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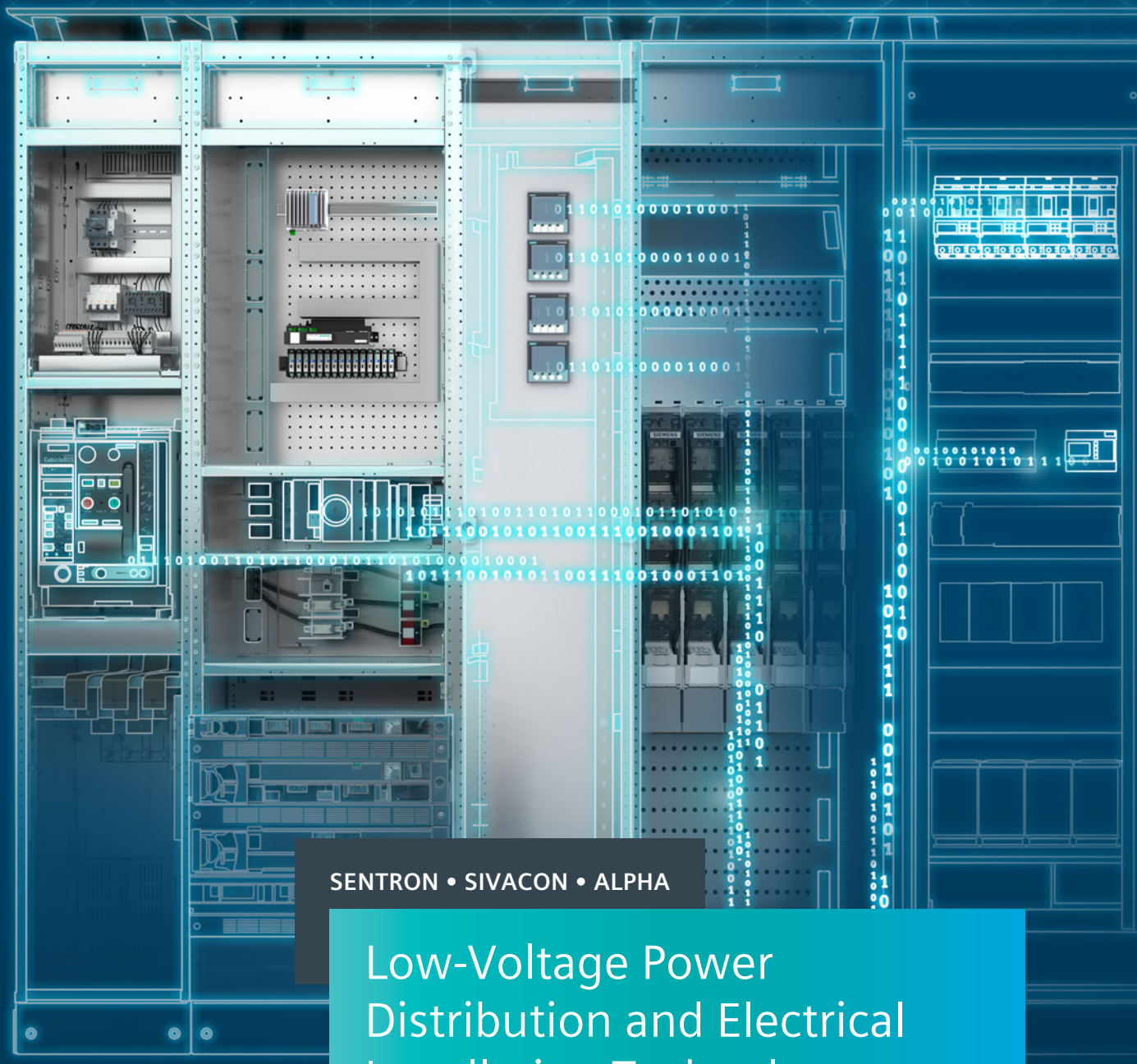


