TL53	+ 3LD9200-5C	–	–
3LD2514-1TL53	3LD2514-1TL53	+ 3LD9200-5C	–	–
3LD2714-0TK53 + 3LD9280-0C	3LD2714-0TK53 + 3LD9280-0C	+ 3LD9200-5C	–	–
3LD2814-0TK53 + 3LD9280-0C	3LD2814-0TK53 + 3LD9280-0C	+ 3LD9200-5C	–	–
3LD2318-1TL13	3LD2318-1TL13	+ 3LD9200-5C	3LD2318-3VK13	3LD2318-3VK13 + 3LD9200-5C
3LD2418-1TL13	3LD2418-1TL13	+ 3LD9200-5C	3LD2418-3VK13	3LD2418-3VK13 + 3LD9200-5C
3LD2044-1TL53	3LD2044-1TL53	+ 3LD9200-5C	–	–
3LD2144-1TL53	3LD2144-1TL53	+ 3LD9200-5C	–	–
3LD2244-1TL53	3LD2244-1TL53	+ 3LD9200-5C	–	–
3LD2545-0TK53 + 3LD9250-0CA	3LD2545-0TK53 + 3LD9250-0CA	+ 3LD9200-5C	–	–
3LD2017-1TL13	3LD2017-1TL13 + 3LD9200-5C		–	–
3LD2217-1TL13	3LD2217-0TK13 + 3LD9200-5C		–	–
3LD2517-1TL13	3LD2517-1TL13 + 3LD9200-5C		–	–

# 3LD switch disconnectors

## Accessories for floor mounting

3LD20 (16 A) 3LD21 (25 A) 3LD22 (32 A) 3LD25 (63 A) 3LD27 (100 A) 3LD28 (125 A) 3LD23 (160 A) 3LD24 (250 A)

### Switching contacts for N conductor (4th contact)



Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
	3LD9250-0CA				■				
	3LD9280-0C					■	■		
	3LD9240-0C							■	■

### N/PE terminals



Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Through-type	3LD9200-2C	■							
	3LD9220-2C		■	■					
	3LD9250-2CA				■				
	3LD9280-2C					■	■		
	3LD9240-2C							■	■

### Auxiliary switches (standard version)



- For mounting on the left and/or right
- Lagging switch-on, leading switch-off

Contacts	Contact surface	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■	■	■
	Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■	■
2 NO	Standard	3LD9200-6C	■	■	■	■	■	■	■	

### Auxiliary switch for mounting on the front



- Mounted on the switch shaft
- For long leading times (20 ... 150 ms)

Contacts	Contact surface	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■	■		
		3LD9240-5D							■	■
	Gold-plated	3LD9280-5DF	■	■	■	■	■	■		
		3LD9240-5DF							■	■

### Rotary operating mechanisms

- Lockable in 0 position with up to 3 padlocks



Version	Mounting	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
For main control switches	Center-hole mounting	3LD9224-1D	■	■	■					
		3LD9284-1D				■				
	Four-hole mounting	3LD9224-1B	■	■	■					
		3LD9284-1B				■	■	■		



For EMERGENCY-STOP switches	Center-hole mounting	3LD9224-3D	■	■	■					
		3LD9284-3D				■				
	Four-hole mounting	3LD9224-3B	■	■	■					
		3LD9284-3B				■	■	■		

### Knob-operated mechanisms



- Lockable in 0 position with up to 3 padlocks

Version	Mounting	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
For main control switches	Four-hole mounting	3LD9243-1B							■	■
		3LD9243-3B							■	■

### 8UC7.. door-coupling rotary operating mechanisms



- To achieve defeatability from 3LD27 (100 A) to 3LD24 (250 A)

Type	Version	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
8UC71	Standard	8UC7110-1BB					■	■		
	EMERGENCY-STOP	8UC7120-3BB					■	■		
8UC72	Standard	8UC7210-1BB							■	■
	EMERGENCY-STOP	8UC7220-3BB							■	■

				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)	
<b>Coupling drivers</b>												
	<b>Version</b>			<b>Article No.</b>								
	For 8UC71 door-coupling rotary operating mechanisms			8UC6011								
	For 8UC72 door-coupling rotary operating mechanisms			8UC6012								
<b>Switch shafts</b>												
	<b>Cross-section</b>	<b>Length</b>	<b>Article No.</b>									
	6 x 6 mm	300 mm	3LD9205-0C									
		600 mm	3LD9205-2C									
	8 x 8 mm	300 mm	3LD9245-0C									
600 mm		3LD9245-2C										
<b>Coupling pieces</b>												
	• Without ON-lock			<b>Article No.</b>								
				3LD9242-4F								
<b>Terminal covers</b>												
	• Pack of 4 units			<b>Article No.</b>								
	<b>Number of poles</b>			<b>Article No.</b>								
	1-pole			3LD9201-2A								
				3LD9221-2A								
				3LD9251-2A								
				3LD9281-2A								
				3LD9241-2A								
	3-pole			3LD9221-0A								
				3LD9251-0A								
	4-pole			3LD9201-1A								
<b>Inscription labels</b>												
	• Pack of 10 units											
	• Cannot be used with defeatable 3LD2.17 door-coupling rotary operating mechanisms											
	<b>Inscription</b>			<b>Article No.</b>								
German/English (Hauptschalter/Main Switch)			3LD9286-1A									
Without inscription			3LD9286-4A									
<b>Assembly tools</b>												
	• For center-hole mounting with nut											
	• Pack of 5 units											
<b>Version</b>			<b>Article No.</b>									
For main control switches and EMERGENCY-STOP switches			3LD9256-0A									



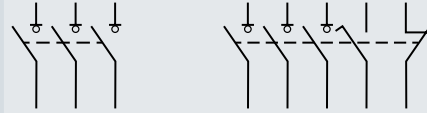
# 3LD switch disconnectors

3LD2 main control switches, installation in distribution boards, 25 ... 50 kA<sub>eff</sub>



## Operating mechanisms, black

Number of poles 3P



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Knob-operated mechanisms with masking plate</b>				
16 A	7.5 kW	5.5 kW	3LD2030-0TK11	3LD2030-0TK11 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2130-0TK11	3LD2130-0TK11 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2230-0TK11	3LD2230-0TK11 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2530-0TK11	3LD2530-0TK11 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2730-0TK11	3LD2730-0TK11 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2830-0TK11	3LD2830-0TK11 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2330-0TK11	3LD2330-0TK11 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2430-0TK11	3LD2430-0TK11 + 3LD9200-5C

### Scope of supply:

- 3LD23/3LD24 including terminal covers for the infeed side

### Mounting:

- Up to 125 A using screws or snap-on mounting on 35 mm mounting rails
- Up to 125 A cap and mounting dimensions acc. to DIN 43880

## Accessories

3LD20 (16 A) 3LD21 (25 A) 3LD22 (32 A) 3LD25 (63 A) 3LD27 (100 A) 3LD28 (125 A) 3LD23 (160 A) 3LD24 (250 A)

### Switching contacts for N conductor (4th contact)

Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
	3LD9250-0CA				■				
	3LD9280-0C					■	■		
	3LD9240-0C							■	■

### N/PE terminals

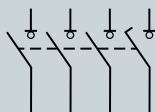
Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Through-type	3LD9200-2C	■							
	3LD9220-2C		■	■					
	3LD9250-2CA				■				
	3LD9280-2C					■	■		
	3LD9240-2C							■	■

### Auxiliary switches (standard version)

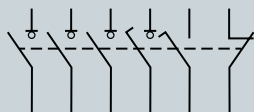
<ul style="list-style-type: none"> <li>• For mounting on the left and/or right</li> <li>• Lagging switch-on, leading switch-off</li> </ul>										
	Contacts	Contact surface	Article No.							
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■
2 NO	Standard	3LD9200-6C	■	■	■	■	■	■		



## 3P+N




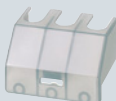
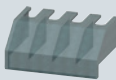
Without  
auxiliary switch



1 NO + 1 NC  
(standard version)

3LD2030-1TL11	3LD2030-1TL11	+ 3LD9200-5C
3LD2130-0TK11 + 3LD9220-0C	3LD2130-0TK11 + 3LD9220-0C	+ 3LD9200-5C
3LD2230-0TK11 + 3LD9220-0C	3LD2230-0TK11 + 3LD9220-0C	+ 3LD9200-5C
3LD2530-0TK11 + 3LD9250-OCA	3LD2530-0TK11 + 3LD9250-OCA	+ 3LD9200-5C
3LD2730-0TK11 + 3LD9280-0C	3LD2730-0TK11 + 3LD9280-0C	+ 3LD9200-5C
3LD2830-0TK11 + 3LD9280-0C	3LD2830-0TK11 + 3LD9280-0C	+ 3LD9200-5C
3LD2330-0TK11 + 3LD9240-0C	3LD2330-0TK11 + 3LD9240-0C	+ 3LD9200-5C
3LD2430-0TK11 + 3LD9240-0C	3LD2430-0TK11 + 3LD9240-0C	+ 3LD9200-5C

8

		3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
<b>Terminal covers</b>									
• Pack of 4 units									
<b>Number of poles</b>		<b>Article No.</b>							
	1-pole	3LD9201-2A	■						
		3LD9221-2A		■	■				
		3LD9251-2A				■			
		3LD9281-2A					■	■	
		3LD9241-2A							■ ■
	3-pole	3LD9221-0A		■	■				
		3LD9251-0A				■			
	4-pole	3LD9201-1A	■						

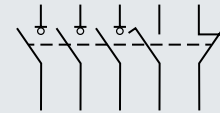
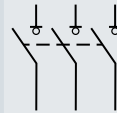
# 3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, installation in distribution boards, 25 ... 50 kA<sub>eff</sub>



Operating mechanisms, red/yellow

Number of poles 3P



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
<b>Knob-operated mechanisms with masking plate</b>				
16 A	7.5 kW	5.5 kW	3LD2030-0TK13	3LD2030-0TK13 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2130-0TK13	3LD2130-0TK13 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2230-0TK13	3LD2230-0TK13 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2530-0TK13	3LD2530-0TK13 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2730-0TK13	3LD2730-0TK13 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2830-0TK13	3LD2830-0TK13 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2330-0TK13	3LD2330-0TK13 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2430-0TK13	3LD2430-0TK13 + 3LD9200-5C

## Scope of supply:

- 3LD23/3LD24 including terminal covers for the infeed side

## Mounting:

- Up to 125 A using screws or snap-on mounting on 35 mm mounting rails
- Up to 125 A cap and mounting dimensions acc. to DIN 43880

## Accessories

3LD20 (16 A) 3LD21 (25 A) 3LD22 (32 A) 3LD25 (63 A) 3LD27 (100 A) 3LD28 (125 A) 3LD23 (160 A) 3LD24 (250 A)

### Switching contacts for N conductor (4th contact)

Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
	3LD9250-0CA				■				
	3LD9280-0C					■	■		
	3LD9240-0C							■	■

### N/PE terminals

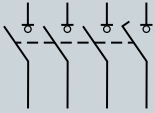
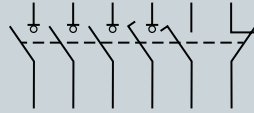
Contacts	Article No.	3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Through-type	3LD9200-2C	■							
	3LD9220-2C		■	■					
	3LD9250-2CA				■				
	3LD9280-2C					■	■		
	3LD9240-2C							■	■

### Auxiliary switches (standard version)

 <ul style="list-style-type: none"> <li>• For mounting on the left and/or right</li> <li>• Lagging switch-on, leading switch-off</li> </ul>										
	Contacts	Contact surface	Article No.							
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■
2 NO	Standard	3LD9200-6C	■	■	■	■	■	■		



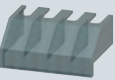


3+N

Without  
auxiliary switch1 NO + 1 NC  
(standard version)

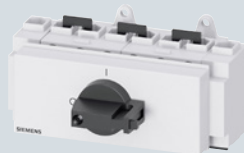
3LD2030-1TL13	3LD2030-1TL13	+ 3LD9200-5C
3LD2130-0TK13 + 3LD9220-0C	3LD2130-0TK13 + 3LD9220-0C	+ 3LD9200-5C
3LD2230-0TK13 + 3LD9220-0C	3LD2230-0TK13 + 3LD9220-0C	+ 3LD9200-5C
3LD2530-0TK13 + 3LD9250-OCA	3LD2530-0TK13 + 3LD9250-OCA	+ 3LD9200-5C
3LD2730-0TK13 + 3LD9280-0C	3LD2730-0TK13 + 3LD9280-0C	+ 3LD9200-5C
3LD2830-0TK13 + 3LD9280-0C	3LD2830-0TK13 + 3LD9280-0C	+ 3LD9200-5C
3LD2330-0TK13 + 3LD9240-0C	3LD2330-0TK13 + 3LD9240-0C	+ 3LD9200-5C
3LD2430-0TK13 + 3LD9240-0C	3LD2430-0TK13 + 3LD9240-0C	+ 3LD9200-5C

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		3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
<b>Terminal covers</b>									
• Pack of 4 units									
<b>Number of poles</b>		<b>Article No.</b>							
	1-pole	3LD9201-2A	■						
		3LD9221-2A		■	■				
		3LD9251-2A				■			
		3LD9281-2A					■	■	
		3LD9241-2A							■
	3-pole	3LD9221-0A		■	■				
		3LD9251-0A				■			
	4-pole	3LD9201-1A	■						

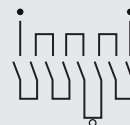
# 3LD switch disconnectors

DC isolators, 50 kA<sub>rms</sub>










Operating mechanisms, black

Number of poles 8P



Mains voltage	Rated operational current $I_e$ At DC-21A, 800 V DC	Rated operational current $I_e$ At DC-22A, 800 V DC	Without auxiliary switch
<b>Knob-operated mechanisms</b>			
800 V DC	32 A	16 A	3LD2230-8VQ11-0AF6

## Accessories for 3LD2 main control and EMERGENCY-STOP switches



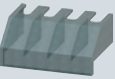

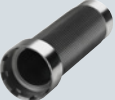
				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)	
<b>Additional poles</b>												
<b>Switching contacts for N conductor (4th contact)</b>												
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For front mounting	Leading switch-on, lagging switch-off	3LD9220-0B		■	■						
			3LD9250-0BA				■					
			3LD9280-0B					■	■			
3LD9240-0B										■	■	
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For floor mounting, installation in distribution boards	Leading switch-on, lagging switch-off	3LD9220-0C		■	■						
			3LD9250-0CA				■					
			3LD9280-0C					■	■			
3LD9240-0C										■	■	
<b>N/PE terminals</b>												
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For front mounting	Through-type	3LD9200-2B	■								
			3LD9220-2B		■	■						
			3LD9250-2BA				■					
			3LD9280-2B					■	■			
3LD9240-2B										■	■	
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For floor mounting, installation in distribution boards	Through-type	3LD9200-2C	■								
			3LD9220-2C		■	■						
			3LD9250-2CA				■					
			3LD9280-2C					■	■			
3LD9240-2C										■	■	
<b>Auxiliary switches (standard version)</b>												
<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>												
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For front mounting	1 NO + 1 NC, standard	3LD9200-5B	■	■	■	■	■	■	■	■	
		1 NO + 1 NC, gold-plated	3LD9200-5BF	■	■	■	■	■	■	■	■	
	<b>Version</b>	<b>Contacts</b>	<b>Article No.</b>									
	For floor mounting, installation in distribution boards	1 NO + 1 NC, standard	3LD9200-5C	■	■	■	■	■	■	■	■	
		1 NO + 1 NC, gold-plated	3LD9200-5CF	■	■	■	■	■	■	■	■	
2 NO, standard		3LD9200-6C	■	■	■	■	■	■	■	■		
<b>Auxiliary switch for mounting on the front</b>												
<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For four-hole front mounting and floor mounting only</li> <li>For long leading times (20 ... 150 ms)</li> </ul>												
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>									
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■	■			
			3LD9240-5D							■	■	
		Gold-plated	3LD9280-5DF	■	■	■	■	■	■			
3LD9240-5DF										■	■	

# 3LD switch disconnectors

## Accessories for 3LD2 main control and EMERGENCY-STOP switches

Operating mechanisms				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)	
<b>Rotary operating mechanisms</b>												
 	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> <li>Center-hole mounting, including seal and nut</li> <li>Four-hole mounting, including seal</li> </ul>											
	<b>Switch</b>	<b>Mounting</b>	<b>Article No.</b>									
	For main control switches	Center-hole mounting	3LD9224-1D	■	■	■						
		Four-hole mounting	3LD9224-1B	■	■	■	■	■	■			
	For EMERGENCY-STOP switches	Center-hole mounting	3LD9224-3D	■	■	■						
			3LD9284-1B				■	■	■			
		Four-hole mounting	3LD9224-3B	■	■	■						
			3LD9284-3B				■	■	■			
<b>Knob-operated mechanisms</b>												
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> <li>Including seal</li> </ul>											
	<b>Switch</b>	<b>Mounting</b>	<b>Article No.</b>									
	For main control switches	Four-hole mounting	3LD9243-1B							■	■	
For EMERGENCY-STOP switches	Four-hole mounting	3LD9243-3B								■	■	
<b>Supplementary handles for door-coupling rotary operating mechanism</b>												
	<ul style="list-style-type: none"> <li>For requirements according to UL508A/NFPA79</li> <li>Can be locked with up to 1 padlocks in 0 position</li> <li>Can only be switched on by deliberate action</li> </ul>											
	<b>Labeling</b>	<b>Color</b>	<b>Article No.</b>									
	O-I	Gray	3LD9287-1C	■	■	■	■	■				
		Red/yellow	3LD9247-1C							■	■	
		3LD9287-3C	■	■	■	■	■	■				
		3LD9247-3C								■	■	
<b>Switch shafts</b>												
	<b>Version</b>	<b>Cross-section</b>	<b>Length</b>	<b>Article No.</b>								
	For floor mounting	6 × 6 mm	300 mm	3LD9205-0C	■	■	■	■	■	■		
			600 mm	3LD9205-2C	■	■	■	■	■	■		
		8 × 8 mm	300 mm	3LD9245-0C							■	■
600 mm			3LD9245-2C								■	■
<b>Coupling pieces</b>												
	<ul style="list-style-type: none"> <li>Without ON-lock</li> </ul>											
	<b>Version</b>			<b>Article No.</b>								
For floor mounting			3LD9242-4F							■	■	

## Other accessories

		3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
<b>Terminal covers</b>									
• Pack of 4 units									
<b>Number of poles</b>		<b>Article No.</b>							
	1-pole	3LD9201-2A	■						
		3LD9221-2A		■	■				
		3LD9251-2A				■			
		3LD9281-2A					■	■	
		3LD9241-2A							■
	3-pole	3LD9221-0A		■	■				
		3LD9251-0A				■			
		3LD9201-1A	■						
	4-pole	3LD9201-1A	■						
<b>Inscription labels</b>									
• Pack of 10 units									
<b>Inscription</b>		<b>Article No.</b>							
	German/English (Hauptschalter/Main Switch)	3LD9286-1A	■	■	■	■	■	■	
	Without inscription	3LD9286-4A	■	■	■	■	■	■	
<b>Assembly tools</b>									
• For center-hole mounting with nut									
• Pack of 5 units									
<b>Switch</b>		<b>Article No.</b>							
	For main control switches and EMERGENCY-STOP switches	3LD9256-0A	■	■	■	■			



# 3LD switch disconnectors

## System overview of 3LD2 switch disconnectors in enclosure

### 3LD2 main control and EMERGENCY-STOP switches in enclosure



3P/3P+N  
molded-plastic enclosures



3P/6P  
molded-plastic enclosures



3P/3p+N/6P  
molded-plastic enclosures

### 3LD2 maintenance and repair switches with EMC shield plate



3P  
molded-plastic enclosures



3P/6P  
molded-plastic enclosures



3P/6P  
molded-plastic enclosures

8

### DC isolators in enclosure



8P DC isolators in a molded-plastic enclosure

### Additional poles and auxiliary switch modules



N switching  
contact



N/PE terminals  
(through-type)



Auxiliary switches  
(standard version)



Auxiliary switch for mounting on  
the front

### Operating mechanisms

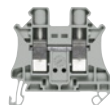


Rotary operating mechanisms for center-hole mounting

### Other accessories



Shield terminal

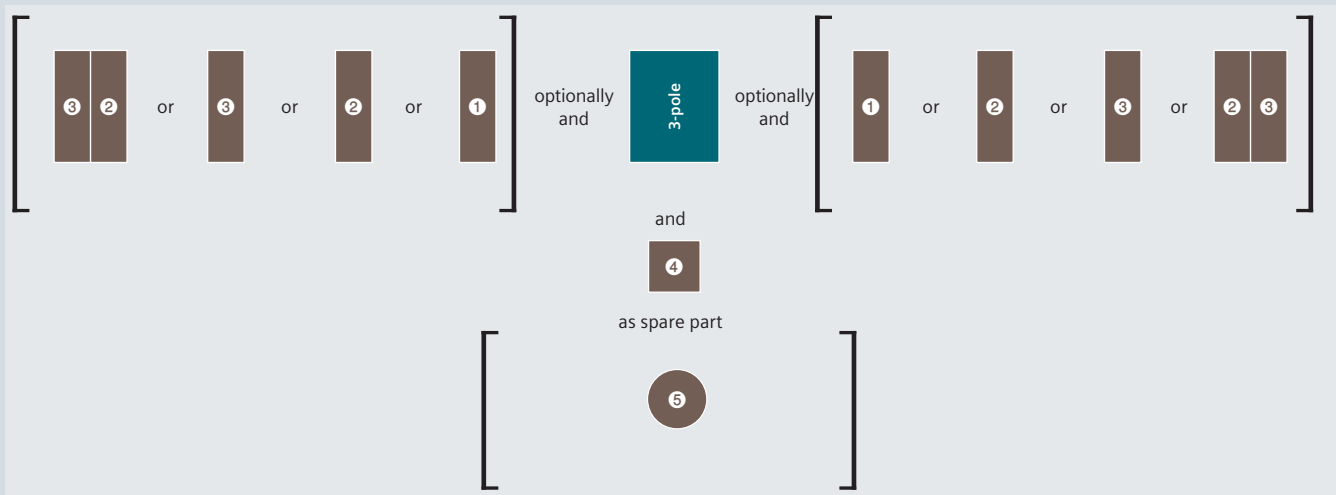


Through-type terminal

#### Note:

You will find a detailed range of accessories with the basic units.

## Mounting concept and accessories



### Legend

- ① Auxiliary switch
- ② N switching contact <sup>1)</sup>
- ③ N/PE terminal
- ④ Auxiliary switch for mounting on the front
- ⑤ Rotary operating mechanism, center-hole mounting

<sup>1)</sup> The N switching contact ② first has to be mounted on the basic unit  
**Note:** Depending on the enclosure size, not all accessories can be used in combination



## Mounting types

### 3LD2 main control and EMERGENCY-STOP switches in enclosure



For surface mounting of individual main control and EMERGENCY-STOP switches, molded plastic-enclosed switches with degree of protection IP65 are used. The molded-plastic enclosures each contain an N and/or a PE terminal. As the switches can be locked in the 0 position, they can also be used as maintenance and repair switches.

### DC isolators in enclosure



As the switches can be locked in the 0 position, they can also be used as maintenance and repair switches. The DC isolators in the enclosure are suitable for disconnecting loads of up to 800 V DC due to their 8-pole design.

### 3LD2 maintenance and repair switches with EMC shield plate



The 3LD2 maintenance and repair switch with EMC shield plate is ideal for use between converter and motor. A long leading (20-150 ms) NO contact switches the converter group off before the main contacts of the switch open. This produces an AC20 state. The cable shield can be contacted over a large area inside the enclosure using the shield clamps or hose clips included in the scope of delivery.

The switch series provides the greatest possible safety for the user and can be locked in the 0 or I position. Tests have been performed in connection with SINAMICS-converters and ratings are available for use at frequencies between 0 and 550 Hz.

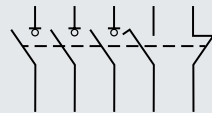
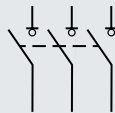
# 3LD switch disconnectors

3LD2 main control switches in enclosure, 25 ... 50 kA<sub>eff</sub>

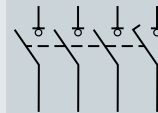


## Operating mechanisms, black

Number of poles 3P



3P+N



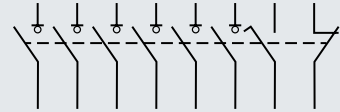
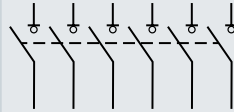
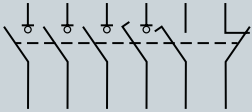
Uninterrupted current $I_n$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch		1 NO + 1 NC (standard version)		Without auxiliary switch	
			Base terminal	Base terminal	Base terminal	Base terminal		
16 A	7.5 kW	5.5 kW	PE+N	3LD2064-0TB51	N	3LD2064-1GP51	PE	3LD2064-1TC51
25 A	9.5 kW	7.5 kW	PE+N	3LD2164-0TB51	N	3LD2164-1GP51	PE	3LD2164-1TC51
32 A	11.5 kW	9.5 kW	PE+N	3LD2264-0TB51	N	3LD2264-1GP51	PE	3LD2264-1TC51
63 A	22 kW	18.5 kW	PE+N	3LD2565-0TB51	N	3LD2565-1GP51	PE	3LD2565-1TC51
100 A	37 kW	30 kW	PE+N	3LD2766-0TB51	N	3LD2766-1GP51	PE+N	3LD2766-0TB51 + 3LD9280-0C
125 A	45 kW	37 kW	PE+N	3LD2866-0TB51	N	3LD2866-1GP51	PE+N	3LD2866-0TB51 + 3LD9280-0C

## Accessories

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
<b>Switching contacts for N conductor (4th contact)</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■			
		3LD9250-0CA				■		
		3LD9280-0C					■	■
<b>N/PE terminals</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Through-type	3LD9200-2C	■					
		3LD9220-2C		■	■			
		3LD9250-2CA				■		
	3LD9280-2C					■	■	
<b>Auxiliary switches (standard version)</b>								
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■
	2 NO	Standard	3LD9200-6C	■	■	■	■	■
<b>Auxiliary switch for mounting on the front</b>								
	<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For long leading times (20 ... 150 ms)</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■
		Gold-plated	3LD9280-5DF	■	■	■	■	■
<b>Rotary operating mechanisms</b>								
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>							
		<b>Article No.</b>						
		3LD9224-1G	■	■	■			
	3LD9284-1G				■	■	■	



6P



1 NO + 1 NC  
(standard version)

Without auxiliary switch

1 NO + 1 NC  
(standard version)

Base terminal

Base terminal

Base terminal

PE	3LD2064-1TC51	+ 3LD9200-5C
PE	3LD2164-1TC51	+ 3LD9200-5C
PE	3LD2264-1TC51	+ 3LD9200-5C
PE	3LD2565-1TC51	+ 3LD9200-5C
N	3LD2766-1GP51 + 3LD9280-0C	
N	3LD2866-1GP51 + 3LD9280-0C	

	–
PE+N	3LD2165-3VB51
PE+N	3LD2265-3VB51
PE+N	3LD2566-3VB51

	–
N	3LD2165-4VD51
N	3LD2265-4VD51
PE+N	3LD2566-4VD51

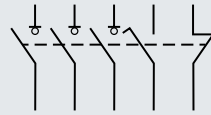
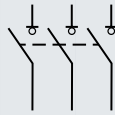
# 3LD switch disconnectors

3LD2 EMERGENCY-STOP switches in enclosure, 25 ... 50 kA<sub>eff</sub>

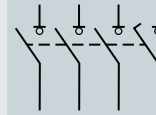


## Operating mechanisms, red/yellow

Number of poles 3P



3P+N



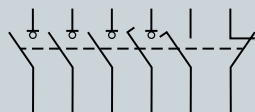
Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	Operational power $P$ At AC-23A, 380 ... 440 V	Operational power $P$ At AC-3A, 380 ... 440 V	Without auxiliary switch		1 NO + 1 NC (standard version)		Without auxiliary switch	
Rotary operating mechanisms with masking plate			Base terminal		Base terminal		Base terminal	
16 A	7.5 kW	5.5 kW	PE+N	3LD2064-0TB53	N	3LD2064-1GP53	PE	3LD2064-1TC53
25 A	9.5 kW	7.5 kW	PE+N	3LD2164-0TB53	N	3LD2164-1GP53	PE	3LD2164-1TC53
32 A	11.5 kW	9.5 kW	PE+N	3LD2264-0TB53	N	3LD2264-1GP53	PE	3LD2264-1TC53
63 A	22 kW	18,5 kW	PE+N	3LD2565-0TB53	N	3LD2565-1GP53	PE	3LD2565-1TC53
100 A	37 kW	30 kW	PE+N	3LD2766-0TB53	N	3LD2766-1GP53	PE+N	3LD2766-0TB53 + 3LD9280-0C
125 A	45 kW	37 kW	PE+N	3LD2866-0TB53	N	3LD2866-1GP53	PE+N	3LD2866-0TB53 + 3LD9280-0C

## Accessories

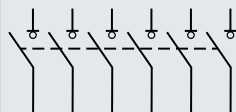
			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
<b>Switching contacts for N conductor (4th contact)</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■			
		3LD9250-0CA				■		
		3LD9280-0C					■	■
<b>N/PE terminals</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Through-type	3LD9200-2C	■					
		3LD9220-2C		■	■			
		3LD9250-2CA				■		
		3LD9280-2C					■	■
<b>Auxiliary switches (standard version)</b>								
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■
	2 NO	Standard	3LD9200-6C	■	■	■	■	■
<b>Auxiliary switch for mounting on the front</b>								
	<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For long leading times (20 ... 150 ms)</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■
	Gold-plated	3LD9280-5DF	■	■	■	■	■	
<b>Rotary operating mechanisms</b>								
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>							
			<b>Article No.</b>					
			3LD9224-3G	■	■	■		
		3LD9284-3G				■	■	



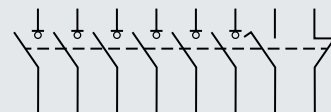
6P



1 NO + 1 NC  
(standard version)



Without auxiliary switch



1 NO + 1 NC  
(standard version)

Base terminal

PE	3LD2064-1TC53	+ 3LD9200-5C
PE	3LD2164-1TC53	+ 3LD9200-5C
PE	3LD2264-1TC53	+ 3LD9200-5C
PE	3LD2565-1TC53	+ 3LD9200-5C
N	3LD2766-1GP53	+ 3LD9280-0C
N	3LD2866-1GP53	+ 3LD9280-0C

Base terminal

	-
PE+N	3LD2165-3VB53
PE+N	3LD2265-3VB53
PE+N	3LD2566-3VB53
	-
	-

Base terminal

	-
N	3LD2165-4VD53
N	3LD2265-4VD53
PE+N	3LD2566-4VD53
	-
	-

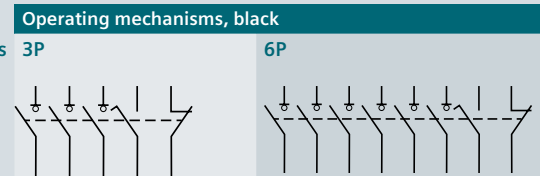
# 3LD switch disconnectors

3LD2 DC isolators in a molded-plastic enclosure



		Operating mechanisms, black	Operating mechanisms, red/yellow
Number of poles		8P	8P
Mains voltage	Rated operational current $I_e$ At DC-21A, 800 V DC	Rated operational current $I_e$ At DC-22A, 800 V DC	Without auxiliary switch
Rotary operating mechanisms			
800 V DC	32 A	16 A	3LD2265-8VQ51-0AF6
			3LD2265-8VQ53-0AF6

## 3LD2 maintenance and repair switches with EMC shield plate, 25 ... 50 kA<sub>eff</sub>

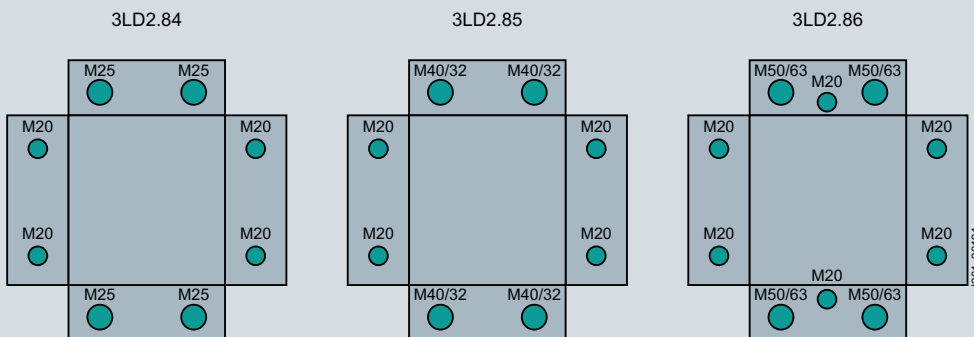


Uninterrupted current $I_n$ At AC-20, 0 ... 550 Hz, 380 ... 440 V	Operational power P At AC-20, 0 ... 550 Hz, 380 ... 440 V	Uninterrupted current $I_n$ At AC-21, 50/60 Hz, 380 ... 440 V	Operational power AC-23A, 50/60 Hz, 380 ... 440 V	1 NO + 1 NC (Auxiliary switch for mounting on the front)		1 NO + 1 NC (Auxiliary switch for mounting on the front)	
				Base terminal	3LD2084-2GP21	Base terminal	3LD2185-5VD21
10.2 A	4 kW	16 A	7.5 kW	PE	3LD2084-2GP21	2× PE	–
13.2 A	5.5 kW	25 A	9 kW	PE	3LD2184-2GP21	2× PE	3LD2185-5VD21
18 A	7.5 kW	32 A	11.5 kW	PE	3LD2284-2GP21	2× PE	3LD2285-5VD21
38 A	18.5 kW	63 A	22 kW	PE	3LD2585-2GP21	2× PE	3LD2586-5VD21
75 A	37 kW	100 A	37 kW	PE	3LD2786-2GP21	2× PE	–
90 A	45 kW	125 A	45 kW	PE	3LD2886-2GP21	2× PE	–

### Scope of supply:

- Incl. shield clamps or hose clips for contacting the cable shield
- The PE terminal as a through-type terminal is insulated from the cable shield

### 3LD2 cable entries with EMC shield plate


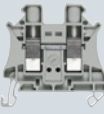








# 3LD switch disconnectors

3LD2 maintenance and repair switches with EMC shield plate, 25 ... 50 kA<sub>eff</sub>


## Accessories

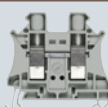

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	
<b>Switching contacts for N conductor (4th contact)</b>									
	<b>Contacts</b>	<b>Article No.</b>							
	Leading switch-on, lagging switch-off	3LD9220-0C 3LD9250-0CA 3LD9280-0C		■	■	■	■	■	
<b>N/PE terminals</b>									
	<b>Contacts</b>	<b>Article No.</b>							
	Through-type	3LD9200-2C 3LD9220-2C 3LD9250-2CA 3LD9280-2C	■	■	■	■	■	■	
<b>Auxiliary switches (standard version)</b>									
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>								
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>						
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■
	Standard	3LD9200-6C	■	■	■	■	■	■	
<b>Auxiliary switch for mounting on the front</b>									
	<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For long leading times (20 ... 150 ms)</li> </ul>								
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>						
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■	■
		Gold-plated	3LD9280-5DF	■	■	■	■	■	■
<b>Rotary operating mechanisms</b>									
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>								
	<b>Version</b>	<b>Article No.</b>							
	Main control switches	3LD9224-1G 3LD9284-1G	■	■	■	■	■	■	
	EMERGENCY-STOP switches		3LD9224-3G 3LD9284-3G	■	■	■	■	■	
<b>Terminal blocks</b>									
	<b>Version</b>	<b>Article No.</b>							
	Through-type terminal with screw connection	8WH1000-0AF00	■	■	■	■	■	■	
<b>Shield terminal</b>									
	<b>Terminal area</b>	<b>Article No.</b>							
	3 ... 12 mm	3LD9228-1G	■	■	■	■	■	■	

## Accessories for 3LD2 switch disconnectors in enclosure

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
<b>Additional poles</b>								
<b>Switching contacts for N conductor (4th contact)</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■			
		3LD9250-0CA				■		
		3LD9280-0C					■	■
<b>N/PE terminals</b>								
	<b>Contacts</b>	<b>Article No.</b>						
	Through-type	3LD9200-2C	■					
		3LD9220-2C		■	■			
		3LD9250-2CA				■		
		3LD9280-2C					■	■
<b>Auxiliary switches (standard version)</b>								
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■
	2 NO	Standard	3LD9200-6C	■	■	■	■	■
<b>Auxiliary switch for mounting on the front</b>								
	<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For long leading times (20 ... 150 ms)</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9280-5D	■	■	■	■	■
		Gold-plated	3LD9280-5DF	■	■	■	■	■

8

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
<b>Operating mechanisms</b>								
<b>Rotary operating mechanisms</b>								
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>							
	<b>Version</b>	<b>Article No.</b>						
	Main control switches	3LD9224-1G	■	■	■			
		3LD9284-1G				■	■	■
	EMERGENCY-STOP switches	3LD9224-3G	■	■	■			
		3LD9284-3G				■	■	■

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
<b>Connection parts</b>								
<b>Terminal block</b>								
	<b>Version</b>	<b>Article No.</b>						
	Through-type terminal with screw connection	8WH1000-0AF00	■	■	■	■	■	■
<b>Shield terminal</b>								
	<b>Terminal area</b>	<b>Article No.</b>						
	3 ... 12 mm	3LD9228-1G	■	■	■	■	■	■

# 3LD switch disconnectors

System overview of 3LD5 UL main control and EMERGENCY-STOP switches

## Basic units for front mounting



3LD5020 (3-pole)



3LD5020 (4-pole)



3LD5420 (3-pole)



3LD5420 (4-pole)

## Basic units, floor mounting with direct operating mechanism



3LD5000 (3-pole)



3LD5000 (4-pole)



3LD5400 (3-pole)



3LD5400 (4-pole)

## Basic units, floor mounting with door-coupling rotary operating mechanism



3LD5010 (3-pole)



3LD5010 (4-pole)



3LD5410 (3-pole)



3LD5410 (4-pole)

## Additional poles and auxiliary switches



N switching contact



N/PE terminals (through-type)



Auxiliary switches (standard version)



Auxiliary switch for mounting on the front

## Operating mechanisms



Rotary operating mechanisms for four-hole mounting



Coupling heads with and without tolerance compensation



Supplementary handles for UL508A/NFPA79



Switch shafts

## Other accessories



Terminal covers, 1-pole



Terminal covers, 3 and 4-pole

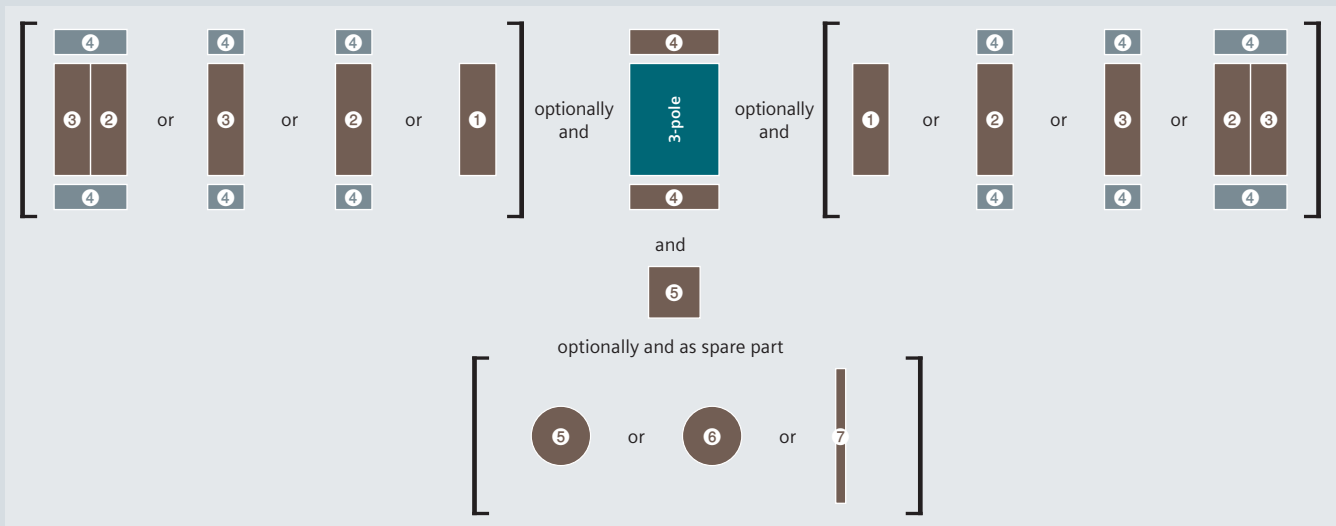


Inscription labels (with and without inscription)

### Note:

You will find a detailed range of accessories with the basic units.

## Mounting concept and accessories



### Legend

- ① Auxiliary switch
- ② N switching contact <sup>1)</sup>
- ③ N/PE terminal
- ④ Terminal cover
- ⑤ Rotary operating mechanism, four-hole mounting
- ⑥ Knob-operated mechanism, four-hole mounting
- ⑦ Switch shaft (300 or 600 mm)

<sup>1)</sup> The N switching contact ② first has to be mounted on the basic unit



### Main control switches acc. to UL

The certification according to UL489 makes the 3LD5 UL ideal for use as a main control switch for machinery and plants for export to the NAFTA states. The variety of accessories makes it especially suitable as a main disconnect switch for industrial machinery. The switch is also certified according to UL508 and can also be used as a manual motor controller.

### Mounting types

#### Front mounting of basic units



The switches for front mounting are mounted on the inside of covers, side panels or, if applicable, control cabinet doors (depending on the applicable standard and switching function). Installation is achieved by 4-hole mounting of the handle. This switch is especially suitable when door interlocking is not required or is implemented in a different way.

#### Floor mounting with direct operating mechanism



The switches for floor mounting with direct operating mechanism up to 30 A are snapped onto 35 mm standard mounting rails according to EN 60715 or screw-mounted on mounting panels. The switches for 100 to 160 A (3LD54 ... 3LD58) are exclusively screwed onto mounting panels.

#### Basic units, floor mounting with door-coupling rotary operating mechanism



The switches for floor mounting up to 30 A (3LD50) are snapped onto 35 mm standard mounting rails according to EN 60715 or screw-mounted on mounting panels. The switches for 100 to 160 A (3LD54 ... 3LD58) are exclusively screwed onto mounting panels. The actuators are connected to the lower section of the switch through a door coupling, which can be released in the 0 position, and a 300 mm long switch shaft. The rotary operating mechanisms are also defeatable, i.e. it is possible to open the control cabinet door with a deliberate action while the switch is in the ON position. To meet the requirement acc. to UL508A/NFPA79, a supplementary handle can be mounted on the switch. Combined with the intermediate handle, the shaft can no longer be removed.

# 3LD switch disconnectors

3LD5 UL main control and EMERGENCY-STOP switches,  
front mounting, SCCR 50 - 65 kA

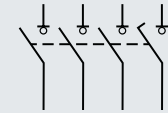
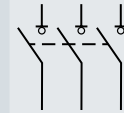


Operating mechanisms, black

Number of poles

3P

3P+N








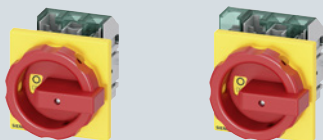
Uninterrupted current $I_n$ At AC-21A, 380 ... 440 V	General use acc. UL489/60947-4-1	Operational power P At AC-23A, 380 ... 440 V		
<b>Rotary operating mechanism, four-hole mounting</b>				
32	30	15	3LD5020-OTK11	3LD5020-OTL11
63	60	30	3LD5220-OTK11	3LD5220-OTL11
100	100	45	3LD5420-OTK11	3LD5420-OTL11
125	125	55	3LD5620-OTK11	3LD5620-OTL11
160	150	75	3LD5820-OTK11	3LD5820-OTL11

## Scope of supply:

- Including terminal covers for the infeed side

## Accessories for front mounting

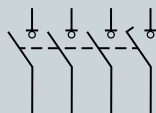
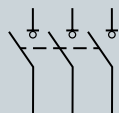
				3LD50	3LD52	3LD54	3LD56	3LD58
<b>Switching contacts for N conductor (4th contact)</b>								
	<b>Contacts</b>		<b>Article No.</b>					
	Leading switch-on, lagging switch-off		3LD9250-0BA	■				
			3LD9280-0B		■			
			3LD9240-0B			■	■	■
<b>N/PE terminals</b>								
	<b>Contacts</b>		<b>Article No.</b>					
	Through-type		3LD9250-2BA	■				
			3LD9280-2B		■			
			3LD9240-2B			■	■	■
<b>Auxiliary switches (standard version)</b>								
								
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right</li> <li>Lagging switch-on, leading switch-off</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9200-5B	■	■	■	■	■
	Gold-plated	3LD9200-5BF	■	■	■	■	■	
<b>Auxiliary switch for mounting on the front</b>								
								
	<ul style="list-style-type: none"> <li>Mounted on the front of the switch shaft</li> <li>For long leading times (20 ... 150 ms)</li> </ul>							
	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>					
	1 NO + 1 NC	Standard	3LD9280-5D	■	■			
		Gold-plated	3LD9240-5D			■	■	■
		3LD9280-5DF	■	■				
		3LD9240-5DF			■	■	■	
<b>Rotary operating mechanisms</b>								
								
	<ul style="list-style-type: none"> <li>Lockable in 0 position with up to 3 padlocks</li> </ul>							
	<b>Version</b>		<b>Article No.</b>					
	For main control switches		3LD9284-1B	■	■			
For EMERGENCY-STOP switches		3LD9284-3B	■	■				



## Operating mechanisms, red/yellow

3P

3P+N



3LD5020-OTK13

3LD5020-OTL13

3LD5220-OTK13

3LD5220-OTL13

3LD5420-OTK13

3LD5420-OTL13

3LD5620-OTK13

3LD5620-OTL13

3LD5820-OTK13

3LD5820-OTL13

3LD50 3LD52 3LD54 3LD56 3LD58

## Knob-operated mechanisms



- Lockable in 0 position with up to 3 padlocks

## Version

For main control switches

For EMERGENCY-STOP switches

## Article No.

3LD9243-1B

3LD9284-3B

## Terminal covers

- Pack of 4 units



## Number of poles

1-pole

## Article No.

3LD9251-2A

3LD9281-2A

3LD9241-2A



3-pole

3LD9251-0A

## Inscription labels



- Pack of 10 units

## Inscription

German/English (Hauptschalter/Main Switch)

Without inscription

## Article No.

3LD9286-1A

3LD9286-4A

# 3LD switch disconnectors

3LD5 UL main control and EMERGENCY-STOP switches,  
floor mounting with direct operating mechanism, SCCR 50 ... 65 kA



Operating mechanisms, black

Number of poles

3P

3P+N



Uninterrupted current $I_u$ At AC-21A, 380 ... 440 V	General use acc. UL489/508	Operational power $P$ At AC-23A, 380 ... 440 V		
Rotary operating mechanism, four-hole mounting				
32	30	15	3LD5000-OTK11	3LD5000-OTL11
63	60	30	3LD5200-OTK11	3LD5200-OTL11
100	100	45	3LD5400-OTK11	3LD5400-OTL11
125	125	55	3LD5600-OTK11	3LD5600-OTL11
160	150	75	3LD5800-OTK11	3LD5800-OTL11

## Scope of supply:

- Including terminal covers for the infeed side

## Accessories for floor mounting with direct operating mechanisms

3LD50

3LD52

3LD54

3LD56

3LD58

### Switching contacts for N conductor (4th contact)



#### Contacts

Leading switch-on, lagging switch-off

#### Article No.

3LD9250-OCA

3LD9280-OC

3LD9240-OC

	3LD50	3LD52	3LD54	3LD56	3LD58
3LD9250-OCA	■				
3LD9280-OC		■			
3LD9240-OC			■	■	■

### N/PE terminals



#### Contacts

Through-type

#### Article No.

3LD9250-2CA

3LD9280-2C

3LD9240-2C

	3LD50	3LD52	3LD54	3LD56	3LD58
3LD9250-2CA	■				
3LD9280-2C		■			
3LD9240-2C			■	■	■

### Auxiliary switches



- For mounting on the left and/or right
- Lagging switch-on, leading switch-off

#### Contacts

1 NO + 1 NC

#### Contact surface

Standard

Gold-plated

#### Article No.

3LD9200-5C

3LD9200-5CF

	3LD50	3LD52	3LD54	3LD56	3LD58
3LD9200-5C	■	■	■	■	■
3LD9200-5CF	■	■	■	■	■

### Terminal covers

- Pack of 4 units

#### Number of poles

1-pole

3-pole

#### Article No.

3LD9251-2A

3LD9281-2A

3LD9241-2A

3LD9251-0A

	3LD50	3LD52	3LD54	3LD56	3LD58
3LD9251-2A	■				
3LD9281-2A		■			
3LD9241-2A			■	■	■
3LD9251-0A	■				

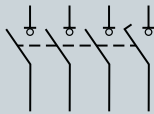
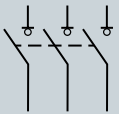




### Operating mechanisms, red/yellow

3P

3P+N



3LD5000-OTK13

3LD5000-OTL13

3LD5200-OTK13

3LD5200-OTL13

3LD5400-OTK13

3LD5400-OTL13

3LD5600-OTK13

3LD5600-OTL13

3LD5800-OTK13

3LD5800-OTL13

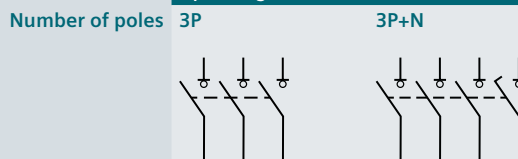


# 3LD switch disconnectors

3LD5 UL main control and EMERGENCY-STOP switches, floor mounting with door-coupling rotary operating mechanism, SCCR 50 ... 65 kA



Operating mechanisms, black



Uninterrupted current $I_n$ At AC-21A, 380 ... 440 V	General use acc. UL489/508	Operational power $P$ At AC-23A, 380 ... 440 V		
<b>Rotary operating mechanism, four-hole mounting</b>				
32	30	15	3LD5010-OTK11	3LD5010-OTL11
63	60	30	3LD5210-OTK11	3LD5210-OTL11
100	100	45	3LD5410-OTK11	3LD5410-OTL11
125	125	55	3LD5610-OTK11	3LD5610-OTL11
160	150	75	3LD5810-OTK11	3LD5810-OTL11

**Scope of supply:**

- Including terminal covers for the infeed side
- Defeatable door-coupling rotary operating mechanisms with shaft 300 mm
- Without tolerance compensation

## Accessories for floor mounting with door-coupling rotary operating mechanism

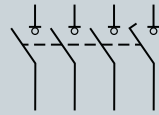
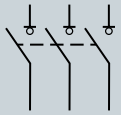
		3LD50	3LD52	3LD54	3LD56	3LD58
<b>Switching contacts for N conductor (4th contact)</b>						
	<b>Contacts</b>	<b>Article No.</b>				
	Leading switch-on, lagging switch-off	3LD9250-OCA				
		3LD9280-OC				
		3LD9240-OC				
<b>N/PE terminals</b>						
	<b>Contacts</b>	<b>Article No.</b>				
	Through-type	3LD9250-2CA				
		3LD9280-2C				
		3LD9240-2C				
<b>Auxiliary switches (standard version)</b>						
<b>Auxiliary switch for mounting on the front</b>						
	<b>Contacts</b>	<b>Article No.</b>				
	1 NO + 1 NC	3LD9280-5D				
		3LD9240-5D				
	3LD9280-5DF					
	3LD9240-5DF					
<b>Handles</b>						
	<b>Labeling</b>	<b>Article No.</b>				
	O-I	8UD1771-2AD01				
	8UD1731-2AD01					
	8UD1771-2AD05					
	8UD1731-2AD05					



## Operating mechanisms, red/yellow

3P

3P+N



3LD5010-OTK13	3LD5010-OTL13
3LD5210-OTK13	3LD5210-OTL13
3LD5410-OTK13	3LD5410-OTL13
3LD5610-OTK13	3LD5610-OTL13
3LD5810-OTK13	3LD5810-OTL13

3LD50 3LD52 3LD54 3LD56 3LD58

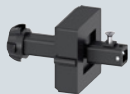
## Supplementary handles for door-coupling rotary operating mechanism



- For requirements according to UL508A/NFPA79
- Can be locked with up to 1 padlocks in 0 position
- Can only be switched on by deliberate action

Labeling	Color	Article No.	3LD50	3LD52	3LD54	3LD56	3LD58
O-I	Gray	3LD9287-1C	■	■			
	Red/yellow	3LD9247-1C			■	■	■
		3LD9287-3C	■	■			
		3LD9247-3C			■	■	■

## Coupling drivers



Version	Article No.	3LD50	3LD52	3LD54	3LD56	3LD58
With tolerance compensation	8UD1900-1GA00	■	■			
	8UD1900-2GA00			■	■	■
Without tolerance compensation	8UD1900-1HA00	■	■			
	8UD1900-2HA00			■	■	■

## Terminal covers

- Pack of 4 units



Number of poles	Article No.	3LD50	3LD52	3LD54	3LD56	3LD58
1-pole	3LD9251-2A	■				
	3LD9281-2A		■			
	3LD9241-2A			■	■	■
3-pole	3LD9251-0A	■				

## Inscription labels

- Pack of 10 units



Inscription	Article No.	3LD50	3LD52	3LD54	3LD56	3LD58
German/English (Hauptschalter/Main Switch)	3LD9286-1A	■	■	■	■	■
Without inscription	3LD9286-4A	■	■	■	■	■

## Switch shafts



Cross-section	Length	Article No.	3LD50	3LD52	3LD54	3LD56	3LD58
6 × 6 mm	300 mm	3LD9205-0C	■	■			
	600 mm	3LD9205-2C	■	■			
8 × 8 mm	300 mm	3LD9245-0C			■	■	■
	600 mm	3LD9245-2C			■	■	■

# 3LD switch disconnectors

## Accessories for 3LD5 UL main control and EMERGENCY-STOP switches

### Additional poles

3LD50 3LD52 3LD54 3LD56 3LD58

#### Switching contacts for N conductor (4th contact) for front mounting



##### Contacts

Leading switch-on, lagging switch-off

##### Article No.

3LD9250-0BA  
3LD9280-0B  
3LD9240-0B

3LD50	3LD52	3LD54	3LD56	3LD58
■				
	■			
		■	■	■

#### Switching contacts for N conductor (4th contact) for floor mounting



##### Contacts

Leading switch-on, lagging switch-off

##### Article No.

3LD9250-0CA  
3LD9280-0C  
3LD9240-0C

3LD50	3LD52	3LD54	3LD56	3LD58
■				
	■			
		■	■	■

#### N/PE terminals for front mounting



##### Contacts

Through-type

##### Article No.

3LD9250-2BA  
3LD9280-2B  
3LD9240-2B

3LD50	3LD52	3LD54	3LD56	3LD58
■				
	■			
		■	■	■

#### N/PE terminals for floor mounting



##### Contacts

Through-type

##### Article No.

3LD9250-2CA  
3LD9280-2C  
3LD9240-2C

3LD50	3LD52	3LD54	3LD56	3LD58
■				
	■			
		■	■	■

#### Auxiliary switches (standard version) for front mounting



- For mounting on the left and/or right
- Lagging switch-on, leading switch-off

##### Contacts

1 NO + 1 NC

##### Contact surface

Standard

Gold-plated

##### Article No.

3LD9200-5B  
3LD9200-5BF

3LD50	3LD52	3LD54	3LD56	3LD58
■	■	■	■	■
■	■	■	■	■

#### Auxiliary switches (standard version) for floor mounting



- For mounting on the left and/or right
- Lagging switch-on, leading switch-off

##### Contacts

1 NO + 1 NC

##### Contact surface

Standard

Gold-plated

##### Article No.

3LD9200-5C  
3LD9200-5CF

3LD50	3LD52	3LD54	3LD56	3LD58
■	■	■	■	■
■	■	■	■	■

#### Auxiliary switch for mounting on the front



- Mounted on the front of the switch shaft
- For long leading times (20 ... 150 ms)

##### Contacts

1 NO + 1 NC

##### Contact surface

Standard





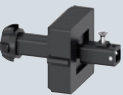
Gold-plated

##### Article No.

3LD9280-5D  
3LD9240-5D  
3LD9280-5DF  
3LD9240-5DF




3LD50	3LD52	3LD54	3LD56	3LD58
■	■			
		■	■	■
■	■			
		■	■	■

## Operating mechanisms

				3LD50	3LD52	3LD54	3LD56	3LD58
<b>Rotary operating mechanism for front mounting</b>								
	• Lockable in 0 position with up to 3 padlocks							
	<b>Version</b>	<b>Article No.</b>						
	For main control switches	3LD9284-1B			■	■		
For EMERGENCY-STOP switches	3LD9284-3B			■	■			
<b>Knob-operated mechanism for front mounting</b>								
	• Lockable in 0 position with up to 3 padlocks							
	<b>Version</b>	<b>Article No.</b>						
	For main control switches	3LD9243-1B					■	■
For EMERGENCY-STOP switches	3LD9284-3B					■	■	■
<b>Handles for floor mounting</b>								
	• Supplied with a masking frame, but without an extension shaft or coupling driver							
	• Can be locked with up to 3 padlocks							
	<b>Labeling</b>	<b>Color</b>	<b>Article No.</b>					
	O-I	Gray	8UD1771-2AD01	■	■			
		Red/yellow	8UD1731-2AD01			■	■	■
		8UD1771-2AD05	■	■				
		8UD1731-2AD05			■	■	■	
<b>Supplementary handles for door-coupling rotary operating mechanism</b>								
	• For requirements according to UL508A/NFPA79							
	• Can be locked with up to 1 padlock in 0 position							
	• Can only be switched on by deliberate action							
	<b>Labeling</b>	<b>Color</b>	<b>Article No.</b>					
	O-I	Gray	3LD9287-1C	■	■			
		3LD9247-1C			■	■	■	
	Red/yellow	3LD9287-3C	■	■				
		3LD9247-3C			■	■	■	
<b>Coupling drivers for floor mounting with door-coupling rotary operating mechanism</b>								
	<b>Version</b>	<b>Article No.</b>						
	With tolerance compensation	8UD1900-1GA00			■	■		
		8UD1900-2GA00					■	■
	Without tolerance compensation	8UD1900-1HA00			■	■		
		8UD1900-2HA00					■	■

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## Other accessories

				3LD50	3LD52	3LD54	3LD56	3LD58
<b>Terminal covers</b>								
	• Pack of 4 units							
	<b>Number of poles</b>	<b>Article No.</b>						
	1-pole	3LD9251-2A			■			
		3LD9281-2A				■		
		3LD9241-2A					■	■
	3-pole	3LD9251-0A			■			
<b>Inscription labels</b>								
	• Pack of 10 units							
	<b>Inscription</b>	<b>Article No.</b>						
	German/English (Hauptschalter/Main Switch)	3LD9286-1A			■		■	■
Without inscription	3LD9286-4A			■		■	■	
<b>Switch shafts</b>								
	<b>Cross-section</b>	<b>Length</b>	<b>Article No.</b>					
	6 × 6 mm	300 mm	3LD9205-0C	■	■			
		600 mm	3LD9205-2C	■	■			
	8 × 8 mm	300 mm	3LD9245-0C			■	■	■
		600 mm	3LD9245-2C			■	■	■

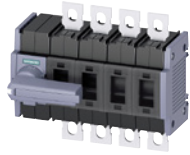
# 3KD switch disconnectors

## System overview

### Complete units with direct operating mechanisms



Front operating mechanisms, 3-pole



Front operating mechanisms, 4-pole



Front operating mechanisms, 3-pole



Front operating mechanisms, 4-pole

### Basic units



Front operating mechanisms, 3-pole



Front operating mechanisms, 4-pole



Lateral operating mechanisms, 3-pole



Lateral operating mechanisms, 4-pole



Front-mounted devices, 6-pole for DC applications



Front operating mechanisms, 3-pole

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### Additional poles and auxiliary switch modules



4th contact elements



N terminals



N/PE terminals



Auxiliary switch modules

### Operating mechanisms



Direct operating mechanisms



Door-coupling rotary operating mechanisms



Handles for door-coupling rotary operating mechanisms



Other accessories for door-coupling rotary operating mechanisms

### Other accessories and spare parts



Auxiliary switches



Terminal covers



Phase barriers



Blocking pin test function



Mounting elements



Accessories for DC applications

#### Note:

You will find a detailed range of accessories with the basic units.

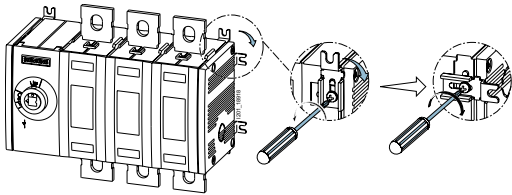


## Types of mounting



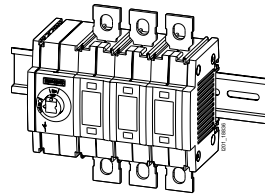
You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

### Floor mounting



All 3KD switch disconnectors are designed for floor mounting. To ensure that the switch can be flexibly adapted to the relevant installation conditions, the mounting bracket can be rotated through 90° with size 3 or larger.

### Standard mounting rail

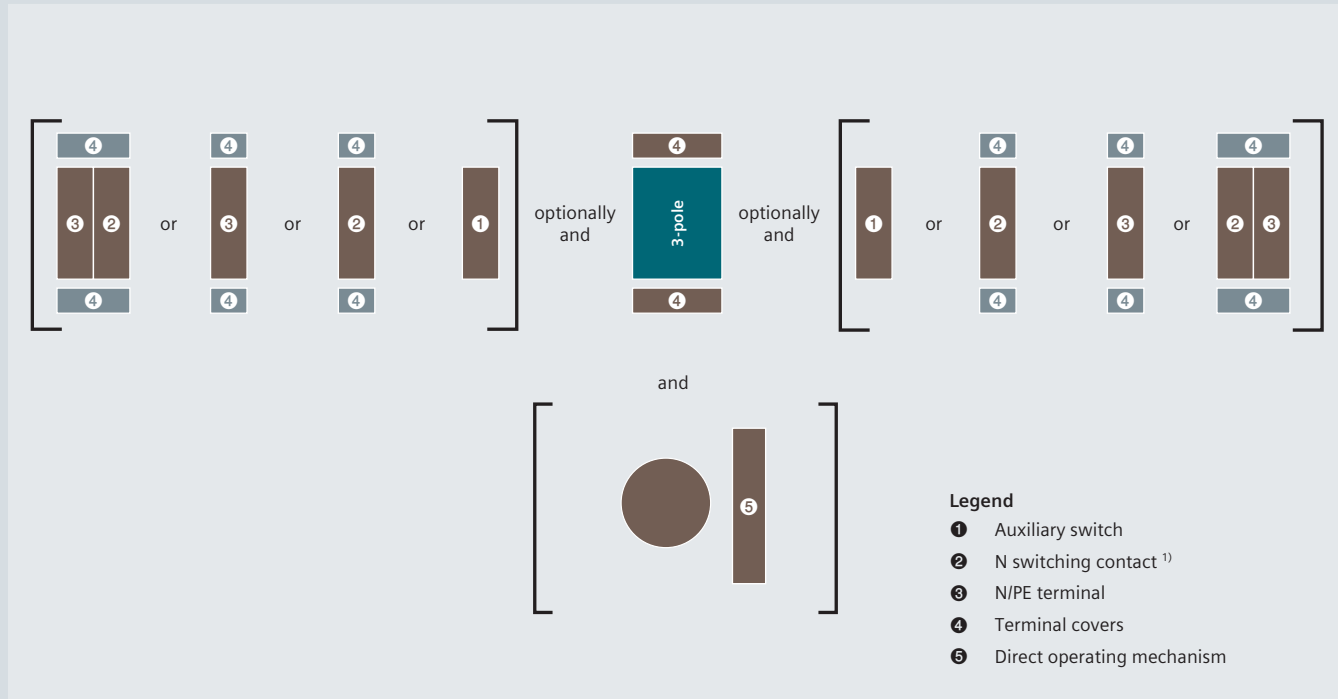


Sizes 01 and 02 of the 3KD0 and sizes 1 and 2 of the 3KD can be snapped onto a standard mounting rail (TH35 according to EN 60715) as an alternative mounting method.

# 3KD switch disconnectors

## Mounting concept and accessories

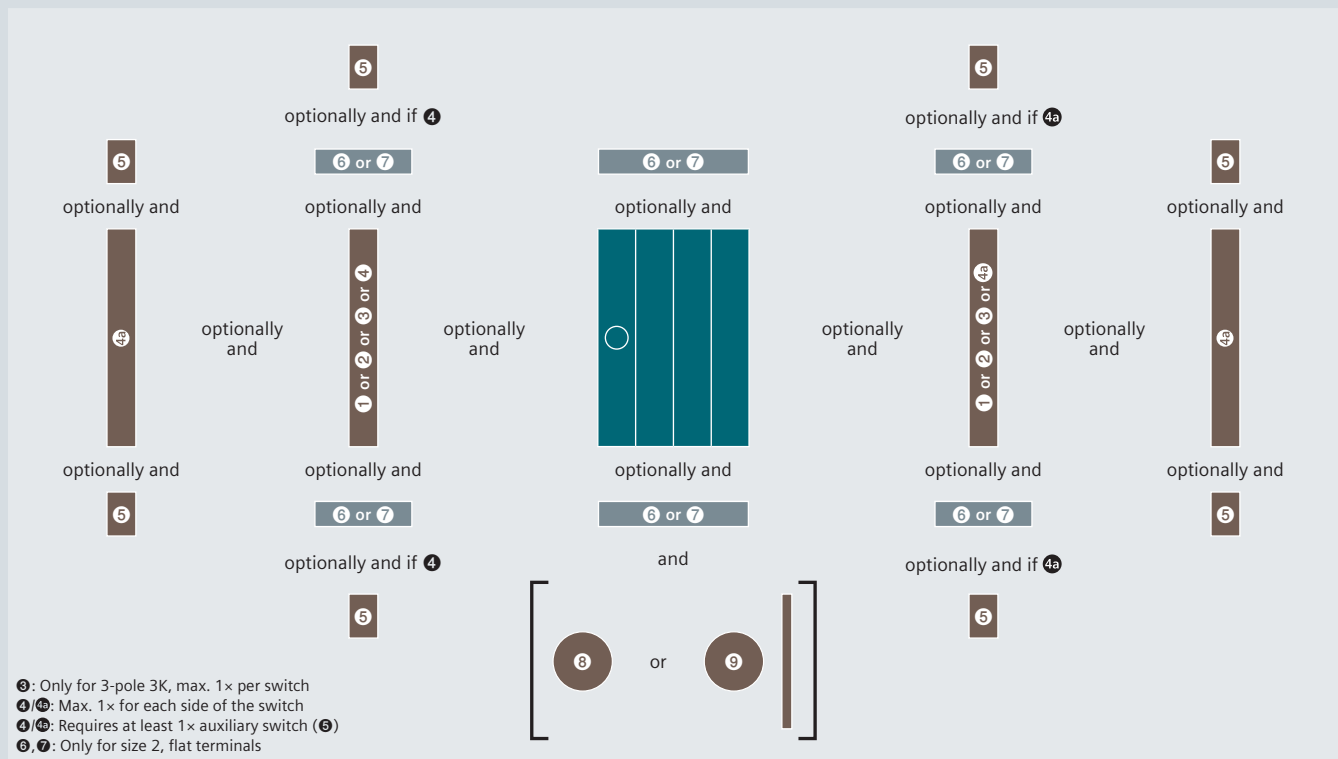
### Front operating mechanism center, size 01 and 02



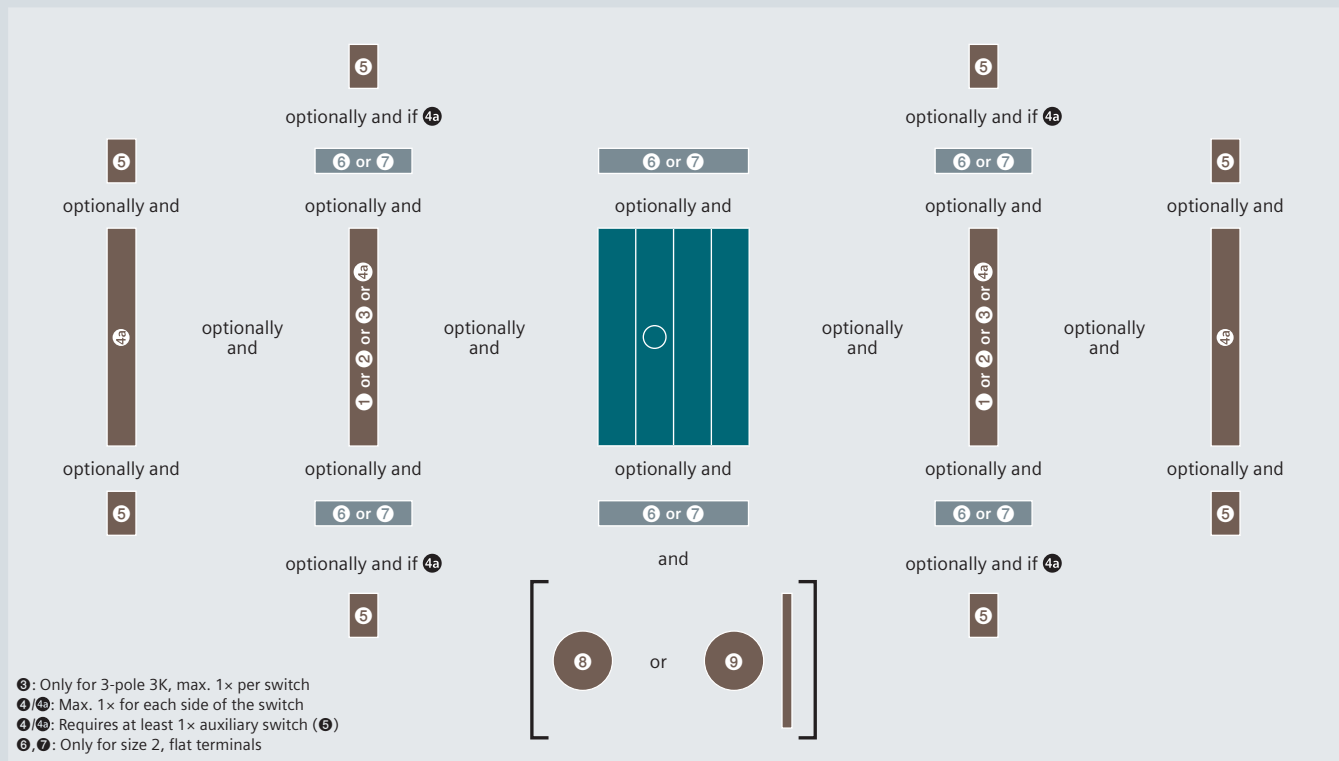
<sup>1)</sup> The N switching contact 2 first has to be mounted on the basic unit

**Note:** Design with door-coupling rotary operating mechanism for sizes 01 and 02 only possible for basic unit without operating mechanism

### Front operating mechanism left, sizes 1 and 2, 3/4-pole

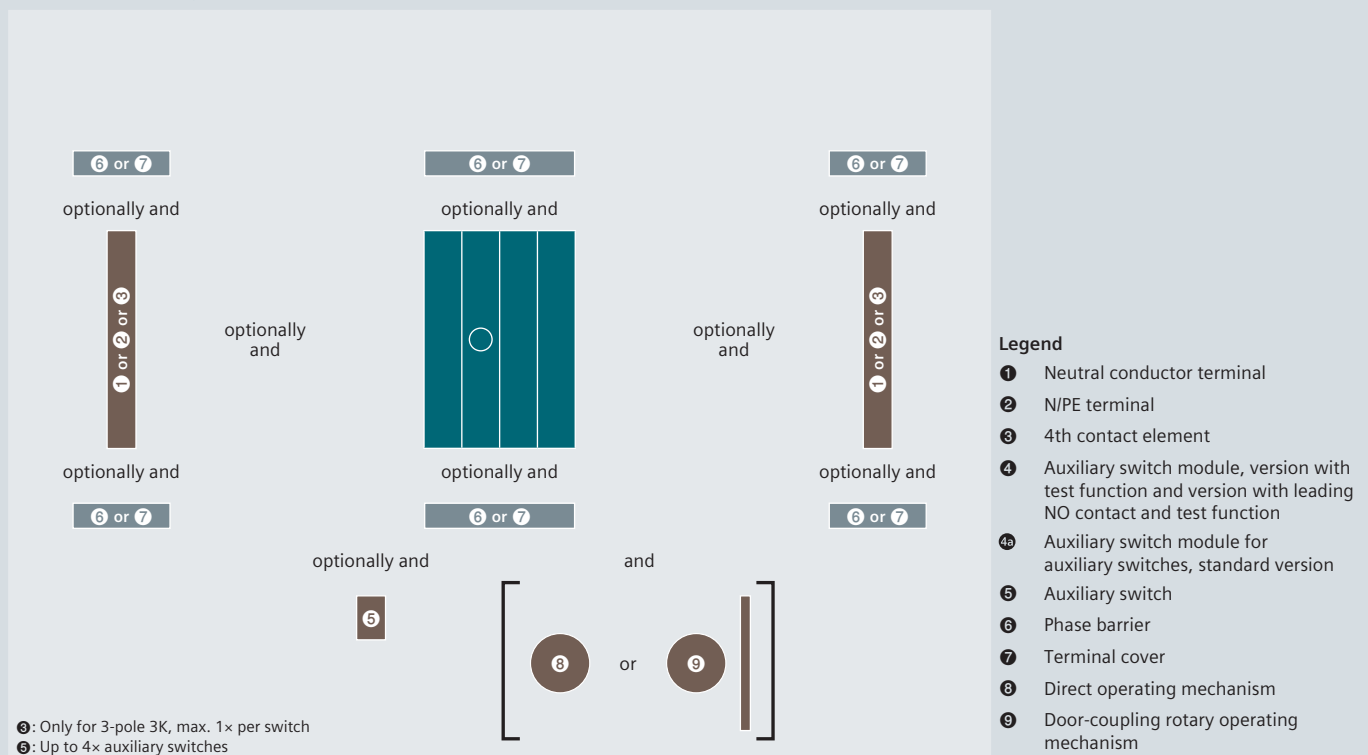


## Front operating mechanism center, size 1 and 2, 3/4-pole



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## Front operating mechanism center or left, sizes 3 to 5, 3/4-pole

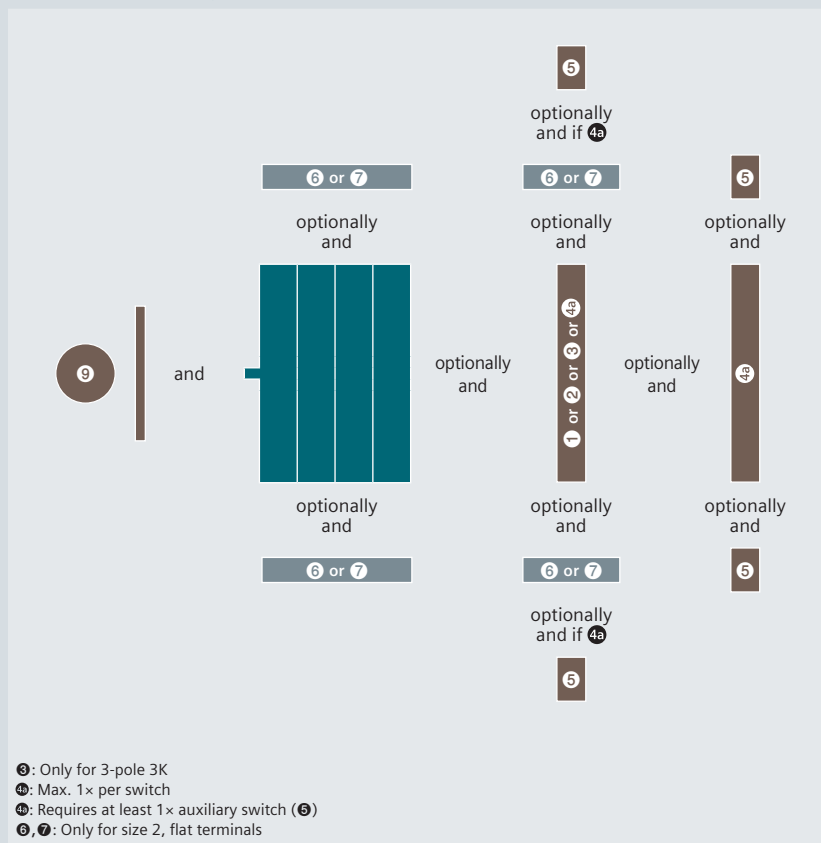




# 3KD switch disconnectors

## Mounting concept and accessories

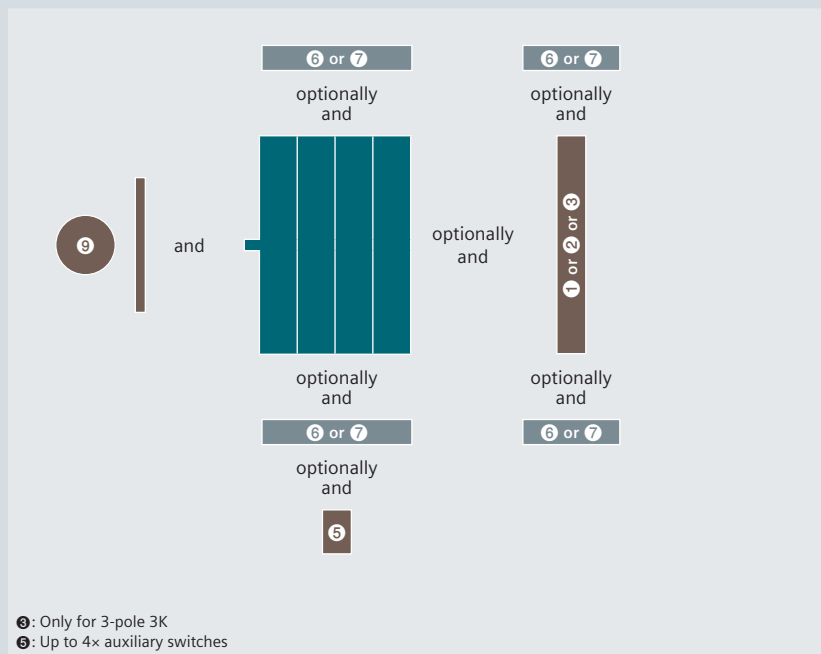
### Lateral operating mechanism left, sizes 1 and 2, 3/4-pole



#### Legend

- ① Neutral conductor terminal
- ② N/PE terminal
- ③ 4th contact element
- ④a Auxiliary switch module for auxiliary switches, standard version
- ⑤ Auxiliary switch
- ⑥ Phase barrier
- ⑦ Terminal cover
- ⑨ Door-coupling rotary operating mechanism

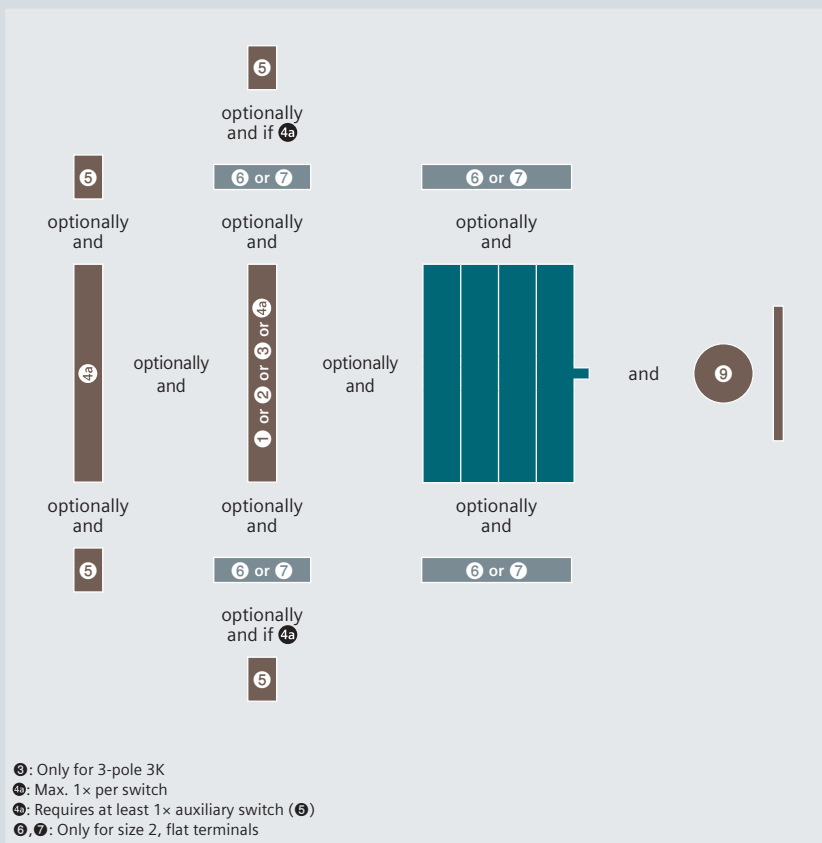
### Lateral operating mechanism left, sizes 3 to 5, 3/4-pole



#### Legend

- ① Neutral conductor terminal
- ② N/PE terminal
- ③ 4th contact element
- ⑤ Auxiliary switch
- ⑥ Phase barrier
- ⑦ Terminal cover
- ⑨ Door-coupling rotary operating mechanism

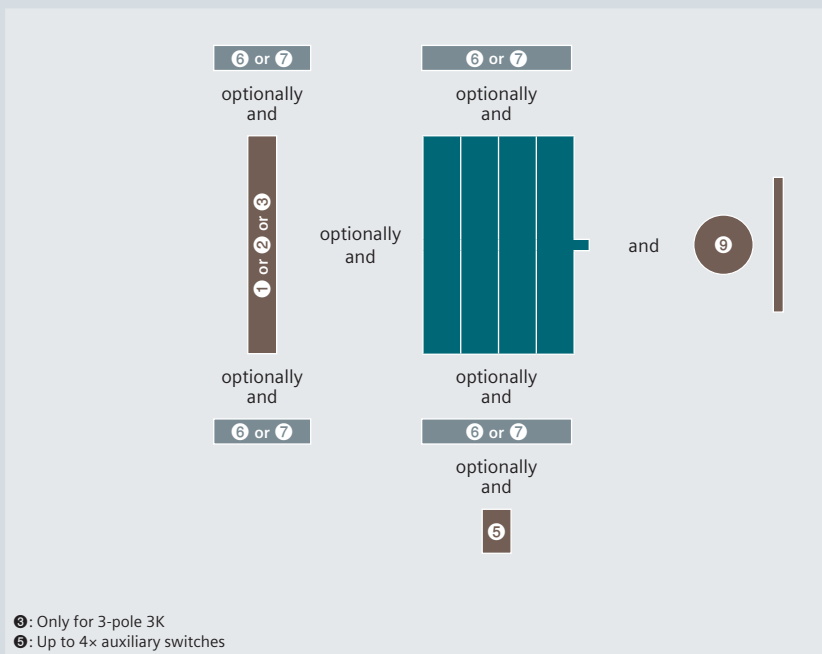
### Lateral operating mechanism right, sizes 1 and 2, 3/4-pole



#### Legend

- ① Neutral conductor terminal
- ② N/PE terminal
- ③ 4th contact element
- ④a Auxiliary switch module for auxiliary switches, standard version
- ⑤ Auxiliary switch
- ⑥ Phase barrier
- ⑦ Terminal cover
- ⑨ Door-coupling rotary operating mechanism

### Lateral operating mechanism right, sizes 3 to 5, 3/4-pole



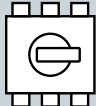
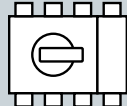
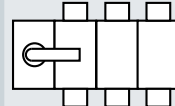
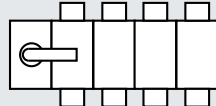
#### Legend

- ① Neutral conductor terminal
- ② N/PE terminal
- ③ 4th contact element
- ⑤ Auxiliary switch
- ⑥ Phase barrier
- ⑦ Terminal cover
- ⑨ Door-coupling rotary operating mechanism

# 3KD switch disconnectors

Complete units with direct operating mechanisms



Application	Number of poles	Drive, gray Front operating mechanism center		Drive, gray Front operating mechanism left	
		AC	AC	AC/DC	AC/DC
		3P	4P	3P	4P
					
Size	Uninterrupted current $I_u$				
<b>Box terminals</b>					
01	16 A	3KD0132-2KG20-3	3KD0142-2KG20-3	–	–
	32 A	3KD0232-2KG20-3	3KD0242-2KG20-3	–	–
	63 A	3KD0332-2KG20-3	–	–	–
02	63 A	3KD0332-2LG20-3	3KD0342-2LG20-3	–	–
	80 A	3KD0432-2LG20-3	3KD0442-2LG20-3	–	–
	100 A	3KD0532-2LG20-3	3KD0542-2LG20-3	–	–
	125 A	3KD0632-2LG20-3	3KD0642-2LG20-3	–	–
1	16 A	–	–	3KD1632-2ME10-0	3KD1642-2ME10-0
	32 A	–	–	3KD2232-2ME10-0	3KD2242-2ME10-0
	63 A	–	–	3KD2632-2ME10-0	3KD2642-2ME10-0
	80 A	–	–	3KD2832-2ME10-0	3KD2842-2ME10-0
	100 A	–	–	3KD3032-2ME10-0	3KD3042-2ME10-0
2	80 A	–	–	3KD2832-2NE10-0	3KD2842-2NE10-0
	100 A	–	–	3KD3032-2NE10-0	3KD3042-2NE10-0
	125 A	–	–	3KD3232-2NE10-0	3KD3242-2NE10-0
	160 A	–	–	3KD3432-2NE10-0	3KD3442-2NE10-0
<b>Flat terminals</b>					
2	80 A	–	–	3KD2832-0NE10-0	3KD2842-0NE10-0
	100 A	–	–	3KD3032-0NE10-0	3KD3042-0NE10-0
	125 A	–	–	3KD3232-0NE10-0	3KD3242-0NE10-0
	160 A	–	–	3KD3432-0NE10-0	3KD3442-0NE10-0
	200 A	–	–	3KD3632-0NE10-0	3KD3642-0NE10-0
	250 A	–	–	3KD3832-0NE10-0	3KD3842-0NE10-0
3	200 A	–	–	3KD3632-0PE10-0	3KD3642-0PE10-0
	250 A	–	–	3KD3832-0PE10-0	3KD3842-0PE10-0
	315 A	–	–	3KD4032-0PE10-0	3KD4042-0PE10-0
	400 A	–	–	3KD4232-0PE10-0	3KD4242-0PE10-0
	500 A	–	–	3KD4432-0PE10-0	3KD4442-0PE10-0
4	500 A	–	–	3KD4432-0QE10-0	3KD4442-0QE10-0
	630 A	–	–	3KD4632-0QE10-0	3KD4642-0QE10-0
	800 A	–	–	3KD4832-0QE10-0	3KD4842-0QE10-0
	1000 A	–	–	3KD5032-0QE10-0	3KD5042-0QE10-0
5	1000 A	–	–	3KD5032-0RE10-0	3KD5042-0RE10-0
	1250 A	–	–	3KD5232-0RE10-0	3KD5242-0RE10-0
	1600 A	–	–	3KD5432-0RE10-0	3KD5442-0RE10-0
	2000 A	–	–	3KD5632-0RE10-0	3KD5642-0RE10-0

#### Scope of supply:

- Incl. terminal covers on input and output side for 3KDO sizes 01 and 02
- Incl. phase barriers on the input and output side for size 2 with flat terminals
- Terminal covers must be ordered separately for switch disconnectors with flat terminals and direct operating mechanisms

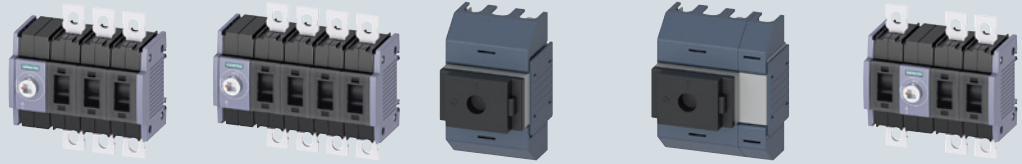
#### Mounting:

- The switch disconnectors are designed for floor mounting and the sizes 01, 02, 1 and 2 can optionally also be mounted on standard mounting rails



# 3KD switch disconnectors

## Basic units without handles



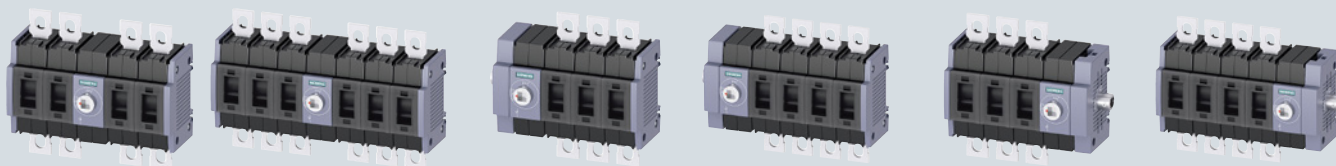
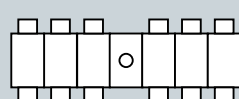
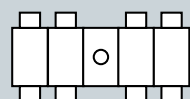
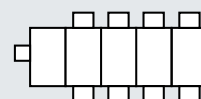
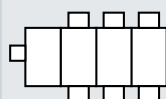
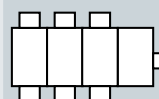
Application	Number of poles	Front operating mechanism Left		Front operating mechanism Center		
		AC/DC	AC/DC	AC	AC	AC/DC
		3P	4P	3P	4P	3P
Size	Uninterrupted current $I_u$					
Box terminals						
01	16 A	–	–	3KD0130-2KG20-3	3KD0140-2KG20-3	–
	32 A	–	–	3KD0230-2KG20-3	3KD0240-2KG20-3	–
	63 A	–	–	3KD0330-2KG20-3	–	–
02	63 A	–	–	3KD0330-2LG20-3	3KD0340-2LG20-3	–
	80 A	–	–	3KD0430-2LG20-3	3KD0440-2LG20-3	–
	100 A	–	–	3KD0530-2LG20-3	3KD0540-2LG20-3	–
	125 A	–	–	3KD0630-2LG20-3	3KD0640-2LG20-3	–
1	16 A	3KD1630-2ME10-0	3KD1640-2ME10-0	–	–	3KD1630-2ME20-0
	32 A	3KD2230-2ME10-0	3KD2240-2ME10-0	–	–	3KD2230-2ME20-0
	63 A	3KD2630-2ME10-0	3KD2640-2ME10-0	–	–	3KD2630-2ME20-0
	80 A	3KD2830-2ME10-0	3KD2840-2ME10-0	–	–	3KD2830-2ME20-0
	100 A	3KD3030-2ME10-0	3KD3040-2ME10-0	–	–	3KD3030-2ME20-0
2	80 A	3KD2830-2NE10-0	3KD2840-2NE10-0	–	–	3KD2830-2NE20-0
	100 A	3KD3030-2NE10-0	3KD3040-2NE10-0	–	–	3KD3030-2NE20-0
	125 A	3KD3230-2NE10-0	3KD3240-2NE10-0	–	–	3KD3230-2NE20-0
	160 A	3KD3430-2NE10-0	3KD3440-2NE10-0	–	–	3KD3430-2NE20-0
Flat terminals						
2	80 A	3KD2830-0NE10-0	3KD2840-0NE10-0	–	–	3KD2830-0NE20-0
	100 A	3KD3030-0NE10-0	3KD3040-0NE10-0	–	–	3KD3030-0NE20-0
	125 A	3KD3230-0NE10-0	3KD3240-0NE10-0	–	–	3KD3230-0NE20-0
	160 A	3KD3430-0NE10-0	3KD3440-0NE10-0	–	–	3KD3430-0NE20-0
	200 A	3KD3630-0NE10-0	3KD3640-0NE10-0	–	–	3KD3630-0NE20-0
3	250 A	3KD3830-0NE10-0	3KD3840-0NE10-0	–	–	3KD3830-0NE20-0
	200 A	3KD3630-0PE10-0	3KD3640-0PE10-0	–	–	3KD3630-0PE20-0
	250 A	3KD3830-0PE10-0	3KD3840-0PE10-0	–	–	3KD3830-0PE20-0
	315 A	3KD4030-0PE10-0	3KD4040-0PE10-0	–	–	3KD4030-0PE20-0
	400 A	3KD4230-0PE10-0	3KD4240-0PE10-0	–	–	3KD4230-0PE20-0
4	500 A	3KD4430-0PE10-0	3KD4440-0PE10-0	–	–	3KD4430-0PE20-0
	500 A	3KD4430-0QE10-0	3KD4440-0QE10-0	–	–	3KD4430-0QE20-0
	630 A	3KD4630-0QE10-0	3KD4640-0QE10-0	–	–	3KD4630-0QE20-0
	800 A	3KD4830-0QE10-0	3KD4840-0QE10-0	–	–	3KD4830-0QE20-0
	1000 A	3KD5030-0QE10-0	3KD5040-0QE10-0	–	–	3KD5030-0QE20-0
5	1000 A	3KD5030-0RE10-0	3KD5040-0RE10-0	–	–	3KD5030-0RE20-0
	1250 A	3KD5230-0RE10-0	3KD5240-0RE10-0	–	–	3KD5230-0RE20-0
	1600 A	3KD5430-0RE10-0	3KD5440-0RE10-0	–	–	3KD5430-0RE20-0
	2000 A	3KD5630-0RE10-0	3KD5640-0RE10-0	–	–	3KD5630-0RE20-0

### Scope of supply:

- Incl. terminal covers on input and output side for 3KDO sizes 01 and 02
- Incl. phase barriers on the input and output side for size 2 with flat terminals
- Terminal covers must be ordered separately for switch disconnectors with flat terminals and direct operating mechanisms

### Mounting:

- The switch disconnectors are designed for floor mounting and the sizes 01, 02, 1 and 2 can optionally also be mounted on standard mounting rails


**Front operating mechanism  
Center**
**AC/DC  
4P**
**DC  
6P for DC applications**

**Lateral operating mechanism  
Left**
**AC/DC  
3P**
**AC/DC  
4P**

**Right**
**AC/DC  
3P**
**AC/DC  
4P**


–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
3KD1640-2ME20-0	3KD1660-2ME20-0	3KD1634-2ME10-0	3KD1644-2ME10-0	3KD1634-2ME40-0	3KD1644-2ME40-0
3KD2240-2ME20-0	3KD2260-2ME20-0	3KD2234-2ME10-0	3KD2244-2ME10-0	3KD2234-2ME40-0	3KD2244-2ME40-0
3KD2640-2ME20-0	3KD2660-2ME20-0	3KD2634-2ME10-0	3KD2644-2ME10-0	3KD2634-2ME40-0	3KD2644-2ME40-0
3KD2840-2ME20-0	–	3KD2834-2ME10-0	3KD2844-2ME10-0	3KD2834-2ME40-0	3KD2844-2ME40-0
3KD3040-2ME20-0	–	3KD3034-2ME10-0	3KD3044-2ME10-0	3KD3034-2ME40-0	3KD3044-2ME40-0
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3KD3440-0NE20-0	3KD3460-0NE20-0	3KD3434-0NE10-0	3KD3444-0NE10-0	3KD3434-0NE40-0	3KD3444-0NE40-0
3KD3640-0NE20-0	–	3KD3634-0NE10-0	3KD3644-0NE10-0	3KD3634-0NE40-0	3KD3644-0NE40-0
3KD3840-0NE20-0	–	3KD3834-0NE10-0	3KD3844-0NE10-0	3KD3834-0NE40-0	3KD3844-0NE40-0
3KD3640-0PE20-0	3KD3660-0PE20-0	3KD3634-0PE10-0	3KD3644-0PE10-0	3KD3634-0PE40-0	3KD3644-0PE40-0
3KD3840-0PE20-0	3KD3860-0PE20-0	3KD3834-0PE10-0	3KD3844-0PE10-0	3KD3834-0PE40-0	3KD3844-0PE40-0
3KD4040-0PE20-0	3KD4060-0PE20-0	3KD4034-0PE10-0	3KD4044-0PE10-0	3KD4034-0PE40-0	3KD4044-0PE40-0
3KD4240-0PE20-0	3KD4260-0PE20-0	3KD4234-0PE10-0	3KD4244-0PE10-0	3KD4234-0PE40-0	3KD4244-0PE40-0
3KD4440-0PE20-0	–	3KD4434-0PE10-0	3KD4444-0PE10-0	3KD4434-0PE40-0	3KD4444-0PE40-0
3KD4440-0QE20-0	3KD4460-0QE20-0	3KD4434-0QE10-0	3KD4444-0QE10-0	3KD4434-0QE40-0	3KD4444-0QE40-0
3KD4640-0QE20-0	3KD4660-0QE20-0	3KD4634-0QE10-0	3KD4644-0QE10-0	3KD4634-0QE40-0	3KD4644-0QE40-0
3KD4840-0QE20-0	3KD4860-0QE20-0	3KD4834-0QE10-0	3KD4844-0QE10-0	3KD4834-0QE40-0	3KD4844-0QE40-0
3KD5040-0QE20-0	–	3KD5034-0QE10-0	3KD5044-0QE10-0	3KD5034-0QE40-0	3KD5044-0QE40-0
3KD5040-0RE20-0	3KD5060-0RE20-0	3KD5034-0RE10-0	3KD5044-0RE10-0	3KD5034-0RE40-0	3KD5044-0RE40-0
3KD5240-0RE20-0	3KD5260-0RE20-0	3KD5234-0RE10-0	3KD5244-0RE10-0	3KD5234-0RE40-0	3KD5244-0RE40-0
3KD5440-0RE20-0	3KD5460-0RE20-0	3KD5434-0RE10-0	3KD5444-0RE10-0	3KD5434-0RE40-0	3KD5444-0RE40-0
3KD5640-0RE20-0	–	3KD5634-0RE10-0	3KD5644-0RE10-0	3KD5634-0RE40-0	3KD5644-0RE40-0

**Note:**

- The complete units with a direct operating mechanism are not suitable for conversion to door-coupling rotary operating mechanisms; the basic units are to be used for this purpose
- All basic units without handles are suitable for use with door-coupling rotary operating mechanisms, from size 1 to size 5 these can also be equipped with direct operating mechanisms
- The switch disconnectors with lateral operating mechanism are suitable for door-coupling rotary operating mechanisms
- For 3KD switch disconnectors and lateral operating mechanism (left or right), only 8UD door-coupling rotary operating mechanisms without the test function can be used










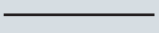

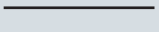
# 3KD switch disconnectors

## Accessories

### Additional poles

#### Note:

- Additional poles (4th contact element, N or N/PE terminal) must always be mounted directly adjacent to the switch disconnector on the left or right. Accordingly, an auxiliary switch module must not be mounted between the basic unit and an additional pole on sizes 1 and 2.
- For installation, it is important to note that only a 3-pole 3KD switch disconnector may be retrofitted with an additional switching pole with contact system (4th contact element).

		Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
<b>4th contact elements (switching pole)</b>								
<ul style="list-style-type: none"> <li>For upgrading a 3-pole to a 4-pole switch disconnector</li> <li>For sizes 1 to 5, identical to the factory-fitted poles</li> <li>For sizes 01 and 02, leading switch-on, lagging switch-off</li> <li>Sizes 01 and 02 equipped at the factory with terminal covers for the input and output side.</li> </ul>								
<b>Connection</b>		<b>Article No.</b>						
 Box terminals 	3KD9015-2	■						
	3KD9025-2		■					
	3KD9105-2			■				
	3KD9205-2				■			
 Flat terminals 	3KD9205-0				■			
	3KD9305-0					■		
	3KD9405-0						■	
	3KD9505-0							■
<b>N terminals (neutral conductor terminal) with removable jumper</b>								
<ul style="list-style-type: none"> <li>A jumper can be removed in order to interrupt the electrical connection between the terminals</li> </ul>								
<b>Connection</b>		<b>Article No.</b>						
 Box terminals 	3KD9106-2			■				
	3KD9206-2				■			
 Flat terminals 	3KD9206-0				■			
	3KD9306-0					■		
	3KD9406-0						■	
	3KD9506-0							■
<b>N/PE terminals with permanent jumper</b>								
<ul style="list-style-type: none"> <li>Permanent electrical connection between the terminals, cannot be broken</li> </ul>								
<b>Connection</b>		<b>Article No.</b>						
 Box terminals 	3KD9016-8	■						
	3KD9026-8		■					
	3KD9106-8			■				
	3KD9206-8				■			
 Flat terminals 	3KD9206-7				■			
	3KD9306-7					■		
	3KD9406-7						■	
	3KD9506-7							■

## Operating mechanisms

Size 01 Size 02 Size 1 Size 2 Size 3 Size 4 Size 5

### Direct operating mechanisms, standard version

- Can be locked with up to 3 padlocks
- Requires additional mounting depth in locked state



Labeling	Color	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
Test-O-I	Gray	3KD9101-1			■				
		3KD9201-1				■			
		3KD9301-1						■	
		3KD9401-1							■
		3KD9501-1							■
	Red/yellow	3KD9101-2				■			
		3KD9201-2					■		
		3KD9301-2						■	
		3KD9401-2							■
		3KD9501-2							■

### Direct operating mechanisms, flat version

- Suitable for distribution boards
- Can be locked with 1 padlock
- No additional mounting depth in locked state



Labeling	Color	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
Test-O-I	Gray	3KD9101-0			■				
		3KD9201-0				■			
	Red/yellow	3KD9101-8			■				
		3KD9201-8				■			

### Direct operating mechanisms, distribution boards



Number of poles	Color	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
3-pole	Gray	3KD9011-0C	■						
	Red/yellow	3KD9011-8C	■						
4-pole	Gray	3KD9011-0D	■						
	Red/yellow	3KD9011-8D	■						

### Door-coupling rotary operating mechanisms, complete

- **Scope of supply:**
  - Handle with masking plate (sizes 01 and 02 without test function)
  - Coupling driver
  - Shaft 300 mm
- Can be locked with up to 3 padlocks



Labeling	Tolerance compensation	Defeat function	Color	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5	
O-I	With	With	Gray	8UD1171-1AD21	■	■						
			Red/yellow	8UD1171-1AD25	■	■						
	Without	Without	Gray	3KD9001-5	■	■						
			Red/yellow	3KD9001-6	■	■						
			With	Gray	8UD1171-2AD11			■	■			
				Red/yellow	8UD1171-2AD15			■	■			
Test-O-I	With	With	Gray	8UD1171-2AF21			■	■				
			8UD1141-2AF21					■				
			8UD1151-3AF21						■			
			8UD1161-4AF21							■		
			Red/yellow	8UD1171-2AF25			■	■				
			8UD1141-2AF25						■			
			8UD1151-3AF25							■		
			8UD1161-4AF25								■	

#### Note:

- For 3KD switch disconnectors and lateral operating mechanism (left or right), only 8UD door-coupling rotary operating mechanisms without the test function can be used
- The door-coupling rotary operating mechanisms of the 3KD90 type are mounted on the inside of the door by means of center-hole mounting










# 3KD switch disconnectors




## Accessories

### Accessories for door-coupling rotary operating mechanisms


Size 01 Size 02 Size 1 Size 2 Size 3 Size 4 Size 5

Handles					Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5		
<ul style="list-style-type: none"> <li>Supplied with a masking frame, but without an extension shaft and without coupling driver</li> <li>Can be locked with up to 3 padlocks</li> </ul>													
	<b>Labeling</b>	<b>Lighting</b>	<b>Color</b>	<b>Article No.</b>									
 	O-I	Without	Gray	8UD1771-2AD01	■	■	■	■					
				8UD1841-2AD01				■					
				8UD1851-3AD01							■		
			8UD1861-4AD01									■	
			Red/yellow	8UD1771-2AD05	■	■	■	■					
				8UD1841-2AD05							■		
	8UD1851-3AD05									■			
	With	Gray	Without	8UD1861-4AD05								■	
				8UD1771-2CD01			■	■					
				8UD1841-2CD01							■		
			Red/yellow	8UD1851-3CD01								■	
				8UD1861-4CD01									■
8UD1771-2CD05						■	■						
 	Test-O-I	Without	Gray	8UD1841-2CD05							■		
				8UD1851-3CD05								■	
				8UD1861-4CD05									■
			Red/yellow	8UD1771-2AF01			■	■					
				8UD1841-2AF01								■	
				8UD1851-3AF01									■
	With	Gray	Without	8UD1861-4AF01								■	
				8UD1771-2AF05			■	■					
				8UD1841-2AF05							■		
			Red/yellow	8UD1851-3AF05								■	
				8UD1861-4AF05									■
				8UD1771-2CF01			■	■					
With	Gray	Without	8UD1841-2CF01							■			
			8UD1851-3CF01								■		
			8UD1861-4CF01									■	
		Red/yellow	8UD1771-2CF05			■	■						
			8UD1841-2CF05								■		
			8UD1851-3CF05									■	
8UD1861-4CF05										■			
<b>Extension shafts</b>													
<ul style="list-style-type: none"> <li>A shaft jack is required for the 8UD1 handle when the 600 mm long shaft is used and for sizes 01, 02, 1 and 2</li> </ul>													
	<b>Length</b>			<b>Article No.</b>									
	300 mm			3KD9002-0	■	■							
				8UC6032			■	■	■				
				8UC6033							■		
				8UC6034								■	
	600 mm			3KD9002-1	■	■							
				8UC6082			■	■	■				
				8UC6083							■		
				8UC6084								■	
				8UC6084								■	
<b>Shaft jack for 8UD1 handle</b>													
	<b>Version</b>			<b>Article No.</b>									
	For shaft 600 mm			8UD1900-0FA00	■	■	■	■					

## Accessories for door-coupling rotary operating mechanisms

			Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
<b>Coupling drivers</b>									
	<b>Version</b>	<b>Article No.</b>							
	With tolerance compensation	8UD1900-1GA00	■	■					
		8UD1900-2GA00			■	■			
		8UD1900-6GA00					■		
		8UD1900-3GA00						■	
		8UD1900-4GA00							■
	<b>Version</b>	<b>Article No.</b>							
	Without tolerance compensation	8UD1900-1HA00	■	■					
		8UD1900-2HA00			■	■			
		8UD1900-6HA00					■		
		8UD1900-3HA00						■	
		8UD1900-4HA00							■
<b>Adapters for shafts</b>									
	<b>Version</b>	<b>Article No.</b>							
		8UC6022			■	■	■		
		8UC6023						■	
		8UC6024							■

## Other accessories and spare parts

				Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
<b>Auxiliary switch modules</b>										
	<ul style="list-style-type: none"> <li>Auxiliary switch modules are supplied without auxiliary switches. A maximum of 2 auxiliary switches can be installed per auxiliary module</li> <li>The 3KD9103-6 and 3KD9103-7 auxiliary switch modules can only be used with 3KD directly on the operating mechanism if the operating mechanism is on the front or on the left</li> </ul>									
	<b>Type</b>	<b>Article No.</b>								
Standard version	3KD9103-5			■	■					
With test function	3KD9103-6			■	■					
With leading NO contact and test function	3KD9103-7			■	■					
<b>Auxiliary switches</b>										
<ul style="list-style-type: none"> <li>Auxiliary switches for sizes 01 and 02 are snapped onto the side of the switches</li> <li>Auxiliary switches for sizes 3 to 5 have screw terminals and are mounted on the operating mechanism module of the 3KD. Auxiliary switches with spring-type terminals from the 3SU1 range can also be used.</li> <li>All auxiliary switches for sizes 3 to 5 can be used as leading auxiliary switches, depending on the mounting position of the auxiliary switch (see Operating Instructions).</li> </ul>										
<b>Type</b>	<b>Contacts</b>	<b>Contact surface</b>	<b>Article No.</b>							
With connecting cables	1 CO	Standard	3KD9103-1			■	■			
		Solid-state compatible	3KD9103-3			■	■			
Without connecting cables	1 NO + 1 NC	Standard	3KD9003-2	■	■					
		Solid-state compatible	3KD9003-4	■	■					
	1 CO	Standard	3KD9103-2			■	■			
		Solid-state compatible	3KD9103-4			■	■			
1 NO	Standard	3SU1400-1AA10-1BA0					■	■	■	
	Gold-plated	3SU1400-1AA10-1LA0					■	■	■	
1 NC	Standard	3SU1400-1AA10-1CA0					■	■	■	
	Gold-plated	3SU1400-1AA10-1MA0					■	■	■	
1 NO + 1 NC	Standard	3SU1400-1AA10-1FA0					■	■	■	
	Gold-plated	3SU1400-1AA10-1QA0					■	■	■	
2 NO	Standard	3SU1400-1AA10-1DA0					■	■	■	
	Gold-plated	3SU1400-1AA10-1NA0					■	■	■	
2 NC	Standard	3SU1400-1AA10-1EA0					■	■	■	
	Gold-plated	3SU1400-1AA10-1PA0					■	■	■	

# 3KD switch disconnectors

## Accessories

### Other accessories and spare parts

Size 01 Size 02 Size 1 Size 2 Size 3 Size 4 Size 5

#### Phase barriers



- For 3KD with flat terminals
- For 3KD size 2 with flat terminals, phase barriers are already contained in the scope of supply

Version	Scope of supply	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
For 3-pole devices	6 units	3KD9108-6				■			
		3KD9308-6					■		
		3KD9408-6							■
		3KD9508-6							■
For 4-pole devices	8 units	3KD9108-8				■			
		3KD9308-8					■		
		3KD9408-8							■
		3KD9508-8							■

#### Terminal covers



- For sizes 01 and 02, terminal covers are already part of the scope of supply and must therefore only be used as spare parts
- For 3KD with flat terminals
- Not permissible for 2000 A devices

Version	Scope of supply	Type	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5	
For 1-pole devices	4 units		3KD9014-1B	■							
			3KD9024-1B		■						
For 3-pole devices	4 units		3KD9014-3B	■							
			3KD9504-6							■	
	6 units	Standard version	3KD9204-6				■				
		Short version	3KD9204-7				■				
		8 units	Standard version	3KD9304-6					■		
			Short version	3KD9404-6						■	
			Standard version	3KD9304-7					■		
			Short version	3KD9404-7						■	
For 4-pole devices	8 units	Standard version	3KD9504-8							■	
		Short version	3KD9204-8				■				
		Short version	3KD9204-5				■				
	10 units	Standard version	3KD9304-8					■			
			3KD9404-8						■		
		Short version	3KD9304-5					■			
		3KD9404-5						■			

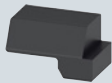
#### Spare part for terminal covers



- Not permissible for 2000 A devices

Scope of supply	Type	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
1 unit	Standard version	3KD9504-1							■
	Short version	3KD9204-1				■			
		3KD9304-1					■		
		3KD9404-1						■	

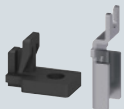
#### Blocking pin test function



- Enables permanent deactivation of the test function for auxiliary switches
- It is installed in the operating mechanism module of the 3KD switch disconnector

Scope of supply	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
10 units	3KF9112-1AA00			■	■			
	3KF9412-1AA00					■	■	
	3KF9512-1AA00							■

#### Mounting brackets



- Spare part, included in the scope of supply of the 3KD

Scope of supply	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
4 units	3KD9120-1			■	■			
	3KF9212-0AA00					■		
	3KF9412-0AA00						■	
	3KF9512-0AA00							■

## Other accessories and spare parts

Size 01 Size 02 Size 1 Size 2 Size 3 Size 4 Size 5

### Slide for mounting on a standard mounting rail



- Spare part, included in the scope of supply of the 3KD

Scope of supply	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
5 units	3KF9112-0BA00			■	■			

## Accessories for DC applications

Size 01 Size 02 Size 1 Size 2 Size 3 Size 4 Size 5

### Connecting bridges



- Suitable for connecting 2 poles
- For 3KD switch disconnectors with 400 A, 800 A, 1250 A and 1600 A, two units are required.

Connection	Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
Box terminals	3KD9118-1			■				
	3KD9218-1				■			
Flat terminals	3KD9218-0				■			
	3KD9318-0					■		
	3KD9418-0						■	
	3KD9518-0							■

### Terminal covers for connecting bridges



- For 3KD with flat terminals

Article No.	Size 01	Size 02	Size 1	Size 2	Size 3	Size 4	Size 5
3KD9204-0				■			
3KD9304-0					■		
3KD9404-0						■	
3KD9504-0							■

# Fuse switch disconnectors

## Quick selection guide



3NP1



Size

000 narrow	000	00	1	2	3
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### General technical details acc. to IEC 60947-3

#### Basic data

Parameter	Unit	000 narrow	000	00	1	2	3
Rated uninterrupted current $I_u$	A	125	125 <sup>2)</sup>	160	250	400	630
For fuse links acc. to IEC 60269-2	Size	000	000	00 and 000	1 and 0	2 and 1	3 and 2
Rated operational voltage $U_e$	At 50/60 Hz AC	V	690	690	690		
	At DC (3 conducting paths in series)	V	–	440	440		
	At DC (2 conducting paths in series)	V	–	240	240		
	At DC	V	–	–	–		
	For utilization category AC-20B or DC-20B	V	–	690 <sup>1)</sup>	690 <sup>1)</sup>		

#### Operating and short-circuit behavior

Parameter	Unit	000 narrow	000	00	1	2	3	
Rated operational current $I_e$	At AC-21B, 400 V AC	A	125	125 <sup>2)</sup>	160	250	400	630
	At AC-22A, 400 V AC	A	–	–	–	–	–	–
	At AC-22B, 400 V AC	A	125	125 <sup>2)</sup>	160	250	400	630
	At AC-23B, 400 V AC	A	63	125 <sup>2)</sup>	160	250	400	630
	At AC-21B, 500 V AC	A	125	125 <sup>2)</sup>	160	250	400	630
	At AC-22B, 500 V AC	A	125	125	160	250	400	630
	At AC-23B, 500 V AC	A	–	40	63	200	315	500
	At AC-21B, 690 V AC	A	80	125 <sup>2)</sup>	160	250	400	630
	At AC-22B, 690 V AC	A	–	50	125	250	400	500
	At AC-23B, 690 V AC	A	–	25	35	100	125	200
	At DC-21B (2 conducting paths in series), 240 V DC	A	–	125 <sup>2)</sup>	160	250	400	630
	At DC-22B (2 conducting paths in series), 240 V DC	A	–	100	160	250	400	630
	At DC-23B (2 conducting paths in series), 240 V DC	A	–	80	100	200	250	400
	At DC-21B (3 conducting paths in series), 440 V DC	A	–	100	160	250	400	630
At DC-22B (3 conducting paths in series), 440 V DC	A	–	50	125	200	315	500	
At DC-23B (3 conducting paths in series), 440 V DC	A	–	25	63	100	160	250	
Rated conditional short-circuit current with fuses (by fast switch on)	Rated current at 400 V/500 V/690 V	kA	80/80/80	80/80/80	80/80/80	80/80/50	80/80/50	50/50/50
	Permissible let-through current of the fuses, peak value	kA	10	10	15	25	40	50
Short-circuit strength with fuses (with closed disconnector)	Rated current at 500 V/690 V	kA	80/80	120/100	120/100	120/100	100/100	100/100
	Permissible let-through $I^2t$ value of the fuses	kA <sup>2</sup> s	59	223	223	780	2150	5400
	Permissible let-through current of the fuses, peak value	kA	10	15	23	32	40	60
Rated making capacity	With isolating blades at 500 V AC	kA	–	2	6	17	17	17
Rated short-time withstand current $I_{cw}$		kA	–	–	–	–	–	–
Rated insulation voltage $U_i$		V	690	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>
Rated impulse withstand voltage $U_{imp}$		kV	6	8	8	8	8	8
Power loss per pole of the switch at $I_{th}$ (without fuses)		W	4.6	5	5	8	14	30
Maximum power loss of the usable fuses (per fuse)		W	9	7.5 <sup>3)</sup>	12	23	34	48
Mechanical endurance, operating cycles			2000	2000	2000	1600	1000	1000

#### Degree of protection, on the front

Without masking plate or terminal cover – switch closed/open	IP30/IP10	IP30/IP20	IP30/IP20	IP30/IP20	IP30/IP20	IP30/IP20
With masking plate or terminal cover – switch closed/open	IP30/IP10	IP40/IP20	IP40/IP20	IP40/IP20	IP40/IP20	IP40/IP20

#### Certifications and approvals

VDE, CCC, LR, us<sup>4)</sup>

#### More information

See page 8/94

The technical specifications apply to the standard types stated below.  
For the complete specifications for all versions, see the Online Support  
3NP1: 3-pole and 4-pole devices without fuse monitoring  
3NP5: Devices without fuse monitoring

3NJ4/5: Disconnectors for cable and line protection without fuse monitoring,  
not for transformer protection

## 3NP5



## 3NJ4/3NJ5



## 5SG76



3NP5				3NJ4/3NJ5				5SG76	
00	1	2	3	00	1	2	3	4a	D01
160	250	400	630	160	250	400	630	1250	16
00	1 and 0	2 and 1	3 and 2	00 and 000	1 and 0	2 and 1	3 and 2	4a	D01
	690					690			400, 415
	440					-			-
	220					-			110
	-					-			48
	690					-			-
160	250	400	630	160	250	400	630	1250	16
-	-	-	-	-	-	-	-	-	16
160	250	400	630	160	250	400	630	1250	-
160	250	400	630	-	250	400	-	-	-
160	250	400	630	160	250	400	630	1250	-
160	250	400	630	160	250	400	630	1250	-
160	250	400	630	-	-	-	-	-	-
160	250	400	630	100	250	400	630	1250	-
160	250	400	630	100	250	-	-	-	-
100	160	315	400	-	-	-	-	-	-
160	250	400	630	-	-	-	-	-	-
160	250	400	630	-	-	-	-	-	-
160	250	400	630	-	-	-	-	-	-
160	250	400	630	-	-	-	-	-	-
160	250	400	630	-	-	-	-	-	-
50/50/-	50/50/-	50/50/-	50/50/-	-	-	-	-	-	50/-/-
15	25	40	50	-	-	-	-	-	-
100/-	100/-	50/-	50/-	80	120	120	120	80	-
223	780	2150	5400	-	-	-	-	-	-
23	32	40	60	-	-	-	-	-	-
6	17	17	17	-	-	-	-	-	-
-	-	-	-	-	14.5	14.5	14.5	35	-
690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	690 <sup>1)</sup>	800	1000	1000	1000	1000	400
6	6	6	6	8	12	12	12	12	2.5
7.8	7.5	15	39	18	23	54	115	190	-
12	23	34	48	12	32	45	48	110	2.5
1600	1600	1600	1600	1400	1400	800	800	500	-
IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP00/IP00	IP20/IP20
IP30/IP10	IP30/IP10	IP30/IP10	IP30/IP10	IP30/IP10	IP30/IP10	IP30/IP10	IP30/IP10	IP10/IP00	IP20/IP20
CCC									
See page 8/96				See page 8/100				See page 8/112	

<sup>1)</sup> Applies to degree of pollution 3  
(for degree of pollution 2, use up to  $U_i$  1000 V possible)  
<sup>2)</sup> If optional infeed terminal is used max. 160 A

<sup>3)</sup> Max. 9 W for operation up to 160 A  
<sup>4)</sup> 3NP1 NH000 in narrow design only has IEC approval

# 3NP1 fuse switch disconnectors

## System overview

### Basic units



1, 3, 4-pole for floor mounting



3 and 4-pole mounting on busbar systems

### Connection parts



Terminals for retrofitting to 3NP1



Auxiliary conductor connections

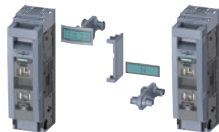


3-phase busbars

### Assembly kits



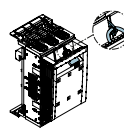
Standard rail mounting



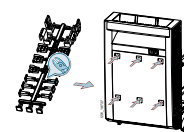
Mechanical connection



1/4-pole busbar mounting

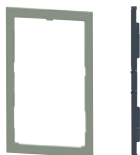


Locking function

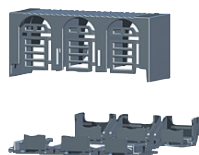


Protection against power theft

### Masking frames and covers



Masking frames and supports



Cable connection covers



Reach-around protection for busbar

### Other accessories



Auxiliary switches



Isolating blades



Fuse carriers with and without fuse monitoring

#### Note:

You will find a detailed range of accessories with the basic units.

## General information



### 3NA COM LV HRC fuse link



The new the 3NA COM LV HRC fuse links with communication and measuring function make your products communication-capable.

See [Fuse Systems, page 7/42](#)



### Modular design



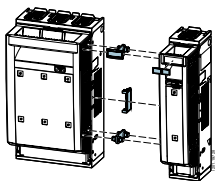
The 3NP1 fuse switch disconnector has a modular design. A wide variety of switch combinations can be created by connecting two devices or by subsequently fitting accessories. All common switch combinations are available from the factory ready for installation and can be found on the following ordering overviews. An overview of the possibilities offered by the modular design is provided on these information pages.

The fastest and simplest way to find the right switch combination is to use our 3NP1 configurator in the Siemens Industry Mall.

Directly to 3NP1  
configurator under:  
[sie.ag/3IIXQZH](http://sie.ag/3IIXQZH)



### Number of poles



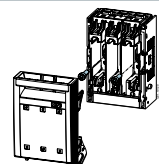
3NP1 fuse switch disconnectors are available from the factory in 1, 3 and 4-pole device versions. 4-pole types are available in all common versions from the factory ready for installation (without fuse monitoring, N-pole on the right-hand side).

All other conceivable device combinations, such as 2-pole 3NP1s, 4-pole with fuse monitoring or with a neutral conductor on the left-hand side can simply be put together on site by combining two 3NP1s. All that is needed for this in addition to the two 3NP1 basic units is the matching connection assembly kit (see accessories).

You will find further  
information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

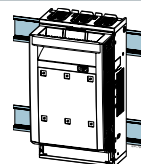


### Floor mounting and standard mounting rail



All sizes of the 3NP1 fuse switch disconnectors are available in floor mounting versions.

The 3NP1 is mounted on a mounting panel with screws.



You will find further  
information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

The devices for floor mounting of sizes 000, 00 and 1 can also be mounted on a standard mounting rail using accessories. For this purpose, the assembly kit for mounting on a standard mounting rail is simply mounted on the rear panel of the 3NP1.



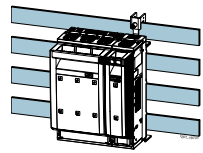


# 3NP1 fuse switch disconnectors

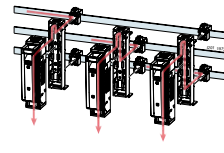
## General information



### Mounting on busbar systems



3-pole and 4-pole 3NP1 are available for mounting on busbar systems. In the case of 4-pole devices, the infeed for the fourth pole is supplied by the neutral conductor bar located above the 3 phases.



You will find further information under: [sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

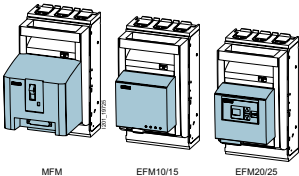


1-pole 3NP1 devices for wall mounting in sizes 000 and 00 can be adapted to the 8US 60 mm busbar system using the assembly kit for 1-pole busbar mounting. Due to the modular design of the assembly kit, any phase can be selected for the infeed.



### Fuse monitoring

You will find further information under: [sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



The fuse monitoring is used to detect, indicate and signal that a fuse has tripped.

The fuse monitors are permanently installed on the handle of the 3NP1. They have floating contacts for remote signaling of a tripped fuse and also indicate this locally.

Various versions of fuse monitors are available, which can be selected to suit the requirements of the application (functionality, see table).

**MFM** electromechanical fuse monitoring with an installed SIRIUS circuit breaker

**EFM** electronic fuse monitoring with evaluation electronics

The EFM15 series is a cost-optimized version of the EFM10. EFM20/25 are versions with additional functions (display indication, detection and signaling of overvoltage/undervoltage with adjustable limits, phase failure detection).

Common combinations of the 3NP1 basic unit and fuse monitoring are available from the factory ready for installation. A fuse monitor can also be easily retrofitted by replacing the fuse carrier. (Fuse carriers for all fuse monitoring versions are available as accessories.)

**Note:**

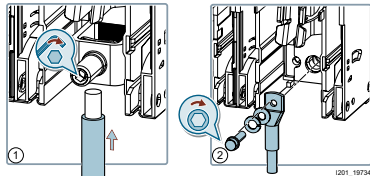
Fuses with insulated grip lugs cannot be used for 3NP1 with fuse monitoring.

		MFM 3-pole	EFM10 3-pole	EFM15				EFM20 3-pole	EFM25 3-pole
				1-pole		3-pole			
				AC/DC	AC	DC	AC		
Local indication	Toggle switch position	■	-	-	-	-	-	-	-
	Indication via LEDs for each phase	-	■	■	■	■	■	-	-
	Indication via display for each phase	-	-	-	-	-	-	■	■
External power supply required		-	-	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	-
Permissible operational voltage	AC	Max. 690 V	230 ... 690 V	24 ... 230 V	110 ... 690 V	-	190 ... 690 V	-	230 ... 690 V
	DC	Max. 440 V	-	24 ... 250 V	-	120 ... 440 V	-	220 ... 440 V	-
Detection and indication of	Overvoltage	-	-	-	-	-	-	-	■
	Undervoltage	-	-	-	-	-	-	-	■
	Phase failure	-	-	-	-	-	-	-	■



## Electrical connection

You will find further information under:  
[sie.ag/2ULrAvy](http://sie.ag/2ULrAvy)



3NP1 are available in versions with box terminals (all sizes) or flat terminals (sizes 00 and larger).

Various additional types of terminal are available as accessories for adaptation to the respective wiring situation, e.g. prism, saddle or three-tier terminals.

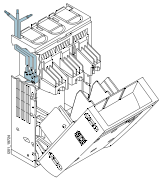


## Other accessories

You will find further information under:  
[sie.ag/2ULrAvy](http://sie.ag/2ULrAvy)

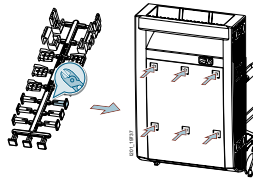


### Auxiliary switches



Auxiliary switches enable remote querying of the switch position of the 3NP1. Up to two auxiliary switches can be installed.

### Power theft



The assembly kit for protection from power theft seals the holes on the front of the 3NP1 (for voltage testing) permanently, which reliably prevents unauthorized access to live parts.

### Isolating blades

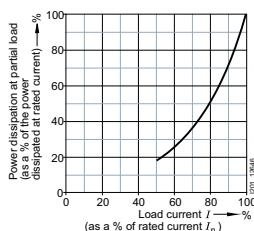


4-pole 3NP1s are used in 3-phase AC systems with switched neutral conductors. They are supplied without an isolating blade for the N pole. The switching instant is selected by choosing the appropriate isolating blade.



## Suitable fuses

You will find further information under:  
[sie.ag/2ULrAvy](http://sie.ag/2ULrAvy)



The 3NP5 fuse switch disconnector is suitable for all fuses with LV HRC design in sizes 000 to 3 that comply with IEC 60269-2, including fuses for cable and line protection and motor protection.

Fuses for semiconductor protection (Siemens trademark SITOR) can also be used. However, some of these fuses have substantially higher power losses than fuses according to IEC 60269-2. This means that the load current has to be reduced until the value that is permissible in the fuse switch disconnector is not exceeded. For use of SITOR semiconductor fuses, ready-made derating tables are available in the linked document.

# 3NP1 fuse switch disconnectors

For a complete and valid configuration of your fuse switch disconnectors, please use our online configurator at [www.siemens.com/lowvoltage/3np1-configurator](http://www.siemens.com/lowvoltage/3np1-configurator)

## Flat terminals

NH00



NH1



NH2









NH3



Fuse monitoring	Number of poles	$I_u = 160 \text{ A}$	$I_u = 250 \text{ A}$	$I_u = 400 \text{ A}$	$I_u = 630 \text{ A}$
<b>Floor mounting</b>					
Without	1-pole	3NP1131-1CA10	3NP1141-1DA10	3NP1151-1DA10	3NP1161-1DA10
	3-pole	3NP1133-1CA10	3NP1143-1DA10	3NP1153-1DA10	3NP1163-1DA10
	4-pole	3NP1134-1CA10	3NP1144-1DA10	3NP1154-1DA10	3NP1164-1DA10
MFM	3-pole	3NP1133-1CA11	3NP1143-1DA11	3NP1153-1DA11	3NP1163-1DA11
EFM10	3-pole	3NP1133-1CA12	3NP1143-1DA12	3NP1153-1DA12	3NP1163-1DA12
EFM15	1-pole	3NP1131-1CA14	3NP1141-1DA14	3NP1151-1DA14	3NP1161-1DA14
	3-pole	3NP1133-1CA14	3NP1143-1DA14	3NP1153-1DA14	3NP1163-1DA14
EFM20	3-pole	3NP1133-1CA13	3NP1143-1DA13	3NP1153-1DA13	3NP1163-1DA13
<b>Mounting on 60 mm busbar systems with reach-around protection for Siemens 8US</b>					
Without FM	3-pole	3NP1133-1BC10	3NP1143-1BC10	3NP1153-1BC10	3NP1163-1BC10
	4-pole	3NP1134-1BC10	3NP1144-1BC10	3NP1154-1BC10	3NP1164-1BC10
MFM	3-pole	3NP1133-1BC11	3NP1143-1BC11	3NP1153-1BC11	3NP1163-1BC11
EFM10	3-pole	3NP1133-1BC12	3NP1143-1BC12	3NP1153-1BC12	3NP1163-1BC12
EFM15	3-pole	3NP1133-1BC14	3NP1143-1BC14	3NP1153-1BC14	3NP1163-1BC14
EFM20	3-pole	3NP1133-1BC13	3NP1143-1BC13	3NP1153-1BC13	3NP1163-1BC13
<b>Mounting on 60 mm busbar systems with reach-around protection for Rittal</b>					
Without FM	3-pole	3NP1133-1JC10	3NP1143-1JC10	3NP1153-1JC10	3NP1163-1JC10
MFM	3-pole	3NP1133-1JC11	3NP1143-1JC11	3NP1153-1JC11	3NP1163-1JC11
EFM10	3-pole	3NP1133-1JC12	3NP1143-1JC12	3NP1153-1JC12	3NP1163-1JC12
EFM20	3-pole	3NP1133-1JC13	3NP1143-1JC13	3NP1153-1JC13	3NP1163-1JC13
<b>Mounting on 40 mm busbar systems with reach-around protection for Siemens 8US</b>					
Without FM	3-pole	3NP1133-1BB10	–	–	–
MFM	3-pole	3NP1133-1BB11	–	–	–
EFM10	3-pole	3NP1133-1BB12	–	–	–
EFM20	3-pole	3NP1133-1BB13	–	–	–
<b>Mounting on 40 mm busbar systems with reach-around protection for Rittal</b>					
Without FM	3-pole	3NP1133-1JB10	–	–	–
MFM	3-pole	3NP1133-1JB11	–	–	–
EFM10	3-pole	3NP1133-1JB12	–	–	–
EFM20	3-pole	3NP1133-1JB13	–	–	–

### Notes:

- On the 3NP1 with fuse monitoring, the permissible operating voltage is limited by the fuse monitoring
- Permissible operational voltage with fuse monitoring:
  - MFM AC max. 690 V (L – L)/max. 440 V (L+ – L–)
  - EFM10 230 ... 690 V AC (L – L)
  - EFM15 3-pole 190 ... 690 V AC (L – L)
  - EFM15 1-pole 24 ... 240 V AC (L – N)/24 ... 250 V DC (L+ – L–)
  - EFM20 230 ... 690 V AC (L – L)
- Additional variants are available as accessories:
  - EFM15 with further operating voltage ranges
  - EFM25 – DC version of the EFM20
- Devices for busbar mounting with reach-around protection
  - For Siemens 8US, mounting is possible on the Wöhner Classic and Rittal RiLine systems without a floor pan
  - For Rittal, mounting is possible on the RiLine60 system with a floor pan

Box terminals NH000 narrow	NH000	NH00	NH1	NH2	NH3
					
$I_u = 125 \text{ A}$	$I_u = 125 \text{ A}^{2)}$	$I_u = 160 \text{ A}$	$I_u = 250 \text{ A}$	$I_u = 400 \text{ A}$	$I_u = 630 \text{ A}$
–	3NP1121-1CA20	3NP1131-1CA20	3NP1141-1DA20	3NP1151-1DA20	3NP1161-1DA20
–	3NP1123-1CA20	3NP1133-1CA20	3NP1143-1DA20	3NP1153-1DA20	3NP1163-1DA20
–	3NP1124-1CA20	3NP1134-1CA20	3NP1144-1DA20	3NP1154-1DA20	3NP1164-1DA20
–	–	3NP1133-1CA21	3NP1143-1DA21	3NP1153-1DA21	3NP1163-1DA21
–	3NP1123-1CA22	3NP1133-1CA22	3NP1143-1DA22	3NP1153-1DA22	3NP1163-1DA22
–	3NP1121-1CA24	3NP1131-1CA24	3NP1141-1DA24	3NP1151-1DA24	3NP1161-1DA24
–	3NP1123-1CA24	3NP1133-1CA24	3NP1143-1DA24	3NP1153-1DA24	3NP1163-1DA24
–	3NP1123-1CA23	3NP1133-1CA23	3NP1143-1DA23	3NP1153-1DA23	3NP1163-1DA23
3NP1113-1BC20 <b>new</b> <sup>1)</sup>	3NP1123-1BC20	3NP1133-1BC20	3NP1143-1BC20	3NP1153-1BC20	3NP1163-1BC20
–	3NP1124-1BC20	3NP1134-1BC20	3NP1144-1BC20	3NP1154-1BC20	3NP1164-1BC20
–	–	3NP1133-1BC21	3NP1143-1BC21	3NP1153-1BC21	3NP1163-1BC21
–	3NP1123-1BC22	3NP1133-1BC22	3NP1143-1BC22	3NP1153-1BC22	3NP1163-1BC22
–	3NP1123-1BC24	3NP1133-1BC24	3NP1143-1BC24	3NP1153-1BC24	3NP1163-1BC24
–	3NP1123-1BC23	3NP1133-1BC23	3NP1143-1BC23	3NP1153-1BC23	3NP1163-1BC23
3NP1113-1BC20 <b>new</b> <sup>1)</sup>	3NP1123-1JC20	3NP1133-1JC20	3NP1143-1JC20	3NP1153-1JC20	3NP1163-1JC20
–	–	3NP1133-1JC21	3NP1143-1JC21	3NP1153-1JC21	3NP1163-1JC21
–	3NP1123-1JC22	3NP1133-1JC22	3NP1143-1JC22	3NP1153-1JC22	3NP1163-1JC22
–	3NP1123-1JC23	3NP1133-1JC23	3NP1143-1JC23	3NP1153-1JC23	3NP1163-1JC23
–	3NP1123-1BB20	3NP1133-1BB20	–	–	–
–	–	3NP1133-1BB21	–	–	–
–	3NP1123-1BB22	3NP1133-1BB22	–	–	–
–	3NP1123-1BB23	3NP1133-1BB23	–	–	–
–	3NP1123-1JB20	3NP1133-1JB20	–	–	–
–	–	3NP1133-1JB21	–	–	–
–	3NP1123-1JB22	3NP1133-1JB22	–	–	–
–	3NP1123-1JB23	3NP1133-1JB23	–	–	–

<sup>1)</sup> The direction of the cable outlet for the load side cannot be changed on size NH000, narrow design  
 3NP1113-1BC20 → Cable outlet at the bottom  
 3NP1113-2BC20 → Cable outlet at the top

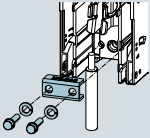
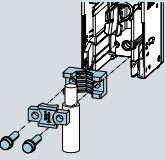
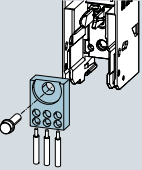
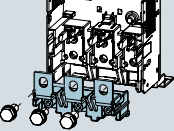
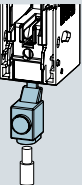
<sup>2)</sup> If optional infeed terminal is used max. 160 A

# 3NP1 fuse switch disconnectors

## Accessories

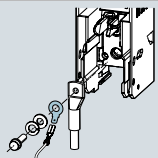
### Connection technology – Terminals

- For adaptation to the respective wiring situation
- Contain enough parts to retrofit one side of a 3NP1 accordingly (three terminals for 3-pole 3NP1, one terminal for 1-pole unit)
- If the incoming cable and cable outlet are retrofitted, two packages must be ordered

		1-pole	3-pole	NH000 narrow	NH000	NH00	NH1	NH2	NH3
<b>Saddle terminals</b>									
 <ul style="list-style-type: none"> <li>• Allows connection of stripped circular conductors to 3NP1 with flat terminals</li> </ul>	<b>Connection</b>	<b>Conductor cross-section</b>	<b>Article No.</b>	<b>Article No.</b>					
		1.5 ... 70 mm <sup>2</sup>	3NP1931-1BA00	3NP1933-1BA00		■			
		70 ... 120 mm <sup>2</sup>	3NP1941-1BA00	3NP1943-1BA00			■		
		120 ... 240 mm <sup>2</sup>	3NP1951-1BA00	3NP1953-1BA00				■	
		150 ... 300 mm <sup>2</sup>	3NP1961-1BA00	3NP1963-1BA00					■
<b>Prism terminals</b>									
 <ul style="list-style-type: none"> <li>• Allows connection of stripped circular conductors to 3NP1 with flat terminals</li> <li>• Also approved for connection of aluminum conductors, available for one or two conductors</li> </ul>	<b>Type</b>	<b>Conductor cross-section</b>	<b>Article No.</b>	<b>Article No.</b>					
	Single	35 ... 95 mm <sup>2</sup>	3NP1931-1BB10	3NP1933-1BB10		■			
		70 ... 150 mm <sup>2</sup>	3NP1941-1BB10	3NP1943-1BB10			■		
		120 ... 240 mm <sup>2</sup>	3NP1951-1BB10	3NP1953-1BB10				■	
		150 ... 300 mm <sup>2</sup>	3NP1961-1BB10	3NP1963-1BB10					■
	Double	2× 35 ... 70 mm <sup>2</sup>	3NP1941-1BB20	3NP1943-1BB20			■		
2× 70 ... 120 mm <sup>2</sup>		3NP1951-1BB20	3NP1953-1BB20				■		
2× 150 ... 185 mm <sup>2</sup>		3NP1961-1BB20	3NP1963-1BB20					■	
<b>Three-tier terminal</b>									
 <ul style="list-style-type: none"> <li>• Distributes one outgoing feeder directly to three smaller loads</li> </ul>	<b>Type</b>	<b>Conductor cross-section</b>	<b>Article No.</b>	<b>Article No.</b>					
	For 3NP1 with flat terminals	3× 1.5 ... 16 mm <sup>2</sup>	3NP1931-1BE10	3NP1933-1BE10		■			
	For 3NP1 with box terminals	3× 1.5 ... 16 mm <sup>2</sup>	3NP1921-1BE20	3NP1923-1BE20		■	■		
<b>Connection module</b>									
 <ul style="list-style-type: none"> <li>• Used with a 3NP1 for busbar mounting if a masking frame is to be supported on the 32 mm cover plane (installation of the terminals under the masking frame)</li> <li>• For 3NP1 with flat terminals</li> </ul>	<b>Type</b>	<b>Conductor cross-section</b>	<b>Article No.</b>	<b>Article No.</b>					
	Connection module	3× 6 ... 70 mm <sup>2</sup>	3NP1931-1BC00	3NP1933-1BC00		■			
<b>Infeed terminal</b>									
 <ul style="list-style-type: none"> <li>• Extends the conductor cross-section of a 000 with box terminal to up to 95 mm<sup>2</sup></li> </ul>	<b>Version</b>	<b>Conductor cross-section</b>	<b>Article No.</b>	<b>Article No.</b>					
	Infeed terminal	16 ... 95 mm <sup>2</sup>	3NP1921-1BD00	3NP1923-1BD00		■			

## Connection technology

### Auxiliary conductor connections



- For connecting small loads directly to the terminals of the 3NP1
- Connection via commercially available flat tab sleeves 6.3 × 0.8 mm, max. 5 A load
- Scope of supply: 3 units

#### 3NP1 connection

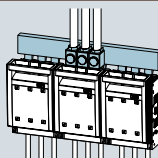
##### With flat terminals

##### With box terminals

##### With retrofitted prism and saddle terminals

3-pole	NH000 narrow	NH000	NH00	NH1	NH2	NH3
<b>Article No.</b>						
			■			
				■		
					■	
						■
	■	■				
			■			
				■		
					■	
						■
			■			
				■		
					■	
						■

### 3-phase busbar system



- For connection of up to 4 3NP1 NH000 for floor mounting on the infeed side
- Infeed is routed through infeed terminals
- With the connection bar, two blocks of bridged 3NP1 can be connected
- Using the cover cap, the connection tags of the busbar are covered on unused feeders to ensure they are safe to touch
- The maximum current-carrying capacity of the interconnected 3NP1 is 225 A in total for the 3-phase busbar system

#### Version

#### Scope of supply

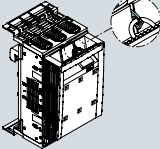
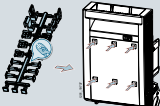
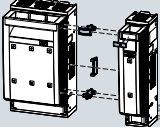
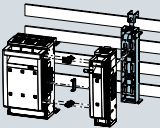
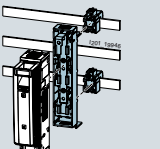
#### Article No.