SENTRON • SIVACON • ALPHA

Low-Voltage Power Distribution and Electrical Installation Technology

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

Catalog
LV 10

Edition
04/2020

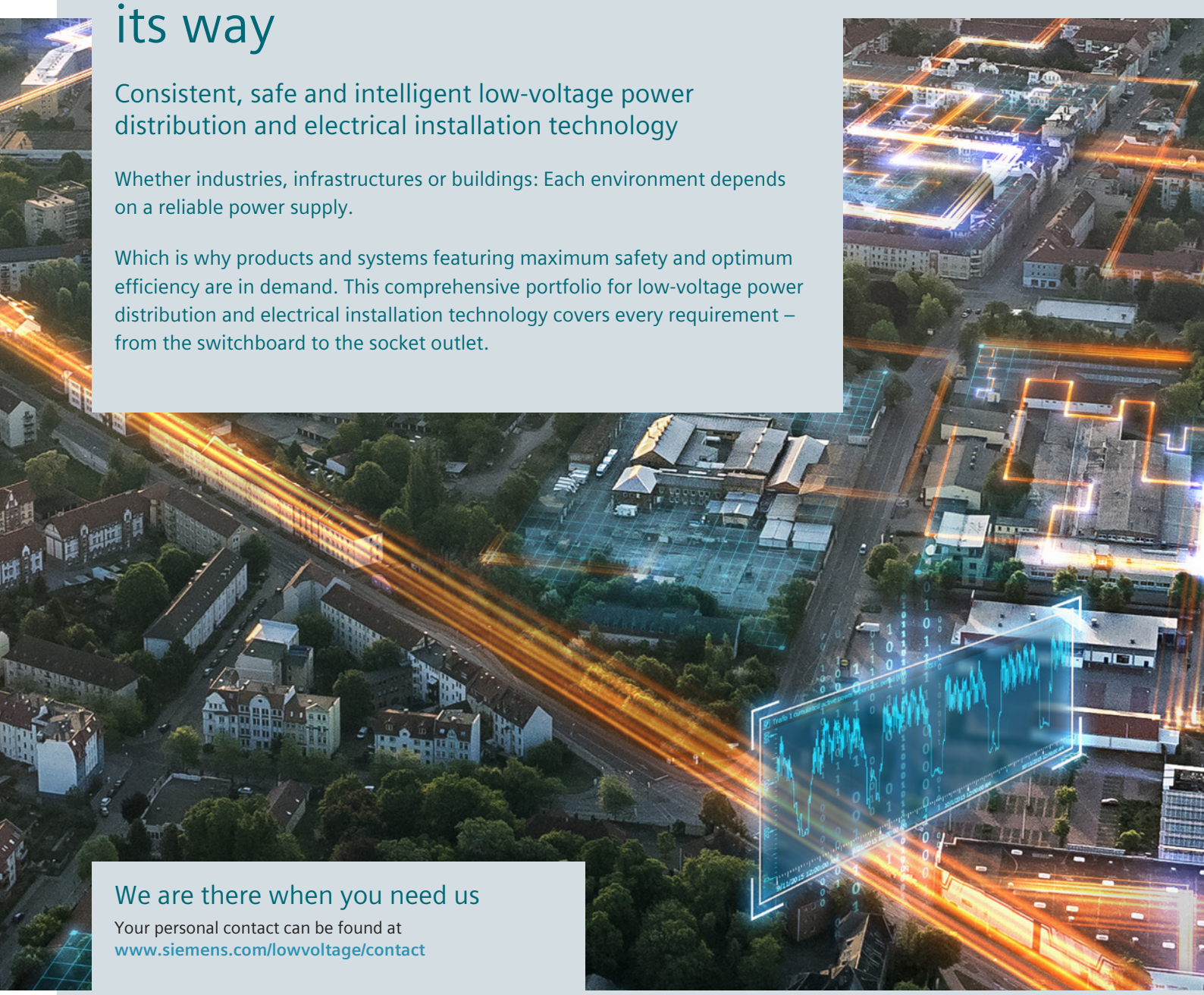
siemens.com/lowvoltage

Making sure power makes its way

Consistent, safe and intelligent low-voltage power distribution and electrical installation technology

Whether industries, infrastructures or buildings: Each environment depends on a reliable power supply.

Which is why products and systems featuring maximum safety and optimum efficiency are in demand. This comprehensive portfolio for low-voltage power distribution and electrical installation technology covers every requirement – from the switchboard to the socket outlet.



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The products and systems listed in this catalog are developed and manufactured using a certified quality management system in accordance with DIN EN ISO 9001:2008.

Technical data
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

New products

3VA molded case circuit breakers size 1250 A

- Rated current 1250 A
- Breaking capacity 55 kA to 110 kA at 415 V AC

See chapter 1, page 2/22

SENTRON powermanager V4.x

- New platform with extended graphics capabilities
- Optimum workflows for system setup, device assembly, graphical display of data and processing in reports
- Standard SQL database

See chapter 10, page 10/12

5SV1 RCBOs

- Extension with type F and type A super-resistant [K] / [G]

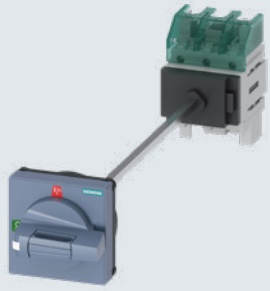
See chapter 4, page 4/48

7KN Powercenter 3000

- Plug & operate solution as the central interface into the switchboard up to the cloud
- Local visualization via an integrated, user-defined web interface
- Notification function by email and web interface

See chapter 10, page 10/13

3LD5 UL main control and EMERGENCY-STOP switch



- Can be used as a UL/IEC main control switch
- Compact design
- Wide variety of accessories and suitable as a main disconnect switch for industrial machinery

See chapter 8, page 8/52

SENTRON powermind

- MindSphere application for monitoring and analysis of energy data
- Intuitive operation and installation
- Evaluation for the entire switchboard or individual loads

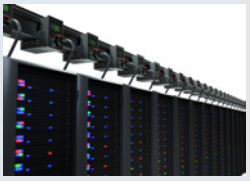
See chapter 10, page 10/14

7KM PAC3120 / PAC3220 power monitoring devices

- Compact devices for digital measurement and greater precision
- Integrated web interface for a direct and simple overview (7KM PAC3220)
- Aggregation stages 10-second / 15-minute average

See chapter 10, page 10/16

LData system from the SIVACON 8PS portfolio



- Efficient solution with currents up to 2500 A
- Designed for economic efficiency due to space-saving and modular design, energy tapping over the entire system
- Future-oriented solution with powerline technology and integration in overarching systems and cloud-based solutions

See chapter 16, page 16/4

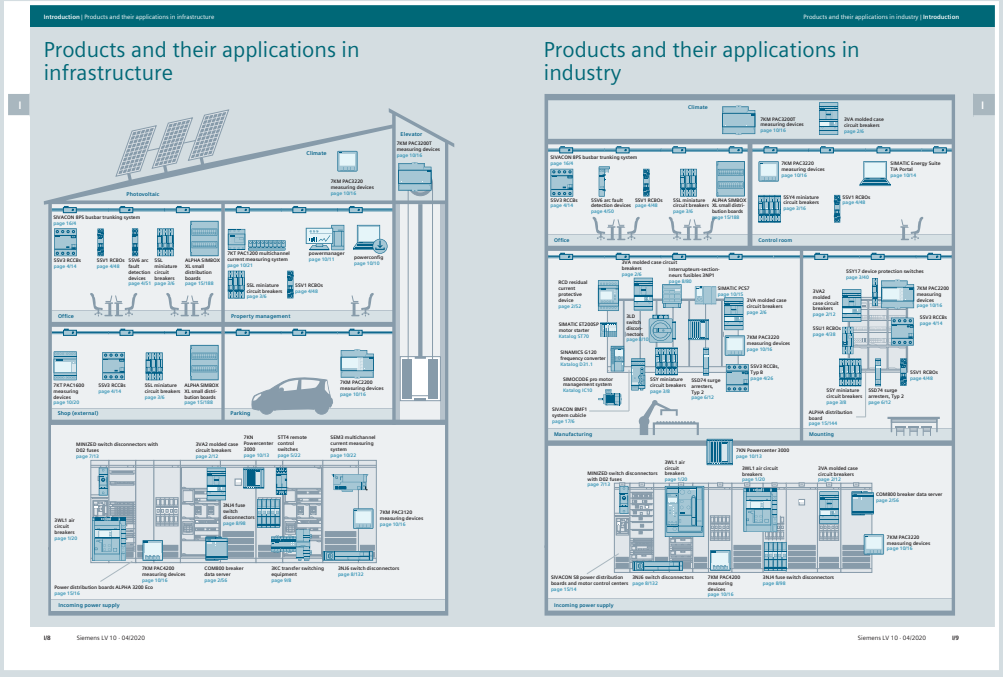
ALPHA 3200 Eco power distribution boards