For 2× 3NP1	1 pack = 5 units	3NP1923-1BF20		■		
For 3× 3NP1	1 pack = 5 units	3NP1923-1BF30		■		
For 4× 3NP1	1 pack = 3 units	3NP1923-1BF40		■		
Connection bars	1 pack = 3 units	3NP1923-1BF50		■		
Covering caps	1 pack = 20 units	3NP1923-1BF10		■		
Infeed terminal	1 pack = 3 units	3NP1923-1BD00		■		

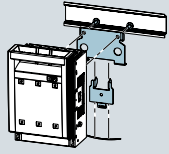
# 3NP1 fuse switch disconnectors

## Accessories

### Assembly kits

	NH000 narrow	NH000	NH00	NH1	NH2	NH3	
<b>Retrofitting of locking function</b>							
 <ul style="list-style-type: none"> <li>For all versions of the 3NP1</li> <li>If required for locking with a padlock (not necessary for the 1-pole 3NP1)</li> </ul>							
	<b>Scope of supply</b> 1 pack = 10 units	<b>Article No.</b>					
	3NP1900-1HA00	■	■	■	■	■	
<b>Protection against power theft</b>							
 <ul style="list-style-type: none"> <li>Closes the holes on the front of the 3NP1 (holes for voltage testing) and secures the front window such that power theft is not possible without visible damage to the 3NP1 (when the 3NP1 is locked or sealed)</li> </ul>							
	<b>Scope of supply</b> 1 pack is sufficient to equip 5 3NP1 units, 2.5 units for NH000, narrow design	<b>Article No.</b>					
	3NP1900-1EF00	■	■	■	■	■	
<b>Mechanical connection of 1-pole and 3-pole 3NP1 devices</b>							
 <ul style="list-style-type: none"> <li>For 3NP1 with floor mounting</li> <li>By combining two 3NP1s for floor mounting, any 2-pole and 4-pole devices can be created</li> </ul>							
	<b>Article No.</b>						
	3NP1921-1EC00	■					
	3NP1931-1EC00		■				
	3NP1941-1EC00			■	■	■	
<b>4-pole connecting kit for mounting on a 8US 60-mm busbar</b>							
 <ul style="list-style-type: none"> <li>Connects a 3-pole 3NP1 for busbar mounting 60 mm 8US to a 1-pole 3NP1 for floor mounting</li> <li>The 1-pole 3NP1 switches the neutral conductor of a 3+N system in this combination</li> </ul>							
	<b>3NP1 connection</b>						
	With flat terminals	<b>Article No.</b>					
		3NP1934-1ED20		■			
	With box terminals	<b>Article No.</b>					
		3NP1924-1ED10	■				
	3NP1934-1ED10		■				
With flat terminals or box terminals	<b>Article No.</b>						
	3NP1944-1ED00			■			
	3NP1954-1ED00				■	■	
<b>1-pole connecting kit for mounting on a 8US 60-mm busbar</b>							
 <ul style="list-style-type: none"> <li>Permits adaptation of a 1-pole 3NP1 for floor mounting to a 3-pole busbar system</li> <li>The feeding busbar (L1, L2 or L3) can be chosen freely</li> <li>If two such 3NP1 are combined by mechanical connection using the assembly kit, 2-pole 3NP1 for busbar mounting can also be assembled</li> </ul>							
	<b>3NP1 connection</b>						
	With box terminals	<b>Article No.</b>					
	3NP1921-1EE10	■					
	3NP1931-1EE10		■				

## Assembly kits



### Assembly kits for mounting on standard mounting rail

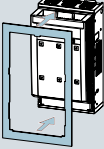
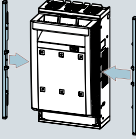
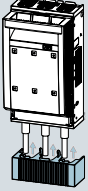
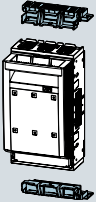
- Must be mounted on the rear of a 3NP1 for floor mounting
- Mounting of the 3NP1 on a standard mounting rail is achieved for size NH000 by mounting on a mounting rail, and for sizes NH00 and NH1 between two mounting rails that are 125 or 150 mm apart

	1/2-pole	3-pole	4-pole	NH000 narrow	NH000	NH00	NH1	NH2	NH3
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>							
3NP1921-1EA00	3NP1923-1EA00	3NP1924-1EA00			■				
3NP1931-1EB00	3NP1933-1EB00	3NP1933-1EB00				■			
3NP1943-1EB00	3NP1943-1EB00	3NP1943-1EB00					■		



# 3NP1 fuse switch disconnectors

## Accessories

	1-pole	3-pole	NH000 narrow	NH000	NH00	NH1	NH2	NH3
<b>Masking frames and covers</b>								
<b>Masking frames</b>								
	<ul style="list-style-type: none"> <li>Used to cover an existing gap for a masking frame mounted on the application side</li> </ul>							
<b>Outer dimensions (H×W)</b>	<b>Article No.</b>	<b>Article No.</b>						
215 × 130 mm	–	3NP1923-1DA00		■				
215 × 130 mm	–	3NP1933-1DA00			■			
375 × 220 mm	–	3NP1943-1DA00				■		
375 × 245 mm	–	3NP1953-1DA00					■	
375 × 290 mm	–	3NP1963-1DA00						■
<b>Masking frame supports</b>								
	<ul style="list-style-type: none"> <li>Are mounted on the side of the 3NP1 and prevent the supported masking frame from sagging (pack of 2 units)</li> </ul>							
	<b>Article No.</b>	<b>Article No.</b>						
	3NP1923-1CF00	3NP1923-1CF00		■				
	–	3NP1913-1CF00 <b>new</b>	■					
	3NP1933-1CF00	3NP1933-1CF00			■			
	3NP1943-1CF00	3NP1943-1CF00				■	■	■
<b>Cable connection covers</b>								
	<ul style="list-style-type: none"> <li>Extends the terminal covers integrated in the 3NP1</li> <li>In the version with rear reach-around protection, the underside is also covered</li> </ul>							
<b>Version</b>	<b>Article No.</b>	<b>Article No.</b>						
<b>Without rear reach-around protection</b>	3NP1921-1CB00	3NP1923-1CB00 <sup>1)</sup>		■				
	–	3NP1913-1CB00 <b>new</b>	■					
	3NP1931-1CB00	3NP1933-1CB00 <sup>2)</sup>			■			
	3NP1941-1CB00	3NP1943-1CB00				■		
	3NP1951-1CB00	3NP1953-1CB00					■	
	3NP1961-1CB00	3NP1963-1CB00						■
<b>With rear reach-around protection</b>	–	3NP1933-1CC00 <sup>1)</sup>			■			
	3NP1931-1CD00	3NP1933-1CD00 <sup>3)</sup>			■			
	3NP1941-1CD00	3NP1943-1CD00				■		
	3NP1951-1CD00	3NP1953-1CD00					■	
	3NP1961-1CD00	3NP1963-1CD00						■
<b>Reach-around protection for busbar (spare part)</b>								
	<ul style="list-style-type: none"> <li>Covers the busbar</li> <li>For conversion of a 3NP1 to another busbar system</li> </ul>							
<b>For busbar systems</b>	<b>Article No.</b>	<b>Article No.</b>						
<b>Siemens 8US</b>	–	3NP1923-1CA10		■				
	–	3NP1913-1CA10 <b>new</b>	■					
	–	3NP1933-1CA10			■			
	3NP1941-1CA10	–				■	■	■
	–	3NP1943-1CA10				■		
	–	3NP1953-1CA10					■	
	–	3NP1963-1CA10						■
<b>Siemens 8US compact</b>	–	3NP1923-1CA30		■				
<b>Rittal</b>	–	3NP1923-1CA20		■				
	–	3NP1913-1CA10 <b>new</b>						
	–	3NP1933-1CA20			■			
	–	3NP1943-1CA20				■		
	–	3NP1953-1CA20					■	
	–	3NP1963-1CA20						■

<sup>1)</sup> Only for 3NP1 for mounting on busbar systems

<sup>2)</sup> Only for 3NP1 with flat terminals

<sup>3)</sup> Only for 3NP1 with flat terminals for floor mounting

## Other accessories

## Auxiliary switches

- Up to 2 auxiliary switches can be mounted
- From size NH00, it is possible to choose whether the auxiliary switch will switch simultaneously with the fuses or leading on switch-on. (only leading possible for size NH000)

## Contacts

1 CO

## Article No.

3NP1920-1FA00

3NP1910-1FA00

new

3NP1930-1FA00

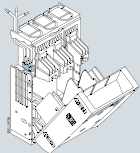
3NP1940-1FA00

1 CO, solid-state compatible

3NP1920-1FB00

3NP1930-1FB00

3NP1940-1FB00



## Isolating blades

- Are used if only the isolating function of a 3NP1 is required and not protection with fuses or in the neutral conductor of a 4-pole 3NP1.
- The isolating blade, which is leading on switch-on and lagging on switch-off, is used in the neutral conductor of a 4-pole 3NP1 if shifting of the neutral point of the 3+N system has to be avoided during switching.

## Version

Switching simultaneously with fuses

## Article No.

3NG1002

3NG1202

3NG1302

3NG1402

Leading switch-on, lagging switch-off

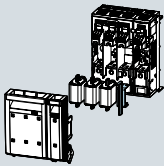
3NP1924-1MA20

3NP1934-1MA20

3NP1944-1MA20

3NP1954-1MA20

3NP1964-1MA20



# 3NP1 fuse switch disconnectors

## Other accessories

### Fuse carriers (spare part)

- For retrofitting fuse monitoring on an existing 3NP1

	1-pole	3-pole	NH000 narrow	NH000	NH00	NH1	NH2	NH3
								
<b>Version</b>	<b>Article No.</b>	<b>Article No.</b>						
Standard – without fuse monitoring	3NP1921-1GA00	3NP1923-1GA00		■				
	–	3NP1913-1GA00 <b>new</b>	■					
	3NP1931-1GA00	3NP1933-1GA00			■			
	3NP1941-1GA00	3NP1943-1GA00				■		
	3NP1951-1GA00	3NP1953-1GA00					■	
	3NP1961-1GA00	3NP1963-1GA00						■
MFM - for operating voltage 24 ... 690 V AC (L-L)/ 24 ... 240 V DC (L+ - L-)	–	3NP1923-1GB10		■				
	–	3NP1933-1GB10			■			
	–	3NP1943-1GB10				■		
	–	3NP1953-1GB10					■	
	–	3NP1963-1GB10						■
EFM10 - for operating voltage 230 ... 690 V AC (L-L)	–	3NP1923-1GB20		■				
	–	3NP1933-1GB20			■			
	–	3NP1943-1GB20				■		
	–	3NP1953-1GB20					■	
	–	3NP1963-1GB20						■
EFM15 - for operating voltage 24 ... 240 V AC (L - N)/ 24 ... 250 V DC (L+ - L-)	3NP1921-1GB43	–		■				
	3NP1931-1GB43	–			■			
	3NP1941-1GB43	–				■		
	3NP1951-1GB43	–					■	
	3NP1961-1GB43	–						■
EFM15 - for operating voltage 110 ... 690 V AC (L - N)	3NP1921-1GB41	–		■				
	3NP1931-1GB41	–			■			
	3NP1941-1GB41	–				■		
	3NP1951-1GB41	–					■	
	3NP1961-1GB41	–						■
EFM15 - for operating voltage 120 ... 440 V DC (L - N)	3NP1921-1GB44	–		■				
	3NP1931-1GB44	–			■			
	3NP1941-1GB44	–				■		
	3NP1951-1GB44	–					■	
	3NP1961-1GB44	–						■
EFM15 - for operating voltage 190 ... 690 V AC (L - L)	–	3NP1923-1GB42		■				
	–	3NP1933-1GB42			■			
	–	3NP1943-1GB42				■		
	–	3NP1953-1GB42					■	
	–	3NP1963-1GB42						■
EFM15 - for operating voltage 220 ... 440 V DC (L+ - L-)	–	3NP1923-1GB45		■				
	–	3NP1933-1GB45			■			
	–	3NP1943-1GB45				■		
	–	3NP1953-1GB45					■	
	–	3NP1963-1GB45						■
EFM20 - for operating voltage 230 ... 690 V AC (L - L)	–	3NP1923-1GB30		■				
	–	3NP1933-1GB30			■			
	–	3NP1943-1GB30				■		
	–	3NP1953-1GB30					■	
	–	3NP1963-1GB30						■
EFM25 - for operating voltage 220 ... 440 V DC (L+ - L-)	–	3NP1923-1GB50		■				
	–	3NP1933-1GB50			■			
	–	3NP1943-1GB50				■		
	–	3NP1953-1GB50					■	
	–	3NP1963-1GB50						■



# 3NP5 fuse switch disconnectors

## System overview

### Basic units



Floor mounting



For 40 mm busbar system

### Connection parts



Clamp terminals



Busbar adapters for 60 mm systems

### Masking frames and covers

Molded-plastic  
masking frames

Cable connection covers

### Other accessories



Auxiliary switches



Arc chutes

Assembly kits for  
flush mounting

Fuse carriers

#### Note:

You will find a detailed range of accessories with the basic units.

## General information



### 3NA COM LV HRC fuse link



The new the 3NA COM LV HRC fuse links with communication and measuring function make your products communication-capable.

See [Fuse Systems](#), page 7/42



### System description

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



3NP50



3NP52



3NP54

The 3NP5 fuse switch disconnector is an extremely robust device for extreme operating conditions.

The fuse carrier has a pretensioned spring that prevents accidental, slow closure.

All 3NP5 are designed for mounting on a mounting plate. Size NH00 is also available in versions for 40 mm busbar systems.

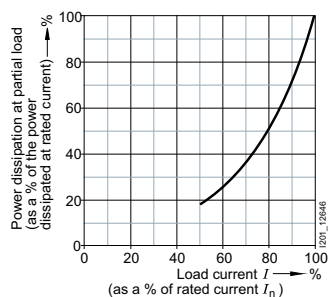
All sizes can also be mounted using adapters on 60 mm busbar systems.

8



### Suitable fuses

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



The 3NP5 fuse switch disconnector is suitable for all fuses with LV HRC design in sizes 000 to 3 that comply with IEC 60269-2, including fuses for cable and line protection and motor protection.

Fuses for semiconductor protection (Siemens trademark SITOR) can also be used. However, some of these fuses have substantially higher power losses than fuses according to IEC 60269-2. This means that the load current has to be reduced until the value that is permissible in the fuse switch disconnector is not exceeded.






For use of Siemens SITOR semiconductor fuses, ready-made derating tables are available in the linked document.

# 3NP5 fuse switch disconnectors



Types of mounting	Auxiliary switches	Flat terminals			
		NH00	NH1	NH2	NH3
		$I_u = 160 \text{ A}$	$I_u = 250 \text{ A}$	$I_u = 400 \text{ A}$	$I_u = 630 \text{ A}$
<b>Without fuse monitoring</b>					
Floor mounting	Without	3NP5060-0CA00	3NP5260-0CA00	3NP5360-0CA00	3NP5460-0CA00
	1 NO + 1 NC	3NP5060-0CA10	3NP5260-0CA10	3NP5360-0CA10	3NP5460-0CA10
Mounting on 40 mm busbar systems	Without	3NP5065-1CF00	–	–	–
	1 NO + 1 NC	3NP5065-1CF10	–	–	–
<b>Electromechanical fuse monitoring with 1 NO + 1 NC as a signaling contact</b>					
Floor mounting	1 NO + 1 NC	3NP5060-0EA86	3NP5260-0EA86	3NP5360-0EA86	3NP5460-0EA86
	1 NO + 1 NC	3NP5065-1EF86	–	–	–
<b>Electromechanical fuse monitoring with 2 NO as a signaling contact</b>					
Floor mounting	1 NO + 1 NC	3NP5060-0EA26	3NP5260-0EA26	3NP5360-0EA26	3NP5460-0EA26
	1 NO + 1 NC	3NP5065-1EF26	–	–	–
<b>Electronic fuse monitoring with 1 NO + 1 NC as a signaling contact</b>					
Floor mounting	1 NO + 1 NC	3NP5060-0HA13	3NP5260-0HA13	3NP5360-0HA13	3NP5460-0HA13
	1 NO + 1 NC	3NP5065-1HF13	–	–	–

## Accessories

				NH00	NH1	NH 2	NH3
<b>Clamp terminals</b>							
	<b>Version</b>	<b>Scope of supply</b>	<b>Article No.</b>				
	For retrofitting to 3NP5 with flat terminals	3 units	3NY1903 3NY1907	■	■		
<b>Busbar adapters</b>							
	• For 60 mm busbar system		<b>Article No.</b>				
	<b>Version</b>	For adaptation of a 3NP5, for floor mounting on a 60-mm busbar system	8US1291-4SB00 8US1210-4AG00	■	■	■	■
<b>Covers for cable lug connections</b>							
	<b>Version</b>	<b>Scope of supply</b>	<b>Article No.</b>				
	Can be screwed onto the free end of the screw	6 units	3NY1241 3NY1245		■	■	■
<b>Covers for 3NP5, with auxiliary switch mounted</b>							
	• With punched cutouts for auxiliary switches		<b>Article No.</b>				
	<b>Color</b>	<b>Version</b>	<b>Dimensions</b>				
	Gray	Flat	215 × 135 mm	3NY1115	■		
Black	Flat, with additional bending edges	290 × 135 mm	3NY1116	■			
<b>Covers for 3NP5, without auxiliary switches mounted</b>							
	• With prepunched cutouts for retrofitting an auxiliary switch		<b>Article No.</b>				
	<b>Color</b>	<b>Version</b>	<b>Dimensions</b>				
	Gray	Flat	215 × 135 mm	3NY1105	■		
	Black	Flat	290 × 135 mm	3NY1106	■		
	Angled	265 × 135 mm	3NY1107	■			
	Flat, with additional bending edges	290 × 135 mm	3NY1108	■			

## Accessories

			NH00	NH1	NH 2	NH3
<b>Auxiliary switches</b>						
	<b>Version</b>	<b>Article No.</b>				
	1 NO + 1 NC, including mounting kit	3NY3033	■			
		3NY3034		■	■	■
<b>Arc chutes</b>						
	<ul style="list-style-type: none"> <li>Spare part for arc chutes installed in the factory, one unit per switch is required for NH00, three units for NH1 to NH3</li> </ul>	<b>Article No.</b>				
		3NY4031	■			
		3NY4011		■		
		3NY4012			■	■
<b>Assembly kits for flush mounting in front panel</b>						
	<b>Version</b>	<b>Article No.</b>				
	Assembly kit with cover and mounting accessories	3NY1208	■			
		3NY1210		■		
		3NY1211			■	
		3NY1212				■
	Covers (spare part for assembly kit)	3NY1102		■		
		3NY1103			■	
	3NY1104				■	
<b>Fuse carriers</b>						
	<b>Version</b>	<b>Article No.</b>				
	Without fuse monitoring	3NY1074	■			
		3NY1371		■		
		3NY1372			■	
		3NY1373				■
	With electromechanical fuse monitoring by circuit breakers, signaling contact 1 NO + 1 NC, without connecting cable	3NY1420	■			
		3NY1421		■		
		3NY1422			■	
		3NY1423				■
	With electromechanical fuse monitoring, signaling contact 1 NO + 1 NC, without connecting cable	3NY1513-0	■			
		3NY1513-2		■		
		3NY1513-3			■	
		3NY1513-4				■
<b>Connectors and connecting cables</b>						
	<b>Version</b>	<b>Length</b>	<b>Article No.</b>			
	For electromechanical fuse monitoring	1 m	3NY1910	■	■	■
		3 m	3NY1911	■	■	■
	For electronic fuse monitoring	3 m	3NY1915	■	■	■



# 3NJ4 fuse switch disconnectors

## System overview

### 1-pole switchable



Standard

For integratable  
current transformers

### 3-pole switchable



Standard

For integratable  
current transformersWith electronic  
fuse monitoring

8

## Accessories



Covers

Adapters on  
busbar systemsMounting and  
assembly elementsBusbar connection  
assembly kits

Fuses

Current  
transformers

### Note:

You will find a detailed range of accessories with the basic units.

## General information



### 3NA COM LV HRC fuse link



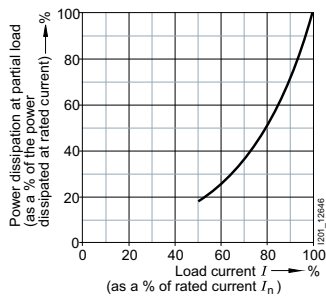
The new the 3NA COM LV HRC fuse links with communication and measuring function make your products communication-capable.

See [Fuse Systems](#), page 7/42



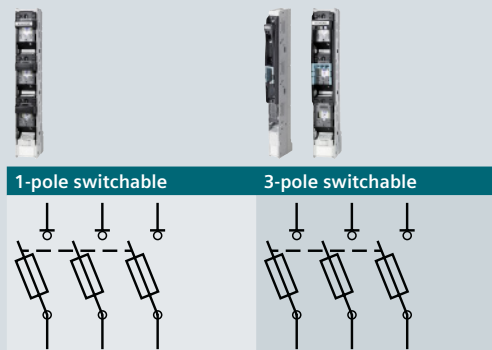
### Suitable fuses

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



The 3NJ4 fuse switch disconnector is suitable for all fuses with LV HRC design in sizes 000 to 3 that comply with IEC 60269-2, including fuses for cable and line protection.

# 3NJ4 fuse switch disconnectors



Connection	Size of fuse	Busbar center-to-center spacing	Rated operational current $I_e$		
<b>Standard</b>					
M8 flat connector	NH00/NH000 <sup>1)</sup>	185 mm	160 A	3NJ4101-3BF01	3NJ4103-3BF01
	NH00/NH000	100 mm	160 A	–	3NJ4103-3BF02
F70 box terminal	NH00/NH000	100 mm	160 A	–	3NJ4103-3BR02
M10 flat connector	NH1	185 mm	250 A	3NJ4121-3BF01	3NJ4123-3BF01
M12 flat connector	NH2	185 mm	400 A	3NJ4131-3BF01	3NJ4133-3BF01
	NH3	185 mm	630 A	3NJ4141-3BF01	3NJ4143-3BF01
M12 stud terminal	NH1	185 mm	250 A	–	3NJ4123-3BJ01
	NH2	185 mm	400 A	–	3NJ4133-3BJ01
	NH3	185 mm	630 A	–	3NJ4143-3BJ01
M16 × 60 stud terminal	NH4a	185 mm	1250 A	3NJ5643-0BB00	–
V terminal	NH1	185 mm	250 A	–	3NJ4123-3BT01
	NH2	185 mm	400 A	–	3NJ4133-3BT01
	NH3	185 mm	630 A	–	3NJ4143-3BT01
<b>For integratable current transformers</b>					
M8 flat connector	NH00/NH000	100 mm	160 A	–	3NJ4103-3BF12
M10 flat connector	NH1	185 mm	250 A	3NJ4121-3BF11	3NJ4123-3BF11
M12 flat connector	NH2	185 mm	400 A	3NJ4131-3BF11	3NJ4133-3BF11
	NH3	185 mm	630 A	3NJ4141-3BF11	3NJ4143-3BF11
<b>With electronic fuse monitoring devices EFM</b>					
M8 flat connector	NH00/NH000	100 mm	160 A	–	3NJ4103-3CF02
M10 flat connector	NH1	185 mm	250 A	–	3NJ4123-3CF01
M12 flat connector	NH2/NH1	185 mm	400 A	–	3NJ4133-3CF01
	NH3/NH2	185 mm	630 A	–	3NJ4143-3CF01
<b>For integratable current transformers, with EFM electronic fuse monitoring</b>					
M8 flat connector	NH00/NH000	100 mm	160 A	–	3NJ4103-3CF12
M10 flat connector	NH1	185 mm	250 A	–	3NJ4123-3CF11
M12 flat connector	NH2/NH1	185 mm	400 A	–	3NJ4133-3CF11
	NH3/NH2	185 mm	630 A	–	3NJ4143-3CF11
<b>For secondary-side fusing of transformers and incoming block</b>					
Flat connector 2× M12	NH3	185 mm	1000 A	–	3NJ4153-3BF01
Flat connector 2× M12	NH3	185 mm	1250 A	–	3NJ4183-3BF01
Flat connector 3× M12	NH3	185 mm	1600 A	–	3NJ4163-3BF01
Flat connector 4× M12	NH3	185 mm	2000 A	–	3NJ4173-3BF01

<sup>1)</sup> If mounted together with device sizes NH1 to NH3, a 3NJ5930-3BB adapter is required as an accessory to compensate for differences in height.

## Note:

- Fixing screws for mounting on busbars must be ordered separately.



# 3NJ4 fuse switch disconnectors

## Accessories

### Covers



- Additional touch protection when using cable lugs and as spacer

Size	Busbar center-to-center spacing	Version	Article No.
NH00	100 mm	Top and bottom	3NJ4912-1DA02
	185 mm	100 mm for bottom	3NJ4912-1FA01
		132 mm for top	3NJ4912-1FA00
NH1 ... NH3	Connection from the top		3NJ4912-1AA01
NH3	For double in-line disconnectors		3NJ4912-1EA00

### Blanking covers



Version	Length	Width	Busbar center-to-center spacing	Article No.
For switchboard cutout	299 mm	50 mm	100 mm only	3NJ4912-2CA00
	633 mm	50 mm		3NJ4912-2AA00
	633 mm	100 mm		3NJ4912-2BA00

### Lateral masking frame supports

- 3 clips with T profile

Size	Article No.
NH00 ... NH3	3NJ4912-2DA00

### Fixing clips



Scope of supply	Article No.
1 set = 4 units, including fixing accessories	3NJ4918-0AA00

### Unequipped section covers



Busbar center-to-center spacing	Width	Article No.
185 mm	50 mm	3NJ4912-3AA00
	100 mm	3NJ4912-3BA01
100 mm	50 mm	3NJ4912-3CA00

### Adapters for screw fixing on busbar systems



- Adapters for screw fixing on busbar systems with 185 mm busbar center-to-center spacing
- For mounting 2 fuse switch disconnectors

Version	Fuse switch disconnectors	Article No.
Adaptation to sizes 1 ... 3	From 100 mm to 185 mm	3NJ4918-0DA02
	From 185 mm to 185 mm	3NJ5930-3BB
Adaptation to sizes 1 ... 3, with busbar terminal	From 100 mm to 185 mm	3NJ4918-0DB02

### Adapters for screw fixing on busbar systems



- For fitting one fuse switch disconnector (= 3 separate brackets)

Version	Article No.
Adaptation of 100 mm to busbar system with 60 mm busbar center-to-center spacing	3NJ4918-0EA00

### Fixing screws

- For fitting 3NJ4103 switch disconnectors with integratable current transformers onto adapters

Scope of supply	Article No.
1 set = 3 units	3NJ4918-0DC02








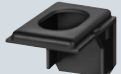


<sup>1)</sup> Touch protection only suitable for 3NJ4103-3BF02

<sup>2)</sup> Touch protection only suitable for 3NJ4101-3BF01 and 3NJ4103-3BF01

3NJ4101	3NJ4103	3NJ412	3NJ413	3NJ414	3NJ415	3NJ416	3NJ417	3NJ418
	■ 1)							
■ 2)	■ 2)							
■ 2)	■ 2)							
		■	■	■	■	■	■	■
				■	■	■	■	■
■	■							
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■	■							
	■							
	■							

# 3NJ4 fuse switch disconnectors

## Accessories

	<ul style="list-style-type: none"> <li>For screwing on the busbars</li> </ul> <p><b>Version</b> For 100 and 185 mm busbar center-to-center spacing</p>	<p><b>Article No.</b> 3NJ5974-0AB</p>
	<p><b>Version</b> With connecting cable 25 mm<sup>2</sup></p>	<p><b>Article No.</b> 3NJ4910-1AA00</p>
	<ul style="list-style-type: none"> <li>Not for devices with transformer installation</li> </ul> <p><b>Version</b> For each fuse switch disconnector, 3 units are required For more rapid mounting of the switch disconnectors onto the busbars (1 set = 3 units)</p>	<p><b>Article No.</b> 3NJ4911-3AA00 3NJ4911-3BA01</p>
	<ul style="list-style-type: none"> <li>1 set = 3 units</li> </ul> <p><b>Connection</b> Cu 1.5 ... 70 mm<sup>2</sup></p>	<p><b>Article No.</b> 3NJ4911-4AA00</p>
	<ul style="list-style-type: none"> <li>1 set = 3 units</li> </ul> <p><b>Connection</b> Al/Cu 10 ... 70 mm<sup>2</sup></p>	<p><b>Article No.</b> 3NJ4911-1AA00</p>
	<ul style="list-style-type: none"> <li>For connection to version with flat connector</li> <li>1 set = 3 units</li> </ul> <p><b>Connection</b> Al/Cu 95 ... 240 mm<sup>2</sup></p>	<p><b>Article No.</b> 3NJ4911-2BQ00</p>
	<ul style="list-style-type: none"> <li>For 3-pole switchable switch disconnectors only</li> </ul> <p><b>Version</b> For NH00 ... NH3 with connecting cables</p> <p><b>Contacts</b> 1 CO</p>	<p><b>Article No.</b> 3NJ4913-1AA01</p>
	<ul style="list-style-type: none"> <li>1 per in-line disconnector required</li> </ul>	<p><b>Article No.</b> 3NJ4918-1AA00</p>
	<p><b>Version</b> For NH00 For fuse switch disconnectors, with integratable current transformers if no current transformer is built in</p>	<p><b>Article No.</b> 3NJ4915-1BA00 3NJ4915-2BA00</p>
		<p><b>Article No.</b> 3NJ4915-1CA00</p>

3NJ4101	3NJ4103	3NJ412	3NJ413	3NJ414	3NJ415	3NJ416	3NJ417	3NJ418
■	■	■	■	■	■	■	■	■
		■	■	■	■	■	■	■
■	■	■	■	■				
	■							
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		■	■	■				
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		■	■	■				
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	■	■	■	■				
	■							



# 3NJ4 fuse switch disconnectors

## Accessories

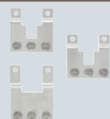
### Busbar connection assembly kits for NH2 and NH3



- With flat terminals

Screws	Conductor cross-section	Article No.
M12	2× 240 mm <sup>2</sup>	3NJ4911-5AA00
	2× 300 mm <sup>2</sup> /3× 120 mm <sup>2</sup>	3NJ4911-5BA00
M16	1× 400 mm <sup>2</sup>	3NJ4911-5CA00

### Busbar connection assembly kits for NH3



Version	Conductor cross-section	Article No.
For NH3 as double in-line disconnectors	3× 300 mm <sup>2</sup> /4× 185 mm <sup>2</sup>	3NJ4911-6AA00
	4× 240 mm <sup>2</sup>	3NJ4911-6BA00

Mechanical coupling of operating handles	3NJ4911-6CA00
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### Fuses NH3



- Minimum order quantity 3 units

Version	Article No.
For protection of transformers, 630 kVA, 909 A	3NJ4914-8AA00

### Isolating blades NH3

Rated operational current $I_e$	Article No.
1250 A	3NJ4914-8BA00

### Current transformers .../1 A



Rated primary current $I_{pr}$	Accuracy class	Rated power $P_n$	Article No.
100/1 A	0.5	1.5 VA	3NJ4915-1EA10
	1	2.0 VA	3NJ4915-1EA20
	0.5 calibrated	2.5 VA	3NJ4915-1FA10
150/1 A	0.5	2.5 VA	3NJ4915-1FA10
	0.5 calibrated	2.5 VA	3NJ4915-1FA11
	1	3.0 VA	3NJ4915-1FA20
75/1 A	1	1.5 VA	3NJ4915-2DA20
100/1 A	0.5	1.5 VA	3NJ4915-2EA10
	1	2.0 VA	3NJ4915-2EA20
150/1 A	1	2.5 VA	3NJ4915-2FA20
	0.5	2.5 VA	3NJ4915-2GA10
250/1 A	0.5 calibrated	2.5 VA	3NJ4915-2GA11
	1	5.0 VA	3NJ4915-2GA20
	0.5	2.5 VA	3NJ4915-2HA10
400/1 A	0.5 calibrated	2.5 VA	3NJ4915-2HA11
	1	5.0 VA	3NJ4915-2HA20
	0.5	2.5 VA	3NJ4915-2JA10
500/1 A	1	5.0 VA	3NJ4915-2JA20
	0.5	2.5 VA	3NJ4915-2KA10
600/1 A	0.5 calibrated	2.5 VA	3NJ4915-2KA11
	1	5.0 VA	3NJ4915-2KA20





# 3NJ4 fuse switch disconnectors

## Accessories

### Current transformers .../5 A



Rated primary current $I_{pr}$	Accuracy class	Rated power $P_n$	Article No.
100/5 A	0.5	1.0 VA	3NJ4915-1EB10
	1	1.5 VA	3NJ4915-1EB20
150/5 A	0.5	1.5 VA	3NJ4915-1FB10
	0.5 calibrated	1.5 VA	3NJ4915-1FB11
	1	2.5 VA	3NJ4915-1FB20
75/5 A	1	1.5 VA	3NJ4915-2DB20
100/5 A	0.5	1.0 VA	3NJ4915-2EB10
	1	2.0 VA	3NJ4915-2EB20
150/5 A	0.5	1.5 VA	3NJ4915-2FB10
	1	2.5 VA	3NJ4915-2FB20
250/5 A	0.5	2.5 VA	3NJ4915-2GB10
	0.5 calibrated	2.5 VA	3NJ4915-2GB11
	1	3.75 VA	3NJ4915-2GB20
400/5 A	0.5	2.5 VA	3NJ4915-2HB10
	0.5 calibrated	2.5 VA	3NJ4915-2HB11
	1	5.0 VA	3NJ4915-2HB20
500/5 A	0.5	2.5 VA	3NJ4915-2JB10
	1	5.0 VA	3NJ4915-2JB20
600/5 A	0.5	2.5 VA	3NJ4915-2KB10
	0.5 calibrated	2.5 VA	3NJ4915-2KB11
	1	5.0 VA	3NJ4915-2KB20



# 5SG76 fuse switch disconnectors

## System overview

### MINIZED fuse switch disconnectors



1P



1P+N



2P



3P



3P+N



		Number of poles				
		1P	1P+N	2P	3P	3P+N
Size of fuse	Rated current $I_n$	Mounting width 1 MW	Mounting width 2 MW	Mounting width 2 MW	Mounting width 3 MW	Mounting width 4 MW
<b>MINIZED fuse switch disconnectors</b>						
D01	6 A <sup>1)</sup>	5SG7611-0KK06	–	–	5SG7631-0KK06	–
	10 A	5SG7611-0KK10	–	–	5SG7631-0KK10	–
	16 A	5SG7611-0KK16	5SG7651-0KK16	5SG7621-0KK16	5SG7631-0KK16	5SG7661-0KK16

<sup>1)</sup> For 2 A, 4 A, 6 A fuses

**Note:**

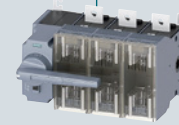
No NEOZED adapter sleeves are required for this type series

# Switch disconnectors with fuses

## Quick selection guide



3KF LV HRC



Size		1	1	1	2	2	3	4	5	5	
<b>General technical specifications acc. to IEC 60947-3</b>											
<b>Basic data</b>											
Rated uninterrupted current $I_u$	A	32	63	80	125	160	250	400	630	800	
For fuse links acc. to IEC 60269-2		000 and 00					0 and 1	1 and 2	2 and 3		
Rated operational voltage $U_e$	At 50/60 Hz AC	V AC					690				
	At DC - 2 conducting paths in series	V DC					220				
	At DC - 3 conducting paths in series	V DC					440				
	At DC	V DC					-				
<b>Operating and short-circuit behavior</b>											
Rated operational current $I_e$ <sup>1)</sup>	At AC-21A AC-21B at 400 V	A	32	63	80	125	160	250	400	630	800
	At AC-21A AC-21B at 500 V	A	-	-	-	-	-	-	-	-	-
	At AC-21A AC-21B at 690 V	A	32	63	80	125	160	250	400	630	800
	At AC-22A AC-22B at 400 V	A	32	63	80	125	160	250	400	630	800
	At AC-22A AC-22B at 500 V	A	-	-	-	-	-	-	-	-	-
	At AC-22A AC-22B at 690 V	A	32	63	80	125	160	250	400	630	800
	At AC-23A AC-23B at 400 V	A	32	63	80	125	160	250	400	630	800
	At AC-23A AC-23B at 500 V	A	-	-	-	-	-	-	-	-	-
	At AC-23A AC-23B at 690 V	A	32	63	80	125	160	250	400	630	800
	At DC-21A DC-21B at 48 V	A	-	-	-	-	-	-	-	-	-
	At DC-21A DC-21B at 65 V	A	-	-	-	-	-	-	-	-	-
	At DC-21A DC-21B at 110 V	A	-	-	-	-	-	-	-	-	-
	At DC-21A DC-21B at 130 V	A	-	-	-	-	-	-	-	-	-
	At DC-21A DC-21B at 220 V	A	32	63	80	125	160	250	400	630	800
	At DC-21A DC-21B at 400 V	A	-	-	-	-	-	-	-	-	-
	At DC-21A DC-21B at 440 V	A	32	63	80	125	160	250	400	630	800
	At DC-22A DC-22B at 48 V	A	-	-	-	-	-	-	-	-	-
	At DC-22A DC-22B at 65 V	A	-	-	-	-	-	-	-	-	-
	At DC-22A DC-22B at 110 V	A	-	-	-	-	-	-	-	-	-
	At DC-22A DC-22B at 130 V	A	-	-	-	-	-	-	-	-	-
	At DC-22A DC-22B at 220 V	A	32	63	80	125	160	250	400	630	800
	At DC-22A DC-22B at 400 V	A	-	-	-	-	-	-	-	-	-
	At DC-22A DC-22B at 440 V	A	32	63	80	125	160	250	400	630	800
	At DC-23A DC-23B at 48 V	A	-	-	-	-	-	-	-	-	-
	At DC-23A DC-23B at 110 V	A	-	-	-	-	-	-	-	-	-
	At DC-23A DC-23B at 220 V	A	32	63	80	125	160	250	400	630	800
	At DC-23A DC-23B at 400 V	A	-	-	-	-	-	-	-	-	-
At DC-23A DC-23B at 440 V	A	32	63	80	125	160	250	400	630	800	
Motor switching capacity <sup>2)</sup>	At AC-23A at 400 V	kW	15	30	37	55	90	132	220	355	400
	At AC-23A at 500 V	kW	18.5	37	55	75	110	160	280	400	560
	At AC-23A at 690 V	kW	30	55	75	110	132	250	400	630	800
Rated conditional short-circuit current with upstream fuse <sup>3)</sup>	At 400/500 V AC	kA	100	100	100	100	100	100	100	100	100
	At 690 V AC	kA	100	100	100	100	100	100	100	80	80
Let-through current $I_c$ of usable fuses, max. <sup>3)</sup>	At 400/500 V AC	kA	11.8	11.8	11.8	18	18	33.7	37.1	77.4	77.4
	At 690 V AC	kA	11.5	11.5	11.5	25.5	25.5	37.7	47	65	65
Let-through current $I^2t$ value of usable fuses, max. <sup>3)</sup>	At 400/500 V AC	kA <sup>2</sup> s	34	34	34	223	223	1500	2150	10400	10400
	At 690 V AC	kA <sup>2</sup> s	55	55	55	360	360	940	2600	7000	7000
Maximum power loss of the usable fuses (per fuse)	W	6.5	7.5	8.5	11	12	25.5	34	48	60	
<b>Degree of protection</b>											
Maximum IP degree of protection (with a rotary operating mechanism)							IP65			IP65	
Maximum IP degree of protection							-			-	

<sup>1)</sup> Values valid even at +10% line voltage tolerance in case of AC

<sup>2)</sup> Values are provided as a guide only and may vary depending on the make of motor

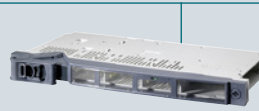
<sup>3)</sup> Valid for combination of 3KF and fuse type 3NA/3ND, characteristic gG/aM



3KF SITOR



3NJ63



5SG7



3KF SITOR									3NJ63							5SG7					
1	1	1	2	2	3	4	5	5	00	00	00	00	1	2	3	3	5SG71.	5SG7230	5SG7234.		
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	63	63	63		
000 and 00				0 and 1		1 and 2		2 and 3		000 and 00				1 1 and 2		2 and 3		D02	D02	D02	
				690						500 ... 690				690		230 ... 690		400, 415	400	400	
				220						230 ... 440				230 ... 440				130	110	-	
				440														-	-	-	
				-														65	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-	630	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	125	-	250	400	500	-	- 35	-	- 63	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	63 -	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-	630	-	-	-	-	
32	63	80	125	160	250	400	630	800	63	100	125	-	250	400	500	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 63	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	250	400	-	630	-	- 63	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 63	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 63	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 63	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	- 63	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	160	250	400	-	630	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	63	80	125	160	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
15	30	37	55	90	132	220	355	400	-	-	-	-	-	-	-	-	-	-	-	-	
18.5	37	55	75	110	160	280	400	560	-	-	-	-	-	-	-	-	-	-	-	-	
30	55	75	110	132	250	400	630	800	-	-	-	-	-	-	-	-	-	-	-	-	
100	100	100	100	100	100	100	100	100	-							50/-	50/-	50/-			
100	100	100	100	100	100	100	80	80	60 ... 100 kA <sub>eff</sub>							-	-	-			
11.8	11.8	11.8	18	18	33.7	37.1	77.4	77.4	-							-	-	-			
11.5	11.5	11.5	25.5	25.5	37.7	47	65	65	-							-	-	-			
34	34	34	223	223	1500	2150	10400	10400	-							-	-	-			
55	55	55	360	360	940	2600	7000	7000	-							-	-	-			
7	8	12	20	26	36	55	68	85	-							5.5	5.5	5.5			
IP65									IP41							-	-	-			
-									-							IP20	-	-			

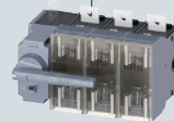


# Switch disconnectors with fuses

## Quick selection guide (continued)



3KF LV HRC



Size		1	1	1	2	2	3	4	5	5
<b>General technical specifications acc. to UL</b>										
<b>Basic data</b>										
Certification according to UL standard		-	-	-	-	-	-	-	-	-
$I_n$ acc. to UL 508	A	-	-	-	-	-	-	-	-	-
$U_g$ acc. to UL 508		-	-	-	-	-	-	-	-	-
<b>Operating and short-circuit behavior</b>										
Operational power, 3-phase	At 240 V	kA	-	-	-	-	-	-	-	-
	At 480 V	kA	-	-	-	-	-	-	-	-
	At 600 V	kA	-	-	-	-	-	-	-	-
Short circuit current rating (SCCR)		-	-	-	-	-	-	-	-	-
Fuse type		-	-	-	-	-	-	-	-	-

**More information**

Technical specifications

[See page 8/126](#)

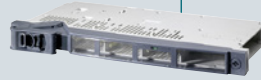
Configuration in SIMARIS



**3KF SITOR**



**3NJ63**



**5SG7**



1	1	1	2	2	3	4	5	5	00	00	00	00	1	2	3	3	5SG71.	5SG7230	5SG7234.	
									UL 508											
32	56	56	125	125	500	320	530	530	-	-	-	-	-	-	-	-	-	-	-	
600									-	-	-	-	-	-	-	-	-	-		
10	15	15	25	30	60	100	125	150	-	-	-	-	-	-	-	-	-	-	-	
25	30	40	60	75	150	250	300	300	-	-	-	-	-	-	-	-	-	-	-	
30	40	40	50	50	1255	250	300	350	-	-	-	-	-	-	-	-	-	-	-	
100	100	100	100	100	100	100	100	100	-	-	-	-	-	-	-	-	-	-	-	
K-1, RK1, CC, J, T	K-1, RK1, CC, J, T	K-1, RK1, CC, J, T	K-1, RK1, J, T	K-1, RK1, J, T	K-1, RK1, J, T	K-1, RK1, CC, J, T	K-1, RK1, J, T	K-1, RK1, J, T	-	-	-	-	-	-	-	-	-	-	-	
See page 8/118									See page 8/134									See page 8/142		
Configuration in SIMARIS									Configuration in SIMARIS									Configuration in SIMARIS		

# 3KF switch disconnectors with fuses

## System overview

### Complete units with direct operating mechanisms



Front operating mechanisms, 3-pole



Front operating mechanisms, 4-pole

### Basic units



Front operating mechanisms, 3-pole



Front operating mechanisms, 4-pole



Lateral operating mechanisms, 3-pole



Lateral operating mechanisms, 4-pole



3KF SITOP

### Additional poles



4th contact elements



N terminals



N/PE terminals



Auxiliary switch modules

### Operating mechanisms



Direct operating mechanisms



Door-coupling rotary operating mechanisms



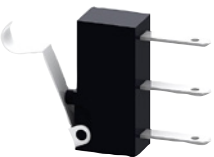
Handles for door-coupling rotary operating mechanisms



Other accessories for door-coupling rotary operating mechanisms



### Other accessories and spare parts



Auxiliary switches



Fuse monitoring



Terminal covers



Mounting elements



Fuse covers

#### Note:

You will find a detailed range of accessories with the basic units.

## General information



### 3NA COM LV HRC fuse links

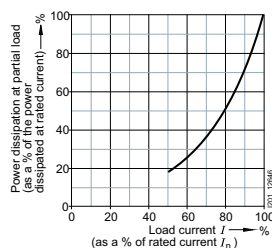


The new the 3NA COM LV HRC fuse links with communication and measuring function make your products communication-capable.

See Fuse Systems, page 7/42



### Suitable fuses



The 3KF switch disconnector with fuses is suitable for all fuses with LV HRC design in sizes 000 to 3 that comply with IEC 60269-2. These include fuses for cable and line protection and motor protection. Fuses for semiconductor protection (Siemens trademark SITOP) can also be used. However, some of these fuses have substantially higher power losses than fuses according to IEC 60269-2. This means that the load current has to be reduced until the value that is permissible in the switch disconnector with fuses is not exceeded. For use of Siemens semiconductor fuses (SITOR), ready-made derating tables are available in the linked document.

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

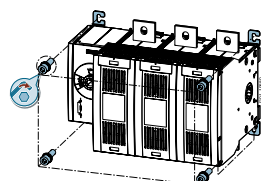


8



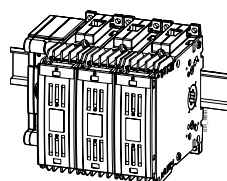
### Types of mounting

#### Floor mounting



All 3KF switch disconnectors with fuses are designed for floor mounting.

#### Standard mounting rail



Size 1 can be snapped onto a standard mounting rail (TH35 according to EN 60715) as an alternative mounting method.

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



# 3KF switch disconnectors with fuses

## General information

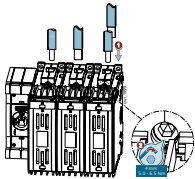


### Electrical connection

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

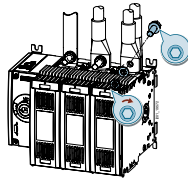


#### Box terminals



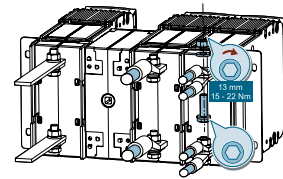
The box terminals for size 1 (32 A ... 80 A) are designed to allow the rapid connection of stripped conductors.

#### Flat terminals



Sizes 2 ... 5 are available with flat terminals, for the connection of cable lugs or busbar systems.

#### Flat terminals at rear



Sizes 1 and 2 (32 A, 63 A and 125 A) are available with rear flat terminals, for the connection of cable lugs or busbar systems.

8

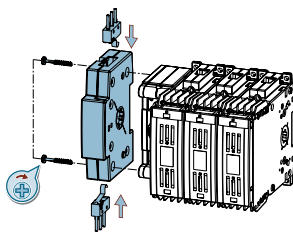


### Auxiliary switch modules and auxiliary switches

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)

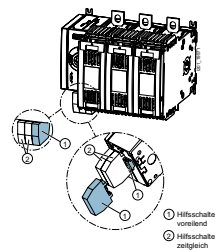


#### Size 1



The auxiliary switches used for size 1 are microswitches (changeover contacts), which can be snapped into an auxiliary switch module. This auxiliary switch module is mounted on the side of the switch disconnector with fuses in the same way as an additional pole. A maximum of two microswitches can be installed in each auxiliary switch module.

#### Sizes 2 ... 5



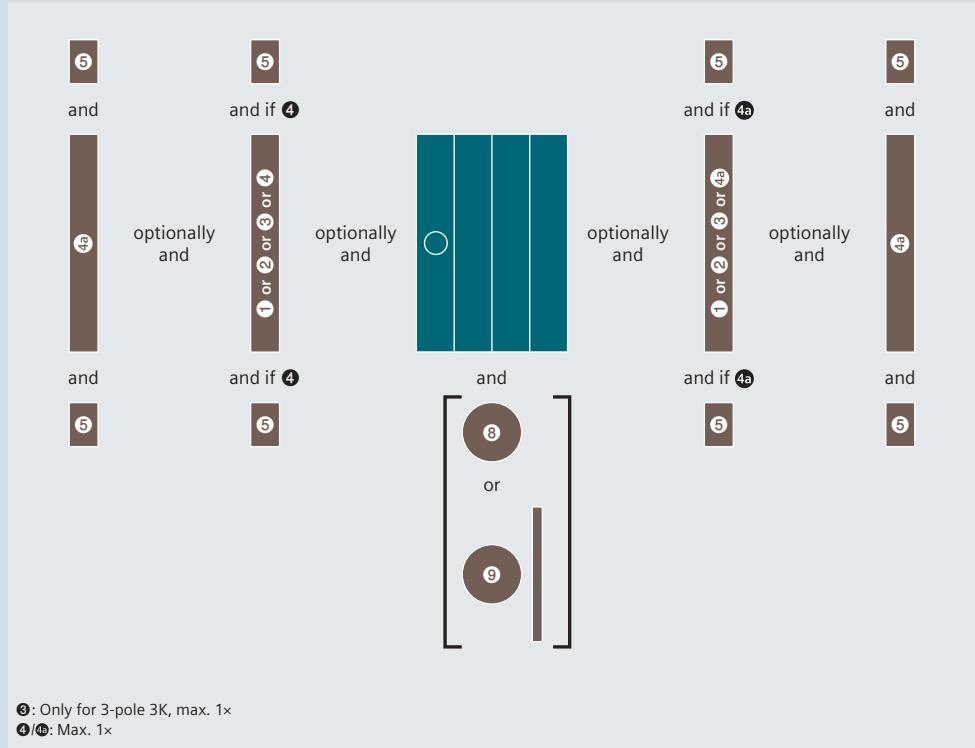
For sizes 2 ... 5, the auxiliary switches are directly attached to the operating mechanism module. The auxiliary switch with the leading switch function is always installed in the right-hand mounting location. The other locations are provided for simultaneously switching with the main contacts. Auxiliary switches with spring-type terminals from the 3SU1 range can also be used.



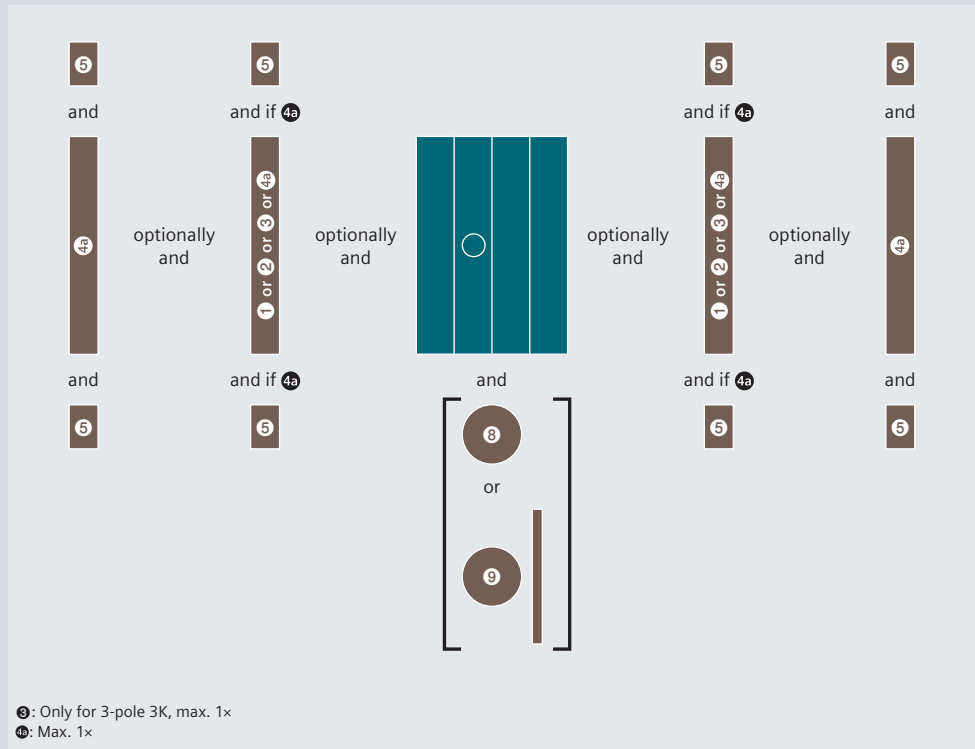
# 3KF switch disconnectors with fuses

## Mounting concept and accessories 3KF

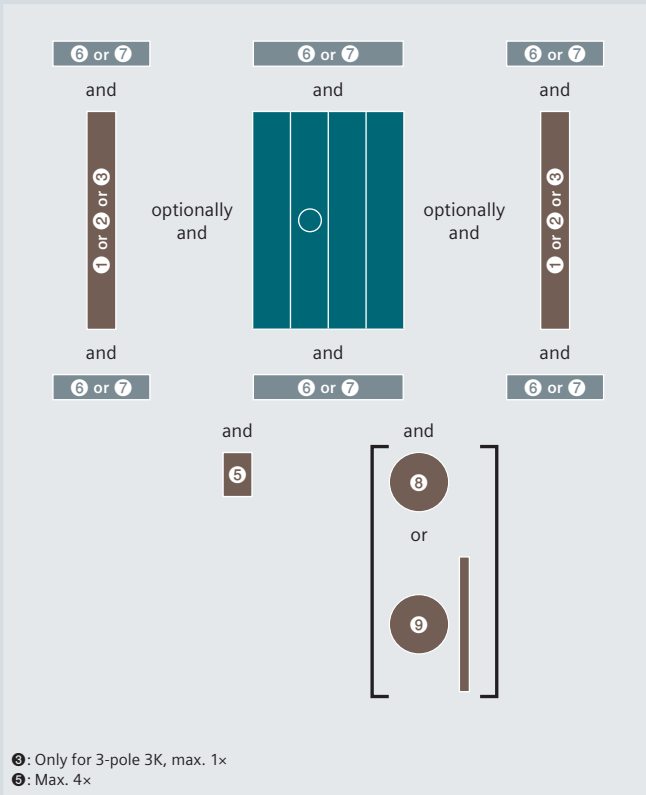
### Front operating mechanism left, size 1, 3/4-pole



### Front operating mechanism right, size 1, 3/4-pole



## Front operating mechanism center or left, sizes 2 to 5, 3/4-pole



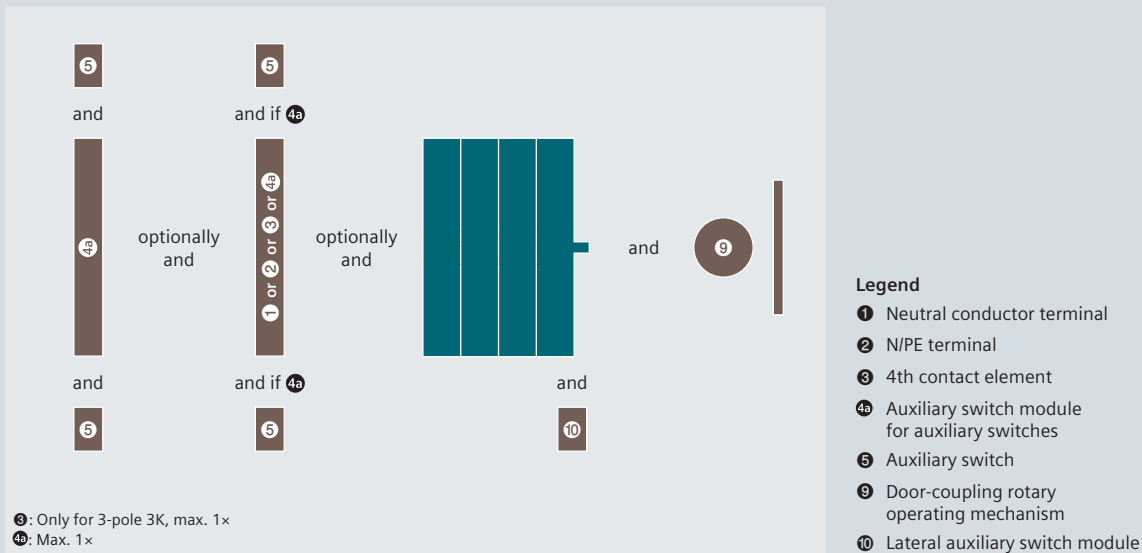
### Legend

- ① Neutral conductor terminal
- ② N/PE terminal
- ③ 4th contact element
- ⑤ Auxiliary switch
- ⑥ Phase barrier
- ⑦ Terminal cover
- ⑧ Direct operating mechanism
- ⑨ Door-coupling rotary operating mechanism

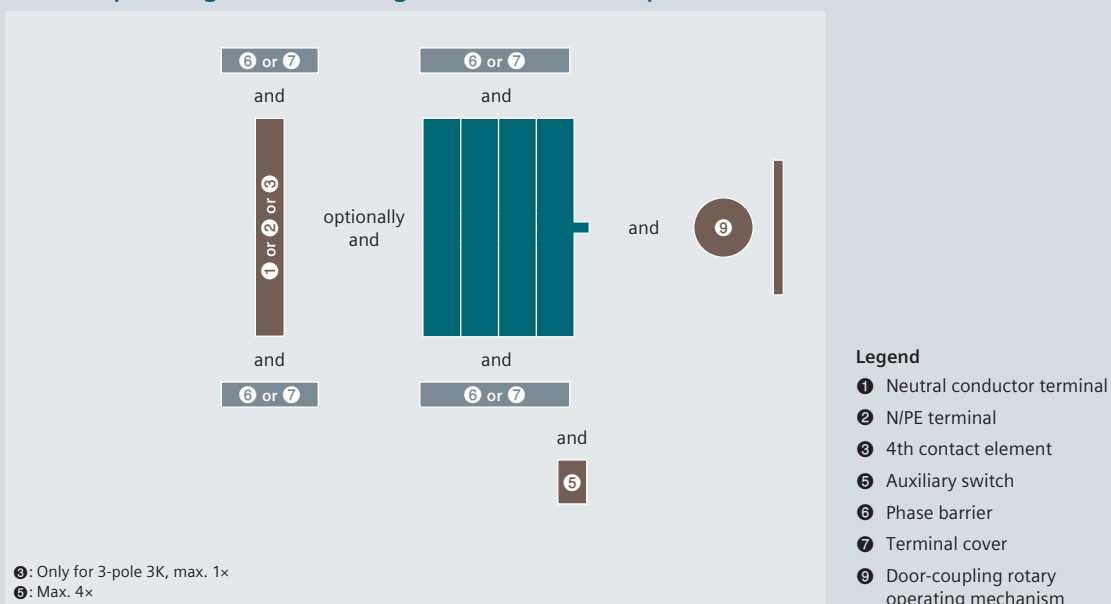




### Lateral operating mechanism right, size 1, 3/4-pole



### Lateral operating mechanism right, sizes 2 to 5, 3/4-pole



# 3KF switch disconnectors with fuses

## 3KF LV HRC switch disconnector



		Complete units with direct operating mechanisms Front operating mechanisms, left		Basic units without handle Front operating mechanisms, left		Front operating mechanism, center
Number of poles		3P	4P	3P	4P	3P
Size	Uninterrupted current $I_u$					
Box terminals						
1	32 A	3KF1303-2LB11	3KF1403-2LB11	3KF1303-0LB11	3KF1403-0LB11	3KF1303-0MB11
	63 A	3KF1306-2LB11	3KF1406-2LB11	3KF1306-0LB11	3KF1406-0LB11	3KF1306-0MB11
	80 A	3KF1308-2LB11	3KF1408-2LB11	3KF1308-0LB11	3KF1408-0LB11	3KF1308-0MB11
Flat terminals at rear						
1	32 A	–	–	–	–	3KF1303-0MR11
	63 A	–	–	–	–	3KF1306-0MR11
2	125 A	–	–	–	–	3KF2312-0MR11
Flat terminals						
2	125 A	3KF2312-2LF11	3KF2412-2LF11	3KF2312-0LF11	3KF2412-0LF11	3KF2312-0MF11
	160 A	3KF2316-2LF11	3KF2416-2LF11	3KF2316-0LF11	3KF2416-0LF11	3KF2316-0MF11
3	250 A	3KF3325-2LF11	3KF3425-2LF11	3KF3325-0LF11	3KF3425-0LF11	3KF3325-0MF11
4	400 A	3KF4340-2LF11	3KF4440-2LF11	3KF4340-0LF11	3KF4440-0LF11	3KF4340-0MF11
5	630 A	3KF5363-2LF11	3KF5463-2LF11	3KF5363-0LF11	3KF5463-0LF11	3KF5363-0MF11
	800 A	3KF5380-2LF11	3KF5480-2LF11	3KF5380-0LF11	3KF5480-0LF11	3KF5380-0MF11

### Note:

- NH00 and NH000: For 3KF sizes 1 and 2
- NH1 and NH0: For 3KF size 3
- NH2 and NH1: For 3KF size 4
- NH3 and NH2: For 3KF size 5
- For 3KF with lateral operating mechanism (left or right), only door-coupling rotary operating mechanisms without "Test" can be used.
- The complete units with a direct operating mechanism are not suitable for conversion to door-coupling rotary operating mechanisms; the basic units are to be used for this purpose.



Lateral operating mechanism, left		Lateral operating mechanism, right		
4P	3P	4P	3P	4P
3KF1403-0MB11	3KF1303-4LB11	3KF1403-4LB11	3KF1303-4RB11	3KF1403-4RB11
3KF1406-0MB11	3KF1306-4LB11	3KF1406-4LB11	3KF1306-4RB11	3KF1406-4RB11
3KF1408-0MB11	3KF1308-4LB11	3KF1408-4LB11	3KF1308-4RB11	3KF1408-4RB11
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
3KF2412-0MF11	3KF2312-4LF11	3KF2412-4LF11	3KF2312-4RF11	3KF2412-4RF11
3KF2416-0MF11	3KF2316-4LF11	3KF2416-4LF11	3KF2316-4RF11	3KF2416-4RF11
3KF3425-0MF11	3KF3325-4LF11	3KF3425-4LF11	3KF3325-4RF11	3KF3425-4RF11
3KF4440-0MF11	3KF4340-4LF11	3KF4440-4LF11	3KF4340-4RF11	3KF4440-4RF11
3KF5463-0MF11	3KF5363-4LF11	3KF5463-4LF11	3KF5363-4RF11	3KF5463-4RF11
3KF5480-0MF11	3KF5380-4LF11	3KF5480-4LF11	3KF5380-4RF11	3KF5480-4RF11

# 3KF switch disconnectors with fuses

## 3KF SITOR switch disconnectors



Basic units without handle

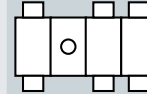
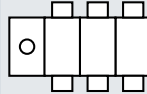
Front operating mechanism  
Left

Front operating mechanism  
Center

Number of poles

3P

3P



Size	Uninterrupted current $I_u$		
<b>Box terminals</b>			
1	32 A	3KF1303-0LB51	–
	63 A	3KF1306-0LB51	–
	80 A	3KF1308-0LB51	–
<b>Flat terminals</b>			
2	125 A	–	3KF2312-0MF51
	160 A	–	3KF2316-0MF51
3	250 A	–	3KF3325-0MF51
4	400 A	–	3KF4340-0MF51
5	630 A	–	3KF5363-0MF51
	800 A	–	3KF5380-0MF51

**Note:**


- Use of standard LV HRC fuses gG, gL, aM in 3KF SITOR is possible without restriction


## Accessories for 3KF LV HRC and 3KF SITOR switch disconnectors


### Additional poles

#### Note:

- Additional poles (4th contact element, N or N/PE terminal) must always be mounted directly adjacent to the switch disconnector on the left or right. Accordingly, an auxiliary switch module must not be mounted between the basic unit and an additional pole on size 1.
- For installation, it is important to note that only a 3-pole 3KF switch disconnector may be retrofitted with an additional switching pole with contact system (4th contact element).


			Size 1	Size 2	Size 3	Size 4	Size 5
<b>4th contact element (switching pole) for 3KF LV HRC</b>							
	<b>Connection</b>	<b>Article No.</b>					
	Box terminals	3KF9105-2AA00	■				
	Flat terminals at rear	3KF9105-1AA00	■				
		3KF9205-1AA00		■			
	Flat terminals	3KF9205-0AA00		■			
		3KF9305-0AA00			■		
		3KF9405-0AA00				■	
	3KF9505-0AA00					■	

			Size 1	Size 2	Size 3	Size 4	Size 5
<b>4th contact element (switching pole) for 3KF SITOR</b>							
	<b>Connection</b>	<b>Article No.</b>					
	Box terminals	3KF9105-2BA00	■				
	Flat terminals	3KF9205-0BA00		■			
		3KF9305-0BA00			■		
		3KF9405-0BA00				■	
		3KF9505-0BA00					■

			Size 1	Size 2	Size 3	Size 4	Size 5
<b>Neutral conductor terminals with removable jumper, for 3KF LV HRC and 3KF SITOR</b>							
	<b>Connection</b>	<b>Article No.</b>					
	Box terminals	3KF9106-2AA00	■				
	Flat terminals at rear	3KF9106-1AA00	■				
		3KF9206-1AA00		■			
	Flat terminals	3KF9206-0AA00		■			
		3KF9306-0AA00			■		
		3KF9406-0AA00				■	
	3KF9506-0AA00					■	

			Size 1	Size 2	Size 3	Size 4	Size 5
<b>N/PE terminals with permanent jumper, for 3KF LV HRC and 3KF SITOR</b>							
	<b>Connection</b>	<b>Article No.</b>					
	Box terminals	3KF9106-8AA00	■				
	Flat terminals at rear	3KF9106-6AA00	■				
		3KF9206-6AA00		■			
	Flat terminals	3KF9206-7AA00		■			
		3KF9306-7AA00			■		
		3KF9406-7AA00				■	
	3KF9506-7AA00					■	

### Operating mechanisms

			Size 1	Size 2	Size 3	Size 4	Size 5
<b>Direct operating mechanisms, for 3KF LV HRC</b>							
	<b>Version</b>	<b>Color</b>					
	Can be locked with up to 3 padlocks	Gray	■				
				■			
					■		
						■	
							■
		Red/yellow	■				
				■			
					■		
						■	
							■

# 3KF switch disconnectors with fuses

## Accessories for 3KF LV HRC and 3KF SITOR switch disconnectors

### Operating mechanisms

Size 1 Size 2 Size 3 Size 4 Size 5

#### Door-coupling rotary operating mechanisms, for 3KF LV HRC and 3KF SITOR



- **Scope of supply:**
  - Handle with masking plate
  - Coupling driver with tolerance compensation
  - Shaft 300 mm
- Can be locked with up to 3 padlocks

Labeling	Color	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
Labeling Test – O – I	Gray	8UD1171-2AF21	■				
		8UD1141-2AF21		■			
		8UD1141-3AF21			■		
		8UD1151-3AF21				■	
		8UD1161-4AF21					■
	Red/yellow	8UD1171-2AF25	■				
		8UD1141-2AF25		■			
		8UD1141-3AF25			■		
		8UD1151-3AF25				■	
		8UD1161-4AF25					■



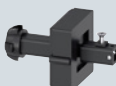


#### Handles, for 3KF LV HRC and 3KF SITOR

- With masking plate
- Can be locked with up to 3 padlocks





Labeling	Lighting	Color	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5	
O – I	Without	Gray	8UD1771-2AD01	■					
			8UD1841-2AD01		■	■			
			8UD1851-3AD01				■		
			8UD1861-4AD01					■	
		Red/yellow	8UD1771-2AD05	■					
			8UD1841-2AD05		■	■			
			8UD1851-3AD05				■		
			8UD1861-4AD05					■	
	With	Gray	8UD1771-2CD01	■					
			8UD1841-2CD01		■	■			
			8UD1851-3CD01				■		
			8UD1861-4CD01					■	
		Red/yellow	8UD1771-2CD05	■					
			8UD1841-2CD05		■	■			
			8UD1851-3CD05				■		
			8UD1861-4CD05					■	
Test – O – I	Without	Gray	8UD1771-2AF01	■					
			8UD1841-2AF01		■	■			
			8UD1851-3AF01				■		
			8UD1861-4AF01					■	
		Red/yellow	8UD1771-2AF05	■					
			8UD1841-2AF05		■	■			
			8UD1851-3AF05				■		
			8UD1861-4AF05					■	
	With	Gray	8UD1771-2CF01	■					
			8UD1841-2CF01		■	■			
			8UD1851-3CF01				■		
			8UD1861-4CF01					■	
		Red/yellow	8UD1771-2CF05	■					
			8UD1841-2CF05		■	■			
			8UD1851-3CF05				■		
			8UD1861-4CF05					■	

## Operating mechanisms

		Size 1	Size 2	Size 3	Size 4	Size 5	
<b>Extension shaft, for 3KF LV HRC and 3KF SITOR</b>							
	<ul style="list-style-type: none"> <li>A shaft jack is required for the 8UD1 handle when the 600 mm long shaft is used and for sizes 1 and 2</li> </ul>						
	<b>Length</b>	<b>Article No.</b>					
	300 mm	8UC6032	■	■			
		8UC6033			■	■	
		8UC6034					■
	600 mm	8UC6082	■	■			
		8UC6083			■	■	
	8UC6084					■	
<b>Shaft jack for 8UD1 handle, for 3KF LV HRC and 3KF SITOR</b>							
	<b>Version</b>	<b>Article No.</b>					
	For shaft 600 mm	8UD1900-0FA00	■	■			
<b>Coupling drivers, for 3KF LV HRC and 3KF SITOR</b>							
	<b>Version</b>	<b>Article No.</b>					
	With tolerance compensation	8UD1900-2GA00	■				
		8UD1900-6GA00		■			
		8UD1900-3GA00			■	■	
		8UD1900-4GA00					■
	Without tolerance compensation	8UD1900-2HA00	■				
		8UD1900-6HA00		■			
		8UD1900-3HA00			■	■	
		8UD1900-4HA00					■
<b>Adapters for shafts, for 3KF LV HRC and 3KF SITOR</b>							
	<b>Shaft size</b>	<b>Article No.</b>					
	8 × 8 mm	8UC6022	■	■			
	10 × 10 mm	8UC6023			■	■	
	12 × 12 mm	8UC6024					■

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## Other accessories and spare parts

		Size 1	Size 2	Size 3	Size 4	Size 5	
<b>Auxiliary switch modules, for 3KF LV HRC and 3KF SITOR</b>							
	<ul style="list-style-type: none"> <li>Auxiliary switch modules are supplied without auxiliary switches</li> <li>The 3KF9112-0AB00 mounting bracket is additionally required for mounting the auxiliary switch modules with the rear terminal</li> <li>The 3KD9103-6 and 3KD9103-7 auxiliary switch modules and those with a leading NO contact can only be used with 3KF if they have the operating mechanism on the front or on the left</li> </ul>						
	<b>Type</b>	<b>Article No.</b>					
	Standard version	3KD9103-5	■				
	With test function	3KD9103-6	■				
With leading NO and test function	3KD9103-7	■					
<b>Mounting brackets for auxiliary switch modules, for 3KF size 1 with rear terminals</b>							
	<ul style="list-style-type: none"> <li>For mounting auxiliary switch modules on 3KF switch disconnectors with rear terminal</li> </ul>						
		<b>Article No.</b>					
	3KF9112-0AB00	■					



# 3KF switch disconnectors with fuses

## Accessories for 3KF LV HRC and 3KF SITOR switch disconnectors

### Other accessories and spare parts

Size 1   Size 2   Size 3   Size 4   Size 5

#### Auxiliary switches, for 3KF LV HRC and 3KF SITOR

- Auxiliary switches for sizes 2 to 5 have screw terminals and are mounted on the operating mechanism module of the 3KF. Auxiliary switches with spring-type terminals from the 3SU1 range can also be used.
- All auxiliary switches for sizes 2 to 5 can be used as leading auxiliary switches, depending on the mounting position of the auxiliary switch (see Operating Instructions).



Type	Contacts	Contact surface	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
With connecting cables	1 CO	Standard	3KD9103-1	■				
		Solid-state compatible	3KD9103-3	■				
Without connecting cables	1 CO	Standard	3KD9103-2	■				
		Solid-state compatible	3KD9103-4	■				
	1 NO	Standard	3SU1400-1AA10-1BA0		■	■	■	■
		Gold-plated	3SU1400-1AA10-1LA0		■	■	■	■
	1 NC	Standard	3SU1400-1AA10-1CA0		■	■	■	■
		Gold-plated	3SU1400-1AA10-1MA0		■	■	■	■
	1 NO + 1 NC	Standard	3SU1400-1AA10-1FA0		■	■	■	■
		Gold-plated	3SU1400-1AA10-1QA0		■	■	■	■
	2 NO	Standard	3SU1400-1AA10-1DA0		■	■	■	■
		Gold-plated	3SU1400-1AA10-1NA0		■	■	■	■
2 NC	Standard	3SU1400-1AA10-1EA0		■	■	■	■	
	Gold-plated	3SU1400-1AA10-1PA0		■	■	■	■	

#### Electronic fuse monitoring, for 3KF LV HRC and 3KF SITOR



Version	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
For remote display of tripped fuses	3KF9010-1AA00	■	■	■	■	■

#### Phase barriers, for 3KF LV HRC and 3KF SITOR



Version	Scope of supply	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
For 3-pole devices	6 units	3KD9308-6		■			
		3KD9408-6			■	■	
		3KD9508-6					■
For 4-pole devices	8 units	3KD9308-8		■			
		3KD9408-8			■	■	
		3KD9508-8					■

#### Terminal covers, for 3KF LV HRC




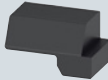






Version	Scope of supply	Type	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
For 3-pole devices	6 units	Standard version	3KF9204-6 <b>new</b>		■			
			3KF9304-6			■		
			3KF9404-6 <b>new</b>				■	
		Short version	3KD9504-6					■
			3KF9204-7			■		
			3KF9304-7				■	
For 4-pole devices	8 units	Standard version	3KF9404-7				■	
			3KF9204-8		■			
			3KF9304-8			■		
		Short version	3KF9404-8					■
			3KD9504-8					■
			3KF9204-5			■		
		3KF9304-5			■			
		3KF9404-5				■		

#### Spare part for terminal covers (4th contact element), for 3KF LV HRC



Scope of supply	Type	Article No.	Size 1	Size 2	Size 3	Size 4	Size 5
1 unit	Standard version	3KD9504-1					■
	Short version	3KF9204-1 <b>new</b>		■			
6 units	Standard version	3KF9304-1			■		
		3KF9404-1 <b>new</b>				■	
		3KF9204-6 <b>new</b>		■			
		3KF9304-6			■		
		3KF9404-6 <b>new</b>				■	

## Other accessories and spare parts

				Size 1	Size 2	Size 3	Size 4	Size 5
<b>Spare part for terminal covers (N and N/PE terminal), for 3KF HRC</b>								
	<b>Scope of supply</b>	<b>Type</b>	<b>Article No.</b>					
	1 unit	Standard version	3KD9504-1					■
		Short version	3KD9304-1		■			
	6 units	Standard version	3KD9404-1 <b>new</b>			■	■	
			3KD9304-6		■			
		3KD9404-6 <b>new</b>			■	■		
<b>Blocking pin test function, for 3KF LV HRC and 3KF SITOR</b>								
	<ul style="list-style-type: none"> <li>Enables permanent deactivation of the test function for auxiliary switches</li> <li>It is installed in the operating mechanism module of the 3KF switch disconnector</li> </ul>							
	<b>Scope of supply</b>	<b>Article No.</b>						
	10 units	3KF9112-1AA00	■					
		3KF9412-1AA00		■		■		
		3KF9512-1AA00					■	
<b>Mounting brackets, for 3KF LV HRC</b>								
	<ul style="list-style-type: none"> <li>The 3KF9112-0AB00 mounting bracket is needed if an auxiliary switch module is mounted on a 3KF1 with rear terminals</li> </ul>							
	<b>Connection</b>	<b>Article No.</b>						
	Box terminals, flat terminals	3KF9112-0AA00	■					
	Flat terminals at rear	3KF9212-0AA00		■				
		3KF9212-0AB00	■	■				
<b>Mounting brackets, for 3KF SITOR</b>								
	<b>Connection</b>	<b>Article No.</b>						
	Box terminals, flat terminals	3KF9112-0AA10	■					
		3KF9212-0AA10		■				
<b>Mounting brackets, for 3KF LV HRC and 3KF SITOR</b>								
	<b>Connection</b>	<b>Article No.</b>						
	Flat terminals	3KF9412-0AA00			■	■		
		3KF9512-0AA00					■	
<b>Phase barriers, for 3KF LV HRC and 3KF SITOR</b>								
	<b>Version</b>	<b>Scope of supply</b>	<b>Article No.</b>					
	For mounting on standard mounting rail	5 units	3KF9112-0BA00	■				
<b>Fuse covers, for 3KF LV HRC</b>								
	<b>Connection</b>	<b>Article No.</b>						
	Box terminals, flat terminals	3KF9112-OCA00	■					
		3KF9212-OCA00		■				
		3KF9312-OCA00			■			
		3KF9412-OCA00				■		
		3KF9512-OCA00					■	
Flat terminals at rear	3KF9212-OCB00		■					
				NH000	NH00	NH1	NH2	NH3
<b>LV HRC isolating blades, for 3KF LV HRC and 3KF SITOR</b>								
	<b>Version</b>	<b>Article No.</b>						
	With insulated grip lugs	3NG1002	■	■				
		3NG1202			■			
		3NG1302				■		
		3NG1402					■	
							■	

# 3NJ63 switch disconnectors with fuses

## System overview

### Fuse links



For LV HRC fuses



For BS fuses

### Accessories



Connection terminals and covers



Auxiliary switches



Current transformers



Ammeters



Guide rails

8

#### Note:

You will find a detailed range of accessories with the basic units.

## General information



### 3NA COM LV HRC fuse link **new**



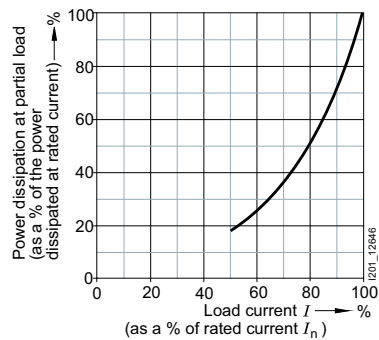
The new the 3NA COM LV HRC fuse links with communication and measuring function make your products communication-capable.

[See Fuse Systems, page 7/42](#)



### Suitable fuses

You will find further information under:  
[sie.ag/2UlrAvy](http://sie.ag/2UlrAvy)



The 3NJ63 switch disconnector with fuses is suitable for all fuses with LV HRC design in sizes 000 to 3 that comply with IEC 60269-2, including fuses for cable and line protection.

# 3NJ63 switch disconnectors with fuses

## Configuration

For a complete and valid configuration of your switch disconnectors with fuses, please use our online configurator at [www.siemens.com/lowvoltage/3nj63-configurator](http://www.siemens.com/lowvoltage/3nj63-configurator)






		6	7	8	9	10	11	12	13	14	15	16
		3NJ63		-	A		0					
Size and type of fuse	LV HRC fuse	00	160 A	0								
		1	250 A	1								
		2	400 A	2								
		3	630 A	3								
Number of poles	2-pole		2									
	3-pole		3									
	4-pole <sup>1)</sup>		4									
Breaking capacity	AC-22B	Manually operated		1								
		Motorized operating mechanism		2								
	AC-23A, DC-23B	Manually operated		3								
		Motorized operating mechanism		4								
Electronic fuse monitoring	Without					A						
	≤690 V AC	Operate voltage <20 V	EFM10			B						
	≤690 V AC with line monitoring	Operate voltage <13 V	EFM20			C						
	≤440 V DC	Operate voltage <20 V	EFM25			E						
Auxiliary switches	Without						0					
	1 NC						1					
	1 NO						2					
	1 NO + 1 NC						3					


<sup>1)</sup> Only in AC-22B

		6	7	8	9	10	11	12	13	14	15	16
				-								
		<b>3NJ63</b>										
Type of ammeter	Without											
	Moving iron	0										
	Bi-metal	1										
Wiring version of the current transformer	Without	2										
	1 current transformer to multi-function plug	A										
	3 current transformers to multi-function plug	B										
	1 current transformer to 1 ammeter	C										
	1 current transformer to 1 ammeter and multi-function plug	D										
	3 current transformers to 1 ammeter and multi-function plug	E										
Current transformer primary current	Without	A										
	50 A	B										
	100 A	D										
	150 A	E										
	200 A	F										
	250 A	G										
	300 A	H										
	400 A	J										
	500 A	K										
	600 A	L										
Current transformer secondary current	Without	0										
	1 A	Without accuracy class	1									
	1 A	Accuracy class 1	2									
	1 A	Accuracy class 0.5	3									
	1 A	Accuracy class 0.5 calibrated	4									
	5 A	Accuracy class 1	5									
	5 A	Accuracy class 0.5	6									
5 A	Accuracy class 0.5 calibrated											

# 3NJ63 switch disconnectors with fuses

## Accessories




				NH00	NH1	NH2	NH3
<b>Terminals</b>							
	<b>Type</b>		<b>Article No.</b>				
	For 2/3-pole devices		3NJ6923-1BA00	■			
			3NJ6933-1BA00		■		
			3NJ6943-1CA00			■	■
	For 4-pole devices		3NJ6924-1BA00	■			
			3NJ6934-1BA00		■		
		3NJ6944-1CA00			■	■	
<b>Terminal covers</b>							
	<b>Type</b>	<b>Version</b>	<b>Article No.</b>				
	For 2/3-pole devices	–	3NJ6923-1DA00	■			
			3NJ6933-1DA01		■		
			3NJ6943-1DA00			■	■
		As an internal terminal cover	3NJ6933-1DB00		■		
	For 4-pole devices		3NJ6904-1DA00	■	■	■	■
<b>Contact extensions</b>							
	<b>Number of poles</b>		<b>Article No.</b>				
	3-pole		3NJ6923-1EB00	■			
			3NJ6933-1EB00		■		
			3NJ6943-1EB00			■	■
	4-pole		3NJ6924-1EB00	■			
			3NJ6934-1EB00		■		
		3NJ6944-1EB00			■	■	
<b>Electronic fuse monitoring and line monitoring devices</b>							
	<b>Type</b>	<b>Version</b>	<b>Article No.</b>				
	EFM 10	–	3NJ6920-3FB00	■			
			3NJ6930-3FB00		■		
			3NJ6940-3FB00			■	■
	EFM 20	With line monitoring for AC networks	3NJ6920-3FC00	■			
			3NJ6930-3FC00		■		
			3NJ6940-3FC00			■	■
	EFM 25	–	3NJ6920-3FE00	■			
			3NJ6930-3FE00		■		
		3NJ6940-3FE00			■	■	
<b>Auxiliary switches</b>							
	<b>Contacts</b>	<b>Version</b>	<b>Article No.</b>				
	1 NO	With cover	3NJ6920-2BB00	■			
			3NJ6930-2BB00		■		
			3NJ6940-2BB00			■	■
		Without cover	3NJ6900-2BC00	■	■	■	■
	1 NC	With cover	3NJ6920-2CB00	■			
			3NJ6930-2CB00		■		
			3NJ6940-2CB00			■	■
		Without cover	3NJ6900-2CC00	■	■	■	■



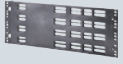




						NH00	NH1	NH2	NH3
<b>Current transformers for main devices and contact extensions</b>									
	Rated current $I_{pr}$	Class	Apparent power consumption	Feed-through opening diameter	Article No.				
	50 A/1 A	1	1 VA	Ø 21 mm	3NJ6920-3BB11	■	■		
	50 A/5 A	1	1 VA	Ø 21 mm	3NJ6920-3BB21	■	■		
	100 A/1 A	1	2.5 VA	Ø 21 mm	3NJ6920-3BD11	■	■		
		0.5	1.5 VA	Ø 21 mm	3NJ6920-3BD12	■	■		
		0.5 calibrated	1.5 VA	Ø 14 mm	3NJ6920-3BD13	■			
	100 A/5 A	1	2.5 VA	Ø 21 mm	3NJ6920-3BD21	■	■		
		0.5	1.5 VA	Ø 21 mm	3NJ6920-3BD22	■	■		
		0.5 calibrated	1.5 VA	Ø 14 mm	3NJ6920-3BD23	■			
	150 A/1 A	1	2.5 VA	Ø 21 mm	3NJ6920-3BE11	■	■		
		0.5	1.5 VA	Ø 21 mm	3NJ6920-3BE12	■	■		
		0.5 calibrated	1.5 VA	Ø 14 mm	3NJ6920-3BE13	■			
	150 A/5 A	1	2.5 VA	Ø 21 mm	3NJ6920-3BE21	■	■		
		0.5	1.5 VA	Ø 21 mm	3NJ6920-3BE22	■	■		
		0.5 calibrated	1.5 VA	Ø 14 mm	3NJ6920-3BE23	■			
	200 A/1 A	1	2.5 VA	Ø 21 mm	3NJ6930-3BF11		■		
		0.5	3.75 VA	Ø 21 mm	3NJ6930-3BF12		■		
		0.5 calibrated <b>new</b>	2.5 VA	Ø 14 mm	3NJ6930-3BF13		■		
	200 A/5 A	1	2.5 VA	Ø 21 mm	3NJ6930-3BF21		■		
		0.5	5 VA	Ø 21 mm	3NJ6930-3BF22		■		
		0.5 calibrated <b>new</b>	2.5 VA	Ø 14 mm	3NJ6930-3BF23		■		
	250 A/1 A	1	5 VA	Ø 21 mm	3NJ6930-3BG11		■		
		0.5	5 VA	Ø 21 mm	3NJ6930-3BG12		■		
		0.5 calibrated <b>new</b>	2.5 VA	Ø 14 mm	3NJ6930-3BG13		■		
	250 A/5 A	1	2.5 VA	Ø 21 mm	3NJ6930-3BG21		■		
		0.5	2.5 VA	Ø 21 mm	3NJ6930-3BG22		■		
		0.5 calibrated <b>new</b>	2.5 VA	Ø 14 mm	3NJ6930-3BG23		■		
	300 A/1 A	1	5 VA	–	3NJ6940-3BH11			■	■
		0.5	5 VA	–	3NJ6940-3BH12			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BH13			■	■
	300 A/5 A	1	5 VA	–	3NJ6940-3BH21			■	■
		0.5	5 VA	–	3NJ6940-3BH22			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BH23			■	■
	400 A/1 A	1	5 VA	–	3NJ6940-3BJ11			■	■
		0.5	5 VA	–	3NJ6940-3BJ12			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BJ13			■	■
	400 A/5 A	1	5 VA	–	3NJ6940-3BJ21			■	■
		0.5	5 VA	–	3NJ6940-3BJ22			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BJ23			■	■
	500 A/1 A	1	5 VA	–	3NJ6940-3BK11			■	■
		0.5	5 VA	–	3NJ6940-3BK12			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BK13			■	■
	500 A/5 A	1	5 VA	–	3NJ6940-3BK21			■	■
		0.5	5 VA	–	3NJ6940-3BK22			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BK23			■	■
	600 A/1 A	1	5 VA	–	3NJ6940-3BL11			■	■
		0.5	5 VA	–	3NJ6940-3BL12			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BL13			■	■
	600 A/5 A	1	5 VA	–	3NJ6940-3BL21			■	■
		0.5	5 VA	–	3NJ6940-3BL22			■	■
		0.5 calibrated	5 VA	–	3NJ6940-3BL23			■	■



# 3NJ63 switch disconnectors with fuses

## Accessories

				NH00	NH1	NH2	NH3	
<b>Current transformer busbars</b>								
	<b>Type</b>	<b>Version</b>	<b>Article No.</b>					
	For current transformers with feed-through opening diameter 21 mm	For 1 current transformer	3NJ6920-3DB00	■				
			3NJ6930-3DB00		■			
		For 3 current transformers	3NJ6920-3DC00	■				
			3NJ6930-3DC00		■			
		For 4 current transformers	3NJ6920-3DD00	■				
			3NJ6930-3DD00		■			
	For current transformers with feed-through opening diameter 14 mm	For 1 current transformer	3NJ6920-3DE00	■				
			3NJ6930-3DE00		■			
		For 3 current transformers	3NJ6920-3DF00	■				
			3NJ6930-3DF00		■			
		For 4 current transformers	3NJ6920-3DG00	■				
<b>Holders</b>								
	<b>Version</b>	<b>Article No.</b>						
	For ammeters	3NJ6900-4GA00	■	■		■		
<b>Ammeters</b>								
	<b>Type</b>	<b>Version</b>	<b>Rated current <math>I_e</math></b>	<b>Article No.</b>				
	Moving-iron measuring instruments	For measurements on transformer x/1 A with double overload	50 A/1 A	3NJ6900-4HB11	■	■		
			100 A/1 A	3NJ6900-4HD11	■	■		
			150 A/1 A	3NJ6900-4HE11	■	■		
			200 A/1 A	3NJ6900-4HF11		■		
			250 A/1 A	3NJ6900-4HG11		■		
			300 A/1 A	3NJ6900-4HH11			■	■
			400 A/1 A	3NJ6900-4HJ11			■	■
			500 A/1 A	3NJ6900-4HK11			■	■
			600 A/1 A	3NJ6900-4HL11			■	■
		For measurements on transformer x/5 A with double overload	50 A/5 A	3NJ6900-4HB21	■	■		
			100 A/5 A	3NJ6900-4HD21	■	■		
			150 A/5 A	3NJ6900-4HE21	■	■		
			200 A/5 A	3NJ6900-4HF21		■		
			250 A/5 A	3NJ6900-4HG21		■		
			300 A/5 A	3NJ6900-4HH21			■	■
			400 A/5 A	3NJ6900-4HJ21			■	■
			500 A/5 A	3NJ6900-4HK21			■	■
			600 A/5 A	3NJ6900-4HL21			■	■
	Bi-metal measuring instruments	For measurements on transformer x/1 A with 1.2-times overload	50 A/1 A	3NJ6900-4HB12	■	■		
			100 A/1 A	3NJ6900-4HD12	■	■		
			150 A/1 A	3NJ6900-4HE12	■	■		
			200 A/1 A	3NJ6900-4HF12				
			250 A/1 A	3NJ6900-4HG12				
			300 A/1 A	3NJ6900-4HH12			■	■
			400 A/1 A	3NJ6900-4HJ12			■	■
			500 A/1 A	3NJ6900-4HK12			■	■
			600 A/1 A	3NJ6900-4HL12			■	■
		For measurements on transformer x/5 A with 1.2-times overload	50 A/5 A	3NJ6900-4HB22	■	■		
			100 A/5 A	3NJ6900-4HD22	■	■		
150 A/5 A			3NJ6900-4HE22	■	■			
200 A/5 A			3NJ6900-4HF22		■			
250 A/5 A			3NJ6900-4HG22		■			
300 A/5 A			3NJ6900-4HH22			■	■	
400 A/5 A			3NJ6900-4HJ22			■	■	
500 A/5 A			3NJ6900-4HK22			■	■	
600 A/5 A			3NJ6900-4HL22			■	■	

				NH00	NH1	NH2	NH3
<b>Multi-function plugs</b>							
	<b>Version</b>	<b>Dimensions</b>	<b>Article No.</b>				
	With fixing screws	6 × 2.5 mm <sup>2</sup>	3NJ6920-3EB01	■	■		
		8 × 2.5 mm <sup>2</sup>	3NJ6920-3ED01	■	■		
			3NJ6940-3EC00			■	■
	Without fixing screws	8 × 2.5 mm <sup>2</sup>	3NJ6940-3ED00			■	■
		10 × 1.5 mm <sup>2</sup> and 8 × 2.5 mm <sup>2</sup>	3NJ6920-3EE01	■	■		
12 × 1.5 mm <sup>2</sup> and 8 × 2.5 mm <sup>2</sup>		3NJ6940-3EF00			■	■	
<b>Front panels</b>							
	<b>Use</b>	<b>Version</b>	<b>Article No.</b>				
	3NJ6303-1AA...	With LV HRC fuse	3NJ6923-4BB00	■			
	3NJ6313-1AA...	With LV HRC fuse	3NJ6933-4BB00		■		
	3NJ6323-1AA...	With LV HRC fuse	3NJ6943-4BB00			■	■
	3NJ6333-1AA...	With LV HRC fuse	3NJ6953-4BB00			■	■
<b>Busbar covers</b>							
			<b>Article No.</b>				
			3NJ6916-4EA00	■	■	■	■
<b>Blanking covers</b>							
			<b>Article No.</b>				
			3NJ6900-4CB00	■	■	■	■
<b>Connection modules</b>							
			<b>Article No.</b>				
			3NJ6915-3BA00	■	■	■	■
<b>Guide rails</b>							
	<b>Overall depth</b>		<b>Article No.</b>				
	200 mm		3NJ6900-4FB00	■	■	■	■
	400 mm		3NJ6900-4FC00	■	■	■	■
<b>LV HRC fuse puller tongs</b>							
	<b>Version</b>		<b>Article No.</b>				
	For NH00		XPT:8PT9624	■	■	■	■
	For NH1, NH2, NH3		XPT:8PT9625	■	■	■	■
<b>Locking devices for padlocks</b>							
			<b>Article No.</b>				
			3NJ6900-4LL	■	■	■	■

# 5SG switch disconnectors with fuses

## System overview

### MINIZED switch disconnectors with fuses



1P



3P

### NEOZED bus-mounting switch disconnectors



3P



3P, with terminals

### Accessories



Auxiliary switches



Lateral modules



Reducers

**Note:**

You will find a detailed range of accessories with the basic units.



Number of poles		1P	1P+N	2P	3P	3P+N	
Size of fuse	Rated current $I_n$	Mounting width	Mounting width	Mounting width	Mounting width	Mounting width	Mounting width
		1.5 MW	3 MW	3 MW	1.5 MW	4.5 MW	6 MW
<b>MINIZED switch disconnectors with fuses <sup>1) 3)</sup></b>							
D02	63 A	5SG7113	5SG7153	5SG7123	–	5SG7133	5SG7163
<b>MINIZED switch disconnectors with fuses – version for Austria only <sup>2) 3)</sup></b>							
D02	25 A	–	–	–	–	5SG7133-8BA25	–
	35 A	–	–	–	–	5SG7133-8BA35	–
	50 A	–	–	–	–	5SG7133-8BA50	–
<b>NEOZED bus-mounting switch disconnectors</b>							
D02	63 A	–	–	–	5SG7230 <sup>4)</sup>	–	–
<b>NEOZED bus-mounting switch disconnectors, without LED signal detector</b>							
D02	63 A	–	–	–	5SG7234-1 <sup>4)</sup>	–	–
<b>NEOZED bus-mounting switch disconnectors, with LED signal detector</b>							
D02	63 A	–	–	–	5SG7234-2 <sup>5)</sup>	–	–

<sup>1)</sup> Using draw-out technology with touch protection according to BGV A3, adapter sleeves not included in the scope of delivery

<sup>2)</sup> With permanently fitted adapter sleeves, incl. fuse link

<sup>3)</sup> Do not use fuse links with nickel-plated contact caps




<sup>4)</sup> In the case of permanent load over 35 A, we recommend the use of 5SH5526 lateral modules. Please observe EN 60439-1, Table 1

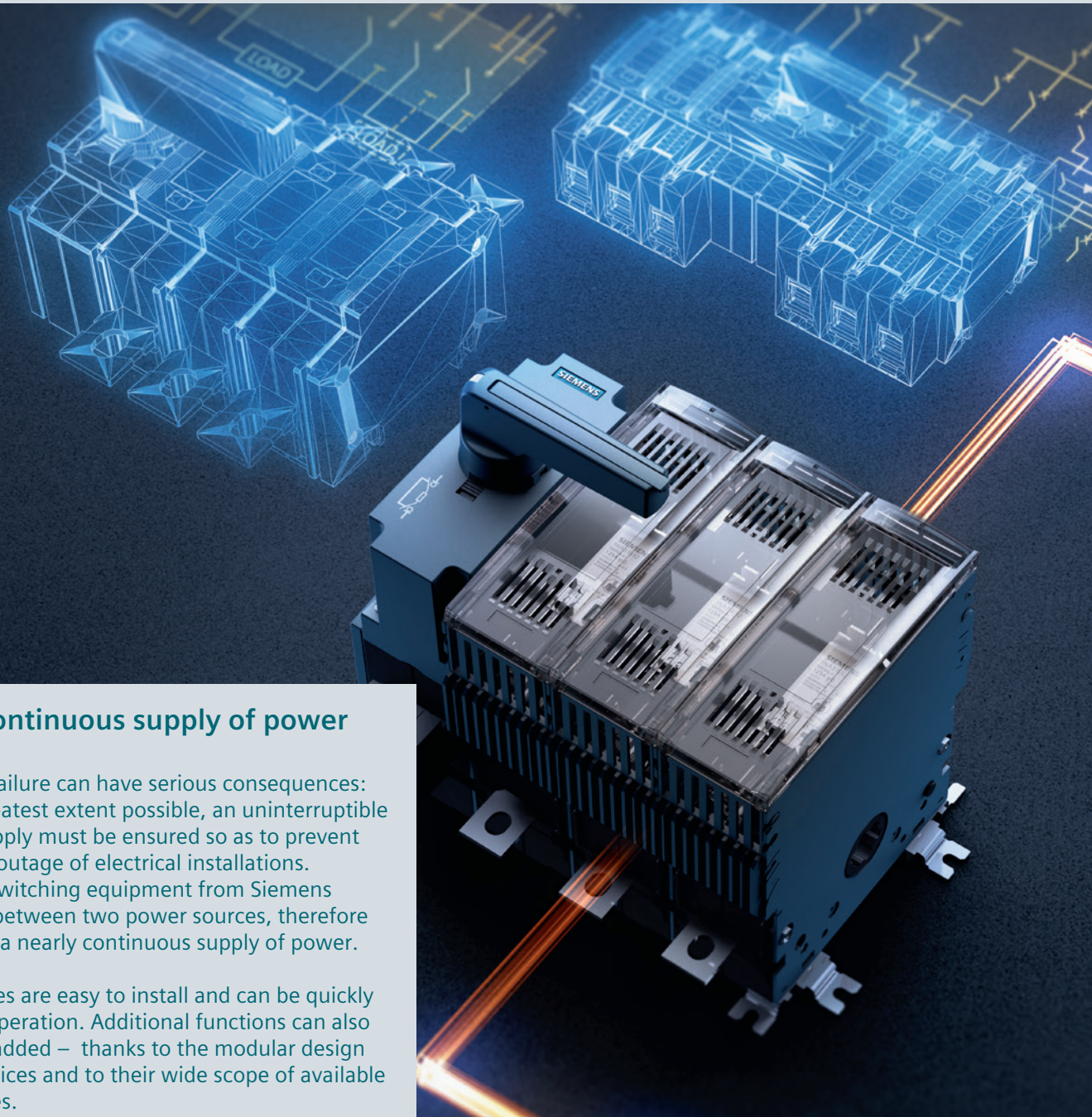
<sup>5)</sup> In the case of permanent load over 35 A, we recommend the use of 5SH5533 lateral modules. Please observe EN 60439-1, Table 1

#### Note:

NEOZED adapter sleeves are required for these devices

## Accessories

Auxiliary switches					
Version	Type	Mounting width	Contacts	Article No.	
 For MINIZED D02 switch disconnectors	Standard	0.5 MW	1 NO + 1 NC	5ST3010	
			2 NO	5ST3011	
			2 NC	5ST3012	
	With test button	0.5 MW	1 NO + 1 NC	5ST3010-2	
			2 NO	5ST3011-2	
			2 NC	5ST3012-2	
For NEOZED bus-mounting switch disconnectors	Standard	0.5 MW	1 CO	5SH5525	
<b>Lateral modules</b>					
Version	Type	Mounting width	Article No.		
 For NEOZED bus-mounting switch disconnectors	5SG7230	0.5 MW	5SH5526		
	5SG7234-1 and -2	0.5 MW	5SH5533		
<b>Reducers</b>					
Version					Article No.
 For D01 fuse links					5SH5527



## For a continuous supply of power

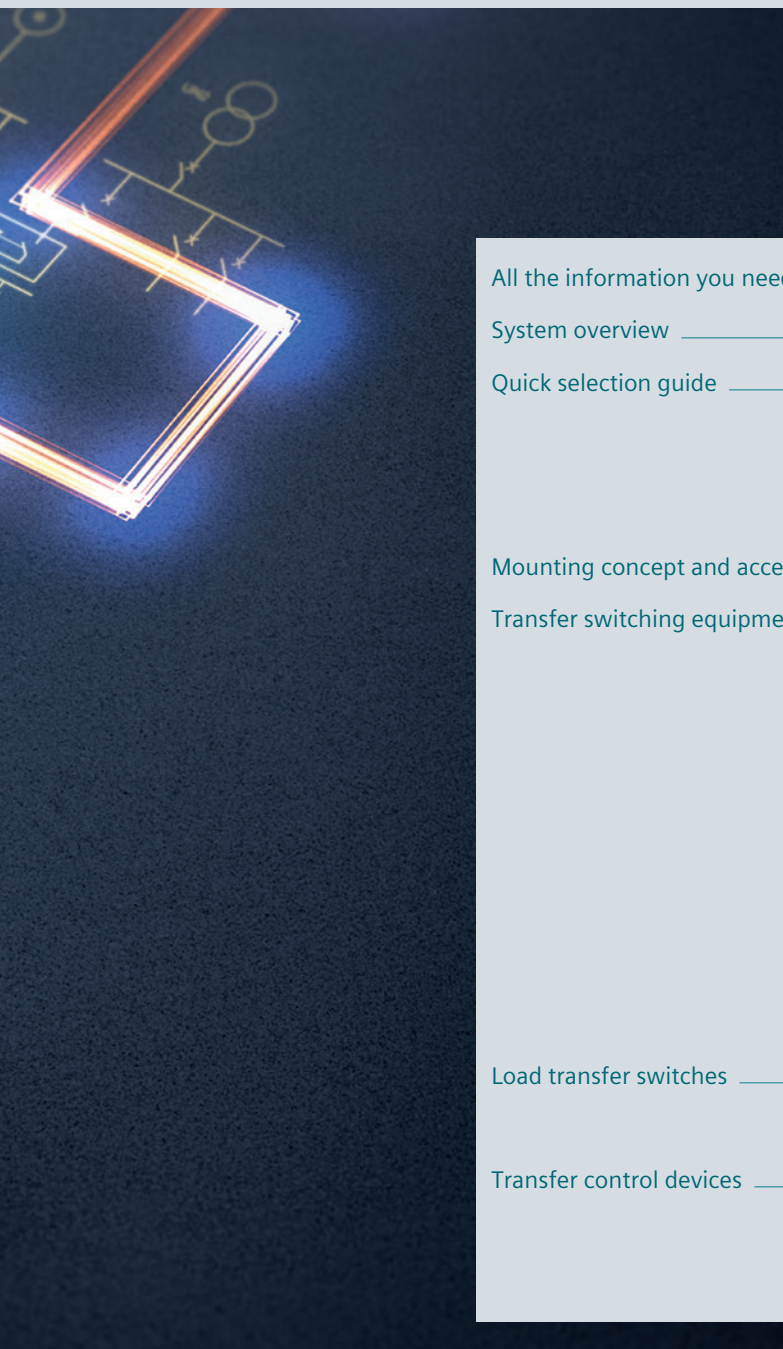
A power failure can have serious consequences: To the greatest extent possible, an uninterruptible power supply must be ensured so as to prevent failure or outage of electrical installations. Transfer switching equipment from Siemens switches between two power sources, therefore providing a nearly continuous supply of power.

The devices are easy to install and can be quickly put into operation. Additional functions can also be easily added – thanks to the modular design of the devices and to their wide scope of available accessories.

Convenient ordering processes and fast delivery optimize stock keeping and save you time and money. You can also use our CAx data for automated and streamlined planning and configuration.



# Transfer Switching Equipment and Load Transfer Switches



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3KC ATC transfer control devices	9/32
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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about transfer switching equipment and load transfer switches, please visit our website [www.siemens.com/switching-devices](http://www.siemens.com/switching-devices)

Our white paper provides you with a good overview of the transfer switching equipment [sie.ag/2XBonli](http://sie.ag/2XBonli)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – Switch disconnectors and transfer switching equipment ([109763354](http://109763354))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Switch disconnectors and transfer switching equipment [sie.ag/2mmMw6g](http://sie.ag/2mmMw6g)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

Order supports are available in Siemens Industry Online Support (SIOS) at [www.siemens.com/lowvoltage/catalogs](http://www.siemens.com/lowvoltage/catalogs)

- Order support – 3KC automatic transfer switching equipment (ATSE) – End-to-end safety for user and systems ([109755620](http://109755620))
- Order support – 3KC remotely operated transfer switching equipment (RTSE) – End-to-end safety for user and systems ([109755627](http://109755627))
- Order support – 3KC manual transfer switching equipment (MTSE) – End-to-end safety for user and systems ([109750227](http://109750227))

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at

[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Transfer switching equipment and load transfer switches ([109769745](#))
- Equipment manual – 3KC3 and 3KC6 transfer switching equipment ([109754954](#))
- Equipment manual – 3KC0 manual transfer switching equipment ([109763232](#))
- Equipment manual – 3KC4 and 3KC8 transfer switching equipment ([109738725](#))
- Equipment manual – 3KC ATC3100 transfer control device ([100341671](#))
- Equipment manual – 3KC ATC6300 transfer control device ([109755149](#))
- Equipment manual – 3KC ATC6500 transfer control device ([109758018](#))

### Technical overview – Transfer switching equipment and load transfer switches



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on transfer switching equipment and load transfer switches

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109764946](#))

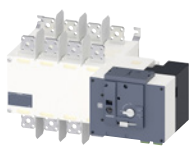


# System overview

## Remote (RTSE) and automatic (ATSE) transfer switching equipment



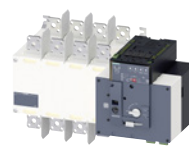
3KC3 (RTSE), 4-pole



3KC4 (RTSE), 3 and 4-pole

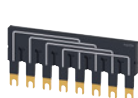


3KC6 (ATSE), 4-pole



3KC8 (ATSE), 3 and 4-pole

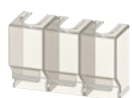
## Accessories, RTSE and ATSE



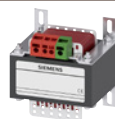
Bridging bars



Auxiliary switches



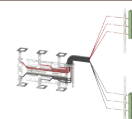
Terminal covers



Autotransformers



Dual power supply



Power supply and voltage sensing cables

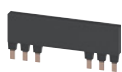
## Manual transfer switching equipment (MTSE)



3KC0 (MTSE), 3 and 4-pole



## Accessories, MTSE



Bridging bars



4th contact element



Auxiliary switches



Direct operating mechanisms



Door-coupling rotary operating mechanisms



Phase barriers



Terminal covers

### Note:

You will find a detailed range of accessories in the Accessories section.

## Load transfer switches



Front mounting  
3LD2



Floor mounting  
3LD2



Molded-plastic  
enclosures 3LD2

## Accessories



4th contact  
element



N/PE terminal



Auxiliary  
switches



Terminal covers

## Transfer control devices



3KC ATC3100



3KC ATC6300



3KC ATC6500

## Accessories



Expansion modules



Front interface



Protective seal

### Note:

You will find a detailed range of accessories in the Accessories section.

# Applications

## Switching with switch disconnectors (without protection function)



<b>Transfer types</b>	Load transfer	AC	■	■	■	–	–
		DC	–	–	■	–	–
<b>Method of operation</b>	Transfer control	AC	■	■	■	■	■
	Manual (MTSE)		■	■	■	■	■
	Remote (RTSE)		–	■	■	–	■
<b>Transfer control</b>	Automatic (ATSE)		–	With ATC6300	With ATC6300	■	■
	Network/network	AC	■	■	■	■	■
	Network/generator	AC	■	■	■	–	■
	Generator/generator	AC	■	■	■	–	–
<b>Rated operating current</b>			16 ... 1600 A	40 ... 160 A	250 ... 3200 A	40 ... 160 A	250 ... 3200 A
<b>Number of poles</b>			3 and 4	4	3 and 4	4	3 and 4
<b>Communication</b>			–	With ATC6300	With ATC6300	–	–
<b>Automatic load shedding</b>			–	–	–	–	–

### More information

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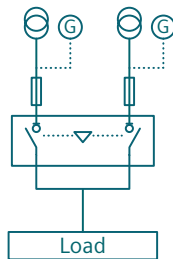
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From page 9/17

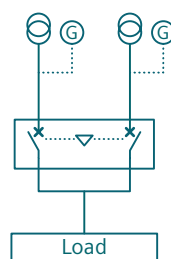
From page 9/17

<sup>1)</sup> Manual load transfer switch, not an MTSE

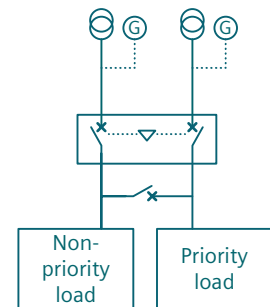
## Transfer control



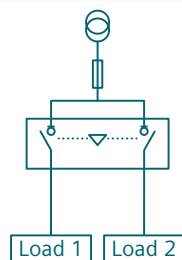
With switch disconnectors



With circuit breakers

With circuit breakers  
and automatic load shedding

## Load transfer



With switch disconnectors

## Switching with circuit breakers (with protection function)



3LD2



3KC ATC3100 (+ 3VA/3WA/3WL)



3KC ATC6300 (+ 3VA/3WA/3WL)



3KC ATC6500 (+ 3VA/3WA/3WL)

■	-	-	-
-	-	-	-
-	■	■	■
■ 1)	-	-	-
-	■	■	■
-	■	■	■
-	■	■	■
-	■	■	■
-	-	■	■
25 ... 250 A	3VA: 16 ... 630 A, 3WA/3WL: 630 ... 6300 A	3VA: 16 ... 630 A, 3WA/3WL: 630 ... 6300 A	3VA: 16 ... 1600 A, 3WA/3WL: 630 ... 6300 A
3 and 4	3 and 4	3 and 4	3 and 4
-	-	■	■
-	-	-	■

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# Transfer switching equipment and load transfer switches

Remote transfer switching equipment (RTSE), automatic transfer switching equipment (ATSE)



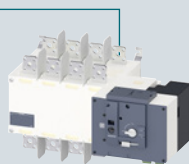
		3KC3424 3KC6424	3KC3426 3KC6426	3KC3428 3KC6428	3KC3430 3KC6430	3KC3432 3KC6432	3KC3434 3KC6434
<b>Rated uninterrupted current <math>I_u</math></b>		40 A	63 A	80 A	100 A	125 A	160 A
Connection		Box terminal					
Switch positions		I–O–II					
Number of poles		4					
Size		–					
<b>General technical details</b>							
Operating voltage at 50/60 Hz AC acc. to IEC 60947-6-1	V	415					
Operating voltage at 50/60 Hz AC acc. to IEC 60947-3 (load transfer switch)	V	415					
Impulse withstand voltage ( $U_{imp}$ ) for main circuit	kV	6					
Impulse withstand voltage ( $U_{imp}$ ) for control circuit (RTSE/ATSE)	kV	4 (RTSE)/2.5 (ATSE)					
Operational current in acc. to IEC 60947-6-1	A	40	63	80	100	100/125	100/160
	A	40	63	80	100	100/125	100/160
	A	40	63	80	100	125	125
Operational current in acc. to IEC 60947-3 (load transfer switch)	A	40	63	80	100	125	125/160
	A	40	63	80	100	125	125
	A	40	63	80	100	125	125/160
	A	40	63	80	80	100/125	100/125
	A	40	63	80	100	125	125/160
	A	40	63	63	80	80	80
Operational power in acc. to IEC 60947-3 (load transfer switch)	kW	22	37	45	55	60	75
	kW	37	55	55	75	75	75
	kW				–		
	kW				–		
<b>Short-circuit behavior</b>							
Short-circuit current ratings in acc. to IEC 60947-6-1	Conditional short-circuit current with gG fuse (415 V) kA	50	50	50	50	50	40
Short-circuit current ratings in acc. to IEC 60947-3 (load transfer switch)	Conditional short-circuit current with gG fuse (415 V) kA	50	50	50	50	50	40
	Conditional short-circuit current with gG fuse (690 V) kA				–		
<b>Transfer switching properties (in acc. to IEC 60947-6-1)</b>							
Switching time I–O and II–O	s	0.045					
Switch-off time I–O–II and II–O–I	s	0.15					
Transfer time I–O–II and II–O–I without/with network monitoring	s	0.18/1.4					
<b>Degree of protection</b>							
IP maximum degree of protection		IP20					
<b>Standards UL/CSA, in acc. to UL508</b>							
Rated operational voltage $U_e$ AC	V	–					
Rated uninterrupted current $I_u$	A	–					
Maximum rated power (AC-3), 3-phase, 40 ... 60 Hz	480 V hp	–					
	600 V hp	–					
<b>More information</b>							

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<sup>1)</sup> For 3LD2 at 380 ... 440 V

<sup>2)</sup> For 3LD2 at 660 ... 690 V

## Remote transfer switching equipment (RTSE), automatic transfer switching equipment (ATSE)

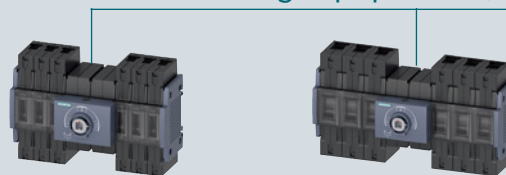


3KC4.38 3KC8.38 250 A	3KC4.42 3KC8.42 400 A	3KC4.46 3KC8.46 630 A	3KC4.48 3KC8.48 800 A	3KC4.50 3KC8.50 1000 A	3KC4.52 3KC8.52 1250 A	3KC4.54 3KC8.54 1600 A	3KC4.56 3KC8.56 2000 A	3KC4.58 3KC8.58 2500 A	3KC4.60 3KC8.60 3200 A
Flat terminal									
I-O-II									
3 and 4									
-									
415									
690									
12									
4									
-/250	-/400	-/630	-/800	-/1000	-/1250	-/1600	-/2000	-/2500	-/3200
-/200	-/400	-/500	-/800	-/1000	-/1250	-/1250	-/2000	-/2000	-/2000
200	200	400	800	1000	1000	1000	1250	1250	1250
250	400	630	800	1000	1250	1600	-/2000	-/2500	-/3200
200	200	500	800	1000	1250	1600	-/2000	-/2000	-/2000
250	400	630	800	1000	1250	1600	-/2000	-/2500	-/3200
160	160	400	630	800	1000	1000	-	-	-
200	400	500/630	800	1000	1250	1250	-/1600	-/1600	-/1600
125	125	400	630	630	800	800	-	-	-
110	220	335	450	700	800	900	-	-	-
110	110	400	400	630	800	800	-	-	-
-									
-									
50	50	50	50	50	100	100	-	-	-
-									
50	50	50	50	50	100	100	-	-	-
-									
0.5	0.5	0.6	1.4	1.4	1.4	1.4	1.6	1.6	1.6
0.4	0.4	0.4	1.4	1.4	1.4	1.5	1.2	1.2	1.2
0.9/1.0	0.9/1.0	1.0/1.1	2.8/3.1	2.8/3.1	2.8/3.1	2.9/3.3	2.8/2.8	2.8/2.8	2.8/2.8
IP20									
-									
-									
-									
-									

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# Transfer switching equipment and load transfer switches

## Manual transfer switching equipment (MTSE)



			3KC0.16	3KC0.22	3KC0.26	3KC0.28	3KC0.30	3KC0.32	3KC0.34	
<b>Rated uninterrupted current <math>I_u</math></b>			16 A	32 A	63 A	80 A	100 A	125 A	160 A	
Connection			Box terminal			Box terminal				
Switch positions			I–O–II			I–O–II				
Number of poles			3 and 4			3 and 4				
Size			1			2				
<b>General technical details</b>										
Operating voltage at 50/60 Hz AC in acc. to IEC 60947-6-1	V		415			415				
Operating voltage at 50/60 Hz AC in acc. to IEC 60947-3 (load transfer switch)	V		690			690				
Impulse withstand voltage ( $U_{imp}$ ) for main circuit	kV		8			8				
Impulse withstand voltage ( $U_{imp}$ ) for control circuit (RTSE/ATSE)	kV		–			–				
Operational current in acc. to IEC 60947-6-1	AC-31 A/B, at 415 V	A	–/16	–/32	–/63	–/80	–/100	–/125	–/160	
	AC-32 A/B, at 415 V	A	–/16	–/32	–/63	–/80	–/100	–/125	–/160	
	AC-33 B, at 415 V	A	16	32	63	80	100	125	160	
Operational current in acc. to IEC 60947-3 (load transfer switch)	AC-21 A/B, at 415 V	A	16/16	32/32	63/63	80/80	100/100	125/125	160/160	
	AC-21 A/B, at 690 V	A	16/16	32/32	63/63	80/80	100/100	125/125	160/160	
	AC-22 A/B, at 415 V	A	16/16	32/32	63/63	80/80	100/100	125/125	160/160	
	AC-22 A/B, at 690 V	A	16/16	32/32	63/63	80/80	100/100	125/125	160/160	
	AC-23 A/B, at 415 V	A	16/16	32/32	63/63	80/80	100/100	125/125	160/160	
Operational power in acc. to IEC 60947-3 (load transfer switch)	AC-23 A/B, at 415 V <sup>1)</sup>	kW	7.5/7.5	15/15	30/30	37/37	55/55	55/55	90/90	
	AC-23 A/B, at 690 V <sup>2)</sup>	kW	11/11	30/30	55/55	75/75	90/90	110/110	110/110	
	AC-3 motor load switch at 380 ... 440 V	kW		–			–		–	
AC-3 motor load switch at 660 ... 690 V	kW		–			–		–		
<b>Short-circuit behavior</b>										
Short-circuit current ratings in acc. to IEC 60947-6-1	Conditional short-circuit current with gG fuse (415 V)	kA		100				100		
Short-circuit current ratings in acc. to IEC 60947-3 (load transfer switch)	Conditional short-circuit current with gG fuse (415 V)	kA		100				100		
	Conditional short-circuit current with gG fuse (690 V)	kA		100				65		
<b>Transfer switching properties (in acc. to IEC 60947-6-1)</b>										
Switching time I–O and II–O	s			–				–		
Switch-off time I–O–II and II–O–I	s			–				–		
Transfer time I–O–II and II–O–I without/with network monitoring	s			–				–		
<b>Degree of protection</b>										
IP maximum degree of protection				IP20				IP20		
<b>Standards UL/CSA, in acc. to UL508</b>										
Rated operational voltage $U_e$ AC	V			–				–		
Rated uninterrupted current $I_u$	A			–				–		
Maximum rated power (AC-3), 3-phase, 40 ... 60 Hz	480 V	hp		–				–		
	600 V	hp		–				–		

### More information

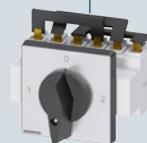
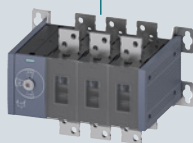
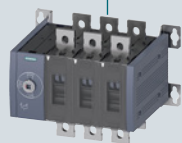
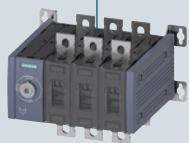
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<sup>1)</sup> For 3LD2 at 380 ... 440 V    <sup>2)</sup> For 3LD2 at 660 ... 690 V

## Manual transfer switching equipment (MTSE)

## Load transfer switches



3KCO.36			3KCO.38		3KCO.40		3KCO.42		3KCO.44		3KCO.46		3KCO.48		3KCO.50		3KCO.52		3KCO.54		3LD21	3LD22	3LD25	3LD27	3LD23	3LD24
200 A			250 A		315 A		400 A		500 A		630 A		800 A		1000 A		1250 A		1600 A		25 A	32 A	63 A	100 A	160 A	250 A
Flat terminal									Flat terminal						Flat terminal						Box terminal					
I-O-II									I-O-II						I-O-II						I-O-II					
3 and 4									3 and 4						3 and 4						3					
3									4						5						-					
415									415						415						-					
690									690						690						690					
12									12						12						6					
-									-						-						-					
-/200	-/250	-/315	-/400	-/500	-/630	-/800	-/1000	-/1250	-/1600	-						-										
-/200	-/250	-/315	-/350	-/500	-/630	-/800	-/1000	-/1250	-/1250	-						-										
200	250	315	315	500	500	500	800	800	800	25	32	63	100	160	250	-										
200/200	250/250	315/315	400/400	500/500	630/630	800/800	1000/1000	1250/1250	1600/1600	25	32	63	100	160	250	-										
200/200	250/250	315/315	400/400	500/500	630/630	800/800	1000/1000	1250/1250	1600/1600	25	32	63	100	160	250	-										
200/200	250/250	315/315	400/400	500/500	630/630	800/800	1000/1000	1250/1250	1600/1600	25	32	63	100	140	230	-										
200/200	250/250	315/315	400/400	500/500	630/630	800/800	1000/1000	1250/1250	1600/1600	25	32	63	100	140	230	-										
200/200	250/250	315/315	400/400	500/500	630/630	670/670	800/800	800/800	800/800	20	22	43	70	132	224	-										
200/200	250/250	315/315	315/315	500/500	500/500	500/500	800/800	800/800	800/800	11.5	13.5	22	34	47	58	-										
110/110	132/132	160/160	220/220	280/280	355/355	355/355	400/400	400/400	400/400	9.5	11.5	22	37	75	132	-										
185/185	220/220	280/280	355/355	500/500	500/500	500/500	800/800	800/800	800/800	9.5	11.5	18.5	30	45	55	-										
-	-	-	-	-	-	-	-	-	-	7.5	9.5	18.5	30	50	110	-										
-	-	-	-	-	-	-	-	-	-	7.5	9.5	15	22	37	45	-										
100	100	65	65	100	100	65	100	80	80	-						-										
100	100	65	65	100	100	65	100	80	80	50	50	50	50	50	50	-										
65	65	35	35	65	65	50	-	-	-	50	50	50	50	50	50	-										
-	-	-	-	-	-	-	-	-	-	-						-										
-	-	-	-	-	-	-	-	-	-	-						-										
-	-	-	-	-	-	-	-	-	-	-						-										
IP20									IP20						IP20						IP65					
-									-						-						600					
-									-						-						20					
-									-						-						10					
-									-						-						15					
-									-						-						30 (20) <sup>3)</sup>					
-									-						-						50					
-									-						-						75					
-									-						-						75					

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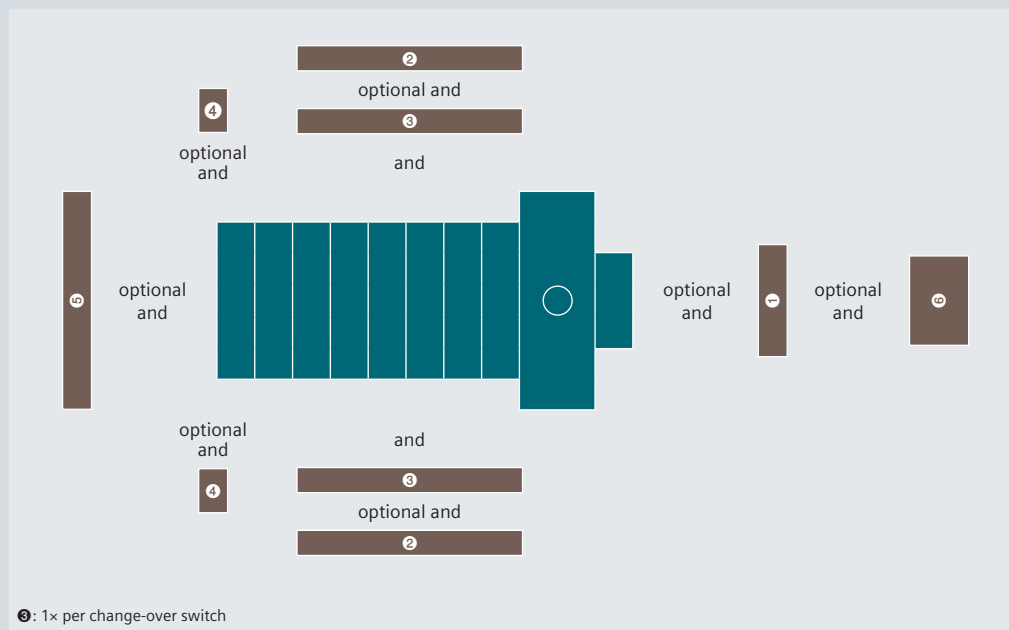
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<sup>3)</sup> Values in brackets apply to devices in molded-plastic enclosure.



# Mounting concept and accessories

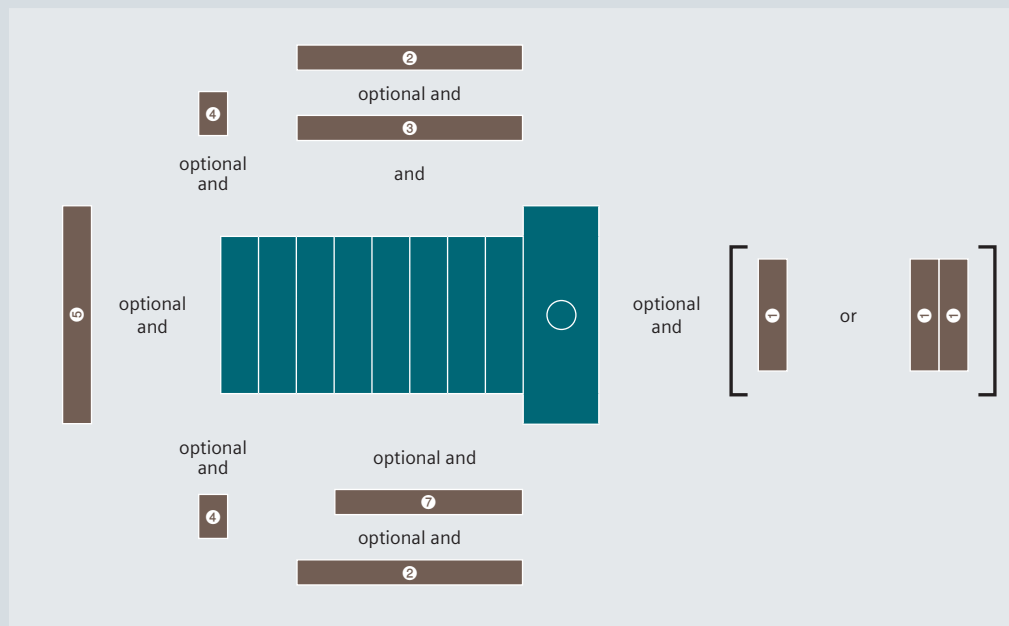
## 3KC3 (RTSE) 4-pole



### Legend

- ① Auxiliary switch
- ② Terminal cover
- ③ Bridging bar
- ④ Aux. conductor terminal
- ⑤ Autotransformer
- ⑥ Dual power supply

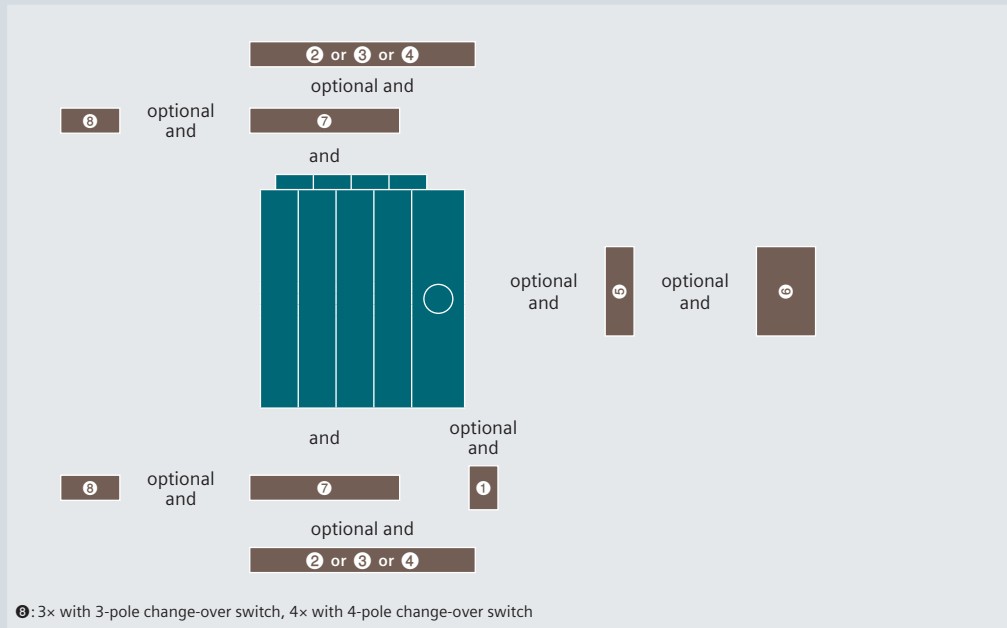
## 3KC6 (ATSE), 4-pole



### Legend

- ① Auxiliary switch
- ② Terminal cover
- ③ Bridging bar
- ④ Aux. conductor terminal
- ⑤ Autotransformer
- ⑥ Dual power supply
- ⑦ Sealable cover

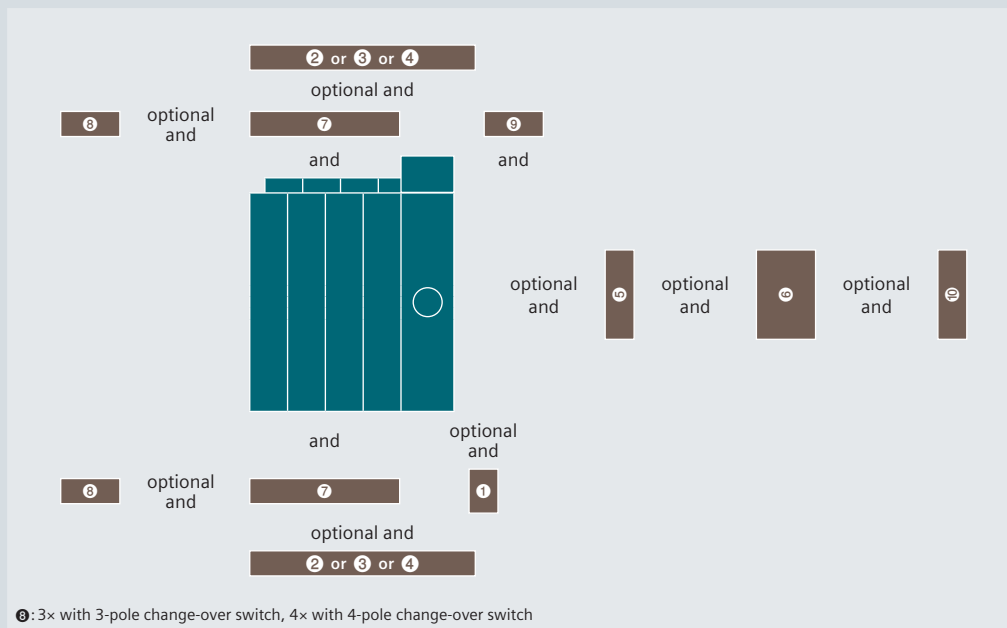
### 3KC4 (RTSE) 3-pole or 4-pole



#### Legend

- |                    |                     |                             |
|--------------------|---------------------|-----------------------------|
| ① Auxiliary switch | ④ Terminal plate    | ⑦ Bridging bar              |
| ② Phase barrier    | ⑤ Autotransformer   | ⑧ Copper bar connection kit |
| ③ Terminal cover   | ⑥ Dual power supply |                             |

### 3KC8 (ATSE) 3-pole or 4-pole

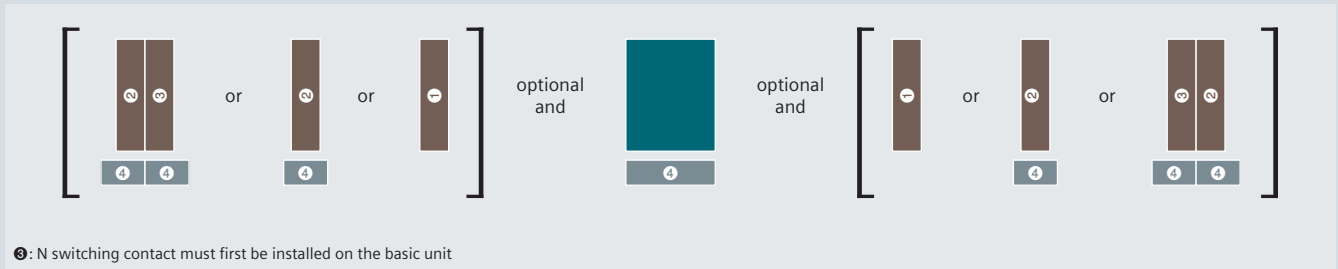


#### Legend

- |                    |                             |                      |
|--------------------|-----------------------------|----------------------|
| ① Auxiliary switch | ⑤ Autotransformer           | ⑨ Power supply cable |
| ② Phase barrier    | ⑥ Dual power supply         | ⑩ External display   |
| ③ Terminal cover   | ⑦ Bridging bar              |                      |
| ④ Terminal plate   | ⑧ Copper bar connection kit |                      |



### 3LD2 load transfer switch mounting concept

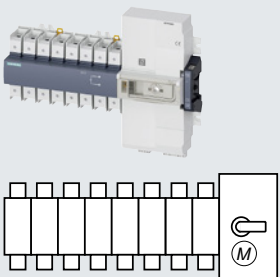
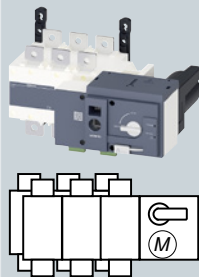
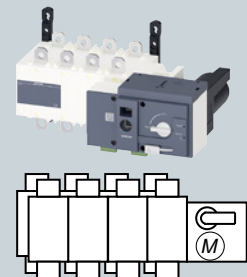


#### Legend

- ① Auxiliary switch
- ② N/PE terminal
- ③ N switching contact
- ④ Terminal cover


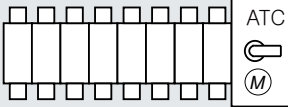
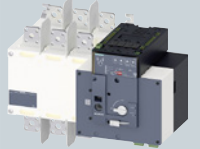
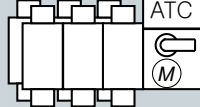

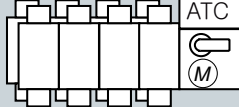
# 3KC3 and 3KC4 remote transfer switching equipment (RTSE)

40 to 3200 A

	Box terminal 3KC3 (RTSE)	Flat terminal 3KC4 (RTSE)	
<b>Version</b>	With motorized operating mechanism and additional handle	With motorized operating mechanism and additional handle	
<b>Operating mechanism</b>	Operating mechanism on right	Operating mechanism on right	
<b>Mounting</b>	Floor and DIN rail mounting	Floor mounting	
<b>Bridging bars</b>	Additionally required for connection side	Additionally required for connection side	
<b>Scope of supply</b>	Including 3KC9603 auxiliary switches		
			
<b>Rated uninterrupted current <math>I_u</math></b>	<b>4-pole</b>	<b>3-pole</b>	<b>4-pole</b>
<b>Box terminal</b>			
40 A	3KC3424-2AA22-0AA3	–	–
63 A	3KC3426-2AA22-0AA3	–	–
80 A	3KC3428-2AA22-0AA3	–	–
100 A	3KC3430-2AA22-0AA3	–	–
125 A	3KC3432-2AA22-0AA3	–	–
160 A	3KC3434-2AA22-0AA3	–	–
<b>Flat terminal</b>			
250 A	–	3KC4338-0CA21-0AA3	3KC4438-0CA21-0AA3
400 A	–	3KC4342-0DA21-0AA3	3KC4442-0DA21-0AA3
630 A	–	3KC4346-0EA21-0AA3	3KC4446-0EA21-0AA3
800 A	–	3KC4348-0FA21-0AA3	3KC4448-0FA21-0AA3
1000 A	–	3KC4350-0FA21-0AA3	3KC4450-0FA21-0AA3
1250 A	–	3KC4352-0GA21-0AA3	3KC4452-0GA21-0AA3
1600 A	–	3KC4354-0HA21-0AA3	3KC4454-0HA21-0AA3
2000 A	–	3KC4356-0JA21-0AA3	3KC4456-0JA21-0AA3
2500 A	–	3KC4358-0JA21-0AA3	3KC4458-0JA21-0AA3
3200 A	–	3KC4360-0JA21-0AA3	3KC4460-0JA21-0AA3

# 3KC6 and 3KC8 automatic transfer switching equipment (ATSE)

40 to 3200 A

	Box terminal 3KC6 (ATSE)	Flat terminal 3KC8 (ATSE)	
<b>Version</b>	With motorized operating mechanism, integrated controller and additional handle	With motorized operating mechanism, integrated controller and additional handle	
<b>Operating mechanism</b>	Operating mechanism on right	Operating mechanism on right	
<b>Mounting</b>	Floor and DIN rail mounting	Floor mounting	
<b>Bridging bars</b>	Additionally required for connection side	Additionally required for connection side	
<b>Scope of supply</b>	Wired ready for operation (including power supply)	Without power supply and voltage sensing cables	
	 	 	 
<b>Rated uninterrupted current <math>I_u</math></b>	<b>4-pole</b>	<b>3-pole</b>	<b>4-pole</b>
<b>Box terminal</b>			
40 A	3KC6424-2TA20-0TA3	–	–
63 A	3KC6426-2TA20-0TA3	–	–
80 A	3KC6428-2TA20-0TA3	–	–
100 A	3KC6430-2TA20-0TA3	–	–
125 A	3KC6432-2TA20-0TA3	–	–
160 A	3KC6434-2TA20-0TA3	–	–
<b>Flat terminal</b>			
250 A	–	3KC8338-0CA22-0GA3	3KC8438-0CA22-0GA3
400 A	–	3KC8342-0DA22-0GA3	3KC8442-0DA22-0GA3
630 A	–	3KC8346-0EA22-0GA3	3KC8446-0EA22-0GA3
800 A	–	3KC8348-0FA22-0GA3	3KC8448-0FA22-0GA3
1000 A	–	3KC8350-0FA22-0GA3	3KC8450-0FA22-0GA3
1250 A	–	3KC8352-0GA22-0GA3	3KC8452-0GA22-0GA3
1600 A	–	3KC8354-0HA22-0GA3	3KC8454-0HA22-0GA3
2000 A	–	3KC8356-0JA22-0GA3	3KC8456-0JA22-0GA3
2500 A	–	3KC8358-0JA22-0GA3	3KC8458-0JA22-0GA3
3200 A	–	3KC8360-0JA22-0GA3	3KC8460-0JA22-0GA3

# Accessories

For remote transfer switching equipment (RTSE) and automatic transfer switching equipment (ATSE)

				RTSE	ATSE	
<b>Bridging bar</b>						
	<ul style="list-style-type: none"> <li>For load-side connection</li> <li>For 3KC4/3KC8 3-pole transfer switches 3 units, for 3KC4/3KC8 4-pole transfer switches 4 units are required</li> </ul>					
	<b>Version</b>	<b>Number of poles</b>	<b>Scope of supply</b>	<b>Article No.</b>		
	For 40 ... 125 A	4-pole	1 unit	3KC9618-2	■ ■	
	For 160 A	4-pole	1 unit	3KC9618-3	■ ■	
	For 250 A	1-pole	1 unit	3KC9818-2	■ ■	
	For 400 A	1-pole	1 unit	3KC9818-3	■ ■	
	For 630 A	1-pole	1 unit	3KC9818-4	■ ■	
	For 800 ... 1000 A	1-pole	1 unit	3KC9818-5	■ ■	
	For 1250 A	1-pole	1 unit	3KC9818-6	■ ■	
	For 1600 A	1-pole	1 unit	3KC9818-7	■ ■	
For 2000 ... 3200 A	1-pole	1 unit	3KC9818-8	■ ■		
<b>Auxiliary conductor terminal</b>						
	<b>Version</b>	<b>Scope of supply</b>		<b>Article No.</b>		
	For 40 ... 160 A	2 units		3KC9622-2	■ ■	
<b>Auxiliary switches for 40 ... 160 A</b>						
	<ul style="list-style-type: none"> <li>For 250 V AC/5 A or for 24 V DC/2 A</li> <li>1 change-over contact for each position O, I, II</li> <li>Max. 2 auxiliary switches can be installed per transfer switching equipment unit</li> </ul>					
	<b>Version</b>	<b>Contact configuration</b>		<b>Article No.</b>		
	For 40 ... 160 A	With separate contacts		3KC9603-1	■ ■	
		With linked common contacts		3KC9603-2	■ ■	
<b>Auxiliary switches for 250 ... 1600 A</b>						
	<ul style="list-style-type: none"> <li>One auxiliary switch contains 2 leading changeover contacts, one changeover contact for position I and one changeover contact for position II (incl. bolt set)</li> <li>Max. two auxiliary switches can be installed per transfer switching equipment unit</li> <li>For 2000 ... 3200 A transfer switching equipment the auxiliary switch is included in the basic unit</li> <li>250 V AC/12 A (AC-13), 24 V DC/14 A (DC-13)</li> </ul>					
	<b>Version</b>				<b>Article No.</b>	
	For 250 ... 630 A				3KC9803-1	■ ■
	For 800 ... 1600 A				3KC9803-2	■ ■
	For 2000 ... 2500 A (included in the basic unit)				–	■ ■


					RTSE	ATSE
<b>Terminal covers</b>						
	<b>Version</b>	<b>Number of poles</b>	<b>Scope of supply</b>	<b>Article No.</b>		
	For 40 ... 160 A	4-pole	2 units (1 unit covers 4 poles)	3KC9604-2	■	■
	For 250 ... 400 A	3-pole	3 units (1 unit covers 1 pole)	3KC9804-1	■	■
		4-pole	4 units (1 unit covers 1 pole)	3KC9804-2	■	■
	For 630 A	3-pole	3 units (1 unit covers 1 pole)	3KC9804-3	■	■
		4-pole	4 units (1 unit covers 1 pole)	3KC9804-4	■	■
<b>Sealable cover</b>						
	<b>Version</b>		<b>Scope of supply</b>	<b>Article No.</b>		
	For 3KC6 (ATSE) 40 ... 160 A		Incl. bolt set and sealing ribbons	3KC9721-1	–	■
	For 3KC8 (ATSE) 250 ... 3200 A		Incl. bolt set and sealing ribbons	3KC9821-0	–	■
<b>Sealing ribbon</b>						
	<ul style="list-style-type: none"> <li>Also as spare part for sealable cover</li> </ul>					
	<b>Version</b>		<b>Scope of supply</b>	<b>Article No.</b>		
	For 40 ... 3200 A		10 units	3KC9621-2	–	■
<b>Autotransformers</b>						
	<b>Version</b>		<b>Technical specifications</b>	<b>Article No.</b>		
	For 40 ... 160 A		400 V/230 V AC; 400 VA	3KC9624-1	■	■
	For 250 ... 3200 A, 3-pole		400 V/230 V AC; 200 VA	3KC9824-1	■	■



# Accessories

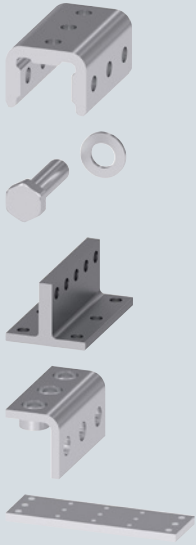

For remote transfer switching equipment (RTSE) and automatic transfer switching equipment (ATSE)

Power supply and voltage sensing cables for ATSE						RTSE	ATSE
Application	Infeed	Switches	Version	Article No.			
 <p>For 250 ... 630 A</p>	From below, with power supply	3-pole	For 250 A	3KC9833-1	–	■	
			For 400 A	3KC9833-2	–	■	
			For 630 A	3KC9833-3	–	■	
			For 800 ... 1000 A	3KC9833-4	–	■	
			For 1250 A	3KC9833-5	–	■	
			For 1600 A	3KC9833-6	–	■	
			For 2000 ... 3200 A	3KC9833-7	–	■	
 <p>For 800 ... 3200 A</p>	From above, with power supply	3-pole	For 250 A	3KC9834-1	–	■	
			For 400 A	3KC9834-2	–	■	
			For 630 A	3KC9834-3	–	■	
			For 800 ... 1000 A	3KC9834-4	–	■	
			For 1250 A	3KC9834-5	–	■	
			For 1600 A	3KC9834-6	–	■	
			For 2000 ... 3200 A	3KC9834-7	–	■	
 <p>For 250 ... 630 A</p>	From below, without power supply	3-pole	For 250 A	3KC9822-1	–	■	
			For 400 A	3KC9822-2	–	■	
			For 630 A	3KC9822-3	–	■	
			For 800 ... 1000 A	3KC9822-4	–	■	
			For 1250 A	3KC9822-5	–	■	
			For 1600 A	3KC9822-6	–	■	
			For 2000 ... 3200 A	3KC9822-7	–	■	
 <p>For 800 ... 3200 A</p>	From above, without power supply	3-pole	For 250 A	3KC9832-1	–	■	
			For 400 A	3KC9832-2	–	■	
			For 630 A	3KC9832-3	–	■	
			For 800 ... 1000 A	3KC9832-4	–	■	
			For 1250 A	3KC9832-5	–	■	
			For 1600 A	3KC9832-6	–	■	
			For 2000 ... 3200 A	3KC9832-7	–	■	
 <p>For 250 ... 630 A</p>	From below, with power supply	4-pole	For 250 A	3KC9830-1	–	■	
			For 400 A	3KC9830-2	–	■	
			For 630 A	3KC9830-3	–	■	
			For 800 ... 1000 A	3KC9830-4	–	■	
			For 1250 A	3KC9830-5	–	■	
			For 1600 A	3KC9830-6	–	■	
			For 2000 ... 3200 A	3KC9830-7	–	■	
 <p>For 800 ... 3200 A</p>	From above, with power supply	4-pole	For 250 A	3KC9831-1	–	■	
			For 400 A	3KC9831-2	–	■	
			For 630 A	3KC9831-3	–	■	
			For 800 ... 1000 A	3KC9831-4	–	■	
			For 1250 A	3KC9831-5	–	■	
			For 1600 A	3KC9831-6	–	■	
			For 2000 ... 3200 A	3KC9831-7	–	■	

				RTSE	ATSE	
<b>Dual power supply</b>						
	<b>Version</b>	<b>Technical specifications</b>	<b>Article No.</b>			
	For 3KC3 and 3KC4 (RTSE) 40 ... 3200 A	240 V AC, 3 A	3KC9625-1	■	–	
<b>External display</b>						
	<ul style="list-style-type: none"> <li>For installing in the control cabinet door</li> </ul>					
	<b>Version</b>	<b>Article No.</b>				
For 3KC8 (ATSE) 250 ... 3200 A	3KC9823-0	–	■			
<b>Connection cable</b>						
	<ul style="list-style-type: none"> <li>3 m RJ45 cable for external display</li> </ul>					
	<b>Version</b>	<b>Article No.</b>				
For 250 ... 3200 A	3KC9823-2	–	■			
<b>Phase barrier</b>						
	<ul style="list-style-type: none"> <li>For 800 ... 3200 A transfer switching equipment included in the scope of supply of the basic unit</li> </ul>					
	<b>Version</b>	<b>Number of poles</b>	<b>Scope of supply</b>	<b>Article No.</b>		
	For 250 ... 400 A	3-pole	2 units	3KC9808-1	■	■
		4-pole	3 units	3KC9808-6	■	■
	For 630 A	3-pole	2 units	3KC9808-2	■	■
4-pole		3 units	3KC9808-7	■	■	
<b>Cover frame for ATSE</b>						
	<ul style="list-style-type: none"> <li>For a clean and safe door cut-out</li> <li>To enable access to the front of the 3KC8 transfer switching equipment (electronic module and operation of the motorized operating mechanism)</li> </ul>					
	<b>Version</b>	<b>Article No.</b>				
	250 ... 630 A	3KC9820-4	–	■		
800 ... 3200 A	3KC9820-5	–	■			

# Accessories

For remote transfer switching equipment (RTSE) and automatic transfer switching equipment (ATSE)

					RTSE	ATSE
<b>Copper bar connection kit</b>						
	<b>Version</b>	<b>Designation</b>	<b>Scope of supply</b>	<b>Article No.</b>		
	For 2000 ... 2500A	C-bracket, part A	1 unit	3KC9811-0	■	■
	For 2000 ... 3200 A	Bolt set, part B	1 unit	3KC9811-1	■	■
				3KC9811-2	■	■
		T-bracket, part C	1 unit	3KC9811-3	■	■
		L-bracket, part D	2 units	3KC9811-4	■	■
	Bridging bars, part E	1 unit	3KC9818-8	■	■	
<b>Terminal plates</b>						
<ul style="list-style-type: none"> <li>For protecting the front side at the upper and lower connecting terminals</li> </ul>						
	<b>Version</b>	<b>Number of poles</b>		<b>Article No.</b>		
	For 250 ... 400 A	3-pole		3KC9827-1	■	■
		4-pole		3KC9828-1	■	■
	For 630 A	3-pole		3KC9827-2	■	■
		4-pole		3KC9828-2	■	■
	For 800 ... 1250 A	3-pole		3KC9827-3	■	■
		4-pole		3KC9828-3	■	■
	For 1600 A	3-pole		3KC9827-4	■	■
		4-pole		3KC9828-4	■	■
	For 2000 ... 3200 A	3-pole		3KC9827-5	■	■
		4-pole		3KC9828-5	■	■

			RTSE	ATSE
<b>Motorized operating mechanism as spare part</b>				
	<b>Version</b>	<b>Article No.</b>		
	For 250 ... 400 A	3KC9826-1	■	■
	For 630 A	3KC9826-2	■	■
	For 800 ... 1250 A	3KC9826-3	■	■
	For 1600 A	3KC9826-4	■	■
	For 2000 ... 3200 A	3KC9826-5	■	■
<b>Controller (electronic module) as spare part</b>				
	<b>Version</b>	<b>Article No.</b>		
	For 250 ... 3200 A	3KC9826-0	–	■
<b>Mounting kit as spare part</b>				
				
	<ul style="list-style-type: none"> <li>Comprising two device holders, each with two plastic covers</li> </ul>			
	<b>Version</b>	<b>Article No.</b>		
	For 250 ... 630 A	3KC9820-6	■	■



**Copper bar connection kit**

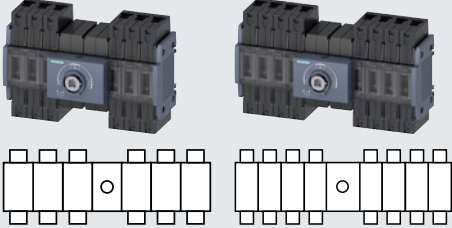
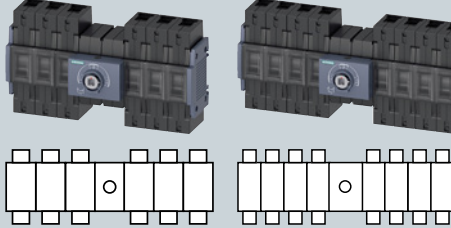
You will find further information at:  
[sie.ag/36U7MCb](http://sie.ag/36U7MCb)



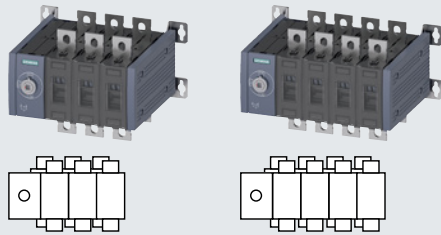
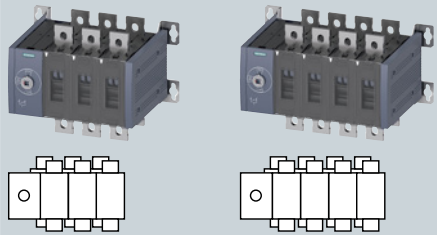
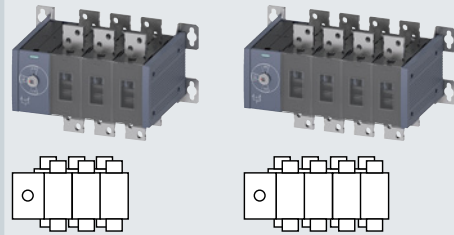



# 3KC0 manual transfer switching equipment (MTSE)

16 to 1600 A

	Box terminal		Size 2	
	Size 1		Size 2	
Version	Basic unit without handle		Basic unit without handle	
Operating mechanism	Front operating mechanism		Front operating mechanism	
Mounting	Standard mounting rail and floor mounting <sup>1)</sup>		Standard mounting rail and floor mounting <sup>1)</sup>	
Bridging bars	Additionally required for connection side		Additionally required for connection side	
				
Rated uninterrupted current $I_u$	3-pole	4-pole	3-pole	4-pole
<b>Box terminal</b>				
16 A	3KC0316-2ME00-0AA0	3KC0416-2ME00-0AA0	–	–
32 A	3KC0322-2ME00-0AA0	3KC0422-2ME00-0AA0	–	–
63 A	3KC0326-2ME00-0AA0	3KC0426-2ME00-0AA0	–	–
80 A	–	–	3KC0328-2NE00-0AA0	3KC0428-2NE00-0AA0
100 A	–	–	3KC0330-2NE00-0AA0	3KC0430-2NE00-0AA0
125 A	–	–	3KC0332-2NE00-0AA0	3KC0432-2NE00-0AA0
160 A	–	–	3KC0334-2NE00-0AA0	3KC0434-2NE00-0AA0
<b>Flat terminal</b>				
200 A	–	–	–	–
250 A	–	–	–	–
315 A	–	–	–	–
400 A	–	–	–	–
500 A	–	–	–	–
630 A	–	–	–	–
800 A	–	–	–	–
1000 A	–	–	–	–
1250 A	–	–	–	–
1600 A	–	–	–	–

<sup>1)</sup> An assembly kit is required for floor mounting

Flat terminal		Size 4		Size 5	
Size 3		Size 4		Size 5	
Basic unit without handle		Basic unit without handle		Basic unit without handle	
Front operating mechanism		Front operating mechanism		Front operating mechanism	
Floor mounting		Floor mounting		Floor mounting	
Additionally required for connection side		Additionally required for connection side		Additionally required for connection side	
					
3-pole	4-pole	3-pole	4-pole	3-pole	4-pole
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
3KC0336-0PE00-0AA0	3KC0436-0PE00-0AA0	-	-	-	-
3KC0338-0PE00-0AA0	3KC0438-0PE00-0AA0	-	-	-	-
3KC0340-0PE00-0AA0	3KC0440-0PE00-0AA0	-	-	-	-
3KC0342-0PE00-0AA0	3KC0442-0PE00-0AA0	-	-	-	-
-	-	3KC0344-0QE00-0AA0	3KC0444-0QE00-0AA0	-	-
-	-	3KC0346-0QE00-0AA0	3KC0446-0QE00-0AA0	-	-
-	-	3KC0348-0QE00-0AA0	3KC0448-0QE00-0AA0	-	-
-	-	-	-	3KC0350-0RE00-0AA0	3KC0450-0RE00-0AA0
-	-	-	-	3KC0352-0RE00-0AA0	3KC0452-0RE00-0AA0
-	-	-	-	3KC0354-0RE00-0AA0	3KC0454-0RE00-0AA0

# Accessories

## For manual transfer switching equipment (MTSE)




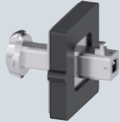


				Size 1	Size 2	Size 3	Size 4	Size 5		
<b>Box terminal (4th contact element, switching pole)</b>										
	<b>Connection</b>			<b>Article No.</b>						
	N —  N			3KD9105-2	■					
			3KD9205-2		■					
<b>Auxiliary switch module</b>										
	<ul style="list-style-type: none"> <li>• <b>Delivery:</b> Does not include auxiliary switch</li> <li>• A maximum of 2 auxiliary switches can be installed per auxiliary switch module.</li> <li>• The auxiliary switches indicate the switch position of the respective switching equipment (I or II) to which the auxiliary switch module is connected.</li> </ul>									
	<b>Type</b>			<b>Article No.</b>						
Standard version			3KD9103-5	■	■					
<b>Auxiliary switches</b>										
<ul style="list-style-type: none"> <li>• Auxiliary switches for sizes 3 to 5 have a screw terminal and are mounted on the 3K operating mechanism module. Auxiliary switches with spring-type terminals from the 3SU1 program can also be used.</li> <li>• All auxiliary switches for sizes 3 to 5 can be used as leading auxiliary switches, depending on the mounting position of the auxiliary switch (see operating instructions).</li> </ul>										
	<b>Type</b>		<b>Contacts</b>		<b>Contact surface</b>		<b>Article No.</b>			
	With connecting cables		1 CO	Standard	3KD9103-1	■	■			
				Solid-state compatible	3KD9103-3	■	■			
	Without connecting cables		1 CO	Standard	3KD9103-2	■	■			
					Solid-state compatible	3KD9103-4	■	■		
	1 NO		Standard	3SU1400-1AA10-1BA0			■	■	■	
				Gold-plated	3SU1400-1AA10-1LA0			■	■	■
	1 NC		Standard	3SU1400-1AA10-1CA0				■	■	■
				Gold-plated	3SU1400-1AA10-1MA0			■	■	■
	1 NO +		Standard	3SU1400-1AA10-1FA0				■	■	■
	1 NC		Gold-plated	3SU1400-1AA10-1QA0				■	■	■
	2 NO		Standard	3SU1400-1AA10-1DA0				■	■	■
				Gold-plated	3SU1400-1AA10-1NA0			■	■	■
2 NC		Standard	3SU1400-1AA10-1EA0				■	■	■	
			Gold-plated	3SU1400-1AA10-1PA0			■	■	■	
<b>Bridging bars</b>										
<ul style="list-style-type: none"> <li>• For load-side connection</li> <li>• For 3-pole transfer switches (sizes 3 to 5) 3 units, for 4-pole transfer switches (sizes 3 to 5) 4 units are required</li> </ul>										
	<b>Number of poles</b>				<b>Article No.</b>					
	1-pole	1 unit	3KC9318-0			■				
			3KC9418-0				■			
			3KC9518-0					■		
	3-pole		1 unit	3KC9118-1	■					
				3KC9218-1		■				
	4-pole		1 unit	3KC9118-2	■					
				3KC9218-2		■				





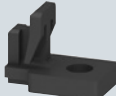

					Size 1	Size 2	Size 3	Size 4	Size 5	
<b>Direct operating mechanism standard version</b>										
<ul style="list-style-type: none"> <li>• Can be locked with up to max. 3 padlocks</li> <li>• Requires additional mounting depth in locked state</li> </ul>										
	<b>Color</b>	<b>Article No.</b>								
	Gray	3KC9201-3	3KC9301-1	3KC9401-1	3KC9501-1	■	■	■	■	
	Red/yellow	3KC9301-2	3KC9401-2	3KC9501-2			■	■	■	
	<b>Flat direct operating mechanism for distribution boards</b>									
	<ul style="list-style-type: none"> <li>• Can be locked with one padlock</li> <li>• No additional mounting depth in locked state</li> </ul>									
		<b>Color</b>	<b>Article No.</b>							
Gray		3KC9101-4				■				
<b>Door-coupling rotary operating mechanism, 8UD1 series</b>										
<ul style="list-style-type: none"> <li>• Handle with masking plate</li> <li>• Coupling driver with tolerance compensation</li> <li>• Shaft 300 mm</li> <li>• Can be locked with up to max. 3 padlocks</li> <li>• Labeling I–O–II</li> </ul>										
	<b>Color</b>	<b>Handle length</b>	<b>Shaft</b>	<b>Article No.</b>						
	Gray	55 mm	8 × 8 mm	8UD1131-2AE21	■	■				
		100 mm	8 × 8 mm	8UD1141-2AE21			■			
		140 mm	10 × 10 mm	8UD1151-3AE21				■		
		200 mm	12 × 12 mm	8UD1161-4AE21					■	
<b>Handles for door-coupling rotary operating mechanisms, 8UD1 series</b>										
<ul style="list-style-type: none"> <li>• Without extension shaft and coupling driver</li> <li>• With masking plate</li> <li>• Can be locked with up to max. 3 padlocks</li> <li>• Labeling I–O–II</li> </ul>										
	<b>Color</b>	<b>Handle length</b>	<b>Shaft</b>	<b>Article No.</b>						
	Gray	55 mm	8 × 8 mm	8UD1731-2AE01	■	■				
		100 mm	8 × 8 mm	8UD1841-2AE01			■			
		140 mm	10 × 10 mm	8UD1851-3AE01				■		
		200 mm	12 × 12 mm	8UD1861-4AE01					■	
	Red/yellow	55 mm	8 × 8 mm	8UD1731-2AE05	■	■				
		100 mm	8 × 8 mm	8UD1841-2AE05			■			
		140 mm	10 × 10 mm	8UD1851-3AE05				■		
		200 mm	12 × 12 mm	8UD1861-4AE05					■	



# Accessories

## For manual transfer switching equipment (MTSE)

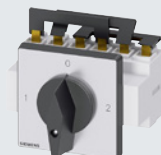
				Size 1	Size 2	Size 3	Size 4	Size 5
<b>Extension shaft for door-coupling rotary operating mechanism, 8UD1 series</b>								
	<ul style="list-style-type: none"> <li>A shaft jack is required for the 8UD1 handle when the 600 mm long shaft is used and for sizes 1/2.</li> </ul>							
<b>Length</b>	<b>Cross-section</b>	<b>Article No.</b>						
300 mm	8 × 8 mm	8UC6032	■	■	■			
	10 × 10 mm	8UC6033				■		
	12 × 12 mm	8UC6034					■	
600 mm	8 × 8 mm	8UC6082	■	■	■			
	10 × 10 mm	8UC6083				■		
	12 × 12 mm	8UC6084						■
<b>Shaft jack for handle 8UD1 for shaft, 600 mm</b>								
	<b>Shaft</b>	<b>Article No.</b>						
	8 × 8 mm	8UD1900-0FA00	■	■				
<b>Coupling drivers</b>								
	<b>Type</b>	<b>Shaft</b>	<b>Article No.</b>					
	With tolerance compensation	8 × 8 mm	8UD1900-2GA00	■	■			
		8 × 8 mm	8UD1900-6GA00			■		
		10 × 10 mm	8UD1900-3GA00				■	
		12 × 12 mm	8UD1900-4GA00					■
	Without tolerance compensation	8 × 8 mm	8UD1900-2HA00	■	■			
		8 × 8 mm	8UD1900-6HA00			■		
		10 × 10 mm	8UD1900-3HA00				■	
		12 × 12 mm	8UD1900-4HA00					■
<b>Adapters for shafts</b>								
	<ul style="list-style-type: none"> <li>Non-interchangeability features (rivet and lug)</li> </ul>							
	<b>Shaft</b>	<b>Article No.</b>						
	8 × 8 mm	8UC6022	■	■				
	8 × 8 mm	8UC6022			■			
	10 × 10 mm	8UC6023				■		
	12 × 12 mm	8UC6024						■
<b>Phase barriers</b>								
	<ul style="list-style-type: none"> <li>For manual transfer switching equipment (MTSE) with flat terminals</li> <li>One pack (6 or 8 units) is required for the infeed side and the load side</li> </ul>							
	<b>Number of poles, switch</b>	<b>Scope of supply</b>	<b>Article No.</b>					
3-pole		6 units	3KD9308-6			■		
		6 units	3KD9408-6				■	
		6 units	3KD9508-6					■
4-pole		8 units	3KD9308-8			■		
		8 units	3KD9408-8				■	
		8 units	3KD9508-8					■

				Size 1	Size 2	Size 3	Size 4	Size 5	
<b>Terminal covers</b>									
<ul style="list-style-type: none"> <li>For manual transfer switching equipment (MTSE) with flat terminals</li> <li>One pack (6 or 8 units) is required for the infeed side and the load side</li> <li>Additional side plates for terminal covers are required for the terminal side, where bridging bars are used (normally the lead side)</li> </ul>									
	<b>Length</b>	<b>Number of poles, switch</b>	<b>Scope of supply</b>	<b>Article No.</b>					
	Standard length	3-pole	6 units	3KD9304-6			■		
				3KD9404-6				■	
				3KD9504-6					■
	4-pole	8 units	8 units	3KD9304-8			■		
				3KD9404-8				■	
				3KD9504-8					■
	Short version	3-pole	6 units	3KD9304-7			■		
				3KD9404-7				■	
				3KD9304-5				■	
4-pole	8 units	8 units	3KD9404-5				■		
<b>Terminal covers as spare parts</b>									
	<b>Length</b>		<b>Scope of supply</b>	<b>Article No.</b>					
	Standard length		1 unit	3KD9504-1				■	
	Short version		1 unit	3KD9304-1			■		
				3KD9404-1			■		
<b>Side plates</b>									
	<ul style="list-style-type: none"> <li>For lateral touch protection on the terminal side, where bridging bars are used (normally the load side)</li> <li>Suitable for terminal covers in standard length</li> </ul>								
	<b>Length</b>		<b>Scope of supply</b>	<b>Article No.</b>					
	Standard length		2 units	3KC9304-0			■		
				3KC9404-0			■		
				3KC9504-0				■	
<b>Assembly kit for floor mounting</b>									
	<ul style="list-style-type: none"> <li>For floor mounting of sizes 1 and 2</li> <li>Contains 4 mounting brackets and 2 mounting plates for 3-pole and 4-pole devices</li> </ul>								
				<b>Article No.</b>					
				3KC9120-1	■	■			
<b>Mounting bracket as spare part</b>									
	<ul style="list-style-type: none"> <li>Spare part, included in the scope of supply of the assembly kit for 3-pole and 4-pole devices</li> </ul>								
	<b>Scope of supply</b>			<b>Article No.</b>					
	4 units			3KD9120-1	■	■			
<b>Slide for mounting on DIN rail as spare part</b>									
	<ul style="list-style-type: none"> <li>Spare part included in the scope of supply for the 3KC0 slide for DIN rail mounting</li> </ul>								
	<b>Scope of supply</b>			<b>Article No.</b>					
	5 units			3KF9112-0BA00	■	■			

# 3LD2 load transfer switches

Up to 250 A



	<b>Front mounting</b>
	<b>Direct operating mechanism (knob-operated mechanism)</b>
<b>Actuator color</b>	Black
<b>Locking device</b>	3LD23 and 3LD24 lockable with up to 3 padlocks with a shackle thickness of 4 to 6 mm (all other versions non-lockable)
<b>Mounting</b>	Four-hole mounting
<b>Bridging bars</b>	Pre-assembled





Rated uninterrupted current $I_u$ (AC-21A, 380 ... 440 V)	Rated operational power (50/60 Hz, 380 ... 440 V)		3P	3P+N
	at AC-23A	at AC-3		
25 A	9.5 kW	7.5 kW	3LD2123-7UK01	–
32 A	11.5 kW	9.5 kW	3LD2223-7UK01	–
63 A	22.0 kW	18.5 kW	3LD2524-7UK01	–
100 A	37.0 kW	30.0 kW	3LD2724-7UK01	–
160 A	75 kW	50 kW	3LD2305-7UK01	3LD2305-7UL01
250 A	132 kW	110 kW	3LD2405-7UK01	3LD2405-7UL01





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## Accessories

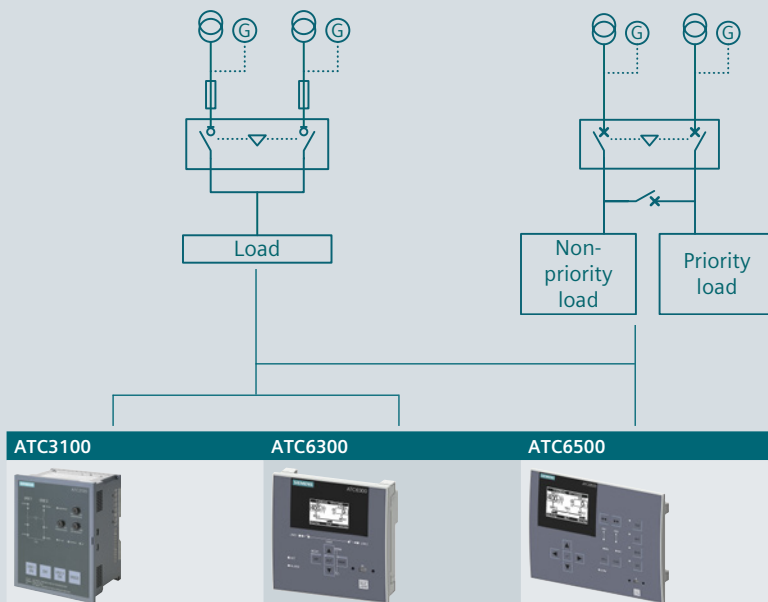
	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD23 (160 A)	3LD24 (250 A)
<b>4th contact (N conductor)</b>						
	<ul style="list-style-type: none"> <li>Leading switch-on, lagging switch-off</li> <li>Bridging bars for the switchable N pole are not included in the scope of supply</li> </ul>					
<b>Load transfer switch design</b>	<b>Article No.</b>					
Front mounting	3LD9220-0B	3LD9250-0BA	3LD9280-0B	3LD9240-0B	3LD9240-0C	3LD9240-0C
Floor mounting	3LD9220-0C	3LD9250-0CA <sup>1)</sup>	3LD9280-0C <sup>1)</sup>			
Molded-plastic enclosures						
<b>N or PE terminals</b>						
	<ul style="list-style-type: none"> <li>Through-type</li> </ul>					
<b>Load transfer switch design</b>	<b>Article No.</b>					
Front mounting	3LD9220-2B	3LD9250-2BA	3LD9280-2B	3LD9240-2B	3LD9240-2C	3LD9240-2C
Floor mounting						

<sup>1)</sup> Can only be used as a spare part, as no additional poles can be installed in the enclosure.

Floor mounting Door-coupling rotary operating mechanism (knob-operated mechanism)		Molded-plastic enclosures Direct operating mechanism (knob-operated mechanism)
Black		Black
Lockable in O position with up to 3 padlocks with a hasp thickness of 4 to 6 mm		3LD21 and 3LD22 lockable in O position with up to 3 padlocks with a hasp thickness of 4 to 6 mm (all other versions non-lockable)
Four-hole mounting		Metric screw connection
Pre-assembled		Pre-assembled
		
3P	3P+N	3P + N and PE base terminal
–	–	3LD2165-7UB01
–	–	3LD2265-7UB01
–	–	3LD2566-7UB01
–	–	3LD2766-7UB01
3LD2318-7UK01	3LD2318-7UL01	–
3LD2418-7UK01	3LD2418-7UL01	–

				3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD23 (160 A)	3LD24 (250 A)	
<b>Auxiliary switches</b>										
	<ul style="list-style-type: none"> <li>For mounting on the left and/or right, lagging switch-on, leading switch-off</li> <li>For 3-pole load transfer switches only</li> <li>Indicate the switch position of the respective load transfer switch (I or II) to which the auxiliary switch module is connected</li> </ul>									
	<b>Load transfer switch design</b>	<b>Contacts</b>	<b>Type of contact</b>	<b>Article No.</b>						
	Front mounting	1 NO +	Standard	3LD9200-5B	■	■	■	■	■	
		1 NC	Gold-plated	3LD9200-5BF	■	■	■	■	■	
	Floor mounting and molded-plastic enclosure	1 NO +	Standard	3LD9200-5C	■	■	■	■	■	
		1 NC	Gold-plated	3LD9200-5CF	■	■	■	■	■	
		2 NO	Standard	3LD9200-6C	■	■	■	■	■	
<b>Terminal covers as additional touch protection</b>										
	<ul style="list-style-type: none"> <li>For mounting on load side only</li> </ul>									
	<b>Number of poles</b>	<b>Scope of supply</b>		<b>Article No.</b>						
	1-pole	4 units		3LD9221-2A	■	■				
				3LD9251-2A			■			
				3LD9281-2A					■	
				3LD9241-2A						■
	3-pole	4 units		3LD9221-0A	■	■				
				3LD9251-0A					■	
<b>Shaft coupling</b>										
	<ul style="list-style-type: none"> <li>No ON-lock</li> </ul>									
	<b>Load transfer switch design</b>			<b>Article No.</b>						
	Floor mounting			3LD9242-4F				■	■	

# 3KC ATC transfer control devices



Version	Controllable switching devices	Interfaces	ATC3100	ATC6300	ATC6500
For fast parameterization without software	2	–	3KC9000-8EL10	–	–
For programming with user-friendly software, with programmable inputs and outputs	2	Optional communications interface and LCD display	–	3KC9000-8TL40	–
	3	Integrated RS485 interface and LCD display	–	–	3KC9000-8TL50

Further technical specifications		ATC3100	ATC6300	ATC6500
<b>Application</b>				
Transfer between		Network/network, network/generator	Network/network, network/generator, generator/generator	
Controllable switching devices		2		3
In-phase transition		–		Yes
Implementation of transfer with		3VA, 3VL, 3VT, 3WA/3WL, 3WT	3WA/3WL FSI-III, 3WT, 3KC3, 3KC4, 3VA, 3VL	3WA/3WL FSI-III, 3WL10, 3WT, 3VA
<b>Measuring inputs</b>				
Max. rated operational voltage $U_e$	Phase-phase	400 V AC	480 V AC	600 V AC
	Phase-neutral conductor	230 V AC	277 V AC	346 V AC
Measuring range	Phase-phase	–	50 ... 576 V AC	50 ... 720 V AC
	Phase-neutral conductor	161 ... 264 V AC	50 ... 333 V AC	30 ... 415 V AC
Frequency range		50/60 Hz	45 ... 65 Hz	
Relative error of measurement method		±5%	±0.25%	
<b>Communication</b>				
Integrated RS485 interface (Modbus RTU)		–		Yes
Optional RS485 interface (Modbus RTU)		–	Yes	Ready-integrated
Optional Ethernet interface (Modbus TCP)		–	Yes	
<b>Power supply</b>				
Auxiliary power supply	Rated operational voltage $U_e$ AC	220 ... 240 V	100 ... 240 V	
	Rated operational voltage $U_e$ DC	–	110 ... 250 V	
	Frequency range	50/60 Hz	45 ... 65 Hz	
Battery power supply	Rated operational voltage $U_e$ DC	12/24 V		12/24/48 V
<b>Digital inputs</b>				
Number of inputs		5	6	8
Freely programmable		–	All	
<b>Relay outputs</b>				
Number of outputs		7	7	
Freely programmable		–	All	
Contact configuration		–	6× 1 NO, 8 A, 250 V AC (AC-1) 1× 1 CO, 8 A, 250 V AC (AC-1)	2× 1 NO, 12 A, 250 V AC (AC-1) 2× 1 NO, 8 A, 250 V AC (AC-1) 3× 1 CO, 8 A, 250 V AC (AC-1)
<b>Real time clock and event log</b>				
ATC component		No	Yes	
Operating time without voltage		–	300 s	14 days
Max. number of events that can be stored		–	100	250
<b>Connections</b>				
Terminal type		Removable/plug-in		
Cable cross-section IEC		0.5 ... 2.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>	
<b>Enclosures</b>				
Version		Door installation, standard rail mounting, floor mounting	Door installation	
Degree of protection		IP41 on the front, IP20 on the rear side	IP40 on the front, IP20 on the rear side	

# Accessories for transfer control devices

## 3KC ATC3100 transfer switching equipment

### Connecting cable for 3KC ATC3100

- Measurement and control cable for connection of 3KC ATC3100 to 3VL or 3WA/3WL

Cable length	Article No.
1.8 m	3KC9000-8EL62

## For 3KC ATC6300 and 3KC ATC6500 transfer switching equipment

### Expansion modules with digital inputs and outputs



ATC6 expansion module	Features	Article No.
4DI	<ul style="list-style-type: none"> <li>4 digital inputs</li> <li>Including insulated 24 V DC/1 W power supply for digital inputs and sensors</li> </ul>	3KC9000-8TL60
4DO, SSR	<ul style="list-style-type: none"> <li>4 solid-state-compatible digital outputs</li> <li>4 NO at the solid-state-compatible output max. 55 mA at 30 V AC or 40 V DC</li> </ul>	3KC9000-8TL61
2DI/2DO, SSR	<ul style="list-style-type: none"> <li>2 digital inputs and 2 solid-state compatible digital outputs</li> <li>Including insulated 24 V DC/1 W power supply for digital inputs and sensors</li> <li>2 NO at the solid-state-compatible output max. 55 mA at 30 V AC or 40 V DC</li> </ul>	3KC9000-8TL62
2DO, relay	<ul style="list-style-type: none"> <li>2 relay outputs</li> <li>2 CO at relay output, 5 A, 250 V AC (AC-1)</li> </ul>	3KC9000-8TL63
2DI/2DO, relay	<ul style="list-style-type: none"> <li>2 digital inputs and 2 relay outputs</li> <li>2 NO at relay output, 5 A, 250 V AC (AC-1)</li> </ul>	3KC9000-8TL64

### Expansion modules with communication interfaces



- Note:** The 3KC ATC6500 transfer switching equipment comes with an integrated RS485 interface

ATC6 expansion module	Features	Article No.
RS485	<ul style="list-style-type: none"> <li>RS485 interface, Modbus RTU</li> </ul>	3KC9000-8TL74
Ethernet	<ul style="list-style-type: none"> <li>Ethernet interface, Modbus TCP</li> </ul>	3KC9000-8TL75

### Front interface



- For parameterization on the front using software

ATC6 front interface	Features	Article No.
USB	<ul style="list-style-type: none"> <li>Mini-USB cable, 1.8 m</li> </ul>	3KC9000-8TL73

### Protective seal

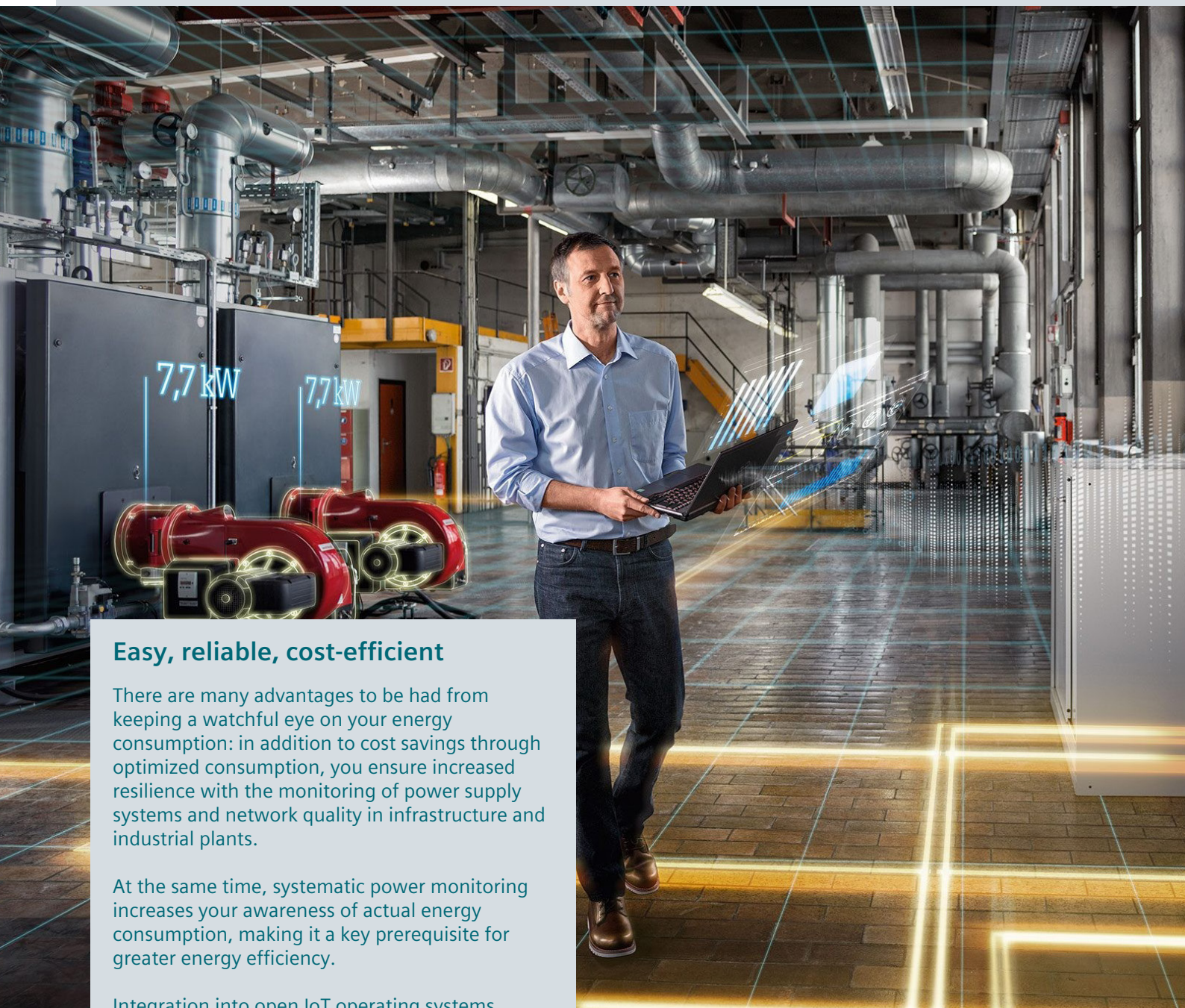


- For front IP65 protection

Suitable for	Version	Article No.
3KC ATC6300	144 × 144 mm	3KC9000-8TL67
3KC ATC6500	240 × 180 mm	3KC9000-8TL68







## Easy, reliable, cost-efficient

There are many advantages to be had from keeping a watchful eye on your energy consumption: in addition to cost savings through optimized consumption, you ensure increased resilience with the monitoring of power supply systems and network quality in infrastructure and industrial plants.

At the same time, systematic power monitoring increases your awareness of actual energy consumption, making it a key prerequisite for greater energy efficiency.

Integration into open IoT operating systems such as MindSphere results in even greater optimization potential.

What is more, with a power monitoring system you lay the foundation for regular energy audits and a corporate energy management system according to ISO 50001 and ISO 50003.

# Measuring Devices, Power Monitoring and Digitalization Solutions



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about measuring devices, power monitoring and digitalization solutions, please visit our websites

[www.siemens.com/powermonitoring](http://www.siemens.com/powermonitoring)  
[www.siemens.com/sentron-digital](http://www.siemens.com/sentron-digital)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – SENTRON power monitoring and digital solutions ([109769851](#))
- Brochure – Reliable, sustainable, and efficient – TÜV-certified power monitoring system in accordance with ISO 50001 ([109744679](#))
- Brochure – SENTRON portfolio for power monitoring ([109744725](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

### Siemens YouTube channel

- Power monitoring (general) [bit.ly/2lZ9QqC](https://bit.ly/2lZ9QqC)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Measuring devices and power monitoring [sie.ag/2kTH9Lz](http://sie.ag/2kTH9Lz)
- Digitalization solutions [sie.ag/2olliNi](http://sie.ag/2olliNi)
- Library for SIMATIC [sie.ag/2kpbwcs](http://sie.ag/2kpbwcs)
- SENTRON powermanager/SENTRON powerconfig [sie.ag/2kTJjuF](http://sie.ag/2kTJjuF)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

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# ... can be found in our online services

## Commissioning + operation

### SENTRON powerconfig

The combined commissioning and service tool SENTRON powerconfig for communication-capable measuring devices, circuit protection devices and circuit breakers.

Free download SENTRON powerconfig via [www.siemens.com/powerconfig](http://www.siemens.com/powerconfig)

Free download SENTRON powerconfig mobile via [App Store](#) and [Play Store](#)

### Your product in detail

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- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under: [www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall [www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database [www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Classroom or online training

Our training courses can be found at [www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- SENTRON circuit protection devices with measuring and communication function (WT-LVBCOM)
- Power Monitoring with SENTRON (WT-LVAEM)
- Energy Management with Powermanager 4.x – User training (LV-EMUSER)
- Communication with SENTRON components (LV-COM)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support at [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Measuring devices and power monitoring ([45315973](#))
- Equipment manual – 7KT PAC1600 energy meter ([109759827](#))
- Equipment manual – 7KT PAC1600 multimeter ([109760293](#))
- System manual – 7KT multichannel current measuring system ([109483442](#))
- Equipment manual – PAC2200 measuring device ([109746835](#))
- Equipment manual – 7KM Power Monitoring Device PAC2200CLP ([109783220](#))
- Equipment manual – SENTRON PAC3200 power monitoring device ([26504150](#))
- Equipment manual – PAC3200T measuring device ([109746833](#))
- System manual – SENTRON PAC4200 power monitoring devices ([34261595](#))
- Equipment manual – PAC3100 measuring device ([37881976](#))
- Equipment manual – SENTRON PAC5100/5200 7KM5212/5412 ([109477872](#))
- Equipment manual – 7KM PAC3120 and 7KM PAC3220 ([109767307](#))
- Communication manual – SENTRON PAC5100/5200 7KM5212/5412 ([109477870](#))
- Communication manual – 3VA molded case circuit breakers with IEC and UL certification ([98746267](#))
- SEM3™ – Embedded Micro Metering Module™ ([109748928](#))
- Equipment manual – 7KN POWERCENTER 3000 ([109763838](#))
- Quick Installation Guide – 7KN POWERCENTER 3000 ([109766001](#))
- Installation manual – Circuit protection devices with communication and measuring function ([109791805](#))
- System manual – Circuit protection devices with communication and measuring function ([109791806](#))

## Technical overview – Measuring devices, power monitoring and digitalization solutions



### The fast way to get you to our online services

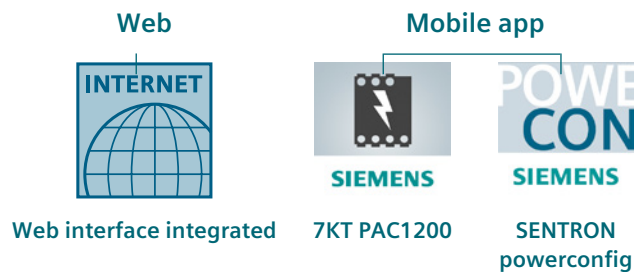
This page provides you with comprehensive information and links on measuring devices, power monitoring and digitalization solutions

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109764480](#))

# Power monitoring

## Software

### Local monitoring systems



### Functions for power monitoring

Commissioning of measuring devices and circuit breakers	–	–	■
Displaying current data	■	■	■
Displaying/evaluating current/historical values	■	■	■
Prepared analyses/reports	–	–	–
Customized reporting	–	–	–
Data analysis in the cloud	–	–	–

### Additionally for energy management

Switching loads on and off

–	–	–
---	---	---

### Operating environment

Use	Free of charge	Free of charge	Free of charge
System requirements	Browser	Android, iOS	Android, iOS
Suitable according to ISO 50001	–	–	–
Connection of non-Siemens devices	–	–	–
Integrated cloud interface	–	–	–
More information		From page 10/22	From page 10/12

## Measuring devices, circuit breakers and circuit protection devices

### Measuring devices for industrial applications



7KM PAC1020	–	–	–
7KM PAC2200/PAC2200 CLP	■	–	■ <sup>1) 2)</sup>
7KM PAC3200T	■	–	■ <sup>1)</sup>
7KM PAC3120	–	–	■ <sup>2)</sup>
7KM PAC3220	■	–	■
7KM PAC4200	■	–	■
7KM PAC5200	■	–	–

### Measuring devices for buildings and infrastructure



7KT PAC1200	■	■	–
7KT PAC1600	–	–	–
SEM3/SEM3T <b>new</b>	■	–	–

### Circuit breakers



3WA	–	–	■
3WL	–	–	■
3WL10/3VA27	–	–	–
3VA ETU5/8	–	–	■

### Communication-capable circuit protection devices **new**



7KN Powercenter 1000/	–	–	■
5ST3 COM AS+FC/			
5SL6 COM MCB/			
5SV6 COM AFDD/			
3NA COM Fuse			

### Other Modbus devices

–	–	–
---	---	---

■ Function available

□ Available with limited functionality

– Function not available

<sup>1)</sup> Via WiFi

<sup>2)</sup> Via gateway (PAC4200)

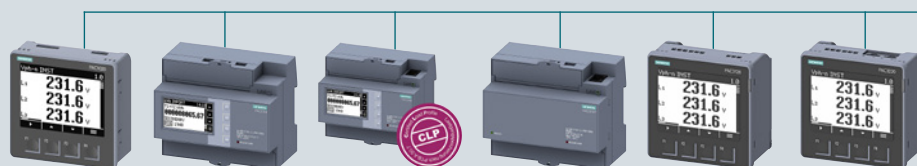
<sup>3)</sup> Incl. module for Desigo CC building management

<sup>4)</sup> Via XML/JSON



# Hardware components

## Industry



7KM  
PAC1020

7KM  
PAC2200

7KM  
PAC2200 CLP

7KM  
PAC3200T

7KM  
PAC3120

7KM  
PAC3220

### Type of mounting

Front mounting   Standard mounting rail   Screw mounting	■   -   -	-   ■   -	-   ■   -	-   ■   -	■   -   -	■   -   -
Withdrawable   Fixed-mounted	-   -	-   -	-   -	-   -	-   -	-   -

### Measuring connection

Direct measurement	-	■	■	-	-	-
Transformer measurement	■	■	■	■	■	■
Multichannel measuring system	-	-	-	-	-	-

### Suitable transformers

Window-type current transformers	■	■	■	■	■	■
Folding transformer	■	■	■	■	■	■
Integrated transformer	-	-	-	-	-	-

### Commissioning

MID version	-   -	■   -	■   ■	-   -	-   -	-   -
Max. input voltage L-L/L-N	400 V/230 V	400 V/230 V	400 V/230 V	400 V/230 V	690 V/400 V	690 V/400 V
Transformer connection version	x/1 A or x/5 A	x/1 A or x/5 A	x/1 A or x/5 A	x/1 A or x/5 A	x/1 A or x/5 A	x/1 A or x/5 A
Direct connection version	-	65 A	65 A	-	-	-
DC power supply unit with extra-low voltage version	-	-	-	-	22 ... 65 V DC	22 ... 65 V DC
1-phase counter version	-	■	■	-	-	-
Electrically isolated voltage inputs	-	-	-	-	-	-
Version without display (for web interface)	-	-	-	■	-	-

### Evaluation

#### Measured quantities

Average value of measured values	-	■	■	■	■	■
Voltage, current, frequency	■	■	■	■	■	■
Power, power factor	■	■	■	■	■	■

#### Energy measurement

Daily energy storage	-	60 days	60 days	60 days	60 days	60 days
Apparent   Active   Reactive energy   p.f.	-   ■   ■   -	■   ■   ■   -	■   ■   ■   -	■   ■   ■   -	■   ■   ■   -	■   ■   ■   -
Distortion factor THD (voltage, current)	-	-	-	■	■	■
Harmonics (voltage, current)	-	-	-	-	-	-
Phase angle/phase chart	-	-	-	-	-	-
Load profile recording	-	-	■	-	-	-
Flicker acc. to IEC 61000-4-15	-	-	-	-	-	-

#### Monitoring functions

Operating hours counter	-	-	-	■	■	■
Limit monitoring	-	-	-	■	■	■
Logic functions	-	-	-	■	■	■
Event log	-	-	-	-	-	-
Gateway function	-	-	-	-	-	-
Reporting acc. to EN 50160	-	-	-	-	-	-
Integrated fault recorder	-	-	-	-	-	-

#### Integrated communication interfaces

Digital inputs/digital outputs	1/1	1/1	1/1	1/1	2/2	2/2
SO interface	■	■	■	■	■	■
M-Bus	-	■	-	-	-	-
RS485 (Modbus RTU)	■	■	-	-	■	-
Ethernet with Modbus TCP	-	■	■	■	-	■
BACnet	-	-	-	-	-	-

#### More information

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Industry

Buildings and infrastructure

Circuit breakers



7KM  
PAC4200

7KM  
PAC5200

7KT  
PAC1200

7KT  
PAC1600

SEM3

3WA **new**

3WL

3WL10/  
3VA27

3VA ETU8

■ - -	■ ■ -	- ■ -	- ■ -	- - ■	- - -	- - -	- - -	- - -
- -	- -	- -	- -	- -	■ ■	■ ■	■ ■	- ■
-	-	■	■	-	-	-	-	-
■	■	■	■	-	■	■	■	■
-	-	■	-	■	-	-	-	-
■	■	■	■	■	-	-	-	-
■	■	■	■	■	-	-	-	-
-	-	■	-	■	■	■	■	■
- -	- -	- -	■ -	- -	- -	- -	- -	- -
690 V/400 V x/1 A or x/5 A	690 V/400 V x/1 A or x/5 A	400 V/230 V x/5 A	400 V/230 V x/5 A	480 V/277 V 50...1200 A/0.1 A	1000 V/577 V integrated	690 V/400 V integrated	690 V/400 V integrated	690 V/400 V integrated
-	-	40/63 A	63/80 A	-	-	-	-	-
22 ... 65 V DC	-	-	-	-	24 V DC	24 V DC	24 V DC	24 V DC
-	-	■	■	■	-	-	-	-
-	■	-	-	-	-	-	-	-
-	■	■	-	■	-	-	-	-
■	-	-	-	-	■	■	-	-
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
-	-	-	-	-	-	-	-	-
■ ■ ■ ■	■ ■ ■ ■	- ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
■	■	-	-	-	■	■	-	■
2nd to 64th	2nd to 40th	-	-	-	2nd to 31st	2nd to 29th	-	-
■	■	-	-	-	■	■	-	■
■	■	-	-	-	■	■	■	■
-	■	-	-	-	-	-	-	-
■	-	-	■	-	■	■	-	■
■	■	-	■	-	-	■	■	■
■	■	-	-	■	-	-	-	-
>4000 events	■	-	-	■	-	■	■	■
■	-	-	-	-	-	-	-	-
■	■	-	-	-	-	-	-	-
2/2	0/2	-	1/1	2/1	■	■	■	■
■	-	-	■	-	■	-	■	■
-	-	-	■	-	-	-	-	-
-	-	-	■	■	■	■	■	■
■	■	■	-	■	■	■	■	■
-	-	-	-	■	-	-	-	-

See page 10/22   See page 10/22   See page 10/27   See page 10/26   See page 10/28   See page 1/4   See page 1/4   See page 1/4   See page 2/12



# Hardware components **new**

## Circuit protection devices



7KN Powercenter 1000

5ST3 COM auxiliary  
switches and fault  
signal contacts

5SV6 COM AFDD/MCB

### Communication interfaces

Wireless	■	■	■
Modbus TCP	■	-	-
Bluetooth	■	-	-
Gateway function	■	-	-

### Type of mounting

Standard mounting rail	■	■	■
Busbars	-	-	-

### Evaluation

Temperatures	-	■	■
Current	-	-	■
Voltage	-	-	■
Frequency	-	-	■
Apparent, reactive and active power, power factor	-	-	■
Reactive and active energy	-	-	■

### Monitoring functions

Operating hours counter	■	■	■
Operating hours counter with load current	-	-	■
Operating cycle counter	-	■	■
Trip counter	-	■	■
Short-circuit trip counter	-	-	■
Alarms for limit monitoring	■	■	■
Detection of overload and short circuit	-	-	■
Detection of arcing faults	-	-	■

### More information

See page 10/17

See page 3/50 and 4/62

See page 4/54

<sup>1)</sup> Protection function provided, but tripping is not communicated

## Circuit protection devices



**5SL6 COM miniature circuit breakers**

**3NA COM fuses**

■	■
-	-
-	-
-	-
■	-
-	■
■	■
■	■
■	-
■	-
■	-
■	-
■	-
■	■
■	■
■	-
■	-
■	-
■	■
■	- <sup>1)</sup>
-	-
See page 3/38	See page 7/42

# Accessories

## Communication modules











**7KM Switched Ethernet  
PROFINET/Modbus TCP**




**7KM PROFIBUS DP**

**7KM RS485  
Modbus RTU**




### Industry

	7KM PAC1020	-	-	-
	7KM PAC2200	-	-	-
	7KM PAC2200 CLP	-	-	-
	7KM PAC3200T	-	-	-
	7KM PAC3120	-	-	-
	7KM PAC3220	■	■	■
	7KM PAC4200	■	■	■
	7KM PAC5200	-	-	-

### Buildings and infrastructure

	7KT PAC1200	-	-	-
	7KT PAC1600	-	-	-
	SEM3	-	-	-

### Circuit breakers

	3WA/3WL	-	-	-
	3WL10/3VA27	-	-	-
	3VA ETU5/8	■	■	■



# SENTRON powerconfig

## Configuration software for commissioning and maintenance

SENTRON powerconfig is available free of charge at [www.siemens.com/powerconfig](http://www.siemens.com/powerconfig)

You can find more information on the Internet at [www.siemens.com/sentron](http://www.siemens.com/sentron)

- Software tool for the efficient commissioning and diagnostics of communication-capable SENTRON components
- Supports all electronic SENTRON devices, e.g. 3WA, 3WL, 3VA, 7KN Powercenter 3000 and 7KN Powercenter 1000, with 5ST3 AS+FC COM, 5SL6 MCB COM, 5SV6 AFDD COM and 3NA Fuse COM
- General range of functions:
  - User-friendly parameter assignment even for complex devices such as the 3WA
  - Fast, optical detection of communication and metering-capable circuit protection devices, such as 7KN Powercenter 1000
  - Saving and printing of device settings
  - Monitoring, saving and printing of instantaneous measured quantities
  - Execution of specific device functions, such as resetting of devices and setting of energy counters

Free download SENTRON powerconfig mobile via:

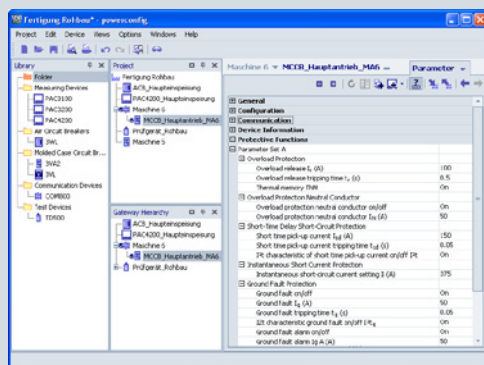


App Store

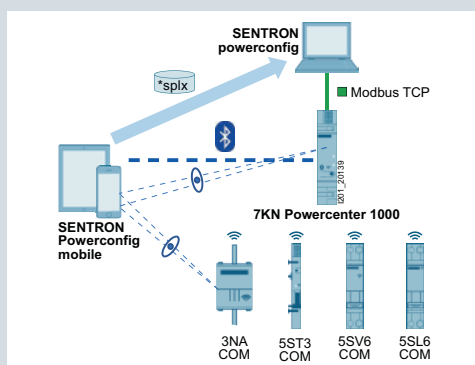


Play Store

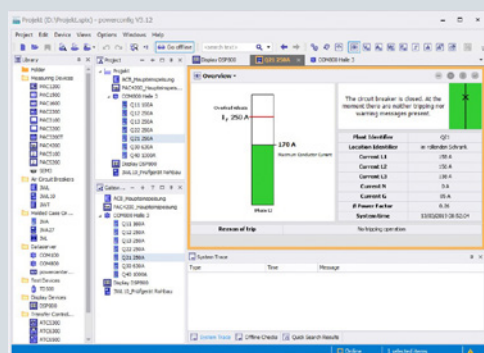
- Service functions:
  - Detection of devices and acquisition of measured quantities and status information via different networks, e.g. via Ethernet
  - Device and status acquisition via local interfaces, such as Bluetooth and USB
  - Acquisition and archiving of historic records, such as load profiles and events
  - Firmware updates
  - Switching of language packs for 7KM PAC measuring devices
- Cooperative interaction between powerconfig mobile and powerconfig on the PC:
  - powerconfig mobile offers a high degree of mobile versatility, e.g. to scan codes on the circuit protection devices
  - powerconfig on the PC can be used for subsequent editing and archiving of the system configuration



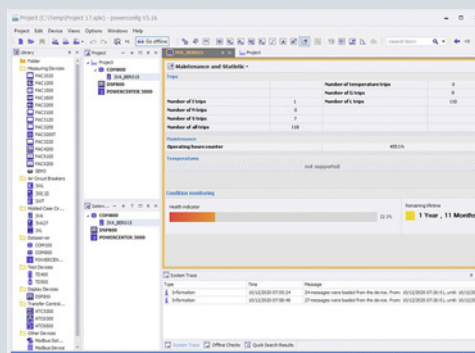
Setting of parameter values



Scanning of circuit protection devices



Display of the circuit breaker status



Display of the state of health of the 3VA

# SENTRON classic powermanager (V3)

## PC-based power monitoring software



### SENTRON classic powermanager (V3.6)

- Support of new devices:
  - PAC3120
  - PAC3220 with firmware V2.1

Version	Description	Article No.
<b>classic powermanager (V3.5)</b>		
Basic Package	Full product license for up to 10 devices, installation for client/server, web access	3ZS2711-0CC30-0YA0
Trial license	Full product license limited to 60 days for up to 10 devices, incl. "Expert" and "Web" option packs Available free of charge at <a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (64850998)	
<b>V3.x device expansions</b>		
Device Pack (20)	Device expansion license for up to 20 devices	3ZS2711-0CC30-0YD0
Device Pack (50)	Device expansion license for up to 50 devices	3ZS2712-0CC30-0YD0
Device Pack (100)	Device expansion license for up to 100 devices	3ZS2713-0CC30-0YD0
Device Pack (200)	Device expansion license for up to 200 devices	3ZS2714-0CC30-0YD0
Device Pack (500)	Device expansion license for up to 500 devices	3ZS2715-0CC30-0YD0
Device Pack (1000)	Device expansion license for up to 1000 devices	3ZS2716-0CC30-0YD0
<b>Option packs</b>		
"Expert" option pack	Option for creating/presenting any number of freely configured images	3ZS2710-2CC20-0YH0
"Client (5)" option pack	Expansion for up to 5 clients	3ZS2710-3CC00-0YD0
"Distributed Systems (2)" option pack	Option for the connection of 2 autonomous powermanager systems for the exchange of measured values and alarms	3ZS2718-1CC00-0YH0
"Distributed Systems (5)" option pack	Option for the connection of 5 autonomous powermanager systems for the exchange of measured values and alarms	3ZS2718-2CC00-0YH0
"Distributed Systems (10)" option pack	Option for the connection of 10 autonomous powermanager systems for the exchange of measured values and alarms	3ZS2718-3CC00-0YH0
"OPC UA Server" option pack	Option pack for data exchange with other processing platforms via OPC UA	3ZS2710-4CC30-0YD0
<b>Update powermanager V2.0 to classic powermanager (V3.0)</b>		
Update license	From V2.0 Lean to V3.x (10)	3ZS2711-0CC30-0YE0
Update license	From V2.0 Standard to V3.x (50)	3ZS2712-0CC30-0YE0
Update license	From V2.0 Maximum to V3.x (100)	3ZS2713-0CC30-0YE0
Update license	From V2.0 Maximum to V3.x (200)	3ZS2714-0CC30-0YE0

# SENTRON powermanager

## PC-based power monitoring software



### SENTRON powermanager

SENTRON powermanager is based on the modern Desigo CC platform with advanced graphical capabilities and a standard SQL database. The workflows for setting up the system, creating devices, graphically displaying the device data and processing it in reports have been fundamentally revised.

You can find the latest download and change information in the SIOS portal

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109771760)

The „Trial“ license gives customers the opportunity to gain initial experience with SENTRON powermanager during a 60-day test phase. The application can still be used by purchasing a regular license.

The migration of existing SENTRON classic powermanager projects will be supported as of a future SENTRON powermanager version.

You can find more information on the Internet at

[www.siemens.com/powermanager](http://www.siemens.com/powermanager)

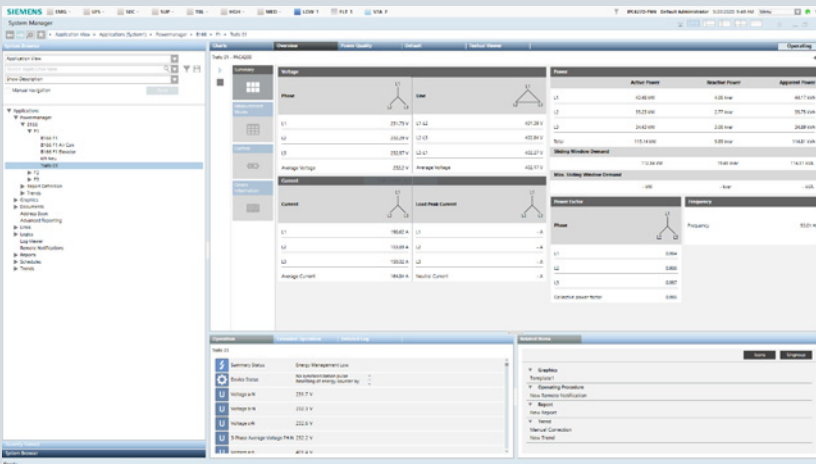
You can find training courses on the Internet at

[www.siemens.com/sittrain-lowvoltage](http://www.siemens.com/sittrain-lowvoltage)

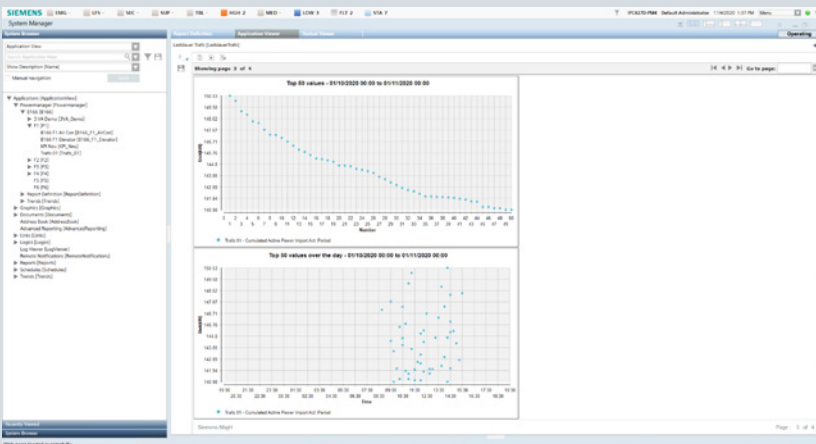
Version	Description	Article No.
<b>powermanager</b>		
Extended Package	Full product license for up to 10 devices, installation for client/server, web access	7KN2710-2CE40-0YCO
Trial license	Full product license limited to 60 days for up to 10 devices, incl. all functions; software download via SIOS Portal <a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109771760) A free license for one-time use (limited to 60 days) must also be requested via <a href="mailto:powermanagerlicence.de@siemens.com">powermanagerlicence.de@siemens.com</a>	
<b>Device expansions</b>		
Device Pack (20)	Device expansion license for up to 20 devices	7KN2711-1CE40-0YCO
Device Pack (50)	Device expansion license for up to 50 devices	7KN2711-2CE40-0YCO
Device Pack (100)	Device expansion license for up to 100 devices	7KN2711-3CE40-0YCO
Device Pack (200)	Device expansion license for up to 200 devices	7KN2711-4CE40-0YCO
Device Pack (500)	Device expansion license for up to 500 devices	7KN2711-5CE40-0YCO
Device Pack (1000)	Device expansion license for up to 1000 devices	7KN2711-6CE40-0YCO
<b>Option packs</b>		
"Graphics Editor 60 Days" option pack	Option for creating/presenting any number of freely configured images, validity period limited to 60 days	7KN2712-0CE40-0YCO
"Graphics Editor Unlimited" option pack	Option for creating custom-made SENTRON powermanager applications, e.g. graphics; especially suitable for partners such as Solution Providers, control cabinet builders, etc.	7KN2712-0CE40-0YC1
"Client (2)" option pack	Expansion for up to 2 clients	7KN2712-1CE40-0YCO
"Client (5)" option pack	Expansion for up to 5 clients	7KN2712-2CE40-0YCO
"powermanager Server" option pack	Additionally, powermanager server license for distributed systems without devices, web, etc.	7KN2712-4CE40-0YCO
<b>System packages</b>		
System 1	Package comprising 1× powermanager Extended 1× PAC4200 1× PAC3120 1× RS485 modules	7KN2715-1CE40-0YCO
System 3	Package comprising 1× powermanager Extended 3× PAC3220	7KN2715-3CE40-0YCO
System 4	Package comprising 1× powermanager Extended 1× PAC4200 4× PAC1600 1× RS485 module	7KN2715-4CE40-0YCO
System 5	Package comprising 1× powermanager Extended 5× PAC2200 transformer measurement Modbus TCP	7KN2715-5CE40-0YCO



powermanager – Measuring device diagram



powermanager – Overview of measuring devices



powermanager – Load duration report

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# 7KN Powercenter

## Edge/IoT-based data acquisition and visualization for low-voltage power distribution

### 7KN Powercenter 3000

#### Areas of use and applications

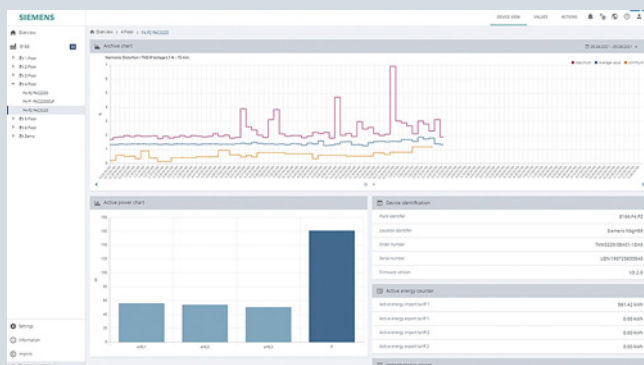
- Basis for certified energy management according to ISO 50001 to improve energy efficiency and optimize maintenance management
- Transparency and fault localization in single and distributed locations
- Future-proof foundation for expanding data analysis from on-site analysis to cloud-based analysis

#### Features

- Data acquisition
  - Key data of subordinate devices
  - 15-minute energy values as a basis for ISO 50001 and their provision in the form of a CSV file via e-mail (once, periodically)
- Visualization
  - On the web interface, as an overview of the most important data and also of all data for each device
  - The states of the system, of all devices and messages, and also of connections to cloud applications, for example
  - In both graphical and tabular form
- Interfaces for the digitalization of low-voltage power distribution
  - Integrated and easy-to-configure communication with SENTRON powermind (see separate section)

- To other cloud applications, e.g. based on AWS, Azure, AliCloud, etc.
- Via Modbus TCP for other applications, e.g. SENTRON power-manager
- General:
  - Easy commissioning using powerconfig
  - Compact design, 24 V DC supply
  - Web interface in 10 languages
  - Flexible IT security features for protection against unauthorized access

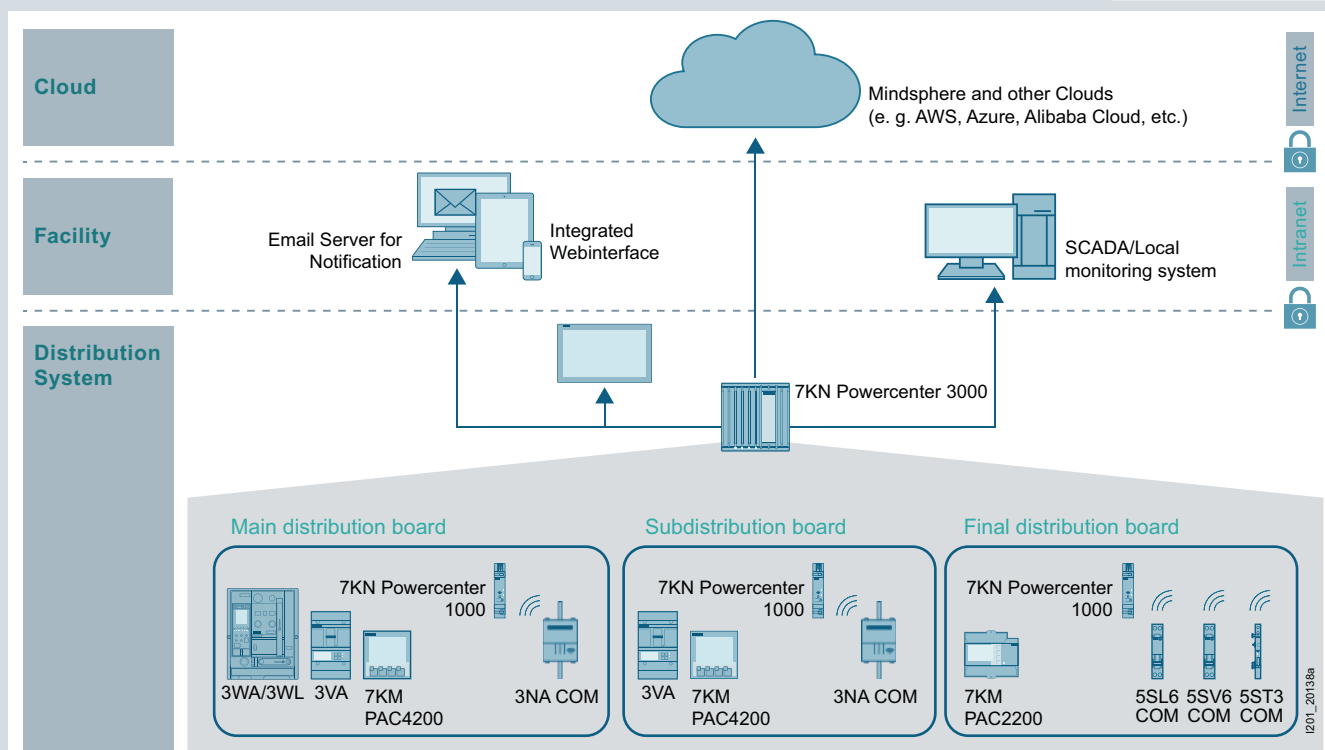
More information: [www.siemens.com/powermonitoring](http://www.siemens.com/powermonitoring)



Data visualization based on the example of a measuring device

10

Mounting	Interfaces	Protocols	Article No.
Standard rail mounting	2x Ethernet	Modbus TCP, http, MindSphere	7KN1310-0MC00-0AA8



Areas of use and applications for 7KN Powercenter 3000

## Radio-controlled data acquisition and visualization for low-voltage power distribution **new**

### 7KN Powercenter 1000

The 7KN Powercenter 1000 data transceiver is designed to enable comprehensive data acquisition of communication and metering-capable circuit protection devices. This increases transparency in the final circuit, through which optimization measures can be derived to increase system availability.

Up to 24 devices can communicate wirelessly with 7KN Powercenter 1000 via radio link. This means that no increased installation effort is required for communication. Selected measured values of the circuit protection devices are stored in the data transceiver for up to 30 days. These can be visualized to ensure extensive data availability.

The compact design of the 7KN Powercenter 1000, in a single modular width, results in an extremely small footprint in the distribution board so as to enable wireless, comprehensive data acquisition. This is complemented by easy mounting on a 35 mm

DIN rail and plug-in terminals for a 24 V DC power supply, which can be immediately looped through (daisy chain) to supply other devices.

The integrated Bluetooth interface enables simple on-site communication and commissioning via the SENTRON powerconfig mobile app. Connection to various configuration or power monitoring systems, such as SENTRON powerconfig, SENTRON powermanager or customized solutions, is ensured via the Modbus TCP interface. Furthermore, this interface also enables a connection via e.g. 7KN Powercenter 3000 or via LOGO! to cloud applications.

Mounting	Power supply	Devices that can be connected	Interfaces	Article No.
Standard rail mounting	24 V DC SELV	24 circuit protection devices via radio link	Bluetooth, Ethernet (Modbus TCP)	7KN1110-0MC00

### 7KN Powercenter 1000 data transceiver

- Acquisition and storage of data and measured values from up to 24 communication-capable circuit protection devices via radio link
- Parameterization, visualization and further processing of the data in higher-level applications via Bluetooth and Modbus TCP

You will find further information under:

Installation manual – Circuit protection devices with communication and measuring function [\(109791805\)](#)

System manual – Circuit protection devices with communication and measuring function [\(109791806\)](#)

# SENTRON powermind

## Cloud-based solution for data visualization and analysis in power distribution systems



SENTRON powermind is aimed equally at energy managers, facility managers and/or operators. For energy managers, predefined, automated representations and analyses of energy data are available, such as:

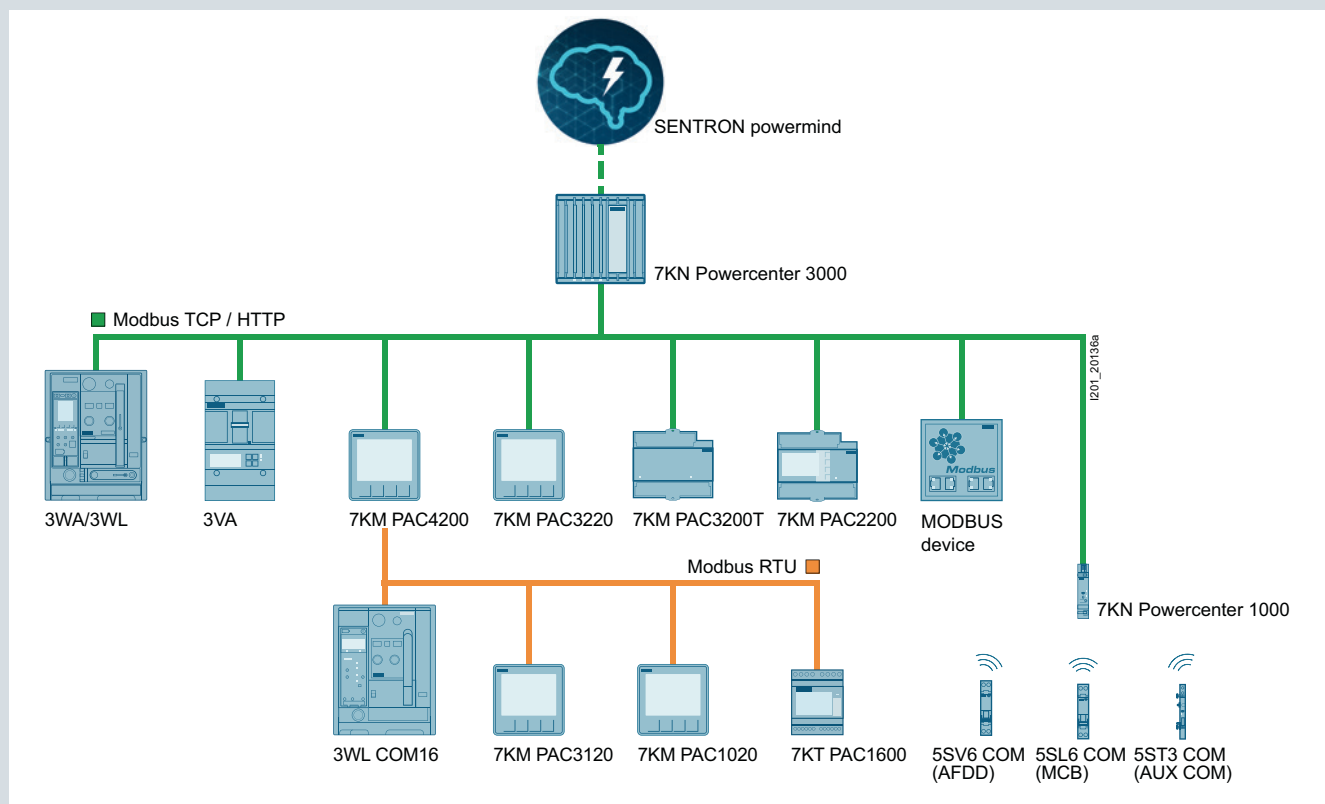
- Comparison of energy consumption on weekdays versus weekends with percentage day-by-day representation of the distribution of energy consumption to identify unnecessary energy consumption
- Comparison of energy consumption and power import during a selected period as compared with a reference period to assess the effectiveness of energy efficiency measures
- Day-by-day representation of the 15 min power demand, incl. min and max values to assess power peaks

SENTRON powermind offers operators and facility managers the following information and analyses:

- Status of the switching and protection devices, such as 3VA, 3WA and 3WL
- Display of the maximum current value of an individual phase in relation to  $I_n$
- Condition monitoring information about the condition of the contact system of each circuit breaker and also as an overview of all circuit breakers
- The following devices are supported:  
PAC2200/PAC2200CLP, PAC3100/PAC3120, PAC3200/PAC3200T/PAC3220, PAC4200 measuring devices,  
3VA, 3WA and 3WL circuit breakers

You can find more information on the MindSphere Store at

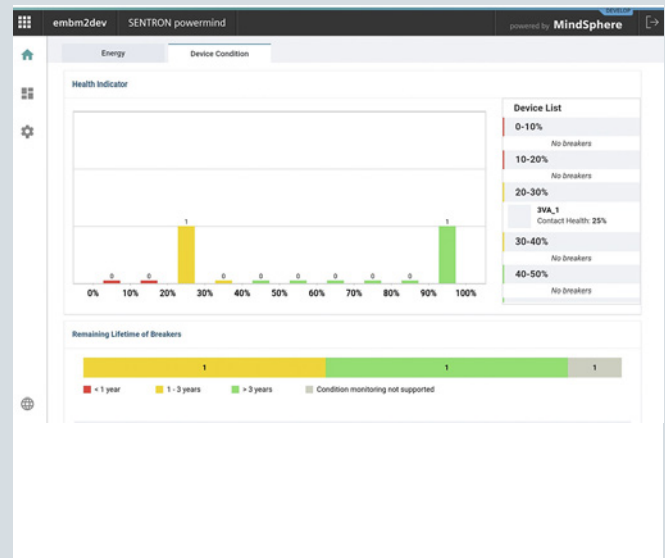
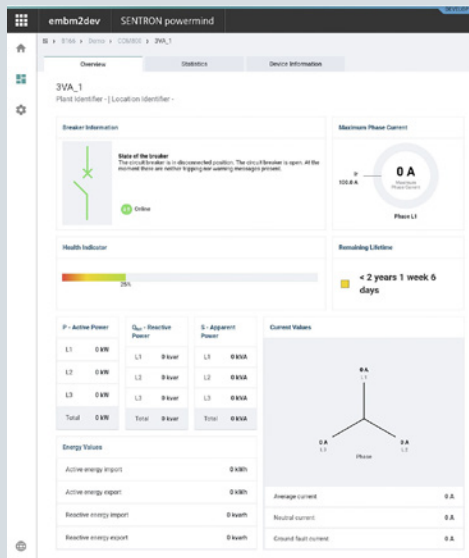
[www.dex.siemens.com/mindsphere/applications](http://www.dex.siemens.com/mindsphere/applications)



A large number of devices transmit data via SENTRON Powercenter 3000 or SENTRON powermanager to SENTRON powermind

SENTRON powermind processes data from SENTRON Powercenter 3000. No complex configuration or parameterization is required, as the necessary information is exchanged using files. This also prevents possible incorrect entries or write errors. An error-free connection can thus be easily established in just a few minutes.

The examples show some of the functions of SENTRON powermind, which are aimed at different customer groups, such as energy managers and maintenance personnel, but also electricians. All information is available via a web browser on a standard PC, but also on mobile devices, such as tablets and smartphones. The information is therefore available both on-site (locally) and off-site (remotely).



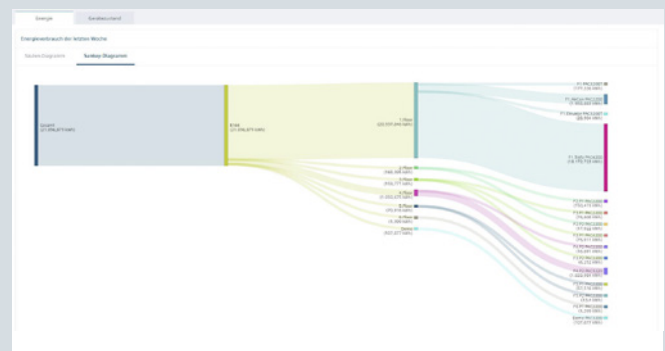
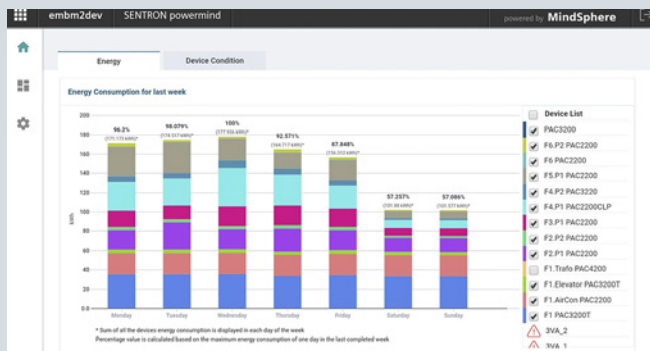
**Creating transparency**

- Representation of the device status, e.g. open, closed, tripped and relevant measured quantities, such as maximum phase current, total power ...
- Information about the state of health of the device to take action proactively

**Overview of the circuit breaker status**

- Overview of the state of the health of all circuit breakers in the switchboard
- Assignment to a maintenance cycle (< 1 year; between 1 and 3 years; > 3 years)
- Display of circuit breakers in list form as well as link to the respective circuit breaker dashboard

10



**Creating transparency**

- Representation of the power flow/power import in various parts of the power distribution system
- Comparison of the weekly energy consumption (percentage distribution of weekdays in comparison to weekend) to identify unusual energy consumption patterns and to check energy-saving measures in the form of a bar chart or Sankey diagram



**Energy management**

- Comparison of the energy consumption of two periods, for example, to assess the effectiveness of energy saving measures
- Representation of the active power as mean and min/max values in a line diagram or heatmap

# SIMATIC Energy Suite

For integrated energy management

## Highlights

- Simple and intuitive configuration instead of programming
- Automatic generation of the PLC energy program
- Convenient integration of measuring components from the Siemens portfolio and from other manufacturers
- Integrated into the TIA Portal and the automation system
- Archiving in WinCC Professional or PLC
- Seamless interfacing to Energy Manager PRO and Energy
- Analytics

Additional information on the SIMATIC Energy Suite:

[www.siemens.com/energysuite](http://www.siemens.com/energysuite)

# SIMATIC Modbus/TCP SENTRON PAC

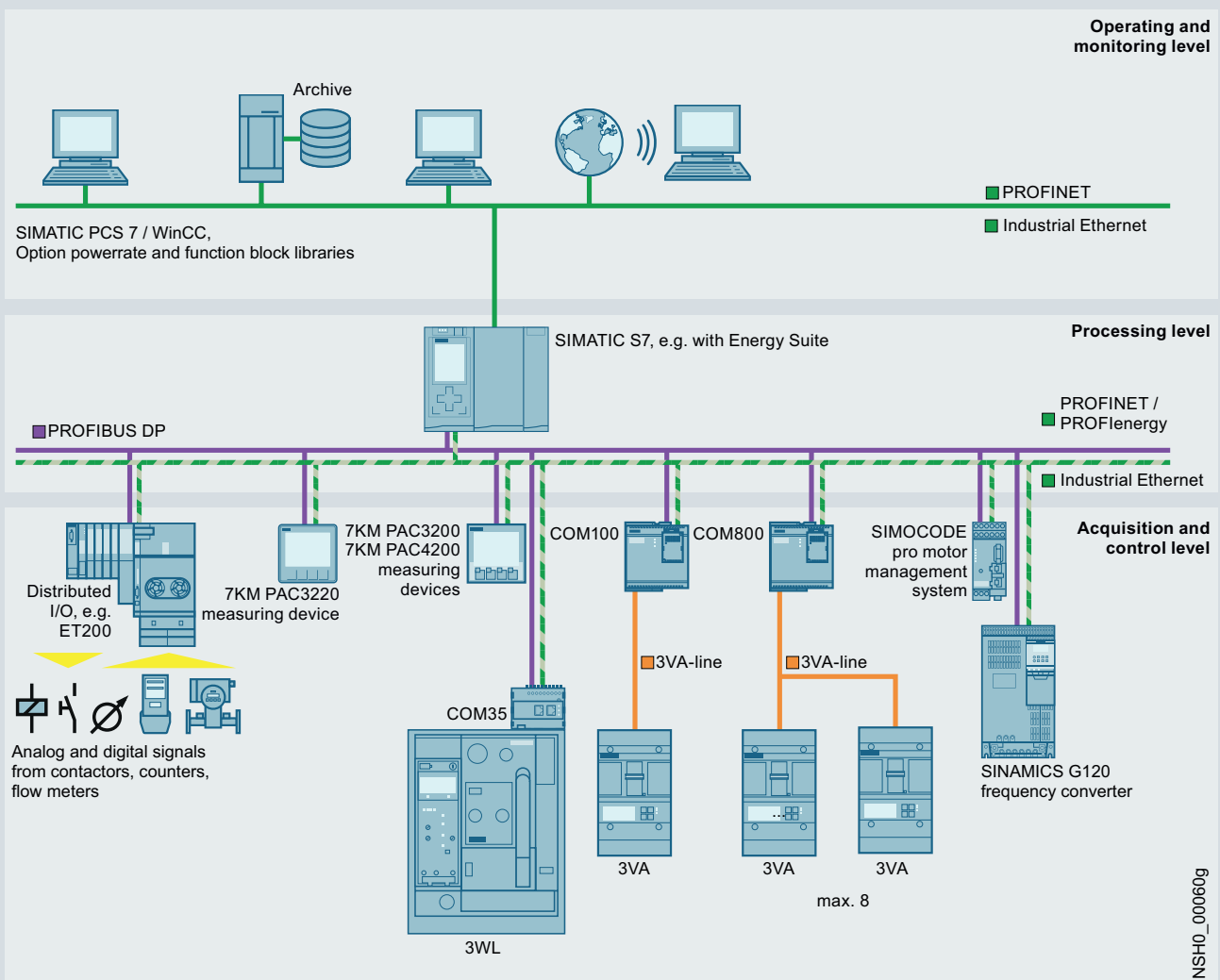
For 7KM PAC3200/4200 measuring devices

Use and version	Valid for	Type	Article No.
Communication via the integrated PN interface for reading values out of PAC 3200 and PAC PAC 4200 devices, single license	1 CPU and up to 20 SENTRON PACs	Modbus/TCP 20 SENTRON PAC	6AV6676-6MA30-0AX0
	1 CPU and up to 100 SENTRON PACs	Modbus/TCP 100 SENTRON PAC	6AV6676-6MA30-1AX0
	1 CPU and up to 512 SENTRON PACs	Modbus/TCP 512 SENTRON PAC	6AV6676-6MA30-2AX0

# PAC/3WL/3VA SIMATIC PCS 7 library

For 7KM PAC3200/3220/4200 measuring devices and 3WL/3VA/3VL circuit breakers

Use	Version	Type of delivery	Article No.
<b>PAC/3WL/3VA SIMATIC PCS 7 library</b>			
<ul style="list-style-type: none"> <li>AS blocks and faceplates for integrating the 3WL/3VA/3VL circuit breakers into SIMATIC PCS 7, V8.x, V9.0 SP2 or V9.1</li> <li>For each SIMATIC PCS 7 Operator Station of the single station/server version, a license containing the following is required:                             <ul style="list-style-type: none"> <li>Engineering license for one SIMATIC PCS 7 Operator Station of the single station/server version</li> <li>Runtime license for one automation system (1 required per automation system, further AS runtime licenses can be ordered separately)</li> </ul> </li> </ul>	Engineering and runtime software, software class A, 2-language (English, German), single license for one installation	Software and electronic documentation as a software download, engineering and runtime license as Certificate of License	3ZS2787-1CC30-0YGO
<b>AS runtime license for PAC/3WL/3VA library for SIMATIC PCS 7</b>			
License for one automation system in each case	Runtime software, software class A, 2-language (English, German), single license for one installation	Runtime license as Certificate of License without software and documentation	3ZS2787-1CC30-6YH0



NSHO\_00060g

# 7KM PAC measuring devices

## Basic units



Connections	Power supply	Display	Interface	MID	PTB-A50.7	7KM PAC1020	7KM PAC2200/PAC2200 CLP	7KM PAC3200T		
<b>Transformer measurement</b>										
Screw terminals	Self-powered	With	M-Bus	With	Without	–	7KM2200-2EA30-1GA1	–		
				Without	Without	–	7KM2200-2EA30-1CA1	–		
				Modbus RTU	With	Without	–	7KM2200-2EA30-1HA1	–	
					Without	Without	–	7KM2200-2EA30-1DA1	–	
				Modbus TCP	With	With	–	7KM2200-2EA00-1JB1	–	
					Without	Without	–	7KM2200-2EA30-1JA1	–	
			Without	Without	–	7KM2200-2EA30-1EA1	–			
			AC/DC wide-voltage power supply unit	With	Modbus RTU	Without	Without	7KM1020-0BA01-1DA0	–	–
					Modbus TCP	Without	Without	–	–	–
			DC power supply unit with extra-low voltage	Without	Modbus TCP	Without	Without	–	–	7KM3200-OCA01-1AA0
Modbus RTU	Without	Without			–	–	–			
Ring cable lug connection	AC/DC wide-voltage power supply unit	With	Modbus TCP	Without	Without	–	–	–		
<b>Direct measurement</b>										
Screw terminals	Self-powered	With	M-Bus	With	Without	–	7KM2200-2EA40-1GA1	–		
				Without	Without	–	7KM2200-2EA40-1CA1	–		
				Modbus RTU	With	Without	–	7KM2200-2EA40-1HA1	–	
					Without	Without	–	7KM2200-2EA40-1DA1	–	
			Modbus TCP	With	With	–	7KM2200-2EA40-1JB1	–		
				Without	Without	–	7KM2200-2EA40-1JA1	–		
				Without	Without	–	7KM2200-2EA40-1EA1	–		

### Further technical specifications





	7KM1020-..	7KM2200-..	7KM3200-..	7KM3120-0..	7KM3120-1..
<b>Basic data</b>					
Installation	Front mounting	Standard mounting rail		Front mounting	
Modular width	–	6 MW		–	
Control panel instrument	96 × 96 mm	–		96 × 96 mm	
External auxiliary voltage	50/60 Hz AC	100 ... 250 V	–	90 ... 276 V	100 ... 250 V ±10%
	DC	110 ... 250 V ±10%	–	110 ... 275 V	110 ... 250 V ±10%
<b>Measuring inputs</b>					
Transformer connection	Secondary input current $I_e$	x/1 A or x/5 A	x/1 A or x/5 A	x/1 A or x/5 A	
Direct connection	Input voltage $U_e$ 3 AC 50/60 Hz	400/230 V		690/400 V	
	Rated current $I_n$	–	65 A	–	–










# 7KM PAC measuring devices

## Accessories

	7KM PAC1020	7KM PAC3120 7KM PAC3220 7KM PAC4200
<b>7KM PAC TMP2 standard mounting rail adapter</b>  <ul style="list-style-type: none"> <li>Two-tier adapter for mounting a measuring device on a standard mounting rail</li> <li>Front display</li> <li>For manual intervention</li> </ul>		
		7KM9900-0XA00-0AA0
<b>7KM PAC TMP mounting plate</b>  <ul style="list-style-type: none"> <li>Adapter for mounting a measuring device on standard mounting rail</li> <li>Display faces backwards towards standard mounting rail</li> <li>Readout and evaluation of measurements solely via mains operation</li> </ul>		
		7KM9900-0YA00-0AA0
<b>Compact holder</b>  <ul style="list-style-type: none"> <li>Device holder for 7KM PAC3100/3120/3200/3220/4200</li> <li>10 holders for 5 PAC devices</li> <li>For seamless side-by-side mounting of the devices (without spaces)</li> </ul>		
		7KM9900-0GA00-0AA0
<b>Spare parts for 7KM PAC</b>  <ul style="list-style-type: none"> <li>Spare parts comprising:           <ul style="list-style-type: none"> <li>Device holders for panel mounting (2X)</li> <li>Screw terminal for connection of voltage inputs</li> <li>Screw terminal for connection of current inputs</li> <li>Terminal block inputs/outputs for 7KM PAC3100/4200</li> <li>Terminal block inputs/outputs for 7KM PAC3200</li> <li>RS485 terminal blocks for 7KM PAC3100</li> </ul> </li> </ul>		
		7KM9900-0SA00-0AA0

## Expansion and communication modules

	7KM PAC3220 7KM PAC4200	COM100/800 (3VA)
<b>7KM Switched Ethernet PROFINET communication module</b>		
 <ul style="list-style-type: none"> <li>• Latest PROFINET switching properties</li> <li>• S2 system redundancy for operation in H systems</li> <li>• CIR Configuration in Run</li> <li>• Firmware update via the modules for PAC4200 and PAC3220</li> </ul>		
		7KM9300-0AE02-0AA0
<b>7KM PROFIBUS DP communication module</b>		
		
		7KM9300-0AB01-0AA0
<b>7KM RS485 communication module</b>		
		
		7KM9300-0AM00-0AA0 <sup>1)</sup>
<b>7KM PAC 4DI/2DO expansion module</b>		
		
	7KM9200-0AB00-0AA0	–
<b>7KM PAC I(N), I(Diff), analog expansion module</b>		
 <ul style="list-style-type: none"> <li>• To add the following functions to the measuring inputs:                             <ul style="list-style-type: none"> <li>– N conductor measurement</li> <li>– Two analog inputs, also for measuring non-electrical quantities such as temperature, water or air pressure</li> <li>– Residual current measurement via type A or type B summation current transformers</li> </ul> </li> </ul>		
	7KM9200-0AD00-0AA0	–

<sup>1)</sup> Suitable for 7KM PAC4200 (especially for the Modbus TCP/RTU Gateway)

Residual-current transformers for 7KM PAC I(N), I(Diff), analog expansion module, [from page 11/1 onwards](#)

# 7KT PAC measuring devices

## PAC1600 basic unit



Connections	Version	Power supply	Display	Interface	MID	7KT PAC1600			
<b>Transformer measurement</b>									
Screw terminals	3-phase	Self-powered	With	Modbus RTU	Without	7KT1661			
					With	7KT1662			
				M-Bus	Without	7KT1663			
					With	7KT1664			
				SO interface	Without	7KT1672			
					With	7KT1673			
	3-phase, universal	Auxiliary power: 100 ... 240 V AC, 110 ... 250 V DC 50/60Hz	With	–	Without	7KT1681			
				Modbus RTU	Without	7KT1682			
	<b>Direct measurement</b>								
	Screw terminals	1-phase	Self-powered	With	Modbus RTU	Without	7KT1651		
With						7KT1652			
M-Bus					Without	7KT1653			
					With	7KT1654			
SO interface					Without	7KT1655			
					With	7KT1656			
3-phase					Self-powered	With	Modbus RTU	Without	7KT1665
								With	7KT1666
		M-Bus	Without	7KT1667					
			With	7KT1668					
		SO interface	Without	7KT1670					
			With	7KT1671					

## PAC1200 multichannel current measuring system

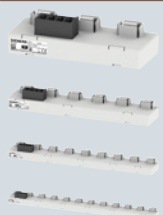


Connections	Version	Power supply	Display	Interface	MID	7KT PAC1200
<b>Direct measurement</b>						
Screw terminals	3-phase	Self-powered	Without	Modbus TCP	Without	7KT1260

### PAC1200

7KT PAC1200

#### Data manager with 7KT1260, sensor bars



Number of connections	Article No.
3	7KT1233
6	7KT1236
9	7KT1238
12	7KT1242

#### Data manager with 7KT1260, sensors



Current $I_e$	Article No.
40 A	7KT1254
63 A	7KT1255

10

## PAC1200 Bundles



Data manager	Sensor bars	Sensors	18 bundle	24 bundle
1× data manager 7KT1260	2× 9-sensor bar 7KT1238	18× sensors 40 A 7KT1254	7KT1222	–
1× data manager 7KT1260	2× 12-sensor bar 7KT1242	24× sensors 40 A 7KT1254	–	7KT1223

# SEM3 multichannel current measuring system

## Data manager



Connections	Version	Power supply	Display	Interface	MID	
<b>Transformer measurement</b>						
Screw terminals	3-phase	Self-powered	Without	Modbus TCP RS485 Modbus RTU	Without	US2:SEM3CONTROLLER

## Further technical specifications

SEM3

<b>Basic data</b>	
Installation	Screw mounting
<b>Measuring inputs</b>	
Max. input voltage 50/60 Hz AC	480 V/277 V
Standard current transformers	50 ... 1200 A/0.1 A
Folding transformer	50 ... 2000 A/0.1 A

## Accessories

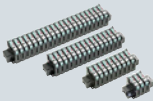
### Metering modules



- For recording measured values
- Accuracy of 0.2% or 1% for the entire measurement including current transformer
- Simple setting of phase configuration by means of slide switch
- Connection of a current transformer for measuring a phase
- Metering module is plugged into meter rack

Measuring accuracy	Article No.
0.2%	US2:SEM3PHAMETER
1%	US2:SEM3PLAMETER

### Meter racks



Version	Article No.
For 3 metering modules	US2:SEM3RACK3
For 9 metering modules	US2:SEM3RACK9
For 15 metering modules	US2:SEM3RACK15
For 21 metering modules	US2:SEM3RACK21

### Connecting cables



- 600 V insulated special cable for connecting meter racks to the data manager

Length	Article No.
0.3 m	US2:SEM3CAB12INCH
0.6 m	US2:SEM3CAB24INCH
0.9 m	US2:SEM3CAB36INCH

### Standard current transformers



- Standard power cable brown and yellow, 1.82 m long
- Can be extended up to 100 m while still maintaining accuracy
- Transformer configuration is carried out in the data manager

Output signal	Transformer transmission ratio	Article No.
100 mA	50 : 0.1	US2:SEM3SCCT50
	125 : 0.1	US2:SEM3SCCT125
	250 : 0.1	US2:SEM3SCCT250
	400 : 0.1	US2:SEM3SCCT400
	600 : 0.1	US2:SEM3SCCT600
	800 : 0.1	US2:SEM3SCCT800
	1200 : 0.1	US2:SEM3SCCT1200

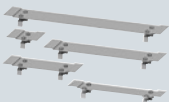
### Folding transformers



- Standard power cable brown and yellow, 1.82 m long
- Can be extended up to 100 m while still maintaining accuracy
- Transformer configuration is carried out in the data manager

Output signal	Transformer transmission ratio	Article No.
100 mA	50 : 0.1	7KT1280-5MA00
	125 : 0.1	7KT1280-5MA01
	250 : 0.1	7KT1280-5MA02
	400 : 0.1	7KT1280-5MA03
	600 : 0.1	7KT1280-5MA04
	800 : 0.1	7KT1280-5MA05
	1200 : 0.1	7KT1280-5MA06
	1600 : 0.1	7KT1280-5MA07
	2000 : 0.1	7KT1280-5MA08

### DIN rail adapters



- 5 adapters for snapping onto standard mounting rail
- 1 adapter each for data manager and for meter racks with 3, 9, 15 and 21 metering modules
- Adapters are screwed onto the data manager or the meter racks

Article No.
US2:SEM3DINKIT

# SEM3T multichannel temperature measuring system **new**

Data manager for thermal monitoring in electrical systems




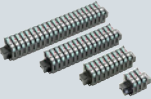


Connections	Version	Power supply	Display	Interface	
Plug-in connectors	Temperature measurement	24 V DC	Without	Modbus TCP	7KT1281-0AA00
Plug-in connectors	Temperature measurement	24 V DC	Without	Modbus TCP/Wi-Fi	7KT1281-0AA10

## Further technical specifications

SEM3T

<b>Basic data</b>	
Installation	Standard rail mounting
<b>Measuring inputs</b>	
Temperature sensors	0 to 130°C

## Accessories

Metering module			
	<ul style="list-style-type: none"> <li>For recording measured values</li> <li>No configuration necessary for modules</li> <li>Connection of a temperature sensor</li> <li>Metering module is plugged into meter rack</li> </ul>		
		<b>Article No.</b> 7KT1281-1AA00	
Meter racks			
	<b>Version</b>	<b>Article No.</b>	
	For 3 metering modules	US2:SEM3RACK3	
	For 9 metering modules	US2:SEM3RACK9	
	For 15 metering modules	US2:SEM3RACK15	
	For 21 metering modules	US2:SEM3RACK21	
Connecting cables			
	<ul style="list-style-type: none"> <li>600 V insulated special cable for connecting meter racks to the data manager</li> </ul>		
	<b>Length</b>	<b>Article No.</b>	
	0.3 m	US2:SEM3CAB12INCH	
	0.6 m	US2:SEM3CAB24INCH	
	0.9 m	US2:SEM3CAB36INCH	
Temperature sensors			
	<ul style="list-style-type: none"> <li>Standard connection cable, brown and yellow, 3 m long</li> <li>Can be extended up to 15 m while still maintaining accuracy</li> <li>Configuration is carried out in the data manager</li> </ul>		
	<b>Version</b>	<b>Size</b>	<b>Article No.</b>
	Sensors with ring terminal lugs	Sensor 1/4"	7KT1281-2SA00
		Sensor 5/16"	7KT1281-2SA01
		Sensor 3/8"	7KT1281-2SA02
		Sensor 1/2"	7KT1281-2SA03
	Cylindrical sensor	7KT1281-2CA00	



# Time and pulse counters

## Mechanical counting mechanisms



Display	Resetting	Rated frequency	Rated control supply voltage $U_c$	48 × 48 mm	72 × 72 mm	–
<b>Time counter</b>						
00000.00 h	Without	–	10 ... 80 V DC	7KT5500	–	–
			10 ... 50 V DC	–	7KT5600	–
			12 ... 24 V DC	–	–	7KT5801
		50 Hz	24 V AC	7KT5505	–	7KT5802
			115 V AC	7KT5501	7KT5601	7KT5803
			230 V AC	7KT5502	7KT5602	7KT5804
		60 Hz	115 V AC	7KT5503	7KT5603	7KT5806
			230 V AC	7KT5504	7KT5604	7KT5807
<b>Pulse counter</b>						
0000000	Without	–	12 ... 24 V DC	–	–	7KT5811
		50/60 Hz	24 V AC	–	–	7KT5812
			230 V AC	–	–	7KT5814

### Further technical specifications

	7KT55..	7KT56..	7KT58..
<b>Basic data</b>			
Installation	Front mounting		Standard mounting rail
Modular width	–		2 MW
Front frame	48 × 48 mm	72 × 72 mm	–
Display	Drum-type register		
Version	–	With narrow frame according to DIN 43700	–

### Accessories

	7KT55..	7KT56..	7KT58..
<b>Cover</b>			
Size	Article No.	Article No.	Article No.
55 × 55 mm	7KT9020	–	–
<b>Sealing ring for cover</b>			
Degree of protection	Scope of supply	Article No.	Article No.
IP43 (in switchboards with smooth surfaces)	1 set = 5 units	7KT9000	–
<b>Terminal cover</b>			
Degree of protection	Article No.	Article No.	Article No.
IP20 (with connected conductors)	–	7KT9021	–

## Electronic counting mechanisms



Display	Resetting	Rated frequency	Rated control supply voltage $U_c$	
<b>Time counter</b>				
000000.0 h	Without	50/60 Hz	24 ... 240 V AC, 12 ... 150 V DC	7KT5821
	Electrical	50/60 Hz	24 ... 240 V AC, 12 ... 150 V DC	7KT5822
	Electrical and mechanical	50/60 Hz	24 ... 240 V AC, 12 ... 150 V DC	7KT5823
<b>Pulse counter</b>				
0000000	Electrical and mechanical	50/60 Hz	24 ... 240 V AC, 12 ... 150 V DC	7KT5833

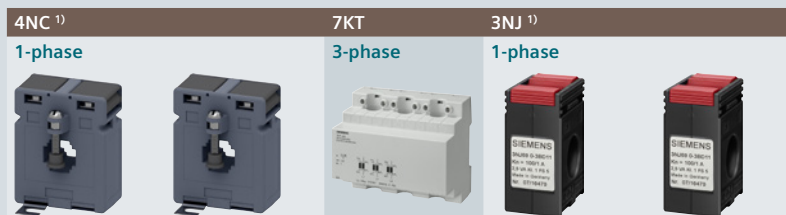
### Further technical specifications

7KT58..

<b>Basic data</b>	
Installation	Standard mounting rail
Modular width	2 MW
Display	LCD display

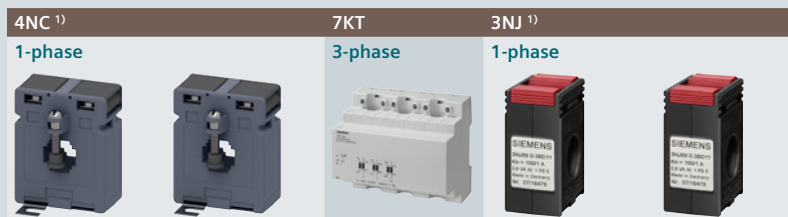
# Current transformers

For measuring purposes



Size	Insulation level $U_m$	Rated primary current $I_{pr}$	Rated power $P_n$	4NC <sup>1)</sup> 1-phase		7KT	3NJ <sup>1)</sup> 1-phase	
				$I_{sr} = 5 A$	$I_{sr} = 1 A$	3-phase $I_{sr} = 5 A$	$I_{sr} = 5 A$	$I_{sr} = 1 A$
<b>Accuracy class 0.2s</b>								
1	720 V	150 A	1 VA	4NC5121-2FA21	–	–	–	–
		200 A	2.5 VA	4NC5122-2FC21	–	–	–	–
		250 A	2.5 VA	4NC5123-2FC21	–	–	–	–
		300 A	5 VA	4NC5124-2FE21	–	–	–	–
		400 A	5 VA	4NC5125-2FE21	–	–	–	–
5	720 V	500 A	5 VA	4NC5126-2FE21	–	–	–	–
		600 A	5 VA	4NC5227-2FE21	–	–	–	–
		700 A	5 VA	4NC5228-2FE21	–	–	–	–
		800 A	5 VA	4NC5231-2FE21	–	–	–	–
		1000 A	5 VA	4NC5232-2FE21	–	–	–	–
<b>Accuracy class 0.5</b>								
1	720 V	100 A	1 VA	4NC5117-2DA21	4NC5117-0DA21	–	–	–
		150 A	2.5 VA	4NC5121-2DC21	4NC5121-0DC21	–	–	–
		200 A	5 VA	4NC5122-2DE21	4NC5122-0DE21	–	–	–
		250 A	5 VA	4NC5123-2DE21	4NC5123-0DE21	–	–	–
2	720 V	200 A	5 VA	4NC5222-2DE21	4NC5222-0DE21	–	–	–
		250 A	5 VA	4NC5223-2DE21	4NC5223-0DE21	–	–	–
		300 A	5 VA	4NC5224-2DE21	4NC5224-0DE21	–	–	–
		400 A	5 VA	4NC5225-2DE21	4NC5225-0DE21	–	–	–
3	720 V	400 A	5 VA	4NC5325-2DE21	4NC5325-0DE21	–	–	–
		500 A	5 VA	4NC5326-2DE21	4NC5326-0DE21	–	–	–
		600 A	5 VA	4NC5327-2DE21	4NC5327-0DE21	–	–	–
		750 A	5 VA	4NC5330-2DE21	4NC5330-0DE21	–	–	–
		800 A	5 VA	4NC5331-2DE21	–	–	–	–
4	720 V	800 A	10 VA	4NC5431-2DH21	4NC5431-0DH21	–	–	–
		1000 A	10 VA	4NC5432-2DH21	4NC5432-0DH21	–	–	–
		1200 A	10 VA	4NC5433-2DH21	4NC5433-0DH21	–	–	–
		1500 A	10 VA	4NC5435-2DH21	4NC5435-0DH21	–	–	–
		1600 A	15 VA	4NC5436-2DK21	–	–	–	–
		2000 A	20 VA	4NC5438-2DL21	–	–	–	–
		2500 A	25 VA	4NC5440-2DM21	–	–	–	–
		3000 A	30 VA	4NC5441-2DN21	–	–	–	–
<b>Accuracy class 0.5 calibrated</b>								
–	720 V	100 A	1.5 VA	–	–	–	3NJ6920-3BD23	3NJ6920-3BD13
		150 A	2.5 VA	–	–	–	3NJ6920-3BE23	3NJ6920-3BE13
		300 A	5 VA	–	–	–	3NJ6940-3BH23	3NJ6940-3BH13
		400 A	5 VA	–	–	–	3NJ6940-3BJ23	3NJ6940-3BJ13
		500 A	5 VA	–	–	–	3NJ6940-3BK23	3NJ6940-3BK13
		600 A	5 VA	–	–	–	3NJ6940-3BL23	3NJ6940-3BL13

<sup>1)</sup> Overcurrent limiting factor FS5



Size	Insulation level $U_m$	Rated primary current $I_{pr}$	Rated power $P_n$	4NC 1)		7KT	3NJ 1)	
				$I_{sr} = 5 A$	$I_{sr} = 1 A$	3-phase	1-phase	$I_{sr} = 1 A$
<b>Accuracy class 1.0</b>								
1	720 V	50 A	1.2 VA	4NC5112-2CB21	4NC5112-0CB21	–	–	–
		60 A	1.2 VA	4NC5113-2CB21	4NC5113-0CB21	–	–	–
			1.25 VA	–	–	7KT1200	–	–
		75 A	2.5 VA	4NC5115-2CC21	4NC5115-0CC21	–	–	–
		100 A	2.5 VA	4NC5117-2CC21	4NC5117-0CC21	7KT1201	–	–
		150 A	2.5 VA	4NC5121-2CC21	4NC5121-0CC21	–	–	–
			3.75 VA	–	–	7KT1202	–	–
			5 VA	4NC5122-2CE21	4NC5122-0CE21	–	–	–
2	720 V	200 A	5 VA	4NC5222-2CE21	4NC5222-0CE21	–	–	–
		250 A	5 VA	4NC5223-2CE21	4NC5223-0CE21	–	–	–
		300 A	5 VA	4NC5224-2CE21	4NC5224-0CE21	–	–	–
		400 A	5 VA	4NC5225-2CE21	4NC5225-0CE21	–	–	–
		500 A	5 VA	4NC5325-2CE21	4NC5325-0CE21	–	–	–
3	720 V	500 A	5 VA	4NC5326-2CE21	4NC5326-0CE21	–	–	–
		600 A	5 VA	4NC5327-2CE21	4NC5327-0CE21	–	–	–
		750 A	5 VA	4NC5330-2CE21	4NC5330-0CE21	–	–	–
		800 A	10 VA	4NC5431-2CH21	4NC5431-0CH21	–	–	–
4	720 V	1000 A	10 VA	4NC5432-2CH21	4NC5432-0CH21	–	–	–
		1250 A	10 VA	4NC5434-2CH21	4NC5434-0CH21	–	–	–
		1500 A	10 VA	4NC5435-2CH21	4NC5435-0CH21	–	–	–
		2000 A	12.5 VA	4NC5438-2CJ21	4NC5438-0CJ21	–	–	–
		2500 A	12.5 VA	4NC5440-2CJ21	4NC5440-0CJ21	–	–	–
		3000 A	30 VA	4NC5441-2CN21	–	–	–	–

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### Accessories

#### Standard rail mounting



For transformer size	Article No.	Article No.	Article No.	Article No.	Article No.
1 and 5	4NC5923-5LT21	4NC5923-5LT21	–	–	–
2	4NC5925-5LT21	4NC5925-5LT21	–	–	–
3	4NC5930-5LT21	4NC5930-5LT21	–	–	–
4	4NC5940-5LT21	4NC5940-5LT21	–	–	–



## Well-monitored – well-protected

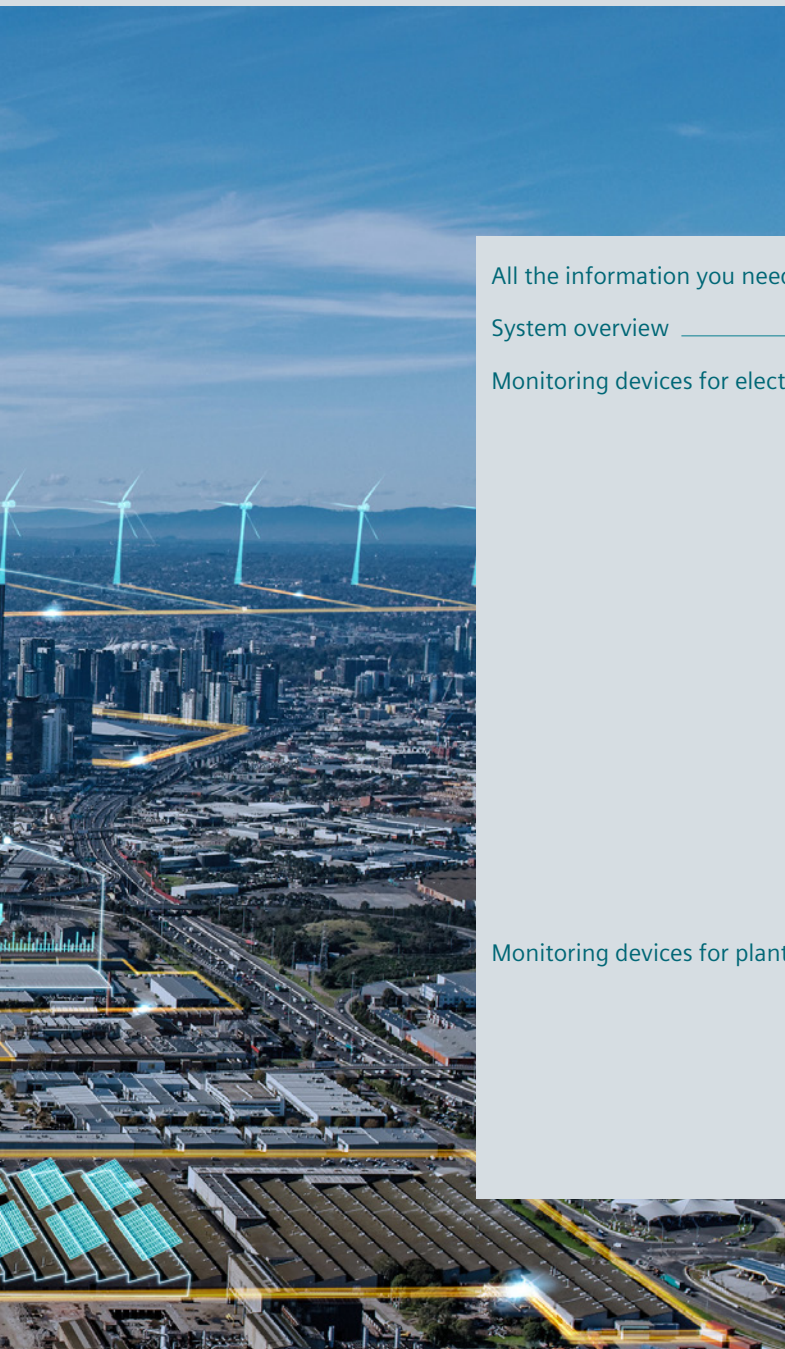
Monitoring devices perform numerous functions to protect people and machinery: At dusk, they switch on automatically, control the temperature or signal the location where a fuse has tripped.

They also ensure reliable switchover to emergency power supply, monitor the emergency lighting, ensure overload-free operation of motors and neutral monitoring for breakage and overvoltages.

Monitoring devices can do even more, e.g., underload monitoring of asynchronous motors in no-load operation.



# Monitoring Devices



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about monitoring devices, please visit our website [www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

### Your product in detail

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Monitoring devices [sie.ag/2m3no4A](http://sie.ag/2m3no4A)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at [www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Monitoring devices  
(45316099)

### Technical overview – Monitoring devices



## The fast way to get you to our online services

This page provides you with comprehensive information and links on monitoring devices

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769086)



# System overview

## Monitoring devices for electrical values



5SV8 residual current monitor



5SV8 modular residual current device



5TT3 and 5TT6 relay



5TT3 monitors

## Accessories



Summation current transformer



Holders for standard mounting rails



Magnetic field centering sleeves

## Monitoring devices for plants and equipment



5TT5 EMERGENCY STOP modules



5TT3 relay



7LQ2 dimmer switches

## Accessories



Immersion electrodes

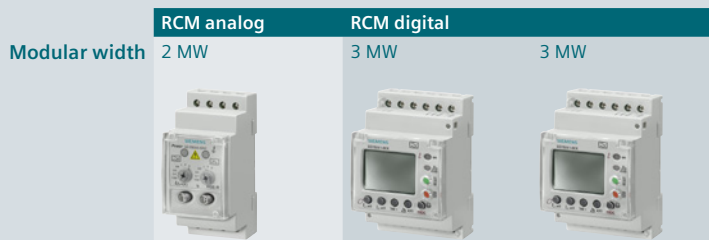
### Note:

You will find a detailed range of accessories with the basic units.



# 5SV8 residual current monitors

## Type A and type AC



Rated operational voltage $U_e$	Rated residual current $I_{\Delta n}$		Response time $\Delta t$	Modular width		
	Type A	Type AC		1 channel	4 channels	
230 V AC	0.03 ... 5 A	>3 A	0.02 ... 5 s	5SV8000-6KK	–	–
	0.03 ... 3 A	5 ... 30 A	0.02 ... 10 s, INS, SEL <sup>1)</sup>	–	5SV8001-6KK	5SV8200-6KK

### Further technical specifications

Further technical specifications	5SV8000-6KK	5SV8001-6KK	5SV8200-6KK
<b>Standards</b>			
Standards	EN 62020, IEC 62020		
Approvals	–	UL	
<b>Supply</b>			
Rated operational voltage $U_e$	230 V AC		
Frequency	50/60 Hz		
Rated residual current $I_{\Delta n}$	Type A	0.03 ... 3 A	
	Type AC	>3 A	5 ... 30 A
Response time $\Delta t$		0.02 ... 5 s	0.02 ... 10 s, INS, SEL <sup>1)</sup>
<b>Relay contacts</b>			
Relay contacts	1× alarm	1× pre-alarm, 1× alarm	1× pre-alarm, 4× alarm
Rated voltage	230 V AC		
Rated current	6 A		
<b>Summation current transformer</b>			
Diameter	20 ... 210 mm		
<b>Equipment</b>			
Maximum cable length RCM/CT	10 m (shielded cable)		
Conductor cross-section	1.5 mm <sup>2</sup>		
Test/reset	Yes/Yes		
External tripping operation/external reset	–/Yes	Yes/Yes	
<b>Safety</b>			
Degree of protection	Contacts	IP20	
	Front	IP41	
<b>Ambient conditions</b>			
Operating temperature	–10 ... +50 °C		

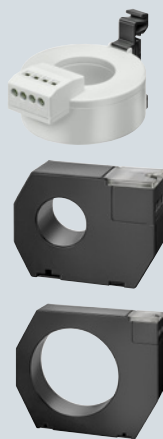
<sup>1)</sup> INS: Instantaneous,  
SEL: Selective

## Accessories

### Summation current transformers

- Including holder for standard mounting rail or wall mounting
- Standard @

Mounting options	Lowest measurable residual current $I_{\Delta n \min}$	Rated current $I_n$	Maximum current <sup>2)</sup> $I_{\max}$	Internal diameter	Article No.
Standard mounting rail	30 mA	≤40 A	240 A	20 mm	5SV8700-OKK
		≤63 A	380 A	30 mm	5SV8701-OKK
Wall mounting, standard mounting rail <sup>1)</sup>	30 mA	≤80 A	480 A	35 mm	5SV8702-OKK
		≤200 A	1200 A	70 mm	5SV8703-OKK
Wall mounting	100 mA	≤250 A	1500 A	105 mm	5SV8704-OKK
		≤500 A	3000 A	140 mm	5SV8705-OKK
		≤600 A	3600 A	210 mm	5SV8706-OKK



### Holders for standard mounting rails

- Suitable for summation current transformers with internal diameter of 20 mm, 30 mm, 35 mm, 70 mm
- Cannot be used together with magnetic field centering sleeves.



Article No.
5SV8900-1KK

### Magnetic field centering sleeves



Internal diameter	Article No.
35 mm	5SV8902-1KK
70 mm	5SV8903-1KK
105 mm	5SV8904-1KK
140 mm	5SV8905-1KK
210 mm	5SV8906-1KK

<sup>1)</sup> The holder for standard mounting rails is additionally required for mounting onto the standard mounting rail.

<sup>2)</sup> Short-time starting current, up to 2 s

# 5SV8 modular residual current device

## Type A

Modular width **3 MW**

**MRCD**



Rated operational voltage $U_e$	Rated residual current $I_{\Delta n}$ Type A	Response time $\Delta t$	
230 V AC	0.03 ... 3 A	0.02 ... 10 s, INS, SEL <sup>1)</sup>	5SV8101-6KK

## Further technical specifications

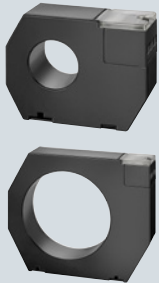
Standards		
Standards	EN 60947-2 (Annex M), IEC 60947-2 (Annex M)	
Approvals	–	
Supply		
Rated operational voltage $U_e$	230 V AC from a 1-phase auxiliary voltage source (also externally)	
Frequency	50/60 Hz	
Rated residual current $I_{\Delta n}$	Type A	0.03 ... 3 A (default setting: 30 mA)
	Type AC	–
Response time $\Delta t$	$I_{\Delta n} = 30 \text{ mA}$	INS instantaneous
	$I_{\Delta n} > 30 \text{ mA}$	INS – SEL – 0.06 ... 10 s <sup>1)</sup> (default setting INS)
Relay contacts		
Relay contacts	1× alarm, 1× tripping operation	
Rated voltage	230 V AC	
Rated current	6 A	
Summation current transformer		
Diameter	35 ... 210 mm	
Equipment		
Maximum cable length RCM/CT	10 m (shielded cable)	
Conductor cross-section	0.125 ... 2.08 mm <sup>2</sup>	
Test/reset	Yes/Yes	
External tripping operation/external reset	Yes/Yes	
Safety		
Degree of protection	Contacts	IP20
	Front	IP41
Ambient conditions		
Operating temperature	–10 ... +50 °C	

<sup>1)</sup> INS: Instantaneous,  
SEL: Selective

## Accessories

### Summation current transformers

- Including holder for wall mounting
- Standard ②



Mounting options	Lowest measurable residual current $I_{\Delta n, min}$	Rated current $I_n$	Maximum current <sup>2)</sup> $I_{max}$	Internal diameter	Article No.
Wall mounting, standard mounting rail <sup>1)</sup>	30 mA	≤80 A	480 A	35 mm	5SV8702-OKK
	30 mA	≤200 A	1200 A	70 mm	5SV8703-OKK
Wall mounting	100 mA	≤250 A	1500 A	105 mm	5SV8704-OKK
	300 mA	≤500 A	3000 A	140 mm	5SV8705-OKK
		≤600 A	3600 A	210 mm	5SV8706-OKK

### Holders for standard mounting rails



- Suitable for summation current transformers with internal diameter of 20 mm, 30 mm, 35 mm, 70 mm
- Cannot be used together with magnetic field centering sleeves

Article No.  
5SV8900-1KK

### Magnetic field centering sleeves

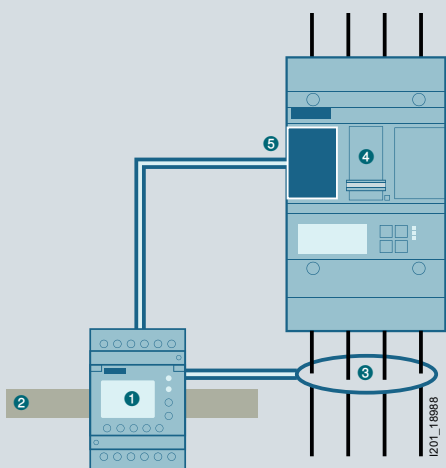


Internal diameter	Article No.
35 mm	5SV8902-1KK
70 mm	5SV8903-1KK
105 mm	5SV8904-1KK
140 mm	5SV8905-1KK
210 mm	5SV8906-1KK

<sup>1)</sup> The holder for standard mounting rails is additionally required for mounting onto the standard mounting rail.

<sup>2)</sup> Short-time starting current, up to 2 s

## Tested combination options



### 5SV8101-6KK/- (tested combinations)

#### ① Modular residual current device

5SV8101-6KK

#### ② Standard mounting rail

EN 60715 – TH35 – 7.5 35 – 15

#### ③ Summation current transformers

#### Magnetic field centering sleeves

Ø 35 mm 5SV8702-OKK 5SV8902-1KK

Ø 70 mm 5SV8703-OKK 5SV8903-1KK

Ø 105 mm 5SV8704-OKK 5SV8904-1KK

Ø 140 mm 5SV8705-OKK 5SV8905-1KK

Ø 210 mm 5SV8706-OKK 5SV8906-1KK

#### ④ Molded case circuit breakers

#### ⑤ Trip element

3VL17...

3VL9400-1UP00

3VL27...

3VL37...

3VL47...

3VA10...

3VA9908-0BB11

3VA11...

3VA9908-0BB20

3VA20...

3VA9908-0BB24

3VA21...

3VA9908-0BB25

3VA22...

3VA12...

3VA9908-0BB11

3VA23...

3VA9908-0BB20

3VA24...

3VA9908-0BB24

# 5SV8 modular residual current device

## Type B

Modular width **MRCD digital**  
2 MW



Rated operational voltage $U_e$	Rated residual current $I_{\Delta n}$ Type B	Response time $\Delta t$	
230 V AC	0.03 ... 1 A	0 ... 10 s	5SV8101-4KK
24 V DC	0.03 ... 1 A	0 ... 10 s	5SV8111-4KK

### Further technical specifications

		5SV8101-4KK	5SV8111-4KK
<b>Standards</b>			
Standards		EN 60947-2 (Annex M), IEC 60947-2 (Annex M)	
<b>Supply</b>			
Supply voltage $U_s$		230 V AC (70 ... 300 V AC)	24 V DC (9.6 ... 94 V DC)
Frequency		50/60 Hz	–
Power consumption		<6.5 VA	
<b>Relay contacts</b>			
Relay contacts		1× alarm, 1× tripping operation	
Rated voltage		250 V AC	
Rated current		5 A	
<b>External summation current transformer</b>			
Internal diameter		35 ... 210 mm (5SV8701-2KK, 5SV8701-2KP, 5SV8702-2KK, 5SV8702-2KP, 5SV8703-2KK, 5SV8704-2KK)	
Rated voltage (Summation current transformers)		690 V	
Response characteristic		Acc. to IEC 60947-2 (M)	
Rated frequency		0 ... 2 kHz	
Response residual current		$I_{\Delta n1}$ (AL1 alarm) 50 ... 100% of $I_{\Delta n2}$ (factory setting: 50%) $I_{\Delta n2}$ (TP2 tripping) 30 mA ... 1 A (factory setting: 30 mA)	
Response delay		$t_{on1}$ (alarm) 0 ... 10 s (factory setting: 1 s) $t_{on2}$ (tripping) 0 ... 10 s (factory setting: 0 s)	
<b>Equipment</b>			
Maximum cable length MRCD/converter		10 m (6 × 0.75 mm <sup>2</sup> )	
Password		Off/0 ... 999 (factory setting: 0)	
<b>Safety</b>			
Degree of protection		Components (IEC 60529) IP30 Terminals (IEC 60529) IP20	
EMC		IEC 60947-2 (M)	
Overvoltage category		III	
Pollution degree		3	
<b>Mechanical data</b>			
Width		36 mm (2 MW)	
Depth		64 mm	
Height		85 mm	
Weight		150 g	
Fixing		Standard mounting rail	
Enclosure material		Polycarbonate	
Electrical connection		Screw terminals	
Conductor cross-section		Rigid 0.2 ... 4 mm <sup>2</sup> Flexible, with end sleeve 0.2 ... 2.5 mm <sup>2</sup> (AWG 24 ... 12)	
Stripped length		8 ... 9 mm	
Tightening torque		0.5 ... 0.6 Nm	
<b>Ambient conditions</b>			
Operating temperature		–25 ... +55 °C	

## Accessories

### Summation current transformers



Lowest measurable residual current $I_{\Delta n \min}$	Rated current $I_n$	Maximum current <sup>1)</sup> $I_{\max}$	Internal diameter	Version	Article No.
10 mA	≤80 A	500 A	35 mm	Standard	5SV8701-2KK
				With shield	5SV8701-2KP
100 mA	≤160 A	1000 A	60 mm	Standard	5SV8702-2KK
				With shield	5SV8702-2KP
100 mA	≤330 A	2000 A	120 mm	Standard	5SV8703-2KK
300 mA	≤630 A	3800 A	210 mm	Standard	5SV8704-2KK

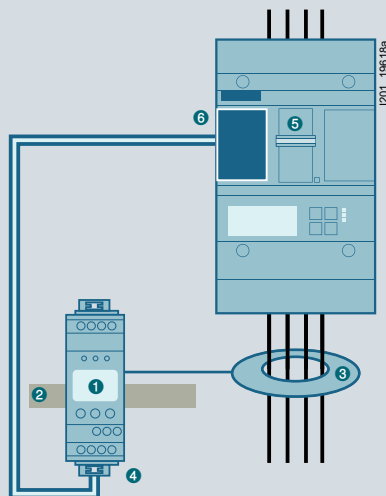
### Holders for standard mounting rails



Suitable for summation current transformers	Article No.
5SV8701-2KK, 5SV8701-2KP	5SV8900-2KK
5SV8702-2KK, 5SV8702-2KP	5SV8900-3KK

<sup>1)</sup> Short-time starting current, up to 2 s

## Tested combination options



### 5SV8101-4KK/5SV8111-4KK (tested combinations)

#### 1 Modular residual current device

5SV8101-4KK/5SV8111-4KK

#### 2 Standard mounting rail

EN 60715 – TH35 – 7,5 35 – 15

#### 3 Summation current transformers

Ø 35 mm 5SV8701-2KK/5SV8701-2KP

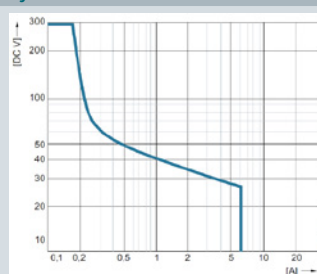
Ø 60 mm 5SV8702-2KK/5SV8702-2KP

Ø 120 mm 5SV8703-2KK

Ø 210 mm 5SV8704-2KK

#### 4 Relay contacts

DC:



AC: max. 230 V, 5A

#### 5 Molded case circuit breakers

3VA1...

3VA20...

3VA21...

3VA22...

3VA23...

3VA24...