- Lower use of copper centrally placed busbar system (ressource saving)
- Performance optimized – from transformer connection via busbar up to the feeder (practical)
- High packing density in small space due to flexible application of ALPHA assembly kids (modular)

See chapter 15, page 15/16

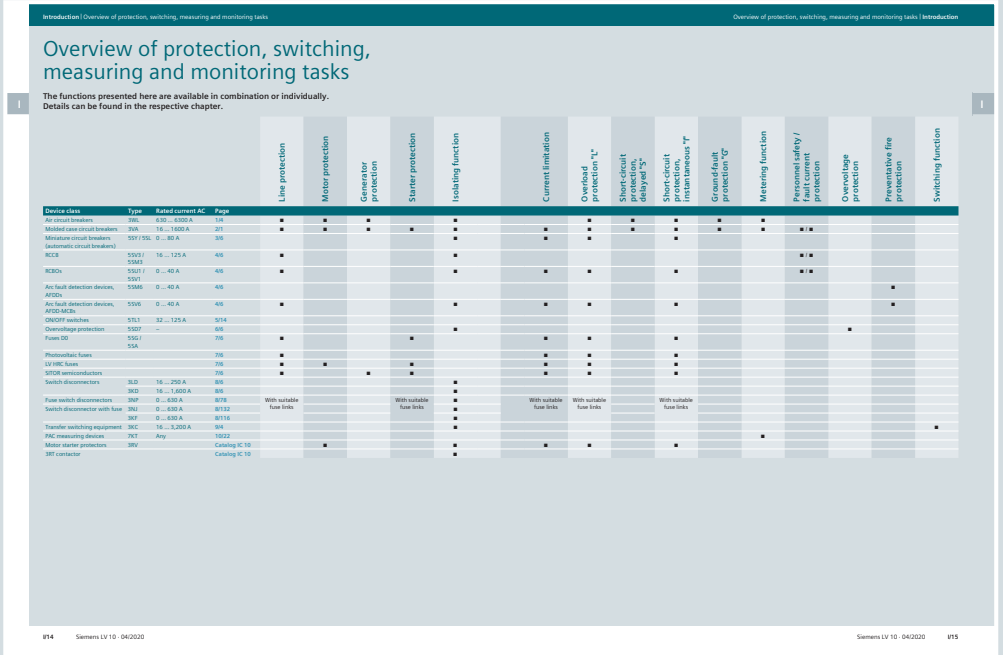
The fast route to the product

Overviews and matrix tables for better orientation within the catalog



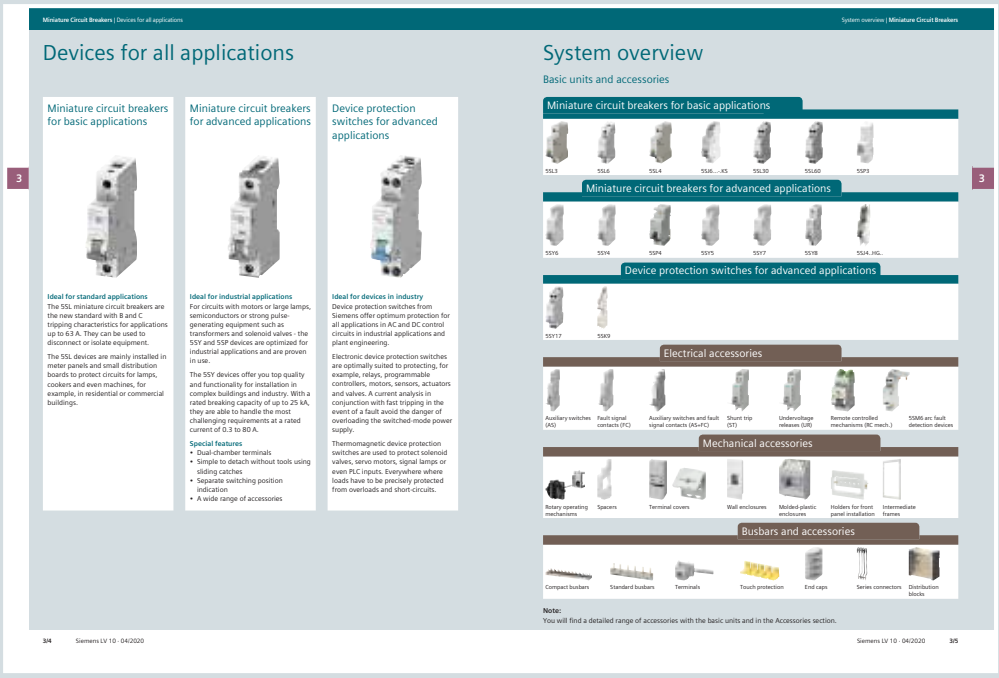
Overview of products and their applications

On pages I/8 to I/11 you can find an overview of the diverse portfolio of catalog LV 10.



Protection, switching, measuring and monitoring tasks

From page I/14 onwards, the catalog LV 10 portfolio is dedicated to the most important protection, switching, measuring and monitoring tasks.