#### 6 Trip element

3VA9908-0BB11

3VA9908-0BB24

3VA9908-0BB25




3VA9908-0BB11

3VA9908-0BB25



# 5TT3 undervoltage relays

Without response delay

Contacts	For the monitoring of		
	1, 2 or 3 phases against N	2 CO	3 phases against N
Modular width	1 MW	2 MW	2 MW
			

Rated operational voltage $U_e$	Rated operational current $I_e$	Switching thresholds	Hysteresis			
<b>Not adjustable</b>						
230 V AC	4 A	0.7 and $0.9 \times U_c$	–	5TT3400	5TT3402	5TT3404
		0.85 and $0.95 \times U_c$	–	5TT3401	–	5TT3405
<b>Adjustable</b>						
230 V AC	4 A	0.7 ... $0.95 \times U_c$	5%	–	–	5TT3406
		0.9 ... $0.95 \times U_c$	–	–	5TT3403	–



5TT3400		
5TT3401		
5TT3402	5TT3404	
5TT3403	5TT3405	5TT3406

## Further technical specifications

Standards		Standards	
Standards		IEC 60255, DIN VDE 0435-110, DIN VDE 0435-303	
Supply			
Rated control circuit voltage $U_c$		230/400 V AC	
Operating range (overload capability)		$1.1 \times U_c$	
Rated frequency		50/60 Hz	
Contacts			
$\mu$ contact		AC-11	4 A
Response values		ON-switching	$0.9/0.95 \times U_c$
		OFF-switching	$0.7/0.85 \times U_c$
Minimum contact load		10 V/100 mA	
Safety			
Rated insulation voltage $U_i$		Between coil/contact	4 kV
Electrical isolation, creepage distances and clearances		Actuator/contact	3 mm      5.5 mm
Rated impulse withstand voltage $U_{imp}$		Actuator/contact	>2.5 kV      >4 kV
Functions			
Phase asymmetry		Setting accuracy	–      Approx. 5 ... 10%
		Repeat accuracy	–      1
Phase failure detection		At L1 or L2 or L3	100 ms
Functions		Monitoring of 1/2 phases against N	Yes      –
		Monitoring of 3 phases against N	Yes
		Asymmetry (failure) detection	–      Yes
		Reverse (failure) detection	–      Yes
		Phase failure detection	Yes
N-conductor monitoring		–	Yes
Connection			
Terminals		± Screw (Pozidriv)	PZ 1
Conductor cross-sections		Rigid	Max. 2x 2.5 mm <sup>2</sup>
		Flexible, with end sleeve	Max. 1x 0.5 mm <sup>2</sup>
Ambient conditions			
Permissible ambient temperature		–20 ... +60 °C	
Resistance to climate		Acc. to EN 60068-1	20/60/4

# 5TT3 undervoltage relays

With response delay

		For the monitoring of 1, 2 or 3 phases against N	
Contacts		1 CO	2 CO
Modular width		1 MW	1 MW
			

Rated operational voltage $U_e$	Rated operational current $I_e$	Switching thresholds	Hysteresis	Standard	With TEST pushbutton
Not adjustable					
230 V AC	4 A	$0.85 \times U_c$	5%	5TT3414	5TT3415

## Further technical specifications

		5TT3414	5TT3415
<b>Supply</b>			
Rated control circuit voltage $U_c$		230/400 V AC	
Operating range (overload capability)		$1.15 \times U_c$	
Rated frequency		50/60 Hz	
<b>Contacts</b>			
Contacts	AC-15	1 CO	2 CO
Response values	ON-switching	5% hysteresis	
	OFF-switching	$0.85 \times U_c$	
Response delay		0.5 s	
Return transfer delay		60 s	
Minimum contact load		10 V/100 mA	
Electrical service life in operating cycles	AC-15 (1 A, 230 V AC)	$1 \times 10^5$	
<b>Safety</b>			
Rated insulation voltage $U_i$	Between coil/contact	–	
Rated impulse withstand voltage	Acc. to IEC 60664-1	6 kV	
Pollution degree		2	
<b>Functions</b>			
Phase failure detection	At L1 or L2 or L3	500 ms	
Functions	Monitoring of 1 or 2 phases against N	Yes	
	Monitoring of 3 phases against N	Yes	
	Phase failure detection	Yes	
<b>Connection</b>			
Terminals	– Screw (slot)	3.5 mm	
Conductor cross-sections	Rigid	$1 \times 4 \text{ mm}^2$	
	Flexible, with end sleeve	$1 \times 2.5 \text{ mm}^2$	
<b>Ambient conditions</b>			
Permissible ambient temperature		–25 ... +60 °C	
Resistance to climate	Acc. to EN 60068-1	20/060/04	

# 5TT3 short-time voltage relay

Without response delay

For the monitoring of  
1, 2 or 3 phases against N

Contacts 2 CO  
Modular width 2 MW



Rated operational voltage $U_e$	Rated operational current $I_e$	Switching thresholds	
Not adjustable			
230 V AC	4 A	$0.8 \dots 0.85 \times U_c$	5TT3407

## Further technical specifications

Standards			
Standards		IEC 60255, DIN VDE 0435-303	
Supply			
Rated control circuit voltage $U_c$		230/400 V AC	
Operating range (overload capability)		$1.1 \times U_c$	
Rated frequency		50/60 Hz	
Rated operational power $P_s$		AC operation:	230 V and p.f. = 1 230 V and p.f. = 0.4
			2000 VA 1250 VA
		DC operation:	$U_e = 24 \text{ V}$ and $I_e = 6 \text{ A}$ $U_e = 60 \text{ V}$ and $I_e = 1 \text{ A}$ $U_e = 110 \text{ V}$ and $I_e = 0.6 \text{ A}$ $U_e = 220 \text{ V}$ and $I_e = 0.5 \text{ A}$
			Max. 100 W Max. 100 W Max. 100 W Max. 100 W
Back-up fuse		Terminals L1/L2/L3	2 A
Contacts			
$\mu$ contact		AC-11	3 A
Response values		ON-switching	$0.85 \times U_c$
		OFF-switching	$0.8 \times U_c$
Automatic reclosing delay (return transfer delay)		0.2 ... 2 s	
Minimum contact load		10 V/100 mA	
Safety			
Rated insulation voltage $U_i$		Between coil/contact	4 kV
Electrical isolation, creepage distances and clearances		Actuator/contact	4 mm
Rated impulse withstand voltage $U_{imp}$		Actuator/contact	>4 kV
Functions			
Phase failure detection		At L1 or L2 or L3	$\geq 20 \text{ ms}$
Phase asymmetry		Setting accuracy	Approx. 5 ... 10%
		Repeat accuracy	1
Functions		Monitoring of 1 or 2 phases against N	Yes
		Monitoring of 3 phases against N	Yes
		Phase failure detection	Yes
		N-conductor monitoring	Yes
Connection			
Terminals		$\pm$ Screw (Pozidriv)	PZ 1
Conductor cross-sections		Rigid	Max. $2 \times 2.5 \text{ mm}^2$
		Flexible, with end sleeve	Max. $1 \times 0.5 \text{ mm}^2$
Ambient conditions			
Permissible ambient temperature		$-20 \dots +60 \text{ }^\circ\text{C}$	
Humidity class		Acc. to IEC 60068-2-30	F

# 5TT3 undervoltage and overvoltage relays

With adjustable response delay

For the monitoring of  
3 phases against N

Contacts 2 CO  
Modular width 2 MW








Rated operational voltage $U_e$	Rated operational current $I_e$	Switching thresholds	Hysteresis	
Adjustable				
230 V AC	4 A	0.7 and $1.1 \times U_c$ 0.9 and $1.3 \times U_c$	4% 4%	5TT3408

## Further technical specifications

Standards			
Standards			IEC 60255, DIN VDE 0435-303
Supply			
Rated control circuit voltage $U_c$			230/400 V AC
Operating range (overload capability)			$1.35 \times U_c$
Rated frequency			50/60 Hz
Back-up fuse	Terminals L1/L2/L3		2 A
Contacts			
$\mu$ contact	AC-11		1 A
Response values	Overvoltage:	ON-switching	4% hysteresis
		OFF-switching	$0.9 \dots 1.3 \times U_c$
	Undervoltage:	ON-switching	4% hysteresis
		OFF-switching	$0.7 \dots 1.1 \times U_c$
On/off-delay (response delay)			0.1 ... 20 s
Automatic reclosing delay (return transfer delay)			–
Minimum contact load			10 V/100 mA
Safety			
Rated insulation voltage $U_i$	Between coil/contact		4 kV
Electrical isolation, creepage distances and clearances	Contact/contact		4 mm
	Actuator/contact		4 mm
Rated impulse withstand voltage $U_{imp}$	Actuator/contact		>4 kV
Functions			
Phase failure detection	At L1 or L2 or L3		100 ms
Phase asymmetry	Setting accuracy		Approx. 5 ... 10%
	Repeat accuracy		1
Functions	Monitoring of 1 or 2 phases against N		–
	Monitoring of 3 phases against N		Yes
	Asymmetry detection		Yes
	Reverse voltage detection		Yes
	Phase failure detection		Yes
	N-conductor monitoring		Yes
Connection			
Terminals	$\pm$ Screw (Pozidriv)		PZ 1
Conductor cross-sections	Rigid		Max. 2x 2.5 mm <sup>2</sup>
	Flexible, with end sleeve		Max. 1x 0.5 mm <sup>2</sup>
Ambient conditions			
Permissible ambient temperature			–20 ... +60 °C
Humidity class	Acc. to IEC 60068-2-30		F

# 5TT6 current relays

For 1-phase loads up to 230 V AC

Modular width	Auxiliary voltage and load voltage							
	Not isolated		Galvanically isolated					
	1 MW	1 MW	2 MW	2 MW	2 MW			
								
Rated operational voltage $U_e$	Rated operational current $I_e$	Contacts	Rated control current $I_c$	Monitoring Undercurrent	Monitoring Overcurrent	Monitoring Undercurrent	Monitoring Overcurrent	Overcurrent/undercurrent
230 V AC	5 A	1 CO 2 CO	1 ... 10 A 0.1 ... 1 A, 0.5 ... 5 A, 1 ... 10 A, 1.5 ... 15 A	5TT6111 –	5TT6112 –	– 5TT6113	– 5TT6114	– 5TT6115

## Further technical specifications

<b>Standards</b>			
Standards			IEC 60255 IEC 60255 DIN VDE 0435-303
<b>Supply</b>			
Rated control current $I_c$			1 ... 10 A 0.1 ... 1 A, 0.5 ... 5 A, 1 ... 10 A, 1.5 ... 15 A
Rated control circuit voltage $U_c$			230 V AC
Primary operating range			0.9 ... 1.1 × $U_c$
Overload capability		Continuous	15 A 20 A
		At 50 °C ambient temperature max. 3 s	–
		Independent of measuring range, max. 3 s	– 30 A
Rated frequency			50/60 Hz
<b>Contacts</b>			
μ contact (AC-15)		NO	3 A 5 A
		NC	1 A
Response values		ON-switching	Infinitely variable
		OFF-switching	Permanent, 4% hysteresis
Switching delay $t_v$			0.1 ... 20 s, continuously adjustable
Response time		Non-adjustable	Current corresponds to the rated operational power of the continuous-flow heater
			See Siemens Service and Support Portal, search term "Article No.", e.g. 5TT6113
Minimum contact load			10 V/100 mA
<b>Safety</b>			
Rated insulation voltage $U_i$		Between coil/contact	2.5 kV
Electrical isolation, creepage distances and clearances		Actuator/contact	3 mm
Rated impulse withstand voltage $U_{imp}$		Actuator/contact	>4 kV
<b>Connection</b>			
Terminals		± Screw (Pozidriv)	PZ 1
Conductor cross-sections		Rigid	Max. 2x 2.5 mm <sup>2</sup>
		Flexible, with end sleeve	Max. 1x 0.5 mm <sup>2</sup>
<b>Ambient conditions</b>			
Permissible ambient temperature			–20 ... +60 °C
Resistance to climate		Acc. to EN 60068-1	20/60/4

# 5TT3 fuse monitors

For all low-voltage fuse systems

Modular width 2 MW



Rated operational voltage $U_e$	Rated operational current $I_e$	Rated control circuit voltage $U_c$	
Adjustable			
250 V AC	4 A	380 ... 415 V AC	5TT3170

## Further technical specifications

Standards		
Standards		IEC 60255, DIN VDE 0435-110
Supply		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$	AC-1	4 A
Rated control circuit voltage $U_c$	3 AC	380 ... 415 V
Primary operating range		0.8 ... 1.1 × $U_c$
Rated frequency		50 ... 400 Hz
Contacts		
Internal resistance of measuring paths		>1000 Ω/V
Max. permissible rear feed		90%
Response/release time		<50 ms
Electrical endurance AC-11	In switching cycles at 1 A	1.5 × 10 <sup>5</sup>
Safety		
Rated impulse withstand voltage $U_{imp}$	Input/output	>4 kV
Application		
Area of application		Asymmetric, systems afflicted with harmonics, regenerative motors
Message		Also for disconnected loads
Connection		
Terminals	± Screw (Poqidriv)	PZ 1
Conductor cross-sections	Rigid	Max. 2x 2.5 mm <sup>2</sup>
	Flexible, with end sleeve	Max. 1x 0.5 mm <sup>2</sup>
Ambient conditions		
Permissible ambient temperature		-20 ... +45 °C
Resistance to climate	Acc. to EN 60068-1	20/45/4

# 5TT3 phase monitors

For monitoring of voltages in a 3-phase system

Modular width 1 MW




Rated operational voltage $U_e$	Rated operational current $I_e$	Contacts	Rated control circuit voltage $U_c$	With 3 green LEDs for 3 phases
250 V AC	4 A	1 CO	230/400 V	5TT3421

## Further technical specifications

Standards			
Standards		IEC 60255, DIN VDE 0435	
Supply			
Rated operational voltage $U_e$		250 V AC	
Rated operational current $I_e$		4 A	
Rated control circuit voltage $U_c$		230/400 V AC	
Primary operating range		0.8 ... 1.1 × $U_c$	
Rated frequency		50/60 Hz	
Rated power dissipation $P_v$		Electronics	9 VA
		Contacts	0.2 VA
Contacts			
$\mu$ contact		AC-11	3 A
Minimum contact load		10 V/100 mA	
Safety			
Rated insulation voltage $U_i$		Between coil/contact	4 kV
Electrical isolation, creepage distances and clearances		Actuator/contact	4 mm
Rated impulse withstand voltage $U_{imp}$		Actuator/contact	>2.5 kV
Degree of protection		Acc. to EN 60529	IP20, with connected conductors
Safety class		Acc. to EN 61140/VDE 0140-1	II
Connection			
Terminals		± Screw (Pozidriv)	PZ 1
Conductor cross-sections		Rigid	Max. 2x 2.5 mm <sup>2</sup>
		Flexible, with end sleeve	–
Ambient conditions			
Permissible ambient temperature		–20 ... +60 °C	
Resistance to climate		Acc. to EN 60068-1	20/60/4

# 5TT3 phase sequence monitors

For monitoring of phase sequence in a 3-phase system

Phase sequence monitors				
Modular width	1 MW			
				
Rated operational voltage $U_e$	Rated operational current $I_e$	Contacts	Rated control circuit voltage $U_c$	With one green LED, which lights up for right-rotating field
250 V AC	4 A	1 CO	400 V	5TT3423

## Further technical specifications

Standards			
Standards	IEC 60255, DIN VDE 0435		
Supply			
Rated operational voltage $U_e$	250 V AC		
Rated operational current $I_e$	4 A		
Rated control circuit voltage $U_c$	400 V AC		
Primary operating range	0.8 ... 1.1 × $U_c$		
Rated frequency	50/60 Hz		
Rated power dissipation $P_v$	Electronics	9 VA	
	Contacts	0.2 VA	
Contacts			
μ contact	AC-11	3 A	
Minimum contact load	10 V/100 mA		
Safety			
Rated insulation voltage $U_i$	Between coil/contact	4 kV	
Electrical isolation, creepage distances and clearances	Actuator/contact	4 mm	
Rated impulse withstand voltage $U_{imp}$	Actuator/contact	>2.5 kV	
Degree of protection	Acc. to EN 60529	IP20, with connected conductors	
Safety class	Acc. to EN 61140/VDE 0140-1	II	
Connection			
Terminals	± Screw (Pozidriv)	PZ 1	
Conductor cross-sections	Rigid	Max. 2x 2.5 mm <sup>2</sup>	
	Flexible, with end sleeve	–	
Ambient conditions			
Permissible ambient temperature	–20 ... +60 °C		
Resistance to climate	Acc. to EN 60068-1	20/60/4	



# 5TT3 insulation monitors for industrial applications

Are used for protection of persons and against fire in non-grounded systems (IT systems)

Modular width 2 MW



Measurement voltage range $U_{meas}$	Measuring range	Contacts	Rated control circuit voltage $U_c$	
0 ... 500 V AC	5 ... 100 k $\Omega$	2 CO	230 V AC	5TT3470
12 ... 280 V DC	5 ... 200 k $\Omega$	2 CO	–	5TT3471

## Further technical specifications

		5TT3470	5TT3471
<b>Supply</b>			
Rated operational voltage $U_e$		230 V AC	12 ... 280 V DC
Rated operational current $I_s$	Thermal current $I_{th}$	4 A	
	DC-13 at 24 V DC	–	2 A
	DC-13 at 250 V DC	–	0.2 A
	AC-15	–	3 A
	AC-15 NO	5 A	–
	AC-15 NC	2 A	–
Supply voltage $U_c$	For AC supply	220 ... 240 V AC	–
Primary operating range	For AC supply	0.8 ... 1.1 $\times U_c$	–
Frequency range for $U_c$		45 ... 400 Hz	–
Rated power dissipation $P_v$	For AC supply	Approx. 2 VA	–
	For DC supply	–	Approx. 1 W
<b>Contacts</b>			
$\mu$ contact		2 CO	
Switching hysteresis	At $R_{meas}$ 50 k $\Omega$	15%	10 ... 15%
<b>Measuring circuit</b>			
Measuring circuit		For 3-phase and AC systems	For direct voltage systems
Measurement voltage range $U_{meas}$		0 ... 500 V AC	12 ... 280 V DC
Measurement voltage $U_{meas}$	Internal	Approx. 15 V DC	–
Primary operating range		0 ... 1.1 $\times U_{meas}$	0.9 ... 1.1 $\times U_{meas}$
Frequency range for $U_{meas}$		10 ... 10000 Hz	–
Alarm values	Measuring shunt $R_{AL}$	5 ... 100 k $\Omega$	5 ... 200 k $\Omega$
	Setting of alarm value	On absolute scale	Infinitely variable
Alternating current internal resistance	Internal testing resistance	>250 k $\Omega$	–
Direct current internal resistance	Internal testing resistance	>250 k $\Omega$	–
	L+ and L- to PE	–	75 k $\Omega$ each
Max. measurement current $I_{meas}$	Short circuit	<0.1 mA	0.2 ... 4 mA, depending on the voltage
Direct interference voltage	Max. permissible	500 V DC	–
	Response delay		0.8 s
at $R_{AL}$ 50 k $\Omega$ and 1 $\mu$ F	$\infty$ to 0.9 $\times R_{meas}$	<1.3 s	0.4 s
	$R_{meas}$ from $\infty$ to 0 $\Omega$	<0.7 s	
<b>Safety</b>			
Rated impulse withstand voltage $U_{imp}$	Terminals A1 to A2	<4 kV	
	Terminals L to PE	<4 kV	
	Terminals A1, A2 to L, PE	<4 kV	<3 kV
	Terminals against contacts	<6 kV	
Degree of protection	Terminals (according to EN 60529)	IP20	
	Enclosure (according to EN 60529)	IP40	
<b>Connection</b>			
Terminals	$\pm$ Screw (Pozidriv)	PZ 2	
Conductor cross-sections	Rigid	Max. 2x 2.5 mm <sup>2</sup>	
	Flexible, with end sleeve	Min. 1x 0.50 mm <sup>2</sup>	
<b>Ambient conditions</b>			
Permissible ambient temperature		–20 ... +60 °C	
Resistance to climate	Acc. to EN 60068-1	20/060/04	

# 5TT5 EMERGENCY STOP modules

Efficient personal and machine protection in small units

Modular width 4 MW



Rated operational voltage $U_e$	Rated operational current $I_e$	Rated control circuit voltage $U_c$	5TT5200
400 V AC	5 A	230 V AC	

## Further technical specifications

Standards		
Standards		ISO 13849-1: 2015; EN 62061: 2005 + AC: 2010 + A1: 2013 + A2: 2015; ISO 13850: 2015; EN 60204-1: 2006 + A1: 2009 + AC: 2010 (in extracts); EN 60947-5: 2004 + A1: 2009; EN 50178: 1997; EN 61508 Parts 1-7: 2010; EN 50156-1: 2005 (in extracts)
Certification		German Technical Inspectorate Rheinland
Supply		
Primary operating range		$0.8 \dots 1.1 \times U_c$
Rated frequency $f_n$		50 Hz
Rated power dissipation $P_v$	Coil/drive	3.5 VA
	Contact per pole	0.8 VA
Control voltage	Terminal Y1	24 V AC/DC
Control current	Terminal Y1	45 mA
Contacts		
Contacts	NO AC-15	3 A
	NC AC-15	2 A
	NO/NC AC-1	5 A
Contact gap		>1 mm
Electrical service life	AC-15 (2 A, 230 V AC)	$10^5$ operating cycles
Reliable switching frequency		600 operating cycles/h
Recovery time		500 ms
Safety		
Rated impulse withstand voltage $U_{imp}$	Actuator/contact	>4 kV
Electrical isolation, creepage distances and clearances	Actuator/contact	3 mm
Vibration resistance	Amplitude acc. to EN 60068-2-610 (up to 55 Hz)	0.35 mm
Connection		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current paths	Rigid	Max. $2 \times 2.5 \text{ mm}^2$
	Flexible, with end sleeve	Min. $1 \times 0.50 \text{ mm}^2$
Ambient conditions		
Permissible ambient temperature		0 ... +50 °C
Resistance to climate	Acc. to EN 60068-1	0/55/04

# 5TT3 level relays

For level monitoring and control

Modular width 2 MW



Rated operational voltage $U_e$	Rated operational current $I_e$	Rated control circuit voltage $U_c$	
250 V AC	5 A	230 V AC	5TT3435

## Further technical specifications

Standards		
Standards		IEC 60255; DIN VDE 0435-110
Supply		
Rated operational voltage $U_e$		250 V AC
Rated operational current $I_e$		5 A
Rated control circuit voltage $U_c$		230 V AC
Primary operating range		0.8 ... 1.1 × $U_c$
Rated frequency $f_n$		50/60 Hz
Measuring circuit		
Setting range of the liquid level		2 ... 450 kΩ
Switching point hysteresis of set value	At 450 kΩ	3%
	At 2 kΩ	6%
Electrode voltage		Max. approx. 10 V AC
Electrode current		Max. approx. 1.5 mA AC
Response delay	Adjustable	0.2 ... 20 s
OFF-delay	Adjustable	0.2 ... 20 s
Test voltage	Input/auxiliary circuit	4 kV
	Input/output circuit	4 kV
	Auxiliary/output circuit	4 kV
Voltage temperature influence	From set value	<2%
Max. cable length to the electrodes at 100 μF/km	Set value 450 kΩ	50 m
	Set value 100 kΩ	200 m
	Set value 35 kΩ	500 m
	Set value 10 kΩ	1500 m
	Set value 5 kΩ	3000 m
Connection		
Terminals	± Screw (Pozidriv)	PZ 2
Conductor cross-sections	Rigid, max.	Max. 2x 2.5 mm <sup>2</sup>
	Flexible, with end sleeve	Min. 1x 0.50 mm <sup>2</sup>
Ambient conditions		
Permissible ambient temperature		-20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/60/4

## Accessories

### Immersion electrodes



- Made of stainless steel, with PG13 sealing cap
- Suitable for pure water in open containers

Temperature range	Connection	Article No.
0 ... 60 °C	Terminal connection	5TG8223

# 5TT3 line circuit relays

To interrupt circuits where there are no active loads

Modular width 1 MW



Rated operational voltage $U_e$	Rated operational current $I_e$	Contacts	Rated control circuit voltage $U_c$	
250 V AC	16 A	1 NC	230 V AC	5TT3171

## Further technical specifications

Standards			
Standards		IEC 60255; DIN VDE 0435-110	
Supply			
Rated operational voltage $U_e$		250 V AC	
Rated operational current $I_e$		AC-1	16 A
Rated control circuit voltage $U_c$		230 V AC	
Primary operating range		0.85 ... 1.15 × $U_c$	
Rated frequency		50/60 Hz	
Rated power dissipation $P_v$		Electronics	5 VA
		Contacts	2.6 VA
Contacts			
Response value		Adjustable	2 ... 20 VA
Release value		% of the response value	70%
Electrical service life		In switching cycles at 3 A (AC-11)	5 × 10 <sup>5</sup>
Safety			
Rated impulse withstand voltage $U_{imp}$		Input/output	>4 V
Degree of protection		Acc. to IEC/EN 60529	IP20, with connected conductors
Safety class		Acc. to EN 61140/VDE 0140-1	II
Monitoring voltage		3 V	
Connection			
Terminals		± Screw (Pozidriv)	PZ 1
Conductor cross-sections		Rigid	Max. 2 × 2.5 mm <sup>2</sup>
		Flexible, with end sleeve	Min. 1 × 0.50 mm <sup>2</sup>
Ambient conditions			
Permissible ambient temperature		−20 ... +45 °C	
Humidity class		Acc. to IEC 60068-2-30	F

## Accessories

### Base load resistors for electronic devices

- With 15 cm connection wires, end sleeves and shrink sleeving

Article No.

5TG8222

# 7LQ2 dimmer switches

For lighting system monitoring and control

Modular width 1 MW




Rated operational voltage $U_e$	Rated operational current $I_e$	Contacts	Rated control circuit voltage $U_c$	
230 V AC	16 A	1 NO	250 V AC	7LQ2300

## Further technical specifications

Standards		
Standards	EN 60669-1	
Supply		
Rated operational voltage $U_e$	230 V AC	
Rated frequency $f_n$	50/60 Hz	
Safety		
Degree of protection	IP30	
Contacts		
Incandescent lamp/halogen lamp load	2000 W	
Energy-saving lamp load	1000 W	
Fluorescent lamp load	Series corrected	2000 W
	Parallel corrected (at max. 70 $\mu$ F)	1000 W
LV halogen lamp load ECG	2000 W	
Luminosity setting	1 ... 100 000 Lux	
Measuring circuit		
On/off-delay	Approx. 90 s	
Connection		
Terminals	$\pm$ Screw (Pozidriv)	PZ1
Conductor cross-sections	Rigid	Max. 2x 1.5 mm <sup>2</sup>
Mechanical data		
Width	17.5 mm (1 MW)	
Fixing	Standard mounting rail	
Ambient conditions		
Permissible ambient temperature	-20 ... +55 °C	

## Spare part

Light sensor			
 <ul style="list-style-type: none"> <li>Included in the 7LQ2300 package</li> <li>IP65 degree of protection</li> </ul>	<b>Temperature range</b>	<b>Mounting</b>	<b>Article No.</b>
	-20 ... +70 °C	Surface mounting	7LQ2920







## Simply well supplied

Whether you need socket outlets for installing in VDE, UL, CEI or CEE distribution boards or power supply units – our electrical installation technology offers you a complete program.

Short-circuit-proof transformers and power supply units with different voltage and power ratings fulfill every requirement for safety extra-low voltage systems.

# Transformers, Power Supply Units and Socket Outlets



All the information you need	12/2
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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about transformers, power supply units and socket outlets, please visit our website [www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

### Your product in detail

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Transformers, power supply units and socket outlets [sie.ag/2mmSHHu](http://sie.ag/2mmSHHu)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at [www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Transformers, power supply units and socket outlets ([45315886](#))

### Technical overview – Transformers, power supply units and socket outlets



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on transformers, power supply units and socket outlets

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109764946)

# System overview

## Transformers



4AC32 bell transformers



4AC37 safety transformers

## Power supply units



4AC2 electronic power supply units

## Socket outlets



5TE6 socket outlet for modular installation devices

## Accessories



Hinged lid

**Note:**

You will find a detailed range of accessories with the basic units.



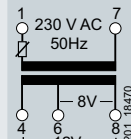
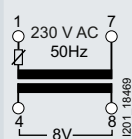
# 4AC32 bell transformer

$U_e$  230 V AC



## Bell transformers

Modular width 2 MW



Rated secondary current  $I_{sec}$  AC  
at rated secondary voltage  $U_{sec}$  AC

4 V	8 V	12 V	24 V
–	1.0 A	–	–
2.0 A	2.0 A	1.5 A	–
–	2.0 A	1.3 A	0.6 A

Rated operational power  $P_s$

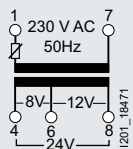
8 VA	8 VA
4AC3208-0	–
–	4AC3208-1
–	–
–	–

## Further technical specifications

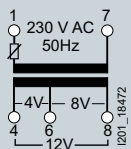
	4AC3208-0	4AC3208-1	4AC3214-0	4AC3218-0
<b>Standards</b>				
Standards	EN 61558-1, EN 61558-2-8			
<b>Supply</b>				
Rated operational voltage $U_e$	230 V AC			
Operating range at 50 Hz	$1.04 \times U_e$			
Rated frequency	50 Hz			
Rated power dissipation $P_v$	In no-load operation	1.2 W		1.3 W
	At a rated voltage of 4 V	–		5.5 W
	At a rated voltage of 8 V	5.7 W		10.5 W
	At a rated voltage of 12 V	–	3.8 W	7.4 W
	At a rated voltage of 24 V	–	–	4.2 W
<b>Safety</b>				
Safe separation	Creepage distances and clearances		>6 mm	
Insulation class	E			
Test voltage (50 Hz, 1 s)	Primary against secondary winding		4 kV	
<b>Connection</b>				
Conductor cross-section	Rigid	1 × 4 mm <sup>2</sup> or 2 × 2.5 mm <sup>2</sup>		
	Flexible, with end sleeve	1 × 2.5 mm <sup>2</sup> or 2 × 1.5 mm <sup>2</sup>		
<b>Environmental conditions</b>				
Permissible ambient temperature	40 °C	35 °C	40 °C	
Permissible humidity	91%			
Degree of protection	Acc. to EN 60629		IP20	
Safety class	Acc. to EN 61140 (VDE 0140-1)		II	



2 MW



2 MW



14 VA

18 VA

-  
-  
-  
4AC3214-0

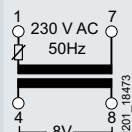
-  
-  
4AC3218-0  
-

# 4AC37 safety transformer

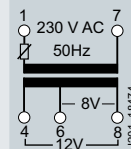
$U_e$  230 V AC



Modular width 2 MW



3 MW



Rated secondary current  $I_{sec}$  AC  
at rated secondary voltage  $U_{sec}$  AC

8 V	12 V	16 V	24 V	32 V
2.0 A	–	–	–	–
–	2.0 A	–	–	–
–	3.3 A	2.5 A	1.6 A	1.2 A
–	–	–	1.6 A	–
–	5.2 A	–	2.6 A	–

Rated operational power  $P_s$

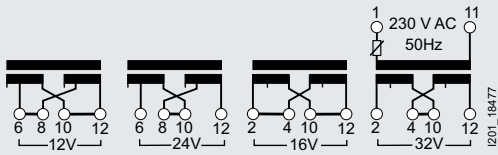
16 VA	24 VA
4AC3716-0	–
–	4AC3724-0
–	–
–	–
–	–

## Further technical specifications

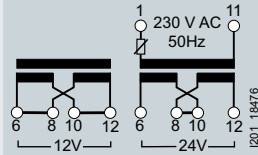
	4AC3716-0	4AC3724-0	4AC3740-0	4AC3740-1	4AC3763-0	
<b>Standards</b>						
Standards	EN 61558-1, EN 61558-2-6					
<b>Supply</b>						
Rated operational voltage $U_e$	230 V AC					
Operating range at 50 Hz	$1.04 \times U_e$					
Rated frequency	50 Hz					
Rated power dissipation $P_v$	In no-load operation	1.1 W	–	3.5 W	3.9 W	
	At a rated voltage of 8 V	6.8 W	4.6 W	–	–	
	At a rated voltage of 12 V	–	7.6 W	7.1 W	7.5 W	13.2 W
	At a rated voltage of 16 V	–	–	–	7.7 W	–
	At a rated voltage of 24 V	–	–	7.7 W	8.1 W	13.5 W
	At a rated voltage of 32 V	–	–	–	7.6 W	–
<b>Safety</b>						
Safe separation	Creepage distances and clearances	>6 mm				
Insulation class		E		F		
Test voltage (50 Hz, 1 s)	Primary against secondary winding	4 kV				
<b>Connection</b>						
Conductor cross-section	Rigid	1 × 4 mm <sup>2</sup> or 2 × 2.5 mm <sup>2</sup>				
	Flexible, with end sleeve	1 × 2.5 mm <sup>2</sup> or 2 × 1.5 mm <sup>2</sup>				
<b>Environmental conditions</b>						
Permissible ambient temperature		25 °C				
Permissible humidity		91%				
Degree of protection	Acc. to EN 60629	IP20				
Safety class	Acc. to EN 61140 (VDE 0140-1)	II				



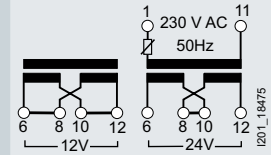
5 MW



5 MW



5 MW



40 VA

-
-
4AC3740-1
-
-

40 VA

-
-
-
4AC3740-0
-

63 VA

-
-
-
-
4AC3763-0

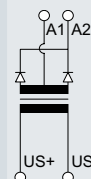


# 4AC2 electronic power supply unit

SELV, short-circuit-proof



Modular width 2 MW



Rated operational voltage $U_e$		Rated secondary voltage $U_{sec}$	Rated secondary current $I_{sec}$	Rated operational power $P_s$	4AC2402
AC	DC				
85 ... 265 V	85 ... 300 V	24 ±5% V	0.35 A	8.4 W	

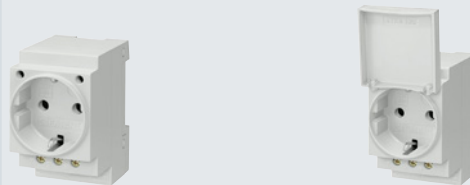
## Further technical specifications

Standards		
Standards		EN 60068-2, EN 61558-1, EN 61000-4
Approvals		–
Supply		
Primary operating range	At 50/60 Hz	–
Rated frequency		50/60 Hz
Operating frequency range		–
Rated power dissipation $P_v$	In no-load operation	–
	At rated load	–
Safety		
Current limitation		Electronic overload protection
Residual ripple		<100 mV
Hum-free	Core molded	–
Safe separation, creepage distances and clearances		>5.5 mm
Insulation class		–
Test voltage (50 Hz, 1 min)	Primary against secondary winding	–
Insulation resistance		4 kV
Rated impulse withstand voltage/Degree of pollution	Acc. to IEC 60664-1	6 kV/2
Static discharge	Acc. to IEC/EN 61000-4-2	8 kV
RF irradiation	Acc. to IEC/EN 61000-4-3	10 V/m
Transient overvoltage (burst)	Acc. to IEC/EN 61000-4-4	4 kV
Transient overvoltage (surge)	Acc. to IEC/EN 61000-4-5	
	Supply lines A1, A2	1 kV
	A1/A2 and ground	2 kV
RF, conducted disturbance	Acc. to IEC/EN 61000-4-6	10 V
Interference suppression to lower limit class	Acc. to EN 61000-6-3	Complied with
Connection		
Terminals	Screw (slotted-head)	M2.5
	± Screw (Pozidriv)	–
Conductor cross-section	Rigid	0.5 ... 2.5 mm <sup>2</sup>
	Flexible, with end sleeve, min.	0.5 ... 1.5 mm <sup>2</sup>
Environmental conditions		
Permissible ambient temperature		–20 ... +60 °C
Resistance to climate	Acc. to IEC/EN 60068-1	20/045/04
Resistance to vibrations, frequency 10 ... 55 Hz	Acc. to IEC/EN 60068-2-6	0.35 mm amplitude
Degree of protection	Acc. to EN 60529	IP20, with connected conductors
Safety class	Acc. to EN 61140	II

# 5TE6 socket outlet for modular installation devices

SCHUKO® socket outlet  
DIN VDE 0620-1

Version



Rated operational voltage  $U_e$  Rated operational current  $I_e$  Modular width

Without hinged lid<sup>1)</sup>

125 V AC	15 A	2.5 MW	–	–
230 V AC	16 A	2.5 MW	5TE6800	–

With hinged lid<sup>2)</sup>

230 V AC	16 A	2.5 MW	–	5TE6801
----------	------	--------	---	---------

## Accessories

5TE6 hinged lids for socket outlets



Modular width

2.5 MW

Article No.

5TE9120

Article No.

–

<sup>1)</sup> The hinged lid can be retrofitted on all versions.





<sup>2)</sup> In distribution boards with 55 mm mounting depth, the socket outlet can only be used without the hinged lid.

<sup>3)</sup> In system components where equipment is still live even after the main switch has been disconnected, this must be indicated according to EN 50110-1 (VDE 0105-1) and IEC/EN 60204-1/VDE 0113-1.


Yellow socket outlets are used for these applications.

## Further technical specifications

	5TE6800 5TE6801 5TE6810	5TE6802	5TE6803	5TE6804
<b>Standards</b>				
Standards	VDE 0620-1	CEI 23-50	CEE 7 standard sheet V	UL 498
Approvals	VDE 0620-1	–		UL File No. E258598/ CSA C22.2 No. 182.3M
<b>Connection</b>				
Terminals	± Screw (Pozidriv)	PZ1		
Terminal tightening torque	Max.	0.8 ... 1 Nm		
Stripped length		10 mm		
Conductor cross-section	Rigid	1.5 ... 6 mm <sup>2</sup> (AWG 10 ... 14)		
	Flexible, with end sleeve	0.5 ... 4 mm <sup>2</sup> (AWG 14)		
<b>Environmental conditions</b>				
Permissible ambient temperature		–10 ... +55 °C		
Degree of protection	Acc. to EN 60529	IP20, with connected conductors		
Mounting position	Without hinged lid	Any		
	With hinged lid	Horizontally or vertically		

	Socket outlets CEE 7 standard sheet V	Socket outlets CEI 23-50	Socket outlets UL 498
Yellow RAL 1018 <sup>3)</sup>	With grounding pin		
			
-	-	-	5TE6804
5TE6810	5TE6803	-	-
-	-	5TE6802	-

Article No.	Article No.	Article No.	Article No.
-	5TE9120	-	5TE9120



## Simplified distribution board design and time-saving assembly

Simplified assembly and connection of electrical power distribution systems and devices ensures that customer requirements can be met more quickly and flexibly.

In addition, installation and plant engineers benefit from a simplified configuration and reduced space requirements in distribution systems and control cabinets.

Our busbar systems for electrical installations offer a particularly easy way of fitting distribution systems with electrotechnical components.

The modular design saves space, while quick assembly contacts ensure fast mounting.



# Busbar Systems



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about busbar systems, please visit our website [www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

### Your product in detail

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Busbar systems [sie.ag/2IXoUFI](http://sie.ag/2IXoUFI)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at [www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration manual – Busbar systems ([81379793](#))

### Technical overview – Busbar systems



#### The fast way to get you to our online services

This page provides you with comprehensive information and links on busbar systems

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769087)



# System overview

## 1 Basic assemblies



Busbar supports



N/PE busbar supports

## Accessories



Flat copper profiles



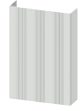
TT special profiles



Connection pieces



Cover profiles



Blanking covers

## 2 Infeeds and connection methods



Connection modules



Terminals



## Accessories



Covers



## 3 Built-in components



Bus-mounting fuse bases



Bus-mounting fuse holders



Bus-mounting switch disconnectors



## Accessories



Covers



Auxiliary switches



Lateral modules

## 4 Device adapters



Device adapters



Device holders



13

## Accessories



N/PE modules



Lateral modules

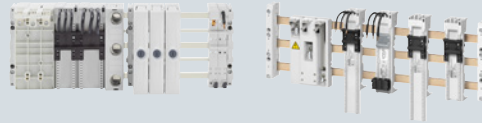


Vibration & shock kits

### Note:

You will find a detailed range of accessories with the basic units.

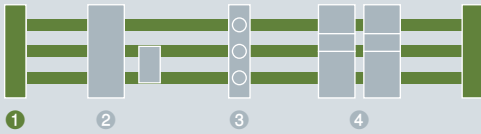
# Quick selection guide



		40 mm busbar system	60 mm compact busbar system	60 mm busbar system flat copper profile	60 mm busbar system TT profile
<b>Busbars</b>					
Busbar center-to-center spacing		40 mm	60 mm	60 mm	60 mm
Flat copper profiles	5 mm	12 × 5 mm 15 × 5 mm	12 × 5 mm	12 × 5 mm 15 × 5 mm 20 × 5 mm 25 × 5 mm 30 × 5 mm	–
	10 mm	12 × 10 mm 15 × 10 mm	12 × 10 mm	20 × 10 mm 30 × 10 mm	–
TT special profile		–	–	–	2400 × 30 × 40 mm
<b>Rated values</b>					
Rated operational current $I_e$	IEC	200 ... 360 A	200 ... 360 A	200 ... 900 A	1020 ... 1600 A
	UL 508	–	300 A	630 A	1400 A
Rated operational voltage $U_e$	IEC	690 V AC	690 V AC	690 V AC	690 V AC
	UL 508	–	600 V AC	600 V AC	600 V AC
<b>Standards</b>					
IEC		■	■	■	■
UL 508		■	■	■	■
<b>Connection modules and terminals for</b>					
Circular conductors	IEC	–	Cu 1.5 ... 150 mm <sup>2</sup>	Cu 1.5 ... 300 mm <sup>2</sup> Al 95 ... 300 mm <sup>2</sup>	Cu 16 ... 300 mm <sup>2</sup>
	UL 508	–	Cu AWG 2 ... MCM 300	Cu AWG 16 ... MCM 600 Al AWG 3	Cu AWG 4 ... MCM 600
Laminated copper		–	Cu lam. 15 ... 20 × 5 ... 10 mm	Cu lam. 3 × 20 × 1 ... 10 × 32 × 1 mm	Cu lam. 2 × 40 × 10 mm
Cable lugs		–	–	Max. 240 mm <sup>2</sup>	–
<b>Built-in components for</b>					
NEOZED bus-mounting fuse bases		–	■	■	■
DIAZED bus-mounting fuse bases		–	–	■	■
Bus-mounting fuse holders for cylindrical fuses 10 × 38 mm		–	–	■	■
Class CC bus-mounting fuse holders		–	–	■	■
Class J bus-mounting fuse holders		–	–	■	■
NEOZED bus-mounting switch disconnectors		–	–	■	■
<b>Device adapters for</b>					
Universal application 3P/5P		–	■/■	■/■	■/■
Molded case circuit breakers		–	■	■	■
Switch disconnectors		–	–	■	■
Fuse switch disconnectors		–	–	■	■
SIRIUS 3RM1 motor starters		–	■	–	–
SIRIUS load feeders		–	–	■	■
3RM193 fuse module		–	■	–	–
5SY miniature circuit breakers		–	■	–	–
<b>More information</b>					
		See page 13/6	See page 13/7	See page 13/12	See page 13/14

# 1 Basic assemblies

For 40 mm 8US busbar system up to 400 A





		Busbar supports	
No. of poles		3P	5P
			

Flat copper profiles				Rated operational voltage $U_e$	Standard	Connection	Connection
12 × 5 mm	15 × 5 mm	12 × 10 mm	15 × 10 mm	IEC		L1–L3	L1–L3 + N + PE/N
<b>Interior mounting</b>							
■	■	■	■	690 V AC	IEC	8US1903-3AB00 <sup>1)</sup>	–
■	–	■	–	690 V AC	IEC	–	8US1903-5AA00

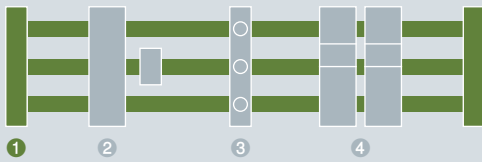
<sup>1)</sup> One package contains 2 busbar supports including inlay parts for bar thickness 5 mm and lateral finger-safe covers.

## Suitable accessories

				3P	5P
<b>Flat copper profile</b>					
	<b>Surface</b>	<b>Length</b>	<b>Size</b>	<b>Article No.</b>	<b>Article No.</b>
	Bare	2400 mm	12 × 5 mm	8WC5123	8WC5123
			15 × 5 mm	8WC5121	–
<b>Cover profiles for busbars</b>					
	<b>Material</b>	<b>Length</b>	<b>Size</b>	<b>Article No.</b>	<b>Article No.</b>
	Plastic profile	1000 mm	12 × 5 mm	8US1922-2CA00	8US1922-2CA00
			15 × 5 mm	8US1922-2AA00	–

# 1 Basic assemblies

For 8US compact busbar system up to 360 A (3P) or 200 A (5P)



No. of poles	Busbar supports <sup>1)</sup>
3P/5P	

Flat copper profiles		Rated operational voltage $U_e$		Short-circuit current rating SCCR		Standard	Dimensions	Min. order quantity	Connection
12 × 5 mm	12 × 10 mm	IEC	UL 508	3-pole	5-pole				L1-L3 + N + PE/N
<b>Interior mounting</b>									
■	■	690 V AC	–	54 kA	32 kA	IEC	12 × 160 × 45 mm	10 units	8US1923-5CA02
		–	600 V AC	18 kA	–	UL 508	12 × 160 × 45 mm	10 units	8US1923-5CA02

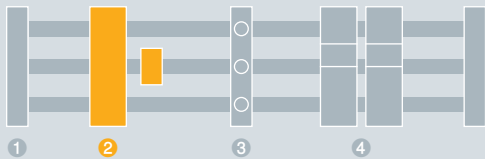
<sup>1)</sup> Including end cover

## Suitable accessories

Flat copper profiles				
	<b>Surface</b>	<b>Length</b>	<b>Size</b>	<b>Article No.</b>
	Bare	2400 mm	12 × 5 mm	8WC5123
UL spacers for busbar supports				
	<b>Dimensions</b>	<b>Minimum order quantity</b>	<b>Height</b>	<b>Article No.</b>
	12 × 160 × 18 mm	10 units	18 mm	8US1922-1CA02
Stabilizing modules				
	<ul style="list-style-type: none"> <li>• Only for 12 × 5 mm busbars</li> <li>• For protecting the N and PE busbars against bending</li> </ul>			
	<b>Dimensions</b>	<b>Minimum order quantity</b>	<b>Article No.</b>	
	2 × 160 × 47 mm	10 units	8US1928-5CA02	
Cover profiles				
	<b>Dimensions</b>	<b>Minimum order quantity</b>	<b>Article No.</b>	
	700 × 160 × 63 mm	2 units	8US1922-2CB02	
Holders for 8US1922-2CB02 cover profile				
	<b>Dimensions</b>	<b>Minimum order quantity</b>	<b>Article No.</b>	
	5 × 156 × 55 mm	10 units	8US1922-2CA02	

## ② Infeeds and connection methods

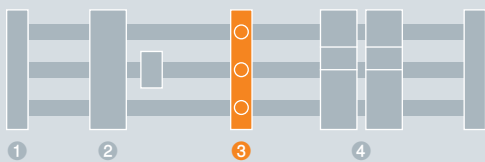
For 8US compact busbar system up to 360 A (3P) or 200 A (5P)



Conductor cross-section	Rated operational current $I_e$		Rated operational voltage $U_e$		Rated peak with-stand current IEC $I_{pk}$ Max.	Standard	Minimum order quantity	Dimensions
	IEC	UL 508	IEC	UL 508				
<b>Spring terminal</b>								
1.5 ... 16 mm <sup>2</sup>	63 A	48 A	690 V AC	600 V AC	10 kA	IEC, UL 508	6 units	20 × 160 × 91 mm
<b>Connecting terminal</b>								
6 ... 50 mm <sup>2</sup>	175 A	175 A	690 V AC	600 V AC	40.5 kA	IEC, UL 508	1 unit	54 × 160 × 115 mm
10 ... 120 mm <sup>2</sup>	250 A	200 A	690 V AC	600 V AC	35.4 kA	IEC, UL 508	1 unit	90 × 160 × 80 mm
			690 V AC	600 V AC	35.1 kA	IEC, UL 508	1 unit	30 × 160 × 80 mm
			690 V AC	600 V AC	35.4 kA	IEC, UL 508	1 unit	30 × 160 × 80 mm
35 ... 150 mm <sup>2</sup>	275 A	285 A	690 V AC	600 V AC	45.9 kA	IEC, UL 508	1 unit	90 × 160 × 115 mm

## ③ Built-in components

For 8US compact busbar systems up to 360 A (3P)



Number of poles  
Modular width

Conductor cross-section	For flat copper profiles		Rated operational current $I_e$	Rated operational voltage $U_e$	Standard	Minimum order quantity
	12 × 5 mm	12 × 10 mm				
<b>Box terminals</b>						
Rigid 1.5 ... 10 mm <sup>2</sup>	■	■	63 A	400 V AC	IEC	6 units
Flexible 1.5 ... 25 mm <sup>2</sup>	■	■				

See NEOZED screw caps, NEOZED adapter sleeves and NEOZED fuse links, [from page 7/1](#)

For 12 × 5 mm and 12 × 10 mm flat copper profiles  
For 3-pole system (up to 360 A)



Connection modules

3P

8US1921-1BA02

8US1921-1CB02

–

–

–

8US1921-1CC02

For 5-pole system (up to 200 A)



Connection modules

3P

–

–

8US1921-1CD02

–

–

–



Connection modules

N

–

–

8US1921-1CE02

–

–

–



Connection modules

PE

–

–

8US1921-1CF02

–

–

–

NEOZED bus-mounting bases

Size D02

3P

2 MW

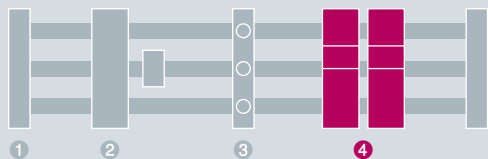


With touch protection

5SG6208

# 4 Device adapters

For 8US compact busbar system up to 360 A (3P) or 200 A (5P)




For 3-pole system  
For universal applications




Rated operational current $I_e$		Rated operational voltage $U_e$		Standard	For flat copper profiles		Dimensions			Min. order quantity	
IEC	UL 508	IEC	UL 508		12 × 5 mm	12 × 10 mm	Height	Width	Length		
16 A	–	690 V AC	–	IEC	–	–	160 mm	22.5 mm	122 mm	4 units	–
							200 mm	22.5 mm	122 mm	5 units	–
25 A	–	690 V AC	–	IEC	■	–	160 mm	22.5 mm	41.5 mm	5 units	–
							185 mm	22.5 mm	23.5 mm	5 units	–
							200 mm	22.5 mm	41.5 mm	5 units	–
32 A	–	690 V AC	–	IEC	■	–	160 mm	18 mm	73 mm	12 units	–
	25 A		690 V AC				600 V AC	IEC, UL 508	■	■	160 mm
63 A	–	690 V AC	–	IEC	■	–	160 mm	18 mm	73 mm	12 units	–
	65 A		690 V AC				600 V AC	IEC, UL 508	■	■	160 mm
144 A	–	690 V AC	–	IEC	■	■	160 mm	77 mm	35 mm	1 unit	–

## Suitable accessories


### N modules

	<b>Rated voltage <math>U_e</math></b> 690 V AC	<b>Connecting terminal</b> 1.5 ... 16 mm <sup>2</sup>	<b>Dimensions</b> 9 × 160 × 114 mm	<b>Minimum order quantity</b> 12 units	<b>Article No.</b> –
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### PE modules

	<b>Rated voltage <math>U_e</math></b> 690 V AC	<b>Connecting terminal</b> 1.5 ... 16 mm <sup>2</sup>	<b>Dimensions</b> 9 × 160 × 114 mm	<b>Minimum order quantity</b> 12 units	<b>Article No.</b> –
---	---	--	---------------------------------------	---	-------------------------

### Support modules




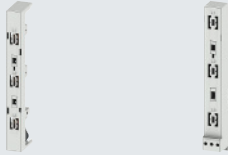

	<b>Dimensions</b> 18 × 160 × 54 mm	<b>Minimum order quantity</b> 6 units	<b>Article No.</b> 8US1620-5AK02
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### Lateral modules

	<b>Dimensions</b> 9 × 160 × 47 mm	<b>Minimum order quantity</b> 12 units	<b>Article No.</b> 8US1998-2BH02
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### Set of module connectors

	<b>Use</b> For connecting adapters	<b>Package</b> 1 pack = 100 units	<b>Article No.</b> –
---	---------------------------------------	--------------------------------------	-------------------------

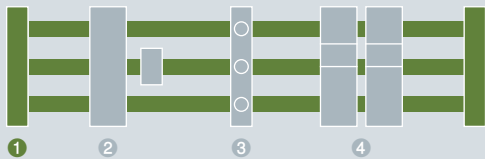
For 3-pole system For 3VA10/11 molded case circuit breakers	For 5-pole system For universal applications	For SIRIUS 3RM1 motor starters and for relays	For 3RM193, 8US1615 and 8US1215 fuse modules	For 5SY miniature circuit breakers
				
With latching function	Adapters, 1-pole	With fuse module and DIN mounting rail	With DIN mounting rail	Adapters, 1-pole
–	–	8US1615-5CK10	–	–
–	–	8US1215-5CS10	–	–
–	–	–	8US1616-0AK02	–
–	–	–	–	8US1716-0RK00
–	–	–	8US1216-0AS00	–
–	8US1621-2NJ02	–	–	–
–	–	–	–	–
–	8US1621-2FK02	–	–	–
–	–	–	–	8US1624-2FK02
–	–	–	–	–
8US1613-4AU01	–	–	–	–

Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
–	8US1600-0RE02	8US1600-0RE02	8US1600-0RE02	8US1600-0RE02	8US1600-0RE02
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
–	8US1600-0RF02	8US1600-0RF02	8US1600-0RF02	8US1600-0RF02	8US1600-0RF02
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
8US1620-5AK02	8US1620-5AK02	8US1620-5AK02	8US1620-5AK02	8US1620-5AK02	8US1620-5AK02
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
8US1998-2BH02	8US1998-2BH02	8US1998-2BH02	8US1998-2BH02	8US1998-2BH02	8US1998-2BH02
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
–	8US1998-1AA02	8US1998-1AA02	8US1998-1AA02	8US1998-1AA02	8US1998-1AA02



# 1 Basic assemblies



Up to 630 A







Flat copper profiles							Standard
12 × 5 mm	15 × 5 mm	20 × 5 mm	25 × 5 mm	30 × 5 mm	20 × 10 mm	30 × 10 mm	
<b>Interior mounting</b>							
■	■	■	■	■	■	■	IEC 61439-1
–	–	■	–	–	■	■	IEC 61439-1, UL 508 <sup>1)</sup>
■	■	■	■	■	■	■	IEC 61439-1
■	–	■	–	■	■	■	IEC 61439-1
■	■	■	■	■	■	■	IEC 61439-1, UL 508
<b>Exterior mounting</b>							
■	■	■	■	■	■	■	IEC 61439-1
■	■	■	■	■	■	■	IEC 61439-1

<sup>1)</sup> Only with base plate 8US1922-2UA01

## Suitable accessories


Flat copper profile							
	Surface	Length	Size	Rated operational current	Cross-section	Standard	Article No.
	Bare	1100 mm	25 × 5 mm	400 A	125 mm <sup>2</sup>	EN 12167	8WC5031-1AA00
			30 × 5 mm	447 A	150 mm <sup>2</sup>	EN 12167	8WC5033-1AA00
		2400 mm	12 × 5 mm	200 A	60 mm <sup>2</sup>	EN 12167	8WC5123
			15 × 5 mm	250 A	75 mm <sup>2</sup>	EN 12167	8WC5121
			20 × 5 mm	320 A	100 mm <sup>2</sup>	EN 12167	8WC5126
			25 × 5 mm	400 A	125 mm <sup>2</sup>	EN 12167	8WC5131
			30 × 5 mm	447 A	150 mm <sup>2</sup>	EN 12167	8WC5133
			20 × 10 mm	520 A	200 mm <sup>2</sup>	EN 12167	8WC5128
			30 × 10 mm	630 A	300 mm <sup>2</sup>	EN 12167	8WC5134
			Tin-plated	2000 mm	12 × 5 mm	200 A	60 mm <sup>2</sup>
15 × 5 mm	250 A	75 mm <sup>2</sup>			EN 12167	8WC5052	
20 × 5 mm	320 A	100 mm <sup>2</sup>			EN 12167	8WC5053	
25 × 5 mm	400 A	125 mm <sup>2</sup>			EN 12167	8WC5054	
30 × 5 mm	447 A	150 mm <sup>2</sup>			EN 12167	8WC5055	
20 × 10 mm	520 A	200 mm <sup>2</sup>			EN 12167	8WC5063	
30 × 10 mm	630 A	300 mm <sup>2</sup>			EN 12167	8WC5065	
<b>End covers</b>							
	• For covering free busbar ends						
	<b>For connection</b>		<b>For busbar support</b>			<b>Standard</b>	<b>Article No.</b>
	L1–L3		8US1923-2AA01, 8US1923-3AA01, 8US1923-3UA01			IEC, UL 508	8US1922-1AC00
	L1–L3 + PE/N		8US1923-4AA00			IEC	8US1922-1AB00

No. of poles	End and intermediate supports			N/PE busbar supports
	3P	2P	4P	1P
				
	<b>Connection</b> L1–L3	<b>Connection</b> L1/L2/L3/PE/N	<b>Connection</b> L1–L3 + PE/N	<b>Connection</b> PE/N
	8US1923-3AA01	–	–	–
	8US1923-3UA01	–	–	–
	–	–	8US1923-4AA00	–
	–	–	–	5SH3540
	–	–	–	8US1923-1AA01
	8US1923-2AA01	–	–	–
	–	8US1923-5AA00	–	–


## Cover profiles for busbars

	Length	Width	Depth	Flat copper profile size	Standard	Article No.
	1000 mm	15 mm	10 mm	12 × 5 mm	UL 508	8US1922-2CA00
		40 mm	9 mm	15, 20, 25, 30 × 5 mm	UL 508	8US1922-2AA00
		40 mm	14 mm	12, 15, 20, 25, 30 × 10 mm	UL 508	8US1922-2BA00

## Blanking covers

	Length	Height	Depth	Standard	Article No.
	700 mm	195 mm	63 mm	UL 508	8US1922-2EB00

## Supports for blanking covers

	Depth	Standard	Article No.
	32 mm	UL 508	8US1922-2EA00
	107 mm	UL 508	8US1922-2EA01

## Base plates

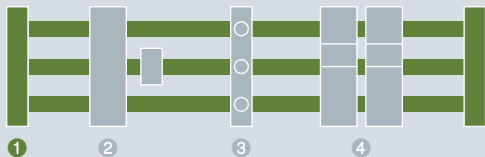
	Version	Length	Width	Standard	Article No.
	For 3-pole system	1100 mm	240 mm	UL 508	8US1922-2UA01

## Connecting piece for flat copper profiles

	Length	For flat copper profiles	Article No.
	40 mm	20 × 5 mm, 25 × 5 mm, 30 × 5 mm, 20 × 10 mm, 25 × 10 mm, 30 × 10 mm	8US1921-2BE00
	55 mm	12 × 5 mm, 15 × 5 mm, 20 × 5 mm 12 × 10 mm, 15 × 10 mm, 20 × 10 mm	8US1921-2BF00

# 1 Basic assemblies

Up to 1600 A



**Busbar supports**

No. of poles 3P

Copper profile	Rated operational current $I_e$		Rated operational voltage $U_e$		Short-circuit current rating SCCR		Standard	Connection
	IEC	UL 508	IEC	UL 508	IEC	UL 508		
<b>Interior mounting</b>								
TT special profile	1600 A	1400 A	690 V AC	600 V AC	90 kA	100 kA	IEC, UL 508	8US1943-3AA00

1 pack = 2 busbar supports + finger-safe end covers

## Suitable accessories

**TT special copper profile**

Surface	Length	Rated operational current	Rated operational voltage	Cross-section	Article No.
Tin-plated	2400 mm	1600 A	690 V AC	720 mm <sup>2</sup>	8US1948-2AA00

**Cover profile for TT special copper profile**

Length	Article No.
1000 mm	8US1922-2DA00

**Blanking covers**

Length	Height	Depth	Standard	Article No.
700 mm	195 mm	63 mm	UL 508	8US1922-2EB00

**Supports for blanking covers**

Depth	Standard	Article No.
32 mm	UL 508	8US1922-2EA00
107 mm	UL 508	8US1922-2EA01

**Connecting piece for TT special profile**

Article No.
8US1941-2BF01

**Partitions, closed**

- For additional lateral touch protection at the top/bottom

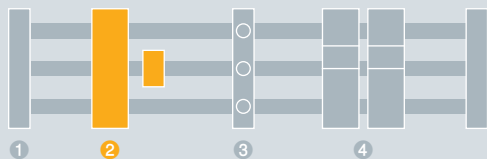
Length	Depth	Article No.
2400 mm	76 mm	8US1922-1JA00

13



## ② Infeeds and connection methods

Up to 1600 A



Conductor cross-section, circular conductor		Conductor cross-section, laminated copper	Rated operational current $I_e$		Rated operational voltage $U_e$		Standard	Length
IEC	UL 508		IEC	UL 508	IEC	UL 508		
<b>With cover</b>								
Cu 1.5 ... 16 mm <sup>2</sup>	Cu AWG 16 ... 4	Cu lam. 8 × 6 × 0.5 mm	63 A	48 A	690 V AC	600 V AC	IEC, UL 508	200 mm
Cu 6 ... 50 mm <sup>2</sup>	Cu AWG 10 ... 2	–	175 A	175 A	690 V AC	600 V AC	IEC, UL 508	200 mm
Cu 25 ... 120 mm <sup>2</sup>	Cu AWG 6 ... MCM 250	–	250 A	250 A	690 V AC	600 V AC	IEC, UL 508	200 mm
Cu 95 ... 300 mm <sup>2</sup>	AWG 3/0 ... MCM 600	–	500 A	420 A	690 V AC	–	IEC, UL 508	200 mm
Al 120 ... 240 mm <sup>2</sup>								
<b>Without cover</b>								
Cu 95 ... 300 mm <sup>2</sup>	AWG 3/0 ... MCM 600	–	500 A	420 A	690 V AC	600 V AC	IEC, UL 508	184 mm
–	–	Cu lam. 3 × 20 × 1 ... 10 × 32 × 1 mm	550 A	420 A	690 V AC	600 V AC	IEC, UL 508	184 mm
<b>For 4th pole (PE/N)<sup>2)</sup></b>								
Cu 1.5 ... 16 mm <sup>2</sup>	–	–	–	–	690 V AC	600 V AC	IEC, UL 508	242 mm

<sup>1)</sup> Shown without cover

<sup>2)</sup> For mounting on device adapter or device holder

### Suitable accessories

Cover for connection module



## Connection modules

For 5 mm and 10 mm flat copper profiles

For 5 mm and 10 mm flat copper profiles  
and TT special profile

For laminated copper

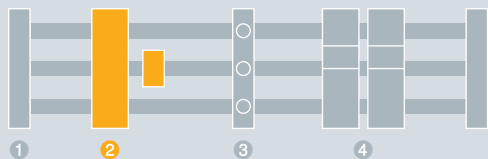


Width	Connection modules	Connection modules	Connection modules	Connection modules	Connection modules
	3P	3P	3P	PE/N	3P
20 mm	5SH3538	–	–	–	–
54 mm	–	–	8US1921-1BA00	–	–
81 mm	–	–	8US1921-1AA00	–	–
135 mm	–	5SH3535 <sup>1)</sup>	–	–	–
153 mm	–	–	–	–	8US1941-2AA03
153 mm	–	–	–	–	8US1941-2AA04
18 mm	–	–	–	8US1200-0AA00	–

Article No.	Article No.	Article No.	Article No.	Article No.
–	–	–	–	8US1922-1GC00

## ② Infeeds and connection methods

Up to 1600 A



Conductor cross-section, circular conductor		Conductor cross-section, laminated copper	Rated operational current $I_e$		Rated operational voltage $U_e$		Standard	Minimum order quantity
IEC	UL 508		IEC	UL 508	IEC	UL 508		
Cu 1.5 ... 16 mm <sup>2</sup>	AWG 16 .. 6	Cu lam. 8×6×0.5 mm	65 A	55 A	690 V AC	600 V AC	IEC, UL 508	15 units 100 units
Cu 4 ... 35 mm <sup>2</sup>	AWG 10 ... 2	Cu lam. 3×9×0.8 mm, Cu lam. 6×9×0.8 mm	115 A	115 A	690 V AC	600 V AC	IEC, UL 508	15 units 50 units
Cu 16 ... 70 mm <sup>2</sup>	AWG 4 ... 2/0	Cu lam. 2×9×0.8 mm, Cu lam. 6×9×0.8 mm, Cu lam. 6×13×0.5 mm	175 A	175 A	690 V AC	600 V AC	IEC, UL 508	15 units 50 units
Cu 16 ... 120 mm <sup>2</sup>	AWG 4 ... MCM 250	Cu lam. 4×15.5×0.8 mm, Cu lam. 6×15.5×0.8 mm, Cu lam. 10×15.5×0.5 mm	250 A	255 A	690 V AC	600 V AC	IEC, UL 508	15 units 50 units

### Suitable accessories

#### Terminal covers for circular conductors



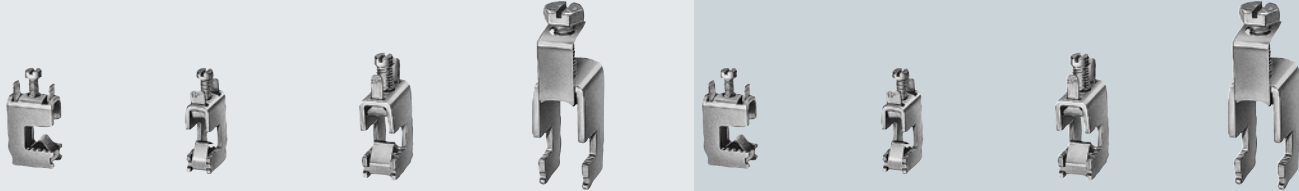
- Fixing to busbar

Length	Width
200 mm	84 mm

## Terminals

For 12 × 5 mm, 15 × 5 mm, 20 × 5 mm, 25 × 5 mm and 30 × 5 mm flat copper profiles

For 12 × 10 mm, 15 × 10 mm, 20 × 10 mm, 25 × 10 mm and 30 × 10 mm flat copper profiles and TT special profile



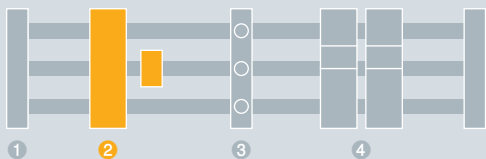
8US1921-2AA01	–	–	–	8US1921-2BA01	–	–	–
8US1921-2AA00	–	–	–	8US1921-2BA00	–	–	–
–	8US1921-2AB01	–	–	–	8US1921-2BB01	–	–
–	8US1921-2AB00	–	–	–	8US1921-2BB00	–	–
–	–	8US1921-2AD01	–	–	–	8US1921-2BD01	–
–	–	8US1921-2AD00	–	–	–	8US1921-2BD00	–
–	–	–	8US1921-2AC01	–	–	–	8US1921-2BC01
–	–	–	8US1921-2AC00	–	–	–	8US1921-2BC00

Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
8US1922-1GA00	8US1922-1GA00	8US1922-1GA00	8US1922-1GA00	8US1922-1GA00	8US1922-1GA00	8US1922-1GA00	8US1922-1GA00



## 2 Infeeds and connection methods

Up to 1600 A



Conductor cross-section, circular conductor		Conductor cross-section, laminated copper	Conductor cross-section, cable lugs	Rated operational current $I_e$		Rated operational voltage $U_e$		Standard
IEC	UL 508			IEC	UL 508	IEC	UL 508	
Cu 95 ... 185 mm <sup>2</sup> Al 95 ... 185 mm <sup>2</sup>	AWG 3/0 ... MCM 350	–	–	300 A	310 A	690 V AC	600 V AC	IEC, UL 508
Cu 95 ... 300 mm <sup>2</sup> Al 120 ... 140 mm <sup>2</sup>	AWG 3/0 ... MCM 600	–	–	500 A	420 A	690 V AC	600 V AC	IEC, UL 508
–	–	Cu lam. 3 × 20 × 1 ... 10 × 24 × 1 mm	–	500 A	420 A	690 V AC	600 V AC	IEC, UL 508
–	–	Cu lam. 2 × 40 × 10 mm	–	1250 A	–	690 V AC	–	IEC
–	–	–	Max. 240 mm <sup>2</sup>	630 A	–	690 V AC	–	IEC



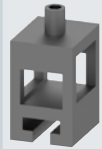
### Suitable accessories

#### Terminal covers for circular conductors

- Fixing to busbar



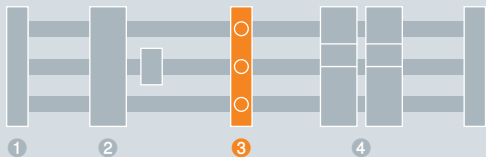
Length	Width
200 mm	270 mm

Terminals					
For 20×5 mm, 25×5 mm and 30×5 mm flat copper profiles		For 20×10 mm, 25×10 mm and 30×10 mm flat copper profiles		For 40×25 mm and 30×10 mm flat copper profiles and TT special profile	
					
Fixing					
–	8US1941-2AA01	–	–	–	–
–	8US1941-2AA02	–	–	–	–
M16 threaded pin, size 8 Allen key	–	8US1941-2BB00	–	8US1941-2BB00	–
M16 threaded pin, size 8 Allen key	–	–	–	–	8US1941-2BA00
M16 threaded pin, size 8 Allen key, M10 hexagon bolt, width across flats 17	–	–	8US1941-2AC00	–	–

Article No.	Article No.	Article No.	Article No.	Article No.
8US1922-1GA02	–	–	–	–

# 3 Built-in components

Up to 630 A



## NEOZED bus-mounting fuse bases Size D02






Modular width

1.5 MW

1.5 MW

2 MW




For flat copper profiles	Rated operational current $I_e$		Rated operational voltage $U_e$			Standard	Standard	With touch protection		
	IEC	UL 508	IEC AC	IEC DC	UL					
<b>Box terminals</b>										
5 mm and 10 mm	25 A	–	500 V AC	–	–	IEC	–	–	–	
	63 A	–	400 V AC	250 V DC	–	IEC	5SG6202	5SG6206	5SG6207	
			690 V AC	–	–	IEC	–	–	–	
	–	30 A	–	690 V AC	–	600 V AC	IEC, 	–	–	–
				–	–	600 V AC		–	–	–
				100 A	–	–	600 V AC	c 	–	–
200 A				–	–	600 V AC	c 	–	–	–
400 A	–	–	600 V AC		–	–	–			

**Note:**

NEOZED adapter sleeves or DIAZED screw adapters are required for NEOZED and DIAZED bus-mounting fuse bases.








## Suitable accessories

### NEOZED covers for standard version

	Size	Version	Modular width	Article No.	Article No.	Article No.
	D02	Standard	1.5 MW	5SH5241	–	–
		Extra wide	2 MW	5SH5242	–	–
		With double width	3 MW	5SH5243	–	–

### DIAZED covers for standard version

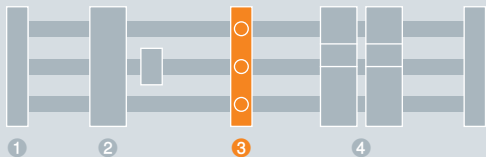
	Size	Modular width	Article No.	Article No.	Article No.
	DII	2.3 MW	–	–	–
	DIII	3.2 MW	–	–	–

DIAZED bus-mounting fuse bases		Bus-mounting fuse holders				
Size DII	Size DIII	Cylindrical fuses 10 × 38 mm	Class CC	Class J		
2.3 MW	3.2 MW	1.5 MW	1.5 MW	106 mm	184 mm	256 mm
						
Standard	With touch protection			3P	3P	3P
5SF6015	5SF6020	–	–	–	–	–
–	–	–	–	–	–	–
5SF6215	5SF6220	–	–	–	–	–
–	–	3NW7431	–	–	–	–
–	–	–	3NW7431-0HG	–	–	–
–	–	–	–	3NW7431-6HG	–	–
–	–	–	–	–	3NW7431-7HG	–
–	–	–	–	–	–	3NW7431-8HG

Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
5SH2042	–	–	–	–	–	–
5SH2242	–	–	–	–	–	–

# 3 Built-in components

Up to 630 A



### NEOZED bus-mounting switch disconnectors Size D02

Modular width

1.5 MW

1.5 MW

1.5 MW



For flat copper profiles	Rated operational current $I_e$		Rated operational voltage $U_e$			Standard	Without LED signal detector		With LED signal detector
	IEC	UL 508	IEC AC	IEC DC	UL 508				
<b>Box terminals</b>									
5 mm, 10 mm	63 A	–	400 V AC	–	–	IEC	5SG7234-1 <sup>2)</sup>	–	5SG7234-2 <sup>2)</sup>
				110 V DC	–	IEC	–	5SG7230 <sup>1)</sup>	–

<sup>1)</sup> From 35 A current load use 5SH5526 lateral module

<sup>2)</sup> From 35 A current load use 5SH5533 lateral module

**Note:**

NEOZED adapter sleeves or DIAZED screw adapters are required for NEOZED and DIAZED bus-mounting fuse bases.

## Suitable accessories

### Auxiliary switches



- For signaling the switching state for bus-mounting switch disconnectors

Contacts	Modular width	Article No.	Article No.	Article No.
1 CO	0.5 MW	–	5SH5525	–

### Lateral modules



- For greater heat dissipation for loads from 35 A

Modular width	Article No.	Article No.	Article No.
0.5 MW	5SH5533	5SH5526	5SH5533

### Reducers



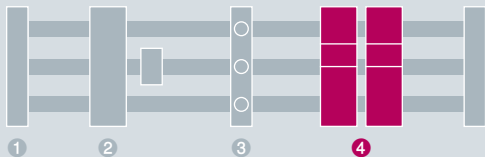
- For NEOZED D01 fuse links in SR60 bus-mounting switch disconnectors

Article No.	Article No.	Article No.
–	5SH5527	–



# 4 Device adapters and device holders

For universal application up to 1600 A



Rated operational current $I_e$		Rated operational voltage $U_e$		Standard	For copper profiles	Adapters		Connecting cable			
IEC	UL 508	IEC	UL 508			Width	Height	Cross-section	Max. temperature	Length	
25 A	25 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	45 mm	200 mm	AWG 12	150 °C	99 mm	
							260 mm	AWG 12	150 °C	167 mm	
32 A	32 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	45 mm	200 mm	AWG 10	105 °C	118 mm	
									150 °C	99 mm	
							260 mm	AWG 10	150 °C	167 mm	
80 A	80 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	54 mm	200 mm	AWG 4	150 °C	150 mm	
									150 °C	150 mm	
							119 mm	260 mm	AWG 4	150 °C	150 mm
100 A	100 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	72 mm	200 mm	AWG 4	105 °C	210 mm	
-	-	-	-	-	5 mm, 10 mm, TT profile	45 mm	200 mm	-	-	-	
									-	-	-
							260 mm	-	-	-	

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## Accessories

### Lateral modules



- For extending device adapters and device holders of the same length

Length	Width
200 mm	9 mm

**Device adapters with connecting cables**  
**For contact with busbars**
**Device holders**  
**No electrical contact**

**For lateral mounting on  
device adapter**

8US1251-5DS10	–	–	–	–	–	–	–
8US1251-5DS11	–	–	–	–	–	–	–
8US1251-5DT10	–	–	–	–	–	–	–
8US1251-5DT11	–	–	–	–	–	–	–
–	8US1211-1NS10	–	–	–	–	–	–
–	–	8US1251-5NS10	–	–	–	–	–
–	–	8US1251-5NS11	–	–	–	–	–
–	–	8US1251-5NT10	–	–	–	–	–
–	–	8US1251-5NT11	–	–	–	–	–
–	–	–	8US1261-5MS13	–	–	–	–
–	–	–	8US1261-6MT10	–	–	–	–
–	–	–	–	–	8US1211-6MT10	–	–
–	–	–	–	8US1211-4TR00	–	–	–
–	–	–	–	–	–	–	8US1250-1AA10
–	–	–	–	–	–	8US1250-5AS10	–
–	–	–	–	–	–	8US1250-5AT10	–

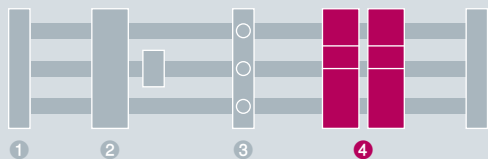
Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
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8US1998-2BJ10	8US1998-2BJ10	8US1998-2BJ10	8US1998-2BJ10	–	–	8US1998-2BJ10	–
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## 4 Device adapters and device holders

For molded case circuit breakers and switch disconnectors up to 1600 A



Rated operational current $I_e$		Rated operational voltage $U_e$		Standard	For copper profile	Adapters		Connecting cable
IEC	UL 508	IEC	UL 508			Length	Width	
<b>Screw terminals</b>								
80 A	80 A	–	600 V AC	UL 508	5 mm, 10 mm, TT profile	200 mm	81 mm	AWG 4
125 A	125 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	90 mm	Cu laminated 6 × 9 × 0.8 mm
<b>Busbar contact</b>								
144 A	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	200 mm	76 mm	–
160 A	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	175 mm	108 mm	–
250 A	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	175 mm	108 mm	–
<b>Tubular contacts</b>								
150 A	150 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	190 mm	105 mm	–
250 A	250 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	190 mm 240 mm	105 mm	– –
–	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	270 mm	140 mm	–
400 A	400 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	296 mm	140 mm	–
540 A	540 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	296 mm	140 mm	–
580 A	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	325 mm	184 mm	–
590 A	600 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	300 mm	140 mm	–
–	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	300 mm	185 mm	–
<b>M10 pin connector</b>								
400 A	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	320 mm	184 mm	–
630 A	630 A	690 V AC	600 V AC	IEC, UL 508	5 mm, 10 mm, TT profile	320 mm	250 mm	–
–	–	690 V AC	–	IEC	5 mm, 10 mm, TT profile	320 mm	184 mm	–
–	–	–	–	–	–	320 mm	250 mm	–

<sup>1)</sup> Observe the short-circuit strength of the busbar system: Short-circuit strength > 50 kA on request.

<sup>2)</sup> Usable only for 3VL circuit breakers with line-side box terminals.

<sup>3)</sup> Only for 3VL 250 A circuit breakers, for screw fixing with metric thread, for flat terminals.

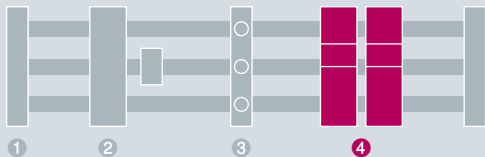
<sup>4)</sup> Without connecting cables. The connecting cable between adapter and device should be manufactured in accordance with the rated operational current as a round cable, e.g. H07V-R with cable lug, or as a flat conductor for an M10 pin connector.

<sup>5)</sup> Without connecting cables. The connecting cable between adapter and device should be manufactured in accordance with the rated operational current as a round cable, e.g. H07V-R, bared at both ends for tunnel terminals.

Device	Device adapter				
	For molded case circuit breakers		For switch disconnectors 3KA and 3KL		For fuse switch disconnectors 3NP5
Size/type	3VA	3VL <sup>1)</sup>	3VA	3VL <sup>1)</sup>	3NP5
NGG, HGG, LGG	8US1240-5MA00	–	–	–	–
3VA10, 3VA11, 3VA51, NGG, HGG, LGG (connection at top)	8US1211-4SS00	–	–	–	–
3VA10, 3VA11, 3VA51 (connection at bottom)	8US1215-4SS00	–	–	–	–
3VA10, 3VA11	8US1213-4AU01	–	–	–	–
3VL1 <sup>2)</sup> , 3VL2 <sup>2)</sup>	–	–	8US1211-4SL01	–	–
3NP5060 (NH00)	–	–	–	–	8US1291-4SB00
3VL3 <sup>3)</sup>	–	–	8US1211-4SL00	–	–
VL150X UL CG frame	–	–	8US1213-4AQ01	–	–
VL150 UL DG frame	–	–	8US1213-4AQ03	–	–
VL250 UL FG frame	–	–	8US1213-4AQ03	–	–
3VA12, 3VA20, 3VA21, 3VA22, 3VA52, 3VA61, 3VA62	8US1213-4AP03	–	–	–	–
3VA12, 3VA20, 3VA21, 3VA22	–	8US1313-4AH03	–	–	–
VL400 UL JG frame	–	–	8US1213-4AH00	–	–
VL400X UL LG frame	–	–	8US1213-4AH00	–	–
3VL5	–	–	8US1213-4AF00	–	–
3VA13, 3VA14, 3VA23, 3VA24, 3VA53, 3VA54, 3VA63, 3VA64	8US1213-4AH04	–	–	–	–
3VA13, 3VA14, 3VA23, 3VA24	–	8US1313-4AM04	–	–	–
3VL1 to 3VL4 (also with RCD module) <sup>2)</sup>	–	–	8US1210-4AF00 + 8US1927-4AF01	–	–
3NP52, 3NP53, 3NP54 <sup>5)</sup>	–	–	–	–	8US1210-4AG00
3KA52, 3KA53, 3KL52, 3KL53	–	–	–	8US1210-4AF00 <sup>4)</sup>	–
3KA55, 3KA57, 3KA58, 3KL55, 3KL57	–	–	–	8US1210-4AG00 <sup>4)</sup>	–

# 4 Device adapters and device holders

For load feeders up to 1600 A



Rated operational current $I_e$		Rated operational voltage $U_e$			Standard	For copper profile	Adapters		Connecting cable		Device
IEC	UL 508	IEC	UL 508	VA, Ⓢ			Length	Width	Cross-section	Max. temperature	
<b>Screw terminals</b>											
25 A	25 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	45 mm	AWG 12	150 °C	S00
							260 mm	45 mm	AWG 12	150 °C	S00
32 A	32 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	45 mm	AWG 10	150 °C	S0
							260 mm	45 mm	AWG 10	150 °C	S0
							–	–	690 V AC	VA, Ⓢ	5 mm, 10 mm, TT profile
65 A	65 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	260 mm	54 mm	AWG 4	150 °C	S2
								119 mm	AWG 4	150 °C	S2
80 A	80 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	54 mm	AWG 4	150 °C	S2
							215 mm	72 mm	AWG 4	150 °C	S3
<b>Spring-loaded terminals</b>											
25 A	25 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	45 mm	AWG 12	150 °C	S00
							260 mm	45 mm	AWG 12	150 °C	S00
32 A	32 A	690 V AC	600 V AC	–	IEC, UL 508	5 mm, 10 mm, TT profile	200 mm	45 mm	AWG 10	150 °C	S0
							260 mm	45 mm	AWG 10	150 °C	S0

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## Suitable accessories

### Vibration & shock kit S2



**Use**

For size 2 devices

### Lateral modules



- For extending device adapters and device holders of the same length

Length	Width
200 mm	9 mm

## For 3-pole system

## Device adapters for load feeders

## SIRIUS 3RV2/3RT2

## Circuit breakers

## Direct-on-line starters

## Reversing starters

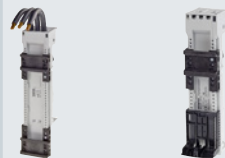
## SIRIUS 3RV1/3RT1

## Circuit breakers

## SIRIUS 3RA6

## Direct-on-line starters

## Reversing starters



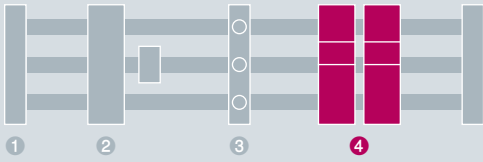
8US1251-5DS10	8US1251-5DS10	8US1251-5DS10 + 8US1250-5AS10	–	–	–
8US1251-5DS10	–	–	–	–	–
–	8US1251-5DT10	–	–	–	–
8US1251-5NS10	–	–	–	–	–
8US1251-5NT10	8US1251-5NT10	8US1251-5NT10 + 8US1250-5AT10	–	–	–
–	–	–	–	8US1211-1NS10	8US1211-1NS10 + 8US1250-1AA10
–	8US1261-6MT10	–	–	–	–
–	–	8US1211-6MT10	–	–	–
8US1261-5MS13	–	–	–	–	–
–	–	–	8US1211-4TR00	–	–
8US1251-5DS11	–	–	–	–	–
8US1251-5DT11	8US1251-5DT11	8US1251-5DT11 + 8US1250-5AT10	–	–	–
8US1251-5NS11	–	–	–	–	–
8US1251-5NT11	8US1251-5NT11	8US1251-5NT11 + 8US1250-5AT10	–	–	–

Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
8US1998-1DA10	8US1998-1DA10	8US1998-1DA10	–	–	–




Article No.	Article No.	Article No.	Article No.	Article No.	Article No.
8US1998-2BJ10	8US1998-2BJ10	8US1998-2BJ10	–	8US1998-2BJ10	8US1998-2BJ10

# 4 Device adapters and device holders

Accessories for device adapters for SIRIUS 3RV2/3RT2 load feeders





## Support rails (35 mm) made of plastic with fixing screws

	Width	For adapter width	Article No.
	45 mm	45 mm	8US1998-7CB45
	54 mm	54 mm	8US1998-7CB54
	72 mm	54 mm	8US1998-7CB72


## Positioning pieces

- For pushing on
- Secures the adaptable devices on the adapter

	For adapter width	Article No.
	45 mm	8US1998-1DA45
	54 mm	8US1998-1DA54

## Connecting element

- For connecting busbar adapters and device holders

	Article No.
	8US1998-1AA10

## Spacers

- Fix the feeder to the busbar adapter

	Article No.
	8US1998-1BA10

## Vibration & shock kit

	Article No.
	8US1998-1CA10

13





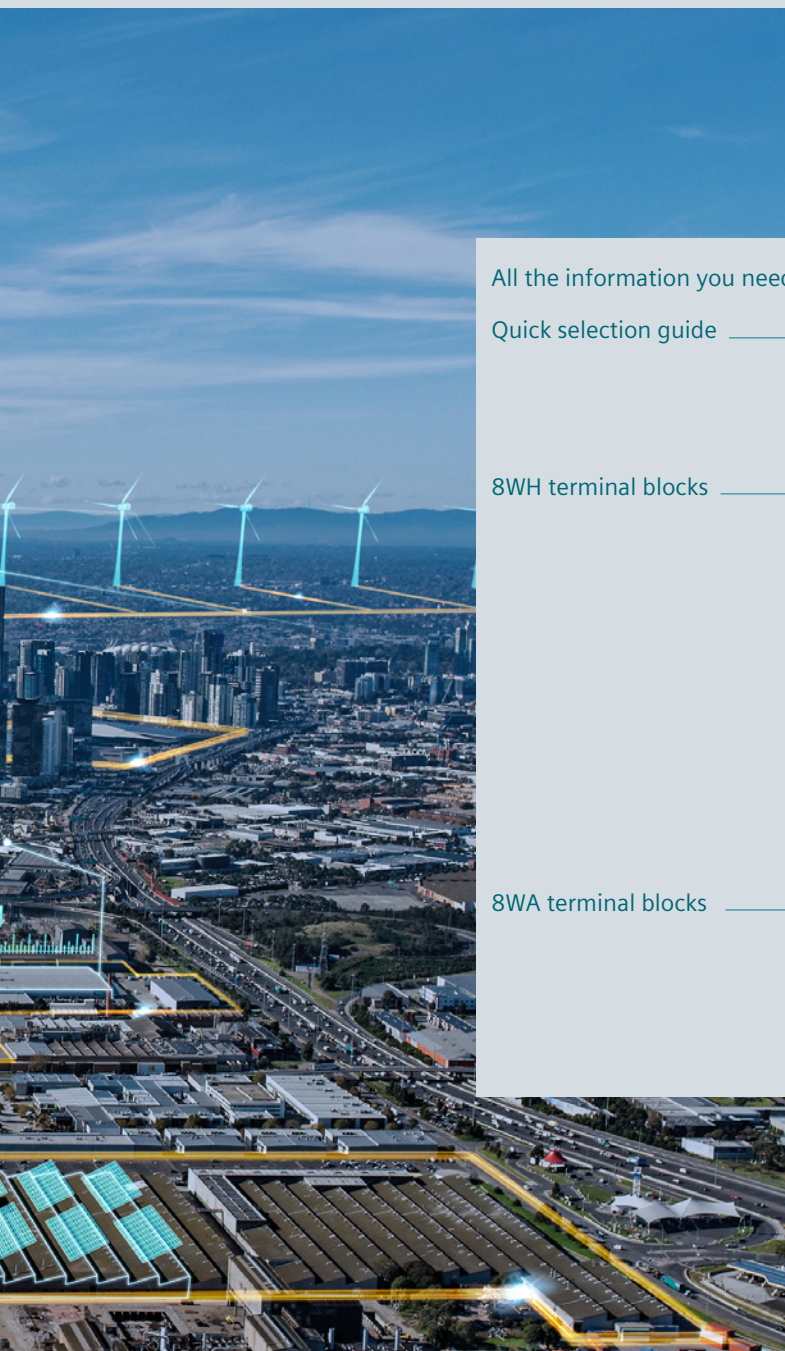


## Always the right connection

Terminal blocks enable incoming and outgoing cables to be connected in switchboards and control systems in a convenient and space-saving manner. They can be used in transport systems and automation technology as well as in building installation technology.

We offer you the complete range of connection technology with screw terminals, spring-loaded terminals and In-Push-out (iPo) terminals, combination plug-in terminals, insulation displacement terminals and a wide variety of accessories. These can be combined with each other. This allows you to benefit from a high level of flexibility as well as simplified configuration.

# Terminal Blocks



All the information you need	14/2
Quick selection guide	14/4
8WH terminal blocks	14/4
8WA terminal blocks	14/6
8WH terminal blocks	14/8
8WH6 iPo plug-in terminals	14/8
8WH6 iPo installation terminals	14/18
8WH2 spring-loaded terminals	14/24
8WH5 combination plug-in terminals	14/36
8WH3 insulation displacement terminals	14/40
8WH screw terminals	14/44
Accessories for 8WH terminal blocks	14/57
8WA terminal blocks	14/62
8WA1 screw terminals	14/62
8WA2 spring-loaded terminals	14/76
Accessories for 8WA terminal blocks	14/78



# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about terminal blocks, please visit our website [www.siemens.com/distribution-components](http://www.siemens.com/distribution-components)

### Your product in detail

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- Siemens ALPHA FIX terminal blocks – 8WH2 terminal with spring-loaded-connection [bit.ly/2kKVz0D](http://bit.ly/2kKVz0D)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- Terminal blocks [sie.ag/2kW8ZXo](http://sie.ag/2kW8ZXo)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at [www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Technical overview – Terminal blocks



## The fast way to get you to our online services

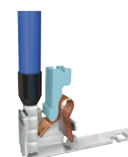
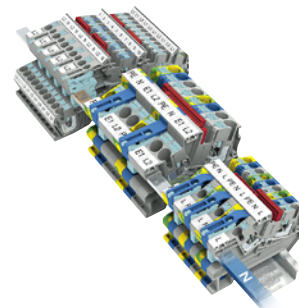
This page provides you with comprehensive information and links on terminal blocks

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769088)

# 8WH terminal blocks

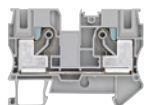


**8WH6**  
iPo plug-in terminals



**8WH6**  
iPo installation terminals

## Through-type terminals



Through-type terminals

Two-tier terminals

Three-tier terminals

Four-tier motor terminals

2.5 ... 150 mm<sup>2</sup> See page 14/8

2.5 ... 4 mm<sup>2</sup> See page 14/11

–

–

## Isolating terminals



Isolating and isolating blade terminals

Two-tier isolating terminals

N conductor isolating terminals

Measuring transformer isolating terminals

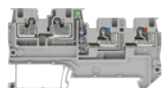
2.5 ... 4 mm<sup>2</sup> See page 14/12

–

–

–

## Initiator/actuator terminals



Initiator terminals

Actuator terminals

Infeed terminals

1.5 mm<sup>2</sup> See page 14/16

1.5 mm<sup>2</sup> See page 14/16

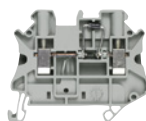
2.5 mm<sup>2</sup> See page 14/15

–

–

–

## Function terminals



Fuse terminals

Three-tier terminals

Three-tier isolating terminals

Diode terminals

Two-tier diode terminals

Shield terminals

4 mm<sup>2</sup> See page 14/14

–

–

–

–

–

–

2.5 mm<sup>2</sup> See page 14/22

2.5 mm<sup>2</sup> See page 14/23

–

–

–

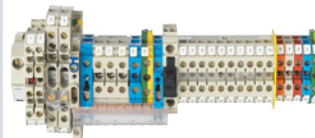
Further information

From page 14/8

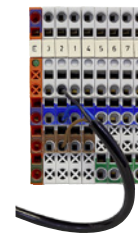
From page 14/18



# 8WA terminal blocks

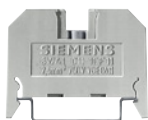


**8WA1**  
screw terminals



**8WA2**  
spring-loaded  
terminals

## Through-type terminals



Through-type terminals

2.5 ... 95 mm<sup>2</sup> [See page 14/62](#)

Two-tier terminals

4 mm<sup>2</sup> [See page 14/67](#)

Three-tier terminals

2.5 mm<sup>2</sup> [See page 14/68](#)

Four-tier motor terminals

–

## Isolating terminals



Isolating and isolating blade terminals

–

Two-tier isolating terminals

–

N conductor isolating terminals

2.5 ... 16 mm<sup>2</sup> [See page 14/69](#)

Measuring transformer terminals

6 mm<sup>2</sup> [See page 14/71](#)

## Initiator/actuator terminals



Initiator terminals

–

1.5 mm<sup>2</sup> [See page 14/76](#)

Actuator terminals

–

1.5 mm<sup>2</sup> [See page 14/76](#)

Infeed terminals

–

1.5 mm<sup>2</sup> [See page 14/77](#)

## Function terminals



Fuse terminals

1.5 mm<sup>2</sup> [See page 14/72](#)

Three-tier terminals

–

Three-tier isolating terminals

–

Diode terminals

2.5 mm<sup>2</sup> [See page 14/73](#)

Two-tier diode terminals

4 mm<sup>2</sup> [See page 14/74](#)

Shield terminals

–

Further information

[From page 14/62](#)

[From page 14/76](#)

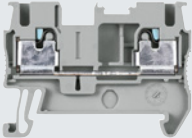
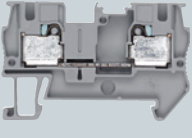


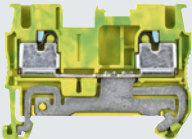
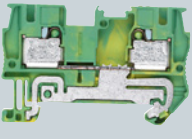
# 8WH6 iPo plug-in terminals

## Through-type terminals



	Terminal size	Terminal size	
		2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm	
Max. operational current $I_{\max}$	24 A	32 A	
Max. operational voltage $U_{\max}$	800 V	800 V	
AWG	26 ... 12	24 ... 10	
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>	
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.2 ... 4 mm <sup>2</sup>	
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus		IEC 60947-7-1, IEC 60947-7-2, cULus

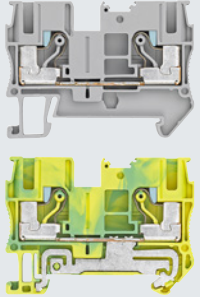
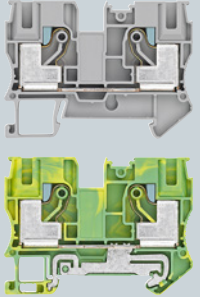
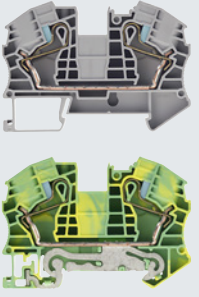
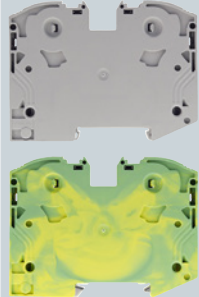



Terminals	Color		
<b>① Through-type terminals</b>			
2	● Gray	8WH6000-0AF00	8WH6000-0AG00
	● Blue	8WH6000-0AF01	8WH6000-0AG01
3	● Gray	8WH6003-0AF00	8WH6003-0AG00
	● Blue	8WH6003-0AF01	8WH6003-0AG01
4	● Gray	8WH6004-0AF00	8WH6004-0AG00
	● Blue	8WH6004-0AF01	8WH6004-0AG01
<b>② PE through-type terminals</b>			
2	● Green-yellow	8WH6000-0CF07	8WH6000-0CG07
3	● Green-yellow	8WH6003-0CF07	8WH6003-0CG07
4	● Green-yellow	8WH6004-0CF07	8WH6004-0CG07

## Special accessories

Covers					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.2 mm	8WH9000-1GA00	8WH9003-1GA00
	3	● Gray	2.2 mm	8WH9000-2GA00	8WH9003-2SA00
	4	● Gray	2.2 mm	8WH9000-4GA00	8WH9003-4SA00
Compartment partitions					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.0 mm	8WH9070-0AA00	8WH9070-0AA00
	3	● Gray	2.0 mm	8WH9070-0GA00	8WH9070-0GA00
	4	● Gray	2.0 mm	8WH9070-0HA00	8WH9070-0HA00
Cover segments					
	Color	Article No.	Article No.		
	● Gray	8WH9000-0GA00	-		

See general accessories, page 14/57 onwards

6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>
8.2 mm	10.2 mm	12.2 mm	16 mm
41 A	57 A	90 A	125 A
1000 V	1000 V	1000 V	1000 V
20 ... 8	20 ... 6	20 ... 4	10 ... 2
0.5 ... 10 mm <sup>2</sup>	0.5 ... 16 mm <sup>2</sup>	0.5 ... 25 mm <sup>2</sup>	6 ... 35 mm <sup>2</sup>
0.5 ... 6 mm <sup>2</sup>	0.5 ... 10 mm <sup>2</sup>	0.5 ... 16 mm <sup>2</sup>	6 ... 35 mm <sup>2</sup>
IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, UL, CE	IEC 60947-7-1, IEC 60947-7-2, UL, CE
			

8WH6000-0AH00	8WH6000-0AJ00	8WH6000-0AK00	8WH6000-0AM00
8WH6000-0AH01	8WH6000-0AJ01	8WH6000-0AK01	8WH6000-0AM01
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
8WH6000-0CH07	8WH6000-0CJ07	8WH6000-0CK07	8WH6000-0CM07
-	-	-	-
-	-	-	-

Article No.	Article No.	Article No.	Article No.
8WH9004-3SA00	8WH9005-1SA00	8WH9006-1SA00	-
-	-	-	-
-	-	-	-

Article No.	Article No.	Article No.	Article No.
-	-	-	-
-	-	-	-
-	-	-	-

Article No.	Article No.	Article No.	Article No.
-	-	-	-



# 8WH6 iPo plug-in terminals

Through-type terminals for high-current applications



	Terminal size		
	50 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>
Terminal width	20 mm	25 mm	31 mm
Max. operational current $I_{max}$	150 A	232 A	309 A
Operational voltage AC/DC	1000 V/1500 V	1000 V/1500 V	1000 V/1500 V
AWG	8 ... 2/0	4 ... 3/0	1/0 ... 300
Connection capacity, rigid	10 ... 70 mm <sup>2</sup>	25 ... 95 mm <sup>2</sup>	95 ... 150 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	10 ... 50 mm <sup>2</sup>	25 ... 95 mm <sup>2</sup>	95 ... 150 mm <sup>2</sup>
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, cULus

Terminals	Color			
<b>① Through-type terminals</b>				
2	● Gray	8WH6000-0AN00	8WH6000-0AQ00	8WH6000-0AS00
	● Blue	8WH6000-0AN01	8WH6000-0AQ01	8WH6000-0AS01
<b>② PE through-type terminals</b>				
2	● Green-yellow	8WH6000-0CN07	8WH6000-0CQ07	–

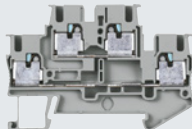
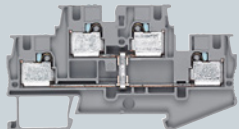
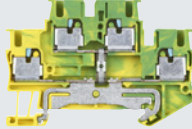
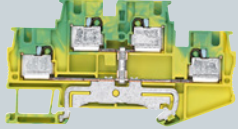
## Special accessories

Connecting combs				
	Number of poles	Article No.	Article No.	Article No.
	2-pole	8WH9020-3AB00	8WH9020-3AD00	8WH9020-3AF00
	3-pole	8WH9020-3AC00	8WH9020-3AE00	8WH9020-3AG00
Tap-off terminal				
	Number of poles	Article No.	Article No.	Article No.
	1-pole	8WH9120-0DA00	8WH9120-0DA00	8WH9120-0DA00
Test plugs				
	Surface	Article No.	Article No.	Article No.
	Metal	8WH9010-0NB00	8WH9010-0NB00	8WH9010-0NB00
Insulating sleeves for test plugs				
	Color	Article No.	Article No.	Article No.
	● Red	8WH9010-0MB02	8WH9010-0MB02	8WH9010-0MB02

See general accessories, page 14/57 onwards

## Two-tier terminals





	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. operational current $I_{max}$	26 A	32 A
Max. operational voltage $U_{max}$	500 V	500 V
AWG	26 ... 12	24 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.2 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, IEC 60947-7-2, cULUS	IEC 60947-7-1, IEC 60947-7-2, cULUS
		
		

Version	Color		
<b>1 Two-tier terminals</b>			
Without equipotential bonding	● Gray	8WH6020-0AF00	8WH6020-0AG00
	● Blue	8WH6020-0AF01	8WH6020-0AG01
With equipotential bonding	● Gray	8WH6025-0AF00	8WH6025-0AG00
<b>2 PE two-tier terminals<sup>1)</sup></b>			
	● Green-yellow	8WH6020-0CF07	8WH6020-0CG07

<sup>1)</sup> Bridging the terminal is only possible in the top tier (in the center).

## Special accessories

Covers					
	Terminals	Color	Width	Article No.	Article No.
	4	● Gray	2.2 mm	8WH9000-4SE00	–
	4	● Gray	2.2 mm	–	8WH9003-1VA00
Compartment partitions					
	Terminals	Color	Width	Article No.	Article No.
	4	● Gray	2 mm	8WH9070-0BA00	8WH9070-0BA00

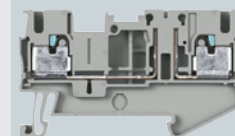
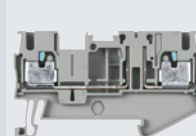
See general accessories, page 14/57 onwards

# 8WH6 iPo plug-in terminals

## Isolating terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. operational current $I_{max}$	20 A	20 A
Max. operational voltage $U_{max}$	400 V	500 V
AWG	26 ... 12	24 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.2 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus



Terminals	Color			
2	● Gray		8WH6000-6CF00	8WH6000-6AG00
3	● Gray		8WH6003-6CF00	–
4	● Gray		8WH6004-6CF00	–

## Special accessories

Covers					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.2 mm	8WH9000-3SC00	8WH9003-1GA00
	3	● Gray	2.2 mm	8WH9000-3SD00	–
	4	● Gray	2.2 mm	8WH9000-5GA00	–

Compartment partitions					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.2 mm	8WH9070-0AA00	8WH9070-0AA00
	3	● Gray	2.2 mm	8WH9070-0GA00	–

Plug-in zone connectors						
	Type	Color	$I_{max}$	Illuminated display	Article No.	Article No.
	Isolating plugs	● Orange	–	–	8WH9040-0DB04	8WH9040-0DB04
	Through-type connectors	● Gray	16 A	–	8WH9020-8AB00	8WH9020-8AB00
	Fused connectors <sup>1)</sup>	● Black	6.3 A	12 ... 30 V, 1 ... 2.5 mA	8WH9040-3AB08	8WH9040-3AB08
				Without	8WH9040-3DB08	8WH9040-3DB08
	Component connectors	● Gray	6 A	–	8WH9040-0BB00	8WH9040-0BB00

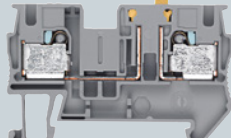
<sup>1)</sup> The G fuse holders must be selected according to the maximum power loss (heat dissipation) of the G fuse links. Depending on the application and method of installation, the heat rise conditions in closed fuse holders must be tested. Higher ambient temperatures represent an additional load for the fuse links. A shift in rated current should therefore be taken into account in such applications.

See general accessories, page 14/57 onwards

## Isolating blade terminals





	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. operational current $I_{max}$	20 A	20 A
Max. operational voltage $U_{max}$	400 V	400 V
AWG	26 ... 12	24 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	–	0.5 ... 6 mm <sup>2</sup>
Connection capacity, one flexible conductor	0.14 ... 2.5 mm <sup>2</sup>	0.2 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus

Terminals	Color		
2	● Gray	8WH6000-6AF00	8WH6000-6CG00
3	● Gray	8WH6003-6AF00	–
4	● Gray	8WH6004-6AF00	–

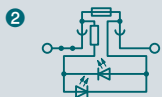
## Special accessories

Covers					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.2 mm	8WH9000-3SC00	8WH9003-1GA00
	3	● Gray	2.2 mm	8WH9000-3SD00	–
	4	● Gray	2.2 mm	8WH9000-5GA00	–
Compartment partitions					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2 mm	8WH9070-0AA00	8WH9070-0AA00

See general accessories, page 14/57 onwards

# 8WH6 iPo plug-in terminals

## Fuse terminals



### Terminal size

4 mm<sup>2</sup>

Terminal width 6.2 mm

Max. operational current  $I_{max}$  6.3 A

Max. operational voltage  $U_{max}$  500 V

AWG 24 ... 10

Connection capacity, one rigid conductor 0.2 ... 6 mm<sup>2</sup>

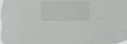
Connection capacity, one flexible conductor with end sleeve 0.2 ... 4 mm<sup>2</sup>

Standard cULus, CE



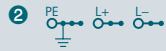
LED	Color	
Fuse terminals for 5 × 20 mm G fuse links		
① Without	● Black	8WH6000-1GG08
② 10 ... 30 V AC/DC	● Black	8WH6000-1KG38
② 110 ... 250 V AC/DC	● Black	8WH6000-1MG88

## Special accessories

Covers	Terminals	Color	Width	Article No.
	2	● Gray	2.2 mm	8WH9003-1GA00

See general accessories, page 14/57 onwards

## Infeed terminals for initiator/actuator terminals



Connection capacity, flexible with end sleeve, with plastic sleeve  
 Connection capacity, flexible with end sleeve, without plastic sleeve  
 Standard

Terminal size

2.5 mm<sup>2</sup>

Terminal width 7 mm

Max. operational current  $I_{max}$  20 A

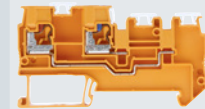
Max. operational voltage  $U_{max}$  250 V

AWG 24 ... 12

0.2 ... 2.5 mm<sup>2</sup>

0.2 ... 2.5 mm<sup>2</sup>

IEC 60947-7-1



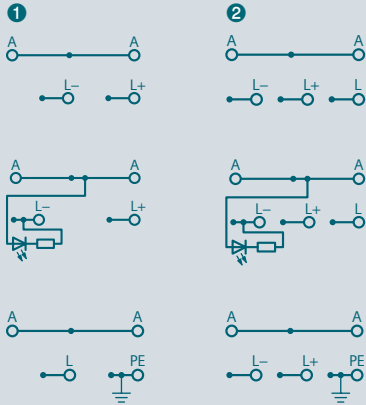
Conductors <sup>1)</sup>	Color	
① 3-wire, L+, L-	● Orange	8WH6003-0DF04
② 4-wire, L+, L-, PE	● Orange	8WH6004-0HE04

<sup>1)</sup> L+ = red, L- = blue, A (output) = petrol, L = petrol, PE (ground) = green/yellow

See general accessories, page 14/57 onwards

# 8WH6 iPo plug-in terminals

## Initiator/actuator terminals



	Terminal size 1.5 mm <sup>2</sup>	
Terminal width	3.5 mm	3.5 mm
Max. operational current $I_{max}$	13.5 A	13.5 A
Max. operational voltage $U_{max}$	250 V	250 V
AWG	26 ... 14	26 ... 14
Connection capacity, flexible with end sleeve, with plastic sleeve	0.14 ... 1.0 mm <sup>2</sup>	0.14 ... 1.0 mm <sup>2</sup>
Connection capacity, flexible with end sleeve, without plastic sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Standard	IEC 60947-7-1	IEC 60947-7-1


Conductors <sup>1)</sup>	Number of connections	LED	Color		
<b>1 Initiator terminal</b>					
3-wire, L+, L-, A	4	–	● Gray	8WH6003-0DE00	–
3-wire, L+, L-, A	4	Green, 24 V (15 ... 30 V DC)	● Gray	8WH6003-0FE00	–
3-wire, L, A, PE	4	–	● Gray	8WH6003-0HE00	–
<b>2 Actuator terminal</b>					
4-wire, L+, L-, L, A	5	–	● Gray	–	8WH6004-0DE00
4-wire, L+, L-, L, A	5	Green, 24 V (15 ... 30 V DC)	● Gray	–	8WH6004-0FE00
4-wire, L+, L-, PE, A	5	–	● Gray	–	8WH6004-0HE00

<sup>1)</sup> L+ = red, L- = blue, A (output) = petrol, L = petrol, PE (ground) = green/yellow


## Special accessories

Covers					
	Version	Width	Color	Article No.	Article No.
	For 3-wire	2.2 mm	● Gray	8WH9001-2VD00	–
	For 4-wire	2.2 mm	● Gray	–	8WH9001-4VE00

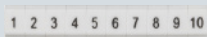
## General accessories for 8WH6 initiator/actuator terminals

Connecting combs					
	Number of poles	Load current	Color	Article No.	
	2-pole	17.5 A	● Red	8WH9020-6JC02	
			● Blue	8WH9020-6JC01	
			● Gray	8WH9020-6JC00	
	3-pole	17.5 A	● Red	8WH9020-6JD02	
			● Blue	8WH9020-6JD01	
			● Gray	8WH9020-6JD00	
	4-pole	17.5 A	● Red	8WH9020-6JE02	
			● Blue	8WH9020-6JE01	
			● Gray	8WH9020-6JE00	
	5-pole	17.5 A	● Red	8WH9020-6JF02	
			● Blue	8WH9020-6JF01	
			● Gray	8WH9020-6JF00	
	10-pole	17.5 A	● Red	8WH9020-6JL02	
			● Blue	8WH9020-6JL01	
			● Gray	8WH9020-6JL00	
	20-pole	17.5 A	● Red	8WH9020-6JS02	
			● Blue	8WH9020-6JS01	
			● Gray	8WH9020-6JS00	


  

Labels, front, for terminal width 3.5 mm and terminal size 1.5 mm <sup>2</sup>					
	Type	Color	Article No.		
	Blank	● White	8WH8110-0AA05		
	Custom inscription	Printed vertically	● White	8WH8140-0XA05-Z Y01	
		Printed horizontally	● White	8WH8120-0XA05-Z Y01	

Labels, flat, for terminal width 3.5 mm and terminal size 1.5 mm <sup>2</sup>							
	Type	Inscription	Color	Article No.			
	Blank		● White	8WH8111-0AA05			
	Consecutive numbering	Printed vertically	1 ... 10 (10×)	● White	8WH8141-0AB05		
			11 ... 20 (10×)	● White	8WH8141-0AB15		
			21 ... 30 (10×)	● White	8WH8141-0AB25		
			31 ... 40 (10×)	● White	8WH8141-0AB35		
			41 ... 50 (10×)	● White	8WH8141-0AB45		
			Printed horizontally	1 ... 10 (10×)	● White	8WH8121-0AB05	
	Consecutive numbering	Printed horizontally	11 ... 20 (10×)	● White	8WH8121-0AB15		
			21 ... 30 (10×)	● White	8WH8121-0AB25		
			31 ... 40 (10×)	● White	8WH8121-0AB35		
			41 ... 50 (10×)	● White	8WH8121-0AB45		
			Custom inscription	Printed vertically		● White	8WH8141-0XA05-Z Y01
					● White	8WH8121-0XA05-Z Y01	

Labels for 8WH initiator/actuator terminals for labeling system					
	Type	Terminal width	Standard	Color	Article No.
	Front, blank	3.5 mm	WIN 486	● White	8WH8112-0AA05
	Flat, blank	3.5 mm	WIN 416	● White	8WH8113-0AA05

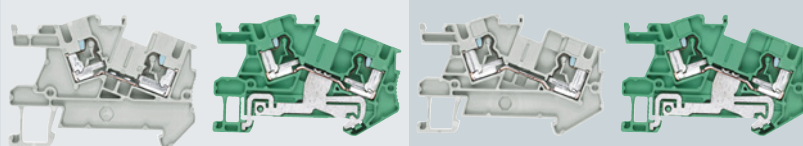


# 8WH6 iPo installation terminals

## Through-type terminals



	Terminal size			
	2.5 mm <sup>2</sup>		4 mm <sup>2</sup>	
Terminal width	5.2 mm	5.2 mm	6.2 mm	6.2 mm
Terminal length	59.5 mm	59.5 mm	66 mm	66 mm
Terminal height	42.5 mm	43 mm	44 mm	46.3 mm
Max. load current $I_{max}$	24 A	–	32 A	–
Max. rated voltage $U_{max}$	800 V	–	800 V	–
Rated impulse withstand voltage	–	–	–	–
AWG	26 ... 12	24 ... 12	24 ... 10	24 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	–	–	–	–
Connection capacity, flexible with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.25 ... 2.5 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>
Connection capacity, flexible without end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.25 ... 2.5 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>
Tightening torque	–	–	–	–
Standard	IEC 60947-7-1	IEC 60947-7-2	IEC 60947-7-1	IEC 60947-7-2



Terminals	Color	iPo plug-in technology	iPo plug-in technology
<b>1 Through-type terminals</b>			
2	● Gray	8WH6001-0AF00	–
	● Blue	8WH6001-0AF01	–
<b>2 PE through-type terminals</b>			
2	● Green-yellow	–	8WH6001-OCF07
		–	8WH6001-OCG07

## Special accessories

### Covers



Color	Width	Article No.	Article No.
● Gray	1.8 mm	–	–
	2.2 mm	8WH9000-1WA00	8WH9003-7WA00

### N conductor support brackets



- For holding the N busbar

Color	Article No.	Article No.
● Blue	8WH9143-0AF01	8WH9143-0AF01

### Connecting combs



Number of poles	Article No.	Article No.
2-pole	–	–
3-pole	–	–
10-pole	–	–

### Compartment partitions



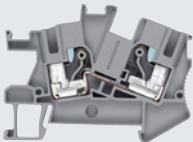
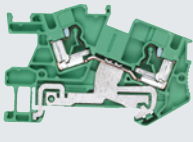




Color	Article No.	Article No.
● Gray	–	–

### Insulation plate



Color	Article No.	Article No.
● Gray	–	–

See general accessories, page 14/57 onwards

6 mm <sup>2</sup>		16 mm <sup>2</sup>		35 mm <sup>2</sup>	
8.2 mm	8.2 mm	12.2 mm	12.2 mm	15.2 mm	15 mm
66 mm	66 mm	51 mm	51 mm	55 mm	55 mm
50 mm	50 mm	50 mm	50 mm	51 mm	51 mm
41 A	–	76 A	–	125 A	125 A
800 V	–	400 V	–	800 V	–
–	–	6 kV	6 kV	8 kV	8 kV
20 ... 8	20 ... 8	22 ... 4	22 ... 4	18 ... 2	18 ... 2
0.5 ... 10 mm <sup>2</sup>	0.5 ... 10 mm <sup>2</sup>	6 ... 25 mm <sup>2</sup>	6 ... 25 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>
–	–	2.5 ... 10 mm <sup>2</sup>	2.5 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
0.5 ... 6 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>	6 ... 16 mm <sup>2</sup>	6 ... 16 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>
0.5 ... 6 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>	6 ... 16 mm <sup>2</sup>	6 ... 16 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
–	–	2.5 ... 3.0 Nm	2.5 ... 3.0 Nm	3.2 ... 3.7 Nm	3.2 ... 3.7 Nm
IEC 60947-7-1	IEC 60947-7-2	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus, CE	cULus, CE	cULus, CE
					
<b>iPo plug-in technology</b>		<b>Screw terminals</b>		<b>Screw terminals</b>	
8WH6001-0AH00	–	8WH1201-0AK00 <b>new</b>	–	8WH1201-0AM00 <b>new</b>	–
8WH6001-0AH01	–	8WH1201-0AK01 <b>new</b>	–	8WH1201-0AM01 <b>new</b>	–
–	8WH6001-0CH07	–	8WH1201-0CK07 <b>new</b>	–	8WH1201-0CM07 <b>new</b>

## Article No.

–  
8WH9004-1WA00

## Article No.

8WH9005-3PA00

–

## Article No.

–

## Article No.

8WH9143-0AH01

## Article No.

–

## Article No.

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## Article No.

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## Article No.

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## Article No.

8WH9030-6BC00

–

–

8WH9030-6BD00

–

8WH9030-6AL00

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## Article No.

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## Article No.

8WH9070-6HA00

## Article No.

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## Article No.

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## Article No.

8WH9070-6GA00

## Article No.

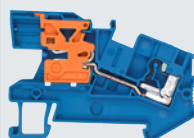
8WH9070-6GA00

# 8WH6 iPo installation terminals

## N conductor isolating terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Terminal length	59 mm	66 mm
Terminal height	46.3 mm	46.3 mm
Max. rated current $I_{max}$ /cross-section	24 A/2.5 mm <sup>2</sup>	32 A/4 mm <sup>2</sup>
Max. rated voltage $U_{max}$	250 V	250 V
Rated impulse withstand voltage	4 kV	6 kV
AWG	26 ... 12	24 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.2 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.2 ... 1.5 mm <sup>2</sup>	0.2 ... 2 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	max. 0.5 mm <sup>2</sup>	max. 1 mm <sup>2</sup>
Tightening torque	–	–
Standard	IEC 60947-7-1	IEC 60947-7-1



Terminals	Color	iPo plug-in technology	iPo plug-in technology
2	● Blue	8WH6001-0BF01	8WH6001-0BG01

## Special accessories

### Covers



Color	Width	Article No.	Article No.
● Blue	2.2 mm	8WH9000-1SA00	8WH9003-1SA00
● Gray	2.2 mm	–	–

### N conductor support brackets

- For holding the N busbar 10 × 3 mm
- To be placed every 20 cm



Color	Article No.	Article No.
● Blue	8WH9143-0AF01	8WH9143-0AF01
–	–	–

### Connecting terminals



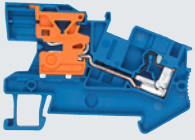
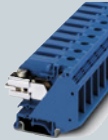
Color	Width	Article No.	Article No.
● Blue	10.3 mm	8WH9126-0BA01	8WH9126-0BA01

### N busbars, 10 × 3 mm



Version	Length	Article No.	Article No.
Copper, tinned	1000 mm	8WA2842	8WA2842

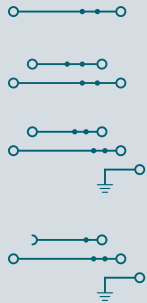
See general accessories, page 14/57 onwards

6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>
8.2 mm	10.2 mm	12.2 mm	15 mm
66.3 mm	55 mm	55 mm	55 mm
50 mm	47 mm	50 mm	50 mm
41 A/6 mm <sup>2</sup>	57 A/16 mm <sup>2</sup>	76 A/25 mm <sup>2</sup>	110 A/35 mm <sup>2</sup>
400 V	400 V	400 V	400 V
6 kV	6 kV	6 kV	6 kV
20 ... 8	–	–	–
0.5 ... 10 mm <sup>2</sup>	0.5 ... 16 mm <sup>2</sup>	6 ... 25 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>
0.5 ... 4 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>	2.5 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
0.5 ... 6 mm <sup>2</sup>	0.5 ... 10 mm <sup>2</sup>	6 ... 16 mm <sup>2</sup>	0.75 ... 35 mm <sup>2</sup>
0.5 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>	4 ... 6 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
–	1.5 ... 1.8 Nm	1.5 ... 1.8 Nm	3.2 ... 3.7 Nm
IEC 60947-7-1	IEC 60947-7-1	IEC 60947-7-1	IEC 60947-7-1
			
<b>iPo plug-in technology</b>	<b>Screw terminals</b>	<b>Screw terminals</b>	<b>Screw terminals</b>
8WH6001-0BH01	8WH1201-0BJ01 <b>new</b>	8WH1201-0BK01 <b>new</b>	8WH1201-0BM01 <b>new</b>

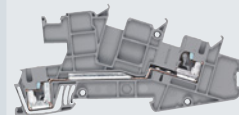
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9004-1SA00	–	–	–
–	8WH9005-3PB00 <b>new</b>	8WH9005-3PB00 <b>new</b>	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9143-0AH01	–	–	–
–	8WH9141-0BC01 <b>new</b>	8WH9141-0BC01 <b>new</b>	8WH9141-0BC01 <b>new</b>
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9126-0BA01	8WH9126-0BA01	8WH9126-0BA01	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA2842	8WA2842	8WA2842	8WA2842

# 8WH6 iPo installation terminals

## Three-tier terminals



	Terminal size
	2.5 mm <sup>2</sup>
Terminal width	5.2 mm
Terminal length	101 mm
Terminal height	50.5 mm
Max. rated current $I_{max}$ /cross-section	24 A/4 mm <sup>2</sup>
Max. rated voltage $U_{max}$ (L-L)	400 V
Rated voltage $U_n$ (L-N, L-PE)	250 V
AWG	26 ... 12
Connection capacity, rigid	0.14 ... 4 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.14 ... 2.5 mm <sup>2</sup>



Type	Color	
L	● Gray	8WH6001-4QF00
L/L	● Gray	8WH6001-4DF00
L/N	● Gray	8WH6001-4CF00
PE/L/L	● Gray	8WH6001-4HF00
PE/L/N	● Gray	8WH6001-4EF00
PE/L/NT	● Gray	8WH6001-4FF00

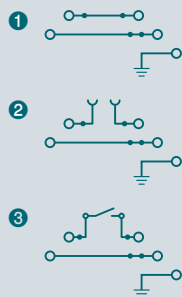
## Special accessories

Covers			
	Color	Width	Article No.
	● Gray	2.2 mm	8WH9000-3SA00
N conductor support brackets			
	<ul style="list-style-type: none"> <li>For holding the N busbar</li> <li>To be placed every 20 cm</li> </ul>		
	Color	Width	Article No.
	● Blue	2 mm	8WH9142-0AF01
N busbars, 10 × 3 mm			
	Version	Length	Article No.
	Copper, tinned <sup>1)</sup>	1000 mm	8WA2842

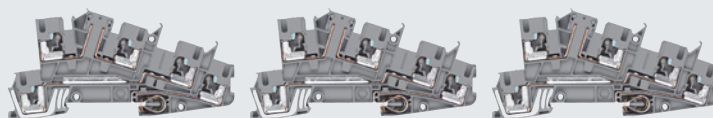
<sup>1)</sup> Only copper busbars may be installed.

See general accessories, page 14/57 onwards

## Three-tier isolating terminals




	Terminal size		
	2.5 mm <sup>2</sup>		
Terminal width	5.2 mm	5.2 mm	5.2 mm
Terminal length	101 mm	101 mm	101 mm
Terminal height	50.5 mm	50.5 mm	50.5 mm
Max. rated current $I_{max}$ /cross-section	24 A/4 mm <sup>2</sup>	24 A/4 mm <sup>2</sup>	24 A/4 mm <sup>2</sup>
Max. rated voltage $U_{max}$ (L-L)	400 V	400 V	400 V
Rated voltage $U_n$ (L-N, L-PE)	250 V	250 V	250 V
AWG	26 ... 12	26 ... 12	26 ... 12
Connection capacity, rigid	0.25 ... 4 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>	0.25 ... 4 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.25 ... 2.5 mm <sup>2</sup>	0.25 ... 2.5 mm <sup>2</sup>	0.25 ... 2.5 mm <sup>2</sup>



Type	Color			
<b>1 Through-type terminals with identical contour</b>				
PE/L/L	● Gray	–	–	8WH6001-4PF00
<b>2 Isolating terminals</b>				
PE/L/L isolation	● Gray	8WH6001-4MF00	–	–
<b>3 Isolating blade terminals</b>				
PE/L/L isolating blade	● Gray	–	8WH6001-4NF00	–
PE/L/N isolating blade	● Gray	–	8WH6001-4GF00	–

## Special accessories

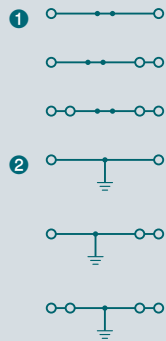
### Covers for isolating terminal in the contour

	Color	Width	Article No.	Article No.	Article No.
	● Gray	2.2 mm	–	8WH9000-6SA00	8WH9000-6SA00

See general accessories, page 14/57 onwards

# 8WH2 spring-loaded terminals

## Through-type terminals



	Terminal size	
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Terminal width	4.2 mm	5.2 mm
Max. load current $I_{max}$	17.5 A	31 A
Max. operational voltage $U_{max}$	500 V	800 V
AWG	28 ... 16	28 ... 12
Connection capacity, rigid	0.08 ... 1.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus, c	IEC 60947-7-1, IEC 60947-7-2, cULus

Terminals	Color		
<b>① Through-type terminals</b>			
2	Gray	8WH2000-0AE00	8WH2000-0AF00
	Blue	8WH2000-0AE01	8WH2000-0AF01
	Orange	8WH2000-0AE04	8WH2000-0AF04
	Red	8WH2000-0AE02	8WH2000-0AF02
	Black	8WH2000-0AE08	8WH2000-0AF08
	Green	8WH2000-0AE03	8WH2000-0AF03
	White	8WH2000-0AE05	8WH2000-0AF05
	Yellow	8WH2000-0AE06	8WH2000-0AF06
3	Gray	8WH2003-0AE00	8WH2003-0AF00
	Blue	8WH2003-0AE01	8WH2003-0AF01
	Orange	8WH2003-0AF04	8WH2003-0AF04
4	Gray	8WH2004-0AE00	8WH2004-0AF00
	Blue	8WH2004-0AE01	8WH2004-0AF01
	Orange	8WH2004-0AF04	8WH2004-0AF04
<b>② PE through-type terminals</b>			
2	Green-yellow	8WH2000-0CE07	8WH2000-0CF07
3	Green-yellow	8WH2003-0CE07	8WH2003-0CF07
4	Green-yellow	8WH2004-0CE07	8WH2004-0CF07

## Special accessories

Covers						
	Color	Width	Terminals	Article No.	Article No.	
	Gray	2.2 mm	2	8WH9000-1GA00	8WH9000-1GA00	
			3	8WH9000-2GA00	8WH9000-2GA00	
			4	8WH9000-4GA00	8WH9000-4GA00	
Compartment partitions						
	Color		Terminals	Article No.	Article No.	
	Gray		2	8WH9070-0AA00	8WH9070-0AA00	
			3	8WH9070-0GA00	8WH9070-0GA00	
			4	8WH9070-0HA00	8WH9070-0HA00	
Cover segments						
			• For covering multi-wire terminals when mounting two-wire terminals side-by-side			
	Color			Article No.	Article No.	
	Gray			8WH9000-0GA00	8WH9000-0GA00	
Warning covers for the operating shafts of 8WH2 through-type terminals						
				Article No.	Article No.	
				8WH9061-5AA06	8WH9060-5AA06	

4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>
6.2 mm	8.2 mm	10.2 mm	12.2 mm	16 mm
40 A	52 A	65 A	90 A	125 A
800 V	1000 V	1000 V	1000 V	1000 V
28 ... 10	24 ... 8	24 ... 6	24 ... 4	14 ... 2
0.08 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>	0.2 ... 25 mm <sup>2</sup>	2.5 ... 35 mm <sup>2</sup>
0.14 ... 4 mm <sup>2</sup>	0.25 ... 6 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>	0.25 ... 16 mm <sup>2</sup>	2.5 ... 35 mm <sup>2</sup>
IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus
 	 	 	 	 

8WH2000-0AG00	8WH2000-0AH00	8WH2000-0AJ00	8WH2000-0AK00	8WH2000-0AM00
8WH2000-0AG01	8WH2000-0AH01	8WH2000-0AJ01	8WH2000-0AK01	8WH2000-0AM01
8WH2000-0AG04	–	–	–	–
8WH2000-0AG02	–	–	–	–
8WH2000-0AG08	–	–	–	–
8WH2000-0AG03	–	–	–	–
8WH2000-0AG05	–	–	–	–
8WH2000-0AG06	–	–	–	–
8WH2003-0AG00	8WH2003-0AH00	–	–	–
8WH2003-0AG01	8WH2003-0AH01	–	–	–
–	–	–	–	–
8WH2004-0AG00	–	–	–	–
8WH2004-0AG01	–	–	–	–
–	–	–	–	–
8WH2000-0CG07	8WH2000-0CH07	8WH2000-0CJ07	8WH2000-0CK07	8WH2000-0CM07
8WH2003-0CG07	8WH2003-0CH07	–	–	–
8WH2004-0CG07	–	–	–	–

<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9003-1GA00	8WH9004-1GA00	8WH9005-1GA00	8WH9006-1GA00	–
8WH9003-2GA00	8WH9004-2GA00	–	–	–
8WH9003-4GA00	–	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9070-0AA00	8WH9070-0DA00	–	–	–
8WH9070-0GA00	8WH9070-0DA00	–	–	–
8WH9070-0HA00	–	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9003-0GA00	–	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9063-5AA06	8WH9064-5AA06	8WH9065-5AA06	8WH9066-5AA06	8WH9067-5AA06



# 8WH2 spring-loaded terminals

## Hybrid through-type terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{max}$	28 A	32 A
Max. operational voltage $U_{max}$	800 V	800 V
AWG spring	28 ... 12	28 ... 10/26 ... 10
Connection capacity, rigid, spring-loaded	0.08 ... 4 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>
Connection capacity, flexible, spring-loaded	0.08 ... 2.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
AWG screw	26 ... 14	28 ... 10/26 ... 10
Connection capacity, rigid, screw-type	0.14 ... 4 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, flexible, screw-type	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, IEC 60947-7-2	IEC 60947-7-1, IEC 60947-7-2

Terminals	Color	Screw-type connection and spring-loaded connection	Screw-type connection and spring-loaded connection
<b>1 Hybrid through-type terminals</b>			
3	● Gray	8WH2103-2BF00	8WH2103-2BG00
	● Blue	8WH2103-2BF01	8WH2103-2BG01
<b>2 PE hybrid through-type terminals</b>			
3	● Green-yellow	8WH2103-3BF07	8WH2103-3BG07

## Special accessories

Covers					
	Color	Width	Terminals	Article No.	Article No.
	● Gray	2.2 mm	3	8WH9000-2HA00	8WH9003-2HA00

See general accessories, page 14/57 onwards

## Two-tier terminals



	Terminal size	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width		4.2 mm	5.2 mm	6.2 mm
Max. load current $I_{max}$		17.5 A	26 A	32 A
Max. operational voltage $U_{max}$		500 V	500 V	500 V
AWG		28 ... 16	28 ... 12	28 ... 10
Connection capacity, rigid		0.08 ... 1.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>
Connection capacity, flexible with end sleeve		0.08 ... 1.5 mm <sup>2</sup>	0.08 ... 2.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Standard		IEC 60947-7-1, IEC 60947-7-2, cULus, CE	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus

Version	Number of poles	Terminals	Color			
<b>1 Two-tier terminals</b>						
Without equipotential bonding	2-pole	4	● Gray	8WH2020-OAE00	8WH2020-OAF00	8WH2020-OAG00
			● Blue	8WH2020-OAE01	8WH2020-OAF01	8WH2020-OAG01
	6	● Gray	–	8WH2023-OAF00	–	
		● Blue	–	8WH2023-OAF01	–	
With equipotential bonding	1-pole	4	● Gray	8WH2025-OAE00	8WH2025-OAF00	8WH2025-OAG00
			● Blue	–	8WH2025-OAF01	–
		6	● Gray	–	8WH2022-OAF00	–
<b>2 Two-tier terminals, N at top and L at bottom</b>						
Without equipotential bonding	2-pole	4	● Gray	–	8WH2020-4CF00	–
<b>3 PE two-tier terminals<sup>1)</sup></b>						
		4	● Green-yellow	8WH2020-OCE07	8WH2020-OCF07	8WH2020-OCG07
		6	● Green-yellow	–	8WH2023-OCF07	–

<sup>1)</sup> Only top tier can be fitted with connecting combs.

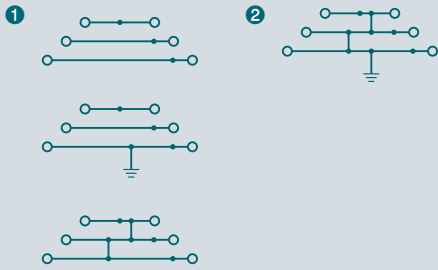
## Special accessories

Covers						
	Width	Terminals	Color	Article No.	Article No.	Article No.
	2.2 mm	4	● Gray	8WH9000-1VA00	8WH9000-1VA00	8WH9003-1VA00
		6	● Gray	–	8WH9000-2VA00	–
Compartment partitions						
			Color	Article No.	Article No.	Article No.
			● Gray	8WH9070-0BA00	8WH9070-0BA00	8WH9070-0BA00

See general accessories, page 14/57 onwards

# 8WH2 spring-loaded terminals

## Three-tier terminals



### Terminal size

2.5 mm<sup>2</sup>

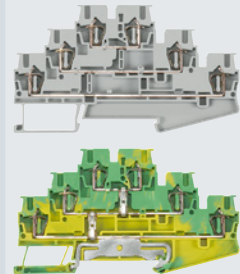

Terminal width 5.2 mm

Max. load current  $I_{\max}$  28 A <sup>1)</sup>Max. operational voltage  $U_{\max}$  500 V

AWG 28 ... 12

Connection capacity, rigid 0.08 ... 4 mm<sup>2</sup>Connection capacity, flexible with end sleeve 0.08 ... 2.5 mm<sup>2</sup>

Standard

IEC 60947-7-1,  
IEC 60947-7-2, e 

Version	Type	Color	
<b>1 Three-tier terminals</b>			
Without equipotential bonding	–	● Gray	8WH2030-0AF00
		● Blue	8WH2030-0AF01
	PE/L/N	● Gray	8WH2030-4EF00
	PE/L/L	● Gray	8WH2030-4HF00
With equipotential bonding		● Gray	8WH2035-0AF00
		● Blue	8WH2035-0AF01
<b>2 PE three-tier terminals</b>			
		● Green-yellow	8WH2035-0CF07

<sup>1)</sup> The total current through all connected conductors must not exceed the maximum load current.

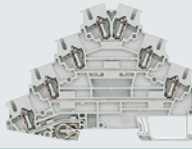

## Special accessories

Covers			
	Width	Color	Article No.
	2.2 mm	● Gray	8WH9000-1GD00
Label holder			
		Color	Article No.
		● Gray	8WH9060-4BA00


See general accessories, page 14/57 onwards

## Four-tier motor terminals



	Terminal size		
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	
Terminal width	5.2 mm	6.2 mm	
Max. load current $I_{\max}$	26 A	32 A	
Max. operational voltage $U_{\max}$	800 V	800 V	
AWG	28 ... 12	28 ... 10	
Connection capacity, rigid	0.08 ... 4 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>	
Connection capacity, flexible with end sleeve	0.08 ... 2.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>	
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus, ©	
			
Type	Color		
L/L/LI/PE	● Gray	8WH2040-4LF00	8WH2040-4LG00

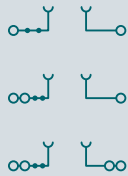
## Special accessories

Covers				
	Color	Width	Article No.	Article No.
	● Gray	2.2 mm	8WH9000-1GE00	–

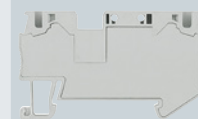
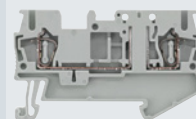
See general accessories, page 14/57 onwards

# 8WH2 spring-loaded terminals

## Isolating terminals










	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{max}$	16 A	16 A
Max. operational voltage $U_{max}$	400 V	400 V
AWG	28 ... 12	28 ... 10
Connection capacity, rigid	0.08 ... 4 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.08 ... 2.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus



Terminals	Color		
2	● Gray	8WH2000-6AF00	8WH2000-6AG00
3	● Gray	8WH2003-6AF00	–
4	● Gray	8WH2004-6AF00	–

## Special accessories

Covers						
	Width	Color	Terminals	Article No.	Article No.	
	2.2 mm	● Gray	2	8WH9000-2GA00	–	
			3	8WH9000-4GA00	–	
			4	8WH9000-5GA00	–	
Compartment partitions						
		Color	Terminals	Article No.	Article No.	
		● Gray	2	8WH9070-0AA00	8WH9070-0AA00	
			3	8WH9070-0GA00	–	
			4	8WH9070-0HA00	–	
Cover segments						
	<ul style="list-style-type: none"> <li>For covering multi-wire terminals when mounting two-wire terminals side-by-side</li> </ul>					
		Color	Terminals	Article No.	Article No.	
		● Gray	3/4	8WH9000-0GA00	–	
Plug-in zone connectors						
	Type	Color	$I_{max}$	Illuminated display	Article No.	Article No.
	Isolating plugs	● Orange	20 A	–	8WH9040-0DB04	8WH9040-0DB04
	Through-type connectors	● Gray	16 A	–	8WH9020-8AB00	8WH9020-8AB00
	Fused connectors <sup>1)</sup>	● Black	6.3 A	12 ... 30 V, 1 ... 2.5 mA	8WH9040-3AB08	8WH9040-3AB08
				Without	8WH9040-3DB08	8WH9040-3DB08
	Component connectors	● Gray	6 A	–	8WH9040-0BB00	8WH9040-0BB00

<sup>1)</sup> The G fuse holders must be selected according to the maximum power loss (heat dissipation) of the G fuse links. Depending on the application and method of installation, the heat rise conditions in closed fuse holders must be tested. Higher ambient temperatures represent an additional load for the fuse links. A shift in rated current should therefore be taken into account in such applications.

See general accessories, page 14/57 onwards

## Isolating blade terminals



	Terminal size		
	2.5 mm <sup>2</sup>	5.2 mm	4 mm <sup>2</sup>
Terminal width	5.2 mm	5.2 mm	6.2 mm
Max. load current $I_{max}$	16 A	16 A <sup>1)</sup>	16 A
Max. operational voltage $U_{max}$	400 V	400 V	400 V
AWG	28 ... 12	26 ... 14	28 ... 10
Connection capacity, rigid	0.08 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.08 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus

Terminals	Color	2.5 mm <sup>2</sup>	5.2 mm	4 mm <sup>2</sup>
2	● Gray	8WH2000-6CF00	–	8WH2000-6CG00
3	● Gray	–	8WH2003-6CF00	–
4	● Gray	–	8WH2004-6CF00	–

<sup>1)</sup> On terminals with three and four clamping points, the total current through all connected conductors must not exceed the max. load current.

## Special accessories

Covers						
	Color	Width	Terminals	Article No.	Article No.	Article No.
	● Gray	2.2 mm	2	8WH9000-2GA00	8WH9000-2GA00	–
			3	8WH9000-4GA00	8WH9000-4GA00	–
			4	8WH9000-5GA00	8WH9000-5GA00	–

Compartment partitions						
	Color	Terminals	Article No.	Article No.	Article No.	
	● Gray	2	8WH9070-0AA00	8WH9070-0AA00	8WH9070-0AA00	
		3	8WH9070-0GA00	8WH9070-0GA00	–	
		4	8WH9070-0HA00	8WH9070-0HA00	–	

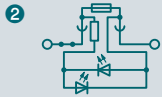
  

Cover segments						
	Color	Terminals	Article No.	Article No.	Article No.	
	● Gray	3/4	8WH9000-0GA00	8WH9000-0GA00	–	




See general accessories, page 14/57 onwards

# 8WH2 spring-loaded terminals

## Fuse terminals



	Terminal size		
	4 mm <sup>2</sup>		
Terminal width	6.2 mm	8.2 mm	8.2 mm
Max. load current $I_{\max}$	6.3 A	10 A	30 A
Max. operational voltage $U_{\max}$	250 V	400 V	400 V
Max. individual power loss as overload protection	1.6 W	–	–
Max. power loss as a group as overload protection	1.6 W	–	–
Max. individual power loss as short-circuit protection	4 W	–	–
Max. power loss as a group as short-circuit protection	2.5 W	–	–
AWG	28 ... 10	28 ... 10	28 ... 10
Connection capacity, rigid	0.08 ... 6 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>	0.08 ... 6 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.08 ... 4 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Standard	IEC 60947-7-3,	IEC 60947-7-3,	IEC 60947-7-3,

Illuminate display	Color			
<b>For 5 × 20 mm G fuse links</b>				
① Without	● Black	8WH2000-1GG08	–	–
② 15 ... 30 V	● Black	8WH2000-1JG38	–	–
② 30 ... 60 V	● Black	8WH2000-1JG68	–	–
② 110 ... 250 V	● Black	8WH2000-1MG08	–	–
<b>For 6.3 × 32 mm G fuse links</b>				
① Without	● Black	–	8WH2000-1HG08	–
② 100 ... 250 V	● Black	–	8WH2000-1RG08	–
<b>For blade-type fuses according to ISO/DIS 8820 and DIN 72581-3 <sup>1)</sup></b>				
① Without	● Black	–	–	8WH2000-1AG08
② 12 V	● Black	–	–	8WH2000-1BG28
② 24 V	● Black	–	–	8WH2000-1BG38

<sup>1)</sup> Blade-type fuses must be ordered separately.

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## Special accessories

### Compartment partitions



Color	Terminals	Article No.	Article No.	Article No.
● Gray	2	8WH9070-0AA00	8WH9070-0AA00	8WH9070-0AA00

See general accessories, page 14/57 onwards



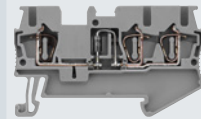


# 8WH2 spring-loaded terminals

## Diode terminals



<b>Terminal size</b>	2.5 mm <sup>2</sup>
<b>Terminal width</b>	5.2 mm
<b>Max. load current <math>I_{max}</math></b>	Determined by the diode
<b>Uninterrupted limiting current</b>	0.5 A
<b>Max. operational voltage <math>U_{max}</math></b>	500 V
<b>Blocking voltage</b>	1300 V
<b>AWG</b>	28 ... 12
<b>Connection capacity, rigid</b>	0.08 ... 4 mm <sup>2</sup>
<b>Connection capacity, flexible with end sleeve</b>	0.08 ... 2.5 mm <sup>2</sup>
<b>Diode</b>	1N 4007, integrated
<b>Standard</b>	UL



Terminals	Color	Let-through	
3	● Gray	① From left to right	8WH2003-5DF00
	● Gray	② From right to left	8WH2003-5CF00

## Special accessories

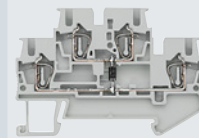
Covers				
	Color	Width	Terminals	Article No.
	● Gray	2.2 mm	3	8WH9000-4GA00
Compartment partitions				
	Color	Terminals	Article No.	
	● Gray	3	8WH9070-0GA00	
Cover segments				
	<ul style="list-style-type: none"> <li>For covering multi-wire terminals when mounting two-wire terminals side-by-side</li> </ul>			
	Color	Terminals	Article No.	
	● Gray	3	8WH9000-0GA00	

See general accessories, page 14/57 onwards

## Two-tier diode terminals



<b>Terminal size</b>	2.5 mm <sup>2</sup>
<b>Terminal width</b>	5.2 mm
<b>Max. load current <math>I_{max}</math></b>	26 A
<b>Uninterrupted limiting current</b>	0.5 A
<b>Max. operational voltage <math>U_{max}</math></b>	500 V
<b>Blocking voltage</b>	1300 V
<b>AWG</b>	28 ... 12
<b>Connection capacity, rigid</b>	0.08 ... 4 mm <sup>2</sup>
<b>Connection capacity, flexible with end sleeve</b>	0.08 ... 2.5 mm <sup>2</sup>
<b>Diode</b>	1N 4007, integrated
<b>Standard</b>	UL US



Type	Color	
<b>1 With one diode</b>		
Let-through from top to bottom	● Gray	8WH2020-5AF00
Let-through from bottom left to bottom right	● Gray	8WH2020-5DF00
<b>2 With two diodes</b>		
Let-through from top to bottom left and from bottom right to bottom left	● Gray	8WH2020-5KF00
<b>3 With illuminated display</b>		
15 ... 30 V DC/2.5 ... 7.5 A	● Gray	8WH2020-5JF30

## Special accessories

Covers			
	Width	Color	Article No.
	2.2 mm	● Gray	8WH9000-1VA00
Compartment partitions			
		● Gray	8WH9070-0BA00

See general accessories, page 14/57 onwards

# 8WH5 combination plug-in terminals

## Through-type terminals



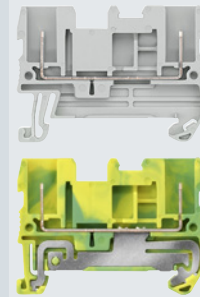
### Terminal size

2.5 mm<sup>2</sup>

Terminal width 5.2 mm

Max. load current  $I_{\max}$  24 AMax. operational voltage  $U_{\max}$  500 V

Standard IEC 61984, cULus



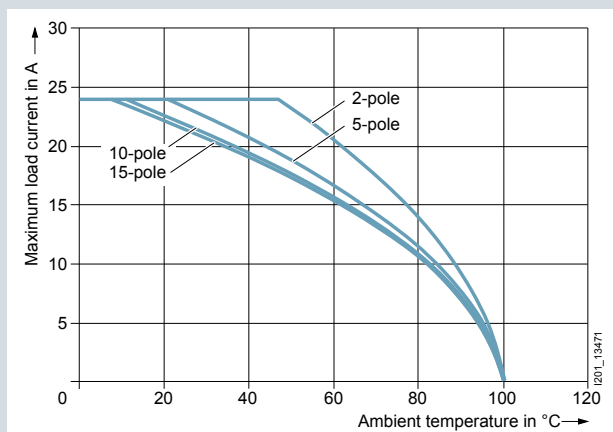
Terminals	Color	Combination plug-in connection
<b>① Through-type terminals</b>		
2	● Gray	8WH5000-0AF00
	● Blue	8WH5000-0AF01
<b>② PE through-type terminals</b>		
2	● Green-yellow	8WH5000-0CF07

## Special accessories

Covers				
	Terminals	Color	Width	Article No.
	2	● Gray	2.2 mm	8WH9000-1VA00
Compartment partitions				
	Terminals	Color		Article No.
	2	● Gray		8WH9070-0BA00

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See general accessories, page 14/57 onwards



Derating curve for 8WH5000-0AF00

## Hybrid through-type terminals



	<b>Terminal size</b>	2.5 mm <sup>2</sup>
	<b>Terminal width</b>	5.2 mm
	<b>Max. rated current <math>I_{max}</math>/cross-section</b>	24 A/2.5 mm <sup>2</sup>
	<b>Max. rated voltage <math>U_{max}</math></b>	500 V
	<b>AWG</b>	26 ... 12
	<b>Connection capacity, rigid</b>	0.14 ... 4 mm <sup>2</sup>
	<b>Connection capacity, flexible with end sleeve</b>	0.14 ... 2.5 mm <sup>2</sup>
	<b>Standard</b>	UL US

Terminals	Color	iPo plug-in connection and combination plug-in connection
① Hybrid through-type terminals		
2	● Gray	8WH5100-2PF00
② PE hybrid through-type terminals		
2	● Green-yellow	8WH5100-3PF07

## Special accessories










Covers				
	Terminals	Color	Width	Article No.
	2	● Gray	2.2 mm	8WH9000-1GA00
Compartment partitions				
	Terminals	Color		Article No.
	4	● Gray		8WH9070-0HA00

See general accessories, page 14/57 onwards

# 8WH5 combination plug-in terminals






## 8WH9 plugs

	Terminal size 2.5 mm <sup>2</sup>	
Terminal width	5.2 mm	5.2 mm
Max. load current $I_{\max}$	24 A	24 A
Max. operational voltage $U_{\max}$	500 V	500 V
AWG	28 ... 12	28 ... 12
Connection capacity, rigid	0.08 ... 4 mm <sup>2</sup>	0.08 ... 4 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.08 ... 2.5 mm <sup>2</sup>	0.08 ... 2.5 mm <sup>2</sup>
Number of poles	1P	1P
Standard	 US	 US
		

Version	Color	With slot for comb	Without slot for comb
<b>Plug</b>			
Left element	 Gray	8WH9040-1DB00	8WH9040-1AB00
	 Blue	8WH9040-1DB01	8WH9040-1AB01
Central element	 Gray	8WH9040-1EB00	8WH9040-1BB00
	 Blue	8WH9040-1EB01	8WH9040-1BB01
Right element	 Gray	8WH9040-1FB00	8WH9040-1CB00
	 Blue	8WH9040-1FB01	8WH9040-1CB01
<b>PE plugs</b>			
Left element	 Green-yellow	8WH9040-1DB07	8WH9040-1AB07
Central element	 Green-yellow	8WH9040-1EB07	–
Right element	 Green-yellow	8WH9040-1FB07	8WH9040-1CB07

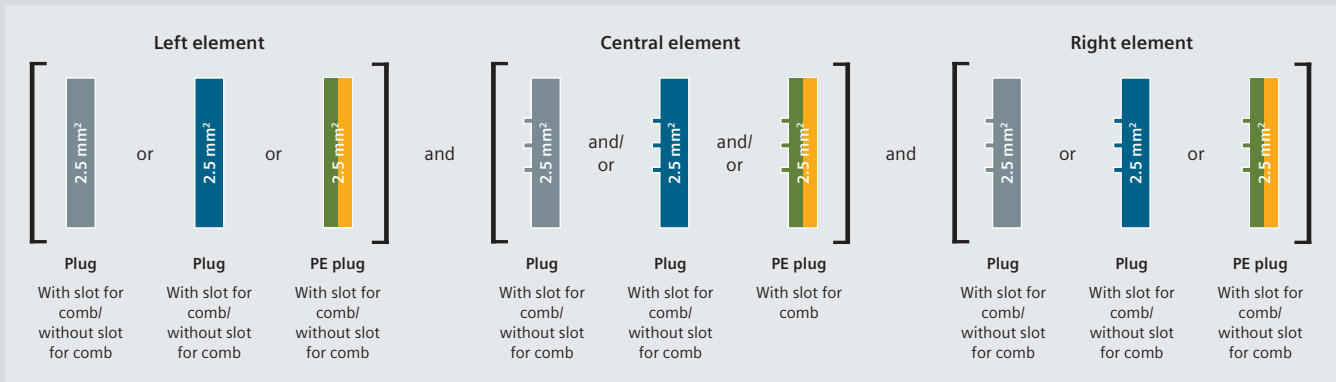
14

## Special accessories

Latches				
	Version	Color	Article No.	Article No.
	With strain relief	 Orange	8WH9050-2BA04	8WH9050-2BA04
	Without strain relief	 Orange	8WH9050-2AA04	8WH9050-2AA04
Shielding				
	• For connection of shielded cables			
	Cable diameter	Color	Article No.	Article No.
5 ... 10 mm	 Black	8WH9120-0DB08	8WH9120-0DB08	

See general accessories, page 14/57 onwards

## Configuration of combination plug

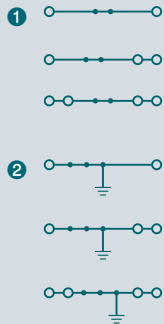


### Note:

The configuration concept shown is just one example of how combination plugs can be configured.

# 8WH3 insulation displacement terminals

## Through-type terminals



	Terminal size	
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{\max}$	17.5 A <sup>1)</sup>	24 A <sup>1)</sup>
Max. operational voltage $U_{\max}$	800 V	800 V
AWG	24 ... 16	20 ... 14
Connection capacity, rigid	0.25 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.25 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>

Terminals	Color		
<b>1 Through-type terminals</b>			
2	● Gray	8WH3000-0AE00	8WH3000-0AF00
	● Blue	8WH3000-0AE01	8WH3000-0AF01
3	● Gray	8WH3003-0AE00	8WH3003-0AF00
	● Blue	8WH3003-0AE01	–
4	● Gray	8WH3004-0AE00	–
	● Blue	8WH3004-0AE01	–
<b>2 PE through-type terminals</b>			
2	● Green-yellow	8WH3000-0CE07	8WH3000-0CF07
3	● Green-yellow	8WH3003-0CE07	8WH3003-0CF07
4	● Green-yellow	8WH3004-0CE07	–

<sup>1)</sup> On terminals with three and four clamping points, the total current through all connected conductors must not exceed the maximum load current.

## Special accessories

Covers					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2.2 mm	8WH9001-1AA00	8WH9000-1AA00
	3	● Gray	2.2 mm	8WH9001-2AA00	8WH9000-2AA00
4	● Gray	2.2 mm	8WH9001-4AA00	–	
Compartment partitions					
	Terminals	Color	Width	Article No.	Article No.
	2	● Gray	2 mm	8WH9070-0JA00	8WH9070-0JA00
4	● Gray	2 mm	8WH9070-0MA00	–	
Cover segments					
	• For covering multi-wire terminals when mounting two-wire terminals side-by-side				
	Terminals	Color		Article No.	Article No.
3	● Gray			–	8WH9000-0AA00

See general accessories, page 14/57 onwards

## Two-tier terminals



### Terminal size

1.5 mm<sup>2</sup>

Terminal width 5.2 mm

Max. load current  $I_{\max}$  17.5 A

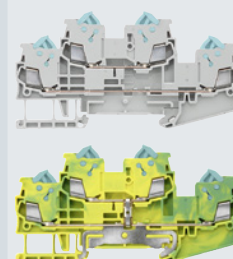
Max. operational voltage  $U_{\max}$  500 V




AWG 24 ... 16

Connection capacity, rigid 0.25 ... 1.5 mm<sup>2</sup>


Connection capacity, flexible with end sleeve 0.25 ... 1.5 mm<sup>2</sup>

Standard  US



Version	Color	
<b>1 Two-tier terminals</b>		
Without equipotential bonding	 Gray	8WH3020-0AE00
	 Blue	8WH3020-0AE01
<b>2 PE two-tier terminals</b>		
	 Green-yellow	8WH3020-0CE07

## Special accessories

Covers			
	Width	Color	Article No.
	2.2 mm	 Gray	8WH9001-1BA00
Compartment partitions			
		Color	Article No.
		 Gray	8WH9070-0MA00

See general accessories, page 14/57 onwards

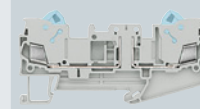
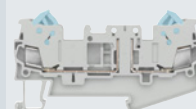


# 8WH3 insulation displacement terminals

## Isolating terminals



	Terminal size	
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{max}$	16 A	16 A
Max. operational voltage $U_{max}$	400 V	400 V
AWG	24 ... 16	20 ... 14
Connection capacity, rigid	0.25 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.25 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
Standard	US	US



Terminals	Color	Article No.	Article No.
2	Gray	8WH3000-6AE00	8WH3000-6AF00

## Special accessories

Covers						
	Width	Color			Article No.	Article No.
	2.2 mm	Gray			8WH9001-2AA00	8WH9000-2AA00
Plug-in zone connectors						
	Type	Color	$I_{max}$	Illuminated display	Article No.	Article No.
	Isolating plugs	Orange	–	–	8WH9040-0DB04	8WH9040-0DB04
	Through-type connectors	Gray	16 A	–	8WH9020-8AB00	8WH9020-8AB00
	Fused connectors <sup>1)</sup>	Black	6.3 A	12 ... 30 V, 1 ... 2.5 mA	8WH9040-3AB08	8WH9040-3AB08
				Without	8WH9040-3DB08	8WH9040-3DB08
	Component connectors	Gray	6 A	–	8WH9040-0BB00	8WH9040-0BB00

<sup>1)</sup> The G fuse holders must be selected according to the maximum power loss (heat dissipation) of the G fuse links. Depending on the application and method of installation, the heat rise conditions in closed fuse holders must be tested. Higher ambient temperatures represent an additional load for the fuse links. A shift in rated current should therefore be taken into account in such applications.

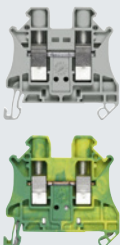
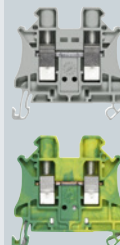
See general accessories, page 14/57 onwards



# 8WH screw terminals

## 8WH1 through-type terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{max}$	32 A	41 A
Max. operational voltage $U_{max}$	1000 V	1000 V
AWG	26 ... 12	26 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.5 ... 0.6 Nm	0.6 ... 0.8 Nm
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus, ©	IEC 60947-7-1, IEC 60947-7-2, cULus, ©
		

Terminals	Color		
<b>1 Through-type terminals</b>			
2	<ul style="list-style-type: none"> <li><span style="color: gray;">●</span> Gray</li> <li><span style="color: blue;">●</span> Blue</li> <li><span style="color: orange;">●</span> Orange</li> <li><span style="color: red;">●</span> Red</li> <li><span style="color: black;">●</span> Black</li> <li><span style="color: green;">●</span> Green</li> <li><span style="color: yellow;">●</span> Yellow</li> </ul>	8WH1000-0AF00 8WH1000-0AF01 8WH1000-0AF04 8WH1000-0AF02 8WH1000-0AF08 8WH1000-0AF03 8WH1000-0AF06	8WH1000-0AG00 8WH1000-0AG01 8WH1000-0AG04 8WH1000-0AG02 8WH1000-0AG08 – –
<b>2 PE through-type terminals</b>			
2	<ul style="list-style-type: none"> <li><span style="color: green; border: 1px solid black; border-radius: 50%; padding: 2px;">●</span> Green-yellow</li> </ul>	8WH1000-0CF07	8WH1000-0CG07

## Special accessories

### Covers



Width  
2.2 mm

Color  
● Gray

Article No.  
8WH9000-1PA00

Article No.  
8WH9000-1PA00

### Compartment partitions



Width  
2 mm

Color  
● Gray

Article No.  
8WH9070-6BA00

Article No.  
8WH9070-6BA00

### Reducing combs



Version  
From screw to screw  
From screw to spring

Color  
● Turquoise  
● Turquoise

Article No.  
–  
–

Article No.  
–  
–

### Warning covers for 8WH1



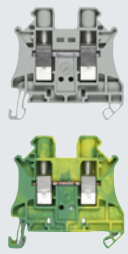
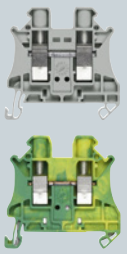
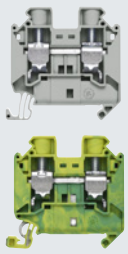
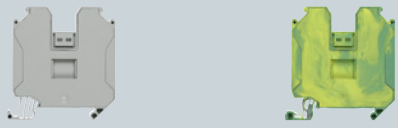
Image  
Lightning symbol

Color  
● Yellow

Article No.  
8WH9060-5BA06

Article No.  
8WH9063-5BA06

See general accessories, page 14/57 onwards

6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>	
8.2 mm	10.2 mm	12.2 mm	16 mm	16 mm
57 A	76 A	101 A	150 A	–
1000 V	1000 V	1000 V	1000 V	–
24 ... 8	20 ... 6	16 ... 4	16 ... 1/0	16 ... 2
0.2 ... 10 mm <sup>2</sup>	0.5 ... 16 mm <sup>2</sup>	1.5 ... 25 mm <sup>2</sup>	1.5 ... 50 mm <sup>2</sup>	1.5 ... 35 mm <sup>2</sup>
0.2 ... 2.5 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>
0.25 ... 6 mm <sup>2</sup>	0.5 ... 10 mm <sup>2</sup>	1 ... 16 mm <sup>2</sup>	1.5 ... 35 mm <sup>2</sup>	1.5 ... 35 mm <sup>2</sup>
0.2 ... 2.5 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>	1 ... 6 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>
1.5 ... 1.8 Nm	1.6 ... 1.8 Nm	2.5 ... 3.0 Nm	3.2 ... 3.7 Nm	3.2 ... 3.7 Nm
IEC 60947-7-1, IEC 60947-7-2, cULus, CE	IEC 60947-7-1, IEC 60947-7-2, cULus, CE	IEC 60947-7-1, IEC 60947-7-2, cULus, CE	IEC 60947-7-1, IEC 60947-7-2, cULus, CE	IEC 60947-7-1, IEC 60947-7-2, cULus, CE
				
8WH1000-0AH00	8WH1000-0AJ00	8WH1000-0AK00	8WH1000-0AM00	–
8WH1000-0AH01	8WH1000-0AJ01	8WH1000-0AK01	8WH1000-0AM01	–
–	–	–	–	–
8WH1000-0AH02	–	–	–	–
8WH1000-0AH08	–	–	–	–
–	–	–	–	–
–	–	–	–	–
8WH1000-0CH07	8WH1000-0CJ07	8WH1000-0CK07	–	8WH1000-0CM07
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9000-1PA00	8WH9000-1PA00	8WH9076-1PA00	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9070-6BA00	8WH9070-6BA00	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9002-8AC10	–	8WH9002-8EC10	8WH9002-8GC10	8WH9002-8GC10
–	–	8WH9002-8FC10	8WH9002-8HC10	8WH9002-8HC10
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WH9064-5BA06	8WH9065-5BA06	8WH9066-5BA06	8WH9067-5BA06	8WH9067-5BA06

# 8WH screw terminals

## 8WH1 through-type terminals for high-current applications



	Terminal size			
	50 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>	240 mm <sup>2</sup>
Terminal width	20 mm	25 mm	31 mm	36 mm
Max. load current $I_{max}$	150 A	232 A	309 A	415 A
Max. operational voltage $U_{max}$	1000 V	1000 V	1000 V	1000 V
AWG	6 ... 0	4 ... 000	2 ... 300	00 ... 500
Connection capacity, rigid	16 ... 70 mm <sup>2</sup>	25 ... 95 mm <sup>2</sup>	35 ... 150 mm <sup>2</sup>	70 ... 240 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	25 ... 50 mm <sup>2</sup>	35 ... 95 mm <sup>2</sup>	50 ... 150 mm <sup>2</sup>	70 ... 185 mm <sup>2</sup>
Tightening torque	6 ... 8 Nm	15 ... 20 Nm	25 ... 30 Nm	25 ... 30 Nm
Standard	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, IEC 60947-7-2, cULus	IEC 60947-7-1, cULus	IEC 60947-7-1, cULus

Terminals	Color				
<b>① Through-type terminals</b>					
2	● Gray	8WH1000-0AN00	8WH1000-0AQ00	8WH1000-0AS00	8WH1000-0AU00
	● Blue	8WH1000-0AN01	8WH1000-0AQ01	8WH1000-0AS01	8WH1000-0AU01
<b>② PE through-type terminals</b>					
2	● Green-yellow	8WH1000-0CN07	8WH1000-0CQ07	–	–

## Special accessories

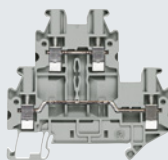
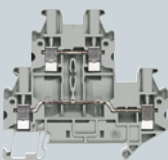
Tap-off terminal						
	<ul style="list-style-type: none"> <li>When wiring a tap-off with a smaller cross-section, observe the overload and short-circuit strength specified in VDE 0100 Part 430</li> </ul>					
$I_{max}$	Cross-section	Article No.	Article No.	Article No.	Article No.	
57 A	10 mm <sup>2</sup>	8WH9120-0AA00	8WH9120-0BA00	8WH9120-0CA00	8WH9120-0CA00	
Insertion profiles						
	<ul style="list-style-type: none"> <li>Evens out the prismatic sleeve base when using flat conductors</li> </ul>					
		Article No.	Article No.	Article No.	Article No.	
		8WH9020-3MA00	8WH9020-3NA00	8WH9020-3PA00	8WH9020-3PA00	
Combs						
	<ul style="list-style-type: none"> <li>Fully insulated, fitted in the clamping sleeve and latched with the terminal enclosure</li> </ul>					
$I_{max}$	Number of poles	Article No.	Article No.	Article No.	Article No.	
232 A	2-pole	–	8WH9020-3AA00	8WH9020-3CA00	–	
	3-pole	–	8WH9020-3BA00	8WH9020-3DA00	–	
320 A	2-pole	–	–	–	8WH9020-3EA00	
	3-pole	–	–	–	8WH9020-3FA00	
Permanent links						
	<ul style="list-style-type: none"> <li>For cross links</li> <li>Screw heads with insulating collar</li> <li>Remove partition first</li> </ul>					
$I_{max}$	Number of poles	Article No.	Article No.	Article No.	Article No.	
150 A	2-pole	8WH9020-6HC00	–	–	–	
	3-pole	8WH9020-6HD00	–	–	–	

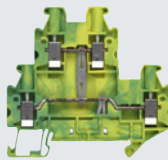
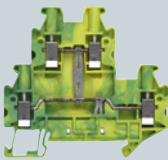
See general accessories, page 14/57 onwards

## 8WH1 two-tier terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width	5.2 mm	6.2 mm
Max. load current $I_{max}$	28 A	36 A
Max. operational voltage $U_{max}$	500 V	800 V
AWG	26 ... 12	26 ... 10
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.5 ... 0.6 Nm	0.6 ... 0.8 Nm
Standard	cULus, CE	cULus, CE

Version	Color		
<b>1 Two-tier terminals</b>			
Without equipotential bonding	● Gray	8WH1020-0AF00	8WH1020-0AG00
With equipotential bonding	● Blue	8WH1020-0AF01	8WH1020-0AG01
	● Gray	8WH1025-0AF00	8WH1025-0AG00
<b>2 PE two-tier terminals</b>			
	● Green-yellow	8WH1020-0CF07	8WH1020-0CG07

## Special accessories

Covers				
	Width	Color	Article No.	Article No.
	2.2 mm	● Gray	8WH9000-1QA00	8WH9000-1QA00
Compartment partitions				
	Width	Color	Article No.	Article No.
	2 mm	● Gray	8WH9070-6FA00	8WH9070-6FA00
Spacer plates				
	• Compensates for tier offset if other terminals are mounted side by side			
	Width	Color	Article No.	Article No.
2.5 mm	● Gray	8WH9160-0AA00	8WH9160-0AA00	

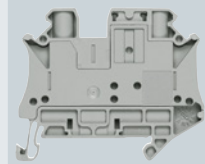
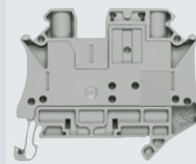
See general accessories, page 14/57 onwards

# 8WH screw terminals

## 8WH1 isolating terminals







	Terminal size	
	4 mm <sup>2</sup>	6 mm <sup>2</sup>
Terminal width	6.2 mm	8.2 mm
Max. load current $I_{max}$	20 A	20 A
Max. operational voltage $U_{max}$	400 V	500 V
AWG	26 ... 10	24 ... 8
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm	1.5 ... 1.8 Nm
Standard	cULus, c	cULus



Terminals	Color		
2	● Gray	8WH1000-6AG00	8WH1000-6AH00

## Special accessories

Plug-in zone connectors						
	Type	Color	$I_{max}$	Illuminated display	Article No.	Article No.
	Isolating plugs	● Orange	–	–	8WH9040-0DB04	8WH9040-0DB04
	Through-type connectors	● Gray	16 A	–	8WH9020-8AB00	8WH9020-8AB00
	Fused connectors <sup>1)</sup>	● Black	6.3 A	12 ... 30 V, 1 ... 2.5 mA Without	8WH9040-3AB08 8WH9040-3DB08	8WH9040-3AB08 8WH9040-3DB08
	Component connectors	● Gray	6 A	–	8WH9040-0BB00	8WH9040-0BB00

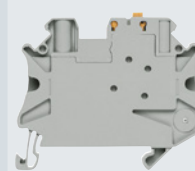
<sup>1)</sup> The G fuse holders must be selected according to the maximum power loss (heat dissipation) of the G fuse links. Depending on the application and method of installation, the heat rise conditions in closed fuse holders must be tested. Higher ambient temperatures represent an additional load for the fuse links. A shift in rated current should therefore be taken into account in such applications.

See general accessories, page 14/57 onwards

## 8WH1 isolating blade terminals



	Terminal size
	4 mm <sup>2</sup>
Terminal width	6.2 mm
Max. load current $I_{\max}$	20 A
Max. operational voltage $U_{\max}$	500 V
AWG	26 ... 12
Connection capacity, one rigid conductor	0.14 ... 4 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 4 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm
Standard	UL, CE



Terminals	Color	
2	● Gray	8WH1000-6CG00

## Special accessories

Warning covers for 8WH1		
Image	Color	Article No.
	● Yellow	8WH9063-5BA06

See general accessories, page 14/57 onwards



# 8WH screw terminals

## 8WH1 two-tier terminals with isolating function

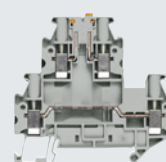
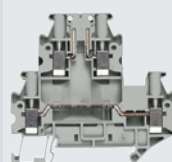


Terminal width	6.2 mm	6.2 mm
Max. load current $I_{\max}$	38 A	38 A
Max. operational voltage $U_{\max}$	500 V	500 V
AWG	26 ... 10	26 ... 10
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm	0.6 ... 0.8 Nm
Standard	UL, CE	UL, CE

### Terminal size




#### 4 mm<sup>2</sup>

Terminal width	6.2 mm	6.2 mm
Max. load current $I_{\max}$	38 A	38 A
Max. operational voltage $U_{\max}$	500 V	500 V
AWG	26 ... 10	26 ... 10
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm	0.6 ... 0.8 Nm
Standard	UL, CE	UL, CE



Version	Color		
<b>1 Isolating terminal</b>			
Isolating terminal in the upper tier	● Gray	8WH1020-6AG00	–
<b>2 Isolating blade</b>			
Isolating blade in the upper tier	● Gray	–	8WH1020-6AC00

## Special accessories

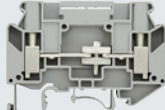
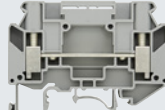
Covers				
	Width	Color	Article No.	Article No.
	2.2 mm	● Gray	8WH9000-1QA00	8WH9000-1QA00
Compartment partitions				
	Width	Color	Article No.	Article No.
	2 mm	● Gray	8WH9070-6FA00	8WH9070-6FA00
Spacer plates				
	• Compensates for tier offset if other terminals are mounted side by side			
	Width	Color	Article No.	Article No.
	2.5 mm	● Gray	8WH9160-0AA00	8WH9160-0AA00

See general accessories, page 14/57 onwards

## 8WH1 measuring transformer isolating terminals



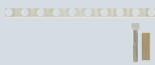





	Terminal size 6 mm <sup>2</sup>	
Terminal width	8.2 mm	8.2 mm
Rated uninterrupted current $I_u$	41 A	41 A
Rated insulation voltage $U_i$	500 V	800 V
AWG	24	8
Connection capacity, rigid	0.5 ... 10 mm <sup>2</sup>	0.5 ... 10 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.5 ... 6 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>
Disconnect slide tightening torque	0.6 ... 0.8 Nm	–
Tightening torque	1.5 ... 1.6 Nm	1.5 ... 1.6 Nm
Standard	UL, CE	UL, CE

Terminals	Color		
<b>1 Isolating terminals</b>			
2 recesses for screwing in the test sockets	● Gray	8WH1000-7AH00	–
<b>2 Through-type terminals with identical contour</b>			
2 recesses for screwing in the test sockets	● Gray	–	8WH1000-7BH00

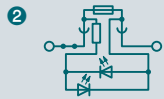
## Special accessories

Covers					
	Width	Color	Article No.	Article No.	
	2.2 mm	● Gray	8WH9000-3UA00	8WH9000-3UA00	
Disconnecting links					
	<ul style="list-style-type: none"> <li>For bridging two adjacent terminals</li> <li>Cannot be used with the bare 8WH9010-0MB12 test socket</li> </ul>		Article No.	Article No.	
	Tightening torque	Number of poles	Color	8WH9021-0AC00	8WH9021-0AC00
	0.6 ... 0.8 Nm	2-pole	● Gray		
Connecting combs, separable					
	<ul style="list-style-type: none"> <li>Consisting of connection wire, spacer sleeves and screws</li> <li>For bridging terminals, the connection wire is adjustable</li> <li>Cannot be used with the bare 8WH9010-0MB12 test socket</li> </ul>		Article No.	Article No.	
	Tightening torque	Number of poles	Color	8WH9021-0AL00	8WH9021-0AL00
	0.6 ... 0.8 Nm	10-pole	● Gray		
Short-circuiting plugs, fully insulated					
	<ul style="list-style-type: none"> <li>For short-circuiting adjacent terminals</li> <li>For simple transformer measurements</li> <li>Required when the bare 8WH9010-0MB12 test adapter is used in the measuring transformer terminal</li> </ul>		Article No.	Article No.	
	$I_{max}$	Number of poles	Color	8WH9010-0BC08	8WH9010-0BC08
	20 A	2-pole	● Black		
Test sockets, insulated					
	<ul style="list-style-type: none"> <li>For screwing into the measuring transformer terminals</li> <li>The 8WH9021-0AC00 disconnecting link shall be used for short-circuiting adjacent terminals</li> </ul>		Article No.	Article No.	
	Tightening torque	Color	8WH9010-0MB03	8WH9010-0MB03	
	0.6 ... 0.8 Nm	● Green	8WH9010-0MB11	8WH9010-0MB11	
		● Violet	8WH9010-0MB06	8WH9010-0MB06	
		● Yellow			
Test sockets, bare					
	<ul style="list-style-type: none"> <li>For screwing into the measuring transformer terminals</li> <li>For simple transformer measurements</li> <li>For tapping with test plug</li> <li>The 8WH9010-0BC08 short-circuiting plug shall be used for short-circuiting adjacent terminals</li> </ul>		Article No.	Article No.	
	Tightening torque		8WH9010-0MB12	8WH9010-0MB12	
	0.6 ... 0.8 Nm				

See general accessories, page 14/57 onwards

# 8WH screw terminals

## 8WH1 fuse terminals



Terminal width	6.2 mm	8.2 mm
Max. load current $I_{\max}$	6.3 A	10 A
Max. operational voltage $U_{\max}$	500 V	630 V
AWG	26 ... 10	24 ... 8
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm	1.5 ... 1.8 Nm
Standard	IEC 60947-7-3, cULus, CE	IEC 60947-7-3, cULus, CE

	Terminal size	
	4 mm <sup>2</sup>	6 mm <sup>2</sup>
Terminal width	6.2 mm	8.2 mm
Max. load current $I_{\max}$	6.3 A	10 A
Max. operational voltage $U_{\max}$	500 V	630 V
AWG	26 ... 10	24 ... 8
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 6 mm <sup>2</sup>	0.2 ... 10 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>	0.2 ... 2.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm	1.5 ... 1.8 Nm
Standard	IEC 60947-7-3, cULus, CE	IEC 60947-7-3, cULus, CE



LED	Color		
For 5 × 20 mm G fuse links			
① Without	● Black	8WH1000-1GG08	–
② AC/DC with LED 10 ... 30 V	● Black	8WH1000-1KG38	–
② AC/DC with LED 110 ... 250 V	● Black	8WH1000-1MG88	–
For 6.3 × 32 mm G fuse links (inch fuses)			
① Without	● Black	–	8WH1000-1HH08
② AC/DC with LED 12 ... 30 V	● Black	–	8WH1000-1PH38

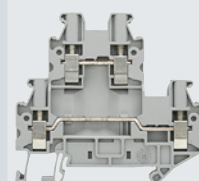
## Special accessories

Reducing combs			
	<ul style="list-style-type: none"> <li>For connecting terminals from terminal size 6 mm<sup>2</sup> to 2.5 mm<sup>2</sup> or 4 mm<sup>2</sup></li> </ul>		
	Version	Color	Article No.
From screw to screw	● Turquoise	–	8WH9002-8AC10

See general accessories, page 14/57 onwards

8WH1 two-tier terminals for soldering of components <sup>1)</sup>

<b>Terminal size</b>	2.5 mm <sup>2</sup>
<b>Terminal width</b>	5.2 mm
<b>Max. load current <math>I_{max}</math></b>	28 A
<b>Max. operational voltage <math>U_{max}</math></b>	500 V
<b>AWG</b>	26 ... 10
<b>Connection capacity, one rigid conductor</b>	0.14 ... 4 mm <sup>2</sup>
<b>Connection capacity, two rigid conductors</b>	0.14 ... 1.5 mm <sup>2</sup>
<b>Connection capacity, one flexible conductor with end sleeve</b>	0.14 ... 4 mm <sup>2</sup>
<b>Connection capacity, two flexible conductors with end sleeve</b>	0.14 ... 1.5 mm <sup>2</sup>
<b>Tightening torque</b>	0.5 ... 0.6 Nm
<b>Standard</b>	CSA, US, CE




Terminals	Color	
4	● Gray	8WH1020-5LF00

<sup>1)</sup> Supplied without components; the appropriate components (resistors, diodes, capacitors, ...) are to be soldered in by user

## Special accessories


## Covers

	Width	Color	Article No.
	2.2 mm	● Gray	8WH9000-1QA00

## Compartment partitions

	Width	Color	Article No.
	2 mm	● Gray	8WH9070-6FA00

## Spacer plates

	Width	Color	Article No.
	2.5 mm	● Gray	8WH9160-0AA00

- Compensates for tier offset if other terminals are mounted side by side

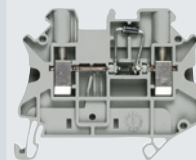
See general accessories, page 14/57 onwards

# 8WH screw terminals

## 8WH1 diode terminals



	Terminal size
	4 mm <sup>2</sup>
Terminal width	6.2 mm
Uninterrupted limiting current	0.5 A
Max. operational voltage $U_{\max}$	800 V
Blocking voltage	1300 V
AWG	26 ... 10
Connection capacity, one rigid conductor	0.14 ... 6 mm <sup>2</sup>
Connection capacity, two rigid conductors	0.14 ... 1.5 mm <sup>2</sup>
Connection capacity, one flexible conductor with end sleeve	0.14 ... 4 mm <sup>2</sup>
Connection capacity, two flexible conductors with end sleeve	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque	0.6 ... 0.8 Nm
Diode	1N 4007, integrated
Standard	UL, CE



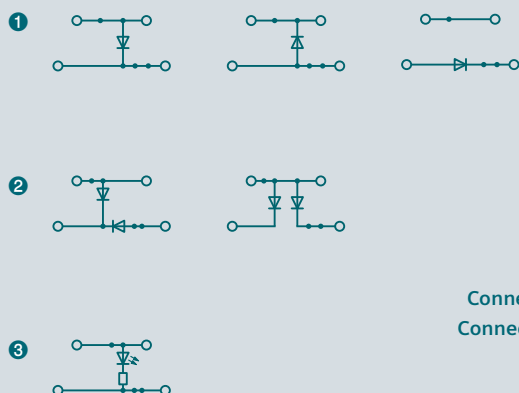
Let-through	Color	
① From left to right	● Gray	8WH1000-6LG00
② From right to left	● Gray	8WH1000-6KG00

## Special accessories

Covers			
	Width	Color	Article No.
	2.2 mm	● Gray	8WH9000-2PA00
Warning covers			
	Image	Color	Article No.
	Lightning symbol	● Yellow	8WH9063-5BA06

See general accessories, page 14/57 onwards

## 8WH1 two-tier diode terminals



## Terminal size

2.5 mm<sup>2</sup>

Terminal width 5.2 mm

Max. load current  $I_{max}$  28 A

Uninterrupted limiting current 0.5 A

Max. operational voltage  $U_{max}$  500 V

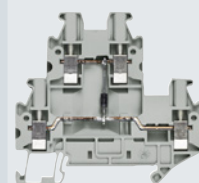
AWG 26 ... 10

Connection capacity, one rigid conductor 0.14 ... 4 mm<sup>2</sup>Connection capacity, two rigid conductors 0.14 ... 1.5 mm<sup>2</sup>Connection capacity, one flexible conductor with end sleeve 0.14 ... 2.5 mm<sup>2</sup>Connection capacity, two flexible conductors with end sleeve 0.14 ... 1.5 mm<sup>2</sup>

Tightening torque 0.5 ... 0.6 Nm

Diode 1N 4007, integrated

Standard US, ©



Type	LED	Color	
<b>1 With one diode</b>			
Let-through from top to bottom		● Gray	8WH1020-5AF00
Let-through from bottom to top		● Gray	8WH1020-5BF00
Let-through from bottom left to bottom right		● Gray	8WH1020-5DF00
<b>2 With two diodes</b>			
Let-through from top to bottom left and from bottom right to bottom left		● Gray	8WH1020-5FF00
Let-through from top to bottom left and from top to bottom right		● Gray	8WH1020-5HF00
<b>3 With illuminated display</b>			
Let-through from top to bottom	24 V DC	● Gray	8WH1020-5JF30

## Special accessories

## Covers

Width  
2.2 mmColor  
● GrayArticle No.  
8WH9000-1QA00

## Compartment partitions

Width  
2 mmColor  
● GrayArticle No.  
8WH9070-6FA00

## Spacer plates




Width  
2.5 mmColor  
● GrayArticle No.  
8WH9160-0AA00

- Compensates for tier offset if other terminals are mounted side by side

See general accessories, page 14/57 onwards

# 8WH screw terminals

## 8WH9 shield terminals

	Terminal diameter			
	3 ... 8 mm	3 ... 14 mm	3 ... 20 mm	20 ... 35 mm
Tightening torque	0.6 Nm	0.8 Nm	0.8 Nm	1.5 ... 1.8 Nm
Sheet thickness, mounting plate	1 ... 2 mm	1 ... 2 mm	1 ... 2 mm	1 ... 2 mm
				

### Version

#### For direct shield attachment on conductive mounting plate




For connecting cable shield and enclosure ground	8WH9130-0AA00	8WH9130-0BA00	8WH9130-0CA00	8WH9130-0DA00
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#### For 10 × 3 mm busbars


For connecting cable shield and enclosure ground	8WH9130-0LA00	8WH9130-0MA00	8WH9130-0NA00	8WH9130-0PA00
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## Special accessories

### N conductor support brackets

	Version	Article No.	Article No.	Article No.	Article No.
	Made of molded plastic and conductive connection with retaining screw	8WH9140-0DA00	8WH9140-0DA00	8WH9140-0DA00	8WH9140-0DA00
	For mounting rail with clearance of approx. 30 mm to the busbar	8WH9140-0BA00	8WH9140-0BA00	8WH9140-0BA00	–
	For mounting rail with clearance of approx. 65 mm to the busbar	8WH9140-0CA00	8WH9140-0CA00	8WH9140-0CA00	–

### N busbars, 10 × 3 mm

	Version	Length	Article No.	Article No.	Article No.	Article No.
	Copper, tinned	1000 mm	8WA2842	8WA2842	8WA2842	8WA2842

See general accessories, page 14/57 onwards

# Accessories for 8WH terminal blocks

## Individual labeling system

### Labeling systems for

- Terminal blocks
- Modular installation devices
- Circuit breakers
- Switch disconnectors

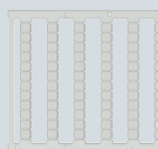
### Labeling systems available from:

Murrplastik Systemtechnik GmbH  
 Dieselstraße 10  
 D-71570 Oppenweiler  
 Telephone: +49 7191-482-0  
 email: info@murrplastik.de

The inscription labels can be inscribed with Murrplastik labeling systems or by hand.

The WIN designation facilitates assignment in the inscription software.

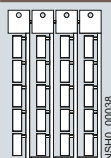
### Blank labels



- Horizontal and vertical labeling

Version	Terminal width	Designation	Color	Article No.
Front	3.5 mm	WIN 97	● White	8WH8112-0AA05
	4.2 mm	WIN 97	● White	8WH8112-1AA05
	5.2 and 6.2 mm	WIN 88	● White	8WH8112-2AA05
	8.2, 10.2, 12.2 and 16 mm	WIN 40	● White	8WH8112-4AA05
Flat	3.5 mm	WIN 97	● White	8WH8113-0AA05
	4.2 mm	WIN 180	● White	8WH8113-1AA05
	5.2 mm	WIN 182	● White	8WH8113-1AA05
	6.2 mm	WIN 184	● White	8WH8113-1AA05
	8.2 mm	WIN 186	● White	8WH8113-1AA05
	10.2 mm	WIN 188	● White	8WH8113-1AA05
	12.2 and 16 mm	WIN 46Z	● White	8WH8113-6AA05

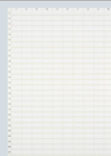
### Snap-on device labels



- For identification of, e.g. circuit breakers, contactors and control systems

Version	Designation	Color	Article No.
20 × 7 mm, snap-on hooks at side	WIN 95	● White	8WH8210-0AA55
20 × 7 mm, snap-on hooks at side	WIN 95	● Turquoise	8WH8210-0AA56

### Adhesive device labels



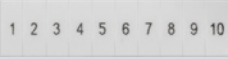


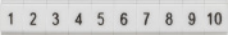


- For identification of, e.g. modular installation devices and switch disconnectors

Type	Designation	Color	Article No.
15 × 6 mm	WIN 098	● White	8WH8210-0AA35
	WIN 099	● Yellow	8WH8210-0AA36
19 × 8 mm	WIN 088	● White	8WH8210-0AA45
	WIN 082	● Yellow	8WH8210-0AA46



# Accessories for 8WH terminal blocks

## Standard labeling system

				Terminal size	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>				
				Terminal width	4.2 mm/5.2 mm (8WH3)	5.2 mm/6.2 mm (8WH3)				
<b>Front</b>										
	Vertical	Inscription	Consecutive numbering	Inscription	Article No.	Article No.				
				1 ... 10 (10×)	8WH8120-1AB05	8WH8120-2AB05				
				11 ... 20 (10×)	8WH8120-1AB15	8WH8120-2AB15				
				21 ... 30 (10×)	8WH8120-1AB25	8WH8120-2AB25				
				31 ... 40 (10×)	8WH8120-1AB35	8WH8120-2AB35				
				41 ... 50 (10×)	8WH8120-1AB45	8WH8120-2AB45				
				51 ... 60 (10×)	8WH8120-1AB55	8WH8120-2AB55				
				61 ... 70 (10×)	8WH8120-1AB65	8WH8120-2AB65				
				71 ... 80 (10×)	8WH8120-1AB75	8WH8120-2AB75				
				81 ... 90 (10×)	8WH8120-1AB85	8WH8120-2AB85				
				91 ... 100 (10×)	8WH8120-1AC05	8WH8120-2AC05				
				L1, L2, L3, N, PE	–	8WH8120-2AA15				
				U, V, W, N, grounding	–	–				
				Custom inscription	–	8WH8120-1XA05-Z Y01	8WH8120-2XA05-Z Y01			
					Horizontal	Inscription	Consecutive numbering	Article No.	Article No.	
1 ... 10 (10×)	8WH8140-1AB05	8WH8140-2AB05								
11 ... 20 (10×)	8WH8140-1AB15	8WH8140-2AB15								
21 ... 30 (10×)	8WH8140-1AB25	8WH8140-2AB25								
31 ... 40 (10×)	8WH8140-1AB35	8WH8140-2AB35								
41 ... 50 (10×)	–	8WH8140-2AB45								
51 ... 60 (10×)	–	8WH8140-2AB55								
61 ... 70 (10×)	–	8WH8140-2AB65								
71 ... 80 (10×)	–	8WH8140-2AB75								
81 ... 90 (10×)	–	8WH8140-2AB85								
91 ... 100 (10×)	–	8WH8140-2AC05								
Custom inscription	–	8WH8140-1XA05-Z Y01	8WH8140-2XA05-Z Y01							
	Blank	Inscription	–					Article No.	Article No.	
								8WH8110-1AA05	8WH8110-2AA05	
<b>Flat</b>										
	Vertical	Inscription	Consecutive numbering	Article No.	Article No.					
				1 ... 10 (10×)	8WH8121-1AB05	8WH8121-2AB05				
				11 ... 20 (10×)	8WH8121-1AB15	8WH8121-2AB15				
				21 ... 30 (10×)	8WH8121-1AB25	8WH8121-2AB25				
				31 ... 40 (10×)	8WH8121-1AB35	8WH8121-2AB35				
				41 ... 50 (10×)	8WH8121-1AB45	8WH8121-2AB45				
				51 ... 60 (10×)	8WH8121-1AB55	8WH8121-2AB55				
				61 ... 70 (10×)	–	8WH8121-2AB65				
				71 ... 80 (10×)	–	8WH8121-2AB75				
				81 ... 90 (10×)	–	8WH8121-2AB85				
				91 ... 100 (10×)	–	8WH8121-2AC05				
				Custom inscription	–	8WH8121-1XA05-Z Y01	8WH8121-2XA05-Z Y01			
					Horizontal	Inscription	Consecutive numbering	Article No.	Article No.	
								1 ... 10 (10×)	8WH8141-1AB05	8WH8141-2AB05
								11 ... 20 (10×)	8WH8141-1AB15	8WH8141-2AB15
21 ... 30 (10×)	8WH8141-1AB25	8WH8141-2AB25								
31 ... 40 (10×)	8WH8141-1AB35	8WH8141-2AB35								
41 ... 50 (10×)	8WH8141-1AB45	8WH8141-2AB45								
51 ... 60 (10×)	–	8WH8141-2AB55								
61 ... 70 (10×)	–	8WH8141-2AB65								
71 ... 80 (10×)	–	8WH8141-2AB75								
81 ... 90 (10×)	–	8WH8141-2AB85								
91 ... 100 (10×)	–	8WH8141-2AC05								
Custom inscription	–	8WH8141-1XA05-Z Y01	8WH8141-2XA05-Z Y01							
	Blank	Inscription	–					Article No.	Article No.	
								8WH8111-1AA05	8WH8111-2AA05	

4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 and 16 mm <sup>2</sup>	35 mm <sup>2</sup>
6.2 mm	8.2 mm	10.2 and 12.2 mm	16 mm
Article No.	Article No.	Article No.	Article No.
8WH8120-3AB05	8WH8120-4AB05	8WH8120-5AB05	–
8WH8120-3AB15	8WH8120-4AB15	8WH8120-5AB15	–
8WH8120-3AB25	8WH8120-4AB25	8WH8120-5AB25	–
8WH8120-3AB35	8WH8120-4AB35	8WH8120-5AB35	–
8WH8120-3AB45	8WH8120-4AB45	–	–
8WH8120-3AB55	8WH8120-4AB55	–	–
8WH8120-3AB65	8WH8120-4AB65	–	–
8WH8120-3AB75	8WH8120-4AB75	–	–
8WH8120-3AB85	8WH8120-4AB85	–	–
8WH8120-3AC05	8WH8120-4AC05	–	–
8WH8120-3AA15	8WH8120-4AA15	8WH8120-5AA15	8WH8120-7AA15
–	–	8WH8120-5AA25	–
8WH8120-3XA05-Z Y01	8WH8120-4XA05-Z Y01	8WH8120-5XA05-Z Y01	8WH8120-7XA05-Z Y01
8WH8140-3AB05	8WH8140-4AB05	8WH8140-5AB05	–
8WH8140-3AB15	8WH8140-4AB15	8WH8140-5AB15	–
8WH8140-3AB25	8WH8140-4AB25	8WH8140-5AB25	–
8WH8140-3AB35	–	8WH8140-5AB35	–
8WH8140-3AB45	–	–	–
8WH8140-3AB55	–	–	–
8WH8140-3AB65	–	–	–
8WH8140-3AB75	–	–	–
8WH8140-3AB85	–	–	–
8WH8140-3AC05	–	–	–
8WH8140-3XA05-Z Y01	8WH8140-4XA05-Z Y01	8WH8140-5XA05-Z Y01	8WH8140-7XA05-Z Y01
8WH8110-3AA05	8WH8110-4AA05	8WH8110-5AA05	8WH8110-7AA05
Article No.	Article No.	Article No.	Article No.
8WH8121-3AB05	8WH8121-4AB05	8WH8121-5AB05	–
8WH8121-3AB15	8WH8121-4AB15	8WH8121-5AB15	–
8WH8121-3AB25	–	8WH8121-5AB25	–
8WH8121-3AB35	–	–	–
8WH8121-3AB45	–	–	–
8WH8121-3AB55	–	–	–
8WH8121-3AB65	–	–	–
8WH8121-3AB75	–	–	–
8WH8121-3AB85	–	–	–
8WH8121-3AC05	–	–	–
8WH8121-3XA05-Z Y01	8WH8121-4XA05-Z Y01	8WH8121-5XA05-Z Y01	–
8WH8141-3AB05	8WH8141-4AB05	8WH8141-5AB05	–
–	8WH8141-4AB15	–	–
–	8WH8141-4AB25	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
8WH8141-3XA05-Z Y01	8WH8141-4XA05-Z Y01	8WH8141-5XA05-Z Y01	–
8WH8111-3AA05	8WH8111-4AA05	8WH8111-5AA05	8WH8111-7AA05

# Accessories for 8WH terminal blocks

## Mounting accessories

### Lateral mounting test plugs



- For individual assembly of test plug connectors
- Cannot be used for 8WH3 insulation displacement terminals.

Terminal size	Terminal width	Color	Article No.
2.5 mm <sup>2</sup>	5.2 mm	● Red	8WH9010-0EB02

### Spacer plates



- For skipping single terminals for individual test adapter assembly
- Not suitable for 8WH3 insulation displacement terminals

Terminal size	Terminal width	Color	Article No.
2.5 mm <sup>2</sup>	5.2 mm	● Red	8WH9010-2BA02

### Terminal strip markers, for end retainers



- Height-adjustable
- For quick-fit end retainers
- For inscription with two front labels, for terminal width 10.2 mm and terminal strip markers

Labeling field size	Color	Article No.
20 × 8 mm	● Gray	8WH9150-1CA00

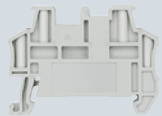
### Test adapters



- For 4 mm Ø test plugs and 4 mm Ø safety test plugs
- Makes contact in the bridge slot

Color	Article No.
● Gray	8WH9010-0JB00

### Quick-fit end retainers



- For inscription with front labels, for terminal width 5.2 mm and terminal strip markers

Color	Article No.
● Gray	8WH9150-0CA00

### Reducing combs



- For connecting two through-type terminals
- Cannot be used for 8WH1 through-type terminals and 8WH3 insulation displacement terminals

From terminal size	To terminal size	Color	Article No.
2.5 mm <sup>2</sup> or 4 mm <sup>2</sup>	1.5 mm <sup>2</sup>	● Turquoise	8WH9020-0CC10
	6 mm <sup>2</sup>	● Turquoise	8WH9020-0FC10
	10 mm <sup>2</sup>	● Turquoise	8WH9020-0AC10
	16 mm <sup>2</sup>	● Turquoise	8WH9020-0BC10
	35 mm <sup>2</sup>	● Turquoise	8WH9020-0EC10
16 mm <sup>2</sup>	35 mm <sup>2</sup>	● Turquoise	8WH9020-0DC10

## Connecting combs



Terminal size	Terminal width	Max. load current $I_{\max}$	Used for 8WH3	Number of poles	Article No.
1.5 mm <sup>2</sup>	4.2 mm	17.5 A	Cannot be used	2-pole	8WH9020-6AC10
				3-pole	8WH9020-6AD10
				4-pole	8WH9020-6AE10
				5-pole	8WH9020-6AF10
				10-pole	8WH9020-6AL10
2.5 mm <sup>2</sup>	5.2 mm	24 A	Can be used for terminal size 1.5 mm <sup>2</sup>	20-pole	8WH9020-6AS10
				2-pole	8WH9020-6BC10
				3-pole	8WH9020-6BD10
				4-pole	8WH9020-6BE10
				5-pole	8WH9020-6BF10
4 mm <sup>2</sup>	6.2 mm	32 A	Can be used for terminal size 2.5 mm <sup>2</sup>	10-pole	8WH9020-6BL10
				20-pole	8WH9020-6BS10
				50-pole	8WH9020-6BT10
				2-pole	8WH9020-6CC10
				3-pole	8WH9020-6CD10
6 mm <sup>2</sup>	8.2 mm	41 A	Cannot be used	4-pole	8WH9020-6CE10
				5-pole	8WH9020-6CF10
				10-pole	8WH9020-6CL10
				20-pole	8WH9020-6CS10
				50-pole	8WH9020-6CT10
10 mm <sup>2</sup>	10.2 mm	57 A	Cannot be used	2-pole	8WH9020-6EC10
16 mm <sup>2</sup>	12.2 mm	76 A	Cannot be used	2-pole	8WH9020-6FC10
35 mm <sup>2</sup>	16 mm	101 A	Cannot be used	2-pole	8WH9020-6GC10

## Screwdrivers



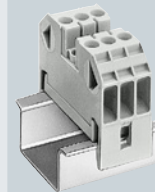
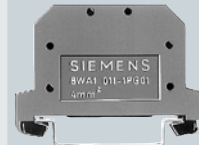
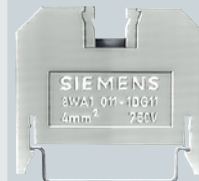
Type	Article No.
0.4 × 2.5 mm	8WH9200-0AA00
0.6 × 3.5 mm	8WH9200-0AB00
0.8 × 4.0 mm	8WH9200-0AC00
1.0 × 5.5 mm	8WH9200-0AD00

# 8WA1 screw terminals









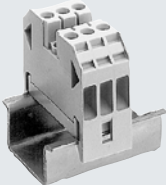
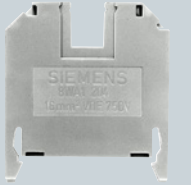

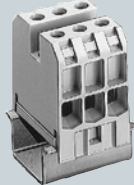




## Through-type terminals



	Terminal size	
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
Terminal width, through-type terminal	6 mm	6.5 mm
Terminal width, PE/PEN through-type terminal	6 mm	7.2 mm
3-pole terminal block width	18 mm	19.5 mm
10-pole terminal block width	61 mm	65.5 mm
Max. load current $I_{max}$	24 A	32 A
Max. operational voltage $U_{max}$ (UL, CE)	600 V	600 V
Rated insulation voltage $U_i$	800 V	800 V
AWG (UL)	22 ... 12	18 ... 10
AWG (CE)	18 ... 12	18 ... 10
Connection capacity, rigid	0.5 ... 4 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.5 ... 2.5 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>
Tightening torque	0.5 Nm	0.5 Nm
Standard	IEC 60947-7-1, IEC 60947-7-2, UL, CE	IEC 60947-7-1, IEC 60947-7-2, UL, CE



Terminals	Number of poles	Inscription	Color		
<b>1 Through-type terminal – single terminal</b>					
2	1-pole	Blank	Beige	8WA1011-1DF11	8WA1011-1DG11
			Blue	8WA1011-1BF23	8WA1011-1BG11
			Red	8WA1011-1BF21	8WA1011-1BG21
			Orange	8WA1011-1BF22	8WA1011-1BG22
			Yellow	8WA1011-1BF26	–
			Black	8WA1011-1BF24	8WA1011-1BG24
			Green	8WA1011-1BF25	–
<b>2 PE/PEN through-type terminal – single terminal</b>					
1	1-pole	Blank	Green-yellow	8WA1011-1PF01	8WA1011-1PG01
2	1-pole	Blank	Green-yellow	8WA1011-1PF00	8WA1011-1PG00
<b>1 Through-type terminal block</b>					
6	3-pole	Blank	Beige	8WA1011-3DF21	8WA1011-3DG21
20	10-pole	Blank	Beige	8WA1011-0DF21	8WA1011-0DG21
		1 ... 10	Beige	8WA1011-0DF22	8WA1011-0DG22

6 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>	70 mm <sup>2</sup>
8 mm	10 mm	16 mm	25 mm
8 mm	12 mm	16 mm	–
24.5 mm	30 mm	48 mm	–
–	–	–	–
41 A	76 A	125 A	192 A
600 V	600 V	600 V	600 V
800 V	800 V	800 V	800 V
14 ... 8	12 ... 4	10 ... 1	8 ... 3/0
16 ... 8	14 ... 6	12 ... 2	8 ... 1/0
0.7 ... 10 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>	4 ... 16 mm <sup>2</sup>	10 ... 95 mm <sup>2</sup>
1.5 ... 6 mm <sup>2</sup>	2.5 ... 16 mm <sup>2</sup>	4 ... 35 mm <sup>2</sup>	16 ... 70 mm <sup>2</sup>
0.8 Nm	1.2 Nm	2.5 ... 3 Nm	6 Nm
IEC 60947-7-1, IEC 60947-7-2,  	IEC 60947-7-1, IEC 60947-7-2,  	IEC 60947-7-1, IEC 60947-7-2,  	IEC 60947-7-1,  
  	  	  	
8WA1011-1DH11	8WA1204	8WA1205	8WA1206
8WA1011-1BH23	8WA1011-1BK11	8WA1011-1BM11	8WA1011-1BP11
–	–	–	–
–	–	–	–
–	–	–	–
8WA1011-1BH24	–	–	–
–	–	–	–
–	–	–	–
8WA1011-1PH00	8WA1011-1PK00	8WA1011-1PM00	–
8WA1011-3DH21	8WA1304	8WA1305	–
–	–	–	–
–	–	–	–

# 8WA1 screw terminals

## Through-type terminals

### Special accessories

	Terminal size	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
<b>Covers</b>			
	<b>Version</b>	<b>Article No.</b>	<b>Article No.</b>
	With lightning symbol	8WA1810	8WA1811
	White, facility for labeling	8WA1860	8WA1862
	For connection bars, transparent	8WA1822-7AX01	8WA1822-7AX01
	For connection bars, white, inscription possible	8WA1822-7AX03	8WA1822-7AX03
<b>Jumpers</b>			
	<b>Version</b>	<b>Article No.</b>	<b>Article No.</b>
	For connection bars	8WA1822-7VF01	8WA1822-7VG00
<b>Disconnecting links</b>			
	<ul style="list-style-type: none"> <li>The terminals must be fitted with end plates and must be mounted with the end plates facing each other</li> </ul>		
	<b>I<sub>n</sub></b>	<b>Article No.</b>	<b>Article No.</b>
Up to 32 A	8WA1865	8WA1865	
<b>End retainers, thermoplastic</b>			
	<b>Width</b>	<b>Article No.</b>	<b>Article No.</b>
	10 mm	8WA1808	8WA1808
<b>Insulation plate</b>			
		<b>Article No.</b>	<b>Article No.</b>
		8WA1825	8WA1825
<b>Barriers</b>			
	<ul style="list-style-type: none"> <li>Between terminals with terminal sizes 2.5 and 6 mm<sup>2</sup> two 8WH1820 barriers are required</li> </ul>		
	<b>Width</b>	<b>Article No.</b>	<b>Article No.</b>
2 mm	8WA1820	8WA1820	
<b>Connection bars</b>			
	<b>Version</b>	<b>Article No.</b>	<b>Article No.</b>
	For two terminals	8WA1895	8WA1850
	For three terminals	8WA1896	8WA1851
	For four terminals	8WA1897	8WA1852
	For ten terminals	8WA1898	8WA1853

See general accessories, page 14/78 onwards

6 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>	70 mm <sup>2</sup>
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1811	8WA1812	8WA1813	8WA1814
8WA1862	8WA1892	8WA1893	–
8WA1822-7AX01	8WA1822-7AX02	8WA1822-7AX02	–
8WA1822-7AX03	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1822-7VH00	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1865	–	–	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1808	8WA1808	8WA1808	8WA1808
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1825	8WA1822-7TK00	8WA1822-7TK00	–
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1821	8WA1821	8WA1823	8WA1824
<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1885	8WA1842	8WA1828	8WA1216
8WA1886	8WA1845	8WA1803	–
8WA1887	8WA1848	–	–
8WA1888	8WA1802	8WA1804	–



# 8WA1 screw terminals

PE through-type terminals, bare



	Terminal size	
	6 mm <sup>2</sup>	95 mm <sup>2</sup>
Terminal width	6 mm	16 mm
Terminal length	44 mm	75 mm
Terminal height	25 mm	63 mm
Tightening torque	0.8 Nm	15 ... 20 Nm
Connection capacity, rigid	0.5 ... 10 mm <sup>2</sup>	–
Connection capacity, flexible with end sleeve	1.5 ... 6 mm <sup>2</sup>	50 ... 95 mm <sup>2</sup>
Standard	☉	☉




Terminals	Surface		
PE through-type terminals			
2	● Bare	8WA1010-1PH01	8WA1010-1PQ00





## Special accessories


Barriers	Article No.	Article No.
	8WA1821	–

See general accessories, page 14/78 onwards

## Two-tier terminals



	<b>Terminal size</b>
	4 mm <sup>2</sup>
<b>Terminal width</b>	6.5 mm
<b>Max. load current <math>I_{max}</math></b>	32 A
<b>Rated insulation voltage <math>U_i</math></b>	690 V
<b>AWG </b>	18 ... 10
<b>AWG </b>	18 ... 10
<b>Connection capacity, rigid</b>	0.5 ... 6 mm <sup>2</sup>
<b>Connection capacity, flexible with end sleeve</b>	0.75 ... 4 mm <sup>2</sup>
<b>Standard</b>	 , 



Version	Color	
<b>1 Two-tier terminals without equipotential bonding</b>		
2-pole with two electrically isolated connections	● Beige	8WA1011-2DG11
	● Blue	8WA1011-2BG11
<b>2 Two-tier terminals with equipotential bonding</b>		
1-pole	● Beige	8WA1011-6DG11
	● Blue	8WA1011-6BG11

## Special accessories

Covers			
	<b>Version</b>		<b>Article No.</b>
	With lightning symbol		8WA1811
	White, facility for labeling		8WA1862
	For connection bars, transparent		8WA1822-7AX01
Jumpers			
	<b>Version</b>		<b>Article No.</b>
	For upper tier of 2-pole terminals		8WA1822-7VG00
	For lower tier of 1 and 2-pole terminals		8WA1822-7VG01
Disconnecting links			
			<b>Article No.</b>
			8WA1865
End plates			
			<b>Article No.</b>
			8WA1817
Insulation plate			
	<b>Version</b>		<b>Article No.</b>
	For upper and lower tier		8WA1825
Connection bars			
	<b>Version</b>	<b>Type</b>	<b>Article No.</b>
	For upper tier of 2-pole terminals	For two terminals	8WA1850
		For three terminals	8WA1851
		For four terminals	8WA1852
		For ten terminals	8WA1853
For lower tier of 1 and 2-pole terminals	For two terminals	8WA1835	
	For ten terminals	8WA1838	
Barriers			
	<b>Color</b>		<b>Article No.</b>
	● Gray		8WA1823

See general accessories, page 14/78 onwards

# 8WA1 screw terminals

## Insta or three-tier terminals



Rated insulation voltage  $U_i$  between phase conductors  
Rated insulation voltage  $U_i$  between phase and protective conductors  
and for neutral isolating distance

Terminal width

Max. load current  $I_{max}$ 

AWG

Connection capacity, rigid

Connection capacity, flexible with end sleeve

Tightening torque

Standard

Terminal size

2.5 mm<sup>2</sup>

6 mm

24 A

400 V

250 V

22 ... 12

0.5 ... 4 mm<sup>2</sup>0.5 ... 4 mm<sup>2</sup>

0.5 Nm



Type	Color	Article No.
1 L, L	● Beige	8WA1011-3JF18
2 PE, L, L	● Beige	8WA1011-3JF16
2 PE, L, N	● Beige	8WA1011-3JF17
3 PE, L, NT	● Beige	8WA1011-3JF20

## Special accessories

Covers			
	Version		Article No.
	For connection bars, transparent		8WA1822-7AX01
	For connection bars, white		8WA1822-7AX03
Bare infeed terminals, for N busbars			
	Size	Conductor cross-section	Rated uninterrupted current
	6 × 6 mm and 10 × 3 mm	Up to 4 mm <sup>2</sup>	32 A
		Up to 25 mm <sup>2</sup>	76 A
Up to 35 mm <sup>2</sup>		125 A	
Article No.			
			8WA2867
			8WA2868
			8WA2870
N busbars, 6 × 6 mm			
	Version	Length	Rated uninterrupted current
	For four-field	1109 mm	125 A
Article No.			8GF9324-2
End retainers, thermoplastic			
	Width		Article No.
	10 mm		8WA1808
Terminal strip labels for end retainers			
	Version		Article No.
	Blank (WIN 67)		8WA8212-0AA65
Insulation carriers			
	Use		Article No.
	For mounting insulated support rails		8WA1857
Labels, blank			
	Label size	Version	Article No.
	5 × 7 mm (WIN 68)	Suitable for plotting	8WA8348-2AY
Connection bars			
	Version	Type	Article No.
	For Insta terminals	For two terminals	8WA1822-7VF02
		For three terminals	8WA1822-7VF03
		For ten terminals	8WA1822-7VF10
Barriers			
	Version	Color	Article No.
	For Insta terminals	● Gray	8WA1822-7TH00

See general accessories, page 14/78 onwards

## N conductor isolating and branch terminals



	Terminal size			
	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>	16 mm <sup>2</sup>
Terminal width	6 mm	6.5 mm	8 mm	10 mm
Max. load current $I_{max}$	24 A	32 A	41 A	76 A
Rated insulation voltage $U_i$	500 V	500 V	500 V	500 V
AWG	22 ... 12	18 ... 10	14 ... 8	12 ... 4
AWG	22 ... 12	18 ... 10	14 ... 8	–
Connection capacity, rigid	2.5 ... 4 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.5 ... 2.5 mm <sup>2</sup>	0.75 ... 4 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>	1.5 ... 16 mm <sup>2</sup>
Tightening torque	0.5 Nm	0.5 Nm	0.8 Nm	1.2 Nm
Standard				

Terminals	Color				
2	Blue	8WA1011-1NF01	8WA1011-1NG31	8WA1011-1NH01	8WA1604

## Special accessories

Infeed terminals, for N busbars						
	Size	Rated uninterrupted current	Article No.	Article No.	Article No.	Article No.
	6 × 6 mm and	32 A	8WA2867	8WA2867	–	–
	10 × 3 mm	76 A	8WA2868	8WA2868	8WA2868	8WA2868
		125 A	8WA2870	8WA2870	8WA2870	8WA2870
N busbars, 6 × 6 mm, for four-field						
	Length	Rated uninterrupted current	Article No.	Article No.	Article No.	Article No.
	1109 mm	125 A	8GF9324-2	8GF9324-2	8GF9324-2	8GF9324-2
Label holder						
			Article No.	Article No.	Article No.	Article No.
			3TX4210-0J	3TX4210-0J	3TX4210-0J	3TX4210-0J

See general accessories, page 14/78 onwards

# 8WA1 screw terminals

Through-type terminals with sectionalizing feature



	<b>Terminal size</b>
	2.5 mm <sup>2</sup>
<b>Terminal width</b>	6 mm
<b>Max. load current <math>I_{max}</math></b>	10 A
<b>Rated insulation voltage <math>U_i</math> for open isolating distance</b>	380 V AC, 450 V DC
<b>Rated insulation voltage <math>U_i</math> when using barriers</b>	750 V AC, 900 V DC
<b>Connection capacity, rigid</b>	0.25 ... 4 mm <sup>2</sup>
<b>Connection capacity, flexible without end sleeve</b>	0.5 ... 2.5 mm <sup>2</sup>
<b>Connection capacity, flexible with end sleeve</b>	0.5 ... 1.5 mm <sup>2</sup>
<b>Tightening torque</b>	0.5 Nm
<b>Standard</b>	VDE, CE



Terminals	Version	Color	
2	With 2 holes for Ø 2.3 mm test plug	● Gray	8WA1501

## Special accessories

Barriers		Article No.
	Color ● Gray	8WA1820

See general accessories, page 14/78 onwards

## Measuring transformer terminals

		Terminal size			
		6 mm <sup>2</sup>			
1		Terminal width	8 mm	8 mm	8 mm
2		Max. load current $I_{max}$	41 A	41 A	41 A
3		Rated insulation voltage $U_i$	500 V	500 V	500 V
		AWG	14 ... 8	14 ... 8	14 ... 8
		AWG	16 ... 10	16 ... 10	16 ... 10
		Connection capacity, rigid	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
		Connection capacity, flexible with end sleeve	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>	0.75 ... 10 mm <sup>2</sup>
		Tightening torque	0.8 Nm	0.8 Nm	0.8 Nm
		Standard			
Test sockets	Color	1 Isolating terminal	2 Isolating blade terminal	3 Through-type terminals with identical contour	
Without test socket	Beige	8WA1011-1MH11	–	8WA1011-1MH10	
With test socket	Beige	–	8WA1011-1MH15	–	

## Special accessories

Covers, for connection bars		
	Type	Article No.
	Transparent	8WA1822-7AX01
	White, facility for labeling	8WA1822-7AX03
Test sockets		
	Diameter	Article No.
	4 mm	8WA1822-7PH00
Disconnecting links		
	<ul style="list-style-type: none"> <li>Rated insulation voltage with disconnecting link open according to DIN VDE 0110: 125 V, size C or 250 V size B</li> </ul>	Article No.
		8WA1822-7VH01
Insulation plate		
		Article No.
		8WA1825
Connecting comb		
	Number of poles	Article No.
	2-pole	8WA1822-7VH22
	10-pole, can be shortened as required	8WA7163
Connection bars		
	Type	Article No.
	Two terminals	8WA1885
	Three terminals	8WA1886
	Four terminals	8WA1887
	Ten terminals	8WA1888
	Unmounted for ten terminals	8WA1822-7VH10
Barriers		
	Color	Article No.
	Gray	8WA1822-7TH00

See general accessories, page 14/78 onwards

# 8WA1 screw terminals

## Fuse terminals



	Terminal size
	1.5 mm <sup>2</sup>
Terminal width	10 mm
Max. load current $I_{max}$ when using fuses	6.3 A
Max. load current $I_{max}$ when using the isolating link	16 A
Rated insulation voltage $U_i$ when using fuses	250 V
Rated insulation voltage $U_i$ when using the isolating link	800 V
AWG	18 ... 14
AWG	18 ... 14
Connection capacity, rigid	1 ... 2.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.75 ... 1.5 mm <sup>2</sup>
Tightening torque	0.8 Nm
Standard	



Version	Color	
For 5 × 25 mm G fuse links		
1 Without LED	Beige	8WA1011-1SF12
2 With LED 24 V AC/DC	Beige	8WA1011-1SF13
2 With LED 230 V AC/DC	Beige	8WA1011-1SF15
For 6.3 × 32 mm G fuse links (inch fuses)		
1 Without LED	Beige	8WA1011-1SF30
2 With LED 24 V AC/DC	Beige	8WA1011-1SF31
2 With LED 120 V AC/110 V DC	Beige	8WA1011-1SF32

## Special accessories


5 × 25 mm G fuse links				
	Type	Breaking capacity	Rated uninterrupted current	Article No.
	Quick	Large	1 A	8WA1822-7EF16
			1.6 A	8WA1822-7EF18
			2.5 A	8WA1822-7EF21
			4 A	8WA1822-7EF23
			6.3 A	8WA1822-7EF25
	Slow	Small	1 A	8WA1822-7EF76
			1.6 A	8WA1822-7EF78
			2.5 A	8WA1822-7EF81
			4 A	8WA1822-7EF83
			6.3 A	8WA1822-7EF85
Isolating links, 5 × 25 mm				
	Size			Article No.
	5 × 25 mm			8WA1891

See general accessories, page 14/78 onwards

## Terminals for self-fitting with components



	Terminal size
	1.5 mm <sup>2</sup>
Terminal width	10 mm
Max. load current $I_{\max}$	6.3 A
Rated insulation voltage $U_i$	500 V
Connection capacity, rigid	1 ... 2.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.75 ... 1.5 mm <sup>2</sup>
Tightening torque	0.8 Nm



Terminals	Color	
Screw terminal at both ends for 2 conductors each	● Gray	8WA1011-1EE00

### Special accessories


Plugs for components		
	Version	Article No.
	With PCB and inscription label (20 × 9 mm)	8WA1822-7EE00

See general accessories, page 14/78 onwards

## Diode terminals



	Terminal size
	2.5 mm <sup>2</sup>
Terminal width	6 mm
Max. load current $I_{\max}$	1 A
Rated insulation voltage $U_{RRM}$	250 V
Peak blocking voltage	1000 V
Connection capacity, rigid	0.5 ... 4 mm <sup>2</sup>
Connection capacity, flexible without end sleeve	0.5 ... 2.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.5 ... 1.5 mm <sup>2</sup>
Tightening torque	0.5 Nm



Terminals	Version	Color	
2	With 2 holes for Ø 2.3 mm test plug	● Gray	8WA1011-1EF20

### Special accessories

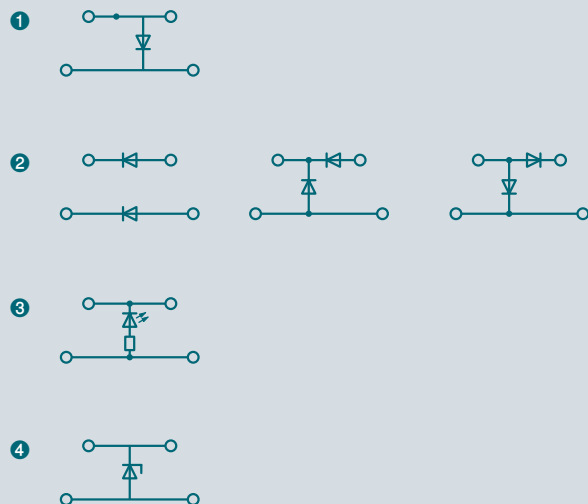
Barriers		
	Color	Article No.
	● Gray	8WA1820

See general accessories, page 14/78 onwards



# 8WA1 screw terminals

## Two-tier diode terminals



### Terminal size

4 mm<sup>2</sup>

Terminal width 6.5 mm

Max. load current  $I_{max}$  1 ARated insulation voltage  $U_i$  250 V

Let-through current –

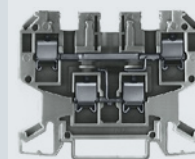
Avalanche voltage  $U_z$  –

AWG 18 ... 10

Connection capacity, rigid 0.5 ... 6 mm<sup>2</sup>Connection capacity, flexible without end sleeve 0.5 ... 4 mm<sup>2</sup>Connection capacity, flexible with end sleeve 0.5 ... 4 mm<sup>2</sup>

Tightening torque 0.5 Nm

Standard



Type	Bridging	Color	
<b>1 With one diode</b>			
Let-through from top to bottom	Not possible	● Gray	–
<b>2 With two diodes</b>			
Let-through from top right to top left and from bottom right to bottom left	Not possible	● Gray	8WA1011-6EG22
Let-through from top right to top left and from bottom to top	Not possible	● Gray	–
Let-through from top left to top right and from top to bottom	Not possible	● Gray	–
<b>3 With red LED</b>			
Without diode for voltage limitation		● Gray	–
<b>4 With Zener diode</b>			
Let-through from bottom to top		● Gray	–

## Special accessories

### End plates

#### Color

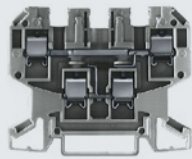
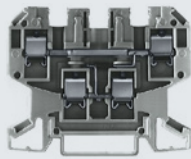
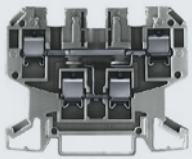
● Gray

#### Article No.

8WA1817

See general accessories, page 14/78 onwards

6.5 mm	6.5 mm	6.5 mm
32/1 A	32 A	–
250 V	24 V DC	–
–	–	0.25 A
–	–	2.4 V, ±5%
18 ... 10	18 ... 10	18 ... 10
0.5 ... 6 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>	0.5 ... 6 mm <sup>2</sup>
0.5 ... 4 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>
0.5 ... 4 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>	0.5 ... 4 mm <sup>2</sup>
0.5 Nm	0.5 Nm	0.5 Nm

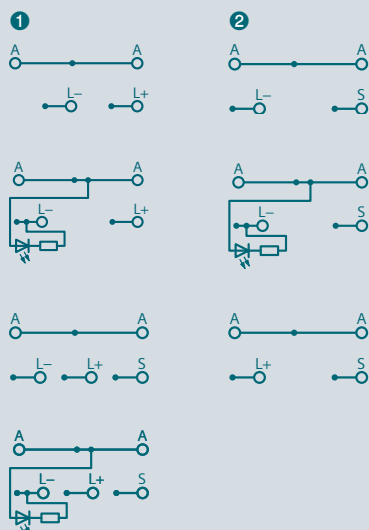


8WA1011-6EG20	–	–
–	–	–
8WA1011-6EG23	–	–
8WA1011-6EG24	–	–
–	8WA1011-6EG25	–
–	–	8WA1011-6EG44

<b>Article No.</b>	<b>Article No.</b>	<b>Article No.</b>
8WA1817	8WA1817	8WA1817

# 8WA2 spring-loaded terminals

## Initiator/actuator terminals



### Terminal size

1.5 mm<sup>2</sup>

Terminal width	5 mm
Max. load current $I_{\max}$	10 A
Max. operational voltage $U_{\max}$	65 V
Current consumption with LED	4.8 mA
AWG	22 ... 16
AWG	28 ... 16
Connection capacity, rigid	0.08 ... 1.5 mm <sup>2</sup>
Connection capacity, flexible with end sleeve	0.2 ... 1.5 mm <sup>2</sup>
Standard	



Version	Conductors <sup>1)</sup>	LED	Color	
<b>1 Initiator terminal</b>				
PNP	L+, L-, A	–	Light gray	8WA2011-3KE10
		Yellow, 15 ... 30 V DC	Light gray	8WA2011-3KE12
	L+, L-, S, A	–	Light gray	8WA2011-3KE11
		Yellow, 15 ... 30 V DC	Light gray	8WA2011-3KE13
<b>2 Actuator terminal</b>				
PNP	L-, S, A	–	Light gray	8WA2011-3KE31
		Yellow, 15 ... 30 V DC	Light gray	8WA2011-3KE33

<sup>1)</sup> L+ = brown, L- = blue, S (shield) = green, A (output) not colored

## Special accessories

Connection module					
Version	Width	Height	Color	Article No.	
For 8 initiator/actuator terminals and one infeed terminal	47 mm	65 mm	Black	8WA2011-3KE50	
For 16 initiator/actuator terminals, one infeed terminal and space for one terminal for further bridging for subsequent module	93 mm	65 mm	Black	8WA2011-3KE51	

See general accessories, page 14/78 onwards

## Infeed terminals for initiator/actuator terminals



<b>Terminal size</b>	1.5 mm <sup>2</sup>
<b>Terminal width</b>	5 mm
<b>Max. load current <math>I_{max}</math></b>	10 A
<b>Max. operational voltage <math>U_{max}</math></b>	65 V
<b>Current consumption with LED</b>	4.8 mA
<b>AWG </b>	22 ... 16
<b>AWG </b>	28 ... 16
<b>Connection capacity, rigid</b>	0.08 ... 1.5 mm <sup>2</sup>
<b>Connection capacity, flexible with end sleeve</b>	0.2 ... 1.5 mm <sup>2</sup>
<b>Standard</b>	



Version	Conductors <sup>1)</sup>	LED	Color	
<b>Infeed terminal</b>				
PNP	1 L+, L-	–	Orange	8WA2011-3KE01
	2 L+, L-, S	–	Orange	8WA2011-3KE00
		Green, 15 ... 30 V DC	Orange	8WA2011-3KE02
NPN	2 L+, L-, S	–	Orange	8WA2011-3KE00
	1 L+, L-, without ground connection	–	Orange	8WA2011-3KE01

<sup>1)</sup> L+ = brown, L- = blue, S (shield) = green, A (output) connection not colored

## Special accessories

Connection module					
Version	Width	Height	Color	Article No.	
For 8 initiator/actuator terminals and one infeed terminal	47 mm	65 mm	Black	8WA2011-3KE50	
For 16 initiator/actuator terminals, one infeed terminal and space for one terminal for further bridging for subsequent module	93 mm	65 mm	Black	8WA2011-3KE51	

See general accessories, page 14/78 onwards

# Accessories for 8WA terminal blocks

## Individual labeling system

### Labeling systems for

- Terminal blocks
- Modular installation devices
- Circuit breakers
- Switch disconnectors

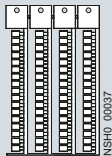
### Labeling systems available from:

Murrplastik Systemtechnik GmbH  
 Dieselstraße 10  
 D-71570 Oppenweiler  
 Telephone: +49 7191-482-0  
 email: info@murrplastik.de

The inscription labels can be inscribed with Murrplastik labeling systems or by hand.

The WIN designation facilitates assignment in the inscription software.

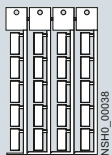
### Blank labels



- For 8WA1 and 8WA2, individually removable
- Cannot be used for two-tier terminals (lower tier), 8WA1010-1PQ00 flat terminals and 8WA1808 end retainers

Version	Designation	Color	Article No.
5 × 7 mm	WIN 68	● White	8WA8850-2AY
5 × 10 mm	WIN 68	● White	8WA8851-2AY

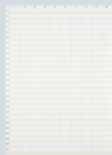
### Snap-on device labels



- For identification of, e.g. circuit breakers, contactors and control systems

Version	Designation	Color	Article No.
20 × 7 mm, snap-on hooks at side	WIN 95	● White	8WH8210-0AA55
		● Turquoise	8WH8210-0AA56


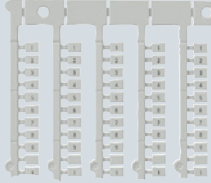
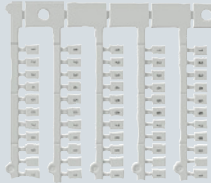
### Adhesive device labels



- For identification of, e.g. modular installation devices and switch disconnectors

Type	Designation	Color	Article No.
15 × 6 mm	WIN 098	● White	8WH8210-0AA35
	WIN 099	● Yellow	8WH8210-0AA36
19 × 8 mm	WIN 088	● White	8WH8210-0AA45
	WIN 082	● Yellow	8WH8210-0AA46

## Standard labeling system

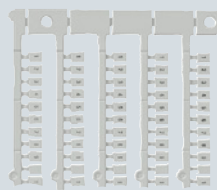
Labels, blank (WIN 68)				
	Text alignment	Label size	Article No.	
	Vertical	5 × 7 mm	8WA8348-2AY	
	Horizontal and vertical	5 × 10 mm	8WA8310-2AY	
Labels, with inscription				
• Label size 5 × 7 mm, font height 2 mm				
	Text alignment	Inscription	Scope of supply	Article No.
	Horizontal	1 ... 5	3 cards each with 13× (1 ... 5) + 1× (1 ... 3)	8WA8360-0BA
		6 ... 10	3 cards each with 13× (6 ... 10) + 1× (6 ... 8)	8WA8360-0BB
		11 ... 15	3 cards each with 13× (11 ... 15) + 1× (11 ... 13)	8WA8360-0BC
		16 ... 20	3 cards each with 13× (16 ... 20) + 1× (16 ... 18)	8WA8360-0BD
		21 ... 25	3 cards each with 13× (21 ... 25) + 1× (21 ... 23)	8WA8360-0BE
		26 ... 30	3 cards each with 13× (26 ... 30) + 1× (26 ... 28)	8WA8360-0BF
		31 ... 35	3 cards each with 13× (31 ... 35) + 1× (31 ... 33)	8WA8360-0BG
		36 ... 40	3 cards each with 13× (36 ... 40) + 1× (36 ... 38)	8WA8360-0BH
		41 ... 45	3 cards each with 13× (41 ... 45) + 1× (41 ... 43)	8WA8360-0BJ
		46 ... 50	3 cards each with 13× (46 ... 50) + 1× (46 ... 48)	8WA8360-0BK
		56 ... 60	3 cards each with 13× (56 ... 60) + 1× (56 ... 58)	8WA8360-0BM
		61 ... 65	3 cards each with 13× (61 ... 65) + 1× (61 ... 63)	8WA8360-0BN
		71 ... 75	3 cards each with 13× (71 ... 75) + 1× (71 ... 73)	8WA8360-0BQ
		76 ... 80	3 cards each with 13× (76 ... 80) + 1× (76 ... 78)	8WA8360-0BR
		81 ... 85	3 cards each with 13× (81 ... 85) + 1× (81 ... 83)	8WA8360-0BS
		91 ... 95	3 cards each with 13× (91 ... 95) + 1× (91 ... 93)	8WA8360-0BU
		96 ... 100	3 cards each with 13× (96 ... 100) + 1× (96 ... 98)	8WA8360-0BV
		1 ... 20	3 cards each with 3× (1 ... 20) + 1× (1 ... 8)	8WA8360-0AB
		1 ... 40	3 cards each with 1× (1 ... 40) + 1× (1 ... 28)	8WA8360-0AC
		41 ... 100	3 cards each with 1× (41 ... 100) + 1× (41 ... 48)	8WA8360-0AD
		1 ... 100	3 cards each with 2× (1 ... 100) + 1× (1 ... 4)	8WA8360-0AE
		101 ... 200	3 cards each with 2× (101 ... 200) + 1× (101 ... 104)	8WA8360-0AF
		201 ... 300	3 cards each with 2× (201 ... 300) + 1× (201 ... 204)	8WA8360-0AG
		A ... T	3 cards each with 3× (A ... T) + 1× (A ... H)	8WA8360-1AA
		U, V, W, X, Y, Z, +, -	3 cards each with 8× (U ... -) + 1× (U ... X)	8WA8360-1AB
		L1, L2, L3, N, PE	3 cards each with 9× (L1 ... PE) + 1× (L1 ... L3)	8WA8360-1AC
		U1, V1, W1, U2, V2, W2	3 cards each with 11× (U1 ... W2) + 1× (U1, V1)	8WA8360-1AD
			Vertical	1 ... 5
6 ... 10	3 cards each with 13× (6 ... 10) + 1× (6 ... 8)			8WA8361-0BB
11 ... 15	3 cards each with 13× (11 ... 15) + 1× (11 ... 13)			8WA8361-0BC
16 ... 20	3 cards each with 13× (16 ... 20) + 1× (16 ... 18)			8WA8361-0BD
21 ... 25	3 cards each with 13× (21 ... 25) + 1× (21 ... 23)			8WA8361-0BE
26 ... 30	3 cards each with 13× (26 ... 30) + 1× (26 ... 28)			8WA8361-0BF
31 ... 35	3 cards each with 13× (31 ... 35) + 1× (31 ... 33)			8WA8361-0BG
36 ... 40	3 cards each with 13× (36 ... 40) + 1× (36 ... 38)			8WA8361-0BH
41 ... 45	3 cards each with 13× (41 ... 45) + 1× (41 ... 43)			8WA8361-0BJ
46 ... 50	3 cards each with 13× (46 ... 50) + 1× (46 ... 48)			8WA8361-0BK
51 ... 55	3 cards each with 13× (51 ... 55) + 1× (51 ... 53)			8WA8361-0BL
56 ... 60	3 cards each with 13× (56 ... 60) + 1× (56 ... 58)			8WA8361-0BM
61 ... 65	3 cards each with 13× (61 ... 65) + 1× (61 ... 63)			8WA8361-0BN
66 ... 70	3 cards each with 13× (66 ... 70) + 1× (66 ... 68)			8WA8361-0BP
71 ... 75	3 cards each with 13× (71 ... 75) + 1× (71 ... 73)			8WA8361-0BQ
76 ... 80	3 cards each with 13× (76 ... 80) + 1× (76 ... 78)			8WA8361-0BR
81 ... 85	3 cards each with 13× (81 ... 85) + 1× (81 ... 83)			8WA8361-0BS
86 ... 90	3 cards each with 13× (86 ... 90) + 1× (86 ... 88)			8WA8361-0BT
91 ... 95	3 cards each with 13× (91 ... 95) + 1× (91 ... 93)			8WA8361-0BU
96 ... 100	3 cards each with 13× (96 ... 100) + 1× (96 ... 98)			8WA8361-0BV

# Accessories for 8WA terminal blocks

## Standard labeling system

### Labels, with inscription (continued)

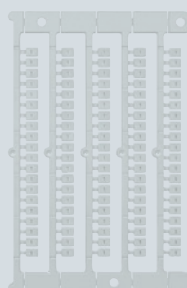
- Label size 5 × 7 mm, font height 2 mm



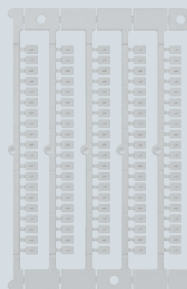
Text alignment	Inscription	Scope of supply	Article No.
Vertical	1 ... 20	3 cards each with 3× (1 ... 20) + 1× (1 ... 8)	8WA8361-0AB
	1 ... 40	3 cards each with 1× (1 ... 40) + 1× (1 ... 28)	8WA8361-0AC
	41 ... 100	3 cards each with 1× (41 ... 100) + 1× (41 ... 48)	8WA8361-0AD
	1 ... 100	3 cards each with 2× (1 ... 100) + 1× (1 ... 4)	8WA8361-0AE
	101 ... 200	3 cards each with 2× (101 ... 200) + 1× (101 ... 104)	8WA8361-0AF
	201 ... 300	3 cards each with 2× (201 ... 300) + 1× (201 ... 204)	8WA8361-0AG
	A ... T	3 cards each with 3× (A ... T) + 1× (A ... H)	8WA8361-1AA
	U, V, W, X, Y, Z, +, -	3 cards each with 8× (U ... -) + 1× (U ... X)	8WA8361-1AB
	L1, L2, L3, N, PE	3 cards each with 9× (L1 ... PE) + 1× (L1 ... L3)	8WA8361-1AC
	U1, V1, W1, U2, V2, W2	3 cards each with 11× (U1 ... W2) + 1× (U1, V1)	8WA8361-1AD

### Labels, type 347/348, with inscription

- Label size 5 × 7 mm, font height 2 mm



Text alignment	Inscription	Article No.
Horizontal	L1	8WA8347-2AC
	L2	8WA8347-2AD
	L3	8WA8347-2AE
	N	8WA8347-1AR
	PE	8WA8347-2AH
	L+	8WA8347-2AF
	L-	8WA8347-2AG



Vertical	L1	8WA8348-2AC
	L2	8WA8348-2AD
	L3	8WA8348-2AE
	N	8WA8348-1AR
	MP	8WA8348-2AB
	PE	8WA8348-2AH
	L+	8WA8348-2AF
	L-	8WA8348-2AG
	X	8WA8348-1AG
	Y	8WA8348-1AH

### Labels, custom inscriptions

- Label size 5 × 7 mm, font height 2 mm
- Specify required inscription in plain text
- Can only be ordered with the order code -Z Y01

Text alignment	Article No.
Horizontal	8WA8347-0XA-Z Y01
Vertical	8WA8348-0XA-Z Y01

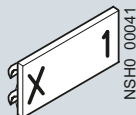
### End labeling plates



- Paper label, inscription possible, with transparent cover
- Suitable for 8WA1805, 8WA1808 and 8WA2808 end retainers

Text alignment	Label size	Article No.
Horizontal and vertical	21 × 42 mm	8WA1806

### Terminal strip labels



- Paper label, inscription possible, with transparent cover
- Suitable for 8WA1808 end retainers

Text alignment	Type	Article No.
Horizontal	With inscription	8WA8826-0AA
		8WA8826-0AB
		8WA8826-0AC
	Blank (WIN 67)	8WA8212-0AA65

## Mounting accessories

### End retainers, with screw fixing



- Suitable for 8WA1806 end labeling plate or 8WA8826-0A. terminal strip identification label or 3TX4 210-0H device label or four 8WA88 labels

#### Modular width

10 mm

#### Article No.

8WA1808

### End retainers, steel



- Suitable for 8WA1806 end label
- An 8WA1820 barrier must be inserted if using end retainers against an 8WA189 connection bar (size 2.5)

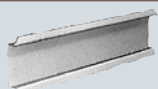
#### Modular width

10.3 mm

#### Article No.

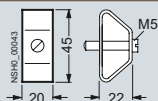
8WA1805

### Standard mounting rail



Version	Material	Standard	Length	Thickness	Article No.
Perforated	Steel, sendzimir-galvanized	EN 60715-35 × 7,5	2 m	1 mm	5ST1145
Non-perforated	Steel, sendzimir-galvanized	EN 60715-35 × 7,5	2 m	1 mm	5ST1141
	Copper	EN 60715-35 × 15	2 m	2.3 mm	8WA7551
	Steel, galvanized, chromated	Similar to EN 50022-35 × 15	2 m	1.5 mm	5ST1142

### Spacer brackets



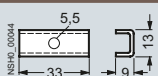
#### Version

For raised mounting of terminal strips

#### Article No.

8WA753

### Spacers



#### Version

For raised mounting of terminal strips

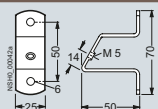
#### Drill hole

5.5 mm

#### Article No.

8WA752

### Mounting brackets



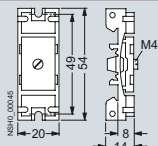
#### Version

For support rails

#### Article No.

8WA746

### Insulation carriers



#### Version

For insulated mounting of support rails onto plates, frame profiles and standard mounting rails EN 50022-35

#### Article No.

8WA1857

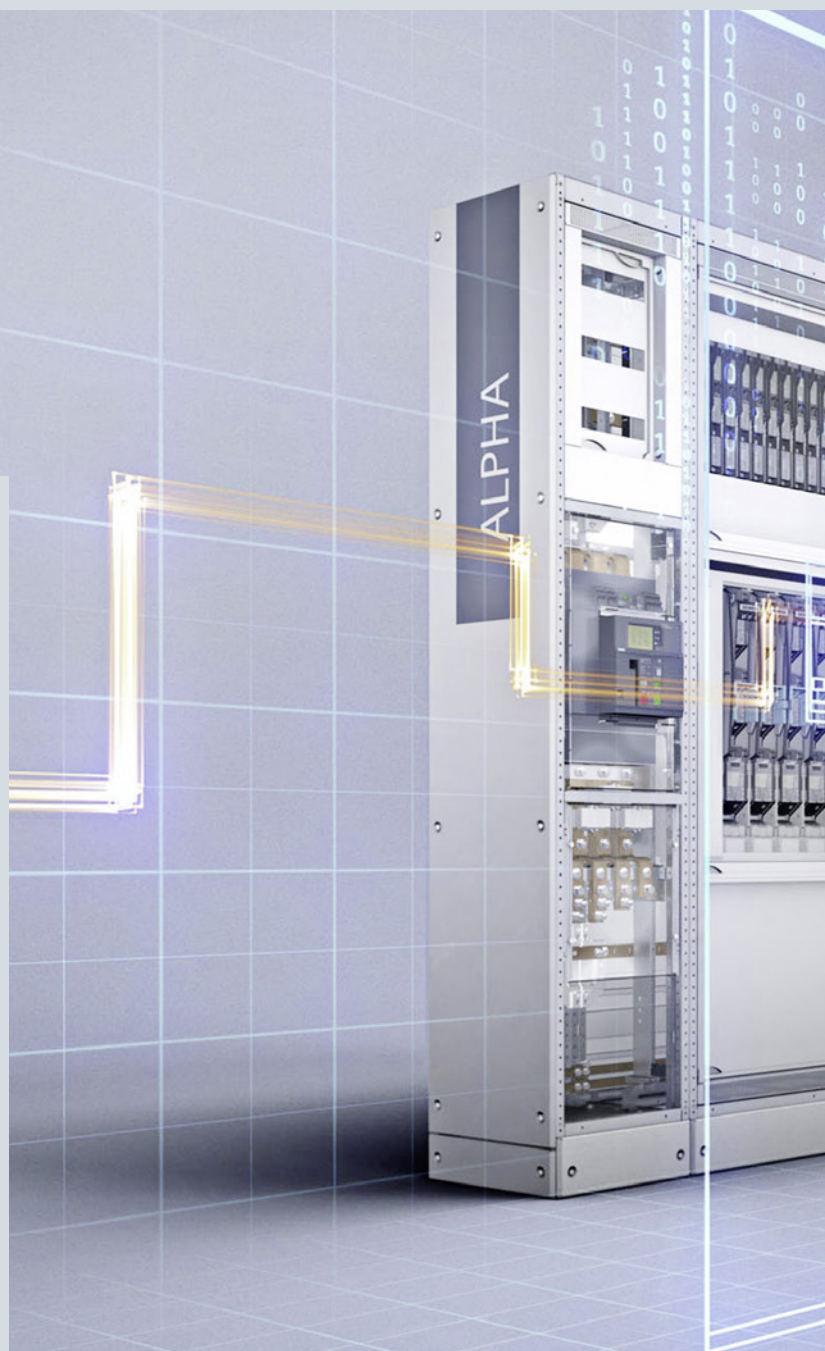


## Reliable and efficient power supply in infrastructure and industrial applications

The electrical power distribution in buildings, infrastructure and industry is undergoing a transformation. A growing number of electrical loads, fluctuating load conditions and an increasing level of automation pose new challenges for switchboard manufacturers and electrical planners. Availability, safety and efficiency of the power distribution system are becoming more important. This is reflected in detailed standards and regulations and in requirements for company power management.

The planning and operation of electrical power distribution systems are becoming more complex, and the technical demands placed on the underlying systems and products are rising – in particular with respect to flexibility, communication capability and integrability. A data-based engineering process, hardware and software systems, an intelligent data management must all interact smoothly to provide optimum support to dynamic industrial and infrastructure processes.

The basis for a reliable and efficient power supply is provided by our portfolio of power distribution boards and distribution boards with innovative products and systems. A data-based engineering process with SIMARIS software tools, high availability of product-related data support the value chain of the switchboard manufacturer – from planning to documentation of the installation.



# Power Distribution Boards, Motor Control Centers and Distribution Boards



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about power distribution boards, motor control centers and distributionboards, please visit our websites

[www.siemens.com/sivacon-S8](http://www.siemens.com/sivacon-S8)  
[www.siemens.com/distributionsystems](http://www.siemens.com/distributionsystems)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – SIVACON S4 power distribution boards and ALPHA UNIVERSAL distribution boards ([109767882](tel:109767882))
- Technical basic information – ALPHA distribution systems ([109778911](tel:109778911))
- Brochure – The plus for your business: Intelligent. Flexible. Safe. Low-voltage switchboard SIVACON S8<sup>plus</sup> ([109747937](tel:109747937))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- Power Distribution – SIVACON (general) [bit.ly/2m4oSLI](https://bit.ly/2m4oSLI)
- Siemens SIVACON S4 power distribution boards up to 4000 A [bit.ly/2krni6h](https://bit.ly/2krni6h)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- SIVACON S4 power distribution boards [sie.ag/2JUQwE4](http://sie.ag/2JUQwE4)
- ALPHA distribution boards [sie.ag/2kURLd8](http://sie.ag/2kURLd8)
- SIMARIS planning tools [sie.ag/2m3oFbS](http://sie.ag/2m3oFbS)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article.No.](http://www.siemens.com/product?Article.No.)

Use the competence and experience of our experts at one of the production locations near you [www.siemens.com/sivaconS8-contact](http://www.siemens.com/sivaconS8-contact) or call +49 (9131) 174-3072

Our certified SIVACON Technology Partners are also available to you for questions relating to the high quality of our low-voltage switchboards [www.siemens.com/sivacon-partnerfinder](http://www.siemens.com/sivacon-partnerfinder)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services. You can find your local contacts at

[www.siemens.com/lowvoltage/systems/contact](http://www.siemens.com/lowvoltage/systems/contact)

You can find further information on services at [www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at [www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### SIMARIS planning tools

The SIMARIS planning tools effectively assist you in your planning process. Project-specific IFC data (Building Information Modeling) for cross-package planning is also possible.

[www.siemens.com/simaris](http://www.siemens.com/simaris)

### SIMARIS configuration

The SIMARIS configuration software supports the engineering process of the SIVACON and ALPHA distribution systems from planning right through to plant documentation.

[www.siemens.com/simarisconfig](http://www.siemens.com/simarisconfig)

### Your product in detail

The Siemens Industry Online Support (SIOS) portal provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall  
[www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Planning manual – SIVACON S8 – Technical planning information (**107113936**)
- Manual – SIVACON S4 (**25909512**)

### Classroom or online training

Our training courses can be found at

[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- SIMARIS configuration (WT-LVASIMC)
- ALPHA 3200 low voltage switch boards – technic and software (LV-ALPHAT)
- ALPHA 3200 low voltage switch boards – mounting (LV-ALPHAPB)

## Technical overview – Power distribution boards, motor control centers and distribution boards



### The fast way to get you to our online services

This page provides you with comprehensive information and links on power distribution boards, motor control centers and distribution boards

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (**109769089**)

# SIVACON and ALPHA distribution systems

## Power distribution boards



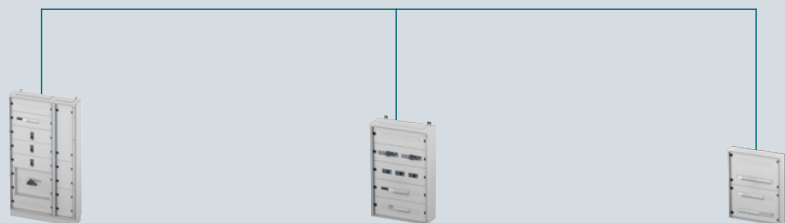
**SIVACON S4**

Basic data		
Rated current	A	4000 standard 6300 with license
Overvoltage category		III/IV
Rated impulse withstand voltage $U_{imp}$	kV	12
Rated insulation voltage $U_i$	V	1000
Rated operational voltage $U_e$	V AC	690
Rated peak withstand current $I_{pk}$	kA	220
Rated short-time current $I_{cw}$ (1 s)	kA	100
Degree of protection according to IEC 60529/EN 60529		IP40 + IPX1/IP55
Safety class		I
Color		RAL 7035 (light gray)
Dimensions		
Height	mm	2000 Base 100/200
Width	mm	400 ... 1200
Depth	mm	400 ... 1200
Standards and specifications		
DIN		EN 61439-1/-2
IEC		IEC 61439-1/-2
VDE		VDE 0660-600-1/-2
Operating personnel	Ordinary person	–
	Electrically skilled person	■
Approvals		VDE, EAC
Equipment		
Busbar position		Top, bottom, rear
Form of internal separation		4b
Tested for resistance to internal arcing acc. to EN 61439-2 Supplement 1		–
Active protection against internal arcing		–
Reactive power compensation		–
Other		
Type of installation		Wall/back to back
Type of delivery	Flat pack/individual parts	■
	Pre-assembled without copper	■
	Pre-assembled with copper	■
More information		

See page 15/18



## ALPHA UNIVERSAL distribution boards (NF technology)



ALPHA 800 UNIVERSAL	ALPHA 630 UNIVERSAL	ALPHA 125 UNIVERSAL
800	630	125
III	III	III
6	6	6
690	690	400
690	690	400
74	53	10
35	25	17
IP30/IP43/IP55	IP30/IP43/IP55	IP30/IP31D/IP43
I	I	I
RAL 7035 (light gray)	RAL 7035 (light gray)	RAL 7035 (light gray)
1800/2000	400/600/800/1000/1200/ 1600/1800/2000	400/600/800/1000/1200
300/600/900	600 + 250/900	600
400	250	140
EN 61439-1/-2	EN 61439-1/-2	EN 61439-1/-3
IEC 61439-1/-2	IEC 61439-1/-2	IEC 61439-1/3
VDE 0660-600-1/-2	VDE 0660-600-1/-2	VDE 0660-600-1/-3
–	–	–
■	■	■
VDE	VDE	VDE
–	–	–
1	1	1
–	–	–
–	–	–
–	–	–
Wall	Wall	Wall
■	■	■
–	–	–
–	–	–
See page 15/122	See page 15/124	See page 15/130

# SIVACON and ALPHA distribution systems

Power distribution boards and motor control centers



SIVACON S8

Power distribution boards



ALPHA 3200

ALPHA 3200 Eco

## Basic data

Rated current	A	7010	3200	3200
Oversoltage category		IV	III/IV	III/IV
Rated impulse withstand voltage $U_{imp}$	kV	12 <sup>1)</sup>	8	8
Rated insulation voltage $U_i$	V	1000	1000	1000
Rated operational voltage $U_e$	V AC	690	690	400
Rated peak withstand current $I_{pk}$	kA	330	165	165
Rated short-time current $I_{cw}$ (1 s)	kA	150	75	75
Degree of protection according to IEC 60529/EN 60529		IP30 ... IP54	IP40 + IPX1/IP54	IP31/IP54
Safety class		I	I	I
Color		RAL 7035 (light gray)	RAL 7035 (light gray)	RAL 7035 (light gray)

## Dimensions

Height	mm	2000/2200 Base 100/200	2000 Base 100/200	2000 Base 100/200
Width	mm	200 ... 1400	350 ... 1400	600 ... 1100
Depth	mm	500 ... 1200	600	400

## Standards and specifications

DIN		EN 61439-2	EN 61439-1/-2	EN 61439-1/-2
IEC		IEC 61439-2	IEC 61439-1/-2	IEC 61439-1/-2
VDE		VDE 0660-600-2	VDE 0660-600-2	VDE 0660-600-2

Operating personnel	Ordinary person	–	–	–
	Electrically skilled person	■	■	■

Approvals		DNV GL, ASTA, EAC, CCC, DEKRA	–	–
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## Equipment

Busbar position		Top, rear	Rear	Center
Form of internal separation		4b	2b	1
Tested for resistance to internal arcing acc. to EN 61439-2 Supplement 1		■	1 personal protection	–
Active protection against internal arcing		■	–	–
Reactive power compensation		■	■	–

## Other

Type of installation		Wall/back to back/ double-fronted	Wall/back to back	Wall/back to back
Type of delivery	Flat pack/individual parts	■	–	–
	Pre-assembled without copper	■	■	■
	Pre-assembled with copper	■	■	■

## More information

See page 15/14

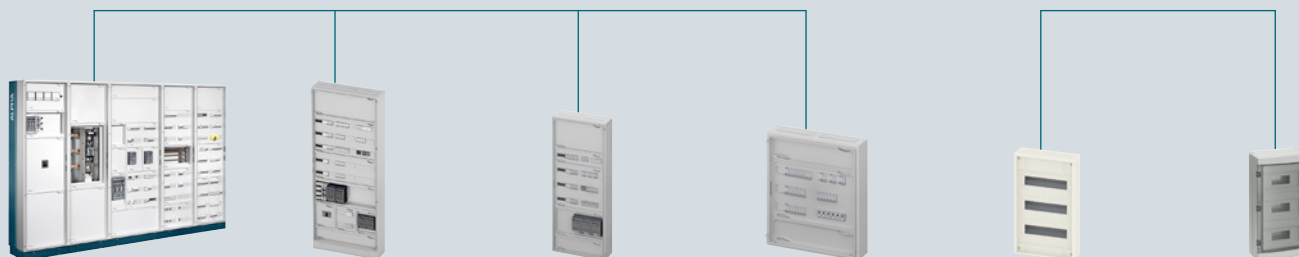
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<sup>1)</sup> Depending on the devices used

## ALPHA distribution boards (DIN technology)

## Small distribution boards



ALPHA 1250	ALPHA 630	ALPHA 400	ALPHA 160	ALPHA SIMBOX XL	ALPHA SIMBOX WP
1250	630	400	160	63	63
III	III	III	II	II	II
8	6	6	6	–	–
690	690	690	690	–	1000
690	690	690	690	400	400
110	76	76	–	–	–
35	34	34	–	–	–
IP55	IP43/IP55	IP31/IP43/IP55	IP31/IP43/IP44	IP30	IP65
I	I/II	I/II	II	II	II
RAL 7035 (light gray)	RAL 7035 (light gray)	RAL 9016 (traffic white)/ RAL 7035 (light gray)	RAL 9016 (traffic white)/ RAL 7035 (light gray)	RAL 9010 (pure white)	RAL 7035 (light gray)
1950 Base 100	1950 Base 100	650/800/950/1100/ 1250/1400	500/650/800/950/1100	1- ... 4-tier	1- ... 4-tier
300/550/800/ 1050/1300	300/550/800/ 1050/1300	300/550/800/ 1050/1300	300/550	305	4 ... 18 MW
400	210/250/320	210	140	88/99	100/140/160
EN 61439-1/-2	EN 61439-1/-2	EN 61439-1/-2/-3	EN 61439-1/-3	DIN 43871	EN 61439-1/-3, DIN 43871
IEC 61439-1/-2	IEC 61439-1/-2	IEC 61439-1/-2/-3	IEC 61439-1/-3	IEC 61439-1/-3	IEC 61439-1/-3
VDE 0660-600-1/-2	VDE 0660-600-1/-2	VDE 0660-600-1/-2/-3	VDE 0660-600-1/-3	DIN VDE 0603	DIN VDE 0603-1, VDE 0660-500/-504
–	–	■	■	■	■
■	■	■	■	■	■
VDE, EAC	VDE, EAC	VDE, EAC	VDE, EAC	VDE, EAC	VDE, EAC
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
Surface mounting	Surface mounting	Surface mounting/ flush mounting	Surface mounting/ flush mounting	Flush mounting/ hollow wall/ surface mounting	Surface mounting
■	■	■	■	■	■
■	■	■	■	–	–
–	–	–	–	–	–
See page 15/152	See page 15/156	See page 15/160	See page 15/164	See page 15/196	See page 15/199



# SIVACON and ALPHA distribution systems


















## Additional options

To specify the options, add „-Z“ to the complete article number and indicate the appropriate order code(s).

8GK.....-.....-.... -Z

Order code

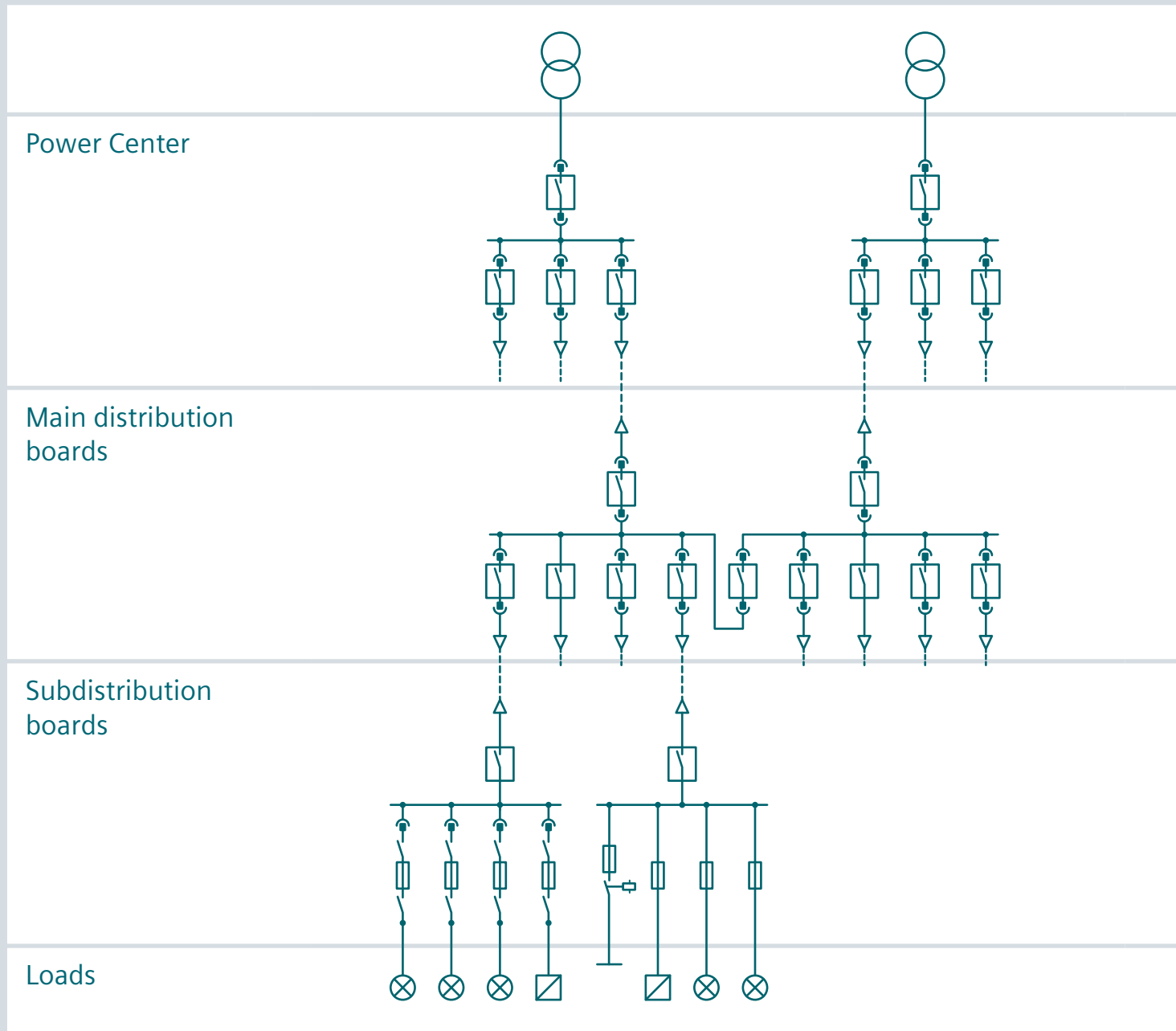
### Special colors for ALPHA

	RAL 1003, signal yellow	Semi-gloss	Smooth	C	2	7	
	RAL 2000, yellow orange	Semi-gloss	Smooth	C	2	5	
	RAL 3000, flame red	Silky gloss	Surface structure	C	3	1	
	RAL 5005, signal blue	Semi-gloss	Smooth	C	2	3	
	RAL 5010, gentian blue	Semi-gloss	Smooth	C	2	4	
	RAL 5017, traffic blue	Silky gloss	Surface structure	C	2	2	
	RAL 6018, yellow green	Semi-gloss	Smooth	C	2	6	
	RAL 7032, pebble gray	Semi-gloss	Surface structure	C	1	3	
	RAL 7033, cement gray	Semi-gloss	Surface structure	C	2	8	
	RAL 7035, light gray	Semi-gloss	Smooth	C	1	1	
			Surface structure	C	1	2	
	RAL 7038, agate gray	Semi-gloss	Surface structure	C	1	4	
	RAL 9001, cream	Semi-gloss	Smooth	C	2	1	
	RAL 9002, gray white	Semi-gloss	Smooth	C	1	8	
			Surface structure	C	1	9	
			Silky gloss	Smooth	C	2	9
	RAL 9003, signal white	Semi-gloss	Surface structure	C	2	0	
	RAL 9005, jet black	Semi-gloss	Smooth	C	1	6	
			Surface structure	C	1	7	
	RAL 9010, pure white	Semi-gloss	Smooth	C	1	5	
			Surface structure	C	3	0	
	RAL 9016, traffic white	Semi-gloss	Smooth	C	1	0	



# SIVACON and ALPHA distribution systems

## Applications



## SIVACON S8



## SIVACON S8



## SIVACON S4



## ALPHA 3200



## ALPHA 3200 Eco



## ALPHA UNIVERSAL (NF technology)

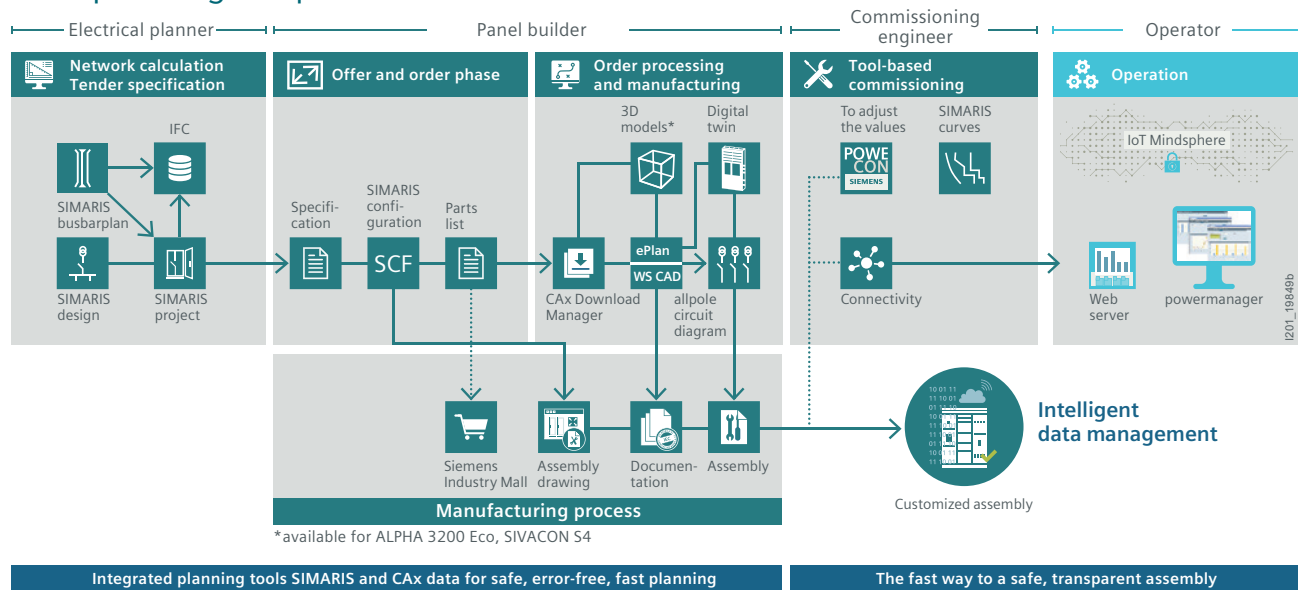
## ALPHA (DIN technology)



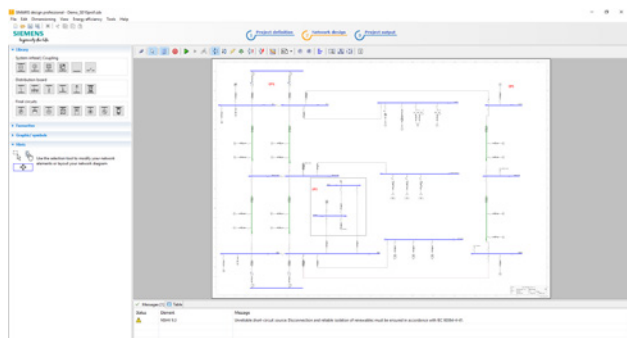
# SIMARIS planning tools

For planning and visualizing the power distribution system

## From planning to operation



## SIMARIS design



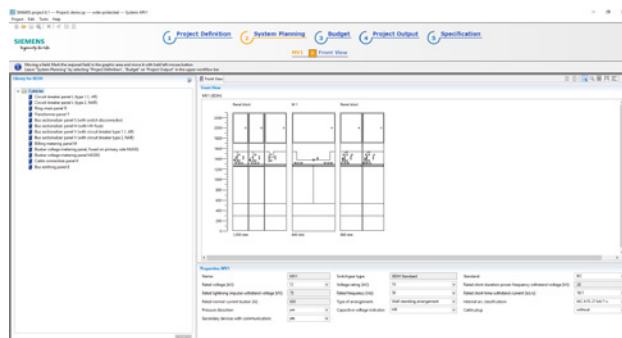
SIMARIS design is a planning tool for quick, effective network calculations and dimensioning of electrical power distribution systems for non-residential and industrial buildings.

- Dimensioning of electrical networks on the basis of real products according to acknowledged rules of technology and the applicable standards (VDE, IEC)
- Automatic selection of the appropriate components from the integrated product database

SIMARIS design forms part of SIMARIS Suite.

Free download of the SIMARIS Suite and further information at: [www.siemens.com/simarisdg](http://www.siemens.com/simarisdg)

## SIMARIS project



SIMARIS project is a planning tool for fast calculation of space requirements and electrical power distribution system budgets for non-residential and industrial buildings, and for generating specifications automatically.

- Import of projects created in SIMARIS design
- Export of 3D data in IFC 4.x format for BIM (Building Information Modeling)

SIMARIS project forms part of SIMARIS Suite.

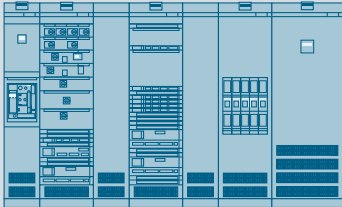
Free download of the SIMARIS Suite and further information at: [www.siemens.com/simariproject](http://www.siemens.com/simariproject)



# SIVACON S8/SIVACON S4/ALPHA 3200/ ALPHA 3200 Eco system overview

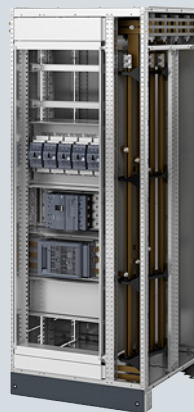
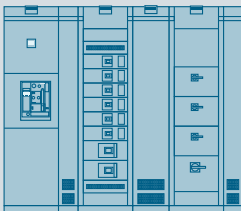
## Section design and installable devices

### SIVACON S8



	Circuit breaker design	Fixed-mounted design	In-line design, plugged in
<b>Devices</b>	3WA, 3WL and 3VA	3VA, 3RV, 3NP, 3K... and 5S...	3NJ6
<b>Installation system</b>	Fixed-mounted Withdrawable	Fixed-mounted with front covers	Plug-in
<b>Functions</b>	Infeed, Outgoing feeder, Coupling	Outgoing cable feeders	Outgoing cable feeders
<b>Rated values</b>	6300 A	630 A	630 A
<b>Connection type</b>	Front or rear	Front	Front

### SIVACON S4



	Circuit breaker design	Fixed-mounted design	In-line design, plugged in
<b>Devices</b>	3WA	3WA, 3VA, 3NP1, Modular installation devices	3NJ6
<b>Installation system</b>	Fixed-mounted Withdrawable	Fixed-mounted with front covers	Plug-in
<b>Functions</b>	Infeed, Outgoing feeder, Coupling (up to 3200 A)	Infeed Outgoing cable feeders	Outgoing cable feeders
<b>Rated values</b>	4000 A	2950 A	630 A
<b>Connection type</b>	Front or rear	Front or rear	Front



In-line design, fixed-mounted	Reactive power compensation	Active protection against internal arcings	Universal mounting design/ motor control center	Frequency converter technology
3NJ4	Capacitor units, controllers	Internal arcing protection system	3VA, 3RV, 3NP, 3K..., 3R..., 3UF, 3NJ6 and 3LD	SINAMICS G120 (6SL)
Fixed-mounted	Fixed-mounted	Fixed-mounted	Withdrawable Fixed-mounted with compartment doors Plug-in	Fixed-mounted (modules)
Outgoing cable feeders	Central compensation of reactive power	Active protection against internal arcings	Outgoing cable feeders Motor feeders (MCC)	Motor feeders (MCC)
630 A	Without inductor up to 600 kvar With inductor up to 500 kvar	Short-circuit-proof up to 100 kA at 690 V	630 A, 250 kW	132 kW
Front	Front	–	Front or rear	Front



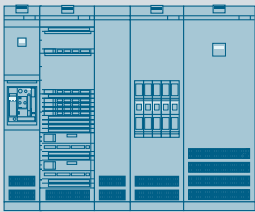
In-line design, fixed-mounted	Section for free configuration
3NJ4	Mounting panel structures
Fixed-mounted	Fixed-mounted
Outgoing cable feeders	Control equipment
2900 A	–
Front	Front



# SIVACON S8/SIVACON S4/ALPHA 3200/ ALPHA 3200 Eco system overview

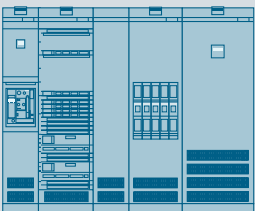
## Section design and installable devices

### ALPHA 3200



	Circuit breaker design	Fixed-mounted design	In-line design, plugged in
<b>Devices</b>	3WA and 3VA	3VA, 3RV, 3NP, 3K..	3NJ6
<b>Installation system</b>	Fixed-mounted Withdrawable	Fixed-mounted with front covers	Plug-in
<b>Functions</b>	Infeed, Outgoing feeder, Coupling	Outgoing cable feeders	Outgoing cable feeders
<b>Rated values</b>	Up to 3200 A	Up to 630 A	Up to 630 A
<b>Connection type</b>	Front or rear	Front	Front

### ALPHA 3200 Eco



	Circuit breaker design	Molded case circuit breaker design	In-line design, fixed-mounted
<b>Devices</b>	3WA, 3WL10	3VA14 – 3VA15, 3VA24 – 3VA27	3NJ4
<b>Installation system</b>	Fixed-mounted Withdrawable Coupling up to 2000 A	Fixed-mounted	Fixed-mounted
<b>Functions</b>	Infeed, Outgoing feeder,	Infeed, Outgoing feeder,	Outgoing cable feeders
<b>Rated values</b>	Up to 3200 A	Up to 1600 A	Up to 3200 A
<b>Connection type</b>	Front	Front	Front



**In-line design,  
fixed-mounted**

**3NJ4**

Fixed-mounted

Outgoing cable feeders

Up to 630 A

Front

**Reactive power  
compensation**

**Capacitor units, controllers**

Fixed-mounted

Central compensation  
of reactive power

Without inductor up to 600 kvar  
With inductor up to 500 kvar

Front



**ALPHA DIN modular  
installation system**

**ALPHA 8GK**

Fixed-mounted

Branch circuits  
Transformer measurement

Up to 630 A

Front

**Section for free  
configuration**

**Mounting panel structures**

Fixed-mounted

Control equipment

Up to 710 W

Front

# System overview

## SIVACON S4 power distribution boards

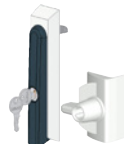
### Frame and enclosure



### Accessories for frame and enclosure



Hinges for covers

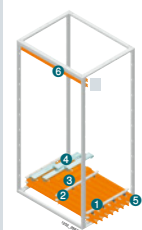


Locks

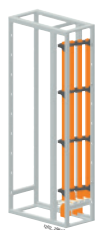


Mech. mounting parts

### Busbar systems



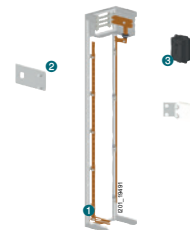
Main busbars



Vertical distribution busbars, cascaded



Vertical distribution busbars, non-cascaded



N/PE bar

### Section expansion: Main busbar at top/at bottom



3WA incoming feeder panels



3VA outgoing feeder panels  
3NP1 modular installation devices



3NJ4 outgoing feeder panels



3NJ6 outgoing feeder panels



3WA coupling panels



Mounting plates



Cable section



Corner sections

**Note:**

You will find a detailed range of accessories with the basic units.

## Section expansion: Main busbar at rear



3WA  
incoming feeder panels



3VA  
outgoing feeder panels  
3NP1 modular  
installation devices



3WA  
coupling panels

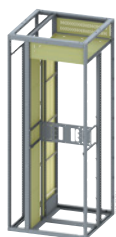


Mounting plates

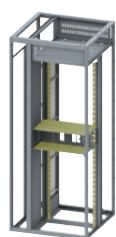
## Internal separation



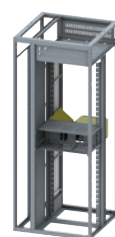
Form 1  
Without separation



Form 2  
Separation  
+ busbar systems



Form 3  
Separation  
+ busbar systems  
+ device compartments



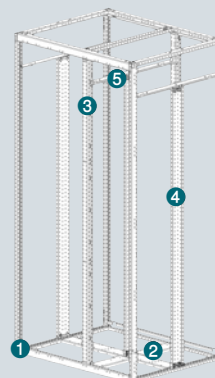
Form 4  
Separation  
+ busbar systems  
+ device compartments  
+ connections

**Note:**

You will find a detailed range of accessories with the basic units.

# Frame

For main busbar at top, at bottom and without



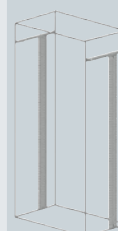
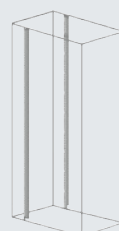
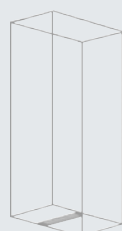
- ❶ Frame
- ❷ Bottom plate partition crossbar
- ❸ Exterior intermediate upright
- ❹ Interior side upright
- ❺ Section division

Position of main busbar

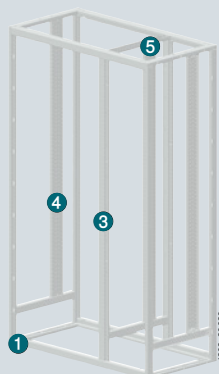
At top

At bottom

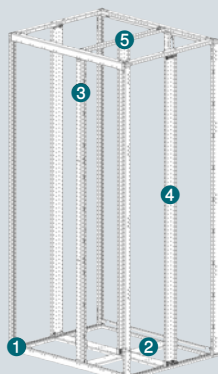
Without



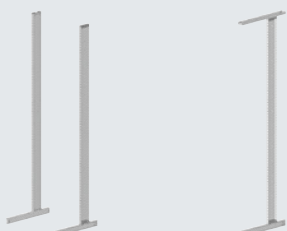
Width	Depth	❶ Frame	❷ Bottom plate partition crossbar	❸ Exterior intermediate upright	❹ Interior side upright	❺ Section division
400 mm	400 mm	8PQ1204-4BA01	–	–	8PQ3000-0BA65	–
	600 mm	8PQ1204-6BA01	–	–	8PQ3000-0BA01	–
	800 mm	8PQ1204-8BA01	–	–	8PQ3000-0BA02	–
600 mm	400 mm	8PQ1206-4BA01	–	–	8PQ3000-0BA65	–
	600 mm	8PQ1206-6BA01	–	–	8PQ3000-0BA01	–
	800 mm	8PQ1206-8BA01	–	–	8PQ3000-0BA02	–
800 mm	400 mm	8PQ1208-4BA01	8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA65	8PQ3000-1BA31
	600 mm	8PQ1208-6BA01	8PQ3000-1BA40	8PQ3000-1BA43	8PQ3000-0BA01	8PQ3000-1BA32
	800 mm	8PQ1208-8BA01	2× 8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA02	8PQ3000-1BA34
1000 mm	400 mm	8PQ1201-4BA02	8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA65	8PQ3000-1BA31
	600 mm	8PQ1201-6BA02	8PQ3000-1BA40	8PQ3000-1BA43	8PQ3000-0BA01	8PQ3000-1BA32
	800 mm	8PQ1201-8BA03	2× 8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA02	8PQ3000-1BA34
1200 mm	400 mm	8PQ1202-4BA02	8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA65	8PQ3000-1BA31
	600 mm	8PQ1202-6BA02	8PQ3000-1BA40	8PQ3000-1BA43	8PQ3000-0BA01	8PQ3000-1BA32
	800 mm	8PQ1202-8BA02	2× 8PQ3000-1BA38	8PQ3000-1BA43	8PQ3000-0BA02	8PQ3000-1BA34



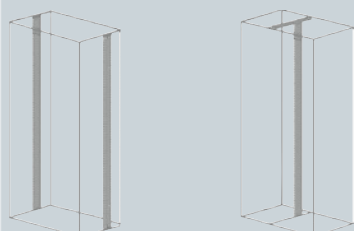
- 1 Frame
- 
- 3 Exterior intermediate upright
- 4 Interior side upright
- 5 Section division



- 1 Frame
- 2 Bottom plate partition crossbar
- 3 Exterior intermediate upright
- 4 Interior side upright
- 5 Section division



4 Interior side upright    5 Section division



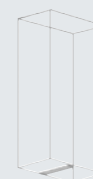
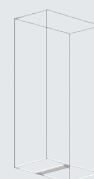
4 Interior side upright    5 Section division

4 Interior side upright	5 Section division	4 Interior side upright	5 Section division
8PQ3000-0BA10	–	–	–
8PQ3000-3BA10	–	8PQ3000-0BA03	–
8PQ3000-3BA11	–	8PQ3000-0BA03	–
8PQ3000-0BA10	–	–	–
8PQ3000-3BA10	–	8PQ3000-0BA03	–
8PQ3000-3BA11	–	8PQ3000-0BA03	–
8PQ3000-0BA10	8PQ3000-0BA10	–	–
8PQ3000-3BA10	8PQ3000-3BA47	8PQ3000-0BA03	8PQ3000-1BA36
8PQ3000-3BA11	8PQ3000-3BA48	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-0BA10	8PQ3000-0BA10	–	–
8PQ3000-3BA10	8PQ3000-3BA47	8PQ3000-0BA03	8PQ3000-1BA36
8PQ3000-3BA11	8PQ3000-3BA48	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-0BA10	8PQ3000-0BA10	–	–
8PQ3000-3BA10	8PQ3000-3BA47	8PQ3000-0BA03	8PQ3000-1BA36
8PQ3000-3BA11	8PQ3000-3BA48	8PQ3000-0BA03	8PQ3000-1BA37

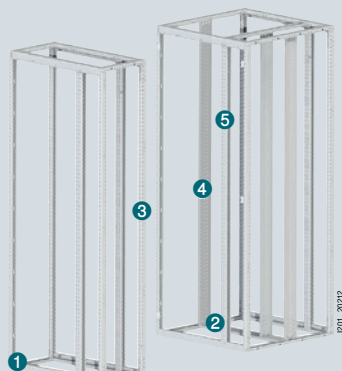
# Frame

For main busbar at rear

Position of main busbar At rear



Width	Depth	Position of main busbar	① Frame		② Bottom plate partition crossbar	
			Front	Rear	Depth 400 mm	Depth 600 mm
600 mm	800 mm		8PQ1206-8BA01	–	–	–
	1000 mm		8PQ1206-4BA01	+ 8PQ1206-6BA01	–	–
	1200 mm		8PQ1206-4BA01	+ 8PQ1206-8BA01	–	–
		Duplex	8PQ1206-4BA01	+ 8PQ1206-8BA01	–	–
800 mm	800 mm		8PQ1208-8BA01	–	8PQ3000-1BA38	–
	1000 mm		8PQ1208-4BA01	+ 8PQ1208-6BA01	8PQ3000-1BA38	8PQ3000-1BA40
	1200 mm		8PQ1208-4BA01	+ 8PQ1208-8BA01	3× 8PQ3000-1BA38	–
		Duplex	8PQ1208-4BA01	+ 8PQ1208-8BA01	3× 8PQ3000-1BA38	–
1000 mm	800 mm		8PQ1201-8BA03	–	8PQ3000-1BA38	–
	1000 mm		8PQ1201-4BA02	+ 8PQ1201-6BA02	8PQ3000-1BA38	8PQ3000-1BA40
	1200 mm		8PQ1201-4BA02	+ 8PQ1201-8BA03	3× 8PQ3000-1BA38	–
		Duplex	8PQ1201-4BA02	+ 8PQ1201-8BA03	3× 8PQ3000-1BA38	–



- 1 Frame
- 2 Bottom plate partition crossbar
- 3 Exterior intermediate upright
- 4 Interior side upright
- 5 Section division



3 Exterior intermediate upright

4 Interior side upright

5 Section division

–	8PQ3000-0BA03	–
–	8PQ3000-0BA03	–
–	8PQ3000-0BA03	–
–	8PQ3000-0BA03	–
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA36
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA36
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA37
8PQ3000-1BA43	8PQ3000-0BA03	8PQ3000-1BA37



# Frame

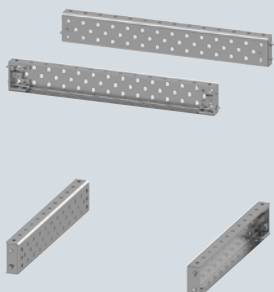
## Accessories

### Frame reinforcement



Use	Scope of supply	Article No.
For frame widths from 1000 mm	2 units	8PQ9400-0BA35

### Crossbars



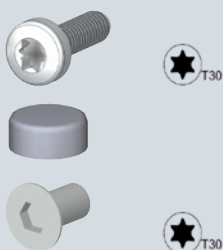
Version	Width	Crossbar length	Scope of supply	Article No.
–	400 mm	350 mm	2 units	8PQ3000-0BA12
	600 mm	550 mm	2 units	8PQ3000-0BA71
	800 mm	750 mm	2 units	8PQ3000-0BA72
	1000 mm	950 mm	2 units	8PQ3000-0BA84
	1200 mm	1150 mm	2 units	8PQ3000-0BA85
Without uprights	400 mm	300 mm	2 units	8PQ3000-0BA10
	600 mm	500 mm	2 units	8PQ3000-1BA24
	800 mm	700 mm	2 units	8PQ3000-1BA25
With uprights	600 mm	300 mm	2 units	8PQ3000-0BA10
	800 mm	300 mm	2 units	8PQ3000-0BA10

### Forming rows of frames



Version	Scope of supply	Article No.
Frame connection	6 units	8PQ1204-4BA05
Set of IP55 seals	5.5 m	8PQ1204-4BA04

### Self-tapping screws



Type	Version	Scope of supply	Article No.
Cylinder-head screws	M6 × 10 mm	100 units	8PQ9500-0BA34
	M6 × 16 mm	100 units	8PQ9500-0BA32
	M6 × 20 mm	100 units	8PQ9500-0BA31
Covering caps	M6, RAL 7035	100 units	8PQ9400-0BA14
Countersunk screws	M6 × 12 mm	100 units	8PQ9500-1BA07

### Transport aids



Type	Version	Width	Depth	Scope of supply	Article No.
Lifting eyebolts	M12	–	–	4 units	8PQ9400-0BA11
Lifting brackets	–	800 mm	–	2 units	8PQ3000-1BA01
		850 mm	–	2 units	8PQ3000-2BA38
		1000 mm	–	2 units	8PQ3000-1BA02
		1200 mm	–	2 units	8PQ3000-1BA03
Lifting brackets	–	–	800 mm	2 units	8PQ3000-1BA01
		–	1000 mm	2 units	8PQ3000-3BA70 <b>new</b>
		–	1200 mm	2 units	8PQ3000-3BA71 <b>new</b>



# Enclosure

## Paneling sections, main busbar at top/at bottom



### Position of main busbar

At top

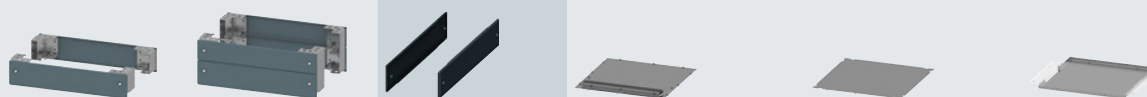
At bottom

#### 1 Bases

Corners with front cover

Side covers

#### 2 Bottom plates



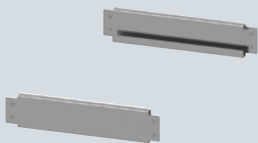
Width	Depth	Height 100 mm		Height 100 mm	IP40 cable entry			IP20
		200 mm	200 mm		IP55	IP55	IP55	
200 mm	400 mm	–	–	–	–	8PQ2302-4BA04	–	
	600 mm	–	–	–	–	8PQ2302-6BA04	–	
	800 mm	–	–	–	–	2x 8PQ2302-4BA04	–	
400 mm	400 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-4BA01	8PQ2304-4BA06	8PQ2304-4BA05	8PQ2304-4BA14	
	600 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-6BA01	8PQ2306-4BA06	8PQ2306-4BA05	8PQ2304-6BA11	
	800 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-8BA01	2x 8PQ2304-4BA06	2x 8PQ2304-4BA05	8PQ2304-8BA05	
600 mm	400 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-4BA01	8PQ2306-4BA06	8PQ2306-4BA05	8PQ2306-4BA10	
	600 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-6BA01	8PQ2306-6BA06	8PQ2306-6BA05	8PQ2306-6BA16	
	800 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-8BA01	2x 8PQ2306-4BA06	2x 8PQ2306-4BA05	8PQ2306-8BA05	
800 mm	400 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-4BA01	8PQ2308-4BA06	8PQ2308-4BA05	8PQ2308-4BA13	
	600 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-6BA01	8PQ2308-6BA06	8PQ2308-6BA05	8PQ2308-6BA13	
	800 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-8BA01	2x 8PQ2308-4BA06	2x 8PQ2308-4BA05	8PQ2308-8BA10	
1000 mm	400 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-4BA01	–	8PQ2301-4BA04	8PQ2301-4BA06	
	600 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-6BA01	–	–	8PQ2301-6BA05	
	800 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-8BA01	–	2x 8PQ2301-4BA04	8PQ2301-8BA04	
1200 mm	400 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-4BA01	–	–	8PQ2302-4BA05	
	600 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-6BA01	–	–	8PQ2302-6BA05	
	800 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-8BA01	–	–	8PQ2302-8BA04	

Rear panels		Side panels		Top plates			
IP40	IP55	IP55	IP55 with design strip	IP40	IP40 cable entry	IPX1 upgrade	IP55
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
8PQ2420-4BA02	8PQ2420-4BA01	8PQ2520-4BA02	8PQ2520-4BA01	8PQ2304-4BA02	8PQ2304-4BA03	8PQ2304-4BA04	8PQ2304-4BA01
8PQ2420-4BA02	8PQ2420-4BA01	8PQ2520-6BA02	8PQ2520-6BA01	8PQ2304-6BA02	8PQ2304-6BA03	8PQ2304-6BA04	8PQ2304-6BA01
8PQ2420-4BA02	8PQ2420-4BA01	8PQ2520-8BA02	8PQ2520-8BA01	8PQ2304-8BA02	8PQ2304-8BA03	8PQ2304-8BA04	8PQ2304-8BA01
8PQ2420-6BA02	8PQ2420-6BA01	8PQ2520-4BA02	8PQ2520-4BA01	8PQ2306-4BA02	8PQ2306-4BA03	8PQ2306-4BA04	8PQ2306-4BA01
8PQ2420-6BA02	8PQ2420-6BA01	8PQ2520-6BA02	8PQ2520-6BA01	8PQ2306-6BA02	8PQ2306-6BA03	8PQ2306-6BA04	8PQ2306-6BA01
8PQ2420-6BA02	8PQ2420-6BA01	8PQ2520-8BA02	8PQ2520-8BA01	8PQ2306-8BA02	8PQ2306-8BA03	8PQ2306-8BA04	8PQ2306-8BA01
8PQ2420-8BA02	8PQ2420-8BA01	8PQ2520-4BA02	8PQ2520-4BA01	8PQ2308-4BA02	8PQ2308-4BA03	8PQ2308-4BA04	8PQ2308-4BA01
8PQ2420-8BA02	8PQ2420-8BA01	8PQ2520-6BA02	8PQ2520-6BA01	8PQ2308-6BA02	8PQ2308-6BA03	8PQ2308-6BA04	8PQ2308-6BA01
8PQ2420-8BA02	8PQ2420-8BA01	8PQ2520-8BA02	8PQ2520-8BA01	8PQ2308-8BA02	8PQ2308-8BA03	8PQ2308-8BA04	8PQ2308-8BA01
8PQ2420-1BA02	8PQ2420-1BA01	8PQ2520-4BA02	8PQ2520-4BA01	8PQ2301-4BA02	-	8PQ2301-4BA03	8PQ2301-4BA01
8PQ2420-1BA02	8PQ2420-1BA01	8PQ2520-6BA02	8PQ2520-6BA01	8PQ2301-6BA02	-	8PQ2301-6BA03	8PQ2301-6BA01
8PQ2420-1BA02	8PQ2420-1BA01	8PQ2520-8BA02	8PQ2520-8BA01	8PQ2301-8BA02	-	8PQ2301-8BA03	8PQ2301-8BA01
8PQ2420-2BA02	8PQ2420-2BA01	8PQ2520-4BA02	8PQ2520-4BA01	8PQ2302-4BA02	-	8PQ2302-4BA03	8PQ2302-4BA01
8PQ2420-2BA02	8PQ2420-2BA01	8PQ2520-6BA02	8PQ2520-6BA01	8PQ2302-6BA02	-	8PQ2302-6BA03	8PQ2302-6BA01
8PQ2420-2BA02	8PQ2420-2BA01	8PQ2520-8BA02	8PQ2520-8BA01	8PQ2302-8BA02	-	8PQ2302-8BA03	8PQ2302-8BA01

# Enclosure

Paneling sections, main busbar at top/at bottom

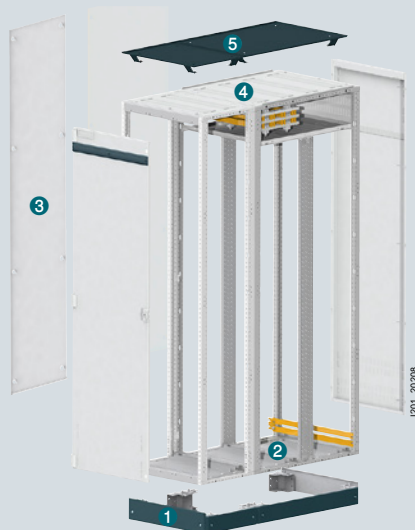
## Accessories

Reinforcements for transport			
	Height	Width/depth	Article No.
	100 mm	400 mm	8PQ1014-0BA02
		600 mm	8PQ1016-0BA02
		800 mm	8PQ1018-0BA02
		1000 mm	8PQ1011-1BA01
		1200 mm	8PQ1012-2BA01

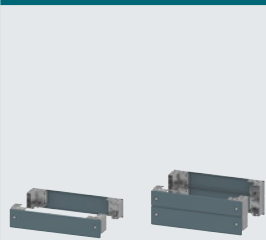


# Enclosure

Paneling sections, main busbar at rear **new**



## 1 Bases



## Side covers



## 2 Bottom plates



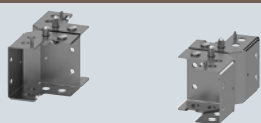
## 3 Side panels



Width	Depth	Height		Height		IP55		IP55	
		100 mm	200 mm	100 mm	200 mm	IP55	IP55	IP55	IP55
400 mm	800 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-8BA01	–	2x 8PQ2304-4BA05	–	8PQ2520-8BA02	–
	1000 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-4BA01	8PQ1010-6BA01	8PQ2304-4BA05	+ 8PQ2306-4BA05	8PQ2520-4BA02	+ 8PQ2520-6BA02
	1200 mm	8PQ1014-0BA01	8PQ1024-0BA01	8PQ1010-4BA01	8PQ1010-8BA01	3x 8PQ2304-4BA05	–	8PQ2520-4BA02	+ 8PQ2520-8BA02
600 mm	800 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-8BA01	–	2x 8PQ2306-4BA05	–	8PQ2520-8BA02	–
	1000 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-4BA01	8PQ1010-6BA01	8PQ2306-4BA05	+ 8PQ2306-6BA05	8PQ2520-4BA02	+ 8PQ2520-6BA02
	1200 mm	8PQ1016-0BA01	8PQ1026-0BA01	8PQ1010-4BA01	8PQ1010-8BA01	3x 8PQ2306-4BA05	–	8PQ2520-4BA02	+ 8PQ2520-8BA02
800 mm	800 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-8BA01	–	2x 8PQ2308-4BA05	–	8PQ2520-8BA02	–
	1000 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-4BA01	8PQ1010-6BA01	8PQ2308-4BA05	+ 8PQ2308-6BA05	8PQ2520-4BA02	+ 8PQ2520-6BA02
	1200 mm	8PQ1018-0BA01	8PQ1028-0BA01	8PQ1010-4BA01	8PQ1010-8BA01	3x 8PQ2308-4BA05	–	8PQ2520-4BA02	+ 8PQ2520-8BA02
1000 mm	800 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-8BA01	–	2x 8PQ2301-4BA04	–	8PQ2520-8BA02	–
	1000 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-4BA01	8PQ1010-6BA01	8PQ2301-4BA04	+ 8PQ2301-6BA06	8PQ2520-4BA02	+ 8PQ2520-6BA02
	1200 mm	8PQ1011-0BA01	8PQ1021-0BA01	8PQ1010-4BA01	8PQ1010-8BA01	3x 8PQ2301-4BA04	–	8PQ2520-4BA02	+ 8PQ2520-8BA02
1200 mm	800 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-8BA01	–	4x 8PQ2306-4BA05	–	8PQ2520-8BA02	–
	1000 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-4BA01	8PQ1010-6BA01	2x 8PQ2306-4BA05	2x 8PQ2306-6BA05	8PQ2520-4BA02	+ 8PQ2520-6BA02
	1200 mm	8PQ1012-0BA01	8PQ1022-0BA01	8PQ1010-4BA01	8PQ1010-8BA01	6x 8PQ2306-4BA05	–	8PQ2520-4BA02	+ 8PQ2520-8BA02

## Accessories

### Base corner pieces



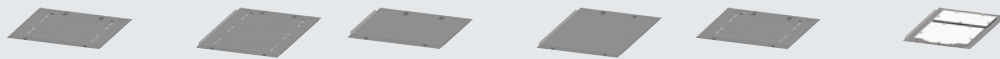
### Version

Height 100 mm, depth 1000 ... 1200 mm  
Height 200 mm, depth 1000 ... 1200 mm

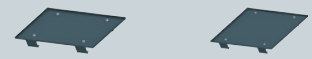
### Article No.