Miniature Circuit Breakers | Devices for all applications

System overview | Miniature Circuit Breakers

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

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.

Electronic 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.

Thermomagnetic 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.

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..

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) | Shunt trip (ST) | Undervoltage releases (UR) | Remote controlled mechanisms (RC mech.) | 5SM6 arc fault detection devices

Mechanical accessories

Rotary operating mechanisms | Spacers | Terminal covers | Wall enclosures | Molded-plastic enclosures | Holders for front panel installation | Intermediate 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.

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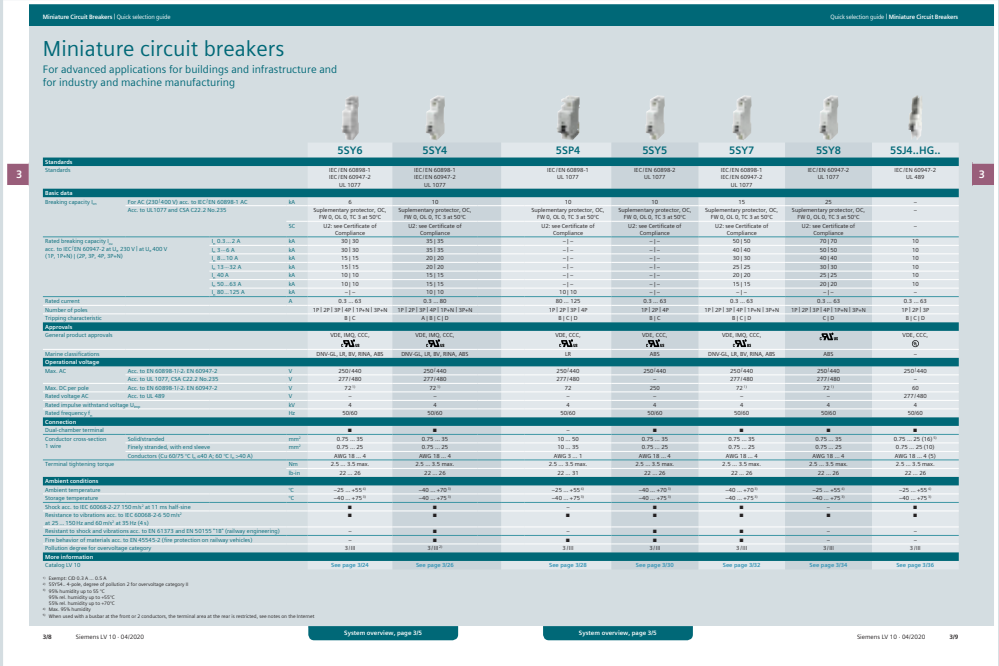
System overview

An overview of the basic units and accessories can be found in the system overview at the beginning of the chapter or section. 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

				5SY6	5SY4	5SP4	5SY5	5SY7	5SY8	5SJ4..HG..
Standards										
Standards				IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	IEC/EN 60898-1 UL 1077	IEC/EN 60898-2 UL 1077	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	IEC/EN 60947-2 UL 1077	IEC/EN 60947-2 UL 489
Basic data										
Breaking capacity I_{cn}	For AC (230/400 V) acc. to IEC/EN 60898-1 AC	kA		6	10	10	10	15	25	–
	Acc. to UL 1077 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	Supplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	Supplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	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		UZ: see Certificate of Compliance	UZ: see Certificate of Compliance	UZ: see Certificate of Compliance	UZ: see Certificate of Compliance	UZ: see Certificate of Compliance	UZ: see Certificate of Compliance	–
Rated breaking capacity I_{cn} acc. to IEC/EN 60947-2 at U_n 230 V / at U_n 400 V (1P, 1P+N) / (2P, 3P, 4P, 3P+N)	I_n 0.3 ... 2 A	kA		30 | 30	35 | 35	– | –	– | –	50 | 50	70 | 70	10
	I_n 3 ... 6 A	kA		30 | 30	35 | 35	– | –	– | –	40 | 40	50 | 50	10
	I_n 8 ... 10 A	kA		15 | 15	20 | 20	– | –	– | –	30 | 30	40 | 40	10
	I_n 13 ... 32 A	kA		15 | 15	20 | 20	– | –	– | –	25 | 25	30 | 30	10
	I_n 40 A	kA		10 | 10	15 | 15	– | –	– | –	20 | 20	25 | 25	10
	I_n 50 ... 63 A	kA		10 | 10	15 | 15	– | –	– | –	15 | 15	20 | 20	10
	I_n 80 ... 125 A	kA		– | –	10 | 10	10 | 10	– | –	– | –	– | –	–
Rated current		A		0.3 ... 63	0.3 ... 80	80 ... 125	0.3 ... 63	0.3 ... 63	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	1P | 2P | 3P | 4P	1P | 2P | 3P | 4P | 1P+N | 3P+N	1P | 2P | 3P | 4P | 1P+N | 3P+N	1P | 2P | 3P	
Tripping characteristic				B | C	A | B | C | D	B | C | D	B | C	B | C | D	C | D	B | C | D
Approvals										
General product approvals				VDE, IMQ, CCC, cULus	VDE, IMQ, CCC, cULus	VDE, CCC, cULus	VDE, CCC, cULus	VDE, IMQ, CCC, cULus	cULus	VDE, CCC, ⑥
Marine classifications				DNV-GL, LR, BV, RINA, ABS	DNV-GL, LR, BV, RINA, ABS	LR	ABS	DNV-GL, LR, BV, RINA, ABS	ABS	–
Operational voltage										
Max. AC	Acc. to EN 60898-1/-2, EN 60947-2	V		250/440	250/440	250/440	250/440	250/440	250/440	250/440
	Acc. to UL 1077, CSA C22.2 No. 235	V		277/480	277/480	277/480	–	277/480	277/480	–
Max. DC per pole	Acc. to EN 60898-1/-2, EN 60947-2	V		72 ①	72 ①	72	250	72 ①	72 ①	60
Rated voltage AC	Acc. to UL 489	V		–	–	–	–	–	–	277/480
Rated impulse withstand voltage U_{imp}		kV		4	4	4	4	4	–	4
Rated frequency f_n		Hz		50/60	50/60	50/60	50/60	50/60	50/60	50/60
Connection										
Dual-chamber terminal				■	■	–	■	■	■	■
Conductor cross-section 1 wire	Solid/stranded	mm²		0.75 ... 35	0.75 ... 35	10 ... 50	0.75 ... 35	0.75 ... 35	0.75 ... 35	0.75 ... 25 (16) ⑤
	Finely stranded, with end sleeve	mm²		0.75 ... 25	0.75 ... 25	10 ... 35	0.75 ... 25	0.75 ... 25	0.75 ... 25	0.75 ... 25 (10)
	Conductors (Cu 60/75 °C I_n ≤40 A; 60 °C I_n >40 A)			AWG 18 ... 4	AWG 18 ... 4	AWG 3 ... 1	AWG 18 ... 4	AWG 18 ... 4	AWG 18 ... 4	AWG 18 ... 4 (5)
Terminal tightening torque		Nm		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.	2.5 ... 3.5 max.	2.5 ... 3.5 max.
		lb-in		22 ... 26	22 ... 26	22 ... 31	22 ... 26	22 ... 26	22 ... 26	22 ... 26
Ambient conditions										
Ambient temperature		°C		–25 ... +55 ②	–40 ... +70 ③	–25 ... +55 ②	–40 ... +70 ③	–40 ... +70 ③	–25 ... +55 ②	–25 ... +55 ②
Storage temperature		°C		–40 ... +75 ②	–40 ... +75 ②	–40 ... +75 ②	–40 ... +75 ②	–40 ... +75 ②	–40 ... +75 ②	–40 ... +75 ②
Shock acc. to IEC 60068-2-27 150 m/s² at 11 ms half-sine				■	■	–	■	■	–	■
Resistance to vibrations acc. to IEC 60068-2-6 50 m/s² at 25 ... 150 Hz and 60 m/s² at 35 Hz (4 s)				■	■	■	■	■	■	■
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				3/IE	3/IE ④	3/IE	3/IE	3/IE	3/IE	3/IE
More information										
Catalog LV 10				See page 3/24	See page 3/26	See page 3/28	See page 3/30	See page 3/32	See page 3/34	See page 3/36

① Exempt: CQ 0.3 A ... 0.5 A
② 5SY6...-4 pole, degree of pollution 2 for overvoltage category II
③ 95% humidity up to 50 °C
95% rel. humidity up to +55 °C
55% rel. humidity up to +70 °C
④ Max. 95% humidity
⑤ When used with a busbar at the front or 2 conductors, the terminal area at the rear is restricted, see notes on the Internet

System overview, page 3/5 System overview, page 3/5

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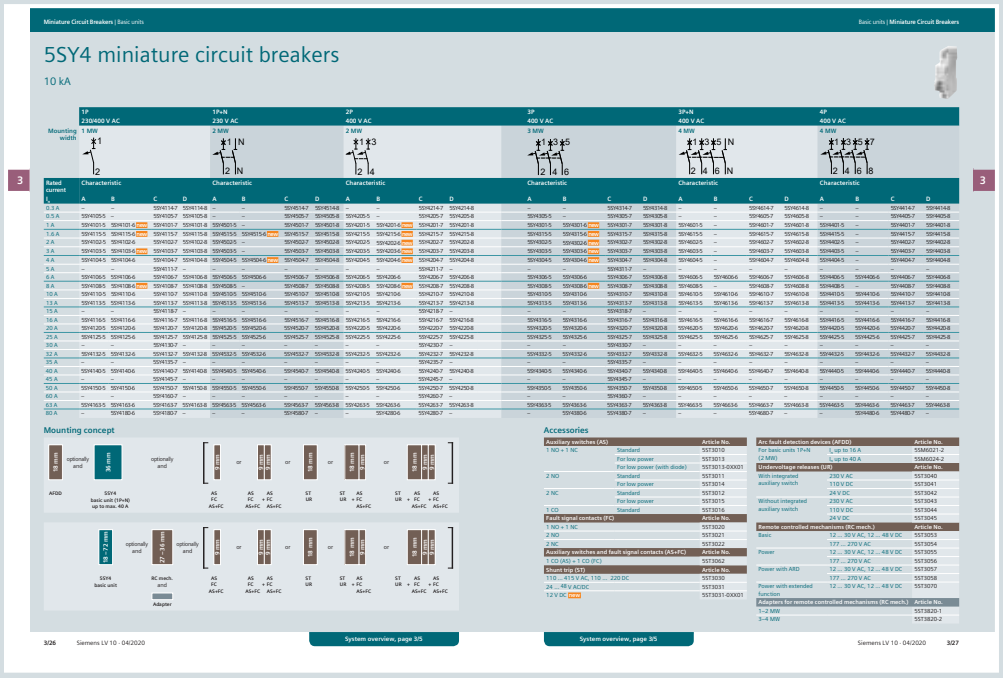
Overview of basic units

The overviews at the beginning of the chapters and sections help you make a quick advance selection of the basic units. You can use the important technical data to compare the basic units. Page references quickly take you to the suitable devices.