8PQ1010-1BA01  
8PQ1020-1BA01

## Top plates



## Top plate attachment



IP40	IP40	IP55	IP55	IP40 cable entry	IP40 cable entry	IPX1	IPX1
8PQ2304-8BA02	–	8PQ2304-8BA01	–	–	8PQ2304-8BA08	8PQ2304-8BA04	–
8PQ2304-4BA02	+ 8PQ2304-6BA02	8PQ2304-4BA01	+ 8PQ2304-6BA01	8PQ2304-4BA02	+ 8PQ2304-6BA13	8PQ2304-4BA15	+ 8PQ2304-6BA12
8PQ2304-4BA02	+ 8PQ2304-8BA02	8PQ2304-4BA01	+ 8PQ2304-8BA01	8PQ2304-8BA08	+ 8PQ2304-4BA16	8PQ2304-4BA15	+ 8PQ2304-8BA07
8PQ2306-8BA02	–	8PQ2306-8BA01	–	–	8PQ2306-8BA08	8PQ2306-8BA04	–
8PQ2306-4BA02	+ 8PQ2306-6BA02	8PQ2306-4BA01	+ 8PQ2306-6BA01	8PQ2306-4BA02	+ 8PQ2306-6BA18	8PQ2306-4BA11	+ 8PQ2306-6BA17
8PQ2306-4BA02	+ 8PQ2306-8BA02	8PQ2306-4BA01	+ 8PQ2306-8BA01	8PQ2306-4BA12	+ 8PQ2306-8BA08	8PQ2306-4BA11	+ 8PQ2306-8BA07
8PQ2308-8BA02	–	8PQ2308-8BA01	–	–	8PQ2308-8BA13	8PQ2308-8BA04	–
8PQ2308-4BA02	+ 8PQ2308-6BA02	8PQ2308-4BA01	+ 8PQ2308-6BA01	8PQ2308-4BA02	+ 8PQ2308-6BA15	8PQ2308-4BA14	+ 8PQ2308-6BA14
8PQ2308-4BA02	+ 8PQ2308-8BA02	8PQ2308-4BA01	+ 8PQ2308-8BA01	8PQ2308-4BA15	+ 8PQ2308-8BA13	8PQ2308-4BA14	+ 8PQ2308-8BA12
8PQ2301-8BA02	–	8PQ2301-8BA01	–	–	8PQ2301-8BA07	8PQ2301-8BA03	–
8PQ2301-4BA02	+ 8PQ2301-6BA02	8PQ2301-4BA01	+ 8PQ2301-6BA01	8PQ2301-4BA02	+ 8PQ2301-6BA08	8PQ2301-4BA07	+ 8PQ2301-6BA07
8PQ2301-4BA02	+ 8PQ2301-8BA02	8PQ2301-4BA01	+ 8PQ2301-8BA01	8PQ2301-4BA08	+ 8PQ2301-8BA07	8PQ2301-4BA07	+ 8PQ2301-8BA06
8PQ2302-8BA02	–	8PQ2302-8BA01	–	–	8PQ2302-8BA07	8PQ2302-8BA03	–
8PQ2302-4BA02	+ 8PQ2302-6BA02	8PQ2302-4BA01	+ 8PQ2302-6BA01	8PQ2302-4BA02	+ 8PQ2302-6BA07	8PQ2302-4BA06	+ 8PQ2302-6BA06
8PQ2302-4BA02	+ 8PQ2302-8BA02	8PQ2302-4BA01	+ 8PQ2302-8BA01	8PQ2302-4BA07	+ 8PQ2302-8BA07	8PQ2302-4BA06	+ 8PQ2302-8BA06



# Enclosure

## Paneling sections



Hinge position	Width	IP40	IP55	IP55 glass doors	IP40	IP55	IP30
<b>With double-bit lock</b>							
Left	200 mm	–	–	–	8PQ2197-2BA15	8PQ2197-2BA14	–
	400 mm	8PQ2197-4BA08	8PQ2197-4BA05	–	8PQ2197-4BA02	8PQ2197-4BA01	–
	600 mm	8PQ2197-6BA06	8PQ2197-6BA03	8PQ2197-6BA10	–	–	8PQ2197-6BA11
	800 mm	8PQ2197-8BA06	8PQ2197-8BA03	8PQ2197-8BA10	–	–	8PQ2197-8BA11
	1000 mm	8PQ2197-1BA06	8PQ2197-1BA03	8PQ2197-1BA10	–	–	–
Right	200 mm	–	–	–	8PQ2197-2BA15	8PQ2197-2BA14	–
	400 mm	8PQ2197-4BA11	8PQ2197-4BA10	–	8PQ2197-4BA02	8PQ2197-4BA01	–
	600 mm	8PQ2197-6BA13	8PQ2197-6BA12	8PQ2197-6BA14	–	–	8PQ2197-6BA11
	800 mm	8PQ2197-8BA13	8PQ2197-8BA12	8PQ2197-8BA14	–	–	8PQ2197-8BA11
	1000 mm	8PQ2197-1BA18	8PQ2197-1BA17	8PQ2197-1BA20	–	–	–
<b>For profile semicylinder</b>							
Left	200 mm	–	–	–	8PQ2197-2BA15	8PQ2197-2BA14	–
	400 mm	8PQ2197-4BA06	8PQ2197-4BA03	–	8PQ2197-4BA02	8PQ2197-4BA01	–
	600 mm	8PQ2197-6BA04	8PQ2197-6BA01	8PQ2197-6BA07	–	–	8PQ2197-6BA11
	800 mm	8PQ2197-8BA04	8PQ2197-8BA01	8PQ2197-8BA07	–	–	8PQ2197-8BA11
	1000 mm	8PQ2197-1BA07	8PQ2197-1BA04	8PQ2197-1BA11	–	–	–
Right	200 mm	–	–	–	8PQ2197-2BA15	8PQ2197-2BA14	–
	400 mm	8PQ2197-4BA07	8PQ2197-4BA04	–	8PQ2197-4BA02	8PQ2197-4BA01	–
	600 mm	8PQ2197-6BA05	8PQ2197-6BA02	8PQ2197-6BA08	–	–	8PQ2197-6BA11
	800 mm	8PQ2197-8BA05	8PQ2197-8BA02	8PQ2197-8BA08	–	–	8PQ2197-8BA11
	1000 mm	8PQ2197-1BA08	8PQ2197-1BA05	8PQ2197-1BA12	–	–	–

## Accessories

Cubicle keys			
	Version	Scope of supply	Article No.
	3 mm double bit	10 units	8PQ9400-0BA12
Inner door struts			
	Height	Article No.	
	1975 mm	8PQ2197-0BA10	
Cubicle ID plate			
	Version	Article No.	
	SIVACON designed by Siemens	8PQ9400-0BA06	
Flat cylinders/two-way interlocking mechanism			
	Version	Article No.	
	Rotary handles with flat cylinder	8PQ9400-0BA07	
	<ul style="list-style-type: none"> <li>• With key</li> <li>• Identical key type</li> </ul>		
	Rotary handles with two-way interlocking mechanism	8PQ9400-0BA08	
	Coupling bars	8PQ9400-0BA27	
	Locking rods	8PQ9400-0BA37	
Bar guides	8PQ9400-0BA36		
Profile semicylinders			
	Version	Article No.	
	Rotary handles for profile semicylinders	8PQ9400-0BA41	
	Coupling bars	8PQ9400-0BA28	
	Locking rods	8PQ9400-0BA38	
	Bar guides	8PQ9400-0BA36	
	Profile semicylinders Acc. to DIN 18252/18254, 8 × 45° adjustable, with identical keys (key number 333), including key	8PQ9400-0BA26	
Door hinges			
	Version	Scope of supply	Article No.
	Suitable for modular or section doors	2 units	8PQ9400-0BA55

# Enclosure

## Internal covers



### Position of main busbar

#### At top

#### Without

#### Masking frames



Width	Fixed	Swivel	Fixed	Swivel
600 mm	8PQ2000-6BA03	8PQ2000-6BA02	8PQ2000-6BA04	8PQ2000-6BA01
800 mm	8PQ2000-8BA03	8PQ2000-8BA02	8PQ2000-8BA04	8PQ2000-8BA01


#### Blanking covers




Height	Width 600 mm	Width 800 mm
50 mm	8PQ2005-6BA01	8PQ2005-8BA01
100 mm	8PQ2010-6BA01	8PQ2010-8BA01
150 mm	8PQ2015-6BA02	8PQ2015-8BA02
200 mm	8PQ2020-6BA01	8PQ2020-8BA01
250 mm	8PQ2025-6BA01	8PQ2025-8BA01
300 mm	8PQ2030-6BA01	8PQ2030-8BA01
350 mm	8PQ2035-6BA01	8PQ2035-8BA01
400 mm	8PQ2040-6BA01	8PQ2040-8BA01
500 mm	8PQ2050-6BA01	8PQ2050-8BA01
550 mm	8PQ2055-6BA01	8PQ2055-8BA01
600 mm	8PQ2060-6BA01	8PQ2060-8BA01
650 mm	8PQ2065-6BA01	8PQ2065-8BA01
800 mm	8PQ2080-6BA01	8PQ2080-8BA01

## Accessories


### Covers, ventilated

	Height	Width	Article No.
	100 mm	600 mm	8PQ2010-6BA02
		800 mm	8PQ2010-8BA02

### Quick-release lock

	Version	Scope of supply	Article No.
	SIVACON - Blue green basic	20 units	8PQ9400-0BA54

### Hinges for covers

	Version	Scope of supply	Article No.
	<ul style="list-style-type: none"> <li>Hinges, incl. fixing accessories</li> <li>From a masking frame height of 150 mm</li> </ul>	1 set	8PQ2000-0BA08

# Enclosure

## Compartment doors





### Device compartments

		② Compartment doors		Covers	
Width	Height	IP4X	IP55 upgrade	IP4X	IP55 upgrade
400 mm	50 mm	–	–	8PQ2005-4BA03	8PQ2005-4BA01
	100 mm	–	–	8PQ2010-4BA02	8PQ2010-4BA01
	150 mm	8PQ2015-4BA04	8PQ2015-4BA05	–	–
	200 mm	8PQ2020-4BA01	8PQ2020-4BA03	–	–
	250 mm	8PQ2025-4BA01	8PQ2025-4BA02	–	–
	300 mm	8PQ2030-4BA01	8PQ2030-4BA02	–	–
	350 mm	8PQ2035-4BA01	8PQ2035-4BA02	–	–
	400 mm	8PQ2040-4BA01	8PQ2040-4BA03	–	–
	450 mm	8PQ2045-4BA01	8PQ2045-4BA02	–	–
	500 mm	8PQ2050-4BA01	8PQ2050-4BA02	–	–
	550 mm	8PQ2055-4BA11	8PQ2055-4BA07	–	–
	600 mm	8PQ2060-4BA01	8PQ2060-4BA03	–	–
	650 mm	8PQ2065-4BA01	8PQ2065-4BA02	–	–
	700 mm	8PQ2070-4BA07	8PQ2070-4BA08	–	–
	750 mm	8PQ2072-4BA01	8PQ2075-4BA01	–	–
	800 mm	8PQ2080-4BA01	8PQ2080-4BA04	–	–
600 mm	50 mm	–	–	8PQ2005-6BA04	8PQ2005-6BA03
	100 mm	–	–	8PQ2010-6BA04	8PQ2010-6BA03
	150 mm	8PQ2015-6BA10	8PQ2015-6BA12	–	–
	200 mm	8PQ2020-6BA14	8PQ2020-6BA15	–	–
	250 mm	8PQ2025-6BA07	8PQ2025-6BA08	–	–
	300 mm	8PQ2030-6BA10	8PQ2030-6BA12	–	–
	350 mm	8PQ2035-6BA12	8PQ2035-6BA13	–	–
	400 mm	8PQ2040-6BA12	8PQ2040-6BA13	–	–
	450 mm	8PQ2045-6BA05	8PQ2045-6BA06	–	–
	500 mm	8PQ2050-6BA03	8PQ2050-6BA04	–	–
	550 mm	8PQ2055-6BA04	8PQ2055-6BA06	–	–
	600 mm	8PQ2060-6BA06	8PQ2060-6BA07	–	–
	650 mm	8PQ2065-6BA03	8PQ2065-6BA04	–	–
	700 mm	8PQ2070-6BA03	8PQ2070-6BA04	–	–
	750 mm	8PQ2075-6BA01	8PQ2075-6BA02	–	–
	800 mm	8PQ2080-6BA03	8PQ2080-6BA04	–	–
800 mm	50 mm	–	–	8PQ2005-8BA04	8PQ2005-8BA03
	100 mm	–	–	8PQ2010-8BA04	8PQ2010-8BA03
	150 mm	8PQ2015-8BA05	8PQ2015-8BA07	–	–
	200 mm	8PQ2020-8BA07	8PQ2020-8BA08	–	–
	250 mm	8PQ2025-8BA04	8PQ2025-8BA05	–	–
	300 mm	8PQ2030-8BA05	8PQ2030-8BA06	–	–
	350 mm	8PQ2035-8BA06	8PQ2035-8BA07	–	–
	400 mm	8PQ2040-8BA12	8PQ2040-8BA13	–	–
	450 mm	8PQ2045-8BA03	8PQ2045-8BA04	–	–
	500 mm	8PQ2050-8BA03	8PQ2050-8BA04	–	–
	550 mm	8PQ2055-8BA03	8PQ2055-8BA06	–	–
	600 mm	8PQ2060-8BA04	8PQ2060-8BA05	–	–
	650 mm	8PQ2065-8BA03	8PQ2065-8BA04	–	–
	700 mm	8PQ2070-8BA01	8PQ2070-8BA02	–	–
	750 mm	8PQ2075-8BA01	8PQ2075-8BA02	–	–
	800 mm	8PQ2080-8BA03	8PQ2080-8BA04	–	–

## Head compartments

		Doors		Covers
				
Width	Height	IP4X	IP55 upgrade	IP4X
<b>Position of main busbar at top</b>				
400 mm	225 mm	8PQ2022-4BA04	8PQ2022-4BA03	8PQ2022-4BA01
600 mm	225 mm	8PQ2022-6BA04	8PQ2022-6BA02	8PQ2022-6BA01
800 mm	225 mm	8PQ2022-8BA03	8PQ2022-8BA02	8PQ2022-8BA01
<b>Position of main busbar at bottom</b>				
400 mm	175 mm	–	8PQ2022-4BA03	8PQ2000-4BA02
600 mm	175 mm	–	8PQ2022-6BA02	8PQ2000-6BA08
800 mm	175 mm	–	8PQ2022-8BA02	8PQ2000-8BA08
400 mm	725 mm	8PQ2072-4BA02	8PQ2070-4BA06	–
600 mm	725 mm	8PQ2072-6BA01	8PQ2070-6BA11	–

## Base compartments

		Covers	
			
Width	Height	IP4X	IP55 upgrade
<b>Position of main busbar at top</b>			
400 mm	150 + 25 mm	8PQ2015-4BA01	8PQ2015-4BA03
600 mm	150 + 25 mm	8PQ2000-6BA07	8PQ2015-6BA13
800 mm	150 + 25 mm	8PQ2000-8BA07	8PQ2015-8BA08
<b>Position of main busbar at bottom</b>			
400 mm	200 + 25 mm	8PQ2020-4BA04	8PQ2020-4BA05
600 mm	200 + 25 mm	8PQ2020-6BA34	8PQ2020-6BA35
800 mm	200 + 25 mm	8PQ2020-8BA17	8PQ2020-8BA18

# Enclosure

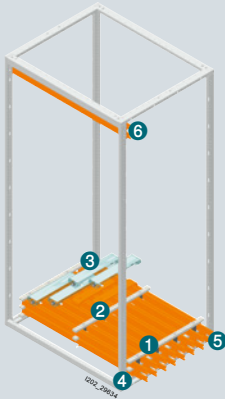
## Compartment doors

### Accessories

Door hinges			
	Version	Scope of supply	Article No.
	Suitable for modular or section doors	2 units	8PQ9400-0BA55
Locks			
	Version		Article No.
	Two-way interlocking mechanisms		8PQ9400-0BA40
Handles for compartment doors			
	Version		Article No.
	Without lock		8PQ9400-0BA73
	With flat cylinder, identical key type		8PQ9400-0BA72
ID strips			
	Width	Scope of supply	Article No.
	400 mm	6 units	8PQ5000-3BA42
	600 mm	6 units	8PQ5000-3BA43
	800 mm	6 units	8PQ5000-3BA46
Inner door struts			
	Height		Article No.
	400 mm		8PQ2040-0BA06
	550 mm		8PQ2055-0BA05
	600 mm		8PQ2060-0BA14
	625 mm		8PQ2060-0BA14
	700 mm		8PQ2070-0BA02
	725 mm		8PQ2070-0BA02
	800 mm		8PQ2080-0BA07
Cubicle keys			
	Version	Scope of supply	Article No.
	3 mm double bit	10 units	8PQ9400-0BA12

# Busbar systems

## Main busbars



	① Busbar supports		② Reinforcement		③ Equipotential bonding	Covers	④ PEN grounding	Arcing fault barriers
							1 set = 10 units	
Position	Up to 3200 A	Up to 4000 A	Up to 3200 A	Up to 4000 A				
Top	8PQ4000-0BA04	8PQ4000-0BA60	8PQ4000-0BA37	2x 8PQ4000-0BA37	8PQ4000-0BA62	–	8PQ4000-0BA12	8PQ9400-0BA21
Bottom	8PQ4000-0BA04	8PQ4000-0BA60	8PQ4000-0BA37	2x 8PQ4000-0BA37	8PQ4000-0BA62	4x 8PQ4000-1BA25	8PQ4000-0BA12	8PQ9400-0BA21
Rear	8PQ4000-0BA04	8PQ4000-0BA60	8PQ4000-0BA37	2x 8PQ4000-0BA37	–	–	8PQ4000-2BA24	8PQ9400-0BA21
	+ 8PQ3000-0BA10	+ 2x 8PQ3000-0BA10						

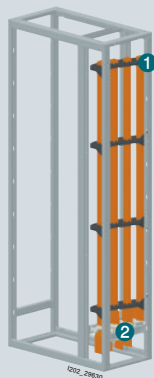
## Accessories

⑤ Connecting lugs			
	Type	Cross-section	Article No.
	⑤ Main busbars	20 × 10 mm	8PQ4000-0BA53
		30 × 10 mm	8PQ4000-0BA54
		40 × 10 mm	8PQ4000-0BA56
		50 × 10 mm	8PQ4000-0BA57
	⑤ PE bar	20 × 5 mm	8PQ4000-0BA52
30 × 5 mm			
30 × 10 mm			
40 × 5 mm		8PQ4000-0BA67	
40 × 10 mm			
	50 × 10 mm		
Protective cover			
	Type		Article No.
	<ul style="list-style-type: none"> <li>Main busbar at rear</li> <li>Mounting width 200 mm</li> </ul>		8PQ4000-3BA35 <b>new</b>



# Busbar systems

Vertical distribution busbars, cascaded, up to  $I_{CW} = 65 \text{ kA}$



## 1 Busbar supports



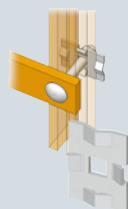
## 2 Supports







Position of main busbar	30 × 10 mm	40 × 10 mm	
Top	8PQ4000-0BA32	8PQ4000-0BA63	–
Bottom	8PQ4000-0BA32	8PQ4000-0BA63	8PQ4000-1BA23

## Accessories

### Connection



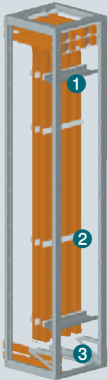
	Composants	Version	Scope of supply	Article No.
	Busbar clamps	M10	20 units	8PQ9400-0BA02
	Saucer-head bolts	M10 × 35 mm	50 units	8PQ9500-0BA14
		M10 × 45 mm	50 units	8PQ9500-0BA16
		M10 × 55 mm	50 units	8PQ9500-1BA36
		M10 × 65 mm	50 units	8PQ9500-1BA25
	Spring washers	For M10	50 units	8PQ9500-0BA60
	Hexagonal nuts	M10	50 units	8PQ9500-0BA05

### Connecting lugs



Cross-section	Position of vertical distribution busbar	Position of main busbar	Depth	Article No.	
30 × 10 mm	Right	Front	400 mm	8PQ4000-0BA45	
			600 mm	8PQ4000-0BA46	
			800 mm	8PQ4000-0BA46	
	Left	Rear	800 mm	8PQ4000-0BA50	
			Front	400 mm	8PQ4000-0BA73
				600 mm	8PQ4000-0BA72
40 × 10 mm	Right	Front	400 mm	8PQ4000-0BA47	
			600 mm	8PQ4000-0BA48	
			800 mm	8PQ4000-0BA48	
	Left	Rear	800 mm	8PQ4000-0BA51	
			Front	400 mm	8PQ4000-0BA75
				600 mm	8PQ4000-0BA48
		Rear	800 mm	8PQ4000-0BA48	
		Rear	800 mm	8PQ4000-0BA71	

## Vertical distribution busbars, non-cascaded, up to $I_{cw} = 100$ kA



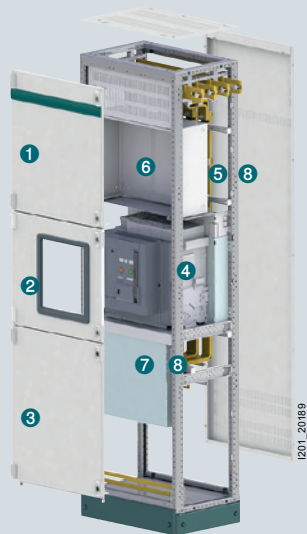
Position of main busbar	Width		8PQ4000-2BA25	8PQ4000-0BA37	8PQ4000-0BA78
	200 mm	400 mm			
Top	200 mm	400 mm	8PQ4000-2BA25	8PQ4000-0BA37	8PQ4000-0BA78
	400 mm	400 mm	8PQ4000-2BA26	8PQ4000-0BA37	8PQ4000-0BA61
Bottom	200 mm	400 mm	8PQ4000-2BA25	8PQ4000-0BA37	–
	400 mm	400 mm	8PQ4000-2BA26	8PQ4000-0BA37	–
Rear	200 mm	400 mm	8PQ4000-2BA25	8PQ4000-0BA37	8PQ4000-0BA78

### Accessories

Connecting lugs				
Cross-section	Position of main busbar	Depth		Article No.
		400 mm	800 mm	
20 × 10 mm 30 × 10 mm	Front	400 mm	800 mm	8PQ4000-0BA38
		600 mm	800 mm	8PQ4000-0BA40
	Rear	800 mm	800 mm	8PQ4000-0BA40
		800 mm	800 mm	8PQ4000-0BA43
40 × 10 mm 50 × 10 mm	Front	400 mm	800 mm	8PQ4000-0BA41
		600 mm	800 mm	8PQ4000-0BA42
	Rear	800 mm	800 mm	8PQ4000-0BA42
		800 mm	800 mm	8PQ4000-0BA44

# Section expansion

Air circuit breakers 3WA, infeed main busbar at top



## 3 and 4-pole

### ① Head compartment doors

### ② Compartment doors



Type of mounting	Size	Width	Depth	IP40		IP55 upgrade		
				IP40	IP55 upgrade	IP40	IP55	IP55 upgrade
Fixed-mounted	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			1000 mm	8PQ2067-1BA01	8PQ2067-1BA02	8PQ2055-1BA03	8PQ2055-1BA04	8PQ2055-1BA06
Withdrawable	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			1000 mm	8PQ2067-1BA01	8PQ2067-1BA02	8PQ2055-1BA03	8PQ2055-1BA04	8PQ2055-1BA06

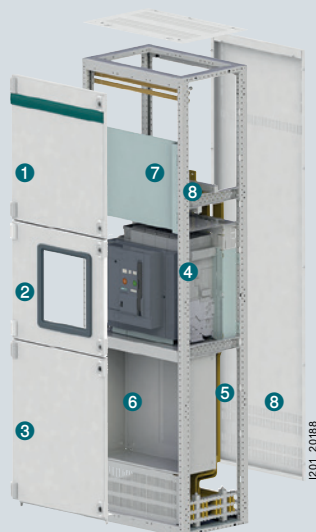
## Technical specifications

Size	$I_n$	Rated operational current $I_{ec}$ in A								Non-ventilated IP55					
		Ventilated IP40								20 °C	25 °C	30 °C	35 °C	40 °C	45 °C
I	1600 A	1600	1600	1590	<b>1550</b>	1510	1460	1420	1370	1340	1310	<b>1270</b>	1240	1200	1170
	2000 A	2000	2000	1990	<b>1940</b>	1890	1830	1780	1720	1680	1640	<b>1590</b>	1550	1510	1460
II	2000 A	2000	2000	2000	<b>2000</b>	2000	2000	2000	1960	1920	1870	<b>1820</b>	1780	1730	1670
	3200 A	2850	2790	2720	<b>2650</b>	2580	2510	2430	2260	2210	2160	<b>2100</b>	2050	1990	1930
III	4000 A	4000	4000	4000	<b>4000</b>	3950	3870	3780	3230	3150	3080	<b>3000</b>	2920	2840	2750

① Base compartment doors		④ Mounting plates		⑤ Main busbar connection		⑥ Separation 4b		⑦ Cable connection		⑧ Insulation	
IP40	IP55 upgrade	Front		Rear							
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	8PQ5000-4BA28	8PQ6000-5BA81	–				
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	8PQ5000-4BA30	8PQ6000-5BA81	–				
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	8PQ6001-1BA00	8PQ5000-4BA31	8PQ6000-5BA81	–				
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	–	8PQ5000-4BA32	8PQ6000-5BA83	–				
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	8PQ6001-1BA01	8PQ5000-4BA33	8PQ6000-5BA83	–				
8PQ2075-1BA01	8PQ2075-1BA02	8PQ6000-5BA23	8PQ6000-5BA33	–	8PQ5000-5BA11	8PQ6000-5BA84	–				
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	8PQ5000-4BA28	8PQ6000-5BA82	8PQ6000-7BA28				
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	8PQ5000-4BA30	8PQ6000-5BA82	8PQ6000-7BA28				
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	8PQ6001-1BA00	8PQ5000-4BA31	8PQ6000-5BA82	8PQ6000-7BA28				
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	–	8PQ5000-4BA32	8PQ6000-5BA83	–				
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	8PQ6001-1BA01	8PQ5000-4BA33	8PQ6000-5BA83	–				
8PQ2075-1BA01	8PQ2075-1BA02	8PQ6000-5BA23	8PQ6000-5BA33	–	8PQ5000-5BA11	8PQ6000-5BA84	–				

# Section expansion

3WA air circuit breakers, infeed main busbar at bottom



## 3 and 4-pole

### ① Head compartment doors

### ② Compartment doors



+ 3WA9111-OAP01

+ 3WA9111-OAP03

Type of mounting	Size	Width	Depth	IP40	IP55 upgrade	IP40	IP55	IP55 upgrade
Fixed-mounted	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
Withdrawable	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06

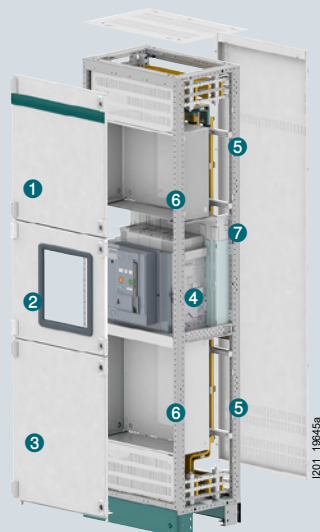
## Technical specifications

Size	$I_n$	Rated operational current $I_{ec}$ in A								Non-ventilated IP55					
		Ventilated IP40								20 °C	25 °C	30 °C	35 °C	40 °C	45 °C
I	1600 A	1540	1500	1470	<b>1430</b>	1390	1350	1310	1390	1350	1320	<b>1290</b>	1240	1190	1140
	2000 A	1930	1880	1840	<b>1790</b>	1740	1690	1640	1710	1670	1630	<b>1590</b>	1530	1470	1410
II	2000 A	2000	2000	2000	<b>2000</b>	1990	1920	1830	2000	1950	1880	<b>1820</b>	1750	1680	1610
	3200 A	2710	2640	2570	<b>2490</b>	2400	2300	2200	2320	2250	2180	<b>2100</b>	2030	1950	1860

③ Base compartment doors		④ Mounting plates		⑤ Main busbar connection		⑥ Separation 4b		⑦ Cable connection		⑧ Insulation	
IP40	IP55 upgrade			Front	Rear						
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	–	8PQ5000-4BA34	8PQ6000-5BA81	–	–	–	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	–	8PQ5000-4BA35	8PQ6000-5BA81	–	–	–	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	8PQ6001-1BA00	–	8PQ5000-4BA36	8PQ6000-5BA81	–	–	–	–
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	–	–	8PQ5000-4BA37	8PQ6000-5BA83	–	–	–	–
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	8PQ6001-1BA01	–	8PQ5000-4BA38	8PQ6000-5BA83	–	–	–	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	–	8PQ5000-4BA34	8PQ6000-5BA82	8PQ6000-7BA28	–	–	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	–	–	8PQ5000-4BA35	8PQ6000-5BA82	8PQ6000-7BA28	–	–	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	8PQ6000-6BA75	8PQ6001-1BA00	–	8PQ5000-4BA36	8PQ6000-5BA82	8PQ6000-7BA28	–	–	–
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	–	–	8PQ5000-4BA37	8PQ6000-5BA83	–	–	–	–
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	8PQ6000-6BA76	8PQ6001-1BA01	–	8PQ5000-4BA38	8PQ6000-5BA83	–	–	–	–

# Section expansion

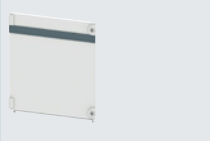
## 3WA air circuit breakers, coupling



### 3 and 4-pole

#### ① Head compartment doors

#### ② Compartment doors



+ 3WA91111-OAP01

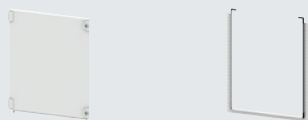
+ 3WA91111-OAP03

Type of mounting	Size	Width	Depth	IP40	IP55 upgrade	IP4X	IP55	IP55 upgrade
Fixed-mounted	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
Withdrawable	I	600 mm	400 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			600 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
			800 mm	8PQ2067-6BA01	8PQ2067-6BA02	8PQ2055-6BA16	8PQ2055-6BA17	8PQ2055-6BA06
	II	800 mm	600 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06
			800 mm	8PQ2067-8BA01	8PQ2067-8BA02	8PQ2055-8BA08	8PQ2055-8BA10	8PQ2055-8BA06

## Technical specifications

Size	$I_n$	Rated operational current $I_{ec}$ in A								Non-ventilated IP55					
		Ventilated IP40								20 °C	25 °C	30 °C	35 °C	40 °C	45 °C
I	1600 A	1540	1500	1470	<b>1430</b>	1390	1350	1310	1390	1350	1320	<b>1290</b>	1240	1190	1140
	2000 A	1930	1880	1840	<b>1790</b>	1740	1690	1640	1710	1670	1630	<b>1590</b>	1530	1470	1410
II	2000 A	2000	2000	2000	<b>2000</b>	1990	1920	1830	2000	1950	1880	<b>1820</b>	1750	1680	1610
	3200 A	2710	2640	2570	<b>2490</b>	2400	2300	2200	2320	2250	2180	<b>2100</b>	2030	1950	1860

### ④ Base compartment doors



IP40

### ④ Mounting plates



### ④ Anschluss HSS



### ④ Separation 4b



### ④ Uprights



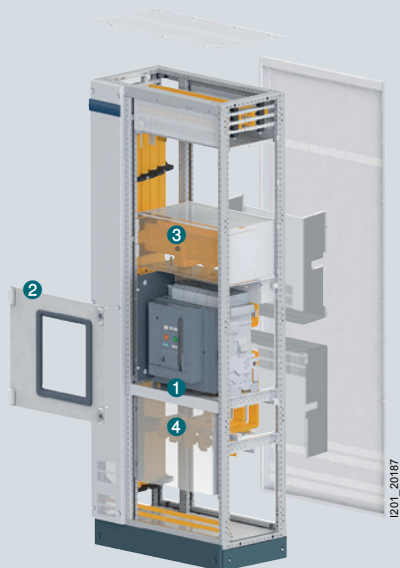
IP55  
upgrade

8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA12	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA13	2x 8PQ3000-3BA50
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA14	2x 8PQ3000-3BA51
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	2x 8PQ6000-6BA76	8PQ5000-5BA15	2x 8PQ3000-3BA50
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	2x 8PQ6000-6BA76	8PQ5000-5BA16	2x 8PQ3000-3BA51
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA12	–
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA13	2x 8PQ3000-3BA50
8PQ2075-6BA01	8PQ2075-6BA03	8PQ6000-5BA26	2x 8PQ6000-6BA75	8PQ5000-5BA14	2x 8PQ3000-3BA51
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	2x 8PQ6000-6BA76	8PQ5000-5BA15	2x 8PQ3000-3BA50
8PQ2075-8BA01	8PQ2075-8BA03	8PQ6000-5BA24	2x 8PQ6000-6BA76	8PQ5000-5BA16	2x 8PQ3000-3BA51



# Section expansion

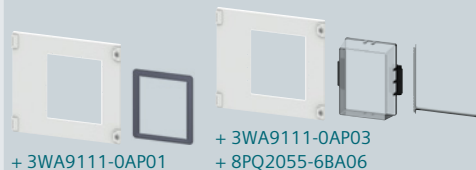
## 3WA air circuit breakers, connection of section busbar systems



### Compartment doors

#### 1 Mounting plates

#### 2 Compartment doors

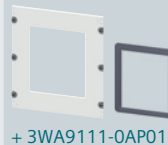


Type of mounting	Size	Width	Number of poles	Rated current	IP4X		IP55
					8PQ2055-4BA12	8PQ2055-4BA12	8PQ2055-6BA06
Fixed-mounted	I	400 mm	3-pole	1600 A	8PQ6000-5BA25	8PQ2055-4BA12	–
				2000 A	8PQ6000-5BA25	8PQ2055-4BA12	–
	600 mm	4-pole	1600 A	8PQ6000-5BA26	8PQ2055-6BA16	8PQ2055-6BA06	
			2000 A	8PQ6000-5BA26	8PQ2055-6BA16	8PQ2055-6BA06	
Withdrawable	I	400 mm	3-pole	1600 A	8PQ6000-5BA25	8PQ2055-4BA12	–
				2000 A	8PQ6000-5BA25	8PQ2055-4BA12	–
	600 mm	4-pole	1600 A	8PQ6000-5BA26	8PQ2055-6BA16	8PQ2055-6BA06	
			2000 A	8PQ6000-5BA26	8PQ2055-6BA16	8PQ2055-6BA06	

### Covers

#### 1 Mounting plates

#### 2 Covers



Type of mounting	Size	Width	Number of poles	Rated current	IP4X		
					8PQ2055-6BA05	8PQ2055-6BA05	
Fixed-mounted	I	600 mm	3-pole	1600 A	8PQ6000-3BA31	8PQ2055-6BA05	
				2000 A	8PQ6000-3BA31	8PQ2055-6BA05	
		4-pole	1600 A	8PQ6000-3BA31	8PQ2055-6BA07		
			2000 A	8PQ6000-3BA31	8PQ2055-6BA07		
	800 mm	3/4-pole	1600 A	8PQ6000-3BA32	8PQ2055-8BA04		
			2000 A	8PQ6000-3BA32	8PQ2055-8BA04		
		Withdrawable	600 mm	3-pole	1600 A	8PQ6000-3BA31	8PQ2055-6BA05
					2000 A	8PQ6000-3BA31	8PQ2055-6BA05
4-pole	1600 A	8PQ6000-3BA31	8PQ2055-6BA07				
	2000 A	8PQ6000-3BA31	8PQ2055-6BA07				
800 mm	3/4-pole	1600 A	8PQ6000-3BA32	8PQ2055-8BA04			
		2000 A	8PQ6000-3BA32	8PQ2055-8BA04			

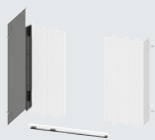
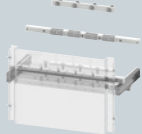
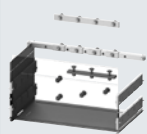
## ③ Section busbars

## ④ Cable connection

## ⑤ Device compartment

## ⑥ Cable connection

## ⑦ Section busbars



## Separation, form 3

## Separation, form 4

## Separation, form 4

8PQ6000-5BA48

8PQ6000-5BA78

8PQ5000-3BA82

8PQ5000-3BA84

8PQ5000-3BA84

8PQ6000-7BA05

8PQ6000-5BA78

8PQ5000-3BA82

8PQ5000-4BA00

8PQ5000-3BA85

8PQ6000-5BA51

8PQ6000-5BA81

8PQ5000-3BA82

8PQ5000-3BA86

8PQ5000-3BA86

8PQ6000-7BA07

8PQ6000-5BA81

8PQ5000-3BA82

8PQ5000-4BA01

8PQ5000-3BA87

8PQ6000-5BA50

8PQ6000-5BA80

8PQ5000-3BA82

8PQ5000-3BA84

8PQ5000-3BA84

8PQ6000-7BA06

8PQ6000-5BA80

8PQ5000-3BA82

8PQ5000-4BA00

8PQ5000-3BA85

8PQ6000-5BA52

8PQ6000-5BA82

8PQ5000-3BA82

8PQ5000-3BA86

8PQ5000-3BA86

8PQ6000-7BA08

8PQ6000-5BA82

8PQ5000-3BA82

8PQ5000-4BA01

8PQ5000-3BA87

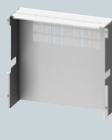
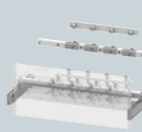
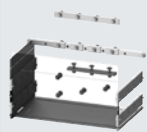
## ③ Section busbars

## ④ Cable connection

## ⑤ Device compartment

## ⑥ Cable connection

## ⑦ Section busbars



## Separation, form 3

## Separation, form 4

## Separation, form 4

8PQ6000-5BA45

8PQ6000-5BA75

8PQ5000-0BA08

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-7BA03

8PQ6000-5BA75

8PQ5000-0BA08

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-5BA45

8PQ6000-5BA75

8PQ5000-0BA08

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-7BA03

8PQ6000-5BA75

8PQ5000-0BA08

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-5BA46

8PQ6000-5BA76

8PQ5000-1BA65

8PQ5000-1BA68

8PQ5000-1BA67

8PQ6000-7BA04

8PQ6000-5BA76

8PQ5000-1BA65

8PQ5000-1BA68

8PQ5000-1BA67

8PQ6000-5BA45

8PQ6000-5BA75

8PQ5000-0BA07

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-7BA03

8PQ6000-5BA75

8PQ5000-0BA07

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-5BA45

8PQ6000-5BA75

8PQ5000-0BA07

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-7BA03

8PQ6000-5BA75

8PQ5000-0BA07

8PQ5000-0BA30

8PQ5000-0BA14

8PQ6000-5BA46

8PQ6000-5BA76

8PQ5000-1BA66

8PQ5000-1BA68

8PQ5000-1BA67

8PQ6000-7BA04

8PQ6000-5BA76

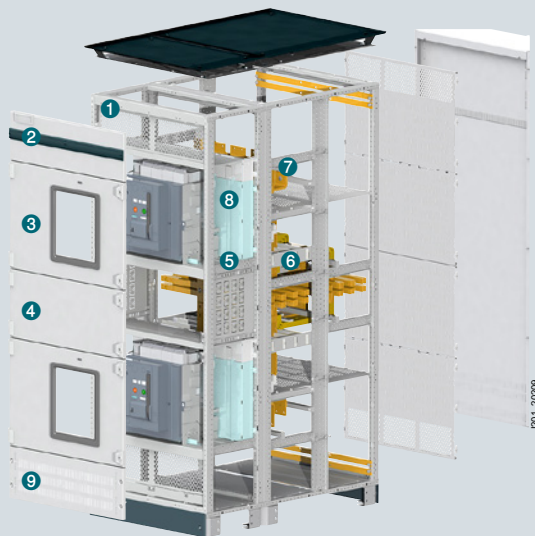
8PQ5000-1BA66

8PQ5000-1BA68

8PQ5000-1BA67

# Section expansion

3WA air circuit breakers, infeed main busbar at rear, fixed-mounted **new**



## 1 Frames

## 2 Head compartments

## 3 Compartment doors



+ 3WA9111-0AP01


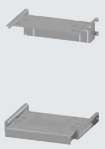
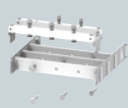

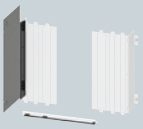
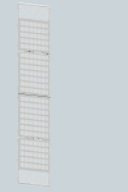
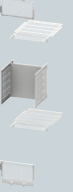
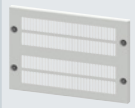

+ 3WA9111-0AP03

Size	Width	Depth	Number of poles	Frames		Covers	Compartment doors		
				At front	At rear		IP40	IP55	
I	400 mm	800 mm	3-pole	8PQ1204-8BA01	–	8PQ2025-4BA03	8PQ2055-4BA12	–	–
		1000 mm	3-pole	8PQ1204-4BA01	+ 8PQ1204-6BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–
		1200 mm	3-pole	8PQ1204-4BA01	+ 8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–
		1200 mm	3-pole duplex	8PQ1204-4BA01	+ 8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–
	600 mm	800 mm	3/4-pole	8PQ1206-8BA01	–	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06
		1000 mm	3/4-pole	8PQ1206-4BA01	+ 8PQ1206-6BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06
		1200 mm	3/4-pole	8PQ1206-4BA01	+ 8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06
		1200 mm	3/4-pole duplex	8PQ1206-4BA01	+ 8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06
II	800 mm	800 mm	3/4-pole	8PQ1208-8BA01	–	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
		1000 mm	3/4-pole	8PQ1208-4BA01	+ 8PQ1208-6BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
		1200 mm	3/4-pole	8PQ1208-4BA01	+ 8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
		1200 mm	3/4-pole duplex	8PQ1208-4BA01	+ 8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
III – 4000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02	+ 8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06
III – 5000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02	+ 8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06

## Accessories

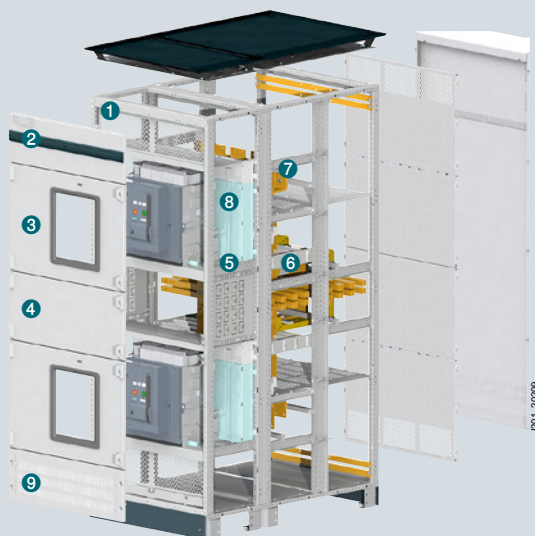
Frame reinforcement			
Size	Depth	Article No.	
III	1200 mm	8PQ5000-5BA46	

Barrier supports			
Size	Depth	Scope of supply	Article No.
I, II, III	1200 mm	1 set = 6 units	8PQ3000-3BA67

④ Auxiliary device compartments	⑤ Mounting plates	⑥ Main busbar connection	⑦ Cable connection	⑧ Separation	⑨ Base compartment covers			
								
Doors				3WA	Rear panels	Section	IP40	IP55
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA65	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA30	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA65	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA48	8PQ5000-5BA30	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA65	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA30	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA65 + 8PQ6001-0BA61	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA32	8PQ2000-4BA06	–
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA67	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA67	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA50	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA67	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA67 + 8PQ6001-0BA62	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA36	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA72	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA72	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA51	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA72	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA72 + 8PQ6001-0BA64	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA41	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-1BA01	8PQ6000-8BA70	8PQ6001-0BA74	8PQ6001-0BA82	8PQ5000-1BA74	8PQ5000-5BA24	8PQ5000-5BA43	8PQ2000-1BA04	8PQ2000-1BA02
8PQ2035-1BA01	8PQ6000-8BA70	8PQ6001-0BA75	8PQ6001-4BA18	8PQ5000-1BA74	8PQ5000-5BA24	8PQ5000-5BA43	8PQ2000-1BA04	8PQ2000-1BA02

# Section expansion

3WA air circuit breakers, infeed main busbar at rear, withdrawable **new**



## ① Frames

## ② Head compartments

## ③ Compartment doors



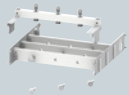

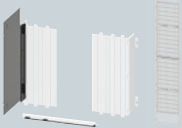
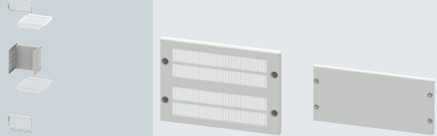


Size	Width	Depth	Number of poles	Frames		Covers	Compartment doors			
				At front	At rear		IP40	IP55		
I	400 mm	800 mm	3-pole	8PQ1204-8BA01	–	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1000 mm	3-pole	8PQ1204-4BA01 + 8PQ1204-6BA01	8PQ1204-6BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1200 mm	3-pole	8PQ1204-4BA01 + 8PQ1204-8BA01	8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1200 mm duplex	3-pole	8PQ1204-4BA01 + 8PQ1204-8BA01	8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
	600 mm	800 mm	3/4-pole	8PQ1204-4BA05	–	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1000 mm	3/4-pole	8PQ1206-4BA01 + 8PQ1206-6BA01	8PQ1206-6BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1200 mm	3/4-pole	8PQ1206-4BA01 + 8PQ1206-8BA01	8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1200 mm duplex	3/4-pole	8PQ1206-4BA01 + 8PQ1206-8BA01	8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
	II	800 mm	800 mm	3/4-pole	8PQ1204-4BA05	–	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1000 mm	3/4-pole	8PQ1208-4BA01 + 8PQ1208-6BA01	8PQ1208-6BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1200 mm	3/4-pole	8PQ1208-4BA01 + 8PQ1208-8BA01	8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1200 mm duplex	3/4-pole	8PQ1208-4BA01 + 8PQ1208-8BA01	8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
III – 4000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06	
III – 5000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06	
III – 6300 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06	

## Accessories

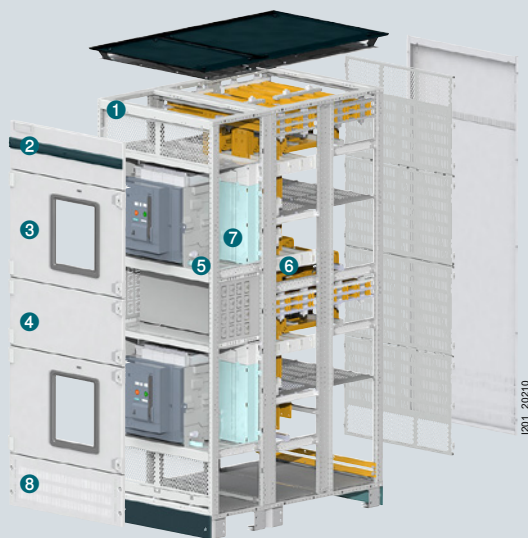
Frame reinforcement			
Size	Depth	Article No.	
III	1200 mm	8PQ5000-5BA46	

Barrier supports				
Size	Depth	Scope of supply	Article No.	
I, II, III	1200 mm	1 set = 6 units	8PQ3000-3BA67	

④ Auxiliary device compartments		⑤ Mounting plates		⑥ Main busbar connection		⑦ Cable connection		⑧ Separation		⑨ Base compartment covers	
											
Doors						3WA		Rear panels		Section	
										IP40	
										IP55	
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA66	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA30	8PQ2000-4BA06	–			
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA66	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA48	8PQ5000-5BA30	8PQ2000-4BA06	–			
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA66	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA30	8PQ2000-4BA06	–			
8PQ2035-4BA01	8PQ6000-5BA25	8PQ6001-0BA66 + 8PQ6001-0BA61	8PQ6001-0BA77	8PQ5000-3BA82	8PQ5000-5BA21	8PQ5000-5BA32	8PQ2000-4BA06	–			
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA68	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11			
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA68	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA50	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11			
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA68	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA34	8PQ2000-6BA13	8PQ2000-6BA11			
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA68 + 8PQ6001-0BA61	8PQ6001-0BA78	8PQ5000-3BA82	8PQ5000-5BA22	8PQ5000-5BA36	8PQ2000-6BA13	8PQ2000-6BA11			
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA73	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11			
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA73	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA51	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11			
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA73	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA38	8PQ2000-8BA13	8PQ2000-8BA11			
8PQ2035-8BA06	8PQ6000-5BA24	8PQ6001-0BA73 + 8PQ6001-0BA61	8PQ6001-0BA81	8PQ5000-3BA81	8PQ5000-5BA23	8PQ5000-5BA41	8PQ2000-8BA13	8PQ2000-8BA11			
8PQ2035-1BA01	8PQ6000-8BA70	8PQ6001-0BA74	8PQ6001-0BA83	8PQ5000-1BA74	8PQ5000-5BA24	8PQ5000-5BA43	8PQ2000-1BA04	8PQ2000-1BA02			
8PQ2035-1BA01	8PQ6000-8BA70	8PQ6001-0BA75	8PQ6001-0BA83	8PQ5000-1BA74	8PQ5000-5BA24	8PQ5000-5BA43	8PQ2000-1BA04	8PQ2000-1BA02			
8PQ2035-1BA01	8PQ6000-8BA70	8PQ6001-0BA76	8PQ6001-0BA84	8PQ5000-1BA74	8PQ5000-5BA24	8PQ5000-5BA43	8PQ2000-1BA04	8PQ2000-1BA02			

# Section expansion

3WA air circuit breakers, coupling panels main busbar at rear, fixed-mounted **new**



## 1 Frame



## 2 Head compartments



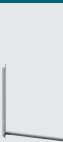
## 3 Compartment doors



+ 3WA9111-0AP01



+ 3WA9111-0AP03



Size	Width	Depth	Number of poles	Frames		Covers	Compartment doors			
				At front	At rear		IP40	IP55		
I	400 mm	800 mm	3-pole	8PQ1204-8BA01	–	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1000 mm	3-pole	8PQ1204-4BA01	+ 8PQ1204-6BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1200 mm	3-pole	8PQ1204-4BA01	+ 8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
		1200 mm duplex	3-pole	8PQ1204-4BA01	+ 8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–	–	
	600 mm	800 mm	3/4-pole	8PQ1206-8BA01	–	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1000 mm	3/4-pole	8PQ1206-4BA01	+ 8PQ1206-6BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1200 mm	3/4-pole	8PQ1206-4BA01	+ 8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
		1200 mm duplex	3/4-pole	8PQ1206-4BA01	+ 8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17	+ 8PQ2055-6BA06	
	II	800 mm	800 mm	3/4-pole	8PQ1208-8BA01	–	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1000 mm	3/4-pole	8PQ1208-4BA01	+ 8PQ1208-6BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1200 mm	3/4-pole	8PQ1208-4BA01	+ 8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
			1200 mm duplex	3/4-pole	8PQ1208-4BA01	+ 8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10	+ 8PQ2055-8BA06
III – 4000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02	+ 8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06	
III – 5000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02	+ 8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04	+ 8PQ2055-1BA06	

## Accessories

Frame reinforcement			
Image	Size	Depth	Article No.
	III	1200 mm	8PQ5000-5BA46

Barrier supports				
Image	Size	Depth	Scope of supply	Article No.
	I, II, III	1200 mm	1 set = 6 units	8PQ3000-3BA67

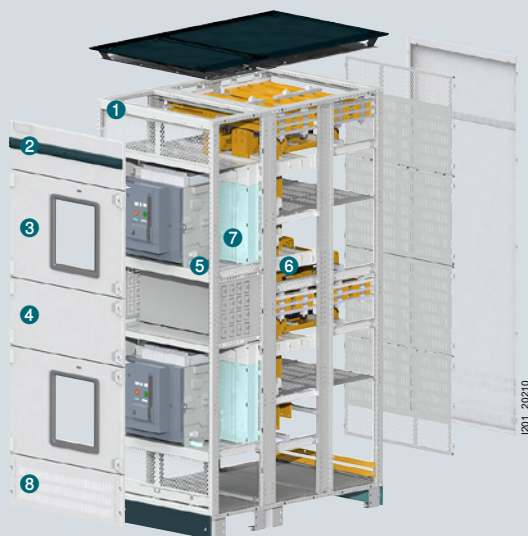


④ Auxiliary device compartments		⑤ Mounting plates		⑥ Main busbar connection		⑦ Separation		⑧ Base compartment covers	
Doors				3WA		Rear panels		Section	
								IP40	
								IP55	
8PQ2035-4BA01	8PQ6000-5BA25	2x	8PQ6001-0BA65	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA31	8PQ2000-4BA06	–	
8PQ2035-4BA01	8PQ6000-5BA25	2x	8PQ6001-0BA65	8PQ5000-3BA82	8PQ5000-5BA52	8PQ5000-5BA31	8PQ2000-4BA06	–	
8PQ2035-4BA01	8PQ6000-5BA25	2x	8PQ6001-0BA65	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA31	8PQ2000-4BA06	–	
8PQ2035-4BA01	8PQ6000-5BA25	2x	8PQ6001-0BA65 + 8PQ6001-0BA61	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA33	8PQ2000-4BA06	–	
8PQ2035-6BA12	8PQ6000-5BA26	2x	8PQ6001-0BA67	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11	
8PQ2035-6BA12	8PQ6000-5BA26	2x	8PQ6001-0BA67	8PQ5000-3BA82	8PQ5000-5BA53	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11	
8PQ2035-6BA12	8PQ6000-5BA26	2x	8PQ6001-0BA67	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11	
8PQ2035-6BA12	8PQ6000-5BA26	2x	8PQ6001-0BA67 + 8PQ6001-0BA62	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA37	8PQ2000-6BA13	8PQ2000-6BA11	
8PQ2035-8BA06	8PQ6000-5BA24	2x	8PQ6001-0BA72	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11	
8PQ2035-8BA06	8PQ6000-5BA24	2x	8PQ6001-0BA72	8PQ5000-3BA81	8PQ5000-5BA54	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11	
8PQ2035-8BA06	8PQ6000-5BA24	2x	8PQ6001-0BA72	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11	
8PQ2035-8BA06	8PQ6000-5BA24	2x	8PQ6001-0BA72 + 8PQ6001-0BA64	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA42	8PQ2000-8BA13	8PQ2000-8BA11	
8PQ2035-1BA01	8PQ6000-8BA70	2x	8PQ6001-0BA74	8PQ5000-1BA74	8PQ5000-5BA28	8PQ5000-5BA44	8PQ2000-1BA04	8PQ2000-1BA02	
8PQ2035-1BA01	8PQ6000-8BA70	2x	8PQ6001-0BA75	8PQ5000-1BA74	8PQ5000-5BA28	8PQ5000-5BA44	8PQ2000-1BA04	8PQ2000-1BA02	



# Section expansion

3WA air circuit breakers, coupling panels main busbar at rear, withdrawable **new**



1 Frame

2 Head compartments

3 Compartment door



+ 3WA9111-0AP01



+ 3WA9111-0AP03


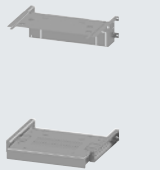
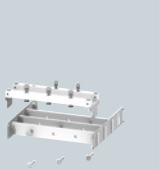
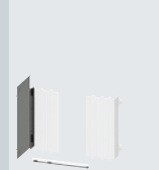

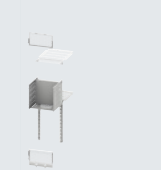
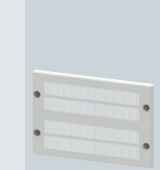



Size	Width	Depth	Number of poles	At front	At rear	Covers	IP40	IP55
I	400 mm	800 mm	3-pole	8PQ1204-8BA01	–	8PQ2025-4BA03	8PQ2055-4BA12	–
		1000 mm	3-pole	8PQ1204-4BA01 + 8PQ1204-6BA01	8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–
		1200 mm	3-pole	8PQ1204-4BA01 + 8PQ1204-8BA01	8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–
		1200 mm	3-pole duplex	8PQ1204-4BA01 + 8PQ1204-8BA01	8PQ1204-8BA01	8PQ2025-4BA03	8PQ2055-4BA12	–
	600 mm	800 mm	3/4-pole	8PQ1206-8BA01	–	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17 + 8PQ2055-6BA06
		1000 mm	3/4-pole	8PQ1206-4BA01 + 8PQ1206-6BA01	8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17 + 8PQ2055-6BA06
		1200 mm	3/4-pole	8PQ1206-4BA01 + 8PQ1206-8BA01	8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17 + 8PQ2055-6BA06
		1200 mm	3/4-pole duplex	8PQ1206-4BA01 + 8PQ1206-8BA01	8PQ1206-8BA01	8PQ2025-6BA25	8PQ2055-6BA16	8PQ2055-6BA17 + 8PQ2055-6BA06
II	800 mm	800 mm	3/4-pole	8PQ1208-8BA01	–	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10 + 8PQ2055-8BA06
		1000 mm	3/4-pole	8PQ1208-4BA01 + 8PQ1208-6BA01	8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10 + 8PQ2055-8BA06
		1200 mm	3/4-pole	8PQ1208-4BA01 + 8PQ1208-8BA01	8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10 + 8PQ2055-8BA06
		1200 mm	3/4-pole duplex	8PQ1208-4BA01 + 8PQ1208-8BA01	8PQ1208-8BA01	8PQ2025-8BA16	8PQ2055-8BA08	8PQ2055-8BA10 + 8PQ2055-8BA06
III – 4000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04 + 8PQ2055-1BA06
III – 5000 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04 + 8PQ2055-1BA06
III – 6300 A	1000 mm	1200 mm	3/4-pole	8PQ1201-4BA02 + 8PQ1201-8BA03	8PQ1201-8BA03	8PQ2025-1BA01	8PQ2055-1BA03	8PQ2055-1BA04 + 8PQ2055-1BA06

## Accessories

Frame reinforcement			
Size	Depth	Article No.	
III	1200 mm	8PQ5000-5BA46	

Barrier supports			
Size	Depth	Scope of supply	Article No.
I, II, III	1200 mm	1 set = 6 units	8PQ3000-3BA67

4 Auxiliary device compartments	5 Mounting plates	6 Main busbar connection	7 Separation	8 Base compartment covers			
							
Doors			3WA	Rear panels	Section	IP40	IP55
8PQ2035-4BA01	8PQ6000-5BA25	2x 8PQ6001-0BA66	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA31	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	2x 8PQ6001-0BA66	8PQ5000-3BA82	8PQ5000-5BA52	8PQ5000-5BA31	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	2x 8PQ6001-0BA66	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA31	8PQ2000-4BA06	–
8PQ2035-4BA01	8PQ6000-5BA25	2x 8PQ6001-0BA66 + 8PQ6001-0BA61	8PQ5000-3BA82	8PQ5000-5BA25	8PQ5000-5BA33	8PQ2000-4BA06	–
8PQ2035-6BA12	8PQ6000-5BA26	2x 8PQ6001-0BA68	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	2x 8PQ6001-0BA68	8PQ5000-3BA82	8PQ5000-5BA53	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	2x 8PQ6001-0BA68	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-6BA12	8PQ6000-5BA26	8PQ6001-0BA68 + 8PQ6001-0BA62	8PQ5000-3BA82	8PQ5000-5BA26	8PQ5000-5BA35	8PQ2000-6BA13	8PQ2000-6BA11
8PQ2035-8BA06	8PQ6000-5BA24	2x 8PQ6001-0BA73	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	2x 8PQ6001-0BA73	8PQ5000-3BA81	8PQ5000-5BA54	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	2x 8PQ6001-0BA73	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA40	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-8BA06	8PQ6000-5BA24	2x 8PQ6001-0BA73 + 8PQ6001-0BA64	8PQ5000-3BA81	8PQ5000-5BA27	8PQ5000-5BA42	8PQ2000-8BA13	8PQ2000-8BA11
8PQ2035-1BA01	8PQ6000-8BA70	2x 8PQ6001-0BA74	8PQ5000-1BA74	8PQ5000-5BA28	8PQ5000-5BA44	8PQ2000-1BA04	8PQ2000-1BA02
8PQ2035-1BA01	8PQ6000-8BA70	2x 8PQ6001-0BA75	8PQ5000-1BA74	8PQ5000-5BA28	8PQ5000-5BA44	8PQ2000-1BA04	8PQ2000-1BA02
8PQ2035-1BA01	8PQ6000-8BA70	2x 8PQ6001-0BA76	8PQ5000-1BA74	8PQ5000-5BA28	8PQ5000-5BA44	8PQ2000-1BA04	8PQ2000-1BA02

# Section expansion

## 3WA air circuit breakers, accessories

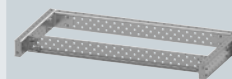
### Busbar holders

1 set = 4 holders



### Busbar connections

For use with SIVACON 8PS



Size	Width	Number of poles		
I	400 mm	3-pole	–	–
	600 mm	4-pole	8PQ6000-4BA35	8PQ3000-1BA70
	800 mm	4-pole	8PQ6000-4BA37	8PQ3000-1BA71
II	600 mm	3-pole	8PQ6000-4BA36	8PQ3000-1BA70
	800 mm	4-pole	8PQ6000-4BA38	8PQ3000-1BA71
III	1000 mm	4-pole	8PQ6000-4BA40	8PQ3000-1BA72

Cable brackets



8PQ3000-0BA41

8PQ3000-0BA42

8PQ3000-0BA43

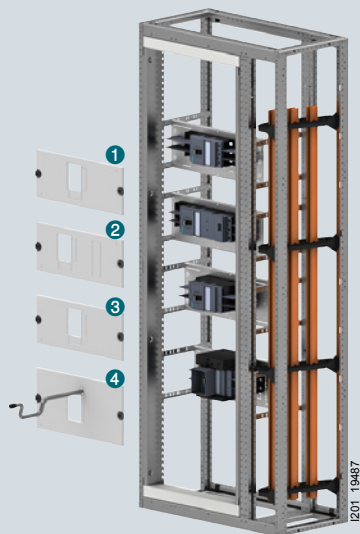
8PQ3000-0BA42

8PQ3000-0BA43

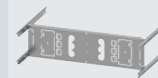
8PQ3000-3BA68

# Section expansion

3VA molded case circuit breakers, internal cover, horizontal, 3-pole



1 Fixed-mounted version



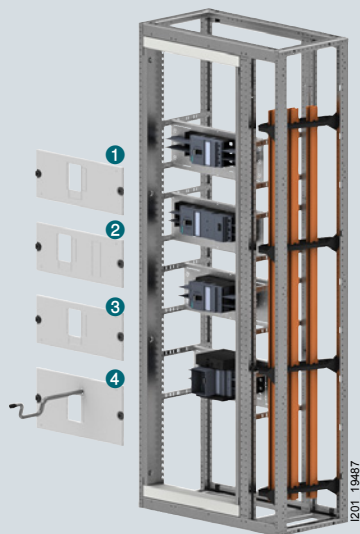
Type	$I_n$	Width	Height	Operating mechanism			Device holders
				Direct	Rotary	Motorized	
3VA10	100 A	600 mm	150 mm	■	■	–	8PQ6000-8BA01
		800 mm	150 mm	■	■	–	8PQ6000-8BA02
3VA11	160 A	600 mm	150 mm	■	■	■	8PQ6000-8BA01
		800 mm	150 mm	■	■	■	8PQ6000-8BA02
3VA12	250 A	600 mm	150 mm	■	■	■	8PQ6000-8BA03
		800 mm	200 mm	■	–	■	–
			200 mm	■	■	■	8PQ6000-8BA07
3VA13	400 A	600 mm	200 mm	■	■	■	8PQ6000-8BA23
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
			300 mm	■	–	–	–
			300 mm	■	–	–	–
3VA14	630 A	600 mm	200 mm	■	■	■	8PQ6000-8BA23
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
			300 mm	■	–	–	–
3VA20	100 A	600 mm	200 mm	■	■	■	8PQ6000-8BA08
		800 mm	200 mm	■	–	–	–
3VA21	160 A		600 mm	200 mm	■	■	■
		800 mm		200 mm	■	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA10
3VA22	250 A	600 mm	200 mm	■	■	■	8PQ6000-8BA08
			800 mm	200 mm	■	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA10
3VA23	400 A	600 mm	200 mm	■	■	■	8PQ6000-8BA23
		800 mm	250 mm	■	–	–	8PQ6000-8BA27
			300 mm	■	–	–	–
3VA24	630 A	600 mm	200 mm	■	■	■	8PQ6000-8BA23
		800 mm	250 mm	■	–	–	8PQ6000-8BA27
				■	–	–	–

② Fixed-mounted version with RCD			③ Plug-in version			④ Withdrawable version	
Covers	Device holders	Covers	Device holders	Covers	Device holders	Covers	
8PQ2015-6BA26	–	–	–	–	–	–	
8PQ2015-8BA11	–	–	–	–	–	–	
8PQ2015-6BA26	8PQ6000-8BA01	8PQ2015-6BA27	8PQ6000-8BA01	8PQ2015-6BA26	–	–	
8PQ2015-8BA11	8PQ6000-8BA02	8PQ2015-8BA11	8PQ6000-8BA02	8PQ2015-8BA11	–	–	
8PQ2015-6BA28	8PQ6000-8BA03 <sup>1)</sup>	8PQ2015-6BA30	8PQ6000-8BA04	8PQ2015-6BA28	–	–	
–	–	–	–	–	8PQ6000-8BA04	8PQ2025-6BA21	
8PQ2020-8BA20	8PQ6000-8BA07	8PQ2020-8BA20	8PQ6000-8BA07	8PQ2020-8BA20	–	–	
–	–	–	–	–	8PQ6000-8BA07	8PQ2025-8BA12	
8PQ2020-6BA41	–	–	–	–	–	–	
8PQ2025-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6001-1BA02	8PQ2025-8BA18	–	–	
–	–	–	–	–	8PQ6001-1BA02	8PQ2030-8BA15	
8PQ2020-6BA41	–	–	–	–	–	–	
8PQ2025-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6001-1BA02	8PQ2025-8BA14	–	–	
–	–	–	–	–	8PQ6001-1BA02	8PQ2030-8BA15	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2025-6BA22	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2025-8BA13	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2025-6BA22	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2025-8BA13	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2025-6BA22	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2025-8BA13	
8PQ2020-6BA41	–	–	–	–	–	–	
8PQ2025-8BA14	8PQ6000-8BA27	8PQ2025-8BA14	8PQ6000-8BA28	8PQ2025-8BA14	–	–	
–	–	–	–	–	8PQ6000-8BA28	8PQ2030-8BA14	
8PQ2020-6BA41	–	–	–	–	–	–	
8PQ2025-8BA14	8PQ6000-8BA27	8PQ2025-8BA14	8PQ6000-8BA28	8PQ2025-8BA14	–	–	
–	–	–	–	–	8PQ6000-8BA28	8PQ2030-8BA14	

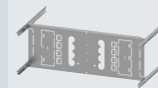
<sup>1)</sup> For applications >415 V, front mounted rotary operating mechanism or motorized operating mechanism required for compliance with creepage distances and clearances.

# Section expansion

3VA molded case circuit breakers, internal cover, horizontal, 4-pole



1 Fixed-mounted version



Type	$I_n$	Width	Height	Operating mechanism			Device holders
				Direct	Rotary	Motorized	
3VA10	100 A	600 mm	150 mm	■	■	–	8PQ6000-8BA01
		800 mm	150 mm	■	■	–	8PQ6000-8BA02
3VA11	160 A	600 mm	150 mm	■	■	■	8PQ6000-8BA01
		800 mm	150 mm	■	■	■	8PQ6000-8BA02
3VA12	250 A	600 mm	200 mm	■	■	■	8PQ6000-8BA05
		800 mm	200 mm	■	–	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA07
3VA13	400 A	600 mm	250 mm	■	■	■	8PQ6000-8BA25
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
		800 mm	300 mm	■	–	–	–
		800 mm	300 mm	■	–	–	–
3VA14	630 A	600 mm	250 mm	■	■	■	8PQ6000-8BA25
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
		800 mm	300 mm	■	–	–	–
3VA20	100 A	600 mm	200 mm	■	■	■	8PQ6000-8BA08
		800 mm	200 mm	■	–	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA10
3VA21	160 A	600 mm	200 mm	■	■	■	8PQ6000-8BA08
		800 mm	200 mm	■	–	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA10
3VA22	250 A	600 mm	200 mm	■	■	■	8PQ6000-8BA08
		800 mm	200 mm	■	–	–	–
		800 mm	200 mm	■	■	■	8PQ6000-8BA10
3VA23	400 A	600 mm	200 mm	■	■	■	8PQ6000-8BA25
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
		800 mm	300 mm	■	–	–	–
3VA24	630 A	600 mm	200 mm	■	■	■	8PQ6000-8BA25
		800 mm	250 mm	■	■	■	8PQ6000-8BA27
		800 mm	300 mm	■	–	–	–

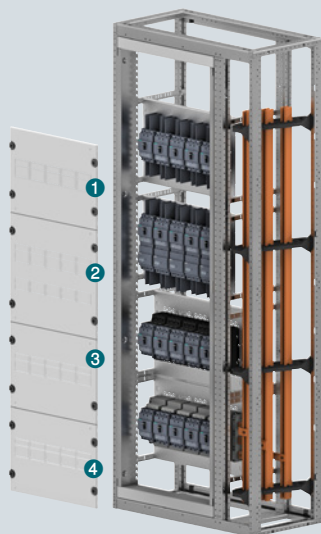
② Fixed-mounted version with RCD			③ Plug-in version			④ Withdrawable version	
Covers	Device holders	Covers	Device holders	Covers	Device holders	Covers	
8PQ2015-6BA26	–	–	–	–	–	–	
8PQ2015-8BA11	–	–	–	–	–	–	
8PQ2015-6BA26	8PQ6000-8BA01	8PQ2015-6BA27	8PQ6000-8BA01	8PQ2015-6BA26	–	–	
8PQ2015-8BA11	8PQ6000-8BA02	8PQ2015-8BA11	8PQ6000-8BA02	8PQ2015-8BA11	–	–	
8PQ2020-6BA36	8PQ6000-8BA05 <sup>1)</sup>	8PQ2020-6BA37	8PQ6000-8BA06	8PQ2020-6BA36	–	–	
–	–	–	–	–	8PQ6000-8BA06	8PQ2030-6BA25	
8PQ2020-8BA20	8PQ6000-8BA07	8PQ2020-8BA20	8PQ6000-8BA07	8PQ2020-8BA20	–	–	
–	–	–	–	–	8PQ6000-8BA07	8PQ2030-8BA12	
8PQ2025-6BA23	–	–	–	–	–	–	
8PQ2025-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6001-1BA02	8PQ2025-8BA18	–	–	
–	–	–	–	–	8PQ6001-1BA02	8PQ2030-8BA15	
8PQ2025-6BA23	–	–	–	–	–	–	
8PQ2025-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6001-1BA02	8PQ2025-8BA18	–	–	
–	–	–	–	–	8PQ6001-1BA02	8PQ2030-8BA15	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2030-6BA26	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2030-8BA13	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2030-6BA26	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2030-8BA13	
8PQ2020-6BA38	8PQ6000-8BA11	8PQ2020-6BA40	8PQ6000-8BA08	8PQ2020-6BA38	–	–	
–	–	–	–	–	8PQ6000-8BA08	8PQ2030-6BA26	
8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	8PQ6000-8BA10	8PQ2020-8BA21	–	–	
–	–	–	–	–	8PQ6000-8BA10	8PQ2030-8BA13	
8PQ2025-6BA23	–	–	8PQ6000-8BA26	8PQ2025-6BA23	–	–	
8PQ2025-8BA14	8PQ6000-8BA27	8PQ2025-8BA14	8PQ6000-8BA28	8PQ2025-8BA14	–	–	
–	–	–	–	–	8PQ6000-8BA28	8PQ2035-8BA15	
8PQ2025-6BA23	–	–	8PQ6000-8BA26	8PQ2025-6BA23	–	–	
8PQ2025-8BA14	8PQ6000-8BA27	8PQ2025-8BA14	8PQ6000-8BA28	8PQ2025-8BA14	–	–	
–	–	–	–	–	8PQ6000-8BA28	8PQ2035-8BA15	

<sup>1)</sup> For applications >415 V, front mounted rotary operating mechanism or motorized operating mechanism required for compliance with creepage distances and clearances.

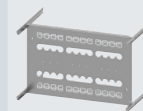


# Section expansion

## 3VA molded case circuit breakers, internal cover, vertical, 3-pole



1 Fixed-mounted version

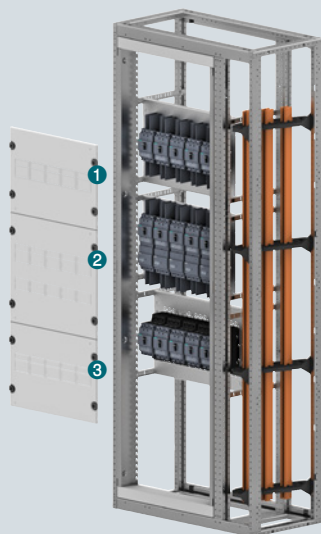


Type	$I_n$	No. of switches/ breakers	Width	Height	Operating mechanism			Device holders
					Direct	Rotary	Motorized	
3VA10	100 A	5	600 mm	350 mm	■	■	–	8PQ6000-8BA33
		7	800 mm	350 mm	■	■	–	8PQ6000-8BA47
3VA11	160 A	5	600 mm	350 mm	■	■	■	8PQ6000-8BA33
		7	800 mm	450 mm	■	■	■	–
3VA12	250 A	3	600 mm	400 mm	■	■	■	8PQ6000-8BA35
				500 mm	■	■	■	–
				800 mm	400 mm	■	■	■
3VA13	400 A	3	600 mm	500 mm	■	■	■	8PQ6000-8BA54
				550 mm	■	■	■	–
				800 mm	500 mm	■	■	■
3VA14	630 A	3	600 mm	500 mm	■	■	■	8PQ6000-8BA54
				550 mm	■	■	■	–
				800 mm	500 mm	■	■	■
3VA20	100 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	8PQ6000-8BA37
				–	–	–	■	–
		5	800 mm	450 mm	■	■	–	8PQ6000-8BA50
				550 mm	■	■	–	8PQ6000-8BA50
				–	–	–	■	–
3VA21	160 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	–
		5	800 mm	450 mm	■	■	–	–
				550 mm	■	■	–	8PQ6000-8BA50
3VA22	250 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	–
		5	800 mm	450 mm	■	■	–	8PQ6000-8BA50
				550 mm	■	■	–	–
3VA23	400 A	3	600 mm	450 mm	■	■	■	8PQ6000-8BA54
				600 mm	■	■	■	–
		4	800 mm	450 mm	■	■	■	8PQ6000-8BA57
3VA24	630 A	3	600 mm	450 mm	■	■	■	8PQ6000-8BA54
				600 mm	■	■	■	–
		4	800 mm	450 mm	■	■	■	8PQ6000-8BA57
				600 mm	■	■	■	–

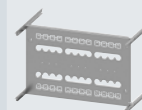
② Fixed-mounted version with RCD			③ Plug-in version			④ 8US design	
Covers	Device holders	Covers	Device holders	Covers	Device holders	Covers	
8PQ2035-6BA26	–	–	–	–	8PQ6000-8BA33	8PQ2035-6BA26	
8PQ2035-8BA16	–	–	–	–	8PQ6000-8BA40	8PQ2035-8BA20	
8PQ2035-6BA26	–	–	8PQ6000-8BA33	8PQ2035-6BA26	8PQ6000-8BA33	8PQ2035-6BA26	
–	8PQ6000-8BA33	8PQ2045-6BA08	–	–	–	–	
8PQ2035-8BA16	–	–	8PQ6000-8BA47	8PQ2035-8BA16	8PQ6000-8BA40	8PQ2035-8BA20	
–	8PQ6000-8BA47	8PQ2045-8BA08	–	–	–	–	
8PQ2040-6BA26	–	–	8PQ6000-8BA36	8PQ2040-6BA26	8PQ6000-8BA36	8PQ2040-6BA26	
–	8PQ6000-8BA35	8PQ2050-6BA10	–	–	–	–	
8PQ2040-8BA23	–	–	8PQ6000-8BA44	8PQ2040-8BA23	8PQ6000-8BA41	8PQ2040-8BA23	
–	8PQ6000-8BA43	8PQ2050-8BA12	–	–	–	–	
8PQ2050-6BA11	–	–	–	–	–	–	
–	–	–	8PQ6000-8BA56	8PQ2055-6BA22	–	–	
8PQ2050-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6000-8BA60	8PQ2055-6BA15	–	–	
8PQ2050-6BA11	–	–	–	–	–	–	
–	–	–	8PQ6000-8BA56	8PQ2055-6BA22	–	–	
8PQ2050-8BA14	–	–	–	–	–	–	
–	–	–	8PQ6000-8BA60	8PQ2055-6BA15	–	–	
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11	8PQ6000-8BA38	8PQ2045-6BA11	
8PQ2045-6BA13	–	–	8PQ6000-8BA38	8PQ2045-6BA13	8PQ6000-8BA38	8PQ2045-6BA13	
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–	–	–	
–	8PQ6000-8BA37	8PQ2055-6BA21	–	–	–	–	
8PQ2045-8BA11	–	–	8PQ6000-8BA51	8PQ2045-8BA11	8PQ6000-8BA42	8PQ2045-8BA11	
8PQ2045-8BA15	–	–	8PQ6000-8BA51	8PQ2045-8BA15	8PQ6000-8BA42	8PQ2045-8BA15	
–	8PQ6000-8BA50	8PQ2055-8BA11	–	–	–	–	
–	8PQ6000-8BA50	8PQ2055-8BA13	–	–	–	–	
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11	8PQ6000-8BA38	8PQ2045-6BA11	
–	–	–	8PQ6000-8BA38	8PQ2045-6BA13	–	–	
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–	–	–	
–	–	–	8PQ6000-8BA51	8PQ2045-8BA11	8PQ6000-8BA42	8PQ2045-8BA11	
8PQ2045-8BA15	–	–	8PQ6000-8BA51	8PQ2045-8BA15	–	–	
–	8PQ6000-8BA50	8PQ2055-8BA11	–	–	–	–	
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11	8PQ6000-8BA38	8PQ2045-6BA11	
–	–	–	8PQ6000-8BA38	8PQ2045-6BA13	–	–	
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–	–	–	
8PQ2045-8BA11	–	–	8PQ6000-8BA51	8PQ2045-8BA11	8PQ6000-8BA42	8PQ2045-8BA11	
–	–	–	8PQ6000-8BA51	8PQ2045-8BA15	–	–	
–	8PQ6000-8BA50	8PQ2055-8BA11	–	–	–	–	
8PQ2045-6BA12	–	–	8PQ6000-8BA56	8PQ2045-6BA12	–	–	
–	8PQ6000-8BA55	8PQ2060-6BA25	–	–	–	–	
8PQ2045-8BA13	–	–	8PQ6000-8BA60	8PQ2045-8BA13	–	–	
–	8PQ6000-8BA58	8PQ2060-8BA07	–	–	–	–	
8PQ2045-6BA12	–	–	8PQ6000-8BA56	8PQ2045-6BA12	–	–	
–	8PQ6000-8BA55	8PQ2060-6BA25	–	–	–	–	
8PQ2045-8BA13	–	–	8PQ6000-8BA60	8PQ2045-8BA13	–	–	
–	8PQ6000-8BA58	8PQ2060-8BA07	–	–	–	–	

# Section expansion

## 3VA molded case circuit breakers, internal cover, vertical, 4-pole



1 Fixed-mounted version

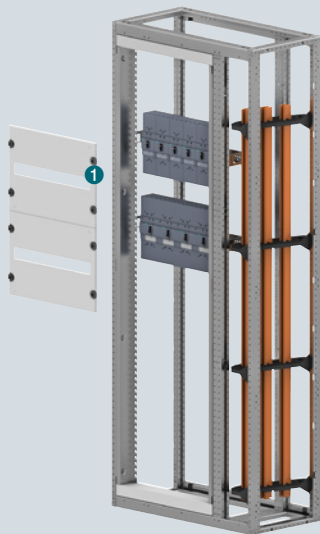


Type	$I_n$	No. of switches/ breakers	Width	Height	Operating mechanism			Device holders
					Direct	Rotary	Motorized	
3VA10	100 A	4	600 mm	350 mm	■	■	–	8PQ6000-8BA34
		5	800 mm	350 mm	■	■	–	8PQ6000-8BA48
3VA11	160 A	4	600 mm	350 mm	■	■	■	8PQ6000-8BA34
		5	800 mm	450 mm	■	■	■	–
3VA12	250 A	3	600 mm	400 mm	■	■	■	8PQ6000-8BA35
				500 mm	■	■	■	–
		4	800 mm	400 mm	■	■	■	8PQ6000-8BA45
3VA13	400 A	2	600 mm	500 mm	■	■	■	8PQ6000-8BA64
				550 mm	■	■	■	–
		800 mm	500 mm	■	■	■	8PQ6000-8BA61	
3VA14	630 A	2	600 mm	500 mm	■	■	■	8PQ6000-8BA64
				550 mm	■	■	■	–
		800 mm	500 mm	■	■	■	8PQ6000-8BA61	
3VA20	100 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	8PQ6000-8BA37
				–	–	–	■	–
		4	800 mm	450 mm	■	■	–	8PQ6000-8BA52
				550 mm	■	■	–	8PQ6000-8BA52
				–	–	–	■	–
3VA21	160 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	8PQ6000-8BA37
				–	–	–	■	–
		4	800 mm	450 mm	■	■	–	8PQ6000-8BA52
				550 mm	■	■	–	–
				–	–	–	■	–
3VA22	250 A	3	600 mm	450 mm	■	■	–	8PQ6000-8BA37
				550 mm	■	■	–	8PQ6000-8BA37
				–	–	–	■	–
		4	800 mm	450 mm	■	■	–	8PQ6000-8BA52
				550 mm	■	■	–	8PQ6000-8BA52
				–	–	–	■	–
3VA23	400 A	2	600 mm	450 mm	■	■	■	8PQ6000-8BA64
				600 mm	■	■	■	–
		3	800 mm	450 mm	■	■	■	8PQ6000-8BA61
				600 mm	■	■	■	–
3VA24	630 A	2	600 mm	450 mm	■	■	■	8PQ6000-8BA64
				600 mm	■	■	■	–
		3	800 mm	450 mm	■	■	■	8PQ6000-8BA61
				600 mm	■	■	■	–

⊕ Fixed-mounted version with RCD			⊕ Plug-in version	
Covers	Device holders	Covers	Device holders	Covers
8PQ2035-6BA27	–	–	–	–
8PQ2035-8BA17	–	–	–	–
8PQ2035-6BA27	–	–	8PQ6000-8BA34	8PQ2035-6BA27
–	8PQ6000-8BA34	8PQ2045-6BA10	–	–
8PQ2035-8BA17	–	–	8PQ6000-8BA48	8PQ2035-8BA17
–	8PQ6000-8BA48	8PQ2045-8BA10	–	–
8PQ2040-6BA26	–	–	8PQ6000-8BA36	8PQ2040-6BA26
–	8PQ6000-8BA35	8PQ2050-6BA10	–	–
8PQ2040-8BA24	–	–	8PQ6000-8BA46	8PQ2040-8BA24
–	8PQ6000-8BA45	8PQ2050-8BA13	–	–
8PQ2050-6BA12	–	–	–	–
–	–	–	8PQ6000-8BA66	8PQ2055-6BA23
8PQ2050-8BA15	–	–	–	–
–	–	–	8PQ6000-8BA63	8PQ2055-8BA16
8PQ2050-6BA12	–	–	–	–
–	–	–	8PQ6000-8BA66	8PQ2055-6BA23
8PQ2050-8BA15	–	–	–	–
–	–	–	8PQ6000-8BA63	8PQ2055-8BA15
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11
8PQ2045-6BA13	–	–	8PQ6000-8BA38	8PQ2045-6BA13
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–
–	8PQ6000-8BA37	8PQ2055-6BA21	–	–
8PQ2045-8BA12	–	–	8PQ6000-8BA53	8PQ2045-8BA12
8PQ2045-8BA16	–	–	8PQ6000-8BA53	8PQ2045-8BA16
–	8PQ6000-8BA52	8PQ2055-8BA12	–	–
–	8PQ6000-8BA52	8PQ2055-8BA14	–	–
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11
8PQ2045-6BA13	–	–	8PQ6000-8BA38	8PQ2045-6BA13
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–
–	8PQ6000-8BA37	8PQ2055-6BA21	–	–
8PQ2045-8BA12	–	–	8PQ6000-8BA53	8PQ2045-8BA12
–	–	–	8PQ6000-8BA53	8PQ2045-8BA16
–	8PQ6000-8BA52	8PQ2055-8BA12	–	–
–	8PQ6000-8BA52	8PQ2055-8BA14	–	–
8PQ2045-6BA11	–	–	8PQ6000-8BA38	8PQ2045-6BA11
8PQ2045-6BA13	–	–	8PQ6000-8BA38	8PQ2045-6BA13
–	8PQ6000-8BA37	8PQ2055-6BA20	–	–
8PQ2045-8BA12	–	–	8PQ6000-8BA53	8PQ2045-8BA12
8PQ2045-8BA16	–	–	8PQ6000-8BA53	8PQ2045-8BA16
–	8PQ6000-8BA52	8PQ2055-8BA12	–	–
8PQ2045-6BA14	–	–	8PQ6000-8BA66	8PQ2045-6BA14
–	8PQ6000-8BA65	8PQ2060-6BA26	–	–
8PQ2045-8BA14	–	–	8PQ6000-8BA63	8PQ2045-8BA14
–	8PQ6000-8BA62	8PQ2060-8BA08	–	–
8PQ2045-6BA14	–	–	8PQ6000-8BA66	8PQ2045-6BA14
–	8PQ6000-8BA65	8PQ2060-6BA26	–	–
8PQ2045-8BA14	–	–	8PQ6000-8BA63	8PQ2045-8BA14
–	8PQ6000-8BA62	8PQ2060-8BA08	–	–

# Section expansion

## 3VA molded case circuit breakers, internal cover, vertical



### 3-pole

Type	$I_n$	No. of switches/ breakers	Width	Height	Operating mechanism		
					Direct	Rotary	Motorized
3VA10	100 A	5	600 mm	350 mm	■	–	–
		8	800 mm	350 mm	■	–	–
3VA11	160 A	4	600 mm	350 mm	■	–	–
		5	800 mm	350 mm	■	–	–

### 4-pole

Type	$I_n$	No. of switches/ breakers	Width	Height	Operating mechanism		
					Direct	Rotary	Motorized
3VA10	100 A	4	600 mm	350 mm	■	–	–
		6	800 mm	350 mm	■	–	–
3VA11	160 A	3	600 mm	350 mm	■	–	–
		4	800 mm	350 mm	■	–	–

### Standard rail mounting



#### Device holders

#### Covers

8PQ6000-3BA36	8PQ2035-6BA28
8PQ6000-3BA37	8PQ2035-8BA18
8PQ6000-3BA36	8PQ2035-6BA28
8PQ6000-3BA37	8PQ2035-8BA18

### Standard rail mounting



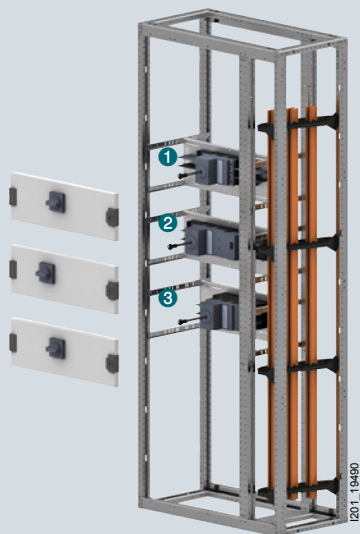
#### Device holders

#### Covers

8PQ6000-3BA36	8PQ2035-6BA28
8PQ6000-3BA37	8PQ2035-8BA18
8PQ6000-3BA36	8PQ2035-6BA28
8PQ6000-3BA37	8PQ2035-8BA18

# Section expansion

## 3VA molded case circuit breakers, compartment door, horizontal



### 3-pole

#### Fixed-mounted version







Type	$I_n$	Width	Height	Device holders	Compartment doors
3VA10	100 A	600 mm	150 mm	8PQ6000-8BA01	8PQ2015-6BA31
		800 mm	150 mm	8PQ6000-8BA02	8PQ2015-8BA12
3VA11	160 A	600 mm	150 mm	8PQ6000-8BA01	8PQ2015-6BA31
		800 mm	150 mm	8PQ6000-8BA02	8PQ2015-8BA12
3VA12	250 A	600 mm	150 mm	8PQ6000-8BA03	8PQ2015-6BA34
3VA13	400 A	600 mm	200 mm	8PQ6000-8BA23	8PQ2020-6BA46
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15
3VA14	630 A	600 mm	200 mm	8PQ6000-8BA23	8PQ2020-6BA46
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15
3VA20	100 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA21	160 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA22	250 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA23	400 A	600 mm	200 mm	8PQ6000-8BA23	8PQ2020-6BA46
3VA24	630 A	600 mm	200 mm	8PQ6000-8BA23	8PQ2020-6BA46




### 4-pole

#### Fixed-mounted version



Type	$I_n$	Width	Height	Device holders	Compartment doors
3VA10	100 A	600 mm	150 mm	8PQ6000-8BA01	8PQ2015-6BA31
		800 mm	150 mm	8PQ6000-8BA02	8PQ2015-8BA12
3VA11	160 A	600 mm	150 mm	8PQ6000-8BA01	8PQ2015-6BA31
		800 mm	150 mm	8PQ6000-8BA02	8PQ2015-8BA12
3VA12	250 A	600 mm	200 mm	8PQ6000-8BA05	8PQ2020-6BA42
		800 mm	200 mm	8PQ6000-8BA07	8PQ2020-8BA22
3VA13	400 A	600 mm	250 mm	8PQ6000-8BA25	8PQ2025-6BA24
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15
3VA14	630 A	600 mm	250 mm	8PQ6000-8BA25	8PQ2025-6BA24
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15
3VA20	100 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA21	160 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA22	250 A	600 mm	200 mm	8PQ6000-8BA08	8PQ2020-6BA44
		800 mm	200 mm	8PQ6000-8BA10	8PQ2020-8BA23
3VA23	400 A	600 mm	250 mm	8PQ6000-8BA25	8PQ2025-6BA24
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15
3VA24	630 A	600 mm	250 mm	8PQ6000-8BA25	8PQ2025-6BA24
		800 mm	250 mm	8PQ6000-8BA27	8PQ2025-8BA15

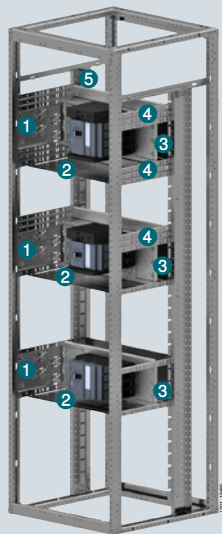
⊕ Fixed-mounted version with RCD		⊕ Plug-in version	
			
Device holders	Compartment doors	Device holders	Compartment doors
–	–	–	–
–	–	–	–
8PQ6000-8BA01	8PQ2015-6BA33	8PQ6000-8BA01	8PQ2015-6BA31
8PQ6000-8BA02	8PQ2015-8BA12	8PQ6000-8BA02	8PQ2015-8BA12
8PQ6000-8BA03	8PQ2015-6BA35	8PQ6000-8BA04	8PQ2015-6BA34
–	–	–	–
–	–	8PQ6001-1BA02	8PQ2025-8BA15
–	–	–	–
–	–	8PQ6001-1BA02	8PQ2025-8BA15
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
–	–	8PQ6000-8BA24	8PQ2020-6BA46
–	–	8PQ6000-8BA24	8PQ2020-6BA46

⊕ Fixed-mounted version with RCD		⊕ Plug-in version	
			
Device holders	Compartment doors	Device holders	Compartment doors
–	–	–	–
–	–	–	–
8PQ6000-8BA01	8PQ2015-6BA33	8PQ6000-8BA01	8PQ2015-6BA31
8PQ6000-8BA02	8PQ2015-8BA12	8PQ6000-8BA02	8PQ2015-8BA12
8PQ6000-8BA05	8PQ2020-6BA43	8PQ6000-8BA06	8PQ2020-6BA42
8PQ6000-8BA07	8PQ2020-8BA22	8PQ6000-8BA07	8PQ2020-8BA22
–	–	–	–
–	–	8PQ6001-1BA02	8PQ2025-8BA15
–	–	–	–
–	–	8PQ6001-1BA02	8PQ2025-8BA15
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
8PQ6000-8BA11	8PQ2020-6BA45	8PQ6000-8BA08	8PQ2020-6BA44
8PQ6000-8BA10	8PQ2020-8BA23	8PQ6000-8BA10	8PQ2020-8BA23
–	–	8PQ6000-8BA26	8PQ2025-6BA24
8PQ6000-8BA27	8PQ2025-8BA15	8PQ6000-8BA28	8PQ2025-8BA15
–	–	8PQ6000-8BA26	8PQ2025-6BA24
8PQ6000-8BA27	8PQ2025-8BA15	8PQ6000-8BA28	8PQ2025-8BA15



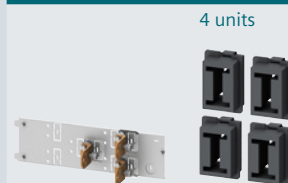
# Section expansion

## 3VA molded case circuit breakers, internal separation – front connection


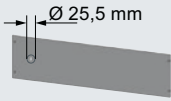




### 3-pole, width 600 mm

#### 1 Cable connection

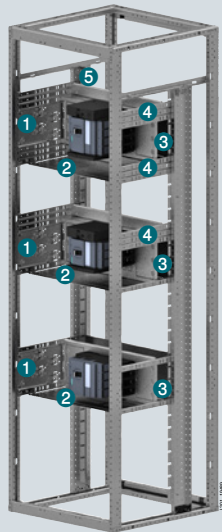


Type	$I_n$	Height		Operating mechanism			
				Direct	Rotary	Motorized	
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA12	250 A	150 mm	Fixed-mounted	■	■	–	8PQ6000-8BA12
			–	–	■	8PQ6000-8BA13	
			Plug-in	■	■	–	8PQ6000-8BA13
		–	–	■	8PQ6000-8BA12		
		250 mm	Withdrawable	■	–	■	8PQ6000-8BA12
		3VA13	400 A	200 mm	Fixed-mounted	■	■
3VA14	630 A	200 mm	Fixed-mounted	■	■	■	8PQ6000-8BA20
3VA20	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			250 mm	Withdrawable	■	–	■
3VA21	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			250 mm	Withdrawable	■	–	■
3VA22	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA16
			–	–	■	8PQ6000-8BA17	
			Plug-in	■	■	–	8PQ6000-8BA17
		–	–	■	8PQ6000-8BA16		
		250 mm	Withdrawable	■	–	■	8PQ6000-8BA16
		3VA23	400 A	200 mm	Fixed-mounted	■	■
3VA24	630 A	200 mm	Fixed-mounted	■	■	■	8PQ6000-8BA20
			–	–	–	8PQ6000-8BA18	

⊗ Separation, horizontal	⊕ Separation, rear	⦿ Increase in module height	Horizontal separation with increase in module height
			
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	–	–
8PQ5000-2BA61	8PQ5000-4BA40	2× 8PQ5000-4BA60	2× 8PQ5000-4BA68
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	8PQ5000-4BA62	8PQ5000-4BA70
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	8PQ5000-4BA62	8PQ5000-4BA70
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	8PQ5000-4BA62	8PQ5000-4BA70
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–
8PQ5000-2BA61	8PQ5000-4BA41	–	–

# Section expansion

## 3VA molded case circuit breakers, internal separation – front connection




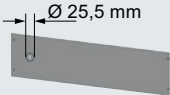

### 3-pole, width 800 mm

#### ① Cable connection

4 units

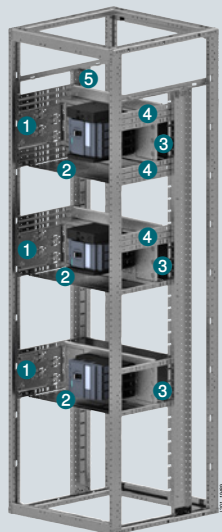


Type	$I_n$	Height		Operating mechanism			
				Direct	Rotary	Motorized	
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA12	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
		250 mm	Withdrawable	■	–	■	8PQ6000-8BA14
3VA13	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	■	8PQ6000-8BA21
		300 mm	Withdrawable	■	–	–	8PQ6000-8BA22
3VA14	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	■	8PQ6000-8BA21
		300 mm	Withdrawable	■	–	–	8PQ6000-8BA22
3VA20	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05
3VA21	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05
3VA22	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA16
			Plug-in	■	■	■	8PQ6000-8BA17
		250 mm	Withdrawable	■	–	■	8PQ6000-8BA16
3VA23	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	■	8PQ6000-8BA21
		300 mm	Withdrawable	■	–	–	8PQ6000-8BA22
3VA24	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	■	8PQ6000-8BA21
		300 mm	Withdrawable	■	–	–	8PQ6000-8BA22

⊖ Separation, horizontal	⊖ Separation, rear	⊕ Increase in module height
		
8PQ5000-2BA62	–	–
8PQ5000-2BA62	–	–
8PQ5000-2BA62	–	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	8PQ5000-4BA61 + 8PQ5000-4BA71
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	–
8PQ5000-2BA62	8PQ5000-4BA48	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	–
8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72

# Section expansion

## 3VA molded case circuit breakers, internal separation – front connection

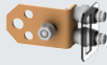

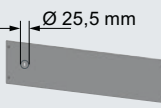



### 4-pole, width 600 mm

#### 1 Cable connection

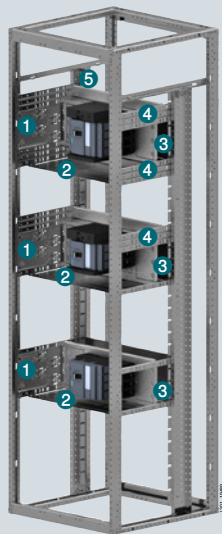


Type	$I_n$	Height		Operating mechanism			Terminals
				Direct	Rotary	Motorized	
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA12	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA14
				–	–	■	8PQ6000-8BA15
			Plug-in	■	■	–	8PQ6000-8BA15
				–	–	■	8PQ6000-8BA14
300 mm	Withdrawable	■	–	■	8PQ6000-8BA14		
3VA13	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
				–	–	■	8PQ6000-8BA21
3VA14	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
				–	–	■	8PQ6000-8BA21
3VA20	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
				■	■	–	8PQ5000-2BA30 + 8PQ5000-0BA05
			–	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05	
300 mm	Withdrawable	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05		
3VA21	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
				■	■	–	8PQ5000-2BA30 + 8PQ5000-0BA05
			–	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05	
300 mm	Withdrawable	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05		
3VA22	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA16
				–	–	■	8PQ6000-8BA17
			Plug-in	■	■	–	8PQ6000-8BA17
				–	–	■	8PQ6000-8BA17
200 mm	Withdrawable	■	–	■	8PQ6000-8BA17		
3VA23	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
				–	–	■	8PQ6000-8BA21
			Plug-in	■	■	■	8PQ6000-8BA21
3VA24	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
				–	–	■	8PQ6000-8BA21

	② Separation, horizontal	③ Separation, rear	④ Increase in module height
			
4th pole			
	8PQ5000-2BA61	8PQ5000-4BA40	–
	8PQ5000-2BA61	8PQ5000-4BA40	–
	8PQ5000-2BA61	8PQ5000-4BA40	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	2x 8PQ5000-4BA60 + 2x 8PQ5000-4BA68
	8PQ6000-2BA61	8PQ5000-4BA42	–
	8PQ6000-2BA61	8PQ5000-4BA42	–
	8PQ6000-2BA61	8PQ5000-4BA42	–
	8PQ6000-2BA61	8PQ5000-4BA42	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	–
	8PQ5000-2BA61	8PQ5000-4BA41	2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70
+ 8PQ5000-4BA58	8PQ5000-2BA61	8PQ5000-4BA41	–
+ 8PQ5000-4BA58	8PQ5000-2BA61	8PQ5000-4BA41	–
+ 8PQ5000-4BA58	8PQ5000-2BA61	8PQ5000-4BA41	–
+ 8PQ5000-4BA58	8PQ5000-2BA61	8PQ5000-4BA41	–
+ 8PQ5000-4BA58	8PQ5000-2BA61	8PQ5000-4BA41	2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70
	8PQ5000-2BA61	8PQ5000-4BA42	–
	8PQ5000-2BA61	8PQ5000-4BA42	–
	8PQ5000-2BA61	8PQ5000-4BA42	–
	8PQ5000-2BA61	8PQ5000-4BA42	–
	8PQ5000-2BA61	8PQ5000-4BA42	–

# Section expansion

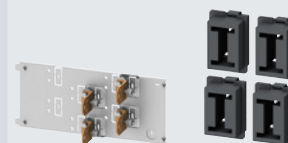
## 3VA molded case circuit breakers, internal separation – front connection





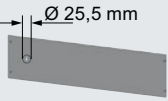
### 4-pole, width 800 mm

#### 1 Cable connection

4 units



Type	$I_n$	Height	Operating mechanism	Operating mechanism			Terminals
				Direct	Rotary	Motorized	
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA28 + 8PQ5000-0BA05
3VA12	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA14
			Plug-in	■	■	–	8PQ6000-8BA15
		300 mm	Fixed-mounted	■	–	■	8PQ6000-8BA14
			Plug-in	■	–	■	8PQ6000-8BA14
3VA13	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	–	8PQ6000-8BA21
		300 mm	Fixed-mounted	■	–	–	8PQ6000-8BA22
3VA14	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	■	8PQ6000-8BA21
		Withdrawable	■	–	–	8PQ6000-8BA22	
3VA20	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
		300 mm	Fixed-mounted	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05
3VA21	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
			Plug-in	■	■	■	8PQ5000-2BA30 + 8PQ5000-0BA05
		250 mm	Fixed-mounted	■	–	■	8PQ5000-2BA30 + 8PQ5000-0BA05
3VA22	250 A	200 mm	Fixed-mounted	■	■	–	8PQ6000-8BA16
			Plug-in	■	■	–	8PQ6000-8BA17
		250 mm	Fixed-mounted	■	–	■	8PQ6000-8BA16
			Plug-in	■	–	■	8PQ6000-8BA16
3VA23	400 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
			Plug-in	■	■	–	8PQ6000-8BA21
		250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA22
3VA24	630 A	250 mm	Fixed-mounted	■	■	–	8PQ6000-8BA21


	② Separation, horizontal	③ Separation, rear	④ Increase in module height
			
4th pole			
	8PQ5000-2BA62	–	–
	8PQ5000-2BA62	–	–
	8PQ5000-2BA62	–	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	2x 8PQ5000-4BA61 + 2x 8PQ5000-4BA71
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	8PQ5000-4BA63 + 8PQ5000-4BA72
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72
	8PQ5000-2BA62	8PQ5000-4BA48	–
	8PQ5000-2BA62	8PQ5000-4BA48	–
+ 8PQ5000-4BA58	8PQ5000-2BA62	8PQ5000-4BA48	–
+ 8PQ5000-4BA58	8PQ5000-2BA62	8PQ5000-4BA48	–
+ 8PQ5000-4BA58	8PQ5000-2BA62	8PQ5000-4BA48	–
+ 8PQ5000-4BA58	8PQ5000-2BA62	8PQ5000-4BA48	–
+ 8PQ5000-4BA58	8PQ5000-2BA62	8PQ5000-4BA48	2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–
	8PQ5000-2BA62	8PQ5000-4BA50	–




# Section expansion

## 3VA molded case circuit breakers, internal separation – front connection

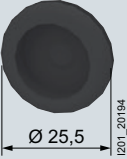
### Accessories

Plug-in rails			
	Equipment height	Busbar system	Article No.
	1600 mm	Top	8PQ3000-0BA82
	1800 mm	Rear or without	8PQ3000-0BA83

Protective bellows			
	Version	Scope of supply	Article No.
	For connecting terminal	4 units	8PQ9400-0BA71

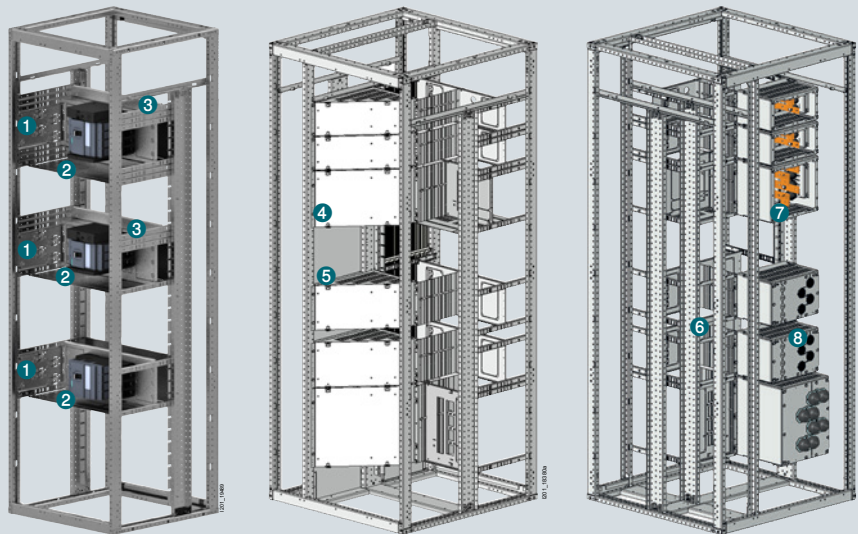
  

Cable entries			
	Version	Scope of supply	Article No.
	Cables with diam. up to 20 mm Ø Installation = 25.5 mm	20 units	8PQ9400-0BA16



# Section expansion

## 3VA molded case circuit breakers, internal separation – rear connection



### 3-pole, width 600 mm

#### ① Separation, lateral

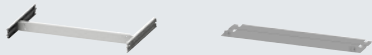


#### ② Separation, horizontal

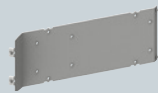


Type	$I_n$	Height	Operating mechanism	Operating mechanism			8PQ5000-2BA28	8PQ5000-2BA61
				Direct	Rotary	Motorized		
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28	8PQ5000-2BA61
3VA11	160 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28	8PQ5000-2BA61
			Plug-in	■	–	–	8PQ5000-2BA28	8PQ5000-2BA61
3VA12	250 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA28	8PQ5000-2BA61
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA28	8PQ5000-2BA61
3VA13	400 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA31	8PQ5000-2BA61
3VA14	630 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA31	8PQ5000-2BA61
3VA20	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA21	160 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA22	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		250 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA23	400 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA31	8PQ5000-2BA61
3VA24	630 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA31	8PQ5000-2BA61

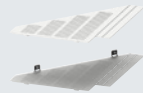
## ③ Increase in module height



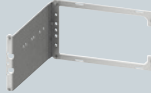
## ④ Vertical busbar separation



## ⑤ Segment covers



## ⑥ Support plates



## ⑦ Connection compartments



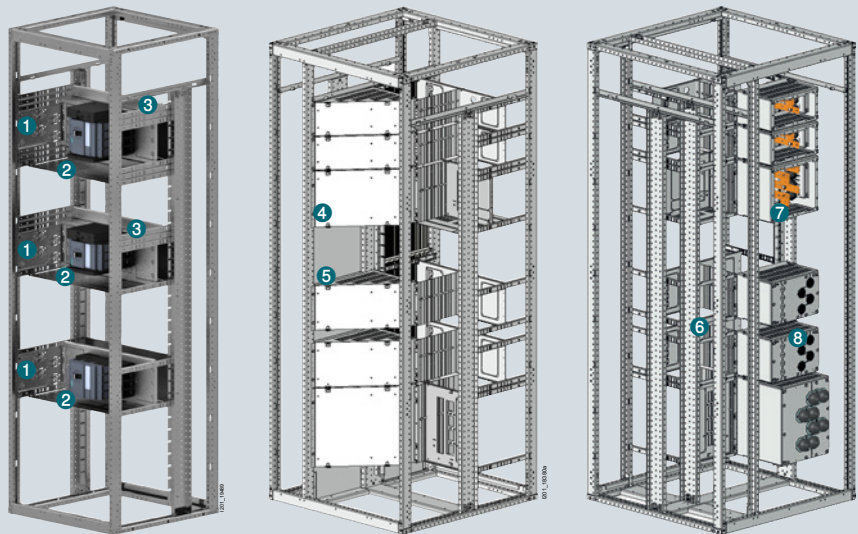
## ⑧ Cover plates



–		8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA15	8PQ5000-3BA71
–		8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA15	8PQ5000-3BA71
2x 8PQ5000-4BA60 + 2x 8PQ5000-4BA68		8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA15	8PQ5000-3BA71
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA18	8PQ5000-3BA73
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA18	8PQ5000-3BA73
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA18	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
8PQ5000-4BA62 + 8PQ5000-4BA70		8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
8PQ5000-4BA62 + 8PQ5000-4BA70		8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-8BA30	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-8BA30	8PQ5000-3BA72
8PQ5000-4BA62 + 8PQ5000-4BA70		8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-8BA30	8PQ5000-3BA72
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA18	8PQ5000-3BA73
–		8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA18	8PQ5000-3BA73

# Section expansion

## 3VA molded case circuit breakers, internal separation – rear connection



### 4-pole, width 600 mm

#### ① Separation, lateral

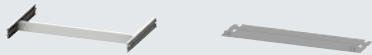


#### ② Separation, horizontal



Type	$I_n$	Height	Operating mechanism	Operating mechanism				
				Direct	Rotary	Motorized		
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28	8PQ5000-2BA61
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28	8PQ5000-2BA61
			Plug-in	■	■	–	8PQ5000-2BA28	8PQ5000-2BA61
3VA12	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		300 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA13	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA61
3VA14	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA61
3VA20	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		300 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA21	160 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		300 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA22	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA61
		300 mm	Withdrawable	■	–	■	8PQ5000-2BA30	8PQ5000-2BA61
3VA23	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA61
3VA24	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA61

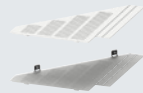
## ③ Increase in module height



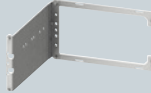
## ④ Vertical busbar connection



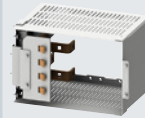
## ⑤ Segment covers



## ⑥ Support plates



## ⑦ Connection compartments



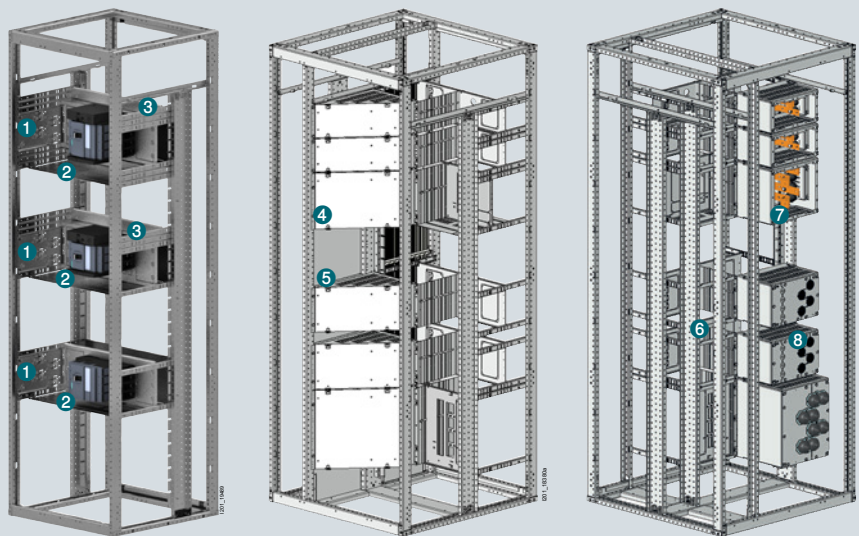
## ⑧ Cover plates



–	8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–	8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–	8PQ5000-3BA52	8PQ5000-3BA63	8PQ5000-4BA73	8PQ6000-5BA13	8PQ5000-4BA80
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
2x 8PQ5000-4BA60 + 2x 8PQ5000-4BA68	8PQ5000-3BA55	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
–	8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA75	8PQ6000-5BA20	8PQ5000-3BA74
–	8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA75	8PQ6000-5BA20	8PQ5000-3BA74
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70	8PQ5000-3BA55	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70	8PQ5000-3BA55	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA14	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
–	8PQ5000-3BA53	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
2x 8PQ5000-4BA62 + 2x 8PQ5000-4BA70	8PQ5000-3BA55	8PQ5000-3BA63	8PQ5000-4BA74	8PQ6000-5BA17	8PQ5000-3BA72
–	8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA75	8PQ6000-5BA20	8PQ5000-3BA74
–	8PQ5000-3BA54	8PQ5000-3BA63	8PQ5000-4BA75	8PQ6000-5BA20	8PQ5000-3BA74

# Section expansion

## 3VA molded case circuit breakers, internal separation – rear connection

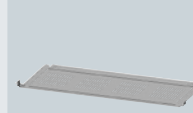


### 3-pole, width 800 mm

#### ① Separation, lateral



#### ② Separation, horizontal



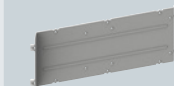
Type	$I_n$	Height	Operating mechanism	Operating mechanism			① Separation, lateral	② Separation, horizontal
				Direct	Rotary	Motorized		
3VA10	100 A	150 mm	Fixed-mounted	■	–	–	8PQ5000-2BA28	8PQ5000-2BA62
3VA11	160 A	150 mm	Fixed-mounted	■	–	–	8PQ5000-2BA28	8PQ5000-2BA62
			Plug-in	■	–	–	8PQ5000-2BA28	8PQ5000-2BA62
3VA12	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		250 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA13	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA14	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA20	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		250 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA21	160 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		250 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA22	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		250 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA23	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA24	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62



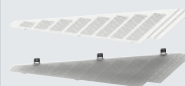
## ③ Increase in module height



## ④ Vertical busbar connection



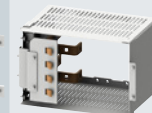
## ⑤ Segment covers



## ⑥ Support plates



## ⑦ Connection compartments



## ⑧ Cover plates

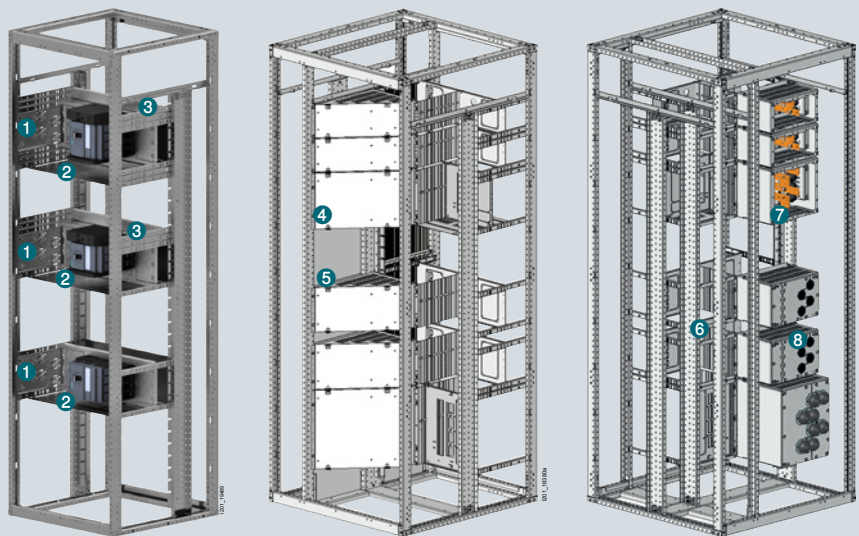


–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
8PQ5000-4BA61	+ 8PQ5000-4BA71	8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-8BA30	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-8BA30	8PQ5000-3BA72
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-8BA30	8PQ5000-3BA72
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63	+ 8PQ5000-4BA72	8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74



# Section expansion

## 3VA molded case circuit breakers, internal separation – rear connection

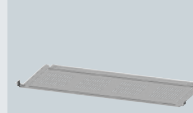


### 4-pole, width 800 mm

#### ① Separation, lateral



#### ② Separation, horizontal



Type	$I_n$	Height	Operating mechanism	Operating mechanism			① Separation, lateral	② Separation, horizontal
				Direct	Rotary	Motorized		
3VA10	100 A	150 mm	Fixed-mounted	■	■	–	8PQ5000-2BA28	8PQ5000-2BA62
3VA11	160 A	150 mm	Fixed-mounted	■	■	■	8PQ5000-2BA28	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA28	8PQ5000-2BA62
3VA12	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA13	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA14	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA20	100 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA21	160 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA22	250 A	200 mm	Fixed-mounted	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA30	8PQ5000-2BA62
		300 mm	Withdrawable	■	–	–	8PQ5000-2BA30	8PQ5000-2BA62
3VA23	400 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
		350 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62
3VA24	630 A	250 mm	Fixed-mounted	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
			Plug-in	■	■	■	8PQ5000-2BA33	8PQ5000-2BA62
		350 mm	Withdrawable	■	–	–	8PQ5000-2BA33	8PQ5000-2BA62

## ③ Increase in module height

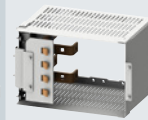
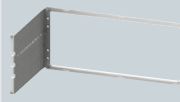
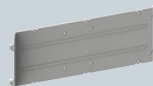
## ④ Vertical busbar connection

## ⑤ Segment covers

## ⑥ Support plates

## ⑦ Connection compartments

## ⑧ Cover plates




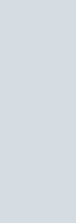
–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA57	8PQ5000-3BA64	8PQ5000-4BA76	8PQ6000-5BA13	8PQ5000-4BA80
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
2x 8PQ5000-4BA61 + 2x 8PQ5000-4BA71		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA17	8PQ5000-3BA72
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63 + 8PQ5000-4BA72		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
8PQ5000-4BA63 + 8PQ5000-4BA72		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA58	8PQ5000-3BA64	8PQ5000-4BA77	8PQ6000-5BA14	8PQ5000-3BA72
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
–		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74
2x 8PQ5000-4BA63 + 2x 8PQ5000-4BA72		8PQ5000-3BA60	8PQ5000-3BA64	8PQ5000-4BA78	8PQ6000-5BA20	8PQ5000-3BA74

# Section expansion

## 3VA molded case circuit breakers, internal separation – rear connection

### Accessories

#### Plug-in rails

	Equipment height	Busbar system	Article No.
	1600 mm	Top	8PQ3000-0BA82
	1800 mm	Rear or without	8PQ3000-0BA83



# Section expansion

## 3K switch disconnectors

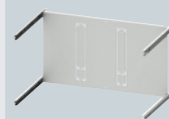


### Horizontal

#### 3-pole



#### 4-pole



Switching devices	Width	Height	Device holders	Covers	Device holders	Covers
3KL50/3KL52	600 mm	250 mm 300 mm	–	–	–	–
3KL55/3KL57	600 mm	350 mm	8PQ6000-2BA71	8PQ2035-6BA08	8PQ6000-2BA71	8PQ2035-6BA08
3KL61	600 mm	450 mm 550 mm	–	–	–	–
3KL711/3KA711	600 mm 800 mm	200 mm 200 mm	8PQ6000-2BA52	8PQ2020-6BA10	8PQ6000-2BA52	8PQ2020-6BA10
3KL712/3KA712	600 mm 800 mm	250 mm 250 mm	8PQ6000-2BA55	8PQ2025-6BA03	8PQ6000-2BA55	8PQ2025-6BA03
3KL713/3KA713	600 mm 800 mm	300 mm 300 mm	8PQ6000-2BA58	8PQ2030-6BA04	8PQ6000-2BA58	8PQ2030-6BA04
3KL714/3KA714	600 mm 800 mm	350 mm 350 mm	8PQ6000-2BA62	8PQ2035-6BA06	8PQ6000-2BA62	8PQ2035-6BA06
3KL715/3KA715 <sup>1)</sup>	600 mm 800 mm	450 mm 450 mm	8PQ6000-2BA67	8PQ2045-6BA02	8PQ6000-2BA67	8PQ2045-6BA02

<sup>1)</sup> Due to the size of its handle, the 3KA715 disconnector can be used only up to 1250 A/35 kA when installed horizontally.  
Due to the size of its handle, the 1250 A/50 kA 3KA715 disconnector requires an additional 200 mm cover.

### Vertical

#### 3-pole



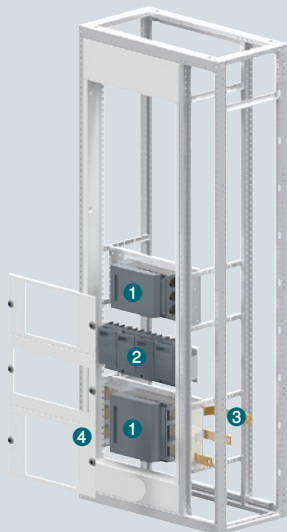
#### 4-pole



3-pole		4-pole	
Device holders	Covers	Device holders	Covers
8PQ6000-2BA66	8PQ2025-6BA05	8PQ6000-2BA66	8PQ2025-6BA05
–	–	–	–
8PQ6000-2BA72	8PQ2035-6BA10	8PQ6000-2BA72	8PQ2035-6BA10
8PQ6000-2BA51	8PQ2045-6BA01	–	–
–	–	–	–
8PQ6000-2BA53	8PQ2020-6BA11	8PQ6000-2BA53	8PQ2020-6BA11
8PQ6000-2BA54	8PQ2020-8BA04	8PQ6000-2BA54	8PQ2020-8BA04
8PQ6000-2BA56	8PQ2025-6BA04	8PQ6000-2BA56	8PQ2025-6BA04
8PQ6000-2BA57	8PQ2025-8BA02	8PQ6000-2BA57	8PQ2025-8BA02
8PQ6000-2BA60	8PQ2030-6BA05	8PQ6000-2BA60	8PQ2030-6BA05
8PQ6000-2BA61	8PQ2030-8BA02	8PQ6000-2BA61	8PQ2030-8BA02
8PQ6000-2BA63	8PQ2035-6BA07	8PQ6000-2BA63	8PQ2035-6BA07
8PQ6000-2BA64	8PQ2035-8BA04	8PQ6000-2BA64	8PQ2035-8BA04
8PQ6000-2BA68	8PQ2045-6BA03	8PQ6000-2BA68	8PQ2045-6BA03
8PQ6000-2BA70	8PQ2045-8BA01	8PQ6000-2BA70	8PQ2045-8BA01

# Section expansion

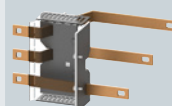
## 3NP1 fuse switch disconnectors, 3-pole



1 Horizontal



3 Section busbars



4 Cable connection



Switching device	Fuse	Width	Device holders	Covers	Form 3
3NP1143	NH1 (up to 250 A)	600 mm	8PQ6000-3BA75	8PQ2025-6BA16	8PQ6000-5BA68
3NP1153	NH2 (up to 400 A)	600 mm	8PQ6000-3BA75	8PQ2025-6BA17	8PQ6000-5BA70
3NP1163	NH3 (up to 630 A)	600 mm	8PQ6000-3BA77	8PQ2030-6BA22	8PQ6000-5BA71

2 Vertical



Switching device	Fuse	Width	No. of switches/ breakers	Device holders	Covers
3NP1123	NH000 (up to 160 A)	600 mm	4	8PQ6000-3BA78	8PQ2025-6BA18
		800 mm	6	8PQ6000-3BA82	8PQ2025-8BA10
3NP1133	NH00 (up to 160 A)	600 mm	4	8PQ6000-3BA78	8PQ2030-6BA23
		800 mm	5	8PQ6000-3BA82	8PQ2030-8BA11









# Section expansion

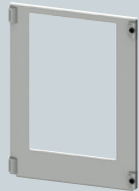
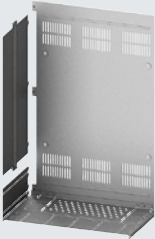

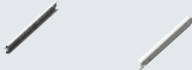
## 3NJ4 fuse switch disconnectors, 3-pole



	Device holders	Busbar holders	Covers
			
Size	Width	No. of switches/breakers	
NH1 – NH3 (up to 630 A)	600 mm 800 mm	4 × 100 mm 6 × 100 mm	
			8PQ6000-2BA48 2 × 3NJ5974-0AB 8PQ2000-6BA06 2 × 3NJ5974-0AB 8PQ2000-8BA06

## Accessories

Blanking covers			
	Size	Width	Article No.
	00	50 mm	3NJ4912-2AA00
	1, 2, 3	100 mm	3NJ4912-2BA00

Compartment doors	Separation, form 3b	Separation, horizontal	Support rails
			
<p>8PQ2080-6BA10 8PQ2080-8BA05</p>	<p>8PQ5000-1BA70 8PQ5000-1BA71</p>	<p>8PQ5000-2BA61 8PQ5000-2BA62</p>	<p>8PQ5000-2BA63 8PQ5000-2BA63</p>

# Section expansion

## 3NJ6 switch disconnectors with fuses, 3 and 4-pole



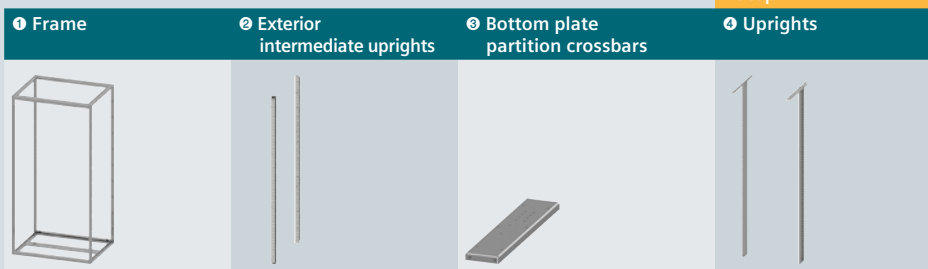
### Technical specifications, distribution busbar

Cross-section	Rated operational current $I_n$ , ventilated in A						
	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C	50 °C
60 × 10 mm	1680	1640	1600	1560	1520	1480	1430
80 × 10 mm	2260	2210	2155	2100	2045	1985	1925

### Frame

Position of main busbar

At top



Width	Depth	1 Frame	2 Exterior intermediate uprights	3 Bottom plate partition crossbars	4 Uprights
600 + 400 mm	400 mm	8PQ1201-4BA02	8PQ3000-1BA43	1× 8PQ3000-1BA38	8PQ3000-0BA65
	600 mm	8PQ1201-6BA02	8PQ3000-1BA43	1× 8PQ3000-1BA40	8PQ3000-0BA01
	800 mm	8PQ1201-8BA03	8PQ3000-1BA43	2× 8PQ3000-1BA38	8PQ3000-0BA02
600 + 600 mm	400 mm	8PQ1202-4BA02	8PQ3000-1BA43	1× 8PQ3000-1BA38	8PQ3000-0BA65
	600 mm	8PQ1202-6BA02	8PQ3000-1BA43	1× 8PQ3000-1BA40	8PQ3000-0BA01
	800 mm	8PQ1202-8BA02	8PQ3000-1BA43	2× 8PQ3000-1BA38	8PQ3000-0BA02

15






### Device compartment

#### Head compartment covers

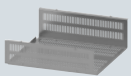
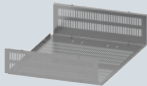



Height	Article No.
225 mm	8PQ2022-6BA01

#### 3NJ6 assembly kit

Height	Width	Article No.
1600 mm	600 mm	8PQ3000-1BA48

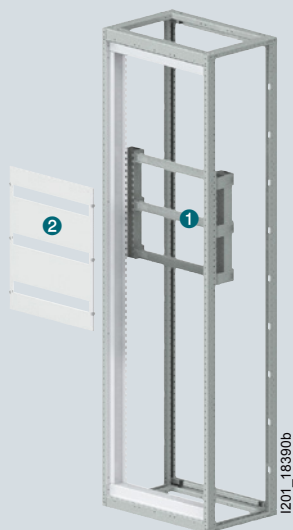
Busbar cover				
	Height	Article No.		
	200 mm	8x 3NJ6916-4EA00		
7 Device compartments				
	Height	Article No.		
	200 mm	8PQ3000-1BA50		
	400 mm	8PQ3000-1BA51		
10 Blanking covers				
	Height	Article No.		
	50 mm	3NJ6900-4CB00		
Separation, form 2b				
	Position of main busbar	Width	Depth	Article No.
	Top, front	600 mm	400 mm	8PQ3000-1BA44
			600 mm	8PQ3000-1BA45
			800 mm	8PQ3000-1BA46
	Top, both sides	600 mm	800 mm	8PQ3000-1BA47
6 Base compartment covers				
	Height	Article No.		
	150 mm	8PQ2000-6BA07		

## Cable compartment

Separation, form 2b				
	Position of main busbar	Width	Depth	Article No.
	Top, front	400 mm	400 mm	8PQ3000-0BA67
			600 mm	8PQ3000-0BA52
			800 mm	8PQ3000-0BA55
	600 mm	400 mm	400 mm	8PQ3000-0BA68
			600 mm	8PQ3000-0BA53
			800 mm	8PQ3000-0BA56
	Top, both sides	400 mm	800 mm	8PQ3000-0BA58
			600 mm	8PQ3000-0BA60
Front, rear	600 mm	800 mm	8PQ3000-0BA60	
				
8 Section doors				
	Lock type	Hinge position	Width	Article No.
	Double-bit	Left	400 mm	8PQ2197-4BA08
			600 mm	8PQ2197-6BA06
			800 mm	8PQ2197-4BA11
		Right	400 mm	8PQ2197-6BA13
			600 mm	8PQ2197-4BA06
			800 mm	8PQ2197-6BA04
	Profile semicylinders	Left	400 mm	8PQ2197-4BA06
			600 mm	8PQ2197-6BA04
Right		400 mm	8PQ2197-4BA07	
		600 mm	8PQ2197-6BA05	
Terminal covers, form 4b				
	Version	Article No.		
	Size 00	3NJ6923-1DA00		
	Size 1	3NJ6933-1DA01		
	Size 2	3NJ6943-1DA00		
	4th pole for all sizes	3NJ6904-1DA00		
				

# Section expansion

## Modular installation devices



### Internal covers

#### 1 Device holders

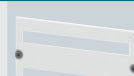
#### 2 Covers



Width	MW	Tier spacing	Height	Device holders	Covers
600 mm	1x 24	150 mm	150 mm	1x 8PQ6000-3BA36	8PQ2015-6BA07
		200 mm	200 mm	1x 8PQ6000-3BA36	8PQ2020-6BA12
800 mm	1x 35	150 mm	150 mm	1x 8PQ6000-3BA37	8PQ2015-8BA03
		200 mm	200 mm	1x 8PQ6000-3BA37	8PQ2020-8BA05

#### 1 Device holders

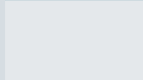
#### 2 Covers



Width	MW	Tier spacing	Height	Device holders	Covers
600 mm	2x 24	150 mm	300 mm	2x 8PQ6000-3BA36	8PQ2030-6BA07
		200 mm	400 mm	2x 8PQ6000-3BA36	8PQ2040-6BA10
800 mm	2x 35	150 mm	300 mm	2x 8PQ6000-3BA37	8PQ2030-8BA03
		200 mm	400 mm	2x 8PQ6000-3BA37	8PQ2040-8BA10

#### 1 Device holders

#### 2 Covers

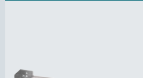


Width	MW	Tier spacing	Height	Device holders	Covers
600 mm	3x 24	150 mm	450 mm	3x 8PQ6000-3BA36	8PQ2045-6BA04
		200 mm	600 mm	3x 8PQ6000-3BA36	8PQ2060-6BA04
800 mm	3x 35	150 mm	450 mm	3x 8PQ6000-3BA37	8PQ2045-8BA02
		200 mm	600 mm	3x 8PQ6000-3BA37	8PQ2060-8BA02

### Compartment doors

#### 1 Device holders

#### 2 Covers



Width	MW	Tier spacing	Height	Device holders	Covers
600 mm	1x 24	200 mm	200 mm	1x 8PQ6000-6BA52	8PQ2020-6BA28
800 mm	1x 35	200 mm	200 mm	1x 8PQ6000-6BA53	8PQ2020-8BA14

### Accessories

#### Cable duct fastening



Version	Article No.
Mounting brackets	8PQ6000-0BA16

#### Blanking strips



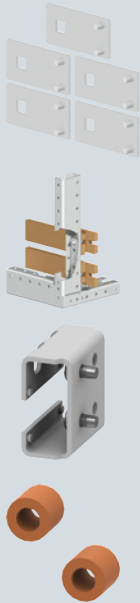
Types	Article No.
For 12 MW	8GK9910-0KK00
Length 1 m, to cut to length	8GK9910-0KK01

# Section expansion

## Cable section



### 1 PE bars



Version	Scope of supply	Article No.
Busbar supports	5 units	8PQ4000-2BA23
Frame connection	6 units	8PQ4000-0BA82
PE connection, cable	6 units	8PQ4000-2BA58 <b>new</b>
Spacer	2 units	8PQ4000-3BA01 <b>new</b>

### 2 N/PEN connection



Version	Article No.
Busbar supports and connection terminals	8PQ4000-2BA22

### 3 Cable fixtures

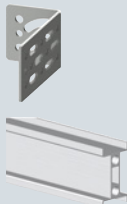


Version	Scope of supply	Article No.
Holders	10 units	8PQ3000-0BA73

Version	Width	Depth	Scope of supply	Article No.
C profile (30 mm)	350 mm	–	5 units	8PQ3000-0BA38
	400 mm	–	5 units	8PQ3000-0BA41
	600 mm	–	5 units	8PQ3000-0BA42
	800 mm	–	5 units	8PQ3000-0BA43
	–	400 mm	5 units	8PQ3000-0BA38
	–	600 mm	5 units	8PQ3000-0BA38
	–	800 mm	5 units	8PQ3000-0BA38

### 4 DIN rail outgoing terminals



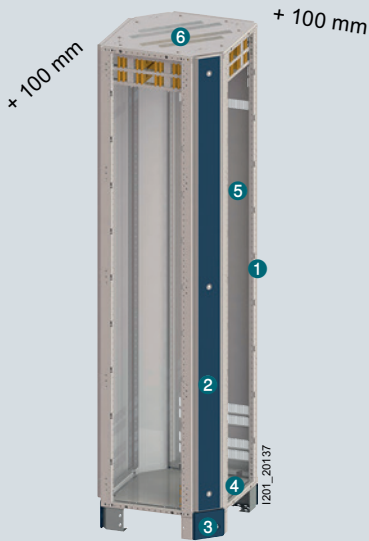
Version	Scope of supply	Article No.
Universal brackets	10 units	8PQ9400-0BA01

Length	DIN rail	Article No.
1600 mm	35 mm	8PQ9600-0BA01

# Section expansion

## Corner sections



Position of main busbar

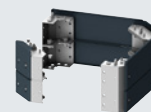
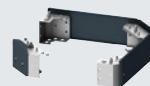
At top

1 Frames

2 Conversion kits

3 Base corner pieces

4 Base plates



Depth			Height		IP55
			100 mm	200 mm	
400 mm	8PQ1204-4BA01	+ 8PQ1200-0BA03	8PQ1010-0BA04	8PQ1024-4BA01	8PQ2304-4BA12
600 mm	8PQ1206-6BA01	+ 8PQ1200-0BA03	8PQ1010-0BA05	8PQ1026-6BA01	8PQ2306-6BA12
800 mm	8PQ1208-8BA01	+ 8PQ1200-0BA03	8PQ1018-8BA01	8PQ1028-8BA01	8PQ2308-8BA08

At bottom

⑤ Rear panels

⑥ Top plates



IP20

IP40

IP55

IP40

IP55

IPX1

8PQ2300-4BA25

2x 8PQ2420-4BA02

2x 8PQ2420-4BA01

8PQ2304-4BA10

8PQ2304-4BA08

8PQ2304-4BA11

8PQ2300-6BA27

2x 8PQ2420-6BA02

2x 8PQ2420-6BA01

8PQ2306-6BA10

8PQ2306-6BA08

8PQ2306-6BA11

8PQ2300-8BA14

2x 8PQ2420-8BA02

2x 8PQ2420-8BA01

8PQ2308-8BA06

8PQ2308-8BA05

8PQ2308-8BA07

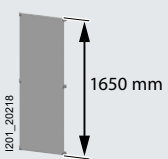
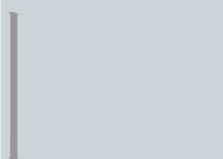
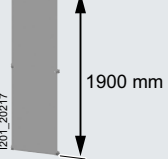
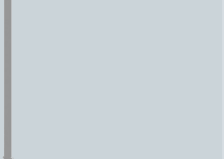


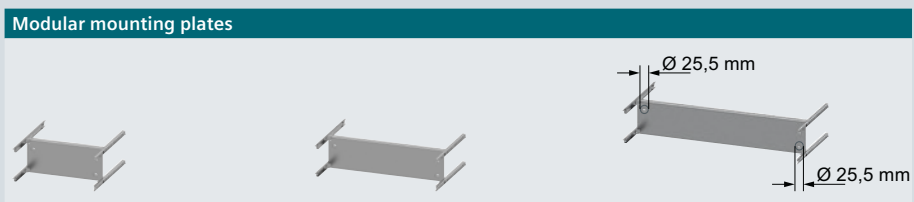
# Section expansion

## Mounting plates



	❶ Double section doors – with double-bit lock		❶ Double section doors – for profile semicylinders		❷ Inner doors	Inner door struts
Width	IP40	IP55	IP40	IP55		
600 mm	–	–	–	–	8PQ2000-6BA05	2× 8PQ2080-0BA07
800 mm	–	–	–	–	8PQ2000-8BA05	2× 8PQ2080-0BA07
1000 mm (600 mm + 400 mm)	8PQ2197-1BA14	8PQ2197-1BA13	8PQ2197-1BA16	8PQ2197-1BA15	8PQ2000-1BA01	2× 8PQ2080-0BA07
1200 mm (600 mm + 600 mm)	8PQ2197-2BA11	8PQ2197-2BA10	8PQ2197-2BA13	8PQ2197-2BA12	–	–

Position of main busbar	At top		At rear	
	③ Mounting plates	④ Connecting panels	③ Mounting plates	④ Connecting panels
				
<b>Width</b>				
400 mm	8PQ3000-0BA33	8PQ3000-1BA10	8PQ3000-0BA32	8PQ3000-1BA08
600 mm	8PQ3000-0BA35	8PQ3000-1BA10	8PQ3000-0BA34	8PQ3000-1BA08
800 mm	8PQ3000-0BA37	8PQ3000-1BA10	8PQ3000-0BA36	8PQ3000-1BA08
1000 mm	8PQ3000-1BA06	8PQ3000-1BA10	8PQ3000-1BA04	8PQ3000-1BA08
1200 mm	8PQ3000-1BA07	8PQ3000-1BA10	8PQ3000-1BA05	8PQ3000-1BA08

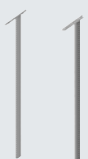



Height	Width		
	400 mm	600 mm	800 mm
150 mm	8PQ3000-2BA60	8PQ3000-2BA62	8PQ3000-2BA64
200 mm	8PQ3000-2BA17	8PQ3000-1BA56	8PQ3000-1BA58
250 mm	–	8PQ3000-3BA63 <b>new</b>	8PQ3000-3BA64 <b>new</b>
300 mm	8PQ3000-2BA66	8PQ3000-2BA51	8PQ3000-2BA53
400 mm	8PQ3000-2BA18	8PQ3000-1BA61	8PQ3000-1BA63
550 mm	8PQ3000-3BA65 <b>new</b>	8PQ3000-3BA07	8PQ3000-3BA08
600 mm	8PQ3000-2BA21	8PQ3000-1BA65	8PQ3000-1BA67
800 mm	8PQ3000-2BA23	8PQ3000-1BA26	8PQ3000-1BA28

**Cable entries**



Version	Scope of supply	Article No.
Cables with diam. up to 20 mm Ø installation = 25.5 mm	20 units	8PQ9400-0BA16

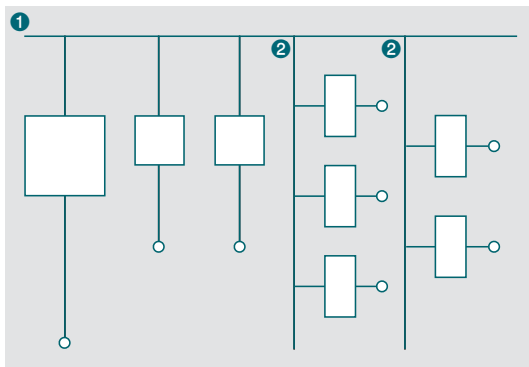
Position of main busbar	At top		At rear	
			Without	
	③ Uprights			
				
<b>Depth</b>				
600 mm	8PQ3000-0BA01		8PQ3000-0BA03	
800 mm	8PQ3000-0BA02		8PQ3000-0BA03	

# Internal separation

## Quick selection guide

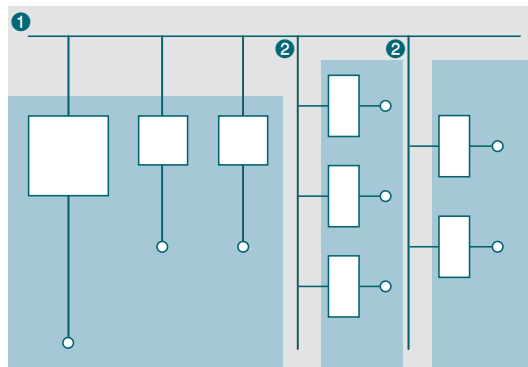
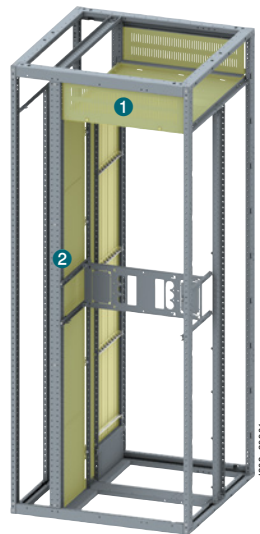
### Form 1

Outgoing feeder panel  
**No internal separation**



### Form 2b

Outgoing feeder panel  
**+ Separation of main busbar ①**  
**+ Separation of the vertical busbar ②**



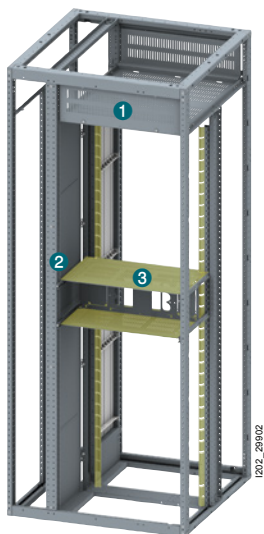
### Form 3b

Outgoing feeder panel

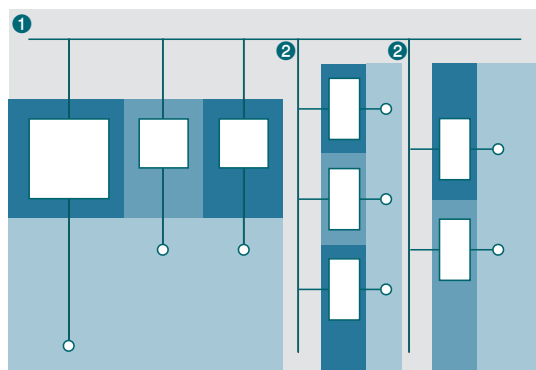
With separation of main busbar ❶

With separation of the vertical busbar ❷

+ Separation of device compartments (functional units) ❸



1202\_29902



Functional unit

○ Connection

### Form 4b

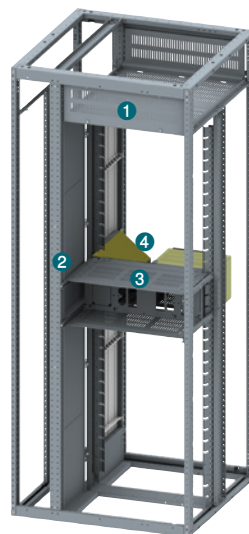
Outgoing feeder panel

With separation of main busbar ❶

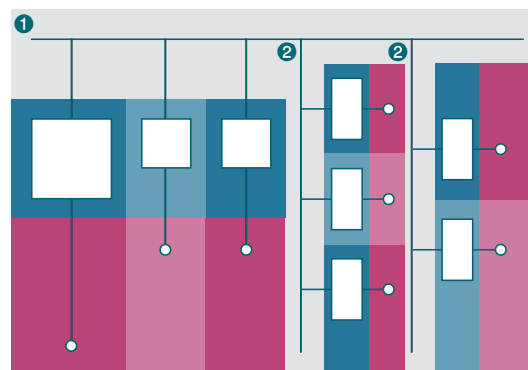
With separation of the vertical busbar ❷

With separation of device compartments (functional units) ❸

+ Separation of connections ❹



1202\_29903

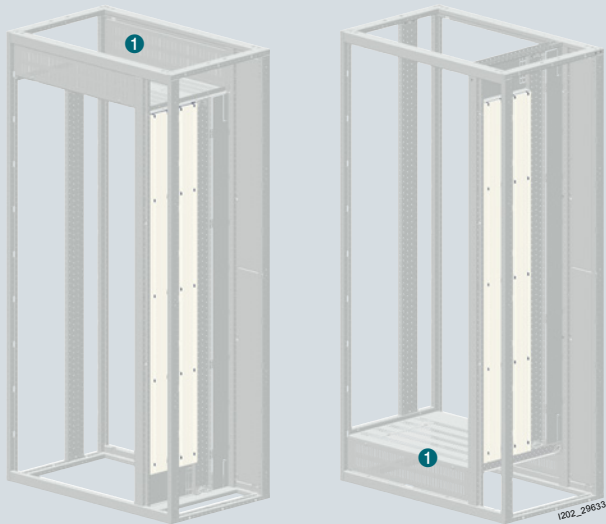


Functional unit

○ Connection

# Internal separation

Main busbar at top/at bottom, form 2b



Position of main busbar

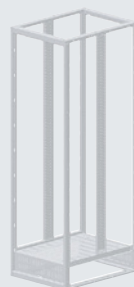
At top

① Main busbars



Width	Depth			
	400 mm	600 mm	800 mm	800 mm
200 mm	8PQ3000-1BA52	8PQ3000-1BA53	8PQ3000-1BA55	8PQ3000-1BA54
350 mm	8PQ3000-2BA68	8PQ3000-2BA71	8PQ3000-2BA75	8PQ3000-2BA73
400 mm	8PQ3000-0BA67	8PQ3000-0BA52	8PQ3000-0BA58	8PQ3000-0BA55
600 mm	8PQ3000-0BA68	8PQ3000-0BA53	8PQ3000-0BA60	8PQ3000-0BA56
800 mm	8PQ3000-0BA70	8PQ3000-0BA54	8PQ3000-0BA61	8PQ3000-0BA57
850 mm	8PQ3000-2BA70	8PQ3000-2BA72	8PQ3000-2BA76	8PQ3000-2BA74
1000 mm	8PQ3000-1BA13	8PQ3000-1BA14	8PQ3000-1BA20	8PQ3000-1BA17
1200 mm	8PQ3000-1BA15	8PQ3000-1BA16	8PQ3000-1BA21	8PQ3000-1BA18

At bottom



Depth

400 mm

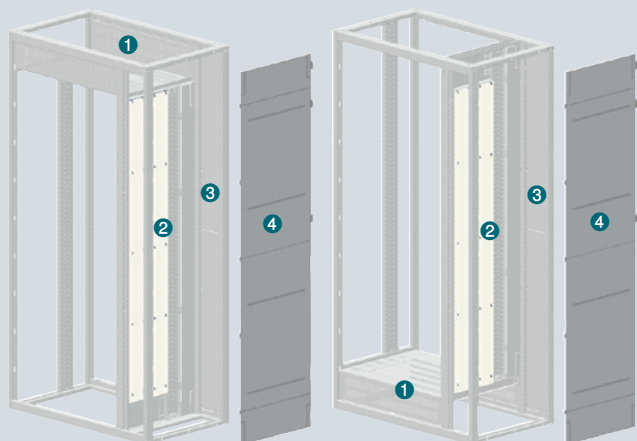
600 mm

800 mm

400 mm	600 mm	800 mm
–	–	–
8PQ3000-3BA13	8PQ3000-3BA22	8PQ3000-3BA31
8PQ3000-3BA14	8PQ3000-3BA23	8PQ3000-3BA32
8PQ3000-3BA15	8PQ3000-3BA24	8PQ3000-3BA33
8PQ3000-3BA16	8PQ3000-3BA25	8PQ3000-3BA34
8PQ3000-3BA17	8PQ3000-3BA26	8PQ3000-3BA35
8PQ3000-3BA18	8PQ3000-3BA27	8PQ3000-3BA36
8PQ3000-3BA20	8PQ3000-3BA28	8PQ3000-3BA37

# Internal separation

Main busbar at top/at bottom, form 2b



Position of main busbar







At top

Without

⊕ Vertical busbar



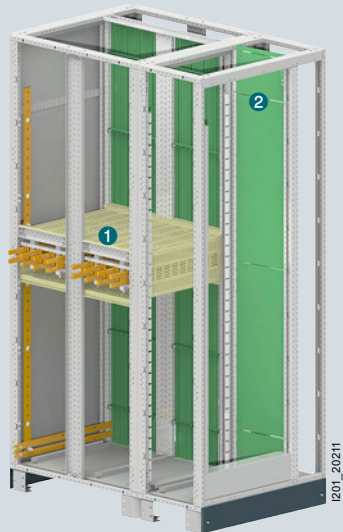
Width	Depth			Depth	Depth	
	400 mm	600 mm	800 mm	800 mm	400 mm	600 mm
200 mm	8PQ4000-0BA05	8PQ4000-0BA07	8PQ4000-0BA64	8PQ4000-0BA02	8PQ4000-0BA06	8PQ4000-0BA03
400 mm	8PQ4000-0BA05	8PQ4000-0BA07	8PQ4000-0BA64	8PQ4000-0BA01	8PQ4000-0BA06	8PQ4000-0BA03

③ Touch protection covers			④ Vertical separation between sections		
					
<b>800 mm</b>	<b>Depth 600 mm</b>	<b>800 mm</b>	<b>Depth 400 mm</b>	<b>600 mm</b>	<b>800 mm</b>
8PQ4000-0BA76	8PQ3000-2BA50	8PQ3000-2BA50	8PQ3000-0BA15	8PQ3000-0BA16	2× 8PQ3000-0BA15
8PQ4000-0BA76	8PQ3000-0BA51	8PQ3000-0BA51	8PQ3000-0BA15	8PQ3000-0BA16	2× 8PQ3000-0BA15



# Internal separation

Main busbar at rear, form 2b **new**

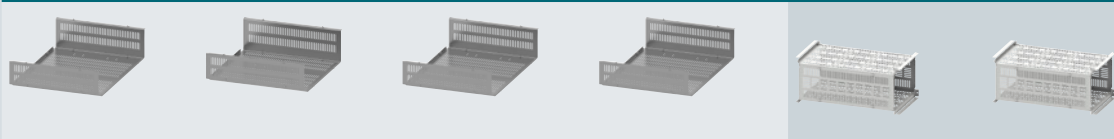


Position of main busbar

At top

Center

① Main busbar



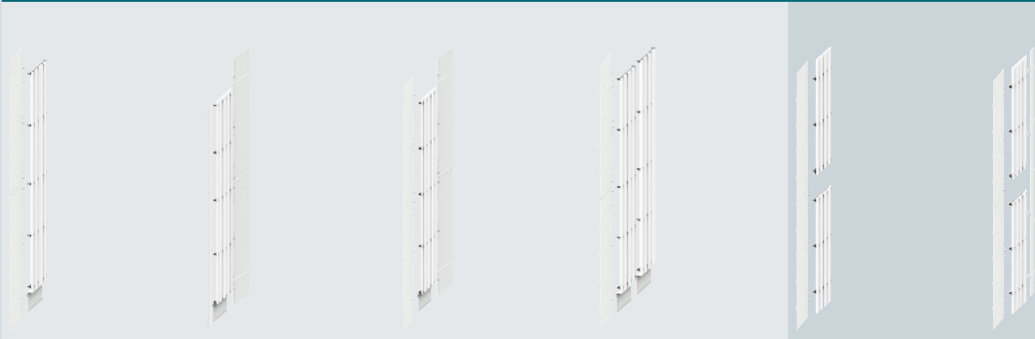
Width	At top				Center	
	Depth 800 mm	1000 mm	1200 mm	1200 mm duplex	Depth 800 mm	1000 mm
800 mm	8PQ3000-0BA60	8PQ3000-0BA53	8PQ3000-0BA60	8PQ3000-0BA60	8PQ3000-3BA53	8PQ3000-3BA53
1000 mm	8PQ3000-0BA61	8PQ3000-0BA54	8PQ3000-0BA61	8PQ3000-0BA61	8PQ3000-3BA54	8PQ3000-3BA54

Position of vertical busbar

At top

Center

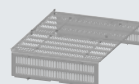
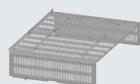
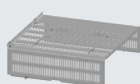
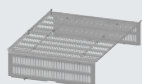
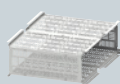
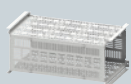
② Vertical busbar



Width	At top				Center	
	Depth 800 mm	1000 mm	1200 mm	1200 mm duplex	Depth 800 mm	1000 mm
800 mm	8PQ4000-2BA51	8PQ4000-2BA53	8PQ4000-2BA55	8PQ4000-2BA57	8PQ4000-2BA60	8PQ4000-2BA61
1000 mm	8PQ4000-2BA51	8PQ4000-2BA53	8PQ4000-2BA55	8PQ4000-2BA57	8PQ4000-2BA60	8PQ4000-2BA61

15

At bottom



Depth		Depth			
1200 mm	1200 mm duplex	800 mm	1000 mm	1200 mm	1200 mm duplex
8PQ3000-3BA53	8PQ3000-3BA58	8PQ3000-3BA33	8PQ3000-3BA24	8PQ3000-3BA33	8PQ3000-3BA33
8PQ3000-3BA54	8PQ3000-3BA60	8PQ3000-3BA34	8PQ3000-3BA25	8PQ3000-3BA34	8PQ3000-3BA34

At bottom

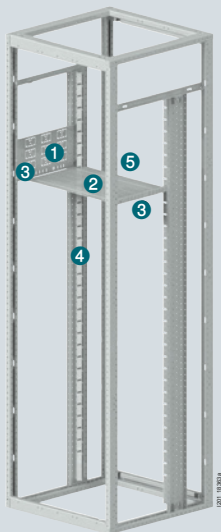


Barrier supports  
1 set = 6 units

Depth		Depth				Depth
1200 mm	1200 mm duplex	800 mm	1000 mm	1200mm	1200 mm duplex	1200 mm duplex
8PQ4000-2BA62	8PQ4000-2BA56	8PQ4000-2BA51	8PQ4000-2BA53	8PQ4000-2BA55	8PQ4000-2BA57	8PQ3000-3BA67
8PQ4000-2BA62	8PQ4000-2BA56	8PQ4000-2BA51	8PQ4000-2BA53	8PQ4000-2BA55	8PQ4000-2BA57	8PQ3000-3BA67

# Internal separation

## Modular kits, form 3b



### ① Separation, lateral

#### Kit version support rail



#### Kit version crossbar



### ② Separation, horizontal




Height	① Separation, lateral		① Separation, lateral		② Separation, horizontal	
	Branch current	Assembly kits	Branch current	Assembly kits	Width 400 mm	600 mm
50 mm		–		–	–	–
100 mm		8PQ5000-2BA27		–	8PQ5000-3BA44	8PQ5000-2BA61
150 mm		8PQ5000-2BA28		–	8PQ5000-3BA44	8PQ5000-2BA61
200 mm	≤250 A	8PQ5000-2BA30		–	8PQ5000-3BA44	8PQ5000-2BA61
	≥400 A	8PQ5000-2BA31		–	8PQ5000-3BA44	8PQ5000-2BA61
250 mm	≤250 A	8PQ5000-2BA32		–	8PQ5000-3BA44	8PQ5000-2BA61
	≥400 A	8PQ5000-2BA33		–	8PQ5000-3BA44	8PQ5000-2BA61
300 mm	≤250 A	8PQ5000-2BA34		–	8PQ5000-3BA44	8PQ5000-2BA61
	≥400 A	8PQ5000-2BA35		–	8PQ5000-3BA44	8PQ5000-2BA61
350 mm		8PQ5000-2BA36		–	8PQ5000-3BA44	8PQ5000-2BA61
400 mm		8PQ5000-2BA37	≥800 A	8PQ5000-3BA50	8PQ5000-3BA44	8PQ5000-2BA61
450 mm		8PQ5000-2BA38	≥800 A	8PQ5000-2BA65	8PQ5000-3BA44	8PQ5000-2BA61
500 mm		8PQ5000-2BA40	≥800 A	8PQ5000-2BA66	8PQ5000-3BA44	8PQ5000-2BA61
550 mm		8PQ5000-2BA41		–	8PQ5000-3BA44	8PQ5000-2BA61
600 mm		8PQ5000-2BA42	≥800 A	8PQ5000-2BA48	8PQ5000-3BA44	8PQ5000-2BA61
650 mm		8PQ5000-2BA43		–	8PQ5000-3BA44	8PQ5000-2BA61
700 mm		8PQ5000-2BA44	≥800 A	8PQ5000-2BA50	8PQ5000-3BA44	8PQ5000-2BA61
800 mm		8PQ5000-2BA45		–	8PQ5000-3BA44	8PQ5000-2BA61

Support rails		Plug-in rails		Rear	
		With main busbar	Without main busbar		
Width 800 mm		Height 1600 mm	1800 mm	Width 600 mm	800 mm
–	–	–	–	8PQ5000-2BA51	8PQ5000-2BA67
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-2BA52	8PQ5000-2BA68
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA40	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA41	8PQ5000-4BA48
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA41	8PQ5000-4BA48
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA42	8PQ5000-4BA50
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA42	8PQ5000-4BA50
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA43	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA43	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA44	8PQ5000-4BA51
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA45	8PQ5000-4BA52
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA46	8PQ5000-4BA53
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	–	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	8PQ5000-4BA47	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	–	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	–	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	–	–
8PQ5000-2BA62	8PQ5000-2BA63	8PQ3000-0BA82	8PQ3000-0BA83	–	–


# Internal separation

## Accessories



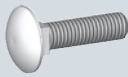
### Connecting terminals

	Rated current	Busbar	Scope of supply	Article No.
	–	–	4 units	8PQ5000-0BA05
	250 A	2 × 25 × 5 mm	2 units	8PQ5000-0BA72
	400 A	30 × 10 mm	4 units	8PQ5000-0BA73
	630 A	40 × 10 mm	4 units	8PQ5000-0BA74





### Protective bellows

	Version	Scope of supply	Article No.
	For connecting terminal	4 units	8PQ9400-0BA71

### Self-tapping screws – frame

	Type	Version	Scope of supply	Article No.
	Cylinder-head screws	M6 × 10 mm	100 units	8PQ9500-0BA34
		M6 × 16 mm	100 units	8PQ9500-0BA32
		M6 × 20 mm	100 units	8PQ9500-0BA31
	Covering caps	M6, RAL 7035	100 units	8PQ9400-0BA14
	Countersunk screws	M6 × 12 mm	100 units	8PQ9500-1BA07
	Saucer-head bolts	M10 × 35 mm	50 units	8PQ9500-0BA14
		M10 × 45 mm	50 units	8PQ9500-0BA16
		M10 × 55 mm	50 units	8PQ9500-1BA36
		M10 × 65 mm	50 units	8PQ9500-1BA25

### Standardized parts - electrical connections

	Type	Version	Scope of supply	Article No.
	Hexagonal nuts	For M10	50 units	8PQ9500-0BA05
	Spring washers	For M10	50 units	8PQ9500-0BA60
	Plain washers	For M10	50 units	8PQ9500-0BA67
	Lock washers	For M10	50 units	8PQ9500-0BA50

Transport aids							
Type	Version	Width	Depth	Scope of supply	Article No.		
	Lifting eyebolts	M12	–	–	4 units	8PQ9400-0BA11	
	Lifting brackets	–	800 mm	–	2 units	8PQ3000-1BA01	
			850 mm	–	2 units	8PQ3000-2BA38	
			1000 mm	–	2 units	8PQ3000-1BA02	
			1200 mm	–	2 units	8PQ3000-1BA03	
	Lifting brackets	–	–	800 mm	2 units	8PQ3000-1BA01	
			–	1000 mm	2 units	8PQ3000-3BA70 <b>new</b>	
			–	1200 mm	2 units	8PQ3000-3BA71 <b>new</b>	
	Cable entries						
	Version				Scope of supply	Article No.	
	Cables with diam. up to 20 mm Ø installation = 25.5 mm				20 units	8PQ9400-0BA16	
	Cables with diam. 14 ... 38 mm Ø installation = 46 mm				6 units	8PQ9400-0BA33	
Other							
Length				Scope of supply	Article No.		
	200 mm Torx bits				2 units	8PQ9400-0BA10	
	Universal mounting brackets				10 units	8PQ9400-0BA01	
Extended delivery options							
	<ul style="list-style-type: none"> <li>After prior consultation with ALPHA-support.ic@siemens.com</li> </ul>						
	Version	Description				Article No.	
	Pre-assembled solutions	Based on SIMARIS configuration <ul style="list-style-type: none"> <li>In various expansion stages</li> <li>Mechanically with or without copper insert</li> </ul>				8PQ9998-0BA20-Z	
Copper for system sections	Drawings from SIMARIS				8PQ9998-0BA30-Z		

# ALPHA UNIVERSAL system overview

Distribution boards, assembly kits and accessories

## ALPHA UNIVERSAL 800



## ALPHA UNIVERSAL 630



### Unequipped distribution boards



ALPHA 800

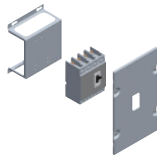


ALPHA 630



ALPHA 125

### Assembly kits

For molded case  
circuit breakersFor switch  
disconnectorsFor fuse switch  
disconnectorsFor modular  
installation devicesFor front cover  
with cutout

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.

## ALPHA UNIVERSAL 125



### Busbars



Cu busbars



Busbar supports

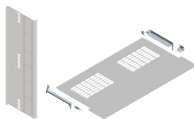
### Accessories



Bases



Crossbars



Partitions



Front covers



Locking systems

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.



# ALPHA 800 UNIVERSAL floor-mounted distribution boards

Rated current 800 A

Unequipped distribution boards

Degree of protection IP30/IP55



Safety class I

Height Outside	Inside	Depth Outside	Width Outside	Inside	Safety class I
1850 mm	1800 mm	400 mm	350 mm	300 mm	8GK2420-6KK14
			650 mm	600 mm	8GK2420-6KK24
			950 mm	900 mm	8GK2420-6KK34
2050 mm	2000 mm	400 mm	350 mm	300 mm	8GK2420-7KK14
			650 mm	600 mm	8GK2420-7KK24
			950 mm	900 mm	8GK2420-7KK34

## Accessories

Unequipped distribution boards

### Sheet-steel doors

Types	Width	Cubicle height	Cubicle width	Article No.
Standard	-	1800 mm	300 mm	8GK9515-8KK11
			600 mm	8GK9515-8KK21
			900 mm	8GK9515-8KK31
		2000 mm	300 mm	8GK9515-8KK12
			600 mm	8GK9515-8KK22
			900 mm	8GK9515-8KK32
For cable compartment	250 mm	1800 mm	900 mm	8GK9515-8KK41
		2000 mm	900 mm	8GK9515-8KK42

### Transparent doors

Types	Cubicle height	Cubicle width	Article No.
Standard	1800 mm	300 mm	8GK9505-8KK12
		600 mm	8GK9505-8KK21
		900 mm	8GK9505-8KK31
	2000 mm	300 mm	8GK9505-8KK10
		600 mm	8GK9505-8KK22
		900 mm	8GK9505-8KK32
Giugiaro design	1800 mm	600 mm	8GK9507-8KK21
		900 mm	8GK9507-8KK31
		900 mm	8GK9507-8KK32
	2000 mm	600 mm	8GK9507-8KK22
		900 mm	8GK9507-8KK31
		900 mm	8GK9507-8KK32


### Double doors

Types	Width	Cubicle height	Cubicle width	Article No.
Made of sheet steel	600 + 250 mm	1800 mm	900 mm	8GK9515-8KK21 + 8GK9515-8KK41
		2000 mm	900 mm	8GK9515-8KK22 + 8GK9515-8KK42
Transparent door + sheet-steel door	600 + 250 mm	1800 mm	900 mm	8GK9505-8KK21 + 8GK9515-8KK41
		2000 mm	900 mm	8GK9505-8KK22 + 8GK9515-8KK42
Transparent door in Giugiaro design + sheet-steel door	600 + 250 mm	1800 mm	900 mm	8GK9507-8KK21 + 8GK9515-8KK41
		2000 mm	900 mm	8GK9507-8KK22 + 8GK9515-8KK42


## Accessories

Unequipped  
distribution boards

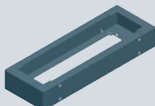
### Vertical profile bars for compartment/busbars

	Cubicle height	Cubicle width	Article No.
	1800 mm	300/600/900 mm	8GK9200-8KK00
	2000 mm	300/600/900 mm	8GK9200-8KK01



### Front covers for cabling compartment

Height	Width	Cubicle height	Cubicle width	Article No.
	250/300 mm	1800 mm	300 mm	8GK9607-5KK10 + 8GK9607-7KK10
			900 mm	8GK9606-5KK10 + 8GK9606-7KK10
1000 + 1000 mm	250/300 mm	2000 mm	300 mm	8GK9607-7KK10 + 8GK9607-7KK10
			900 mm	8GK9606-7KK10 + 8GK9606-7KK10

### Bases

Color	Height	Cubicle height	Cubicle width	Article No.	
	Blue-green	100 mm	1800/2000 mm	300 mm	8GK9906-0KK15
				600 mm	8GK9906-0KK25
				900 mm	8GK9906-0KK35

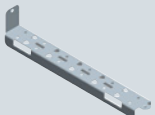

### Side panels

Color	Cubicle height	Cubicle width	Article No.	
	RAL 7035 (pair)	1800 mm	300/600/900 mm	8GK9200-8KK04
		2000 mm	300/600/900 mm	8GK9200-8KK05
	Blue-green	1800 mm	300/600/900 mm	8GK9200-8KK07
		2000 mm	300/600/900 mm	8GK9200-8KK08

### Supports

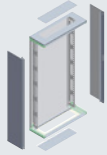
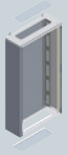

Types	Height	Article No.	
	Mounting stays (pair)	1600 mm	8GK6850-0KK02
		1800 mm	8GK6850-0KK03
		2000 mm	8GK6850-0KK04
Rear universal supports	1800 mm	8GK6850-0KK05	
	2000 mm	8GK6850-0KK06	

### Crossbars

Types	Article No.	
	Upper crossbar	8GK6850-0KK00
	Lateral crossbar	8GK6850-0KK01
	Adapter for installation of assembly kits in the cabling compartment, width 250 mm (2 units)	8GK9920-0KK01

# ALPHA 630 UNIVERSAL wall-mounted distribution boards

Rated current 630 A

					Flat pack	Unequipped distribution boards	Distribution boards with built-in distribution board panels
					Degree of protection		
					IP43	IP30/IP55	IP55
							
Height	Depth	Width			Safety class I	Safety class I	Safety class I
Outside	Outside	Outside	Outside	Inside			
450 mm	250 mm	650 mm	400 mm	600 mm	8GK2100-0KS23	–	–
650 mm	250 mm	650 mm	600 mm	600 mm	8GK2100-1KS23	8GK2124-1KK23	–
850 mm	250 mm	650 mm	800 mm	600 mm	8GK2100-2KS23	8GK2124-2KK23	8GK9988-0KL00
1050 mm	250 mm	650 mm	1000 mm	600 mm	8GK2100-3KS23	8GK2124-3KK23	8GK9988-0KL01
				900 mm	8GK2100-3KL23	8GK2124-3KK33	–
1250 mm	250 mm	650 mm	1200 mm	600 mm	8GK2100-4KS23	8GK2124-4KK23	8GK9988-0KL02
				900 mm	8GK2100-4KL23	8GK2124-4KK33	–

## Accessories

### Sheet-steel doors

				Flat pack IP43	Unequipped distribution boards IP55
Types	Cubicle height	Cubicle width	Article No.	Article No.	
Standard	400 mm	600 mm	8GK9515-3KK20	–	
	600 mm	600 mm	8GK9515-4KK20	8GK9515-4KK20	
	800 mm	600 mm	8GK9515-5KK20	8GK9515-5KK23	
	1000 mm	600 mm	8GK9515-6KK20	8GK9515-6KK23	
		900 mm	8GK9515-6KK30	8GK9515-6KK33	
	1200 mm	600 mm	8GK9515-7KK20	8GK9515-7KK23	
For cable compartment	1000 mm	900 mm	8GK9515-7KK30	8GK9515-7KK33	
		900 mm	8GK9515-7KK30	8GK9515-7KK33	
	1200 mm	900 mm	8GK9515-6KK40	8GK9515-6KK43	
		900 mm	8GK9515-7KK40	8GK9515-7KK33	
		600 + 300 mm	–	8GK9515-7KK43	

### Transparent doors

Types	Cubicle height	Cubicle width	Article No.	Article No.
Standard	400 mm	600 mm	8GK9505-3KK20	–
	600 mm	600 mm	8GK9505-4KK20	8GK9505-4KK20
	800 mm	600 mm	8GK9505-5KK20	8GK9505-5KK23
	1000 mm	600 mm	8GK9505-6KK20	8GK9505-6KK23
		900 mm	8GK9505-6KK30	8GK9505-6KK33
	1200 mm	600 mm	8GK9505-7KK20	8GK9505-7KK23
		900 mm	8GK9505-7KK30	8GK9505-7KK33
	Giugiaro design	400 mm	600 mm	8GK9507-2KK23
600 mm		600 mm	8GK9507-4KK23	8GK9507-4KK23
800 mm		600 mm	8GK9507-5KK23	8GK9507-5KK23
1000 mm		600 mm	8GK9507-7KK23	8GK9507-7KK23
		900 mm	8GK9507-7KK33	8GK9507-7KK33
1200 mm		600 mm	8GK9507-8KK23	8GK9507-8KK23
		900 mm	8GK9507-8KK33	8GK9507-8KK33

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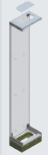



## Accessories

					Flat pack IP43	Unequipped distribution boards IP55	
<b>Double doors</b>							
	<b>Types</b>	<b>Width</b>	<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>	
	Made of sheet steel	600 + 250 mm <sup>1)</sup>	1000 mm	900 mm	8GK9515-6KK20 + 8GK9515-6KK40	8GK9515-6KK23 + 8GK9515-6KK43	
			1200 mm	900 mm	8GK9515-7KK20 + 8GK9515-7KK40	8GK9515-7KK23 + 8GK9515-7KK43	
	Transparent door + sheet-steel door	600 + 250 mm	1000 mm	900 mm	8GK9505-6KK20 + 8GK9515-6KK40	8GK9505-6KK23 + 8GK9515-6KK43	
			1200 mm	900 mm	8GK9505-7KK20 + 8GK9515-7KK40	8GK9505-7KK23 + 8GK9515-7KK43	
	Transparent door in Giugiaro design + sheet-steel door	600 + 250 mm <sup>1)</sup>	1600 mm	900 mm	8GK9507-7KK23 + 8GK9515-6KK40	8GK9507-7KK23 + 8GK9515-6KK43	
			1800 mm	900 mm	8GK9507-8KK23 + 8GK9515-7KK40	8GK9507-8KK23 + 8GK9515-7KK43	
	<b>Vertical profile bars for cabling compartment</b>						
				<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>
			1000 mm	900 mm	8GK9125-7KK01	8GK9125-7KK01	
			1200 mm	900 mm	8GK9127-8KK01	8GK9127-8KK01	
<b>Front covers for cabling compartment</b>							
	<b>Height</b>	<b>Width</b>	<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>	
	1000 mm	250/300 mm	1000 mm	900 mm	8GK9606-7KK10	8GK9606-7KK10	
	600 + 600 mm	250/300 mm	1200 mm	900 mm	8GK9606-4KK10 + 8GK9606-4KK10	8GK9606-4KK10 + 8GK9606-4KK10	
<b>Bases</b>							
	<b>Color</b>	<b>Height</b>	<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>	
	Blue-green	100 mm	600/1200 mm	600 mm	8GK9906-0KK23	8GK9906-0KK23	
			1000/1200 mm	900 mm	8GK9906-0KK33	8GK9906-0KK33	
<b>Covers for cable entry and cable duct</b>							
			<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>	
			600/1200 mm	600 mm	8GK9920-0KK41	8GK9920-0KK41	
			1000/1200 mm	900 mm	8GK9920-0KK42	8GK9920-0KK42	
<b>Side panels</b>							
	<b>Color</b>		<b>Cubicle height</b>	<b>Cubicle width</b>	<b>Article No.</b>	<b>Article No.</b>	
	Blue-green		600 mm	600 mm	–	8GK9122-4KK01	
			800 mm	600 mm	–	8GK9122-5KK01	
			1000 mm	600/900 mm	–	8GK9122-6KK01	
			1200 mm	600/900 mm	–	8GK9122-7KK01	

<sup>1)</sup> For distribution boards with a width of 900 mm with double door and vertical profile bar

# ALPHA 630 UNIVERSAL floor-mounted distribution boards





Rated current 630 A

					Flat pack	Unequipped distribution boards	Control cabinet with built-in assembly kits for modular installation devices	With assembly kit for 3VL molded case circuit breakers		
					Degree of protection		IP43	IP30/IP55	IP55	IP55
										
Height	Depth	Width	Safety class I		Safety class I	Safety class I	Safety class I	Safety class I		
Outside	Inside	Outside	Outside	Inside						
1650 mm	1600 mm	250 mm	350 mm	300 mm	8GK2300-5KL13	8GK2325-5KK13	–	–		
			650 mm	600 mm	8GK2300-5KL23	8GK2325-5KK23	–	–		
			950 mm	900 mm	8GK2300-5KL43	8GK2325-5KK43	–	–		
1850 mm	1800 mm	250 mm	350 mm	300 mm	8GK2300-6KL13	8GK2325-6KK13	–	–		
			650 mm	600 mm	8GK2300-6KL23	8GK2325-6KK23	8GK2348-7KL00	8GK2348-7KL01		
			950 mm	900 mm	8GK2300-6KL43	8GK2325-6KK43	–	–		
2050 mm	2000 mm	250 mm	350 mm	300 mm	8GK2300-7KL13	8GK2325-7KK13	–	–		
			650 mm	600 mm	8GK2300-7KL23	8GK2325-7KK23	–	–		
			950 mm	900 mm	8GK2300-7KL43	8GK2325-7KK43	–	–		



# ALPHA 630 UNIVERSAL floor-mounted distribution boards

Rated current 630 A

Accessories					Flat pack	Unequipped distribution boards	
<b>Sheet-steel doors</b>							
	Types	Width	Cubicle height	Cubicle width	Article No.	Article No.	
	Standard	–	1600 mm	300 mm	8GK9515-8KK10	8GK9515-8KK10	
				600 mm	8GK9515-8KK20	8GK9515-8KK20	
				900 mm	8GK9515-8KK30	8GK9515-8KK30	
			1800 mm	300 mm	8GK9515-8KK11	8GK9515-8KK11	
				600 mm	8GK9515-8KK21	8GK9515-8KK21	
				900 mm	8GK9515-8KK31	8GK9515-8KK31	
			2000 mm	300 mm	8GK9515-8KK12	8GK9515-8KK12	
				600 mm	8GK9515-8KK22	8GK9515-8KK22	
				900 mm	8GK9515-8KK32	8GK9515-8KK32	
	For cable compartment	250 mm	1600 mm	900 mm	8GK9515-8KK40	8GK9515-8KK40	
			1800 mm	900 mm	8GK9515-8KK41	8GK9515-8KK41	
			2000 mm	900 mm	8GK9515-8KK42	8GK9515-8KK42	
	<b>Transparent doors</b>						
		Types		Cubicle height	Cubicle width	Article No.	Article No.
Standard			1600 mm	300 mm	8GK9505-8KK11	8GK9505-8KK11	
				600 mm	8GK9505-8KK20	8GK9505-8KK20	
				900 mm	8GK9505-8KK30	8GK9505-8KK30	
			1800 mm	300 mm	8GK9505-8KK12	8GK9505-8KK12	
				600 mm	8GK9505-8KK21	8GK9505-8KK21	
				900 mm	8GK9505-8KK31	8GK9505-8KK31	
			2000 mm	300 mm	8GK9505-8KK10	8GK9505-8KK10	
				600 mm	8GK9505-8KK22	8GK9505-8KK22	
				900 mm	8GK9505-8KK32	8GK9505-8KK32	
Giugiaro design			1600 mm	600 mm	8GK9507-8KK20	8GK9507-8KK20	
				900 mm	8GK9507-8KK30	8GK9507-8KK30	
			1800 mm	600 mm	8GK9507-8KK21	8GK9507-8KK21	
				900 mm	8GK9507-8KK31	8GK9507-8KK31	
			2000 mm	600 mm	8GK9507-8KK22	8GK9507-8KK22	
	900 mm			8GK9507-8KK32	8GK9507-8KK32		
<b>Double doors</b>							
	Types	Width	Cubicle height	Cubicle width	Article No.	Article No.	
	Made of sheet steel	600 + 250 mm	1600 mm	900 mm	8GK9515-8KK20 + 8GK9515-8KK40	8GK9515-8KK20 + 8GK9515-8KK40	
				900 mm	8GK9515-8KK21 + 8GK9515-8KK41	8GK9515-8KK21 + 8GK9515-8KK41	
			1800 mm	900 mm	8GK9515-8KK22 + 8GK9515-8KK42	8GK9515-8KK22 + 8GK9515-8KK42	
				900 mm	8GK9515-8KK20 + 8GK9515-8KK40	8GK9515-8KK20 + 8GK9515-8KK40	
			2000 mm	900 mm	8GK9515-8KK21 + 8GK9515-8KK41	8GK9515-8KK21 + 8GK9515-8KK41	
				900 mm	8GK9515-8KK22 + 8GK9515-8KK42	8GK9515-8KK22 + 8GK9515-8KK42	
	Transparent door + sheet-steel door	600 + 250 mm	1600 mm	900 mm	8GK9505-8KK20 + 8GK9515-8KK40	8GK9505-8KK20 + 8GK9515-8KK40	
				900 mm	8GK9505-8KK21 + 8GK9515-8KK41	8GK9505-8KK21 + 8GK9515-8KK41	
			2000 mm	900 mm	8GK9505-8KK22 + 8GK9515-8KK42	8GK9505-8KK22 + 8GK9515-8KK42	
	Transparent door in Giugiaro design + sheet-steel door	600 + 250 mm	1600 mm	900 mm	8GK9507-8KK20 + 8GK9515-8KK40	8GK9507-8KK20 + 8GK9515-8KK40	
				900 mm	8GK9507-8KK21 + 8GK9515-8KK41	8GK9507-8KK21 + 8GK9515-8KK41	
			2000 mm	900 mm	8GK9507-8KK22 + 8GK9515-8KK42	8GK9507-8KK22 + 8GK9515-8KK42	
	<b>Vertical profile bars for cabling compartment</b>						
				Cubicle height	Cubicle width	Article No.	Article No.
			1600 mm	900 mm	8GK9125-8KK11	8GK9125-8KK11	
			1800 mm	900 mm	8GK9125-8KK12	8GK9125-8KK12	
			2000 mm	900 mm	8GK9125-8KK13	8GK9125-8KK13	

## Accessories

### Front covers for cabling compartment

Height	Width	Cubicle height	Cubicle width	Flat pack		Unequipped distribution boards	
				Article No.	Article No.	Article No.	Article No.
800 + 800 mm	250/300 mm	1600 mm	300 mm	8GK9607-5KK10 + 8GK9607-5KK10	8GK9607-5KK10 + 8GK9607-5KK10	8GK9607-5KK10 + 8GK9607-5KK10	8GK9607-5KK10 + 8GK9607-5KK10
			900 mm	8GK9606-5KK10 + 8GK9606-5KK10	8GK9606-5KK10 + 8GK9606-5KK10	8GK9606-5KK10 + 8GK9606-5KK10	8GK9606-5KK10 + 8GK9606-5KK10
800 + 1000 mm	250/300 mm	1800 mm	300 mm	8GK9607-5KK10 + 8GK9607-7KK10	8GK9607-5KK10 + 8GK9607-7KK10	8GK9607-5KK10 + 8GK9607-7KK10	8GK9607-5KK10 + 8GK9607-7KK10
			900 mm	8GK9606-5KK10 + 8GK9606-7KK10	8GK9606-5KK10 + 8GK9606-7KK10	8GK9606-5KK10 + 8GK9606-7KK10	8GK9606-5KK10 + 8GK9606-7KK10
1000 + 1000 mm	250/300 mm	2000 mm	300 mm	8GK9607-7KK10 + 8GK9607-7KK10	8GK9607-7KK10 + 8GK9607-7KK10	8GK9607-7KK10 + 8GK9607-7KK10	8GK9607-7KK10 + 8GK9607-7KK10
			900 mm	8GK9606-7KK10 + 8GK9606-7KK10	8GK9606-7KK10 + 8GK9606-7KK10	8GK9606-7KK10 + 8GK9606-7KK10	8GK9606-7KK10 + 8GK9606-7KK10

### Bases

Color	Height	Cubicle height	Cubicle width	Article No.	Article No.
Blue-green	100 mm	1600/2000 mm	300 mm	8GK9906-0KK13	8GK9906-0KK13
		1600/2000 mm	600 mm	8GK9906-0KK23	8GK9906-0KK23
		1600/2000 mm	900 mm	8GK9906-0KK33	8GK9906-0KK33

### Covers for cable entry and cable duct

Cubicle height	Cubicle width	Article No.	Article No.
1600/2000 mm	300 mm	8GK9920-0KK40	8GK9920-0KK40
1600/2000 mm	600 mm	8GK9920-0KK41	8GK9920-0KK41
1600/2000 mm	900 mm	8GK9920-0KK42	8GK9920-0KK42





### Side panels

Color	Cubicle height	Cubicle width	Article No.	Article No.
RAL 7035 (pair)	1600 mm	300/600/900 mm	8GK9120-8KK00	8GK9122-8KK03
	1800 mm	300/600/900 mm	8GK9120-8KK01	8GK9122-8KK04
	2000 mm	300/600/900 mm	8GK9120-8KK02	8GK9122-8KK05



# ALPHA UNIVERSAL 125 distribution boards

Rated current 125 A

						Surface-mounting distribution boards		Flush-mounting distribution boards	
						With sheet-steel door	With transparent door	With sheet-steel door	With transparent door
Degree of protection						IP43	IP43	IP31D	IP31D
									
Height	Depth	Width	Tiers	Safety class I	Safety class I	Safety class I	Safety class I	Safety class I	Safety class I
Outside	Inside	Outside	Outside	Inside	(MW = 18 mm)				
450 mm	400 mm	140 mm	660 mm	600 mm	48 (2× 24)	8GK2042-0KL21	8GK2042-0KM21	–	–
650 mm	600 mm	140 mm	660 mm	600 mm	72 (3× 24)	8GK2042-1KL21	8GK2042-1KM21	–	–
800 mm	850 mm	140 mm	660 mm	600 mm	96 (4× 24)	8GK2042-2KL21	8GK2042-2KM21	–	–
1050 mm	1000 mm	140 mm	660 mm	600 mm	120 (5× 24)	8GK2042-3KL21	8GK2042-3KM21	–	–
1250 mm	1200 mm	140 mm	660 mm	600 mm	144 (6× 24)	8GK2042-4KL21	8GK2042-4KM21	–	–
508 mm	400 mm	140 mm	718 mm	600 mm	48 (2× 24)	–	–	8GK2043-0KL21	8GK2043-0KM21
708 mm	600 mm	140 mm	718 mm	600 mm	72 (3× 24)	–	–	8GK2043-1KL21	8GK2043-1KM21
908 mm	800 mm	140 mm	718 mm	600 mm	96 (4× 24)	–	–	8GK2043-2KL21	8GK2043-2KM21
1108 mm	1000 mm	140 mm	718 mm	600 mm	120 (5× 24)	–	–	8GK2043-3KL21	8GK2043-3KM21
1308 mm	1200 mm	140 mm	718 mm	600 mm	144 (6× 24)	–	–	8GK2043-4KL21	8GK2043-4KM21

## Accessories

### Front covers

- With quick-lock screws and integrated grounding connection

Type	Height	Width	Article No.
Closed	50 mm	600 mm	8GK9620-1KK20
	100 mm	600 mm	8GK9621-1KK20
	150 mm	600 mm	8GK9622-1KK20
	200 mm	600 mm	8GK9623-1KK20
	400 mm	600 mm	8GK9622-2KK20
	600 mm	600 mm	8GK9622-4KK20
	800 mm	600 mm	8GK9622-5KK20
For modular installation devices	150 mm	600 mm	8GK9608-1KK22
	200 mm	600 mm	8GK9608-1KK20
	300 mm	600 mm	8GK9608-2KK22
	400 mm	600 mm	8GK9608-2KK20
	450 mm	600 mm	8GK9608-3KK22
600 mm	600 mm	8GK9608-4KK20	

### Standard mounting rails for modular installation devices

Width	Article No.
600 mm	8GK9920-0KK11

### Holders for cable duct

Width	Article No.
600 mm	8GK9920-0KK20

### Grounding bars, PE

Width	Article No.
600 mm (20 × 5 mm <sup>2</sup> )	8GK9920-0KK10

Hinges for covers			
	<b>Version</b>	<b>Article No.</b>	
	For hinged covers	8GK9120-0KK11	
Hinges for covers			
	<b>Version</b>	<b>Scope of supply</b>	<b>Article No.</b>
	Hinge, incl. fixing accessories	1 set	8PQ2000-0BA08
Rotary handles			
	<b>Version</b>	<b>Color</b>	<b>Article No.</b>
	Plastic	Black	8GK9560-0KK04
	Lockable	Black	8GK9560-0KK13
Profile semicylinders E012			
	<b>Version</b>	<b>Article No.</b>	
	Insert and key 8GK9560	8GK9560-0KK07	
Rotary handles for profile semicylinders			
	<b>Version</b>	<b>Article No.</b>	
	For 40 mm profile semicylinders	8GK9560-0KK06	
Quick-lock screws for ALPHA cabinets with ¼ turn			
	<b>Scope of supply</b>	<b>Article No.</b>	
	20 units	8GK9562-0KK00	

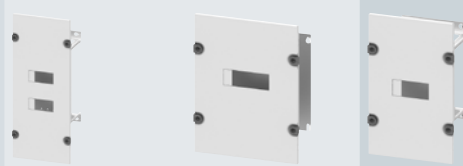
# Assembly kits

For 3VA molded case circuit breakers



Switches/breakers				Distribution board		With RCD module	Without RCD module
Type	Rated current	No. of	Rotary operating mechanism	Height outside	Width outside	Infeed side	
3VA10.. and 3VA11..	100 A/160 A	1	–	200 mm	600 mm	8GK6735-2KK23	8GK6730-2KK23
			■	200 mm	600 mm	8GK6735-2KK33	8GK6730-2KK33
			■	200 mm	900 mm	–	8GK6733-2KK23
3VA12..	250 A	1	–	200 mm	600 mm	8GK6736-2KK23	8GK6721-2KK23
			■	200 mm	600 mm	8GK6736-2KK33	8GK6721-2KK33
			■	200 mm	900 mm	–	8GK6734-2KK23
3VA20.. and 3VA22..	100 A/250 A	1	–	200 mm	600 mm	8GK6725-2KK23	8GK6720-2KK23
			■	200 mm	600 mm	8GK6725-2KK33	8GK6720-2KK33
			■	200 mm	900 mm	–	8GK6723-2KK23
3VA23.. and 3VA24..	400 A/630 A	1	–	400 mm	600 mm	–	8GK6740-4KK23
			■	400 mm	900 mm	8GK6745-4KK23	8GK6740-4KK33

## Vertical

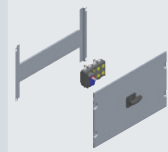


Switches/breakers		No. of	Motorized operating mechanism	Distribution board		With RCD module		Without RCD module				
Type	Rated current			Height outside	Width outside	Infeed side	At side					
3VA10.. and 3VA11..	100 A/ 160 A	1	–	200 mm	300 mm	–	–	8GK6731-2KK13				
				400 mm	250 mm	–	–	8GK6730-4KK43				
					300 mm	–	8GK6731-6KK13	8GK6730-4KK13				
				600 mm	250 mm	8GK6735-4KK43	–	–				
					300 mm	8GK6735-6KK13	–	–				
					300 mm	–	8GK6738-6KK13	8GK6734-4KK13				
			300 mm	8GK6736-6KK13	–	–						
		3	–	–	–	200 mm	600 mm	–	–	8GK6731-2KK23		
						400 mm	600 mm	–	8GK6731-6KK23	8GK6730-4KK23		
							900 mm	–	–	8GK6731-6KK33		
					600 mm	600 mm	8GK6735-6KK23	–	–			
				■	–	–	–	200 mm	600 mm	–	–	8GK6734-4KK23
								400 mm	600 mm	–	8GK6737-6KK23	–
									900 mm	–	8GK6737-6KK33	–
					600 mm	600 mm	8GK6736-6KK23	–	–			
5	–			–	–	200 mm	900 mm	–	–	8GK6731-2KK33		
		400 mm	900 mm			–	–	8GK6730-4KK33				
		■	–	–	–	200 mm	900 mm	–	–	8GK6734-4KK33		
						600 mm	900 mm	8GK6736-6KK33	–	–		
		3VA12..	250 A	1	–	400 mm	300 mm	–	–	8GK6721-4KK13		
						600 mm	250 mm	8GK6732-6KK13	–	8GK6730-6KK13		
	300 mm			–	8GK6722-6KK13	8GK6721-6KK13						
3	–			–	–	400 mm	600 mm	–	–	8GK6721-4KK23		
						600 mm	600 mm	–	8GK6724-6KK23	8GK6721-6KK23		
							600 mm	600 mm	–	8GK6723-6KK23	–	
5	–			–	–	400 mm	900 mm	–	–	8GK6721-4KK33		
						600 mm	900 mm	–	8GK6724-6KK33	8GK6721-6KK33		
				■	–	–	–	400 mm	900 mm	–	–	8GK6722-6KK33
								600 mm	900 mm	–	8GK6723-6KK33	–
				3VA20.. and 3VA22..	100 A/ 250 A	1	–	400 mm	300 mm	–	–	8GK6720-4KK13
								600 mm	300 mm	8GK6725-6KK13	–	–
3	–	–	–			400 mm	600 mm	–	–	8GK6720-4KK23		
						600 mm	600 mm	8GK6725-6KK23	–	–		
							600 mm	600 mm	–	–	8GK6724-4KK23	
5	–	–	–			400 mm	900 mm	–	–	8GK6720-4KK33		
						600 mm	900 mm	8GK6725-6KK33	–	–		
		■	–			–	–	400 mm	900 mm	–	–	8GK6724-4KK33
								400 mm	900 mm	–	–	8GK6724-4KK33
3VA23.. and 3VA24..	400 A/ 630 A	1	–	600 mm	300 mm	–	–	8GK6740-6KK13				
				600 mm	600 mm	8GK6745-6KK23	–	8GK6740-6KK23				
		2	–	–	–	600 mm	600 mm	8GK6745-6KK23	–	8GK6740-6KK23		
						600 mm	900 mm	8GK6745-6KK33	–	8GK6740-6KK33		
		3	–	–	–	600 mm	900 mm	8GK6745-6KK33	–	8GK6740-6KK33		
						600 mm	900 mm	8GK6745-6KK33	–	8GK6740-6KK33		

# Assembly kits

## For 3KA7 switch disconnectors

Vertical



Switches/breakers		No. of	Distribution board				
Type	Description		Height outside	Width outside	Depth		
3KA7	3KA711 size 1 max. 125 A	1	200 mm	600 mm	–	8GK6400-2KK20	
			400 mm	250 mm <sup>1)</sup>	–	8GK6400-4KK10	
				300 mm <sup>2)</sup>	–	8GK6400-4KK11	
			3	200 mm	900 mm	–	8GK6400-2KK30
	3KA712 size 2 max. 250 A	1	400 mm	250 mm <sup>1)</sup>	–	8GK6401-4KK10	
				300 mm <sup>2)</sup>	–	8GK6401-4KK12	
				600 mm	–	8GK6400-4KK20	
			3	400 mm	900 mm	–	8GK6400-4KK30
	3KA713 size 3 max. 400 A	1	400 mm	600 mm	–	8GK6401-4KK20	
				3	400 mm	900 mm	–
3KA7/3KL7	3KA7/3KL711 size 1 max. 125 A	1	400 mm	250 mm	250 mm	8GK6430-4KK03	
				300 mm	250 mm	8GK6430-4KK14	
					2	200 mm	600 mm
					900 mm	250 mm	8GK6430-4KK34
	3KA7/3KL712 size 2 max. 250 A	1	400 mm	250 mm	400 mm	400 mm	8GK6431-4KK04
					300 mm	400 mm	8GK6431-4KK14
						2	400 mm
					900 mm	250 mm	8GK6431-4KK34
	3KA7/3KL713 size 3 max. 400 A	1	400 mm	600 mm	400 mm	400 mm	8GK6432-4KK24
						900 mm	400 mm
	3KA7/3KL714 size 4 max. 630 A	1	400 mm	600 mm	400 mm	400 mm	8GK6433-4KK24
						400 mm	900 mm

<sup>1)</sup> In order to use box width 250 mm in the ALPHA 630 UNIVERSAL as a switchgear compartment, the following bars are required:

8GF9655 (height 1000 mm),  
8GF9656 (height 1200 mm),  
8GF9650 (height 1600 mm),  
8GF9658 (height 1800 mm),  
8GF9654 (height 2000 mm).

In order to use box width 250 mm in the ALPHA 800 UNIVERSAL as a switchgear compartment, you must order side supports and, for each assembly kit, a pair of crossbars 8GK9920-OKK01.

<sup>2)</sup> In order to use cubicle width 300 mm in the ALPHA 630 UNIVERSAL as a switchgear compartment, you require the following inner supports:

8GK9126-8KK03 (height 1600 mm),  
8GK9126-8KK04 (height 1800 mm),  
8GK9126-8KK05 (height 2000 mm).

In order to use cubicle width 300 mm in the ALPHA 800 UNIVERSAL as a switchgear compartment, you must order the following side supports:

8GK6850-OKK02 (height 1600 mm),  
8GK6850-OKK03 (height 1800 mm),  
8GK6850-OKK04 (height 2000 mm).

## For 3KF switch disconnectors with fuses



Switches/breakers Type	Rated current	Operating mechanism in center	Door-coupling rotary operating mechanism	Distribution board			
				Height	Width	Depth	
2x 3KF1	80 A	■	–	200 mm	600 mm	250 mm	8GK6431-2KK23
					900 mm	250 mm	8GK6431-2KK33
2x 3KF2	160 A	■	–	200 mm	600 mm	250 mm	8GK6432-2KK23
					900 mm	250 mm	8GK6432-2KK33
2x 3KF1/3KF2 or 1x 3KF3/3KF4	400 A	–	■	400 mm	600 mm	400 mm	8GK6431-4KK33
					900 mm	400 mm	8GK6432-4KK33

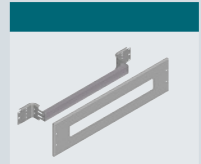
## For 3KD switch disconnectors



Switches/breakers Size	Rated current	No. of	Door-coupling rotary operating mechanism	Distribution board		
				Height outside	Width outside	
1/2/3	63 A/250 A/400 A	1/1	■	400 mm	250 mm	8GK6430-4KK13
1/2/3/4	63 A/250 A/400 A/630 A	2/1	■	400 mm	600 mm	8GK6430-4KK23
1/2/3/4	63 A/250 A/400 A/630 A	2	■	400 mm	900 mm	8GK6430-4KK33

# Assembly kits

For modular installation devices



Switches/breakers		Distribution board		
No. of tiers	MW	Height outside	Width outside	
1	12	200 mm	300 mm	8GK6352-2KK13
		150 mm	600 mm	8GK6302-1KK23
	36	200 mm	600 mm	8GK6352-2KK23
		150 mm	900 mm	8GK6302-1KK33
		200 mm	900 mm	8GK6352-2KK33

## Accessories

### Standard mounting rails

	Version	Width	No. of tiers	Article No.
	For mounting modular devices at various depths	600 mm	1	8GF9670
		900 mm	1	8GF9671

### Depth adapters 9 mm

	Version	Width	No. of tiers	MW	Article No.
	For linking 5SY and 5SJ on standard mounting rails, L 360 mm	600 mm	1	20	8GF9670-1

## For front cover with cutout



Switches/breakers No. of tiers	MW	Distribution board		
		Height outside	Width outside	
1	24	150 mm	600 mm	8GK9608-1KK22
	24	200 mm	600 mm	8GK9608-1KK20
	36	150 mm	900 mm	8GK9608-1KK32
		200 mm	900 mm	8GK9608-1KK30
2	48	300 mm	600 mm	8GK9608-2KK22
		400 mm	600 mm	8GK9608-2KK20
	72	300 mm	900 mm	8GK9608-2KK32
		400 mm	900 mm	8GK9608-2KK30
		450 mm	600 mm	8GK9608-3KK22
	108	600 mm	600 mm	8GK9608-4KK20
		600 mm	900 mm	8GK9608-4KK30

## Accessories

## Standard mounting rails

	Version	Width	No. of tiers	Article No.
	For mounting modular devices at various depths	600 mm	1	8GF9670
		900 mm	1	8GF9671

## Depth adapters 9 mm

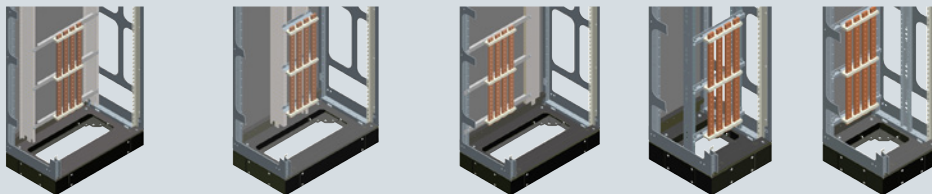
	Version	Width	No. of tiers	MW	Article No.
	For linking 5SY and 5SJ on standard mounting rails, L 360 mm	600 mm	1	20	8GF9670-1



# Busbars

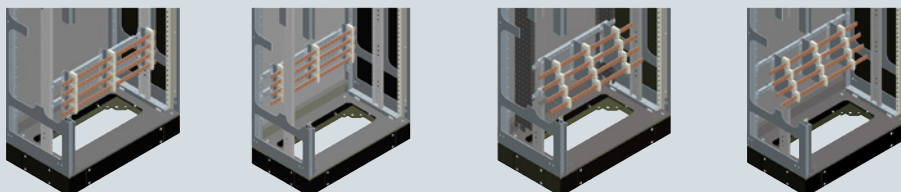
For ALPHA 800/630 UNIVERSAL distribution boards

## Vertical installation of rear busbars (single bars only)



Version	Width 600/900 mm	For a spacing of 150 mm, width 600/900 mm	Recessed, width 600/900 mm	Width 300 mm	Recessed, width 300 mm
Busbar supports:	8GF5764/65 (width 600 mm) 8GF5766/67 (width 900 mm)	8GF5762/63	8GF5764/65 (width 600 mm) 8GF5766/67 (width 900 mm)	8GF5768/70	8GF5768/70
Supplements:	Rear universal supports	8GK6850-0KK05/06 (2 units)	8GK6850-0KK05/06 (2 units)	8GK6850-0KK05/06 (1 unit)	–

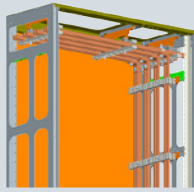
## Horizontal busbars (single bars only)



Version	Front	Recessed	Front, with steps	Recessed, with steps
Busbar supports:	8GF5762/63	8GF5762/63	8GF5760/61	8GF5760/61
Supplements:	Support plate	8GF9652 (width 600 mm) 8GF9653 (width 900 mm)	8GK9920-0KK35 (width 600 mm) 8GK9920-0KK36 (width 900 mm)	8GF9652 (width 600 mm) 8GF9653 (width 900 mm)
	Rear universal supports	–	8GK6850-0KK05/06 (2 units)	–

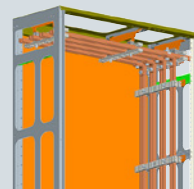
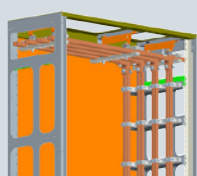
## For ALPHA 800 UNIVERSAL distribution boards

### Horizontal busbars at top (double bars only)




Version		
Busbar supports	With support plate	8GK9750-0KK02
	Without support plate	8PQ4000-1BA12
Supplements	If there is no support 8GK9750-0KK02 mounted onto the side of the cabling compartment, you will need to order an upper crossbar 8GK6850-0KK00.	


### Vertical busbars, for sides




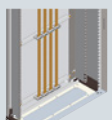
Version		Double busbar with steps	Single busbar with steps	Double busbar	Busbar
Busbar supports:		8GK9750-0KK01	8GF5760/61	8GK9750-0KK02	8GF5762/63
Supplements	Lateral crossbar	8GK6850-0KK01	8GK6850-0KK01	8GK6850-0KK01	8GK6850-0KK01


# Busbars

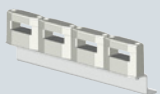
		ALPHA 630	ALPHA 800
<b>Copper busbars</b>			
	<b>Busbar cross-section</b>	<b>Length</b>	<b>Article No.</b>
	15 × 5	2000 mm	8GF5751
		1300 mm	8GF5771
	20 × 5	2000 mm	8GF5737
		1300 mm	8GF5772
	30 × 5	2000 mm	8GF5742
		1300 mm	8GF5773
	30 × 10	2000 mm	8GF5752
	1300 mm	8GF5774	

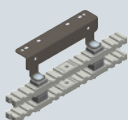
		ALPHA 630	ALPHA 800
<b>Copper grounding bars</b>			
	<b>Busbar cross-section</b>	<b>Length</b>	<b>Width</b>
	20 × 5	1300/2000 mm	600 mm
			900 mm
			<b>Article No.</b>
			8GK9920-0KK10
			8GK9920-0KK13

		ALPHA 630	ALPHA 800
<b>Busbar supports</b>			
<b>Vertical, at side/horizontal, at front, graded</b>			
	<b>Busbar cross-section</b>	<b>Width</b>	<b>Number of poles</b>
	15/20/30 × 5	600/900 mm	4-pole
	30 × 10	600/900 mm	4-pole
	15/20/30 × 10	600/900 mm	4-pole
	20/30 × 10	600/900 mm	4-pole
		<b>Busbar center-to-center spacing</b>	<b>Article No.</b>
		50 mm	8GF5760
		50 mm	8GF5761
		50 mm	–
		50 mm	8GK9750-0KK01
		50 mm	–
		50 mm	8GK9750-0KK02

		ALPHA 630	ALPHA 800
<b>Vertical</b>			
	<b>Busbar cross-section</b>	<b>Width</b>	<b>Number of poles</b>
	15/20/30 × 5	300 mm	4-pole
	30 × 10	300 mm	4-pole
		<b>Busbar center-to-center spacing</b>	<b>Article No.</b>
		50 mm	8GF5768
		50 mm	8GF5770



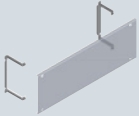

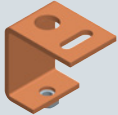
		ALPHA 630	ALPHA 800
<b>Vertical, at rear</b>			
	<b>Busbar cross-section</b>	<b>Width</b>	<b>Number of poles</b>
	15/20/30 × 5	600 mm	4-pole
		900 mm	4-pole
	30 × 10	600 mm	4-pole
		900 mm	4-pole
		<b>Busbar center-to-center spacing</b>	<b>Article No.</b>
		50 mm	8GF5764
		50 mm	8GF5766
		50 mm	8GF5765
		50 mm	8GF5767

		ALPHA 630	ALPHA 800
<b>Horizontal, at front<sup>1)</sup></b>			
	<b>Busbar cross-section</b>	<b>Width</b>	<b>Number of poles</b>
	15/20/30 × 5	300/600/ 900 mm	4-pole
	30 × 10	300/600/ 900 mm	4-pole
		600/900 mm	4-pole
		<b>Busbar center-to-center spacing</b>	<b>Article No.</b>
		50 mm	8GF5762
		50 mm	8GF5763
		50 mm	–
		50 mm	8GK9608-1KK22

		ALPHA 630	ALPHA 800
<b>Horizontal, at top</b>			
	<b>Busbar cross-section</b>	<b>Width</b>	<b>Number of poles</b>
	20/30 × 10	600/900 mm	4-pole
		<b>Busbar center-to-center spacing</b>	<b>Article No.</b>
		50 mm	–
		50 mm	8GK9750-0KK02
		50 mm	8PQ4000-1BA12

<sup>1)</sup> Can be mounted directly on equipment racks with a clearance of 525 mm (width 600 mm) and 825 mm (width 900 mm).

## Other accessories

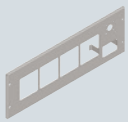
				ALPHA 630	ALPHA 800
<b>Set of screws/bolts for slotted bars</b>					
	<b>Cross-section</b>	<b>Outer thread</b>	<b>Tightening torque</b>	<b>Article No.</b>	<b>Article No.</b>
	15/20/30 × 5	M6	8 Nm	8GF5891	8GF5891
	30 × 10	M8	20 Nm	8GF5892	8GF5892
<b>Crossbars for installation of support</b>					
	<b>Version</b>	<b>Width</b>		<b>Article No.</b>	<b>Article No.</b>
	For 8GF5762, 8GF5760, 8GF5763, 8GK9608-1KK22	600 mm		8GF9652	8GF9652
		900 mm		8GF9653	8GF9653
	For 8GF5760	600 mm		8GK9920-0KK35	8GK9920-0KK35
		900 mm		8GK9920-0KK36	8GK9920-0KK36
	For 8GK9750-0KK02	400 mm		–	8GK6850-0KK00
For 8GF5760, 8GF5768, 8GF5761, 8GF5770, 8GK9750- 0KK01, 8GK9750-0KK02	400 mm		–	8GK6850-0KK01	
<b>Transparent cover</b>					
	<b>Version</b>	<b>Width</b>		<b>Article No.</b>	<b>Article No.</b>
	For horizontal busbars, at front	600 mm		8GK9920-0KK37	8GK9920-0KK37
		900 mm		8GK9920-0KK38	8GK9920-0KK38
<b>Connecting kit for double bars</b>					
	<b>Version</b>	<b>Current</b>		<b>Article No.</b>	<b>Article No.</b>
	Connecting kit for upper horizontal bars – vertical busbars	800 A		–	8GK9790-0KK00
	Connecting kit for upper horizontal busbars	800 A		–	8GK9790-0KK01
<b>Holder for grounding bar</b>					
				<b>Article No.</b>	<b>Article No.</b>
				–	8GK9750-0KK00

# Accessories

## Covers and holders

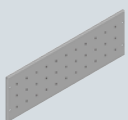
125 630 800

### Covers for mounting measuring instruments




Measuring devices	Type	Height	Width	Article No.	125	630	800
72 × 72	2 instruments + 2 selectors	200 mm	600 mm	8GK9610-1KK20	■	■	■
			900 mm	8GK9610-1KK30	■	■	■
	4 instruments + 1 selector	200 mm	600 mm	8GK9611-1KK20	■	■	■
			900 mm	8GK9611-1KK30	■	■	■
96 × 96	2 instruments + 2 selectors	200 mm	600 mm	8GK9612-1KK20	■	■	■
			900 mm	8GK9612-1KK30	■	■	■
	4 instruments + 1 selector	200 mm	600 mm	8GK9613-1KK20	■	■	■
			900 mm	8GK9613-1KK30	■	■	■

### Covers for pushbuttons and indicator lights



Height	Width	Article No.	125	630	800
200 mm	600 mm	8GK9630-1KK20	■	■	■
	900 mm	8GK9631-1KK20	■	■	■

### Non-transparent covers




Height	Width	Article No.	125	630	800
50 mm	600 mm	8GK9620-1KK20	■	■	■
	900 mm	8GK9620-1KK30	■	■	■
100 mm	600 mm	8GK9621-1KK20	■	■	■
	900 mm	8GK9621-1KK30	■	■	■
150 mm	600 mm	8GK9622-1KK20	■	■	■
	900 mm	8GK9622-1KK30	■	■	■
200 mm	300 mm	8GK9607-1KK10	■	■	■
	600 mm	8GK9623-1KK20	■	■	■
	900 mm	8GK9623-1KK30	■	■	■
400 mm	250 mm	8GK9606-2KK10	■	■	■
	300 mm	8GK9607-2KK10	■	■	■
	600 mm	8GK9622-2KK20	■	■	■
	900 mm	8GK9622-2KK30	■	■	■
600 mm	250 mm	8GK9606-4KK10	■	■	■
	300 mm	8GK9607-4KK10	■	■	■
	600 mm	8GK9622-4KK20	■	■	■
	900 mm	8GK9622-4KK30	■	■	■
800 mm	250 mm	8GK9606-5KK10	■	■	■
	300 mm	8GK9607-5KK10	■	■	■
	600 mm	8GK9622-5KK20	■	■	■
	900 mm	8GK9622-5KK30	■	■	■
1000 mm	250 mm	8GK9606-7KK10	■	■	■
	300 mm	8GK9607-7KK10	■	■	■

### Deep-drawn covers 25 mm

Height	Width	Article No.	125	630	800
800 mm	600 mm	8GK9635-5KK20	■	■	■
	900 mm	8GK9635-5KK30	■	■	■
1000 mm	600 mm	8GK9636-7KK20	■	■	■
	900 mm	8GK9636-7KK30	■	■	■

### Deep-drawn front covers 35 mm

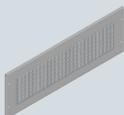


Height	Width	Article No.	125	630	800
200 mm	600 mm	8GK9605-1KK20	■	■	■
	900 mm	8GK9605-1KK30	■	■	■
400 mm	600 mm	8GK9605-2KK20	■	■	■
	900 mm	8GK9605-2KK30	■	■	■
600 mm	600 mm	8GK9605-4KK20	■	■	■
	900 mm	8GK9605-4KK30	■	■	■


## Covers and holders

125 630 800


## Covers with ventilation openings IP30

	Height	Width	Article No.	125	630	800
	200 mm	600 mm	8GK9632-1KK20	■	■	■
		900 mm	8GK9633-1KK20	■	■	■

## Holders for horizontal cable ducts/horizontal busbars (pair)


	Width	Article No.	125	630	800
	600 mm	8GF9652	■	■	■
	900 mm	8GF9653	■	■	■

## Horizontal crossbars with steps (pair)

	Width	Article No.	125	630	800
	600 mm	8GK9920-0KK35	■	■	■
	900 mm	8GK9920-0KK36	■	■	■

## Support rails (pair)

- ALPHA 630 UNIVERSAL vertical/horizontal busbar support, with steps
- Vertical side terminal strip (not suitable for use in ALPHA 800 UNIVERSAL)

	Height	Article No.	125	630	800
	1000 mm	8GF9655	■	■	■
	1200 mm	8GF9656	■	■	■
	1600 mm	8GF9650	■	■	■
	1800 mm	8GF9658	■	■	■
	2000 mm	8GF9654	■	■	■

## Inner supports

- For using cubicle B 300 as a switchgear compartment in ALPHA 630 UNIVERSAL (not suitable for use in ALPHA 800 UNIVERSAL)

	Height	Article No.	125	630	800
	1600 mm	8GK9126-8KK03	■	■	■
	1800 mm	8GK9126-8KK04	■	■	■
	2000 mm	8GK9126-8KK05	■	■	■

# Accessories

## Mounting plates and inner subdivisions

125 630 800

### Modular mounting plates

- ALPHA 800 UNIVERSAL: for mounting on side supports or on the base of the cabinet



Height	Width	Article No.	125	630	800
200 mm	600 mm	8GF7155	■	■	■
	900 mm	8GF7158	■	■	■
400 mm	600 mm	8GF7156	■	■	■
	900 mm	8GF7160	■	■	■
600 mm	600 mm	8GF7157	■	■	■
	900 mm	8GF7161	■	■	■

### Recessed modular mounting plates

- ALPHA 800 UNIVERSAL: for mounting on two rear supports or on the rear panel of the cabinet with one rear support



Height	Width	Article No.	125	630	800
200 mm	600 mm	8GF9676	■	■	■
	900 mm	8GF9680	■	■	■
400 mm	600 mm	8GF9677	■	■	■
	900 mm	8GF9681	■	■	■
600 mm	600 mm	8GF9678	■	■	■
	900 mm	8GF9682	■	■	■

### 2 mm mounting plates for electrotechnical use with height and width of the cabinet

- ALPHA 800 UNIVERSAL: Plates that are not as high as the cabinet can be mounted using side supports and holders 8GF9652/3



Height	Width	Article No.	125	630	800
600 mm	600 mm	8GK9535-4KK21	■	■	■
800 mm	600 mm	8GK9535-5KK21	■	■	■
1000 mm	600 mm	8GK9536-7KK21	■	■	■
	900 mm	8GK9536-7KK31	■	■	■
1200 mm	600 mm	8GK9537-8KK21	■	■	■
	900 mm	8GK9537-8KK31	■	■	■
1600 mm	600 mm	8GK9535-8KK23	■	■	■
	900 mm	8GK9535-8KK26	■	■	■
1800 mm	600 mm	8GK9535-8KK24	■	■	■
	900 mm	8GK9535-8KK34	■	■	■
2000 mm	600 mm	8GK9535-8KK25	■	■	■
	900 mm	8GK9535-8KK35	■	■	■

### Adjustable depth brackets for mounting plates



Distribution board depth	Article No.	125	630	800
250 mm	8GK9930-0KK03		■	

### Partitions for ALPHA 630 UNIVERSAL

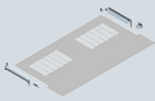
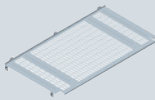



Mounting	Height	Width	Article No.	125	630	800
Horizontal	–	250 mm	8GK9525-0KK03		■	
		300 mm	8GK9525-0KK13		■	
		600 mm	8GK9525-0KK23		■	
		900 mm	8GK9525-0KK33		■	
Vertical	800 mm	–	8GK9525-5KK03		■	
	1000 mm	–	8GK9525-6KK03		■	
	1200 mm	–	8GK9525-7KK03		■	
	1600 mm	–	8GK9525-8KK03		■	
	1800 mm	–	8GK9525-8KK13		■	
	2000 mm	–	8GK9525-8KK23		■	

## Mounting plates and inner subdivisions

125 630 800

### Partitions for ALPHA 800 UNIVERSAL cabinets in form 2b

Mounting	Height	Width	Article No.	125	630	800
 Horizontal subdivisions between devices	–	300 mm	8GK9526-0KK06			■
	–	600 mm	8GK9526-0KK07			■
	–	900 mm	8GK9526-0KK08			■
 Horizontal subdivisions between upper busbar compartment and devices	–	250 mm	8GK9527-0KK05			■
	–	300 mm	8GK9526-0KK03			■
	–	600 mm	8GK9526-0KK04			■
	–	900 mm	8GK9526-0KK05			■
 Vertical subdivisions between the switchgear compartment and busbar compartment	1600 mm	600 mm	8GK9526-0KK00			■
	1800 mm	600 mm	8GK9526-0KK01			■
	2000 mm	600 mm	8GK9526-0KK02			■

### Transparent covers

Width	Article No.	125	630	800
250 mm	8GK9527-0KK03	■	■	■
300 mm	8GK9527-0KK00	■	■	■
600 mm	8GK9527-0KK01	■	■	■
900 mm	8GK9527-0KK02	■	■	■

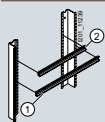


# Accessories

## Holders for terminal strips and locking systems

125 630 800

### Standard mounting rails for terminal blocks



Type	Height	Width	Article No.	125	630	800
Horizontal	–	600 mm	8GF9672	■	■	■
	–	900 mm	8GF9674	■	■	■
Horizontal, recessed	–	600 mm	8GF9673	■	■	■
	–	900 mm	8GF9675	■	■	■
Vertical with 3 mounting rails	200 mm	600 mm	8GF7175	■	■	■
	400 mm	600 mm	8GF7176	■	■	■
Vertical with 5 mounting rails	–	900 mm	8GF7178	■	■	■
	400 mm	900 mm	8GF7180	■	■	■

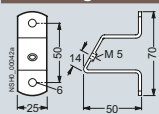
### Holder for vertical terminal strips in side compartment L = 900 mm



- ALPHA 800 UNIVERSAL: Each holder must be mounted onto a lateral crossbar

Width	Article No.	125	630	800
600/900 mm	8GF9683	■	■	■

### Mounting brackets



Version	Width	Article No.	125	630	800
For angular mounting of the terminal blocks	600/900 mm	8WA746	■	■	■

### Holders for standard mounting rails

Version	Scope of supply	Width	Article No.	125	630	800
For mounting the terminal strip vertically in the cabling compartment	4 units	600/900 mm	8GK9920-0KK28	■	■	■

### Standard locking devices for wall-mounted distribution boards



Material	Width	Article No.	125	630	800
Made of plastic, black (spare part)	600/900 mm	8GK9560-0KK04	■	■	■

### Seals for standard locking devices



Degree of protection	Width	Article No.	125	630	800
IP55	600/900 mm	8GK9560-0KK05	■	■	■

### Rotary handle locking mechanism



- For wall-mounted distribution boards, IP43 and IP55, semicylinder insert possible for E012

Width	Article No.	125	630	800
600/900 mm	8GK9560-0KK06	■	■	■

### Profile semicylinders E012

- Insert and key



Width	Article No.	125	630	800
600/900 mm	8GK9560-0KK07	■	■	■

### Locking systems for floor-mounted distribution boards



Type	Width	Article No.	125	630	800
Espagnolette lock with pushbutton (spare part)	600/900 mm	8GK9561-0KK01	■	■	■
Insert for profile semicylinder with key	600/900 mm	8GK9561-0KK02	■	■	■
Profile semicylinder, 40 mm with lock E012 (for use only with espagnolette lock)	600/900 mm	8GK9561-0KK00	■	■	■

## Other accessories

125 630 800

## Assembly kit for mounting flat pack cabinets for self-assembly, IP43

Height	Article No.	125	630	800
400 mm	8GK9126-3KK00	■	■	■
600 mm	8GK9126-4KK00	■	■	■
800 mm	8GK9126-5KK00	■	■	■
1000 mm	8GK9126-6KK00	■	■	■
1200 mm	8GK9126-7KK00	■	■	■
1600 mm	8GK9126-8KK00	■	■	■
1800 mm	8GK9126-8KK01	■	■	■
2000 mm	8GK9126-8KK02	■	■	■

## Z-shaped crossbar for lifting the flat pack for self-assembly

Height	Article No.	125	630	800
600 mm	8GK9127-0KK01	■	■	■
900 mm	8GK9127-0KK02	■	■	■
1200 mm	8GK9127-0KK03	■	■	■
1500 mm	8GK9127-0KK04	■	■	■
1800 mm	8GK9127-0KK05	■	■	■

## Z-shaped crossbar for mounting and vertical linking of wall-mounted distribution boards

Height	Article No.	125	630	800
1200 mm	8GK9920-0KK43	■	■	■
1400 mm	8GK9920-0KK44	■	■	■
1600 mm	8GK9920-0KK45	■	■	■
1800 mm	8GK9920-0KK46	■	■	■

## Flange plates for flat pack delivery (optional)

Height	Article No.	125	630	800
300 mm	8GK9120-0KK10	■	■	■
600 mm	8GK9120-0KK20	■	■	■

## Ventilation grilles – side panels

Scope of supply	Article No.	125	630	800
4 units	8GK9120-0KK30	■	■	■

## Spare part hinges for doors for wall/floor-mounted distribution boards

Scope of supply	Article No.	125	630	800
2 units	8GK9920-0KK24	■	■	■

## Hinges for front covers

Scope of supply	Article No.	125	630	800
10 units	8GK9120-0KK11	■	■	■

## Hinges for covers

Article No.	125	630	800
8PQ2000-0BA08	■	■	■

# Accessories

## Other accessories

125 630 800

### Quick-lock screws for ALPHA cabinets with ¼ turn



#### Scope of supply

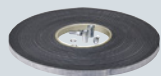
20 units

#### Article No.

8GK9562-0KK00

■ ■ ■

### Mounting kit for modular distribution boards, IP55 (incl. seal)



#### Article No.

8GK9920-0KK31

■ ■ ■

### Self-tapping screws M6 × 10



#### Scope of supply

10 units

#### Article No.

8GF9662

■ ■ ■

### Captive nuts M6

#### Scope of supply

100 units

#### Article No.

8GF9643

■ ■ ■

### Transport eyebolts



#### Scope of supply

4 units

#### Article No.

8GF9660

■ ■ ■

### Key for double-bit interlocking mechanism



#### Article No.

8GD9290

■ ■ ■

### Siemens nameplate



#### Material

Aluminum

#### Version

Self-adhesive

#### Color

Petrol

#### Article No.

8GD9084

■ ■ ■

Sticker, foil

Self-adhesive

Petrol

8GF9661

■ ■ ■

### Circuit diagram pockets



#### Types

DIN A3, made of sheet steel

#### Depth

10 mm

#### Article No.

8GK9910-0KK22

■ ■ ■

DIN A4, transparent sleeve, adhered all-over

10 mm

8GK9910-0KK23

■ ■ ■

DIN A4, made of plastic

30 mm

8GD9132

■ ■ ■

DIN A4, large pack, made of plastic

30 mm

8GK9910-1KK24

■ ■ ■

### Blanking cover for modular installation devices



#### Version

For 12 modular widths (1 MW=18 mm)

#### Article No.

8GK9910-0KK00

■ ■ ■

### Cover strips



#### Length

1 m

#### Article No.

8GK9910-0KK01

■ ■ ■

### Spare brackets for flat pack assembly

#### Scope of supply

2 units

#### Article No.

8GK9920-0KK26

■ ■ ■

### Failsafe kit ALPHA

- Self-tapping screws, captive nuts, hinges for covers, covers etc.

#### Article No.

8GK9920-0KK32

■ ■ ■

### Wall-mounting brackets

#### Article No.

8GK9920-0KK33

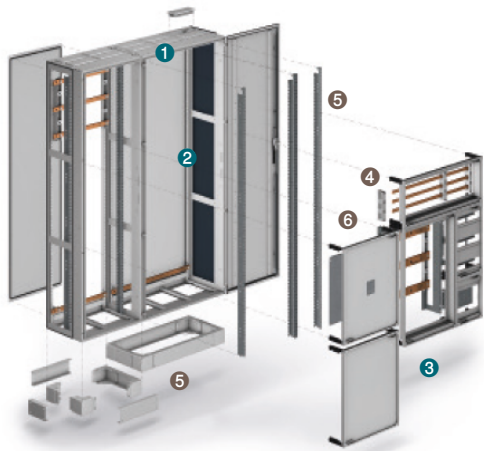
■ ■ ■



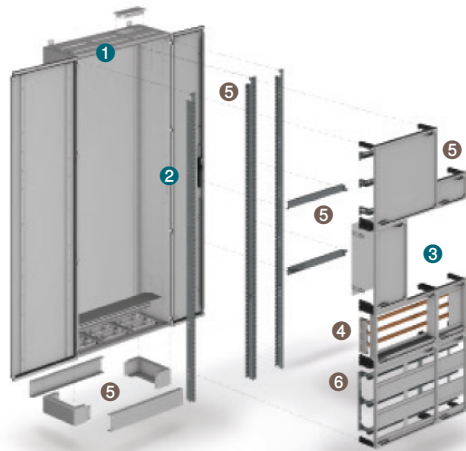
# ALPHA system overview

Distribution boards, assembly kits and accessories

## ALPHA 1250



## ALPHA 630



### 1 Unequipped distribution boards



ALPHA 1250



ALPHA 630



ALPHA 630



ALPHA 400

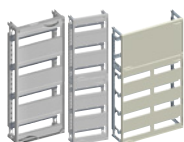


ALPHA 160



ALPHA SIMBOX XL and WP

### 2 Quick-assembly kits



ALPHA 1250/630/400



ALPHA 160

### 3 Assembly kits



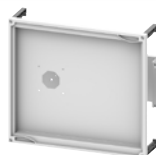
For modular installation devices



For terminal blocks



For fuse switch disconnectors



For switch disconnectors



For molded case circuit breakers



For busbar-adaptable units

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.



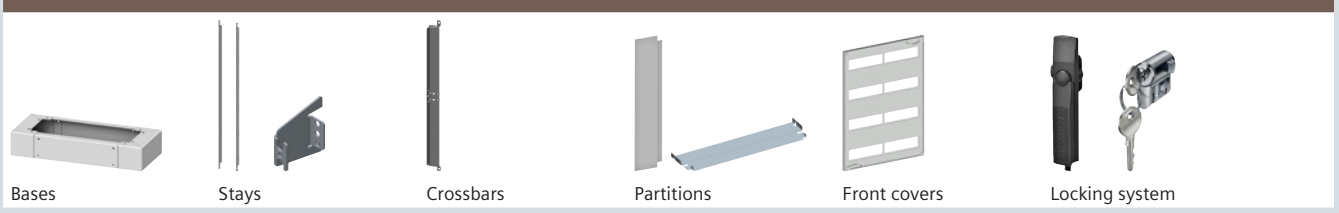
#### 4 Busbars



Cu busbars

Busbar supports

#### 5 Mechanical accessories



Bases

Stays

Crossbars

Partitions

Front covers

Locking system

#### 6 Electrical accessories



N and PE terminals

Connection terminals

N/PE bars

Flanges

Cable entries

Cable holders





**Note:**  
 You will find a detailed range of accessories with the basic units and in the Accessories section.

# ALPHA 1250 floor-mounted distribution boards

Rated current 1250 A

		Unequipped distribution boards With open side panel		Degree of protection IP55		Unequipped distribution boards for isolating transformers With open side panel		With closed side panel		
						IP30		IP30		
										
Height	Depth	Tiers	Width	Safety class I		Safety class I		Safety class I		
Outside	Inside	Outside (MW = 18 mm)	Outside	Inside						
1950 mm	1800 mm	400 mm	max. 12 MW	300 mm	250 mm	8GK1423-8KK15	8GK1483-8KP15	8GK1483-8KN15		
				550 mm	500 mm	8GK1423-8KK25	8GK1483-8KP25	8GK1483-8KN25		
				800 mm	750 mm	8GK1423-8KK35	8GK1483-8KP35	8GK1483-8KN35		
				1050 mm	1000 mm	8GK1423-8KK45	8GK1483-8KP45	8GK1483-8KN45		
				1300 mm	1250 mm	8GK1423-8KK55	–	–		

## Accessories

Spare part doors					
	Height	Cubicle width	Door version	Door width	Article No.
		1950 mm	300 mm	Complete	300 mm
		550 mm	Complete	550 mm	8GK9513-8KK20
		800 mm	Left	525 mm	8GK9513-8KK30
			Right	275 mm	8GK9513-8KK40
		1050 mm	Left	525 mm	8GK9513-8KK30
			Right	525 mm	8GK9513-8KK50
		1300 mm	Left	775 mm	8GK9513-8KK60
			Right	525 mm	8GK9513-8KK50
Side panels, modular distribution board					
	Depth				Article No.
	400 mm				8GK9520-0KK05
Assembly kits for masking frame for front cover					
	<ul style="list-style-type: none"> <li>For mounting the mounting stays at the rear of the modular distribution board</li> </ul>				
	Height	Width	Article No.		
	1800 mm	250 mm	8GK9913-0KK10		
		500 mm	8GK9913-0KK20		
		750 mm	8GK9913-0KK30		
		1000 mm	8GK9913-0KK40		
		1250 mm	8GK9913-0KK50		
Flange plates with rubber sleeve					
	<ul style="list-style-type: none"> <li>For lower flange opening (sheet steel closed)</li> </ul>				
	Number of rubber sleeves	Article No.			
	1	8GK9100-0KK14			
	2	8GK9100-0KK15			
	3	8GK9100-0KK16			
	4	8GK9100-0KK17			

#### Busbar supports



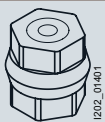
- Busbar spacing 100/185 mm

Type	Article No.
With matching support plate for mounting on the rear panel	8GK9720-0KK00
Without support plate for mounting on the busbar (no fixing to the cabinet enclosure)	8GK9720-0KK01

#### PEN bar holders and N/PE busbar supports

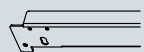
Type	Article No.
PEN bar holder	8GK9721-0KK00

#### Pin insulator for N busbar



Version	Article No.
1P with M10 female thread and holder	8GK9110-0KK00

#### Crossbar N/PEN pin insulators and/or holders for PEN bars



Width	Article No.
250 mm	8GK4854-0KK10
500 mm	8GK4854-0KK20
750 mm	8GK4854-0KK30
1000 mm	8GK4854-0KK40
1250 mm	8GK4854-0KK50

#### Longitudinal stays



Height	Depth	Article No.
1800 mm	250/320/400 mm	8GK4853-8KK02



# ALPHA 1250 marshaling boxes

Rated current 630 A

## Marshaling boxes

Degree of protection IP43



Height Outside	Depth Outside	Width Outside	Inside	Safety class I
500 mm	400 mm	300 mm	250 mm	8GK1383-1KK15
		550 mm	500 mm	8GK1383-1KK25
		800 mm	750 mm	8GK1383-1KK35
		1050 mm	1000 mm	8GK1383-1KK45
		1300 mm	1250 mm	8GK1383-1KK55
650 mm	400 mm	300 mm	250 mm	8GK1383-2KK15
		550 mm	500 mm	8GK1383-2KK25
		800 mm	750 mm	8GK1383-2KK35
		1050 mm	1000 mm	8GK1383-2KK45
		1300 mm	1250 mm	8GK1383-2KK55



# ALPHA 630 floor-mounted distribution boards

Rated current 630 A

Unequipped distribution boards

Welded and riveted

Degree of protection IP44



Height Outside	Inside	Depth Outside	Tiers/MW	Width Outside	Inside	Safety class I	Safety class II
1950 mm	1800 mm	210 mm	12/144	300 mm	250 mm	8GK1322-8KA12	8GK1332-8KA12
			24/288	550 mm	500 mm	8GK1322-8KA22	8GK1332-8KA22
			36/432	800 mm	750 mm	8GK1322-8KA32	8GK1332-8KA32
			48/576	1050 mm	1000 mm	8GK1322-8KA42	8GK1332-8KA42
			60/720	1300 mm	1250 mm	8GK1322-8KA52	8GK1332-8KA52
		250 mm	12/144	300 mm	250 mm	–	–
			24/288	550 mm	500 mm	–	–
			36/432	800 mm	750 mm	–	–
			48/576	1050 mm	1000 mm	–	–
			60/720	1300 mm	1250 mm	–	–
		320 mm	12/144	300 mm	250 mm	–	–
			24/288	550 mm	500 mm	–	–
36/432	800 mm		750 mm	–	–		
48/576	1050 mm		1000 mm	–	–		
60/720	1300 mm		1250 mm	–	–		

## Accessories

### Spare part doors




Height	Cubicle width	Door version	Door width	Article No.
1950 mm	300 mm	Complete	300 mm	8GK9513-8KK10
	550 mm	Complete	550 mm	8GK9513-8KK20
	800 mm	Left	525 mm	8GK9513-8KK30
		Right	275 mm	8GK9513-8KK40
	1050 mm	Left	525 mm	8GK9513-8KK30
		Right	525 mm	8GK9513-8KK50
	1300 mm	Left	775 mm	8GK9513-8KK60
		Right	525 mm	8GK9513-8KK50

### Side panels, modular distribution board

Depth	Article No.
250/320 mm	8GK9520-0KK03

### Assembly kits for masking frame for front cover

Height	Width	Article No.
1800 mm	250 mm	8GK9913-0KK10
	500 mm	8GK9913-0KK20
	750 mm	8GK9913-0KK30
	1000 mm	8GK9913-0KK40
	1250 mm	8GK9913-0KK50

With closed side panel		With open side panel		Flat pack	
IP55		IP55		IP43	
					
Safety class I	Safety class II	Safety class I	Safety class I	Safety class I	Safety class II
–	–	–	–	8GK1302-8KK12	8GK1312-8KK12
–	–	–	–	8GK1302-8KK22	8GK1312-8KK22
–	–	–	–	8GK1302-8KK32	8GK1312-8KK32
–	–	–	–	8GK1302-8KK42	8GK1312-8KK42
–	–	–	–	8GK1302-8KK52	8GK1312-8KK52
8GK1323-8KN13	8GK1333-8KN13	8GK1323-8KP13	–	–	–
8GK1323-8KN23	8GK1333-8KN23	8GK1323-8KP23	–	–	–
8GK1323-8KN33	8GK1333-8KN33	8GK1323-8KP33	–	–	–
8GK1323-8KN43	8GK1333-8KN43	8GK1323-8KP43	–	–	–
8GK1323-8KN53	8GK1333-8KN53	8GK1323-8KP53	–	–	–
8GK1323-8KN14	8GK1333-8KN14	8GK1323-8KP14	–	–	–
8GK1323-8KN24	8GK1333-8KN24	8GK1323-8KP24	–	–	–
8GK1323-8KN34	8GK1333-8KN34	8GK1323-8KP34	–	–	–
8GK1323-8KN44	8GK1333-8KN44	8GK1323-8KP44	–	–	–
8GK1323-8KN54	8GK1333-8KN54	8GK1323-8KP54	–	–	–

# ALPHA 630 marshaling boxes

Rated current 630 A



Height Outside	Depth Outside	Width		Safety class I		
		Outside	Inside			
350 mm	210 mm <sup>1)</sup>	300 mm	250 mm	8GK1382-0KK12	–	
		550 mm	500 mm	8GK1382-0KK22	–	
		800 mm	750 mm	8GK1382-0KK32	–	
		1050 mm	1000 mm	8GK1382-0KK42	–	
		1300 mm	1250 mm	8GK1382-0KK52	–	
	250 mm	300 mm	250 mm	–	8GK1383-0KK13	
		550 mm	500 mm	–	8GK1383-0KK23	
		800 mm	750 mm	–	8GK1383-0KK33	
		1050 mm	1000 mm	–	8GK1383-0KK43	
		1300 mm	1250 mm	–	8GK1383-0KK53	
	320 mm	300 mm	250 mm	–	8GK1383-0KK14	
		550 mm	500 mm	–	8GK1383-0KK24	
		800 mm	750 mm	–	8GK1383-0KK34	
		1050 mm	1000 mm	–	8GK1383-0KK44	
		1300 mm	1250 mm	–	8GK1383-0KK54	
400 mm	250 mm	300 mm	250 mm	–	8GK1383-1KK13	
		550 mm	500 mm	–	8GK1383-1KK23	
		800 mm	750 mm	–	8GK1383-1KK33	
		1050 mm	1000 mm	–	8GK1383-1KK43	
		1300 mm	1250 mm	–	8GK1383-1KK53	
	320 mm	300 mm	250 mm	–	8GK1383-1KK14	
		550 mm	500 mm	–	8GK1383-1KK24	
		800 mm	750 mm	–	8GK1383-1KK34	
		1050 mm	1000 mm	–	8GK1383-1KK44	
		1300 mm	1250 mm	–	8GK1383-1KK54	
	600 mm	250 mm	300 mm	250 mm	–	8GK1383-2KK13
			550 mm	500 mm	–	8GK1383-2KK23
			800 mm	750 mm	–	8GK1383-2KK33
			1050 mm	1000 mm	–	8GK1383-2KK43
			1300 mm	1250 mm	–	8GK1383-2KK53
320 mm		300 mm	250 mm	–	8GK1383-2KK14	
		550 mm	500 mm	–	8GK1383-2KK24	
		800 mm	750 mm	–	8GK1383-2KK34	
		1050 mm	1000 mm	–	8GK1383-2KK44	
		1300 mm	1250 mm	–	8GK1383-2KK54	

<sup>1)</sup> For flat pack distribution boards only



# ALPHA 400 distribution boards

Rated current 400 A

## Surface-mounting distribution boards

### Flat pack

Degree of protection IP43



Height		Depth Outside	Tiers (MW = 18 mm) mountable	Width		Safety class I	Safety class II
Outside	Inside			Outside	Inside		
500 mm	450 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	–	–
				550 mm	500 mm	–	–
650 mm	600 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-2KK12	8GK1112-2KK12
				550 mm	500 mm	8GK1102-2KK22	8GK1112-2KK22
				800 mm	750 mm	8GK1102-2KK32	8GK1112-2KK32
				1050 mm	1000 mm	8GK1102-2KK42	8GK1112-2KK42
800 mm	750 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-3KK12	8GK1112-3KK12
				550 mm	500 mm	8GK1102-3KK22	8GK1112-3KK22
				800 mm	750 mm	8GK1102-3KK32	8GK1112-3KK32
				1050 mm	1000 mm	8GK1102-3KK42	8GK1112-3KK42
950 mm	900 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-4KK12	8GK1112-4KK12
				550 mm	500 mm	8GK1102-4KK22	8GK1112-4KK22
				800 mm	750 mm	8GK1102-4KK32	8GK1112-4KK32
				1050 mm	1000 mm	8GK1102-4KK42	8GK1112-4KK42
				1300 mm	1250 mm	8GK1102-4KK52	8GK1112-4KK52
1100 mm	1050 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-5KK12	8GK1112-5KK12
				550 mm	500 mm	8GK1102-5KK22	8GK1112-5KK22
				800 mm	750 mm	8GK1102-5KK32	8GK1112-5KK32
				1050 mm	1000 mm	8GK1102-5KK42	8GK1112-5KK42
				1300 mm	1250 mm	8GK1102-5KK52	8GK1112-5KK52
1250 mm	1200 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-6KK12	8GK1112-6KK12
				550 mm	500 mm	8GK1102-6KK22	8GK1112-6KK22
				800 mm	750 mm	8GK1102-6KK32	8GK1112-6KK32
				1050 mm	1000 mm	8GK1102-6KK42	8GK1112-6KK42
				1300 mm	1250 mm	8GK1102-6KK52	8GK1112-6KK52
1400 mm	1350 mm	210 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1102-7KK12	8GK1112-7KK12
				550 mm	500 mm	8GK1102-7KK22	8GK1112-7KK22
				800 mm	750 mm	8GK1102-7KK32	8GK1112-7KK32
				1050 mm	1000 mm	8GK1102-7KK42	8GK1112-7KK42
				1300 mm	1250 mm	8GK1102-7KK52	8GK1112-7KK52

Unequipped distribution boards		Flush-mounting distribution boards Unequipped distribution boards		
IP43		IP55		IP31
Safety class I	Safety class II	Safety class I	Safety class II	Safety class I
8GK1122-1KA12	–	–	–	–
8GK1122-1KA22	–	–	–	–
8GK1122-2KA12	8GK1132-2KA12	–	–	–
8GK1122-2KA22	8GK1132-2KA22	–	–	–
8GK1122-2KA32	8GK1132-2KA32	–	–	–
8GK1122-2KA42	8GK1132-2KA42	–	–	–
8GK1122-3KA12	8GK1132-3KA12	–	–	–
8GK1122-3KA22	8GK1132-3KA22	–	–	8GK1121-3KK22
8GK1122-3KA32	8GK1132-3KA32	–	–	8GK1121-3KK32
8GK1122-3KA42	8GK1132-3KA42	–	–	–
8GK1122-4KA12	8GK1132-4KA12	8GK1123-4KA12	8GK1133-4KA12	–
8GK1122-4KA22	8GK1132-4KA22	8GK1123-4KA22	8GK1133-4KA22	8GK1121-4KK22
8GK1122-4KA32	8GK1132-4KA32	8GK1123-4KA32	8GK1133-4KA32	8GK1121-4KK32
8GK1122-4KA42	8GK1132-4KA42	8GK1123-4KA42	8GK1133-4KA42	–
8GK1122-4KA52	8GK1132-4KA52	8GK1123-4KA52	8GK1133-4KA52	–
8GK1122-5KA12	8GK1132-5KA12	8GK1123-5KA12	8GK1133-5KA12	–
8GK1122-5KA22	8GK1132-5KA22	8GK1123-5KA22	8GK1133-5KA22	–
8GK1122-5KA32	8GK1132-5KA32	8GK1123-5KA32	8GK1133-5KA32	–
8GK1122-5KA42	8GK1132-5KA42	8GK1123-5KA42	8GK1133-5KA42	–
8GK1122-5KA52	8GK1132-5KA52	8GK1123-5KA52	8GK1133-5KA52	–
8GK1122-6KA12	8GK1132-6KA12	8GK1123-6KA12	8GK1133-6KA12	–
8GK1122-6KA22	8GK1132-6KA22	8GK1123-6KA22	8GK1133-6KA22	8GK1121-6KK22
8GK1122-6KA32	8GK1132-6KA32	8GK1123-6KA32	8GK1133-6KA32	8GK1121-6KK32
8GK1122-6KA42	8GK1132-6KA42	8GK1123-6KA42	8GK1133-6KA42	–
8GK1122-6KA52	8GK1132-6KA52	8GK1123-6KA52	8GK1133-6KA52	–
8GK1122-7KA12	8GK1132-7KA12	8GK1123-7KA12	8GK1133-7KA12	–
8GK1122-7KA22	8GK1132-7KA22	8GK1123-7KA22	8GK1133-7KA22	8GK1121-7KK22
8GK1122-7KA32	8GK1132-7KA32	8GK1123-7KA32	8GK1133-7KA32	8GK1121-7KK32
8GK1122-7KA42	8GK1132-7KA42	8GK1123-7KA42	8GK1133-7KA42	–
8GK1122-7KA52	8GK1132-7KA52	8GK1123-7KA52	8GK1133-7KA52	–



# ALPHA 400 distribution boards

Rated current 400 A

## Accessories

### Spare part doors



Height	Cubicle width	Door version	Door width	Article No.
950 mm	300 mm	Complete	300 mm	8GK9510-6KK10
		Complete	550 mm	8GK9510-6KK20
	550 mm	Left	525 mm	8GK9510-6KK31
		Right	275 mm	8GK9510-6KK42
	800 mm	Left	525 mm	8GK9510-6KK31
		Right	525 mm	8GK9510-6KK52
	1050 mm	Left	775 mm	8GK9510-6KK51
		Right	525 mm	8GK9510-6KK52
1100 mm	300 mm	Complete	300 mm	8GK9510-7KK10
		Complete	550 mm	8GK9510-7KK20
	550 mm	Left	525 mm	8GK9510-7KK31
		Right	275 mm	8GK9510-7KK32
	800 mm	Left	525 mm	8GK9510-7KK31
		Right	525 mm	8GK9510-7KK42
	1050 mm	Left	775 mm	8GK9510-7KK41
		Right	525 mm	8GK9510-7KK42
1250 mm	300 mm	Complete	300 mm	8GK9510-8KK10
		Complete	550 mm	8GK9510-8KK20
	550 mm	Left	525 mm	8GK9510-8KK31
		Right	275 mm	8GK9510-8KK32
	800 mm	Left	525 mm	8GK9510-8KK31
		Right	525 mm	8GK9510-8KK52
	1050 mm	Left	775 mm	8GK9510-8KK41
		Right	525 mm	8GK9510-8KK52
1300 mm	300 mm	Complete	300 mm	8GK9510-8KK16
		Complete	550 mm	8GK9510-8KK26
	550 mm	Left	525 mm	8GK9510-8KK37
		Right	275 mm	8GK9510-8KK38
	800 mm	Left	525 mm	8GK9510-8KK37
		Right	525 mm	8GK9510-8KK58
	1050 mm	Left	775 mm	8GK9510-8KK47
		Right	525 mm	8GK9510-8KK58
1400 mm	300 mm	Complete	300 mm	8GK9510-8KK16
		Complete	550 mm	8GK9510-8KK26
	550 mm	Left	525 mm	8GK9510-8KK37
		Right	275 mm	8GK9510-8KK38
	800 mm	Left	525 mm	8GK9510-8KK37
		Right	525 mm	8GK9510-8KK58
	1050 mm	Left	775 mm	8GK9510-8KK47
		Right	525 mm	8GK9510-8KK58
1300 mm	Left	775 mm	8GK9510-8KK47	
	Right	525 mm	8GK9510-8KK58	



# ALPHA 160 distribution boards

Rated current 160 A

Surface-mounting distribution boards  
Unequipped distribution boards

Degree of protection IP44







Height Outside	Inside	Depth Outside	Tiers (MW = 18 mm)	Width		Safety class II
				Outside	Inside	
500 mm	450 mm	140 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1032-1KK11
				550 mm	500 mm	8GK1032-1KK21
				800 mm	750 mm	8GK1032-1KK31
650 mm	600 mm	140 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1032-2KK11
				550 mm	500 mm	8GK1032-2KK21
				800 mm	750 mm	8GK1032-2KK31
				1050 mm	1000 mm	8GK1032-2KK41
800 mm	750 mm	140 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1032-3KK11
				550 mm	500 mm	8GK1032-3KK21
				800 mm	750 mm	8GK1032-3KK31
				1050 mm	1000 mm	8GK1032-3KK41
950 mm	900 mm	140 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1032-4KK11
				550 mm	500 mm	8GK1032-4KK21
				800 mm	750 mm	8GK1032-4KK31
				1050 mm	1000 mm	8GK1032-4KK41
1100 mm	1050 mm	140 mm	12 + 1 MW mountable	300 mm	250 mm	8GK1032-5KK11
				550 mm	500 mm	8GK1032-5KK21
				800 mm	750 mm	8GK1032-5KK31
				1050 mm	1000 mm	8GK1032-5KK41





Flush-mounting distribution boards **new**  
Unequipped distribution boards

Degree of protection IP31







Height Outside	Inside	Depth Outside	Tiers (MW = 18 mm)	Width		Safety class II
				Outside	Inside	
558 mm	450 mm	140 mm	12 + 1 MW mountable	358 mm	250 mm	8GK1031-1KK10
				608 mm	500 mm	8GK1031-1KK20
708 mm	600 mm	140 mm	12 + 1 MW mountable	358 mm	250 mm	8GK1031-2KK10
				608 mm	500 mm	8GK1031-2KK20
				858 mm	750 mm	8GK1031-2KK30
858 mm	750 mm	140 mm	12 + 1 MW mountable	358 mm	250 mm	8GK1031-3KK10
				608 mm	500 mm	8GK1031-3KK20
				858 mm	750 mm	8GK1031-3KK30
				1108 mm	1000 mm	8GK1031-3KK40
1008 mm	900 mm	140 mm	12 + 1 TE montierbar	358 mm	250 mm	8GK1031-4KK10
				608 mm	500 mm	8GK1031-4KK20
				858 mm	750 mm	8GK1031-4KK30
				1108 mm	1000 mm	8GK1031-4KK40
1158 mm	1050 mm	140 mm	12 + 1 MW mountable	358 mm	250 mm	8GK1031-5KK10
				608 mm	500 mm	8GK1031-5KK20
				858 mm	750 mm	8GK1031-5KK30

Distribution boards with built-in distribution board panels			
Tier spacing 125 mm with N/PE plug-in terminal	Tier spacing 150 mm without N/PE plug-in terminal	Tier spacing 150 mm terminal blocks at top	Tier spacing 125 mm multimedia field
IP44 	IP44 	IP44 	IP44 
Safety class II	Safety class II <b>new</b>	Safety class II <b>new</b>	Safety class II <b>new</b>
8GK1052-1KK11	8GK1062-1KK11	–	–
8GK1052-1KK21	8GK1062-1KK21	–	–
8GK1052-1KK31	8GK1062-1KK31	–	–
8GK1052-2KK11	8GK1062-2KK11	–	–
8GK1052-2KK21	8GK1062-2KK21	–	8GK1072-2KK21
8GK1052-2KK31	8GK1062-2KK31	–	–
8GK1052-2KK41	8GK1062-2KK41	–	–
8GK1052-3KK11	8GK1062-3KK11	8GK1082-3KK11	–
8GK1052-3KK21	8GK1062-3KK21	8GK1082-3KK21	–
8GK1052-3KK31	8GK1062-3KK31	8GK1082-3KK31	8GK1072-3KK31
8GK1052-3KK41	8GK1062-3KK41	8GK1082-3KK41	–
8GK1052-4KK11	8GK1062-4KK11	8GK1082-4KK11	–
8GK1052-4KK21	8GK1062-4KK21	8GK1082-4KK21	–
8GK1052-4KK31	8GK1062-4KK31	8GK1082-4KK31	–
8GK1052-4KK41	8GK1062-4KK41	8GK1082-4KK41	–
8GK1052-5KK11	8GK1062-5KK11	8GK1082-5KK11	–
8GK1052-5KK21	8GK1062-5KK21	8GK1082-5KK21	–
8GK1052-5KK31	8GK1062-5KK31	8GK1082-5KK31	–
8GK1052-5KK41	8GK1062-5KK41	8GK1082-5KK41	–




Distribution boards with built-in distribution board panels <b>new</b>			
Tier spacing 125 mm with N/PE plug-in terminal	Tier spacing 150 mm without N/PE plug-in terminal	Tier spacing 150 mm terminal blocks at top	Tier spacing 125 mm multimedia field
IP31 	IP31 	IP31 	IP31 
Safety class II	Safety class II	Safety class II	Safety class II
8GK1051-1KK10	8GK1061-1KK10	–	–
8GK1051-1KK20	8GK1061-1KK20	–	–
8GK1051-2KK10	8GK1061-2KK10	–	–
8GK1051-2KK20	8GK1061-2KK20	–	–
8GK1051-2KK30	8GK1061-2KK30	–	–
8GK1051-3KK10	8GK1061-3KK10	8GK1081-3KK10	–
8GK1051-3KK20	8GK1061-3KK20	8GK1081-3KK20	8GK1072-3KK20
8GK1051-3KK30	8GK1061-3KK30	8GK1081-3KK30	8GK1072-3KK30
8GK1051-3KK40	8GK1061-3KK40	8GK1081-3KK40	–
8GK1051-4KK10	8GK1061-4KK10	8GK1081-4KK10	–
8GK1051-4KK20	8GK1061-4KK20	8GK1081-4KK20	–
8GK1051-4KK30	8GK1061-4KK30	8GK1081-4KK30	8GK1072-4KK30
8GK1051-4KK40	8GK1061-4KK40	8GK1081-4KK40	–
8GK1051-5KK10	8GK1061-5KK10	8GK1081-5KK10	–
8GK1051-5KK20	8GK1061-5KK20	8GK1081-5KK20	–
8GK1051-5KK30	8GK1061-5KK30	8GK1081-5KK30	–

# Assembly kits

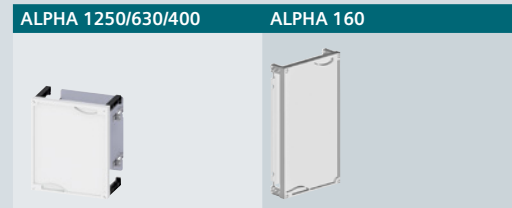
For modular installation devices

				ALPHA 1250/630/400		ALPHA 160	
				Tier spacing		Tier spacing	
				125 mm	150 mm	125 mm	150 mm
							
No. of tiers	MW	Height outside	Width outside				
1	12	150 mm	250 mm	–	8GK4351-1KK12	–	8GK4351-1KK11
	24	150 mm	500 mm	–	8GK4351-1KK22	–	8GK4351-1KK21
	36	150 mm	750 mm	–	8GK4351-1KK32	–	–
2	24	300 mm	250 mm	8GK4301-2KK12	8GK4351-2KK12	8GK4301-2KK11	8GK4351-2KK11
	48	300 mm	500 mm	8GK4301-2KK22	8GK4351-2KK22	8GK4301-2KK21	8GK4351-2KK21
	72	300 mm	750 mm	–	8GK4351-2KK32	–	–
3	36	450 mm	250 mm	8GK4301-3KK12	8GK4351-3KK12	8GK4301-3KK11	8GK4351-3KK11
	72	450 mm	500 mm	8GK4301-3KK22	8GK4351-3KK22	8GK4301-3KK21	8GK4351-3KK21
	108	450 mm	750 mm	–	8GK4351-3KK32	–	–
4	48	600 mm	250 mm	8GK4301-4KK12	8GK4351-4KK12	8GK4301-4KK11	8GK4351-4KK11
	96	600 mm	500 mm	8GK4301-4KK22	8GK4351-4KK22	8GK4301-4KK21	8GK4351-4KK21
	144	600 mm	750 mm	–	8GK4351-4KK32	–	–

For terminal blocks

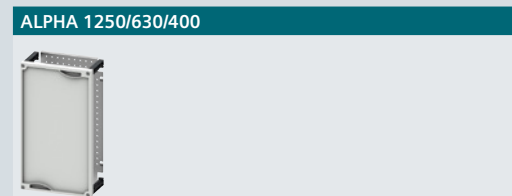
		ALPHA 1250/630/400		ALPHA 160
				
Height outside	Width outside	Horizontal	Vertical	Horizontal
150 mm	250 mm	8GK4401-1KK12	–	8GK4401-1KK11
	500 mm	–	–	8GK4401-1KK21
300 mm	250 mm	8GK4401-2KK12	8GK4402-2KK12	8GK4401-2KK11
	500 mm	8GK4401-2KK22	8GK4402-2KK22	8GK4401-2KK21
	750 mm	8GK4401-2KK32	8GK4402-2KK32	–
450 mm	250 mm	8GK4401-3KK12	8GK4402-3KK12	–
	500 mm	8GK4401-3KK22	8GK4402-3KK22	–
	750 mm	8GK4401-3KK32	8GK4402-3KK32	–
600 mm	250 mm	–	8GK4402-4KK12	–
	500 mm	–	8GK4402-4KK22	–
	750 mm	–	8GK4402-4KK32	–

## With mounting plates



Mounting plates			Distribution board			
Height	Width	Front cover	Height outside	Width outside		
245 mm	207.5 mm	Closed	300 mm	250 mm	8GK4451-2KK12	8GK4451-2KK11
	457.5 mm	Closed	300 mm	500 mm	8GK4451-2KK22	–
	707.5 mm	Closed	300 mm	750 mm	8GK4451-2KK32	–
395 mm	207.5 mm	Closed	450 mm	250 mm	8GK4451-3KK12	8GK4451-3KK11
	457.5 mm	Closed	450 mm	500 mm	8GK4451-3KK22	–
	707.5 mm	Closed	450 mm	750 mm	8GK4451-3KK32	–
545 mm	207.5 mm	Closed	600 mm	250 mm	8GK4451-4KK12	8GK4451-4KK11
	457.5 mm	Closed	600 mm	500 mm	8GK4451-4KK22	–
	707.5 mm	Closed	600 mm	750 mm	8GK4451-4KK32	–

## With mounting plates, perforated **new**



Mounting plates			Distribution board			
Height	Width	Front cover	Height outside	Width outside		
149 mm	245 mm	Closed	150 mm	250 mm	8GK4452-1KK12	
299 mm	245 mm	Closed	300 mm	250 mm	8GK4452-2KK12	
449 mm	243 mm	Closed	450 mm	250 mm	8GK4452-3KK12	
899 mm	243 mm	Closed	900 mm	250 mm	8GK4452-6KK12	

## For unequipped panels



Height outside	Width outside	ALPHA 1250/630/400			ALPHA 160
		Standard	With inspection window	With deep-drawn cover 40 mm	Standard
75 mm	250 mm	8GK4501-0KK12	–	–	–
	500 mm	8GK4501-0KK22	–	–	–
150 mm	250 mm	8GK4501-1KK12	–	–	8GK4501-1KK11
	500 mm	8GK4501-1KK22	–	–	8GK4501-1KK21
	750 mm	8GK4501-1KK32	–	–	–
300 mm	250 mm	8GK4501-2KK12	8GK4500-2KK12	8GK4501-2KK13	8GK4501-2KK11
	500 mm	8GK4501-2KK22	8GK4500-2KK22	8GK4501-2KK23	8GK4501-2KK21
	750 mm	8GK4501-2KK32	–	8GK4501-2KK33	–
450 mm	250 mm	8GK4501-3KK12	8GK4500-3KK12	8GK4501-3KK13	8GK4501-3KK11
	500 mm	8GK4501-3KK22	8GK4500-3KK22	8GK4501-3KK23	8GK4501-3KK21
	750 mm	8GK4501-3KK32	–	8GK4501-3KK33	–
600 mm	250 mm	8GK4501-4KK12	8GK4500-4KK12	–	8GK4501-4KK11
	500 mm	8GK4501-4KK22	8GK4500-4KK22	–	8GK4501-4KK21
	750 mm	8GK4501-4KK32	–	–	–
750 mm	250 mm	8GK4501-5KK12	–	–	–
	500 mm	8GK4501-5KK22	–	–	–
	750 mm	8GK4501-5KK32	–	–	–

# Assembly kits

## For 3NP1 fuse switch disconnectors

### ALPHA 1250/630/400



LV HRC fuse Size	Switches/breakers No. of	Distribution board		Mounting	
		Height outside	Width outside	on support plate	on busbars <sup>1)</sup>
00/000	2	300 mm	250 mm	8GK4550-2KK12	8GK4650-2KK12
		450 mm	250 mm	–	8GK4650-3KK12
	4	300 mm	500 mm	8GK4550-2KK22	8GK4650-2KK22
		450 mm	500 mm	–	8GK4650-3KK22
1	1	450 mm	250 mm	8GK4550-3KK12	8GK4651-3KK12
	2	450 mm	500 mm	8GK4550-3KK22	8GK4651-3KK22
2	1	450 mm	250 mm	8GK4551-3KK12	8GK4652-3KK12
3	1	450 mm	500 mm	8GK4551-3KK22	–

<sup>1)</sup> For busbar support 8GK9711-0KK03

## Accessories

### Cover 3NP1123 ... size 000



- Required for size 000 fuse switch disconnectors

#### Article No.

8GK9912-0KK00

### Busbar supports




Busbar center-to-center spacing	Number of poles	Article No.
60 mm	1-pole	8GK9710-0KK00
	2-pole	8GK9710-0KK01
	3-pole	8GK9711-0KK03
	4-pole	8GK9670-0KK00
40 mm	5-pole	8GK9650-0KK00

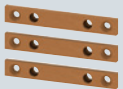
## For 3NJ4 fuse switch disconnectors in in-line design



Switches/breakers Size	Number of 3NJ4 disconnectors		Distribution board		Distribution board depth min. 320 mm	
	With screw fixing	With fixing claws	Height outside	Width outside		
<b>Assembly kits for 3NJ4 fuse switch disconnectors</b>						
NH00	4	3	600 mm	250 mm	8GK4751-4KK13	–
	9	8	600 mm	500 mm	8GK4751-4KK23	–
	14	13	600 mm	750 mm	8GK4751-4KK33	–
NH1 ... NH3	2	–	750 mm	250 mm	–	8GK4752-5KK15
	4	3	750 mm	500 mm	–	8GK4752-5KK25
	7	6	750 mm	750 mm	–	8GK4752-5KK35

### Accessories

Blanking covers						
	Switching device size	Busbar center-to-center spacing	Height	Width	Article No.	
	NH00	100 mm	299 mm	50 mm	3NJ4912-2CA00	
	NH1 ... NH3	185 mm	699 mm	50 mm	3NJ4912-2AA00	
				100 mm	3NJ4912-2BA00	

Ready-to-install copper bars			
	Switching device size	Distribution board width outside	Article No.
	NH00	250 mm	8GK9735-1KK10
		500 mm	8GK9735-1KK20
		750 mm	8GK9735-1KK30
	NH1 ... NH3	250 mm	8GK9735-2KK10
		500 mm	8GK9735-2KK20
750 mm		8GK9735-2KK30	



# Assembly kits

For SR60 busbar-adaptable units

Busbar center-to-center spacing **ALPHA 1250/630/400**  
60 mm



Height outside	Width outside	
300 mm	250 mm	8GK4801-2KK13
	500 mm	8GK4801-2KK23
	750 mm	8GK4801-2KK33
450 mm	250 mm	8GK4801-3KK13
	500 mm	8GK4801-3KK23
	750 mm	8GK4801-3KK33

## Accessories

### Supports for blanking covers



#### Article No.

8US1922-2EA00

### Blanking covers



#### Article No.

8US1922-2EB00

### Blanking covers



#### Width

195 mm


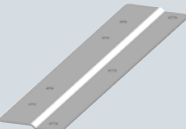
#### Article No.