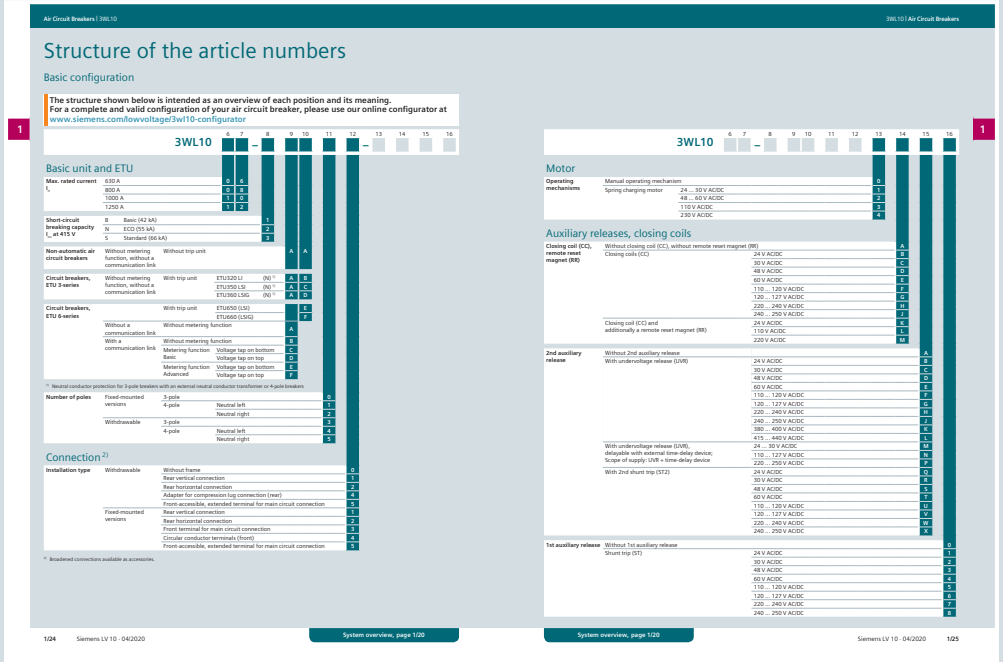
The fast route to the product

Overviews and matrix tables for better orientation within the catalog



Product page

The article number matrix shows you on the spot which product variants are available. The matching accessories are clearly dedicated to each basic device – often directly on the same page.



Configurable products

For products which are conveniently configurable online, the structure of the article numbers is clearly displayed. A link takes you directly to the configurator which permits complete and verified configuration.

new Search function

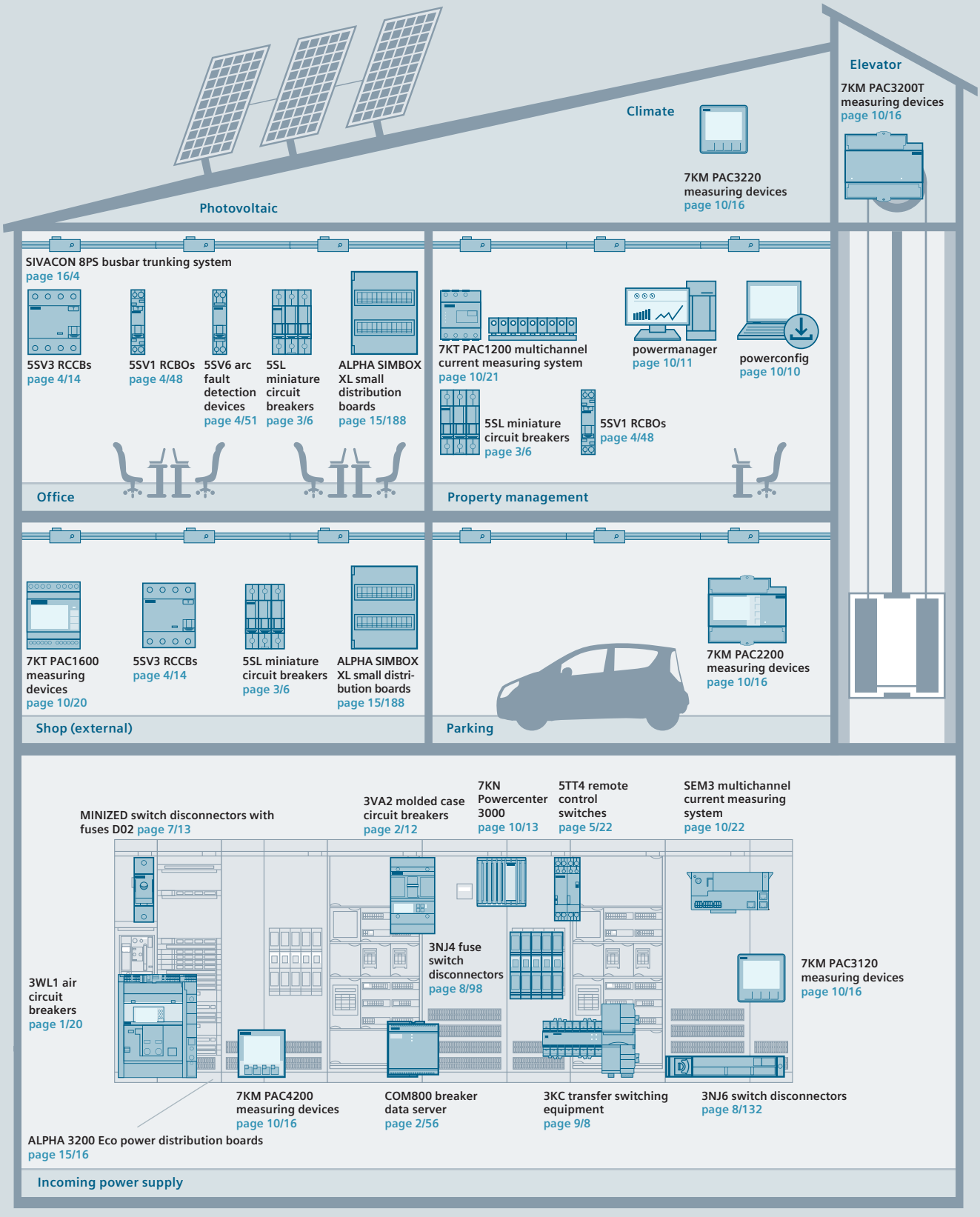
Search for new products by entering new in the text field of the search function:

Clickable article numbers

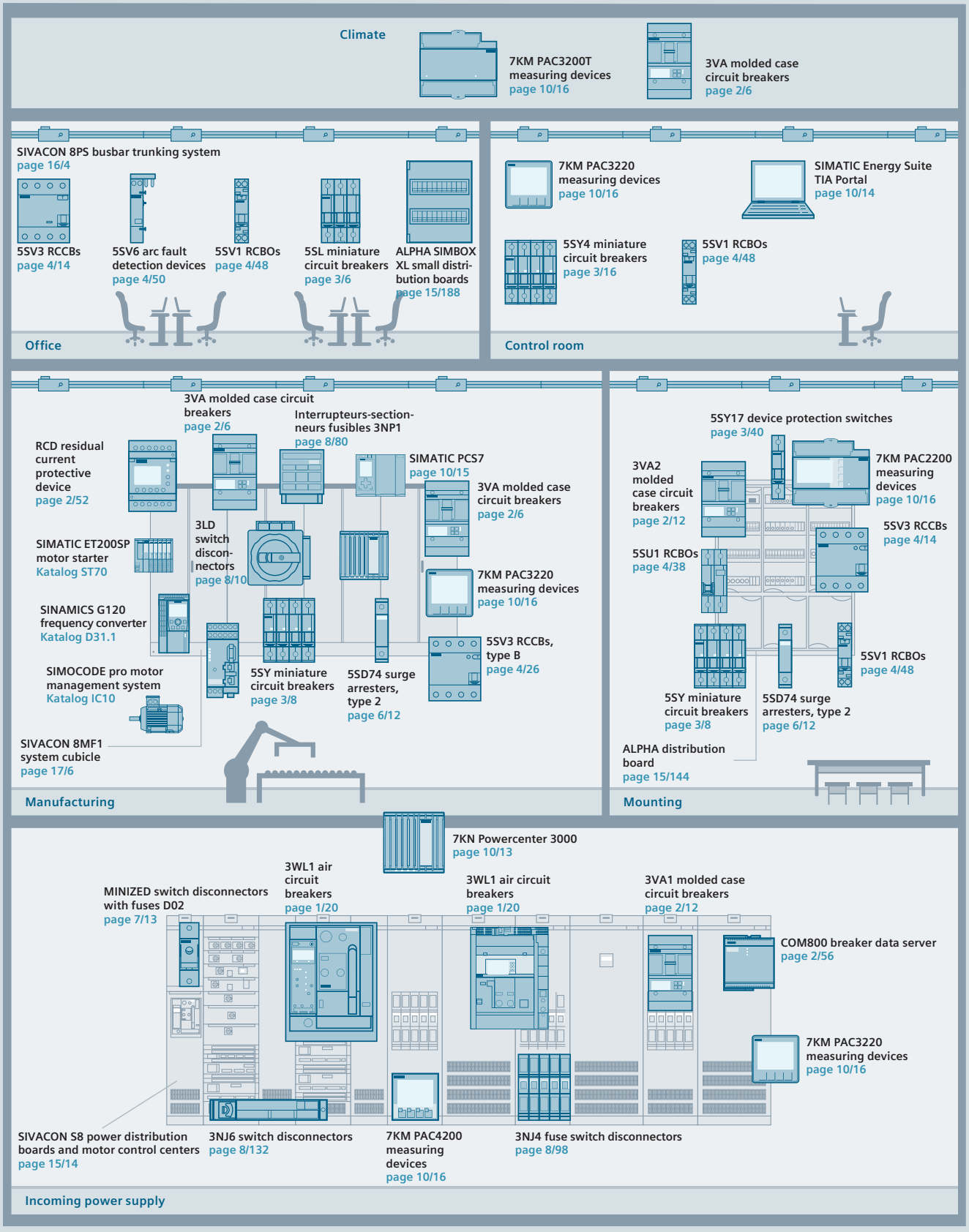
Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog

or by entering this web address incl. Article No.
www.siemens.com/product?Article No.

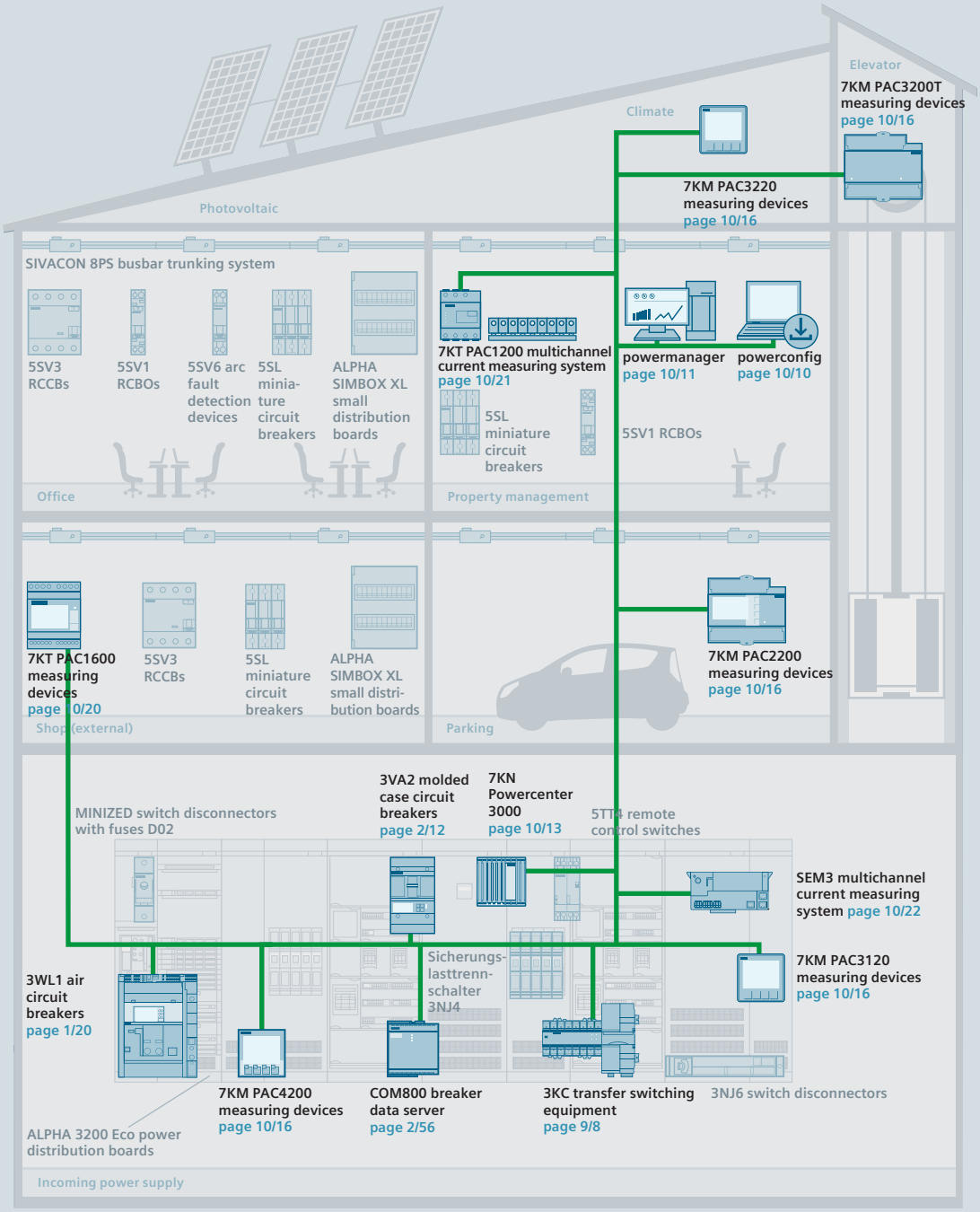
Products and their applications in infrastructure