8GK9910-0KK08 **new**

## For bus-mounting fuse bases, for mounting on busbar systems


Number of poles		Height outside		Width outside		ALPHA 1250/630/400	
						SR60, 60 mm	8US, 60 mm
3P	4P						
■	–	300 mm	250 mm	8GK4801-2KK12	–		
		450 mm	250 mm	8GK4801-3KK12	–		
	■	300 mm	250 mm	–	8GK4800-2KK12		
			500 mm	–	8GK4800-2KK22		
			750 mm	–	8GK4800-2KK32		

### Accessories

Blanking covers		
	Width	Article No.
	195 mm	8GK9910-0KK08 <b>new</b>
Holding plates		
	<ul style="list-style-type: none"> <li>For 4-pole busbar supports for mounting in section with height of 300 mm</li> </ul>	Article No.
		8GK9711-0KK07 <b>new</b>


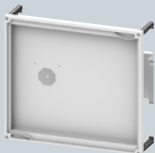
# Assembly kits

## For 3KF switch disconnectors with fuses

Operating mechanism	ALPHA 1250/630/400	
	Front operating mechanism, center	Door-coupling rotary operating mechanism (mounted in the front cover)
		

Switches/breakers				Distribution board			8GK4722-2KK10	–
Size	Rated current	3P	4P	Height outside	Width outside	Depth outside		
3KF1	80 A	■	■	300 mm	250 mm	≥210 mm	8GK4722-2KK10	–
3KF2	160 A	■	■	300 mm	500 mm	≥210 mm	8GK4723-2KK10	–
3KF3 ... 3KF4	400 A	■	■	300 mm	500 mm	≥320 mm	–	8GK4722-2KK20

## For 3KD switch disconnectors

Operating mechanism	ALPHA 1250/630/400	
	Direct operating mechanism	Door-coupling rotary operating mechanism (mounted in the front cover)
		

Switches/breakers					Distribution board			8GK4720-2KK10	–
Size	Rated current	No. of	3P	4P	Height outside	Width outside	Depth outside		
1	16 ... 63 A	2	■	–	300 mm	250 mm	210 mm	8GK4720-2KK10	–
2	80 ... 200 A	1	■	■	300 mm	250 mm	210 mm	8GK4720-2KK10	–
3	200 ... 400 A	1	■	■	300 mm	250 mm	210 mm	8GK4721-2KK10	–
3 ... 4	200 ... 800 A	1	■	■	450 mm	500 mm	≥250 mm	–	8GK4720-3KK20

## For 3KA switch disconnectors on support plate



Switches/breakers					Distribution board			
Size	Rated current	No. of	3P	4P	Height outside	Width outside		
3KA 50/51/52/53	63 A/80 A/ 125 A/160 A	1	■	–	300 mm	250 mm	8GK4707-3KK17	–
3KA 55/57/58	250 A/400 A/ 630 A	1	■	■	300 mm	500 mm	–	8GK4707-4KK27

# Assembly kits

For 3VL molded case circuit breakers

ALPHA 1250/630/400



Switches/breakers							Distribution board		Standard
Size	Type	Rated current	No. of	3P	4P	Height outside	Width outside		
3VL1	3VL160X	16 ... 160 A	1	■	■	300 mm	250 mm	8GK4701-2KK12	
				■	■	450 mm	250 mm	8GK4701-3KK12	
3VL2	3VL160	50 ... 160 A	1	■	■	300 mm	250 mm	8GK4701-2KK12	
				■	■	450 mm	250 mm	8GK4701-3KK12	
3VL3	3VL250	200 ... 250 A	1	■	■	450 mm	250 mm	8GK4701-3KK12	
3VL4	3VL400	200 ... 400 A	1	■	■	600 mm	250 mm	8GK4702-4KK12	
				■	■	750 mm	250 mm	–	
3VL5	3VL630	315 ... 630 A	1	■	–	600 mm	250 mm	8GK4703-4KK13	
				■	■	600 mm	500 mm	8GK4704-4KK13	
				■	–	600 mm	500 mm	–	
				–	■	600 mm	500 mm	–	
3VL6	3VL800	800 A	1	■	–	600 mm	250 mm	8GK4704-4KK15	
				■	■	600 mm	500 mm	8GK4704-4KK25	
3VL7	3VL1250	1000 ... 1250 A	1	■	■	600 mm	500 mm	8GK4705-4KK25	
3VL8	3VL1600	1600 A	1	■	■	600 mm	500 mm	8GK4705-4KK25	



With RCD module mounted

For installation with front-operated rotary operating mechanism

–	–
8GK4720-3KK10	8GK4722-3KK10
–	–
8GK4721-3KK10	8GK4722-3KK10
8GK4721-3KK10	8GK4722-3KK10
–	8GK4722-4KK10
8GK4720-5KK10	–
–	–
–	–
–	8GK4723-4KK10
–	8GK4721-4KK20
–	–
–	–
–	–
–	–

# Assembly kits

For 3VA molded case circuit breakers, 3-pole and 4-pole

ALPHA 1250/630/400





Switches/breakers						Distribution board		
Size	Rated current	No. of	Direct operating mechanism	Rotary operating mechanism	Motorized operating mechanism	Height outside	Width outside	
3VA10..., 3VA11..	100 ... 160 A	1	■	–	■	300 mm <sup>1)</sup>	250 mm	8GK4731-2KK12 <sup>4)</sup>
			–	■	–	450 mm	250 mm	8GK4730-2KK12 <sup>4)</sup>
			–	–	■	300 mm <sup>1)</sup>	250 mm	8GK4733-2KK12
			–	–	■	300 mm <sup>1)</sup>	250 mm	–
		3	■	–	–	300 mm <sup>1)</sup>	500 mm	8GK4731-2KK22
			–	■	–	450 mm	500 mm	8GK4730-2KK22
			–	–	■	300 mm <sup>1)</sup>	500 mm	8GK4733-2KK22
			–	–	■	300 mm <sup>1)</sup>	500 mm	–
3VA12	250 A	1	■	–	–	300 mm	250 mm	8GK4732-2KK12
			–	■	–	450 mm	250 mm	8GK4733-3KK10
			–	–	■	300 mm	250 mm	8GK4735-2KK12
			–	–	■	300 mm	250 mm	–
			–	–	■	450 mm	250 mm	–
			–	–	■	600 mm	250 mm	–
		3	■	–	–	300 mm	500 mm	8GK4732-2KK22
			–	■	–	450 mm	500 mm	8GK4731-3KK20
			–	–	■	300 mm	500 mm	8GK4735-2KK22
			–	–	■	300 mm	500 mm	–
			–	–	■	300 mm	500 mm	–
			–	–	■	300 mm	500 mm	–
3VA20..., 3VA22..	100 ... 250 A	1	■	–	–	300 mm	250 mm	8GK4730-3KK10
			–	■	–	300 mm	250 mm	8GK4736-2KK12
			–	–	■	600 mm	250 mm	–
		3	■	–	–	300 mm	500 mm	8GK4730-3KK20
			–	■	–	300 mm	500 mm	8GK4736-2KK22
			–	–	■	600 mm	500 mm	–
3VA23..., 3VA24..	400 ... 630 A	1	■	–	–	450 mm	250 mm	8GK4730-4KK12
			–	■	–	500 mm	8GK4730-4KK22	
			–	–	■	450 mm	500 mm	8GK4733-4KK22
			–	–	■	450 mm	250 mm	–
			–	–	■	500 mm	–	
			–	–	■	600 mm	250 mm	–
–	–	■	500 mm	–				
–	–	■	600 mm	250 mm	–			
–	–	■	500 mm	–				

<sup>1)</sup> For insulated connection only

<sup>2)</sup> Distribution board depth at least 250 mm

<sup>3)</sup> Distribution board depth at least 320 mm


<sup>4)</sup> With side mounted motorized operating mechanism

				
	With RCD module Infeed side	At side	With RCD module Infeed side	At side
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
8GK4734-2KK12 <sup>2)</sup>	-	-	-	-
-	8GK4731-3KK12 <sup>4)</sup>	8GK4731-3KK10	8GK4734-3KK12 <sup>2)</sup>	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
8GK4734-2KK22 <sup>2)</sup>	-	-	-	-
-	8GK4731-3KK22	-	8GK4734-3KK22 <sup>2)</sup>	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
8GK4735-3KK10 <sup>2)</sup>	-	-	-	-
-	-	-	-	8GK4733-4KK10 <sup>2)</sup>
-	8GK4732-4KK10	-	8GK4736-4KK12	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
8GK4732-3KK20 <sup>2)</sup>	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	8GK4735-4KK12	-	-	-
-	-	-	-	-
-	-	-	-	-
-	8GK4735-4KK22	-	8GK4736-4KK22 <sup>3)</sup>	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
8GK4734-4KK12 <sup>3)</sup>	-	-	-	-
8GK4734-4KK22 <sup>3)</sup>	-	-	-	-
-	8GK4731-4KK12	-	-	-
-	8GK4731-4KK22	-	-	-


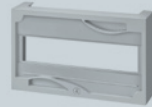


# Assembly kits

For meter mounting without top and bottom termination area

		ALPHA 630
		
Height outside	Width outside	
450 mm	250 mm	8GE3713-4

For meter mounting with top and bottom termination area

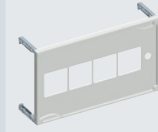
		ALPHA ZS	
		Meter support plate	Covers
			
Height	Width		Top/bottom termination area
150 mm	250 mm	–	8GS4006-0
300 mm	250 mm	–	8GS4006-5
450 mm	250 mm	8GS4007-4	–

## Accessories

Supports for front cover		Article No.
		8GS4018-8
Standard mounting rails		Article No.
		8GS4010-6

## Front covers for measuring devices

ALPHA 1250/630/400



Use	Height outside	Width outside	Cutout dimensions	
1 × measuring device 96 × 96 mm	300 mm	500 mm	92 × 92 mm	8GK4500-2KK20

## For cable connections to the door

ALPHA 1250/630/400



Height	Width	Diameter	
150 mm	250 mm	M20	8GK4500-1KK12
	500 mm	M20	8GK4500-1KK22

# Quick-assembly kits

For modular installation devices and terminal blocks

Tier spacing ALPHA 1250/630/400  
125 mm




Height outside	Width outside	No. of tiers	Terminals	MW	With N/PE bar	With 2 N/PE bars
<b>For modular installation devices</b>						
450 mm	250 mm	3	–	36	–	–
600 mm	250 mm	4	–	48	8GK4001-4KK11	–
	500 mm	8	–	96	8GK4001-4KK22	–
750 mm	250 mm	5	–	60	8GK4001-5KK11	–
	500 mm	10	–	120	8GK4001-5KK22	–
900 mm	250 mm	6	–	72	8GK4001-6KK11	8GK4003-6KK11
	500 mm	12	–	144	8GK4001-6KK22	–
1050 mm	250 mm	7	–	84	8GK4001-7KK11	8GK4003-7KK11
	500 mm	14	–	168	8GK4001-7KK22	–
1200 mm	250 mm	8	–	96	8GK4001-8KK12	8GK4003-8KK12
	500 mm	16	–	192	8GK4001-8KK22	–
1350 mm	250 mm	9	–	108	8GK4002-8KK12	8GK4003-8KK13
	500 mm	18	–	216	8GK4002-8KK22	–
<b>For modular installation devices and terminal blocks</b>						
900 mm	250 mm	2	4	48	–	–
	500 mm	4	8	96	–	–
	750 mm	6	12	144	–	–
1050 mm	250 mm	2	5	60	–	–
	500 mm	4	10	120	–	–
	750 mm	6	15	180	–	–
1200 mm	250 mm	2	6	72	–	–
	500 mm	4	12	144	–	–
	750 mm	6	18	216	–	–
1350 mm	250 mm	3	6	72	–	–
	500 mm	6	12	144	–	–
	750 mm	9	18	216	–	–

ALPHA 160		
150 mm	125 mm	150 mm
Without N/PE bar	With N/PE bar	Without N/PE bar
–	8GK4001-3KK11	8GK4051-3KK11
–	8GK4001-4KK11	8GK4051-4KK11
–	–	–
–	8GK4001-5KK11	8GK4051-5KK11
–	–	–
8GK4051-6KK11	8GK4001-6KK11	8GK4051-6KK11
8GK4101-6KK22	–	–
8GK4051-7KK11	8GK4001-7KK11	8GK4051-7KK11
8GK4101-7KK22	–	–
8GK4101-8KK12	–	–
8GK4101-8KK22	–	–
8GK4102-8KK12	–	–
8GK4102-8KK22	–	–
8GK4100-6KK12	–	–
8GK4100-6KK22	–	–
8GK4100-6KK32	–	–
8GK4100-7KK12	–	–
8GK4100-7KK22	–	–
8GK4100-7KK32	–	–
8GK4100-8KK12	–	–
8GK4100-8KK22	–	–
8GK4100-8KK32	–	–
8GK4110-8KK12	–	–
8GK4110-8KK22	–	–
8GK4110-8KK32	–	–

# Busbars



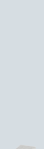


For ALPHA 1250/630/400 distribution boards

## Cu busbars



Cross-section	Current	Length	Article No.
12 × 5 mm	250 A	250 mm	8GK9731-0KK10
		500 mm	8GK9731-0KK20
		750 mm	8GK9731-0KK30
		1000 mm	8GK9731-0KK40
		1250 mm	8GK9731-0KK50
20 × 5 mm	320 A	250 mm	8GK9733-0KK10
		500 mm	8GK9733-0KK20
		750 mm	8GK9733-0KK30
		1000 mm	8GK9733-0KK40
		1250 mm	8GK9733-0KK50
30 × 5 mm	450 A	250 mm	8GK9735-0KK10
		500 mm	8GK9735-0KK20
		750 mm	8GK9735-0KK30
		1000 mm	8GK9735-0KK40
		1250 mm	8GK9735-0KK50
30 × 10 mm	630 A	250 mm	8GK9736-0KK10
		500 mm	8GK9736-0KK20
		750 mm	8GK9736-0KK30
		1000 mm	8GK9736-0KK40
		1250 mm	8GK9736-0KK50


## Busbar supports

Version	Use	Busbar center-to-center spacing	Article No.
1-pole	For Cu busbars 12 × 5 (10) mm, 20 × 5 (10) mm, 30 × 5 (10) mm	–	8GK9710-0KK00
2-pole	For Cu busbars 12 × 5 (10) mm, 20 × 5 (10) mm, 30 × 5 (10) mm	60 mm	8GK9710-0KK01
3-pole	For Cu busbars 12 × 5 (10) mm, 20 × 5 (10) mm, 30 × 5 (10) mm, Bus-mounting fuse bases and 3NP4076 switch disconnectors in conjunction with assembly kits	60 mm	8GK9711-0KK03
4-pole	For Cu busbars 12 × 5 (10) mm, 30 × 5 (10) mm	60 mm	8GK9670-0KK00
5-pole	For Cu busbars 12 × 5 (10) mm 3NP fuse switch disconnectors	40 mm	8GK9650-0KK00


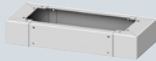
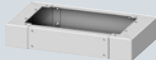

# Accessories

For ALPHA 1250/630/400/160 distribution boards

				1250	630	400	160
<b>Wall-mounting rails</b>							
	• For all wall-mounted distribution boards						
	<b>Length</b>			<b>Article No.</b>			
	250 mm					■	■
	500 mm					■	■
	750 mm					■	■
	1000 mm					■	■
	1250 mm					■	■
<b>Cabinet mounting lugs, flat</b>							
	<b>Use</b>			<b>Article No.</b>			
	For mounting and fixing a distribution board directly against the wall without a clearance (1 set = 4 units)			8GK9910-0KK36		■	■
	For connecting 2 distribution boards and for mounting and fixing a distribution board directly against the wall without a clearance (8GK9910-0KK36 additionally required for the ends) 1 set = 2 units			8GK9910-0KK37		■	■
<b>Wall mounting lug, standard</b>							
	• 1 set = 4 units						
					<b>Article No.</b>		
					8GK9920-0KK33	■	■
<b>Hollow wall set</b>							
	<b>Use</b>			<b>Article No.</b>			
	For mounting flush-mounting distribution boards in hollow walls			8GK9910-0KK28			■
<b>M12 transport eyebolts</b>							
					<b>Article No.</b>		
					8GK9918-0KK00	■	■
<b>Ventilation grilles for side panel</b>							
					<b>Article No.</b>		
					8GK9120-0KK30	■	■
<b>Bases for flat pack floor-mounted distribution boards</b>							
	<b>Height outside</b>	<b>Depth</b>	<b>Width</b>	<b>Article No.</b>			
	100 mm	210 mm	300 mm	8GK9901-0KK12		■	
			550 mm	8GK9901-0KK22		■	
			800 mm	8GK9901-0KK32		■	
			1050 mm	8GK9901-0KK42		■	
			1300 mm	8GK9901-0KK52		■	



# Accessories

For ALPHA 1250/630/400/160 distribution boards

					1250	630	400	160
<b>Bases for pre-assembled (welded) floor-mounted distribution boards</b>								
	Height outside	Depth	Width	Article No.				
	100 mm	210 mm	300 mm	8GK9901-0KA12	■	■		
			550 mm	8GK9901-0KA22	■	■		
			800 mm	8GK9901-0KA32	■	■		
			1050 mm	8GK9901-0KA42	■	■		
			1300 mm	8GK9901-0KA52	■	■		
	250 mm	300 mm	300 mm	8GK9900-0KK13	■	■		
			550 mm	8GK9900-0KK23	■	■		
			800 mm	8GK9900-0KK33	■	■		
			1050 mm	8GK9900-0KK43	■	■		
			1300 mm	8GK9900-0KK53	■	■		
	320 mm	300 mm	300 mm	8GK9900-0KK14	■	■		
			550 mm	8GK9900-0KK24	■	■		
			800 mm	8GK9900-0KK34	■	■		
			1050 mm	8GK9900-0KK44	■	■		
			1300 mm	8GK9900-0KK54	■	■		
	400 mm	300 mm	300 mm	8GK9902-0KK13	■	■		
			550 mm	8GK9902-0KK23	■	■		
			800 mm	8GK9902-0KK33	■	■		
			1050 mm	8GK9902-0KK43	■	■		
			1300 mm	8GK9902-0KK53	■	■		

## Partitions, vertical

- For the visual and spatial separation of different potentials

Cubicle depth	Height	Article No.				
	140 mm	450 mm	8GK9001-3KK01			■
		600 mm	8GK9001-4KK01			■
		750 mm	8GK9001-5KK01			■
		900 mm	8GK9001-6KK01			■
		1050 mm	8GK9001-7KK01			■
	210 mm	300 mm	8GK9301-2KK01		■	■
		450 mm	8GK9301-3KK01		■	■
		600 mm	8GK9101-4KK01		■	■
		750 mm	8GK9101-5KK01		■	■
		900 mm	8GK9101-6KK01		■	■
		1050 mm	8GK9101-7KK01		■	■
		1200 mm	8GK9101-8KK01		■	■
		1350 mm	8GK9102-8KK01		■	■
250/320 mm	1800 mm	8GK9520-8KK00		■		
400 mm	1800 mm	8GK9521-8KK00	■			

1250 630 400 160

**Partitions, horizontal**

- For the visual and spatial separation of different potentials



Cubicle depth	Width	Article No.	1250	630	400	160
140 mm	250 mm	8GK9002-0KK10				■
210 mm	250 mm	8GK9103-0KK10		■	■	
	500 mm	8GK9103-0KK20		■	■	
	750 mm	8GK9103-0KK30		■	■	
250/320 mm	250 mm	8GK9520-0KK10		■		
	500 mm	8GK9520-0KK20		■		
400 mm	250 mm	8GK9520-0KK30	■			

**Mounting plates**



Cubicle Height	Width	Mounting plates		Article No.	1250	630	400	160
		Height	Width					
600 mm	250 mm	596 mm	243 mm	8GK9531-4KK10			■	
	500 mm	596 mm	493 mm	8GK9531-4KK20			■	
750 mm	250 mm	685 mm	243 mm	8GK9531-5KK10			■	
	500 mm	685 mm	493 mm	8GK9531-5KK20			■	
900 mm	250 mm	835 mm	243 mm	8GK9531-6KK10			■	
	500 mm	835 mm	493 mm	8GK9531-6KK20			■	
1050 mm	250 mm	985 mm	243 mm	8GK9531-7KK10			■	
	500 mm	985 mm	493 mm	8GK9531-7KK20			■	
1200 mm	250 mm	1135 mm	243 mm	8GK9531-8KK10			■	
	500 mm	1135 mm	493 mm	8GK9531-8KK20			■	
1350 mm	250 mm	1285 mm	243 mm	8GK9532-8KK10			■	
	500 mm	1285 mm	493 mm	8GK9532-8KK20			■	
1800 mm	250 mm	1680 mm	242 mm	8GK9533-0KK10	■	■		
	500 mm	1680 mm	492 mm	8GK9533-0KK20	■	■		
	750 mm	1680 mm	742 mm	8GK9533-0KK30	■	■		
	1000 mm	1680 mm	992 mm	8GK9533-0KK40	■	■		
	1250 mm	1680 mm	1242 mm	8GK9533-0KK50	■	■		

**Mounting plates for telecommunication units**

- Made of perforated steel plate
- With insert nuts and quick-locking technology

Cubicle Height	Width	Mounting plates		Article No.	1250	630	400	160
		Height	Width					
900 mm	250 mm	835 mm	243 mm	8GS4016-1			■	
1050 mm	250 mm	985 mm	243 mm	8GS4016-2			■	
1200 mm	250 mm	1135 mm	243 mm	8GS4016-3			■	
1350 mm	250 mm	1285 mm	243 mm	8GS4016-4			■	

**Longitudinal stays**









- In order to mount the assembly kits in unequipped distribution boards, 2 longitudinal stays are required for each assembly kit width
- 1 set = 2 stays

Cubicle depth	Length	Article No.	1250	630	400	160
210 mm	300 mm	8GK4855-2KK02		■		
	450 mm	8GK4851-3KK00				■
	600 mm	8GK4851-4KK00			■	■
	750 mm	8GK4851-5KK00			■	■
	900 mm	8GK4851-6KK00			■	■
	1050 mm	8GK4851-7KK00			■	■
	1200 mm	8GK4851-8KK00			■	
	1350 mm	8GK4852-8KK00			■	
1800 mm	8GK4853-8KK00		■			
250 mm, 320 mm, 400 mm	1800 mm	8GK4853-8KK02	■	■		



# Accessories

For ALPHA 1250/630/400/160 distribution boards

					1250	630	400	160	
<b>Stay supports</b>									
	<ul style="list-style-type: none"> <li>For depth of 210 mm when mounting stays are to be shifted forward by 55 mm</li> <li>Necessary whenever standard mounting rails are mounted directly on the stays</li> </ul>				<b>Article No.</b>				
					8GK9910-0KK38			■	
<b>Universal brackets</b>									
					<b>Article No.</b>				
					8GK9910-0KK05	■	■		
<b>Connecting kits for longitudinal stays</b>									
	<b>Depth</b>				<b>Article No.</b>				
	250/320 mm				8GK9910-0KK32	■	■	■	
<b>Crossbars</b>									
	<b>Width</b>				<b>Article No.</b>				
	500 mm				8GK4853-0KK20	■	■	■	
	750 mm				8GK4853-0KK30	■	■	■	
<b>Front cover, closed</b>									
	<b>Tier spacing</b>	<b>Height</b>	<b>Width</b>	<b>Article No.</b>					
	150 mm	75 mm	250 mm	8GK9601-0KK10	■	■	■	■	
		150 mm	250 mm	8GK9601-1KK10	■	■	■	■	
		500 mm	250 mm	8GK9601-1KK20	■	■	■	■	
	300 mm	750 mm	250 mm	8GK9601-1KK30	■	■	■	■	
		250 mm	500 mm	8GK9601-2KK10	■	■	■	■	
		500 mm	500 mm	8GK9601-2KK20	■	■	■	■	
	450 mm	750 mm	250 mm	8GK9601-2KK30	■	■	■	■	
		250 mm	500 mm	8GK9601-3KK10	■	■	■	■	
		500 mm	500 mm	8GK9601-3KK20	■	■	■	■	
	600 mm	750 mm	250 mm	8GK9601-3KK30	■	■	■	■	
		250 mm	500 mm	8GK9601-4KK10	■	■	■	■	
		500 mm	500 mm	8GK9601-4KK20	■	■	■	■	
	750 mm	250 mm	8GK9601-4KK30	■	■	■	■		
<b>Front cover with cutout</b>									
	<b>Height</b>	<b>Width</b>	<b>Tiers</b>	<b>MW</b>	<b>Article No.</b>				
	150 mm	250 mm	1	12	8GK9601-1KK11	■	■	■	■
		500 mm	1	24	8GK9601-1KK21	■	■	■	■
		750 mm	1	36	8GK9601-1KK31	■	■	■	■
	300 mm	250 mm	2	24	8GK9601-2KK11	■	■	■	■
		500 mm	2	48	8GK9601-2KK21	■	■	■	■
		750 mm	2	72	8GK9601-2KK31	■	■	■	■
	450 mm	250 mm	3	36	8GK9601-3KK11	■	■	■	■
		500 mm	3	72	8GK9601-3KK21	■	■	■	■
		750 mm	3	108	8GK9601-3KK31	■	■	■	■
	600 mm	250 mm	4	48	8GK9601-4KK11	■	■	■	■
		500 mm	4	96	8GK9601-4KK21	■	■	■	■
		750 mm	4	144	8GK9601-4KK31	■	■	■	■

					1250	630	400	160	
<b>Supports for front cover</b>									
 <ul style="list-style-type: none"> <li>Plastic</li> </ul>	<b>Version</b>	<b>Length</b>	<b>Mounting</b>	<b>Article No.</b>					
	Spare part	117 mm	Standard	8GK9910-0KK30	■	■	■		
		54 mm	Standard	8GK9910-0KK20				■	
	Large pack	117 mm	For 15 mm standard mounting rail directly onto the standard mounting rail holder	8GK9910-0KK31	■	■	■		
		61.5 mm	For 15 mm standard mounting rail directly onto the stays	8GK9910-0KK24	■	■	■		
<b>Assembly tool for supports</b>									
 <ul style="list-style-type: none"> <li>For short and long version</li> <li>With ergonomic handle</li> </ul>					<b>Article No.</b>				
					8GK9910-0KK27	■	■	■	■
<b>Support extensions</b>									
	<b>Length</b>				<b>Article No.</b>				
	7.5 mm				8GK9911-0KK03	■	■	■	■
<b>Quick-lock screws for front cover</b>									
	<b>Material</b>	<b>Color</b>			<b>Article No.</b>				
	Plastic	RAL 7035 (light gray)			8GK9910-0KK26	■	■	■	■
<b>Spare part door hinges</b>									
 <ul style="list-style-type: none"> <li>For wall/floor-mounted distribution boards</li> <li>1 set = 2 units</li> </ul>					<b>Article No.</b>				
	<b>Version</b>				8GK9920-0KK24	■	■	■	■
	Door hinges prior to 2019 (1 piece)				8GK9920-1KK24	■	■	■	■
				8GK9920-1KK24	■	■	■	■	
<b>Circuit diagram pockets</b>									
	<b>Version</b>	<b>Format</b>	<b>Depth</b>	<b>Article No.</b>					
	Sheet steel	DIN A3	10 mm	8GK9910-0KK22	■	■	■	■	
	Transparent sleeve, adhered all-over	DIN A4		8GK9910-0KK23	■	■	■	■	
	Plastic	DIN A4	30 mm	8GD9132	■	■	■	■	
	Plastic, large pack	DIN A4	30 mm	8GK9910-1KK24	■	■	■	■	
<b>Siemens nameplate</b>									
	<b>Material</b>	<b>Version</b>	<b>Color</b>	<b>Article No.</b>					
	Aluminum	Self-adhesive	Petrol	8GD9084	■	■	■	■	
	Sticker	Self-adhesive	Petrol	8GF9661	■	■	■	■	

# Accessories

For ALPHA 1250/630/400/160 distribution boards

		1250	630	400	160	
<b>IP43/IP55 locking systems for wall-mounted distribution boards</b>						
	<b>Version</b>	<b>Article No.</b>				
	Standard locking device with rotary handle			■	■	
	Retrofit kit for standard locking device with degree of protection IP44			■	■	
	Rotary handle locking device for profile cylinders (E012 or Senat tumbler)			■	■	
	Rotary handle, lockable, incl. E012 lock and two keys			■	■	
	Rotary handle incl. double-bit interlocking mechanism			■		
<b>Locking systems for floor-mounted distribution boards</b>						
	<b>Version</b>	<b>Article No.</b>				
	Rotary handle, recessable, with pushbutton technique	■	■			
	Lock insert for installation of profile semicylinder	■	■			
<b>Profile semicylinder for locks</b>						
	<b>Use</b>	<b>Version</b>	<b>Article No.</b>			
	Wall-mounted distribution boards	With E012 lock and two keys			■	■
		With Senat tumbler and two keys			■	■
		With 3-mm pin as double-bit lock			■	■
	Floor-mounted distribution boards	With E012 lock and two keys	■	■		
		With Senat tumbler and two keys	■	■		

			1250	630	400	160
<b>Spare keys</b>						
	<b>Version</b>	<b>Article No.</b>				
	For double-bit interlocking mechanism	8GD9290	■	■		
	For E012 lock	8GF9390-2	■	■	■	■
<b>Connecting kits for distribution boards, IP43/IP55</b>						
	<ul style="list-style-type: none"> <li>For side-by-side mounting of enclosures</li> <li>Comprising: screws, washers, nuts and 10 m roll of sealing strip</li> </ul>					
	<b>Article No.</b>					
	8GK9920-0KK31		■	■		
		8GK9920-0KK50	■			
<b>Extra-deep brackets</b>						
	<ul style="list-style-type: none"> <li>For recessed installation of standard mounting rails</li> </ul>					
	<b>Article No.</b>					
		8GK9910-0KK34	■	■	■	
<b>Extra-deep brackets, depth-adjustable</b>						
	<b>Article No.</b>					
		8GK9911-0KK01	■	■	■	
<b>Drop-down brackets, universal</b>						
	<b>Article No.</b>					
		8GK9911-0KK02	■	■	■	
<b>Standard mounting rails, lowered</b>						
	<b>Width</b>	<b>Article No.</b>				
	250 mm	8GK9910-0KK35	■	■	■	
	500 mm	8GK9910-0KK40	■	■	■	
	750 mm	8GK9910-0KK41	■	■	■	
<b>15 mm standard mounting rails</b>						
	<b>Width</b>	<b>Article No.</b>				
	250 mm	8GK9910-1KK10	■	■		
	500 mm	8GK9910-1KK20	■	■		
	750 mm	8GK9910-1KK30	■	■		
	1000 mm	8GK9910-1KK40	■	■		
	1250 mm	8GK9910-1KK50	■	■		
<b>Standard mounting rail holders for 15 mm standard mounting rail</b>						
<ul style="list-style-type: none"> <li>Comprising a left and a right holder</li> </ul>						
	<b>Version</b>	<b>Type</b>	<b>Article No.</b>			
	Long	For 1 standard mounting rail	8GK9910-1KK81	■	■	■
		For 2 standard mounting rails	8GK9910-1KK83	■	■	■
		For 3 standard mounting rails	8GK9910-1KK84	■	■	■
		For 4 standard mounting rails	8GK9910-1KK85	■	■	■





# Accessories

For ALPHA 1250/630/400/160 distribution boards





		1250	630	400	160		
<b>Iso supports</b>							
	<ul style="list-style-type: none"> <li>For insulated standard mounting rail assembly</li> </ul>						
	<b>Type</b>	<b>Article No.</b>					
	4 mm	8GK9911-0KK07	■	■	■	■	
	31.5 mm	8GK9911-0KK05	■	■	■		
55.5 mm	8GK9911-0KK06	■	■	■			
<b>Screws M5 × 10, self-tapping</b>							
	<ul style="list-style-type: none"> <li>Large pack: 500 units</li> </ul>						
		<b>Article No.</b>					
		8GK9911-0KK00	■	■	■	■	
<b>Crossbars for mounting vertical busbar systems</b>							
	<b>Width</b>	<b>Article No.</b>					
	250 mm	8GK9911-1KK00	■	■	■		
	500 mm	8GK9911-1KK01	■	■	■		
	750 mm	8GK9911-1KK02	■	■	■		
<b>Blanking strips</b>							
	<b>Type</b>	<b>Color</b>	<b>Article No.</b>				
	For 12 MW (1 MW = 18 mm)	RAL 7035 (light gray)	8GK9910-0KK00	■	■	■	■
	Length 1 m w/o pressure-relief joint, to cut to length	RAL 7035 (light gray)	8GK9910-0KK01	■	■	■	
<b>Blanking plugs</b>							
	<b>Diameter</b>	<b>Article No.</b>					
	6 mm	8GK9910-0KK06	■	■	■	■	
	11 mm	8GK9910-0KK07	■	■	■	■	
<b>N terminals</b>							
	<ul style="list-style-type: none"> <li>For snap-on mounting onto the standard mounting rail</li> <li>For distributing the neutral conductor when using several RCCBs</li> <li>2× screw terminal, conductor cross-section max. 16 mm<sup>2</sup></li> <li>14× plug-in terminal, conductor cross-section max. 4 mm<sup>2</sup></li> </ul>						
		<b>Article No.</b>					
		8GS4034-1	■	■	■	■	
<b>PE terminals</b>							
	<ul style="list-style-type: none"> <li>For snap-on mounting onto the standard mounting rail</li> <li>2× screw terminal, conductor cross-section max. 16 mm<sup>2</sup></li> <li>14× plug-in terminal, conductor cross-section max. 4 mm<sup>2</sup></li> </ul>						
		<b>Article No.</b>					
		8GS4034-2	■	■	■	■	
<b>N/PE terminals</b>							
	<ul style="list-style-type: none"> <li>For snap-on mounting onto the standard mounting rail</li> <li>For distributing the neutral conductor when using several RCCBs</li> <li>1× screw terminal, conductor cross-section max. 16 mm<sup>2</sup>, per PE and N potential</li> <li>7× plug-in terminal, conductor cross-section max. 4 mm<sup>2</sup>, per PE and N potential</li> </ul>						
		<b>Article No.</b>					
		8GS4034-3	■	■	■	■	
<b>N/N terminals</b>							
	<ul style="list-style-type: none"> <li>For snap-on mounting onto the standard mounting rail</li> <li>For distributing the neutral conductor when using several RCCBs</li> <li>1× screw terminal, conductor cross-section max. 16 mm<sup>2</sup>, per PE and N potential</li> <li>7× plug-in terminal, conductor cross-section max. 4 mm<sup>2</sup>, per PE and N potential</li> </ul>						
		<b>Article No.</b>					
		8GS4034-4	■	■	■	■	

1250 630 400 160



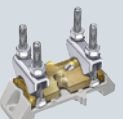
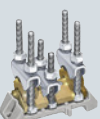
Terminals for circular conductors

Image	Busbar thickness	Conductor cross-section	Article No.	1250	630	400	160
	5 mm	1.5 ... 16 mm <sup>2</sup>	8US1921-2AA00	■	■	■	
		1.5 ... 35 mm <sup>2</sup>	8US1921-2AB00	■	■	■	
		16 ... 70 mm <sup>2</sup>	8US1921-2AC00	■	■	■	
		16 ... 120 mm <sup>2</sup>	8US1921-2AD00	■	■	■	

Terminals for circular conductors

Image	Busbar thickness	Conductor cross-section	Article No.	1250	630	400	160
	10 mm	1.5 ... 16 mm <sup>2</sup>	8US1921-2BA00	■	■	■	
		1.5 ... 35 mm <sup>2</sup>	8US1921-2BB00	■	■	■	
		16 ... 70 mm <sup>2</sup>	8US1921-2BC00	■	■	■	
		16 ... 120 mm <sup>2</sup>	8US1921-2BD00	■	■	■	

Terminals with bases made of glass-fiber reinforced polyester resin

Image	Incoming cables		Outgoing cables		Article No.	1250	630	400	160
	No. of	Cross-section	No. of	Cross-section					
	1	6 ... 70 mm <sup>2</sup>	1	6 ... 70 mm <sup>2</sup>	8JK401	■	■	■	
		4 ... 35 mm <sup>2</sup>	3	4 ... 35 mm <sup>2</sup>	8JH4044	■	■	■	
		50 ... 240 mm <sup>2</sup>	1	50 ... 240 mm <sup>2</sup>	8JK4061	■	■	■	
	2	50 ... 240 mm <sup>2</sup>	2	50 ... 185 mm <sup>2</sup>	8JK406	■	■	■	

# Accessories

For ALPHA 1250/630/400/160 distribution boards

1250 630 400 160

## Incoming and outgoing terminal for busbars

Busbar Dimensions	No. of	Conductor cross-section	Description	Article No.				
					1250	630	400	160
16 × 3 mm	1	1.5 ... 16 mm <sup>2</sup>		8JH4122	■	■	■	
		10 ... 35 mm <sup>2</sup>		8JH4124	■	■	■	
6 × 6 mm	1	16 ... 35 mm <sup>2</sup>	Can be retrofitted without dismantling the busbar	8JH4114	■	■	■	
20 × 8 mm	1 or 2	50 ... 240 mm <sup>2</sup>	1 conductor per clamping point	8JK3171	■	■	■	



## Incoming and outgoing terminal for busbars

Busbar Dimensions	No. of	Conductor cross-section	Description	Article No.				
					1250	630	400	160
–	–	–	2 conductors per clamping point	8JK3172	■	■	■	
12 × 5 mm	1	10 ... 35 mm <sup>2</sup>		8JH4104	■	■	■	
		16 ... 70 mm <sup>2</sup>		8JH4105	■	■	■	
	2	16 ... 35 mm <sup>2</sup>		8JH4105	■	■	■	



## N/PE bars as plug-in terminals

Type	Connections	Article No.				
			1250	630	400	160
PE bar	6 screw connections 2.5 ... 16 mm <sup>2</sup> and 21 screw connections 1.5 ... 4 mm <sup>2</sup>	8GK9910-0KK11				■
PE + N bar	PE bar: 6 screw connections 2.5 ... 16 mm <sup>2</sup> and 21 screw connections 1.5 ... 4 mm <sup>2</sup> N bar: 2 screw connections 2.5 ... 16 mm <sup>2</sup> and 10 screw connections 1.5 ... 4 mm <sup>2</sup>	8GK9910-0KK12				■



- For mounting on longitudinal stays at a 30° inclination

## Terminal with ceramic base

Incoming cables No. of	Cross-section	Outgoing cables No. of	Cross-section	Article No.				
					1250	630	400	160
1	4 ... 35 mm <sup>2</sup>	1	4 ... 35 mm <sup>2</sup>	8JH404	■	■	■	■



## Cable clamping rail

Width	Article No.				
		1250	630	400	160
250 mm	8GK9911-0KK10	■	■	■	
500 mm	8GK9911-0KK20	■	■	■	
750 mm	8GK9911-0KK30	■	■	■	
1000 mm	8GK9911-0KK40	■	■	■	
1250 mm	8GK9911-0KK50	■	■	■	



- For strain relief
- C profile 30 × 15 mm

					1250	630	400	160
<b>Cable holders</b>								
	<b>Use</b>	<b>Version</b>	<b>Article No.</b>					
	For standard mounting rail	Height 45 mm, width 40 mm	8GK9910-0KK80					
	For mounting in 5-mm hole	Clip with cable tie	8GK9910-0KK81					
<b>Cable flange for cable entry</b>								
	<b>Type</b>	<b>Degree of protection</b>	<b>Cable routing</b>	<b>Article No.</b>				
	1-component flange	IP43	Bottom	8GK9100-0KK00				
	2-component flange		Top/bottom	8GK9000-0KK02				
	2-component flange	IP55	Top/bottom	8GK9100-0KK01				
	Bushing flange		Busbar system	8GK9100-0KK10				
<b>Cable flange for cable entry (only safety class I)</b>								
	<b>Version</b>	<b>Degree of protection</b>	<b>Cable diameter</b>	<b>Article No.</b>				
	Blank flange	IP43		8GK9100-0KK02				
		IP55		8GK9100-0KK03				
	Sheet steel, without knockouts	IP55		8GK9100-0KK04				
	Flange, incl. 1 cable support sleeve	IP55	14 ... 65 mm	8GK9100-0KK05				
	Flange, incl. 2 cable support sleeves	IP55	14 ... 65 mm	8GK9100-0KK06				
<b>Rubber cable entries</b>								
	<ul style="list-style-type: none"> <li>For inserting in 38 mm diameter knockouts (= Pg29)</li> <li>Degree of protection IP65</li> </ul>							
	<b>No. of</b>	<b>Cable diameter</b>	<b>Article No.</b>					
	1	12 ... 29 mm	8HP1805					
	2	6 ... 15 mm	8HP1806					
	3	4 ... 12.5 mm	8HP1807					
4	4 ... 12 mm	8HP1808						
<b>Cable entries for cable entry plate</b>								
	<ul style="list-style-type: none"> <li>For 8HP1520 cable entry plates</li> </ul>							
	<b>Cable diameter</b>	<b>Article No.</b>						
14 ... 65 mm	8HC6900							
<b>Breathers, PG 16</b>								
	<ul style="list-style-type: none"> <li>For distribution boards in an outdoor climate to avoid condensate</li> <li>Degree of protection IP54</li> </ul>							
	<b>Article No.</b>							
8HE8541								



# System overview

## Small distribution boards ALPHA

SIMBOX XL



SIMBOX WP



## ALPHA SIMBOX XL



Flush-mounting and hollow-wall distribution boards



Surface-mounting distribution boards



Multimedia distribution boards

## Accessories



Terminal strips



RCCB terminals



Door locking kit



Mounting aid for flush mounting

## ALPHA SIMBOX WP



Surface-mounting distribution boards

## Accessories



Covers



N/PE terminal strips



Inner partitions



Safety cylinder locks

### Note:

You will find a detailed range of accessories with the basic units.

# ALPHA SIMBOX XL small distribution boards

Flush-mounting and hollow-wall distribution boards, rated current up to 63 A

			Complete supply		Project supply	
Degree of protection			IP30		IP30	
						
Recess dimensions			Type	Safety class II	Safety class II	Expansion package
Width	Depth	Height		Wall-recessed box		
<b>Flush-mounting distribution boards</b>						
359 mm	88 mm	393 mm	1-tier	8GB5012-1KM	8GB5212-1KM01	8GB5212-3KM01
		518 mm	2-tier	8GB5024-1KM	8GB5224-1KM01	8GB5224-3KM01
		643 mm	3-tier	8GB5036-1KM	8GB5236-1KM01	8GB5236-3KM01
		768 mm	4-tier	8GB5048-1KM	8GB5248-1KM01	8GB5248-3KM01
<b>Hollow-wall distribution boards</b>						
323 mm	88 mm	355 mm	1-tier	8GB5012-4KM	8GB5212-2KM01	8GB5212-4KM01
		480 mm	2-tier	8GB5024-4KM	8GB5224-2KM01	8GB5224-4KM01
		605 mm	3-tier	8GB5036-4KM	8GB5236-2KM01	8GB5236-4KM01
		730 mm	4-tier	8GB5048-4KM	8GB5248-2KM01	8GB5248-4KM01

## Accessories

### Terminal strips with plug-in terminals



Type	Potential 1	Potential 2	Article No.
N/PE	$N = 3 \times 25 + 14 \times 4 \text{ mm}^2$	$PE = 3 \times 25 + 14 \times 14 \text{ mm}^2$	8GB5016-5KM
N/N	$N1 = 3 \times 25 + 14 \times 4 \text{ mm}^2$	$N2 = 3 \times 25 + 14 \times 14 \text{ mm}^2$	8GB5017-5KM
N	$N = 6 \times 25 + 28 \times 4 \text{ mm}^2$		8GB5020-5KM
PE	$PE = 6 \times 16 + 28 \times 5 \text{ mm}^2$		8GB5021-5KM

### Terminal strips with screw terminals



Type	Potential 1	Potential 2	Article No.
N/PE	$N = 3 \times 16 + 14 \times 10 \text{ mm}^2$	$PE = 3 \times 16 + 14 \times 10 \text{ mm}^2$	8GB5008-5KM
N/N	$N1 = 3 \times 16 + 14 \times 10 \text{ mm}^2$	$N2 = 3 \times 16 + 14 \times 10 \text{ mm}^2$	8GB5015-5KM
N	$N = 6 \times 16 + 28 \times 10 \text{ mm}^2$		8GB5010-5KM
PE	$PE = 6 \times 16 + 28 \times 10 \text{ mm}^2$		8GB5011-5KM

### RCCB terminals



Use	Potential	Article No.
For distributing the neutral conductor to two RCCBs	$N = 3 \times 16 + 2 \times 10 \text{ mm}^2$	8GB5005-5KM

### Door locking kit



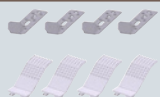
Use	Feature	Feature	Article No.
For snapping into door handle	With two keys	With two keys	8GB5006-5KM

### Blanking strips



Width	Feature	Color	Article No.
12 MW	Increased flame protection up to 850 °C	White	8GB4683

### Mounting aid for flush mounting








Use	Article No.
For flush-mounting and hollow-wall distribution boards	8GB5013-5KM

## Surface-mounting distribution boards, rated current up to 63 A

				Distribution boards without door	Metal doors, white	Plastic doors, white
Degree of protection				IP30	IP30	IP30
						
External dimensions				Safety class II	Safety class II	Safety class II
Width	Depth	Height	Type			
<b>Surface-mounting distribution boards</b>						
305 mm	99 mm	250 mm	1-tier	8GB5012-0KM	8GB5001-5KM	8GB5001-5KM01
		375 mm	2-tier	8GB5024-0KM	8GB5002-5KM	8GB5002-5KM01
		515 mm	3-tier	8GB5036-0KM	8GB5003-5KM	8GB5003-5KM01
		640 mm	4-tier	8GB5048-0KM	8GB5004-5KM	8GB5004-5KM01

### Accessories

Terminal strips with plug-in terminals				
	Type	Potential 1	Potential 2	Article No.
	N/PE	$N = 3 \times 25 + 14 \times 4 \text{ mm}^2$	$PE = 3 \times 25 + 14 \times 14 \text{ mm}^2$	8GB5016-5KM
	N/N	$N1 = 3 \times 25 + 14 \times 4 \text{ mm}^2$	$N2 = 3 \times 25 + 14 \times 14 \text{ mm}^2$	8GB5017-5KM
	N	$N = 6 \times 25 + 28 \times 4 \text{ mm}^2$		8GB5020-5KM
	PE	$PE = 6 \times 16 + 28 \times 5 \text{ mm}^2$		8GB5021-5KM
Terminal strips with screw terminals				
	Type	Potential 1	Potential 2	Article No.
	N/PE	$N = 3 \times 16 + 14 \times 10 \text{ mm}^2$	$PE = 3 \times 16 + 14 \times 10 \text{ mm}^2$	8GB5008-5KM
	N/N	$N1 = 3 \times 16 + 14 \times 10 \text{ mm}^2$	$N2 = 3 \times 16 + 14 \times 10 \text{ mm}^2$	8GB5015-5KM
	N	$N = 6 \times 16 + 28 \times 10 \text{ mm}^2$		8GB5010-5KM
	PE	$PE = 6 \times 16 + 28 \times 10 \text{ mm}^2$		8GB5011-5KM
RCCB terminals				
	Use	Potential		Article No.
	For distributing the neutral conductor to two RCCBs	$N = 3 \times 16 + 2 \times 10 \text{ mm}^2$		8GB5005-5KM
Door locking kit				
	Use	Feature		Article No.
	For snapping into door handle	With two keys		8GB5006-5KM
Blanking strips				
	Width	Feature	Color	Article No.
	12 MW	Increased flame protection up to 850 °C	White	8GB4683

# ALPHA SIMBOX XL small distribution boards

Multimedia distribution boards, rated current up to 63 A

## Surface-mounting distribution boards

Degree of protection IP30



Recess dimensions			Type	Safety class II
Width	Depth	Height		
<b>Hollow-wall/flush-mounting distribution boards</b>				
323 mm	88 mm	605 mm	3-tier	8GB5036-3KM01
		730 mm	4-tier	8GB5048-3KM01
<b>Surface-mounting distribution boards</b>				
323 mm	88 mm	605 mm	3-tier	8GB5036-3KM00
		730 mm	4-tier	8GB5048-3KM00

## Accessories

### Connecting lugs

#### Use

For installing several distribution boards in a row, vertically or horizontally

#### Article No.

8GB5025-5KM

# ALPHA SIMBOX WP small distribution boards

Surface-mounting distribution boards, rated current up to 63 A

Unequipped surface-mounting distribution boards

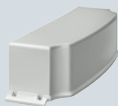
Degree of protection IP65



Type	External dimensions			Safety class II
	Height	Width	Depth	
<b>Surface-mounting distribution boards</b>				
1-tier	210 mm	143 mm	100 mm	8GB1371-0
		215 mm	100 mm	8GB1371-1
		298 mm	140 mm	8GB1371-2
		410 mm	140 mm	8GB1371-3
		298 mm	140 mm	8GB1372-2
2-tier	420 mm	298 mm	140 mm	8GB1372-2
		410 mm	140 mm	8GB1372-3
3-tier	655 mm	410 mm	140 mm	8GB1373-3
		410 mm	160 mm	8GB1374-3
4-tier	878 mm	410 mm	160 mm	8GB1374-3

## Accessories

### Covers



- For connection of conduit and cable duct entries
- Snap-on mounting

MW	Article No.
12	8GB2051-0
18	8GB2051-1

### N/PE terminal strips



- For snapping onto device holder

MW	Potential 1	Potential 2	Article No.
8	N = 1 × 25 + 7 × 10 mm <sup>2</sup>	PE = 1 × 25 + 7 × 10 mm <sup>2</sup>	8GB2052-0
12	N = 3 × 25 + 10 × 10 mm <sup>2</sup>	PE = 3 × 25 + 10 × 10 mm <sup>2</sup>	8GB2052-1
18	N = 5 × 25 + 14 × 10 mm <sup>2</sup>	PE = 5 × 25 + 14 × 10 mm <sup>2</sup>	8GB2052-2

### Inner partitions, horizontal



MW	Article No.
12	8GB2053-0
18	8GB2053-1

### Front covers

MW	Article No.
12	8GB2054-0
18	8GB2054-1

### Safety cylinder locks



Material	Scope of supply	Article No.
Metal	With key	8GB2055-0

### Blanking strips



Type	Color	Article No.
For 12 MW (1 MW = 18 mm)	RAL 7035 (light gray)	8GK9910-0KK00



## Power distribution in the age of digitalization

Take advantage of the benefits of digitalization at every step of the project with the SIVACON 8PS busbar trunking systems – from planning to installation on up to operation.

SIMARIS software tools provide efficient support for your planning: among other advantages, you can configure the SIVACON 8PS busbars with SIMARIS busbarplan. A digital twin of the busbar runs is created from the BIM data. The BusbarCheck app assists you during installation.

Energy data and power with plug-and-work: Our innovative powerline technology makes this possible for SIVACON 8PS busbar trunking systems – efficient and reliable.

Energy data is simply transferred to the automation and energy management systems, as well as to cloud-based systems (IoT). Data and electricity travel the same path via the conductor circuits and phases of the BD2, LD, LData and LI busbar trunking systems.



# Busbar Trunking Systems



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SIVACON 8PS busbar trunking systems	16/4
Planning and installation tools	16/6



# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about busbar trunking systems, please visit our website [www.siemens.com/sivacon-8PS](http://www.siemens.com/sivacon-8PS)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Brochure – Energy and data successfully put on track ([109747761](#))
- Catalog LV 70 – 2015 – SIVACON 8PS busbar trunking systems – BD01, BD2 up to 1250 A ([109744546](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- SIVACON power distribution (general) [bit.ly/2m4oSLI](http://bit.ly/2m4oSLI)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- SIVACON 8PS [sie.ag/2IXpCT1](http://sie.ag/2IXpCT1)
- SIMARIS planning tools [sie.ag/2m3oFbS](http://sie.ag/2m3oFbS)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

Order support for SIVACON 8PS – BD01 and BD2 [www.siemens.com/LV70](http://www.siemens.com/LV70)

### Configurators

Configure your SIVACON 8PS BD01 or BD2 busbar trunking system in the [Industry Mall](#)

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services.

You can find your local contacts at

[www.siemens.com/sivacon8PS-contact](http://www.siemens.com/sivacon8PS-contact)

You can find further information on services at

[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at

[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### SIMARIS planning tools

The SIMARIS planning tools effectively assist you in your planning process. Project-specific IFC data (Building Information Modeling) for cross-package planning is also possible.

[www.siemens.com/simaris](http://www.siemens.com/simaris)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at

[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Planning manual – Planning with SIVACON 8PS (109478425)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under:

[www.siemens.com/support-app](http://www.siemens.com/support-app)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at

[www.siemens.com/cax](http://www.siemens.com/cax)

### Classroom or online training

Our training courses can be found at

[www.power-academy.siemens.com](http://www.power-academy.siemens.com)

### Technical overview – Busbar trunking systems

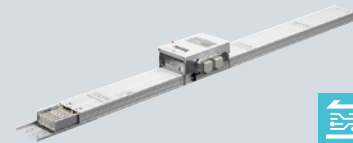
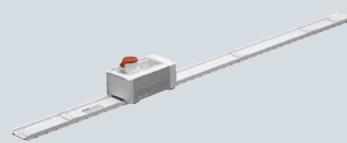


#### The fast way to get you to our online services

This page provides you with comprehensive information and links on busbar trunking systems

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769090)

# SIVACON 8PS busbar trunking systems



Busbar trunking systems	BD01	BD2
<b>Basic data</b>		
System description	Flexible power supply in workshops and production plants for skilled trades and businesses and commercial enterprises	The universal solution for high power levels in a small space, especially in offices and in industrial transfer lines
Typical applications	<ul style="list-style-type: none"> <li>• Workshops and production plants</li> <li>• Supermarkets</li> <li>• Data centers</li> <li>• High-rise buildings</li> <li>• Trade fair buildings</li> <li>• Automotive industry</li> <li>• Marine applications</li> </ul>	<ul style="list-style-type: none"> <li>• Workshops and production plants</li> <li>• Production industry</li> <li>• Do-it-yourself centers</li> <li>• Data centers</li> <li>• High-rise buildings</li> <li>• Foodstuffs industry</li> <li>• Trade fair buildings</li> <li>• Hospitals</li> <li>• Automotive industry</li> <li>• Marine applications</li> </ul>
<b>Basic data</b>		
Rated insulation voltage $U_i$	400 V AC	690 V AC
Rated operational voltage $U_e$	400 V AC	690 V AC
Degree of protection	IP54, IP55	IP52, IP55
Rated current $I_{nA}$	40 ... 160 A	160 ... 1250 A
Rated peak withstand current $I_{pk}$	Up to 15.3 kA	Up to 90 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 2.5 kA	Up to 34 kA
Number of conductors	4 (PE = enclosure)	5
Connection technology	Connecting flange with built-in expansion compensation	With built-in expansion compensation, bolt-type terminal
<b>Outgoing feeders and junctions</b>		
Tap-off point	On one side every 0.5 or 1 m	On one side every 0.5 m, on two sides offset every 0.25 m
Tap-off unit	Up to 63 A	Up to 530 A
<b>Material</b>		
Conductors	Aluminum/Copper	Aluminum or copper
Enclosures (trunking unit, feeder unit)	Sheet steel zinc-plated and painted	Sheet steel zinc-plated and painted
<b>Communication</b>		
Data transmission	data line	powerline, data line
<b>Approvals/Certificates</b>		
Approvals	EAC	EAC
Certificates	<ul style="list-style-type: none"> <li>• DNV GL</li> <li>• Environmental Product Declaration (EPD)</li> </ul>	<ul style="list-style-type: none"> <li>• DNV GL</li> <li>• Environmental Product Declaration (EPD)</li> </ul>

<sup>1)</sup> IP66 for pure energy transfer runs without outgoing feeders.

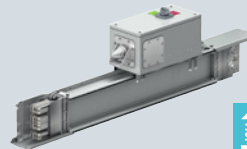
Data transfer with powerline technology



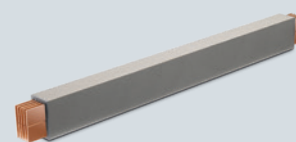
LD



LData



LI



LR

The proven high-current busbar for industry and special applications

- Automotive industry
- Production industry
- Foodstuffs industry
- Trade fair buildings
- Wind power plants
- Semiconductor production
- Marine applications

Efficient and reliable power supply for today and tomorrow's data centers

- Data centers

An integrated solution for safe and efficient infrastructure power supply – for example in multi-story buildings and industrial applications

- Data centers
- High-rise buildings
- Production industry
- Chemicals industry
- Airports
- Trade fair buildings
- Hospitals
- Do-it-yourself centers
- Shopping malls
- Supermarkets

The reliable busbar for a high degree of protection in harsh environments, for example for networking of building sections outdoors or for power supply in tunnels

- Chemicals industry
- Oil and gas
- Tunnels and subways
- Outdoor applications

1000 V AC

600 V AC

1000 V AC

1000 V AC

1000 V AC

600 V AC

1000 V AC

1000 V AC

IP34, IP54

Trunking units: IP21  
Tap-off units: IP21, IP41IP55, IP66<sup>1)</sup>

IP68

1100 ... 5000 A

1000 ... 2500 A

800 ... 6300 A

400 ... 6300 A

Up to 286 kA

Min. 84 kA

Up to 330 kA

Up to 275 kA

Up to 116 kA

Min. 40 kA

Up to 150 kA

Up to 125 kA

4, 5

5

4 ... 6 conductors (incl. 200% N or add. clean earth)

3 and PEN or 3, N and PE

Bolt-type terminal connection with hook and bolt connection

Direct hook and bolt connection (LD technology)

Hook and bolt connection with shear nut

Bolt terminal block

On one side every 1 m

Can be plugged in anywhere along the system

Up to 3 for every 3 m (per side)

On one side every 1 m

Up to 1250 A

Up to 250 A

Up to 1250 A

On request

Aluminum or copper

Aluminum, nickel and tin-coated

Aluminum or copper

Aluminum or copper

Sheet steel zinc-plated and painted

Sheet steel, tin-coated and powder-coated, black (RAL9017)

Aluminum painted

Epoxy resin

powerline, data line

powerline, data line

powerline, data line

–

EAC

–

EAC

EAC

- DNV GL
- Environmental Product Declaration (EPD)

–

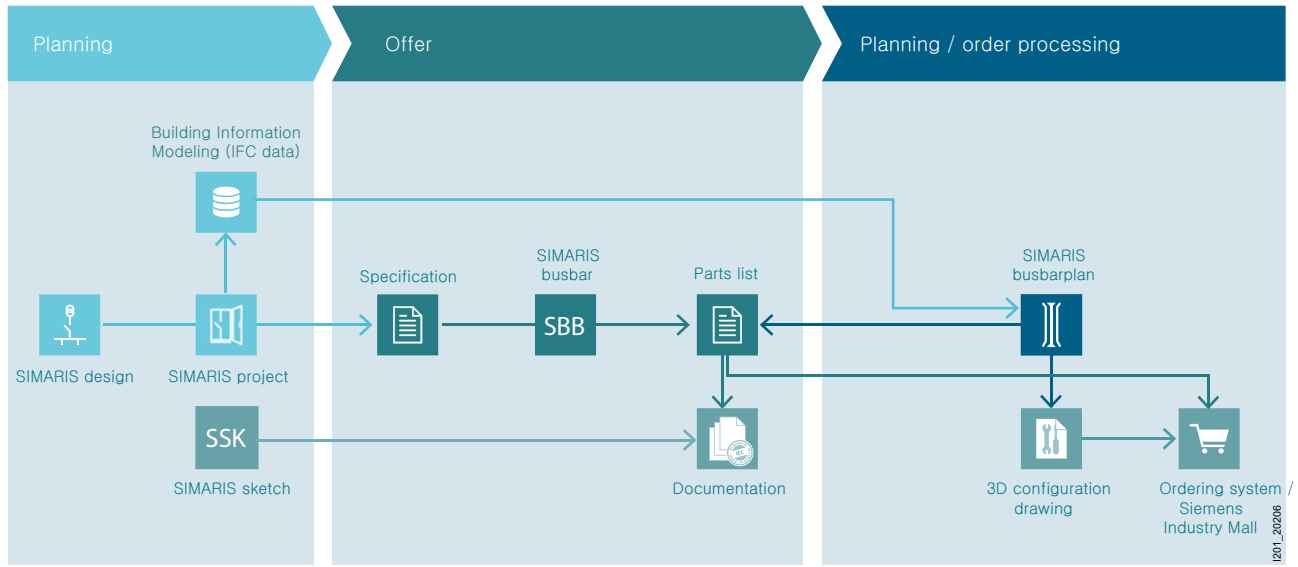
- Environmental Product Declaration (EPD)

- DNV GL
- SEISMIC Qualification Certificate (earthquake test)
- ATEX
- Product Environmental Profile (PEP)

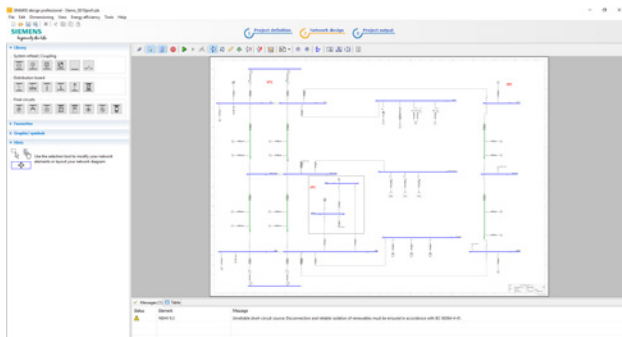
# Planning and installation tools

For planning, visualization and installation of busbar trunking systems

## From planning to commissioning



## SIMARIS design



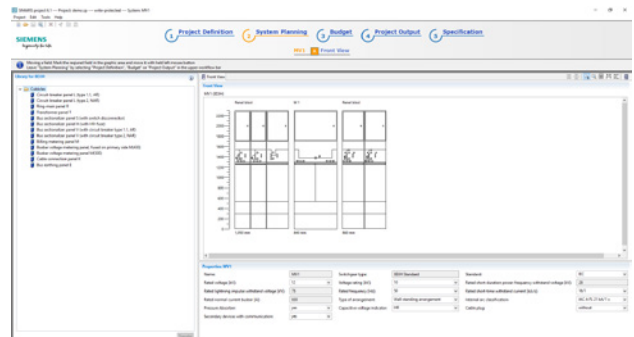
SIMARIS design is a planning tool for fast and efficient grid calculation and dimensioning of electrical power distribution for special-purpose and industrial buildings.

- Dimensioning of electrical networks on the basis of real products according to acknowledged rules of technology and the applicable standards (VDE, IEC)
- Automatic selection of the appropriate components from the stored product database

SIMARIS design forms part of SIMARIS Suite.

Free download of the SIMARIS Suite and further information at: [www.siemens.com/simarisdg](http://www.siemens.com/simarisdg)

## SIMARIS project



SIMARIS project is a planning tool used to quickly determine the necessary space requirements and the budget for electrical energy distribution for special-purpose and industrial buildings and for automatic generation of specifications.

- Import into projects created with SIMARIS design
- Export of 3D data in IFC 4.x format for BIM (Building Information Modeling)

SIMARIS project forms part of SIMARIS Suite.

Free download of the SIMARIS Suite and further information at: [www.siemens.com/simariproj](http://www.siemens.com/simariproj)

## SIMARIS Toolbox (online)



The SIMARIS Toolbox is a platform for provision of online tools for assisting electrical installation planners. It includes, for example:

- EMC Busbar (tool for calculating magnetic field strength in the vicinity of SIVACON 8PS busbar trunking systems)

SIMARIS Toolbox forms part of SIMARIS Suite.

Free download of the SIMARIS Suite and further information at: [www.siemens.com/simaristoolbox](http://www.siemens.com/simaristoolbox)

## SIMARIS busbarplan



The new SIMARIS busbarplan planning tool supports BIM-compliant 3D configuration of SIVACON 8PS busbar trunking systems.

- Plugin based on the BIM Autodesk REVIT software
- Version for planners and for Siemens project engineers

SIMARIS busbarplan forms part of SIMARIS Suite.

Free download of the SIMARIS Suite and further information at: [www.siemens.com/simaribusbarplan](http://www.siemens.com/simaribusbarplan)

# Planning and installation tools

For planning, visualization and installation of busbar trunking systems

## BusbarCheck app



BusbarCheck is an installation app to use for easy and high-quality installation and documentation.

- Detailed explanation of all steps
- Written record and proper documentation for better and easier evaluation of the installation
- Can be used by all installation companies and SIVACON 8PS busbar trunking installations in Germany and in other selected countries

Free download from:  
[App Store](#) and [Play Store](#)

## SIMARIS sketch



SIMARIS sketch is a software tool for quick and easy planning and visualization of busbar trunking systems.

- Representation of complex building structures
- Presentation of complete projects directly in 3D
- Export of parts lists as Excel files and graphics for preparation of orders

Free download and further information available at:  
[www.siemens.com/simarissketch](http://www.siemens.com/simarissketch)

## IFC data



BIM simplifies the planning process. While the simple exchange of relevant building data between the planners and the facility manager ensures high quality and reduces costs, the digital twin for power distribution fits in seamlessly with the overall structure – for efficient planning, performance and maintenance.

[www.siemens.com/bim-eplanning](http://www.siemens.com/bim-eplanning)





## Equipped for all applications

Maximum flexibility and minimum space requirement – these are the key prerequisites for high-performance switchgear and control cabinets in industrial environments. Switchgear cabinet manufacturers have to respond increasingly rapidly to their efficiency-conscious customers' requirements. Simplified configuration, planning and implementation bring you additional competitive advantages. The SIVACON 8MF1 system cubicles were rigorously designed to meet the increased demands placed on control cabinet construction.

The SIVACON 8MF1 modular system enables custom-tailored solutions to be configured for virtually all industrial sectors and applications. Whether fully assembled, adapted according to your specifications, or developed individually, the system cubicles support the individual creation of added value in control cabinet construction. With SIVACON 8MF1, you can also be sure of absolute compliance with relevant standards: The switchgear enclosures meet all currently applicable standards and regulations. Special versions, and control cabinets with various special certifications and specific approvals, as well as variants adapted to specific sectors, can be individually developed.



# System Cubicles, System Lighting and System Air-Conditioning



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# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about system cubicles, system lighting and system air-conditioning, please visit our website [www.siemens.com/sivacon-8mf](http://www.siemens.com/sivacon-8mf)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technical basic information – SIVACON 8MF1 system cubicle ([109767386](#))
- Brochure – SIVACON 8MF1 system cubicles – As versatile as your requirements ([109744677](#))

The relevant tender specifications can be found at [www.siemens.com/lowvoltage/tenderspecifications](http://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Everything you need for your order

Refer to the Industry Mall for an overview of your products

- System cubicles, system lighting and system air-conditioning [sie.ag/339cQB9](http://sie.ag/339cQB9)

Direct forwarding to the individual products in the Industry Mall by clicking on the article number in the catalog or by entering this web address incl. article number [www.siemens.com/product?Article No.](http://www.siemens.com/product?Article No.)

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations. Configure your SIVACON 8MF1 system cubicle at

[www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

The following are additionally available for your configured SIVACON 8MF1 system cubicle:

- Parts lists
- 2D data
- 3D data

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services.

You can find your local contacts at

[www.siemens.com/lowvoltage/systems/contact](http://www.siemens.com/lowvoltage/systems/contact)

You can find further information on services at

[www.siemens.com/service-catalog](http://www.siemens.com/service-catalog)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at

[www.siemens.com/support-request](http://www.siemens.com/support-request)

# ... can be found in our online services

## Commissioning + operation

### SIMARIS therm

The SIMARIS therm calculation tool helps you to easily and precisely dimension the heat dissipation of your control panels, simply by entering the ambient air temperature and selecting the relevant devices in the panel. If necessary, you can immediately select the necessary cooling devices and air conditioners. You can also define the necessary heating power for anti-condensation heating [www.siemens.com/simaristherm](http://www.siemens.com/simaristherm)

### Manuals

Manuals are available for downloading in Siemens Industry Online Support (SIOS) at [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Operating Manual – Software SIMARIS therm planning tool (109744553)

### Your product in detail

The Siemens Industry Online Support (SIOS) provides detailed technical information [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Certificates

Comprehensive mobile support via the Siemens Industry Online Support app available for download from the [App Store](#) and [Play Store](#)

You will find further information under: [www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- Siemens Industry Mall [www.siemens.com/lowvoltage/mall](http://www.siemens.com/lowvoltage/mall)
- Image database [www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

## Technical overview – System cubicles, system lighting and system air-conditioning



### The fast way to get you to our online services

This page provides you with comprehensive information and links on system cubicles, system lighting and system air-conditioning [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109769091)

# System overview

## System Cubicles, system lighting and system air conditioning

For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

### SIVACON 8MF1 basic cubicles



Basic cubicles, IP40



Basic cubicles, IP55



Ventilated cubicles, IP20



Data cubicles, IP40



Earthquake-resistant cubicles, IP40

### SIVACON 8MF1 configurable enclosures – Frames



Standard frames



Corner frames

### Frame accessories



Bases



Separators



Trim strips



Transport eyebolts



Transport brackets



Cubicle suites

### SIVACON 8MF1 configurable enclosures – Enclosures



Section doors



Ventilated doors



Glass doors



Door halves



Compartment doors



Side walls/rear walls



Rooves



Floors

### Enclosure accessories



Roof trays



Covers



Grilles



Strips



Hinges



Rotary handles



Door position switches

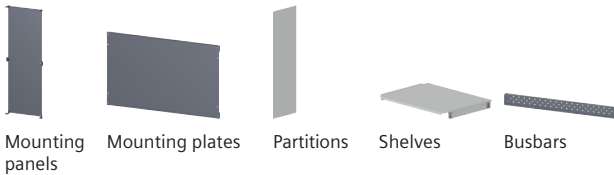


Door stays

#### Note:

You will find a detailed range of accessories with the basic units and in the Accessories section.

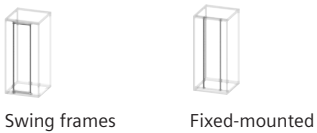
## SIVACON 8MF1 configurable enclosures – Interior installation



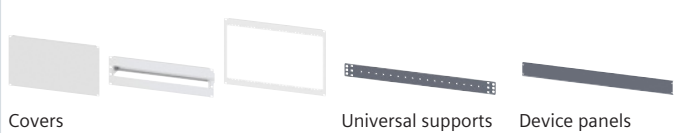
## Interior installation accessories



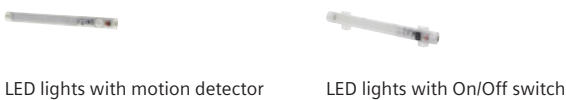
## SIVACON 8MF1 configurable enclosures – 19-inch expansion



## 19-inch expansion accessories



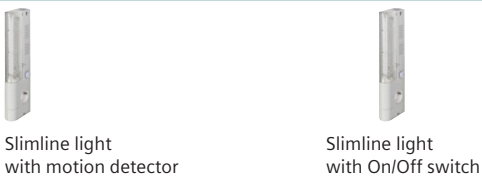
## SIVACON 8MF/8MR system lighting – LED lights



## LED lights accessories



## SIVACON 8MF/8MR system lighting – Slimline lights



## SIVACON 8MR system air-conditioning



### Note:

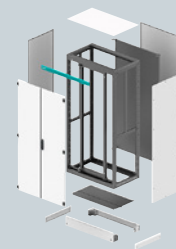
You will find a detailed range of accessories with the basic units and in the Accessories section.

# System overview

## SIVACON 8MF1 system cubicles



Standard types



Individual types

Available dimensions				
Height	mm	1800   2000   2200	Special dimensions available on request (max. 2400 mm)	
Width	mm	400   600   800   900   1000   1200	Special dimensions available on request (max. 1600 mm)	
Depth	mm	400   500   600   800   1000	Special dimensions available on request (max. 1200 mm)	
Approvals				
Standards		IEC 62208	IEC 62208	
Protection				
Degree of protection		IP20   IP40   IP55   Shock resistance IK09   Glass doors IK08	IP20   IP21   IP40   IP41   IP42   IP55   Shock resistance IK09   Glass doors IK08	
Safety class		I	I	
Enclosure				
Material		Sheet steel	Sheet steel	
Surface		Zinc-plated   Powder-coated	Zinc-plated   Powder-coated	
Color		RAL 7035 (light gray)	All RAL colors available, other color palettes available on request	
Corrosivity category acc. to EN ISO 12944-2		C3 medium, paint thickness 100 µm (+/-25 µm)	C5-M very high (marine), paint thickness 150 µm (+/-25 µm)	
Material thickness				
Frame		2.5 mm	2.5 mm	
Enclosure (without doors)		1.5 mm	≤2.5 mm	
Mounting panels		2.5 mm	≤3.0 mm	
Mounting plates		2.0 mm	≤3.0 mm	
Doors		1.5 mm	≤2.0 mm	
EMC attenuation				
EMC attenuation		<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a>	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a>	
Installable module heights (HU = 1 3/4" = 44.45 mm)				
		19" fixed-mounted	19" swing frame	
Height 1800 mm		36 HU	34 HU	On request
Height 2000 mm		41 HU	38 HU	On request
Height 2200 mm		45 HU	43 HU	On request



# Quick selection guide

## Two installation types



**Stand-alone installation**

- With side panels  
(lockable in the case of data cubicles)



**Suite installation**

- Without side panels

## Four versions



**Basic version**

- IP40 or IP55



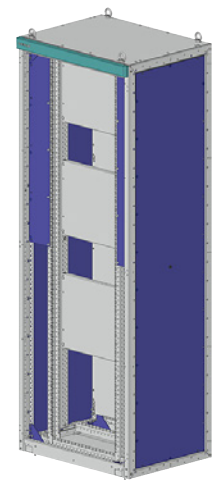
**Ventilated cubicles**

- IP20
- Door and roof with ventilation fins



**Data cubicles**

- IP40
- Glass door at front
- Section door at rear
- Roof with cable entry
- 19" fixed-mounted



**Earthquake-resistant version**

- IP40
- Increased stability



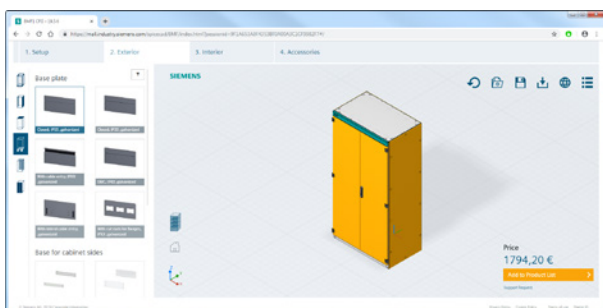
# Online configurator highlights

[www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

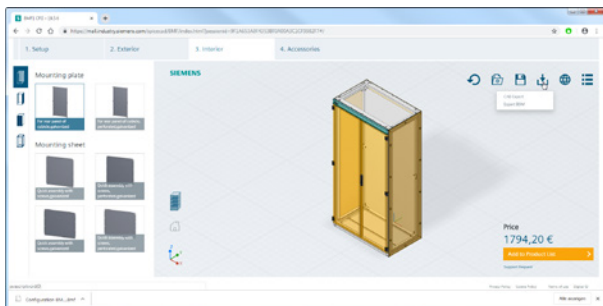
## Graphical configuration directly on the 3D model (WYSIWYG)



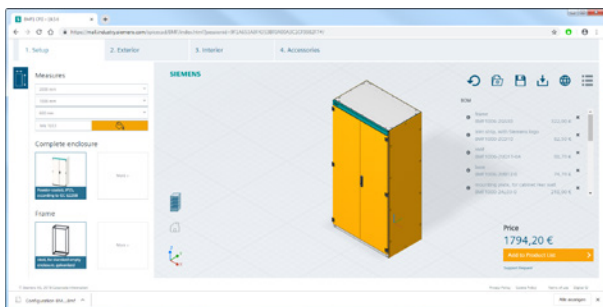
## Customization of the control cabinet with cutouts and color



## Exporting of parts lists and 3D and 2D data



## Dynamic and interactive parts lists



# Structure of the article numbers

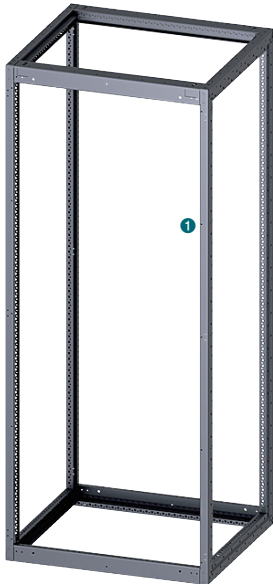
The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

		5	6	7	8	9	10	11
<b>8MF1</b>								
<b>Height</b>	1800 mm	8						
	2000 mm	0						
	2200 mm	2						
<b>Width</b>	400 mm		4					
	600 mm		6					
	800 mm		8					
	900 mm		9					
	1000 mm		0					
	1200 mm		2					
<b>Depth</b>	400 mm			4				
	500 mm			5				
	600 mm			6				
	800 mm			8				
	1000 mm			0				
<b>Version</b>	Basic					B		
	Ventilated					V		
	Data					D		
	Earthquake-resistant					E		
<b>Installation</b>	Stand-alone						S	
	Side by side						R	
<b>Degree of protection</b>	Basic cubicles, data cubicles	IP40						4
		IP55						5
	Ventilated cubicles	IP20						4
	Earthquake-resistant cubicles	IP40						5

# Quick selection guide

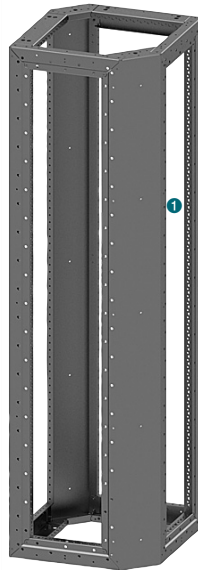
## Frame

For standard enclosure

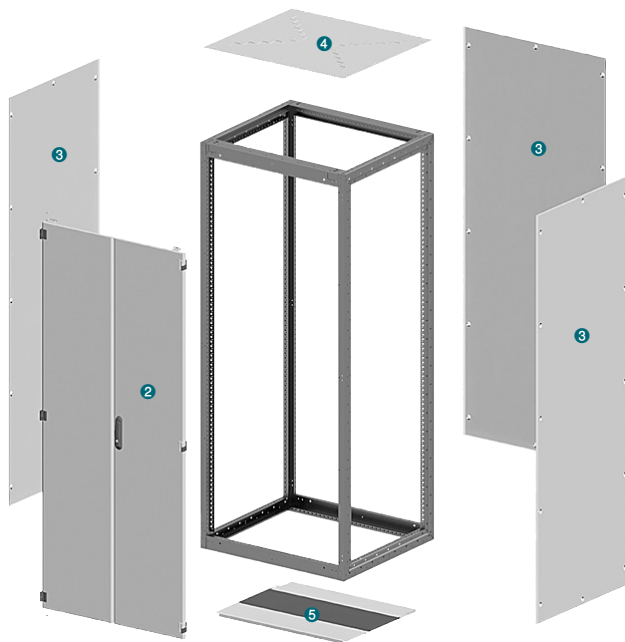


1 Frame

For corner enclosure



## Enclosure



2 Door, door half,  
compartment door  
3 Side panels, rear panel

4 Roof  
5 Floor

# 1 Frame



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## For standard enclosure

		8MF1	5	6	7	8	9	10	11	12
Height	1800 mm		8							
	2000 mm		0							
	2200 mm		2							
Width	400 mm			4						
	600 mm			6						
	800 mm			8						
	900 mm			9						
	1000 mm			0						
	1200 mm			2						
Depth	400 mm				4					
	500 mm				5					
	600 mm				6					
	800 mm				8					
	1000 mm				0					
Material, surface	Zinc-plated								3	
	Powder-coated, RAL 7035								4	

## For corner enclosure

		8MF1	5	6	7	8	9	10	11	12
Height	1800 mm		8							
	2000 mm		0							
	2200 mm		2							
Width	400 mm			4						
	600 mm			6						
	800 mm			8						
	1000 mm			0						
Depth	400 mm				5					
	600 mm				7					
	800 mm				0					
	1000 mm				1					
Material, surface	Zinc-plated								3	

# 1 Frame

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## Accessories

### Base

		5	6	7	8	9	10
		8MF1					
Height	100 mm	0					
	200 mm	2					
Width	400 mm		4				
	600 mm		6				
	800 mm		8				
	900 mm		9				
	1000 mm		0				
	1200 mm		2				
Version	Base for cubicles with door at the front and the rear					C	R
	Base and feet for cubicles with door at the front					C	S
	Base for corner cubicle					E	S


### Base cover

		5	6	7	8	9	10
		8MF1					
Height	100 mm	0					
	200 mm	2					
Depth	400 mm			4			
	500 mm			5			
	600 mm			6			
	800 mm			8			
	1000 mm			0			
Version	Base covers for cubicle sides						T

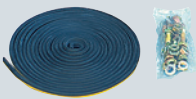

### Trim strip

		5	6	7	8	9	10	11	12
		8MF1							
Width	400 mm		4						
	600 mm		6						
	800 mm		8						
	900 mm		9						
	1000 mm		0						
	1200 mm		2						
Version	Trim strip petrol								
								0	0
								1	0
								1	6
								1	7
	Trim strip RAL 7035							0	8

## Separator

Separator for vertical division of the enclosure		
	Height	Article No.
	1800 mm	8MF1165-2AT30
	2000 mm	8MF1185-2AT30
	2200 mm	8MF1205-2AT30

## Mounting accessories

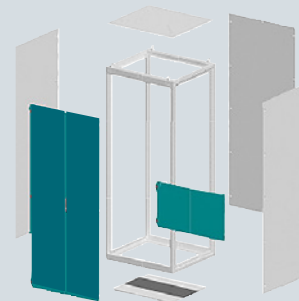
Accessories for cubicle suites			
	Version	Degree of protection	Article No.
	Screw set	IP40	8MF1000-2CA
	Sealing tape	IP40 to IP55	8MF1000-2CB
	Side-by-side installation kit	IP40 EMC (IP55 not available)	8MF1000-2CE
Kit for stabilization of corner connections			Article No.
			8MF1000-2HF

## Transport accessories

Transport eyebolts		
	Load bearing capacity	Article No.
	Up to 500 kg	8MF1000-2CK
Transport brackets		
	Width	Article No.
	400 mm	8MF1040-2CW
	600 mm	8MF1060-2CW
	800 mm	8MF1080-2CW
	900 mm	8MF1090-2CW
	1000 mm	8MF1000-2CW
	1200 mm	8MF1020-2CW

## 2 Door, door halves, compartment door

### Door, door halves



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		5	6	7	8	9	10	11	12	13	14	15	16
		8MF1		0	2	U	T						
Height	1800 mm	8											
	2000 mm	0											
	2200 mm	2											
Width	300 mm		3										
	400 mm		4										
	450 mm		7										
	500 mm		5										
	600 mm		6										
	800 mm		8										
	900 mm		9										
	1000 mm		0										
1200 mm		2											
Door type	Door/inner door							1					
	Door halves (only available with hinging on the left)							2					
Hinge position	Left								5				
	Right								4				
Door version	IP20	With ventilation openings								1	B	A	2
	IP40	Closed							0		C	A	1
		With ventilation slits							2		B	A	2
	IP55	Closed							0		B	A	2
		With inspection window							0		B	E	2
	IPxx	With cutout 292 × 292 mm (up to IP55) for filter fan							3		B	A	2
	–	Inner door, closed (up to 800 mm wide)							4		B	A	2

## Compartment door

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		5	6	7	8	9	10	11	12	13	14	15	16
<b>8MF1</b>				0	2	U	T	3	4	0	B	A	2
<b>Compartment height</b>	300 mm	3											
	400 mm	4											
	500 mm	5											
	600 mm	6											
	700 mm	7											
	800 mm	8											
	900 mm	9											
	1000 mm	0											
	1100 mm	1											
1200 mm	2												
<b>Width</b>	600 mm		6										
	800 mm		8										



## 2 Door, door halves, compartment door


### Accessories

Door shelves					
	<ul style="list-style-type: none"> <li>Multi-purpose door bars required for mounting</li> <li>Shelf: RAL 7035</li> </ul>				
	For door width	Mounting location			Article No.
		Door	Door halves	Compartment door	
600 mm	■	■	–	8MF1060-2VP	
800 mm	■	■	–	8MF1080-2VP	
Grilles					
	<ul style="list-style-type: none"> <li>To upgrade degree of protection from IP2x to IP4x</li> <li>Surface: zinc-plated</li> </ul>				
	Width	Mounting location			Article No.
		Door	Door halves	Compartment door	
	300 mm	■	■	–	8MF1030-2HM
	400 mm	■	■	–	8MF1040-2HM
	500 mm	■	■	–	8MF1050-2HM
	600 mm	■	■	–	8MF1060-2HM
	700 mm	■	■	–	8MF1070-2HM
	800 mm	■	■	–	8MF1080-2HM
900 mm	■	■	–	8MF1090-2HM	
Strips					
	<ul style="list-style-type: none"> <li>For door reinforcement</li> <li>Surface: zinc-plated</li> <li>Cannot be used for glass doors</li> </ul>				
	Height	Mounting location			Article No.
		Door	Door halves	Compartment door	
	1800 mm	■	■	–	8MF1008-2VM
	2000 mm	■	■	–	8MF1000-2VM
2200 mm	■	■	–	8MF1002-2VM	
Position switches					
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	1 NO + 1 NC	■	■	■	8MF1000-2VL
1 NO + 2 NC	■	■	■	8MF1000-2VR	
Circuit diagram pockets					
	<ul style="list-style-type: none"> <li>Cannot be used for glass doors</li> </ul>				
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	Plastic	■	■	–	8MF1000-2VK
Steel, zinc-plated	■	■	–	8MF1000-2VU	
Limit plates					
	For a number n of compartment doors, n–1 limit plates are additionally required. Please order separately.				
	Width	Mounting location			Article No.
		Door	Door halves	Compartment door	
	600 mm	–	–	■	8MF1060-2AK14-0
800 mm	–	–	■	8MF1080-2AK14-0	
Door stays					
	<ul style="list-style-type: none"> <li>With variable opening angle: 90°, 120° and 150°</li> <li>Surface: zinc-plated</li> </ul>				
	Mounting location			Article No.	
	Door	Door halves	Compartment door		
	■	■	–	8MF1000-2VG	

Rotary handles					
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	With button insert and eye for padlock	■	–	–	8MF1000-2VN

Rotary handle inserts					
• Not suitable for door halves					
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	Double-bit key	■	–	–	8MF1000-2VA
	Square key	■	–	–	8MF1000-2VC
	Triangular key	■	–	–	8MF1000-2VD
	Daimler	■	–	–	8MF1000-2VE
	Cylinder lock	■	–	–	8MF1000-2VF

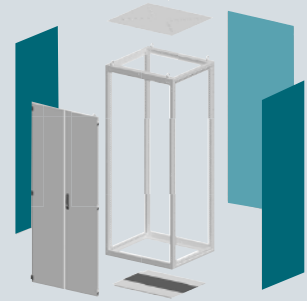
## Spare part door

Hinge sets					
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	For left-hand hinge	■	■	■	8MF1000-2VT
	For right-hand hinge	■	■	■	8MF1000-2VW

Rotary handles					
	Version	Mounting location			Article No.
		Door	Door halves	Compartment door	
	Without insert	■	–	–	8MF1000-2VP

Grounding cables for doors					
	Cable cross-section	Mounting location			Article No.
		Door	Door halves	Compartment door	
	6 mm <sup>2</sup>	■	■	■	8MF1010-2HD3

### ③ Side/rear panel

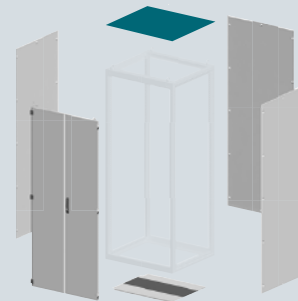


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8MF1				5	6	7	8	9	10	11	12	13	14
<b>Height</b>													
	1800 mm			8									
	2000 mm			0									
	2200 mm			2									
<b>Width</b>													
	300 mm			3									
	400 mm			4									
	450 mm			7									
	500 mm			5									
	600 mm			6									
	800 mm			8									
	900 mm			9									
	1000 mm/No selection available for partitions			0									
	1200 mm			2									
<b>Depth</b>													
	No value					0							
	400 mm					4							
	500 mm					5							
	600 mm					6							
	800 mm					8							
	1000 mm/No selection available for side panels					0							
<b>Side wall/ rear wall</b>	IP40	Closed	Without seal							6	0	1	C
			EMC seal							6	2	1	B
		Flat								6	3	1	C
	IP55	Closed	Foamed seal							6	1	1	C
<b>Partition</b>		Closed	Without seal							7	0	3	C



## 4 Roof



The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

### For standard systems

8MF1				5	6	7	8	9	10	11	12	13	14
				0			2	U	D				
Width	400 mm			4									
	600 mm			6									
	800 mm			8									
	900 mm			9									
	1000 mm			0									
	1200 mm			2									
Depth	400 mm					4							
	500 mm					5							
	600 mm					6							
	800 mm					8							
	1000 mm					0							
Version	IP20	Perforated	Without seal							2	0	0	A
			With seal						1	0	0	A	
	IP40	Closed	Without seal							1	2	0	A
			EMC seal						3	0	0	A	
			With ventilation fins	Without seal						1	1	0	A
	IP55	Closed	Foamed seal							1	1	0	A

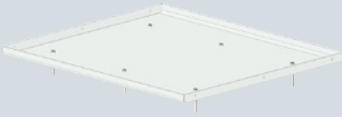
### For corner enclosure

8MF1				5	6	7	8	9	10	11	12	13	14
				0	0		2	U	E				
Width/depth	400/400 mm					4							
	600/600 mm					6							
	800/800 mm					8							
	1000/1000 mm					0							
Version	For corner cubicle	IP20	With ventilation openings							2	0	0	A
			Closed						1	0	0	A	
		IP40	With ventilation openings							3	0	0	A
			Closed							1	1	0	A

## Accessories

### Roof trays

Roof trays for increasing the degree of protection, IPX1



Width	Depth	Article No.
400 mm	400 mm	8MF1044-2VH
	500 mm	8MF1045-2VH
	600 mm	8MF1046-2VH
	800 mm	8MF1048-2VH
	1000 mm	8MF1040-2VH
600 mm	400 mm	8MF1064-2VH
	500 mm	8MF1065-2VH
	600 mm	8MF1066-2VH
	800 mm	8MF1068-2VH
	1000 mm	8MF1060-2VH
800 mm	400 mm	8MF1084-2VH
	500 mm	8MF1085-2VH
	600 mm	8MF1086-2VH
	800 mm	8MF1088-2VH
	1000 mm	8MF1080-2VH
900 mm	400 mm	8MF1094-2VH
	500 mm	8MF1095-2VH
	600 mm	8MF1096-2VH
	800 mm	8MF1098-2VH
	1000 mm	8MF1090-2VH
1000 mm	400 mm	8MF1004-2VH
	500 mm	8MF1005-2VH
	600 mm	8MF1006-2VH
	800 mm	8MF1008-2VH
	1000 mm	8MF1000-2VH
1200 mm	400 mm	8MF1024-2VH
	500 mm	8MF1025-2VH
	600 mm	8MF1026-2VH
	800 mm	8MF1028-2VH
	1000 mm	8MF1020-2VH

### Roof tray rims

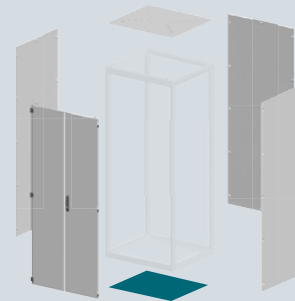
Roof tray rims for cubicle side, IPX1



Each cubicle or cubicle group with a roof tray requires two roof tray rims.  
(1 set = 2 units)

Depth	Article No.
400 mm	8MF1004-2VB
500 mm	8MF1005-2VB
600 mm	8MF1006-2VB
800 mm	8MF1008-2VB
1000 mm	8MF1000-2VB

## 5 Floor



The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

### For standard enclosure

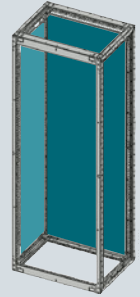
		5	6	7	8	9	10	11	12	13
		0			2	U	B			
<b>8MF1</b>										
<b>Width</b>	400 mm		4							
	600 mm		6							
	800 mm		8							
	900 mm		9							
	1000 mm		0							
	1200 mm		2							
<b>Depth</b>	400 mm			4						
	500 mm			5						
	600 mm			6						
	800 mm			8						
	1000 mm			0						
<b>Version</b>	IP30 Closed, divided							2	2	0
	IP40 Closed EMC seal							4	2	0
	IP55 Closed Foamed seal							1	2	0
	IPxx With cable entry							3	2	0
	With cable entry, lateral and rear <sup>1)</sup>							5	1	2
With cut-outs for flanges							5	2	0	

<sup>1)</sup> Version available from width  $\geq 600$  mm and depth  $\geq 600$  mm

### For corner enclosure

		5	6	7	8	9	10	11	12	13
		0	0		2	U	E		1	0
<b>8MF1</b>										
<b>Depth</b>	400 mm			4						
	600 mm			6						
	800 mm			8						
	1000 mm			0						
<b>Degree of protection</b>	IP40							2		
	IP55							1		

# Mounting panels



The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

		5	6	7	8	9	10	11	12	13
		8MF1			2	A				0
Cubicle height	1800 mm	8								
	2000 mm	0								
	2200 mm	2								
Cubicle width	400 mm		4							
	600 mm		6							
	800 mm		8							
	900 mm		9							
	1000 mm/No selection available for installation on side of cubicle		0							
	1200 mm		2							
Depth	400 mm			4						
	500 mm			5						
	600 mm			6						
	800 mm			8						
	1000 mm/No selection available for installation on cubicle width			0						
Installation location	Cubicle width						L			
	Cubicle side						K			
Version	Smooth							0		
	Perforated							1		
Material	2.5 mm sheet steel								3	

## Accessories

### Mounting panel adapters

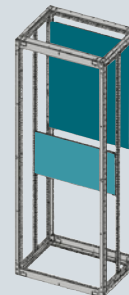


- For connecting side-by-side mounting panels
- Surface: zinc-plated

Height	Article No.
1800 mm	8MF1800-2CH
2000 mm	8MF1000-2CH
2200 mm	8MF1200-2CH



# Mounting plates

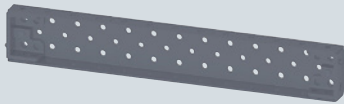


The structure shown below is intended as an overview of each position and its meaning. For a complete and valid configuration of your system cubicle, please use our online configurator at [www.siemens.com/lowvoltage/8mf1-configurator](http://www.siemens.com/lowvoltage/8mf1-configurator)

		5	6	7	8	9	10	11	12	13
		8MF1		0	2	A				0
Height	100 mm	1								
	200 mm	2								
	300 mm	3								
	400 mm	4								
	600 mm	6								
	800 mm	8								
Width	400 mm		4							
	600 mm		6							
	800 mm		8							
	900 mm		9							
	1000 mm		0							
	1200 mm		2							
Installation location	Fixed with zinc die-cast parts between the bars of the frame						M			
	Fixed directly to the frame						A			
Version	Smooth							0		
	Perforated							1		
Material	2.0 mm sheet steel								2	

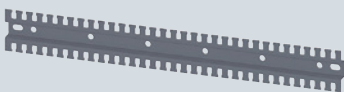
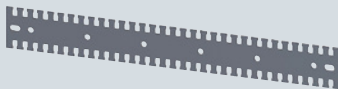
# Mounting rails

## Mounting rails (50)



Version	Length	Article No.
Suitable for cubicle width	400 mm	8MF1032-2AS30
	600 mm	8MF1052-2AS30
		8MF1055-2AS30
		8MF1062-2AS30
	800 mm	8MF1072-2AS30
		8MF1075-2AS30
	900 mm	8MF1082-2AS30
	1000 mm	8MF1092-2AS30
		8MF1105-2AS30
	1200 mm	8MF1112-2AS30
		8MF1125-2AS30
		8MF1135-2AS30
		8MF1145-2AS30
		8MF1155-2AS30
Suitable for cubicle height	1800 mm	8MF1165-2AS30
		8MF1175-2AS30
	2000 mm	8MF1185-2AS30
		8MF1195-2AS30
	2200 mm	8MF1205-2AS30
		8MF1215-2AS30
		8MF1225-2AS30
Suitable for cubicle depth	400 mm	8MF1025-2AS30
	500 mm	8MF1035-2AS30
		8MF1042-2AS30
	600 mm	8MF1045-2AS30
	800 mm	8MF1062-2AS30
	1000 mm	8MF1085-2AS30

## Mounting rails, serrated



Version	Length	Article No.
Flat	600 mm	8MF1060-2HC13-0
	800 mm	8MF1080-2HC13-0
	900 mm	8MF1090-2HC13-0
	1000 mm	8MF1000-2HC13-0
	1200 mm	8MF1020-2HC13-0
	U-shape	600 mm
800 mm		8MF1080-2HC03-0
900 mm		8MF1090-2HC03-0
1000 mm		8MF1000-2HC03-0
1200 mm		8MF1020-2HC03-0

## Mounting rails, compact



Version	Length	Article No.
Suitable for cubicle width	600 mm	8MF1056-2AS30
	1000 mm	8MF1096-2AS30
	1200 mm	8MF1006-2AS30
Suitable for door width	300 mm	8MF1016-2AS30
	400 mm	8MF1026-2AS30
	450 mm	8MF1031-2AS30
	500 mm	8MF1036-2AS30
	600 mm	8MF1046-2AS30
	800 mm	8MF1066-2AS30
	900 mm	8MF1076-2AS30
	1000 mm	8MF1086-2AS30

## Mounting rails, heavy duty



- Can be installed in the cubicle depth and width (the length corresponds to the appropriate cubicle dimension)

Length	Article No.
600 mm	8MF1060-2AH60
800 mm	8MF1080-2AH60
900 mm	8MF1090-2AH60
1000 mm	8MF1000-2AH60
1200 mm	8MF1020-2AH60

# General accessories interior installation

## Telescopic rails



- For withdrawable shelves

For cubicle depth	Article No.
400 mm and 600 mm	8MF1003-2HF
800 mm and 1000 mm	8MF1006-2HF

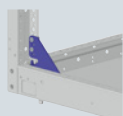
## Mounting brackets



- For mounting expansion elements

Article No.
8MF1000-2CP

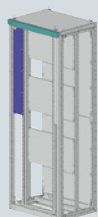
## Earthquake assembly kits



For stabilization of	Article No.
Corner connections	8MF1000-2HA



Intermediate panel	8MF1000-2HW
--------------------	-------------



19" fixed-mounted	8MF1000-2HE
-------------------	-------------

## Grounding plates



- For fixing to the frame (although fixing points for ground connection are already provided on the frame)

Article No.
8MF1000-2HK

## Grounding bars



Version	Width	Article No.
30 × 10 mm <sup>2</sup>	600 mm	8MF1060-2HD2
	800 mm	8MF1080-2HD2
	900 mm	8MF1090-2HD2
	1000 mm	8MF1000-2HD2
	1200 mm	8MF1020-2HD2
30 × 5 mm <sup>2</sup>	600 mm	8MF1060-2HD1
	800 mm	8MF1080-2HD1
	900 mm	8MF1090-2HD1
	1000 mm	8MF1000-2HD1
	1200 mm	8MF1020-2HD1

## Grounding screws

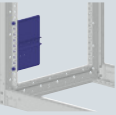


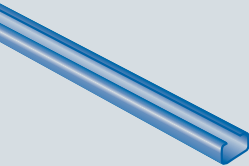


Thread	Article No.
M12	8MF1000-2HB

## Grounding straps

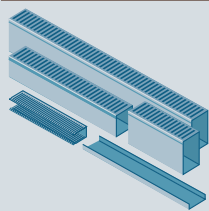


Cross-section	Article No.
16 mm <sup>2</sup>	8MF1000-2HK1
32 mm <sup>2</sup>	8MF1000-2HK2

Universal sheets				
	• Incl. standard mounting rail; e.g. for mounting a heater unit			
				Article No. 8MF1000-2HG
Standard mounting rails				
	• For mounting modular installation devices			
	Height			Article No.
	7.5 mm			8MF1500-2HS
	15 mm			8MF1100-2HS
Insulated supports				
	Thread	Dimensions	Article No.	
	M8	D 40 x 50 mm	8MF1000-2VY	
Cable clamping rails				
	Height	Width	Depth	Article No.
	30 mm	600 mm	–	8MF1360-2HH
		800 mm	–	8MF1380-2HH
		900 mm	–	8MF1390-2HH
		1000 mm	–	8MF1310-2HH
		1200 mm	–	8MF1320-2HH
		–	400 mm	8MF1304-2HH
		–	600 mm	8MF1306-2HH
		–	800 mm	8MF1308-2HH
		–	1000 mm	8MF1301-2HH
	40 mm	600 mm	–	8MF1460-2HH
		800 mm	–	8MF1480-2HH
		900 mm	–	8MF1490-2HH
		1000 mm	–	8MF1410-2HH
		1200 mm	–	8MF1420-2HH
		–	400 mm	8MF1404-2HH
		–	600 mm	8MF1406-2HH
		–	800 mm	8MF1408-2HH
		–	1000 mm	8MF1401-2HH
	50 mm	600 mm	–	8MF1560-2HH
		800 mm	–	8MF1580-2HH
		900 mm	–	8MF1590-2HH
		1000 mm	–	8MF1510-2HH
1200 mm		–	8MF1520-2HH	
–		400 mm	8MF1504-2HH	
–		600 mm	8MF1506-2HH	
	–	800 mm	8MF1508-2HH	
	–	1000 mm	8MF1501-2HH	

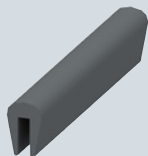
# General accessories interior installation

## Cable ducts



Version	Color	Height	Width	Article No.			
Halogen-free	RAL 7035	37.5 mm	25 mm	8MF1120-2HL7			
		50 mm	25 mm	8MF1220-2HL7			
			37.5 mm	8MF1240-2HL7			
			50 mm	8MF1250-2HL7			
			75 mm	8MF1260-2HL7			
			75 mm	50 mm	8MF1350-2HL7		
				75 mm	8MF1360-2HL7		
		100 mm	100 mm	8MF1370-2HL7			
			125 mm	8MF1380-2HL7			
			100 mm	75 mm	8MF1460-2HL7		
			Standard	RAL 7030	37.5 mm	25 mm	8MF1120-2HL6
					50 mm	25 mm	8MF1220-2HL6
37.5 mm	8MF1240-2HL6						
50 mm	8MF1250-2HL6						
75 mm	75 mm	8MF1260-2HL6					
	50 mm	8MF1350-2HL6					
	75 mm	8MF1360-2HL6					
100 mm	100 mm	8MF1370-2HL6					
	125 mm	8MF1380-2HL6					
	100 mm	75 mm	8MF1460-2HL6				

## Edge protection



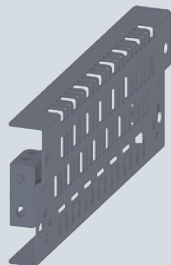
Dimensions	Article No.
9.5 × 6.5 mm	8MF1000-2CD

## Mounting plates








Dimensions	Version	Article No.
122 × 91 mm	Standard	8MF1000-2HH
122 × 92 mm	With DIN rail	8MF1000-2HH1

## Buses for improving EMC



Installation in	Width	Depth	Article No.
Cubicle width	400 mm	–	8MF1040-2HN
	600 mm	–	8MF1060-2HN
	800 mm	–	8MF1080-2HN
	900 mm	–	8MF1090-2HN
	1000 mm	–	8MF1000-2HN
	1200 mm	–	8MF1020-2HN
Cubicle depth	–	400 mm	8MF1004-2HN
	–	600 mm	8MF1006-2HN
	–	800 mm	8MF1008-2HN
	–	1000 mm	8MF1001-2HN

Brackets		
	<ul style="list-style-type: none"> <li>For variable mounting of cable clamping rails</li> </ul>	
		<b>Article No.</b> 8MF1000-2HH5
Toothed bars		
	<ul style="list-style-type: none"> <li>For installation on mounting rail</li> </ul>	
	<b>Length</b> 100 mm	<b>Article No.</b> 8MF1000-2HC
Contact washers		
	<ul style="list-style-type: none"> <li>Size 6</li> </ul>	
	<b>Scope of supply</b> 100 units	<b>Article No.</b> 8MF1000-2VJ
Screws		
	<ul style="list-style-type: none"> <li>M6 × 12</li> </ul>	
	<b>Scope of supply</b> 100 units	<b>Article No.</b> 8MF1000-2VS
Adapters for wiring systems		
	<b>Version</b>	<b>Article No.</b>
	For Lütze wiring system	8MF1000-2HL
	For Promet wiring system	8MF1000-2HP

# 19-inch expansion

## Cubicle frames



- For the installation of 19" devices, screwed
- In combination with 2 mounting rails, heavy duty in cubicle width (order mounting rail separately, [see page 17/25](#))
- For cubicle width  $\geq 600$  mm

Surface	Height	For mounting height	Article No.
Zinc-plated	400 mm	7 HU	8MF1100-2AN30
	600 mm	12 HU	8MF1200-2AN30
	800 mm	16 HU	8MF1300-2AN30
	1000 mm	21 HU	8MF1400-2AN30
	1200 mm	25 HU	8MF1500-2AN30
	1400 mm	30 HU	8MF1600-2AN30
	1800 mm	36 HU	8MF1700-2AN30
	2000 mm	41 HU	8MF1800-2AN30
	2200 mm	45 HU	8MF1900-2AN30

## Swing frames



- For the installation of 19" devices, screwed
- Left-hand/right-hand hinge
- In combination with 2 mounting rails, heavy duty in cubicle width (order mounting rail separately)
- For cubicle width  $\geq 800$  mm

Version	Surface	Height	For mounting height	Article No.
Screwed <sup>1)</sup>	Zinc-plated	1800 mm	34 HU	8MF1800-2AR02-4
		2000 mm	38 HU	8MF1000-2AR02-4
		2200 mm	43 HU	8MF1200-2AR02-4
	Powder-coated	1800 mm	34 HU	8MF1800-2AR02-3
		2000 mm	38 HU	8MF1000-2AR02-3
		2200 mm	43 HU	8MF1200-2AR02-3
Welded <sup>2)</sup>	Powder-coated	1800 mm	34 HU	8MF1800-2AR02-2
		2000 mm	38 HU	8MF1000-2AR02-2
		2200 mm	43 HU	8MF1200-2AR02-2

<sup>1)</sup> Interlocking with 3 mm double-bit key




<sup>2)</sup> Spring interlocking at top and bottom

## Accessories


### Universal supports






Version	For mounting height	Article No.
For cable channel, DIN rail and C rail	1 HU	8MF1000-2HH2
	2 HU	8MF1000-2HH3
For cable channel, DIN rail, C rail and lamp		8MF1000-2HH4


Covers				
Version	Surface	For mounting height		Article No.
	Closed	RAL 7035	1 HU	8MF1000-2AB01
			2 HU	8MF1000-2AB02
			3 HU	8MF1000-2AB03
			4 HU	8MF1000-2AB04
			5 HU	8MF1000-2AB05
			6 HU	8MF1000-2AB06
			7 HU	8MF1000-2AB07
	With ventilation openings	RAL 7035	2 HU	8MF1000-2AB32
			3 HU	8MF1000-2AB33
	For modular installation devices	RAL 7035	3 HU	8MF1000-2AB31

Frames				
Version	Surface	For mounting height		Article No.
	For mounting test switches, 19"	RAL 7035	7 HU	8MF1000-2AB30

Covers for frames				
Version	Surface			Article No.
	For mounting 7XP 1/6 standard devices	RAL 7035		8MF1000-2AB34
	For mounting 7XP 2/6 standard devices	RAL 7035		8MF1000-2AB35
	For mounting 7XP 3/6 standard devices	RAL 7035		8MF1000-2AB36

Shelves					
Version	Surface	For mounting height	Depth	Article No.	
	Non-adjustable	Zinc-plated	3 HU	230 mm	8MF1000-2AB12
				400 mm	8MF1000-2AB14
	Withdrawable	RAL 7035	1 HU	8MF1000-2HF12	

Slide rails				
Version	Depth			Article No.
	For 19" fixed-mounted (double mounting at front and rear)	400 mm		8MF1004-2HG12
		600 mm		8MF1006-2HG12
		800 mm		8MF1008-2HG12
		1000 mm		8MF1000-2HG12
	For 19" fixed-mounted and For 19" swing frame			8MF1000-2HS12

Device panels				
Surface	Height	Width	Article No.	
	Zinc-plated	1800 mm	100 mm	8MF1810-2AB00
			150 mm	8MF1850-2AB00
			200 mm	8MF1820-2AB00
		2000 mm	100 mm	8MF1010-2AB00
			150 mm	8MF1050-2AB00
			200 mm	8MF1020-2AB00
		2200 mm	100 mm	8MF1210-2AB00
			150 mm	8MF1250-2AB00
			200 mm	8MF1220-2AB00



# Quick selection guide

## LED lights

The LED lights offer optimum lighting conditions for installation and maintenance.  
The LED technology is energy-efficient and maintenance-free.

### Magnetic fixing

Easy installation at any point on the steel cubicle

### Screw fixing

Fixed installation in the case of impact loads or high vibration levels

### Clip fixing

The lamp is snapped into the clip bracket and can be turned in both directions

### With motion detector

The lights switch on when the door is opened, enabling work in the cubicle to be started immediately









### With On/Off switch

Particularly suitable for operation in cubicles and enclosures with a high density of built-in electrical/electronic components

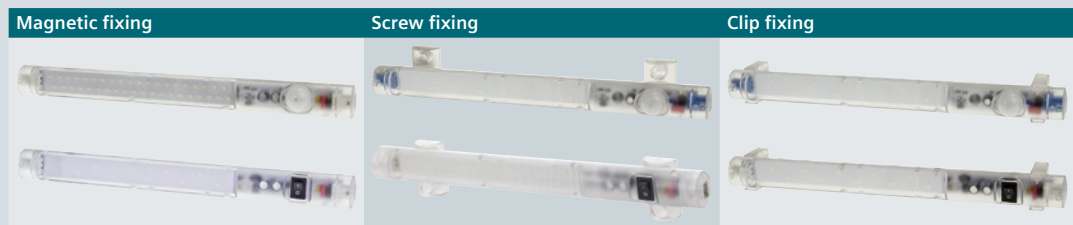


## Slimline lights

The Slimline lights are an alternative with an energy-saving lamp and are also available as a version with an integrated socket.

		Screw fixing	Magnetic fixing
<b>With motion detector</b> The lights switch on when the door is opened, enabling work in the cubicle to be started immediately	<b>With socket outlet</b>		
	<b>Without socket outlet</b>		
<b>With On/Off switch</b> Particularly suitable for operation in cubicles and enclosures with a high density of built-in electrical/electronic components	<b>With socket outlet</b>		
	<b>Without socket outlet</b>		

# LED lights



## LED lights with motion detector

	Magnetic fixing	Screw fixing	Clip fixing
100 ... 240 V AC, 50/60 Hz	8MR2200-0A	8MR2200-0B	8MR2200-0C
24 ... 48 V DC	8MR2201-0A	8MR2201-0B	8MR2201-0C

## LED lights with On/Off switch

	Magnetic fixing	Screw fixing	Clip fixing
100 ... 240 V AC, 50/60 Hz	8MR2200-1A	8MR2200-1B	8MR2200-1C
24 ... 48 V DC	8MR2201-1A	8MR2201-1B	8MR2201-1C

## Accessories

### Cables

#### Connecting cables with socket and open end



- For connection of an LED light (switch side)
- Length 2 m

Version	Cross-section	Standard	Article No.
AC connecting cable	2× 1.5 mm <sup>2</sup>	VDE	8MR2210-1B
	AWG 16	UL	8MR2210-2B
DC connecting cable	2× 1.5 mm <sup>2</sup>	VDE	8MR2210-3B
	AWG 16	UL	8MR2210-4B

#### Extension cables with socket and plug



- For looping through to another LED light
- Length 1 m

Version	Cross-section	Standard	Article No.
AC plastic-sheathed cable	2× 1.5 mm <sup>2</sup>	VDE	8MR2210-1C
	AWG 16	UL	8MR2210-2C
DC plastic-sheathed cable	2× 1.5 mm <sup>2</sup>	VDE	8MR2210-3C
	AWG 16	UL	8MR2210-4C

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### Individual plugs or sockets for self-assembly of cables

#### For connection of an LED light (switch side)



Version	Application	Color	Article No.
AC socket	For input side	White	8MR2210-1A
DC socket	For input side	Blue	8MR2210-3A

#### For looping through to another LED light



Version	Application	Color	Article No.
AC connector	For output side	White	8MR2210-2A
DC connector	For output side	Blue	8MR2210-4A

# Slimline lights



## Slimline lights with motion detector

230 V AC, 50/60 Hz	With socket outlet	8MF5910-1A	8MF5910-1C
	Without socket outlet	8MF5910-2A	8MF5910-2B

## Slimline lights with On/Off switch

230 V AC, 50/60 Hz	With socket outlet	8MF5900-1A	8MF5900-1C
	Without socket outlet	8MF5900-2A	8MF5900-2B

# Quick selection guide

## Solutions to provide protection against heat

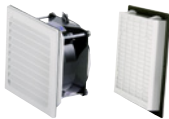
### Cooling devices



### Heat exchangers



### Filter fans/outlet fans



### Thermostats



## Solutions to provide protection against cold

### Heater units



### Fan heaters



### Thermostats



## Solutions to provide protection against corrosion and condensation

### Heater units/fan heaters



### Filter fans/outlet filters



### Thermostats



### Hygrostats/hygrotherms



## SIMARIS therm

SIEMENS Project definition System planning Calculation Project outputs

New project System (SIVACON 8MR) System (freely definable enclosure) Freely defined enclosure

Devices	Nominal current [A]	Order number	Description	Quantity	Number	Connected poles	Rated current [A]	RDF (rated device)	Power loss, pole-d
	0.00	6R1210-14E11-BA	SIVAMEL 0130...	1	0	0	0.00		-
	0.00	6R1210-14E11-BA	SIVAMEL 0130...	1	0	0	0.00		-
	80.00	3W11208	AIR CIRCUL. BHE...	1	3	3	100.00		2
	100.00	3W12100-10100-G...	MICKR. REC. F510...	1	3	3	100.00		1
	63.00	3W12106-83	MICKR. CARD...	1	3	3	63.00		-

Bushes

Amperage [A] Cross-section [mm<sup>2</sup>] Length [mm] Resistance [mΩ] Number of poles Calculated power [W]

Power loss, devices [W] 141.4 with RDF 80 % (Einzelne Geräte können einen abweichenden Ausströmungsfaktor haben)

Power loss, wiring [W] 43.6

Power loss, bushings [W] 0.0

Disruptable power loss for cooling [W] selection of devices: 6R18423-3E006

Total power loss [W] -43.0

Disruptable power loss [W] at the maximum 238.0 corresponds to 20 K at 75% height of the enclosure

The effective power losses of all circuits can be disrupted by the enclosure.

The SIMARIS therm calculation tool helps you to easily and precisely dimension the heat dissipation of your control panels, simply by entering the ambient air temperature and selecting the relevant devices in the panel. If necessary, you can immediately select the necessary cooling devices and air conditioners. You can also define the necessary heating power for anti-condensation heating.

For a free download, and further information, visit: [www.siemens.com/simaristherm](http://www.siemens.com/simaristherm)

# Filter fans and outlet filters

## Filter fans

Size	Cutout	Voltage	Input rating at 50 Hz	Color	Degree of protection IP54		Degree of protection IP55	
					Air current, free-blowing at 50 Hz	Article No.	Air current, free-blowing at 50 Hz	Article No.
<b>Filter fans with EC technology</b>								
	125 x 125 mm	115 V AC, 50/60 Hz	4.4 W	RAL 7035	62 m³/h	8MR6411-5LE25		–
		230 V AC, 50/60 Hz	4.4 W	RAL 7035	62 m³/h	8MR6423-5LE25		–
	177 x 177 mm	115 V AC, 50/60 Hz	4.4 W	RAL 7035	120 m³/h	8MR6411-5LE30		–
		230 V AC, 50/60 Hz	4.4 W	RAL 7035	120 m³/h	8MR6423-5LE30		–
<b>Standard filter fans</b>								
	92 x 92 mm	115 V AC, 50/60 Hz	12 W	RAL 7035	25 m³/h	8MR6411-5LV10		–
		230 V AC, 50/60 Hz	12 W	RAL 7032	25 m³/h	8MR6423-2LV10		–
				RAL 7035	25 m³/h	8MR6423-5LV10		–
	125 x 125 mm	115 V AC, 50/60 Hz	20 W	RAL 7035	63 m³/h	8MR6411-5LV25	58 m³/h	8MR6511-5LV25
		230 V AC, 50/60 Hz	20 W	RAL 7032	63 m³/h	8MR6423-2LV25		–
				RAL 7035	63 m³/h	8MR6423-5LV25	58 m³/h	8MR6523-5LV25
	177 x 177 mm	115 V AC, 50/60 Hz	20 W	RAL 7035	115 m³/h	8MR6411-5LV30	105 m³/h	8MR6511-5LV30
		230 V AC, 50/60 Hz	20 W	RAL 7035	115 m³/h	8MR6423-5LV30	105 m³/h	8MR6523-5LV30
	223 x 223 mm	115 V AC, 50/60 Hz	18 W	RAL 7035	160 m³/h	8MR6411-5LV45	147 m³/h	8MR6511-5LV45
			43 W	RAL 7035	250 m³/h	8MR6411-5LV41	230 m³/h	8MR6511-5LV41
		230 V AC, 50/60 Hz	18 W	RAL 7032	160 m³/h	8MR6423-2LV45		–
			45 W	RAL 7035	160 m³/h	8MR6423-5LV45	147 m³/h	8MR6523-5LV45
			45 W	RAL 7032	250 m³/h	8MR6423-2LV41		–
			45 W	RAL 7035	250 m³/h	8MR6423-5LV41	230 m³/h	8MR6423-5LV41
	292 x 292 mm	115 V AC, 50/60 Hz	64 W	RAL 7035	580 m³/h	8MR6411-5LV60	531 m³/h	8MR6511-5LV60
			115 W	RAL 7035	930 m³/h	8MR6411-5LV80	850 m³/h	8MR6511-5LV80
		230 V AC, 50/60 Hz	64 W	RAL 7032	580 m³/h	8MR6423-2LV60		–
			135 W	RAL 7035	580 m³/h	8MR6423-5LV60	531 m³/h	8MR6523-5LV60
	135 W	RAL 7035	930 m³/h	8MR6423-5LV80	850 m³/h	8MR6523-5LV80		
<b>EMC filter fans</b>								
	177 x 177 mm	115 V AC, 50/60 Hz	20 W	RAL 7035	115 m³/h	8MR6411-6LV30	105 m³/h	8MR6511-6LV30
		230 V AC, 50/60 Hz	20 W	RAL 7035	115 m³/h	8MR6423-6LV30	105 m³/h	8MR6523-6LV30
	223 x 223 mm	115 V AC, 50/60 Hz	18 W	RAL 7035	160 m³/h	8MR6411-6LV45	147 m³/h	8MR6511-6LV45
			43 W	RAL 7035	250 m³/h	8MR6411-6LV41	230 m³/h	8MR6511-6LV41
		230 V AC, 50/60 Hz	18 W	RAL 7035	160 m³/h	8MR6423-6LV45	147 m³/h	8MR6523-6LV45
			45 W	RAL 7035	250 m³/h	8MR6423-6LV41	230 m³/h	8MR6523-6LV41

# Filter fans and outlet filters

## Outlet filters without fan



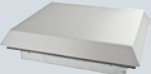
Size	Cutout	External dimensions W x H	Mounting depth	Cover grille height	Color	Degree of protection	Degree of protection
						IP54	IP55
						Article No.	Article No.
<b>Standard outlet filters</b>							
1	92 × 92 mm	105 × 105 mm	12 mm	4.5 mm	RAL 7032	8MR6400-2GV10	–
					RAL 7035	8MR6400-5GV10	–
2	125 × 125 mm	148 × 148 mm	23 mm	5.5 mm	RAL 7032	8MR6400-2GV25	–
					RAL 7035	8MR6400-5GV25	8MR6500-5GV25
3	177 × 177 mm	204 × 204 mm	26 mm	6 mm	RAL 7035	8MR6400-5GV30	8MR6500-5GV30
4	223 × 223 mm	250 × 250 mm	32 mm	6 mm	RAL 7032	8MR6400-2GV45	–
					RAL 7035	8MR6400-5GV45	8MR6500-5GV45
6	292 × 292 mm	323 × 323 mm	33 mm	6.5 mm	RAL 7032	8MR6400-2GV67	–
					RAL 7035	8MR6400-5GV67	8MR6500-5GV67
<b>EMC outlet filters</b>							
3	177 × 177 mm	204 × 204 mm	26 mm	6 mm	RAL 7035	8MR6400-6GV30	8MR6500-6GV30
4	223 × 223 mm	250 × 250 mm	32 mm	6 mm	RAL 7035	8MR6400-6GV45	8MR6500-6GV45

## Filter mats for filter fans and outlet filters




Size	Degree of protection		Degree of protection	
	Dimensions W x H	Article No.	Dimensions W x H	Article No.
<b>Standard filter mats</b>				
1	92 × 92 mm	8MR6000-0AM10	–	–
2	125 × 125 mm	8MR6000-0AM25	116 × 116 mm	8MR6000-0CF25
3	177 × 177 mm	8MR6000-0AM30	169 × 169 mm	8MR6000-0CF30
4	223 × 223 mm	8MR6000-0AM45	215 × 215 mm	8MR6000-0CF45
6	292 × 292 mm	8MR6000-0AM67	281 × 281 mm	8MR6000-0CF67

# Roof filter fans and roof outlet filters

## Roof filter fans

	Air current, free-blowing at 50 Hz	External dimensions W x H x D	Voltage	Input rating	Article No.	Degree of protection IP44	Degree of protection IP54		
	<b>For cutout 223 x 223 mm, color RAL 7035</b>								
	71 m³/h	287 x 287 x 104 mm	230 V AC, 50/60 Hz	40 W	–	8MR6423-5VL44			
			115 V AC, 50/60 Hz	48 W	–	8MR6411-5VL44			
			24 V DC	8.8 W	–	8MR6402-5VL44			
	240 m³/h	287 x 287 x 174 mm	230 V AC, 50/60 Hz	45 W	–	8MR6423-5VL41			
			115 V AC, 50/60 Hz	43 W	–	8MR6411-5VL41			
			24 V DC	16 W	–	8MR6402-5VL41			
	300 m³/h	287 x 287 x 174 mm	230 V AC, 50/60 Hz	45 W	–	8MR6423-5VL55			
		<b>For cutout 292 x 292 mm, color RAL 7035</b>							
232 m³/h		361 x 361 x 114 mm	230 V AC, 50/60 Hz	68 W	–	8MR6423-5VL64			
			115 V AC, 50/60 Hz	68 W	–	8MR6411-5VL64			
			24 V DC	14 W	–	8MR6402-5VL64			
550 m³/h		361 x 361 x 211 mm	230 V AC, 50/60 Hz	64 W	–	8MR6423-5VL60			
			115 V AC, 50/60 Hz	64 W	–	8MR6411-5VL60			
			24 V DC	55 W	–	8MR6402-5VL60			
840 m³/h		361 x 361 x 203 mm	230 V AC, 50/60 Hz	135 W	–	8MR6423-5VL80			
			115 V AC, 50/60 Hz	115 W	–	8MR6411-5VL80			
			24 V DC	105 W	–	8MR6402-5VL80			
		<b>For cutout 345 x 265 mm, color RAL 7035, metal</b>							
		405 m³/h	420 x 340 x 108 mm	115 V AC, 50/60 Hz	40/45 W	8MR6311-5DL40	–		
	230 V AC, 50/60 Hz			40/45 W	8MR6323-5DL40	–			
	690 m³/h	420 x 340 x 108 mm	115 V AC, 50/60 Hz	100/130 W	8MR6311-5DL42	–			
230 V AC, 50/60 Hz			100/130 W	8MR6323-5DL42	–				



## Roof outlet filters without fan

	External dimensions W x H x D	Article No.	Degree of protection IP44	Degree of protection IP54
	<b>For cutout 223 x 223 mm, color RAL 7035</b>			
	287 x 287 x 85 mm	–		8MR6400-5VE45
	<b>For cutout 292 x 292 mm, color RAL 7035</b>			
	361 x 361 x 96 mm	–		8MR6400-5VE67
	<b>For cutout 345 x 265 mm, color RAL 7035, metal</b>			
420 x 340 x 83 mm	8MR6000-5DE40	–		




# Air conditioners/cooling devices

For door or side mounting, degree of protection inside IP54/outside IP34, color RAL 7035


	Cooling capacity	Rated power	Dimensions W × H × D	Air capacity		Design	Mounting		Article No.
				Inside	Outside		Undrilled	Part	
	<b>230 V, 50/60 Hz</b>								
	380 W	280 W	285 × 460 × 180 mm	280 m³/h	280 m³/h	■	■	–	8MR6423-5EG04
	640 W	400 W	360 × 606 × 212 mm	330 m³/h	570 m³/h	■	■	–	8MR6423-5EG06
	820 W	440 W	348 × 783 × 215 mm	330 m³/h	570 m³/h	■	■	–	8MR6423-5EG08
	1050 W	570 W	348 × 783 × 215 mm	570 m³/h	860 m³/h	■	■	■	8MR6423-5SK10
	1550 W	880 W	400 × 950 × 233 mm	570 m³/h	1050 m³/h	■	■	■	8MR6423-5SK15
	2050 W	1080 W	400 × 1265 × 236 mm	860 m³/h	1050 m³/h	■	■	■	8MR6423-5SK20
	<b>400 V, 50/60 Hz</b>								
	2900 W	1220 W	500 × 1270 × 336 mm	860 m³/h	1450 m³/h	■	■	–	8MR6440-5EG30
	3850 W	1780 W	500 × 1270 × 336 mm	1450 m³/h	1450 m³/h	■	■	–	8MR6440-5EG40
	5800 W	2340 W	600 × 2000 × 380 mm	1450 m³/h	2900 m³/h	■	■	–	8MR6440-5EG60

For roof mounting, degree of protection inside IP54/outside IP34, color RAL 7035




	Cooling capacity	Rated power	Dimensions W × H × D	Air capacity		Design	Mounting		Article No.
				Inside	Outside		Undrilled	Part	
	<b>230 V, 50/60 Hz</b>								
	410 W	270 W	259 × 264 × 486 mm	235 m³/h	330 m³/h	■	■	–	8MR6423-5DE04
	820 W	510 W	340 × 340 × 600 mm	330 m³/h	570 m³/h	■	■	–	8MR6423-5DE08
	1150 W	550 W	401 × 415 × 567 mm	570 m³/h	1010 m³/h	■	■	–	8MR6423-5DE12
	1550 W	810 W	401 × 415 × 567 mm	860 m³/h	1820 m³/h	■	■	–	8MR6423-5DE15
	2050 W	1190 W	401 × 415 × 567 mm	1050 m³/h	1820 m³/h	■	■	–	8MR6423-5DE20
	<b>400 V, 50/60 Hz</b>								
	2900 W	1210 W	492 × 496 × 797 mm	860 m³/h	3410 m³/h	■	■	–	8MR6440-5DE30
	3850 W	1630 W	492 × 496 × 797 mm	1450 m³/h	3410 m³/h	■	■	–	8MR6440-5DE40

# Heat exchangers

Air/air heat exchangers, degree of protection IP54, color RAL 7035





	Thermal power	Rated power	Dimensions W × H × D	Air capacity		Design	Mounting		Article No.
				Inside	Outside		Undrilled	Part	
	<b>230 V, 50/60 Hz</b>								
	36 W/K	140 W	316 × 771 × 103 mm	570 m³/h	570 m³/h	■	■	–	8MR6423-5ML36
	80 W/K	240 W	317 × 1260 × 148 mm	1050 m³/h	1050 m³/h	■	■	–	8MR6423-5ML80

# Heater units




	Rated value	Rated power	Shutdown temperature	Article No.
	<b>Heater units with PTC thermistor, UL-approved</b>			
	120 ... 240 V AC/DC	15 W	–	8MR2130-1A
		30 W	–	8MR2130-3A
		45 W	–	8MR2130-4A
		60 W	–	8MR2130-6A
		75 W	–	8MR2130-7A
		100 W	–	8MR2130-0A
150 W		–	8MR2130-5A	
	<b>Semiconductor heater units without thermostat, compact design, UL-approved</b>			
	120 ... 240 V AC/DC	50 W	–	8MR2131-4A
		100 W	–	8MR2131-0A
150 W		–	8MR2131-5A	
	<b>Semiconductor heater units with thermostat, compact design</b>			
	120 ... 240 V AC/DC	50 W	15 °C	8MR2132-1A
			25 °C	8MR2132-1AB
		100 W	15 °C	8MR2132-0A
			25 °C	8MR2132-0AB
		150 W	15 °C	8MR2132-5A
25 °C			8MR2132-5AB	
	<b>Semiconductor heater units</b>			
	12 ... 30 V AC/DC	15 W	–	8MR2130-1BA
		30 W	–	8MR2130-3BA
		45 W	–	8MR2130-4BA
		60 W	–	8MR2130-6BA

# Fan heaters

## Fan heaters





	Version	Voltage	Continuous heat output	Parameter	Article No.
	<b>Standard version</b>				
	Without fan	230 V AC	100 W	–	8MR2140-0A
			150 W	–	8MR2140-1A
			200 W	–	8MR2140-2A
			300 W	–	8MR2140-3A
			400 W	–	8MR2140-4A
	With fan	230 V AC	100 W	–	8MR2140-0B
			150 W	–	8MR2140-1B
			200 W	–	8MR2140-2B
			300 W	–	8MR2140-3B
400 W			–	8MR2140-4B	
	<b>Compact fan heater</b>				
	Without fan	230 V AC	250 W	–	8MR2122-4A
			400 W	–	8MR2122-8A
		120 V AC	250 W	–	8MR2122-4B
			400 W	–	8MR2122-8B
	With fan	24 V DC	250 W	–	8MR2122-4AB
			400 W	–	8MR2122-8AB
		48 V DC	250 W	–	8MR2122-4AC
400 W			–	8MR2122-8AA	
	<b>With integrated thermostat</b>				
	For floor mounting	230 V AC	950 W	0 ... +60 °C	8MR2150-0A
For wall mounting	230 V AC	950 W	0 ... +60 °C	8MR2150-0C	
	<b>With integrated hygrostat</b>				
For wall mounting	230 V AC	950 W	65% R.H.	8MR2150-0CA	

## Semiconductor fan heaters

	Fixing	Voltage	Continuous heat output	Version	Article No.
	<b>Fan heaters</b>				
	Clip fixing	230 V AC	150 W	–	8MR2150-2C
			250 W	–	8MR2150-5A
		120 V AC	250 W	–	8MR2150-5AA
			400 W	–	8MR2150-4AA
	Screw fixing	230 V AC	150 W	–	8MR2150-2D
			250 W	–	8MR2150-5B
			400 W	–	8MR2150-4B
		120 V AC	250 W	–	8MR2150-5AB
			400 W	–	8MR2150-4AB
–				–	–
	<b>PTC fan heaters for wall mounting</b>				
	Screw fixing	230 V AC	1200 W	With thermostat 0 ... +60 °C	8MR2150-3A
			1200 W	Without thermostat	8MR2150-3B
	Clip fixing	120 V AC	1200 W	With thermostat +32 ... +140 °F	8MR2151-3A
			1200 W	Without thermostat	8MR2151-3B
		<b>PTC fan heaters for floor mounting</b>			
Screw fixing		230 V AC	1200 W	With thermostat 0 ... +60 °C	8MR2150-2A
			1200 W	Without thermostat	8MR2150-2B
Clip fixing		120 V AC	1200 W	With thermostat +32 ... +140 °F	8MR2151-2A
	1200 W		Without thermostat	8MR2151-2B	



# Thermostats

## Adjustable thermostats

	Version	Max. switching power	Temperature range	Article No.
	<b>Mini thermostat</b>			
	NC with red adjusting knob	250 V AC, 10 (2) A	-10 ... +50 °C	8MR2170-1CA
			0 ... +60 °C	8MR2170-2BA
			+20 ... +80 °C	8MR2170-1DA
	NO with blue adjusting knob	250 V AC, 10 (2) A	-10 ... +50 °C	8MR2170-1CB
			0 ... +60 °C	8MR2170-2BB
+20 ... +80 °C			8MR2170-1DB	
	<b>Mechanical thermostat</b>			
	CO	250 V AC, 10 (4) A	+5 ... +60 °C	8MR2170-1A
-20 ... +30 °C			8MR2170-1B	
	<b>Electronic thermostat</b>			
	CO	230 V AC, 8 (1.6) A	-20 ... +60 °C	8MR2170-1GA
		120 V AC, 8 (1.6) A	-4 ... +140 °F	8MR2170-1GB
		24 V DC, 16 A	0 ... +60 °C	8MR2170-2A
CO, integrated	230 V AC, 8 (1.6) A	-20 ... +60 °C	8MR2170-1GC	
	<b>Twin thermostat</b>			
	NC and NO	250 V AC, 10 (2) A	0 ... +60 °C	8MR2170-1E
	NO and NO	250 V AC, 10 (2) A	0 ... +60 °C	8MR2170-1EA



# Thermostats

## Tamper-proof thermostats


	Version	Max. switching power	Shutdown temperature	Article No.
	<b>Tamper-proof thermostat</b>			
	NC	250 V AC, 5 (1.6) A	15 °C	8MR2171-1BA
			25 °C	8MR2171-2BA
	NO	250 V AC, 5 (1.6) A	35 °C	8MR2171-3BB
			50 °C	8MR2171-1BB
60 °C			8MR2171-2BB	
	<b>Twin thermostat</b>			
	NC and NO	250 V AC, 5 (1.6) A	15 °C   50 °C (NC   NO)	8MR2172-1A
			25 °C   60 °C (NC   NO)	8MR2172-2A
	NO and NO	250 V AC, 5 (1.6) A	50 °C   60 °C (NO   NO)	8MR2172-1AB

# Hygrostats and hygrotherms

## Hygrostats

	Version	Relative air humidity	Voltage	Max. switching power	Article No.
	<b>Mechanical hygrostat</b>				
	CO	35 ... 95%	230 V AC	250 V AC, 5 (0.2) A/20 W DC	8MR2170-1C
	<b>Electronic hygrostat</b>				
	CO	40 ... 90%	230 V AC	240 V AC, 8 (1.6) A	8MR2170-1AF
			120 V AC	240 V AC, 8 (1.6) A	8MR2170-2AF
		65%	230 V AC	240 V AC	8MR2170-1BF
120 V AC			120 V AC	8MR2170-2BF	

## Hygrotherms

	Version	Relative air humidity	Temperature range	Voltage	Max. switching power	Article No.
	<b>Electronic hygrotherm</b>					
	NC and NO	50 ... 90%	+32 ... +140 °F	100 ... 240 V AC	NC: 120 V AC, 6 (1) A NO: 120 V AC, 8 (1.6) A	8MR2170-4F
0 ... +60 °C			100 ... 240 V AC	NC: 100 ... 240 V AC, 6 (1) A NO: 100 ... 240 V AC, 8 (1.6) A	8MR2170-4E	







# Appendix



Link directory _____	A/2
Conditions of sale and delivery _____	A/8
Article number index _____	A/10
Index _____	A/17



# Link directory

## Catalog LV 10

### General information

Information on low-voltage power distribution and electrical installation technology	<a href="http://www.siemens.com/lowvoltage">www.siemens.com/lowvoltage</a>
Tender specifications	<a href="http://www.siemens.com/lowvoltage/tenderspecifications">www.siemens.com/lowvoltage/tenderspecifications</a>
Conversion tool	<a href="http://www.siemens.com/conversion-tool">www.siemens.com/conversion-tool</a>
Image database	<a href="http://www.siemens.com/lowvoltage/picturedb">www.siemens.com/lowvoltage/picturedb</a>
CAX download manager	<a href="http://www.siemens.com/cax">www.siemens.com/cax</a>
Newsletter system	<a href="http://www.siemens.com/lowvoltage/newsletter">www.siemens.com/lowvoltage/newsletter</a>
Siemens YouTube channel	<a href="http://www.youtube.com/Siemens">www.youtube.com/Siemens</a>
Brochures/catalogs	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a>
Operating instructions/manuals	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a>
Siemens Industry Online Support (SIOS)	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a>
Siemens Industry Online Support app	<a href="http://www.siemens.com/support-app">www.siemens.com/support-app</a>
My Documentation Manager (MDM)	<a href="http://www.siemens.com/lowvoltage/mdm">www.siemens.com/lowvoltage/mdm</a>
Configurators	<a href="http://www.siemens.com/lowvoltage/configurators">www.siemens.com/lowvoltage/configurators</a>
Siemens Industry Mall – product catalog and online ordering system	<a href="http://www.siemens.com/lowvoltage/mall">www.siemens.com/lowvoltage/mall</a>
Direct forwarding to the Industry Mall	<a href="http://www.siemens.com/product?Article No.">www.siemens.com/product?Article No.</a>
Training	<a href="http://www.siemens.com/sitrain-lowvoltage">www.siemens.com/sitrain-lowvoltage</a>
Local contacts	<a href="http://www.siemens.com/lowvoltage/contact">www.siemens.com/lowvoltage/contact</a> <a href="http://www.siemens.com/lowvoltage/components/contact">www.siemens.com/lowvoltage/components/contact</a> <a href="http://www.siemens.com/lowvoltage/systems/contact">www.siemens.com/lowvoltage/systems/contact</a> <a href="http://www.siemens.com/lowvoltage/software/contact">www.siemens.com/lowvoltage/software/contact</a>
Technical Support	<a href="http://www.siemens.com/support-request">www.siemens.com/support-request</a>
Information on services	<a href="http://www.siemens.com/service-catalog">www.siemens.com/service-catalog</a>
Manual for the generation, transmission and distribution of electrical energy	<a href="http://www.siemens.com/power-engineering-guide">www.siemens.com/power-engineering-guide</a>
Control panels for the North American market	<a href="http://www.siemens.com/northamerican-standards">www.siemens.com/northamerican-standards</a>
Control panel building	<a href="http://www.siemens.com/controlpanel">www.siemens.com/controlpanel</a>
Energy savings and amortization	<a href="http://www.automation.siemens.com/sinasave">www.automation.siemens.com/sinasave</a>
Energy Suite	<a href="http://www.siemens.com/energysuite">www.siemens.com/energysuite</a>
SITOP power supplies	<a href="http://www.siemens.com/sitop">www.siemens.com/sitop</a>
Power distribution with Totally Integrated Power	<a href="http://www.siemens.com/tip">www.siemens.com/tip</a>

### Information + ordering

Technical overviews	
Air circuit breakers	<a href="http://www.siemens.com/lowvoltage/produkt-support">www.siemens.com/lowvoltage/produkt-support</a> (109781188) <a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109766020)
Molded case circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109767421)
Miniature circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769082)
Residual current protective devices/arc fault detection devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769082)
Switching devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769083)
Overvoltage protection devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769084)
Fuse systems	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769085)
Switch disconnectors	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109764946)
Transfer switching equipment and load transfer switches	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109764946)
Measuring devices, power monitoring and digitalization solutions	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109764480)
Monitoring devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769086)
Transformers, power supply units and socket outlets	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109764946)
Busbar systems	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769087)
Terminal blocks	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769088)

<b>Technical overviews</b>	
Power distribution boards, motor control centers and distribution boards	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769089)
Busbar trunking systems	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769090)
System cubicles, system lighting and system air-conditioning	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769091)
<b>All the important things at a glance</b>	
Air circuit breakers	<a href="http://www.siemens.com/3WA">www.siemens.com/3WA</a> <a href="http://www.siemens.com/3WL">www.siemens.com/3WL</a>
Molded case circuit breakers	<a href="http://www.siemens.com/3VA">www.siemens.com/3VA</a>
Miniature circuit breakers	<a href="http://www.siemens.com/mcb">www.siemens.com/mcb</a> <a href="http://www.siemens.com/protection-concept">www.siemens.com/protection-concept</a>
Residual current protective devices/arc fault detection devices	<a href="http://www.siemens.com/rccb">www.siemens.com/rccb</a> <a href="http://www.siemens.com/protection-concept">www.siemens.com/protection-concept</a>
Switching devices	<a href="http://www.siemens.com/switching-devices">www.siemens.com/switching-devices</a>
Overvoltage protection devices	<a href="http://www.siemens.com/overvoltage-protection">www.siemens.com/overvoltage-protection</a>
Fuse systems	<a href="http://www.siemens.com/fuses">www.siemens.com/fuses</a>
Switch disconnectors	<a href="http://www.siemens.com/switching-devices">www.siemens.com/switching-devices</a>
Transfer switching equipment and load transfer switches	<a href="http://www.siemens.com/switching-devices">www.siemens.com/switching-devices</a> <a href="http://sie.ag/2XBonli">sie.ag/2XBonli</a>
Measuring devices, power monitoring and digitalization solutions	<a href="http://www.siemens.com/powermonitoring">www.siemens.com/powermonitoring</a> <a href="http://www.siemens.com/sentron-digital">www.siemens.com/sentron-digital</a>
Monitoring devices	<a href="http://www.siemens.com/lowvoltage">www.siemens.com/lowvoltage</a>
Transformers, power supply units and socket outlets	<a href="http://www.siemens.com/lowvoltage">www.siemens.com/lowvoltage</a>
Busbar systems	<a href="http://www.siemens.com/lowvoltage">www.siemens.com/lowvoltage</a>
Terminal blocks	<a href="http://www.siemens.com/distribution-components">www.siemens.com/distribution-components</a>
Power distribution boards, motor control centers and distribution boards	<a href="http://www.siemens.com/sivacon-S8">www.siemens.com/sivacon-S8</a> <a href="http://www.siemens.com/distributionsystems">www.siemens.com/distributionsystems</a>
Busbar trunking systems	<a href="http://www.siemens.com/sivacon-8PS">www.siemens.com/sivacon-8PS</a>
System cubicles, system lighting and system air-conditioning	<a href="http://www.siemens.com/sivacon-8mf">www.siemens.com/sivacon-8mf</a>
<b>Your product in detail</b>	
Brochure – 3WA air circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109800077)
Brochure – Energy and data successfully put on track	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109747761)
Brochure – Reliable, sustainable, and efficient – TÜV-certified power monitoring system in accordance with ISO 50001	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109744679)
Brochure – SENTRON portfolio for power monitoring	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109744725)
Brochure – SIVACON 8MF1 system cubicles – As versatile as your requirements	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109744677)
Brochure – The plus for your business: Intelligent. Flexible. Safe. Low-voltage switchboard SIVACON S8 <sup>plus</sup>	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109747937)
Catalog LV 70 – 2019 – SIVACON 8PS busbar trunking systems – BD01, BD2 up to 1250 A	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109744546)
Quick selection guide – 3WA air circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109781967)
Quick selection guide – 3WL air circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109751638)
Technical basic information – 3VA molded case circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109766672)
Technical basic information – 3WL air circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109767789)
Technical basic information – ALPHA distribution systems	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109778911)
Technical basic information – SENTRON power monitoring and digital solutions	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109769851)
Technical basic information – SENTRON protection concept	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109767456)
Technical basic information – SIVACON 8MF1 system cubicle	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109767386)
Technical basic information – SIVACON S4 power distribution boards and ALPHA UNIVERSAL distribution boards	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109767882)
Technical basic information – Switch disconnectors and transfer switching equipment	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109763354)
Technology primer – Fuse systems	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109482303)

# Link directory

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### Your product in detail

Technology primer – Miniature circuit breakers	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109482304)
Technology primer – Overvoltage protection devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109756965)
Technology primer – Residual current protective devices	<a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a> (109482301)

### Siemens YouTube channel

3WA air circuit breaker – Teaserfilm	<a href="https://bit.ly/3p14AOZ">bit.ly/3p14AOZ</a>
3WA air circuit breaker – Highlightfilm	<a href="https://bit.ly/2Y0iWD2">bit.ly/2Y0iWD2</a>
3WL air circuit breakers (general)	<a href="https://bit.ly/2ZH1rXH">bit.ly/2ZH1rXH</a>
3VA molded case circuit breakers (general)	<a href="https://bit.ly/2xNxlFA">bit.ly/2xNxlFA</a>
Miniature circuit breakers (general)	<a href="https://bit.ly/2kJP2Dq">bit.ly/2kJP2Dq</a>
Residual current protective devices (general)	<a href="https://bit.ly/2YuWkNc">bit.ly/2YuWkNc</a>
Siemens fuse systems	<a href="https://bit.ly/2kWaepz">bit.ly/2kWaepz</a>
Power monitoring (general)	<a href="https://bit.ly/2lZ9QqC">bit.ly/2lZ9QqC</a>
Siemens ALPHA FIX terminal blocks – 8WH2 terminal with spring-loaded-connection	<a href="https://bit.ly/2kKvz0D">bit.ly/2kKvz0D</a>
Power distribution – SIVACON (general)	<a href="https://bit.ly/2m4oSLI">bit.ly/2m4oSLI</a>
Siemens SIVACON S4 power distribution boards up to 4000 A	<a href="https://bit.ly/2krni6h">bit.ly/2krni6h</a>

### Everything you need for your order

Air circuit breakers	<a href="https://sie.ag/2lXiZjB">sie.ag/2lXiZjB</a>
Molded case circuit breakers	<a href="https://sie.ag/2mmLcAk">sie.ag/2mmLcAk</a>
Miniature circuit breakers	<a href="https://sie.ag/2kTFXl5">sie.ag/2kTFXl5</a>
Residual current protective devices/arc fault detection devices	<a href="https://sie.ag/2m55Y7j">sie.ag/2m55Y7j</a>
Switching devices	<a href="https://sie.ag/2mryctm">sie.ag/2mryctm</a>
Overvoltage protection devices	<a href="https://sie.ag/2kTfytV">sie.ag/2kTfytV</a>
Fuse systems	<a href="https://sie.ag/2kW3pnU">sie.ag/2kW3pnU</a>
Switching devices	<a href="https://sie.ag/2m4eG5M">sie.ag/2m4eG5M</a>
Switch disconnectors and transfer switching equipment	<a href="https://sie.ag/2mmMw6g">sie.ag/2mmMw6g</a>
Measuring devices and power monitoring	<a href="https://sie.ag/2kTH9Lz">sie.ag/2kTH9Lz</a>
Digitalization solutions	<a href="https://sie.ag/2olliNi">sie.ag/2olliNi</a>
Library for SIMATIC	<a href="https://sie.ag/2kpbwcs">sie.ag/2kpbwcs</a>
SENTRON powermanager/SENTRON powerconfig	<a href="https://sie.ag/2kJjuF">sie.ag/2kJjuF</a>
Monitoring devices	<a href="https://sie.ag/2m3no4A">sie.ag/2m3no4A</a>
Transformers, power supply units and socket outlets	<a href="https://sie.ag/2mmSHHu">sie.ag/2mmSHHu</a>
Busbar systems	<a href="https://sie.ag/2lXoUFI">sie.ag/2lXoUFI</a>
Terminal blocks	<a href="https://sie.ag/2kW8Zxo">sie.ag/2kW8Zxo</a>
SIVACON S4 power distribution boards	<a href="https://sie.ag/2JUQwE4">sie.ag/2JUQwE4</a>
ALPHA distribution boards	<a href="https://sie.ag/2kURLd8">sie.ag/2kURLd8</a>
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SIMARIS planning tools	<a href="https://sie.ag/2m3oFbS">sie.ag/2m3oFbS</a>
SIVACON 8PS	<a href="https://sie.ag/2lXpCT1">sie.ag/2lXpCT1</a> <a href="http://www.siemens.com/sivacon8PS-contact">www.siemens.com/sivacon8PS-contact</a>
System cubicles, system lighting and system air-conditioning	<a href="https://sie.ag/339cQB9">sie.ag/339cQB9</a>
SIVACON S8	<a href="http://www.siemens.com/sivacon-partnerfinder">www.siemens.com/sivacon-partnerfinder</a> <a href="http://www.siemens.com/sivaconS8-contact">www.siemens.com/sivaconS8-contact</a>

### Order support

3KD switch disconnectors – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109750228)
3LD2 main control and EMERGENCY-STOP-switching equipment – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109755626)
3NP1 fuse switch disconnectors – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109755624)
3KF switch disconnectors with fuses – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109750229)
3NJ6 switch disconnectors with fuses – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109755619)

**Order support**

3KC automatic transfer switching equipment (ATSE) – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109755620)
3KC remotely operated transfer switching equipment (RTSE) – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109755627)
3KC manual transfer switching equipment (MTSE) – End-to-end safety for user and systems	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109750227)
SIVACON 8PS – BD01 and BD2	<a href="http://www.siemens.com/LV70">www.siemens.com/LV70</a>
3WA air circuit breakers – Made for makers. Simply reliable.	<a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a> (109800074)

**Configurators**

3WA air circuit breakers	<a href="http://www.siemens.com/lowvoltage/3wa-configurator">www.siemens.com/lowvoltage/3wa-configurator</a>
3WL air circuit breakers	<a href="http://www.siemens.com/lowvoltage/3wl-configurator">www.siemens.com/lowvoltage/3wl-configurator</a>
3WL10 air circuit breakers	<a href="http://www.siemens.com/lowvoltage/3wl10-configurator">www.siemens.com/lowvoltage/3wl10-configurator</a>
3VA molded case circuit breakers	<a href="http://www.siemens.com/lowvoltage/3va-configurator">www.siemens.com/lowvoltage/3va-configurator</a>
3VA27 molded case circuit breakers	<a href="http://www.siemens.com/lowvoltage/3va27-configurator">www.siemens.com/lowvoltage/3va27-configurator</a>
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3NJ63 switch disconnectors	<a href="http://www.siemens.com/lowvoltage/3nj63-configurator">www.siemens.com/lowvoltage/3nj63-configurator</a>
3NP1 fuse switch disconnectors	<a href="http://www.siemens.com/lowvoltage/3np1-configurator">www.siemens.com/lowvoltage/3np1-configurator</a>
SIVACON 8MF1 system cubicle	<a href="http://www.siemens.com/lowvoltage/8mf1-configurator">www.siemens.com/lowvoltage/8mf1-configurator</a>
SIVACON 8PS	<a href="http://sie.ag/2lXpCT1">sie.ag/2lXpCT1</a>

**Commissioning + operation****Tools/software**

SIMARIS configuration	<a href="http://www.siemens.com/simarisconfig">www.siemens.com/simarisconfig</a>
SENTRON powerconfig	<a href="http://www.siemens.com/powerconfig">www.siemens.com/powerconfig</a>
SIMARIS planning tools	<a href="http://www.siemens.com/simaris">www.siemens.com/simaris</a>
SIMARIS therm	<a href="http://www.siemens.com/simaristherm">www.siemens.com/simaristherm</a>

**Manuals**

Communication manual – 3VA molded case circuit breakers with IEC and UL certification	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a> (98746267)
Communication manual – 3WL air circuit breakers via COM35 – PROFINET IO, Modbus TCP	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a> (109757987)
Communication manual – 3WL10 air circuit breakers & 3VA27 molded case circuit breakers	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a> (109760220)
Communication manual – SENTRON PAC5100/5200 7KM5212/5412	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a> (109477870)
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Configuration manual – 3WL1 air circuit breakers	<a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a> (35681108)
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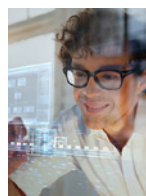
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