Products and their applications in industry



Examples of digitalization in infrastructure



Cloud-based analysis

Condition Monitoring

Predictive maintenance

Power monitoring

On premises

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

Stand-alone

Central 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

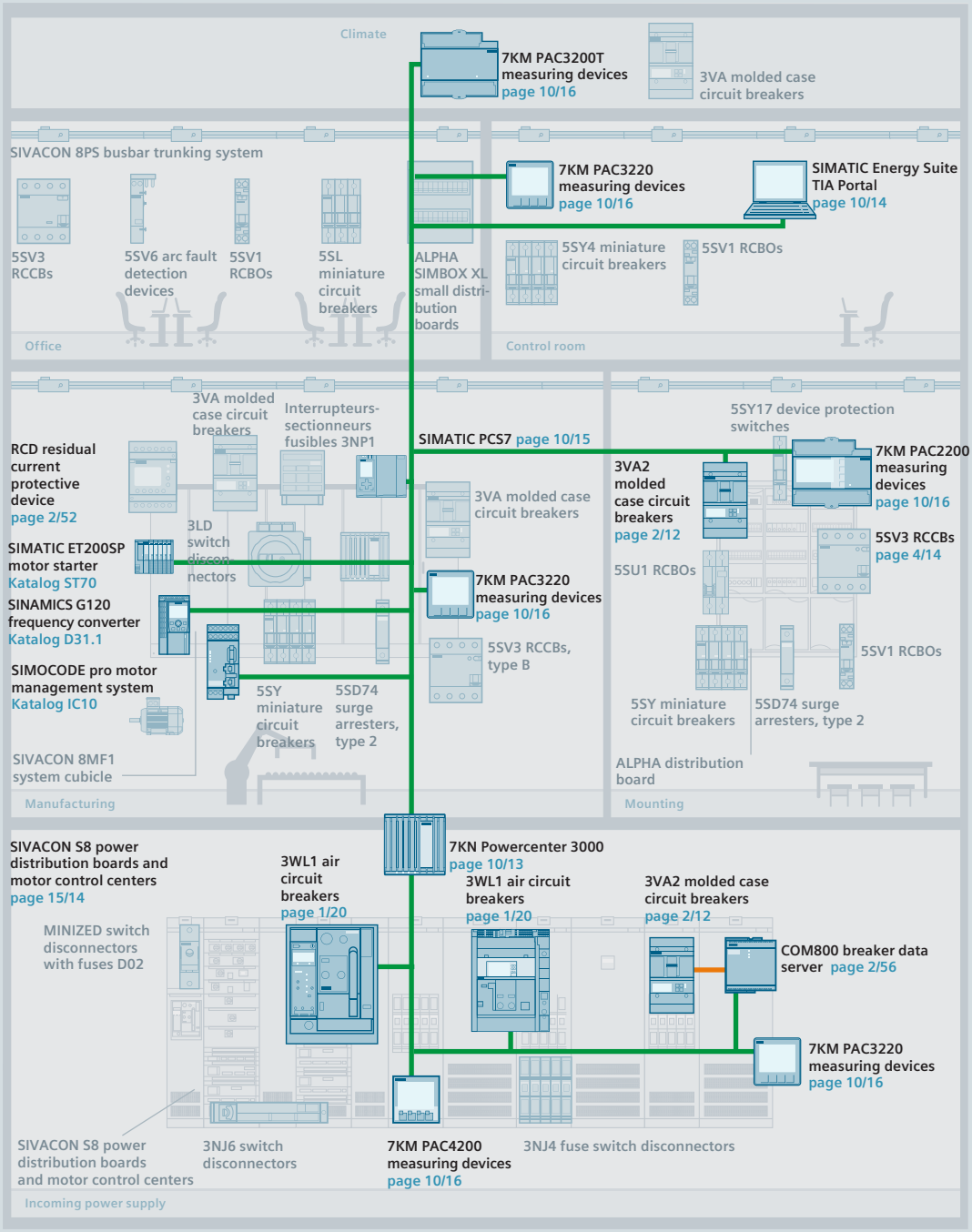
Power monitoring

On premises

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

Stand-alone

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



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

Switching, protection 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. powermanager, as well as to cloud systems and applications.

- Diagnostics management
- Fault management – SMS alarm
- Maintenance management – predictive maintenance
- Cost center management – MID

1. Visualization and plant transparency (HMI)

- 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

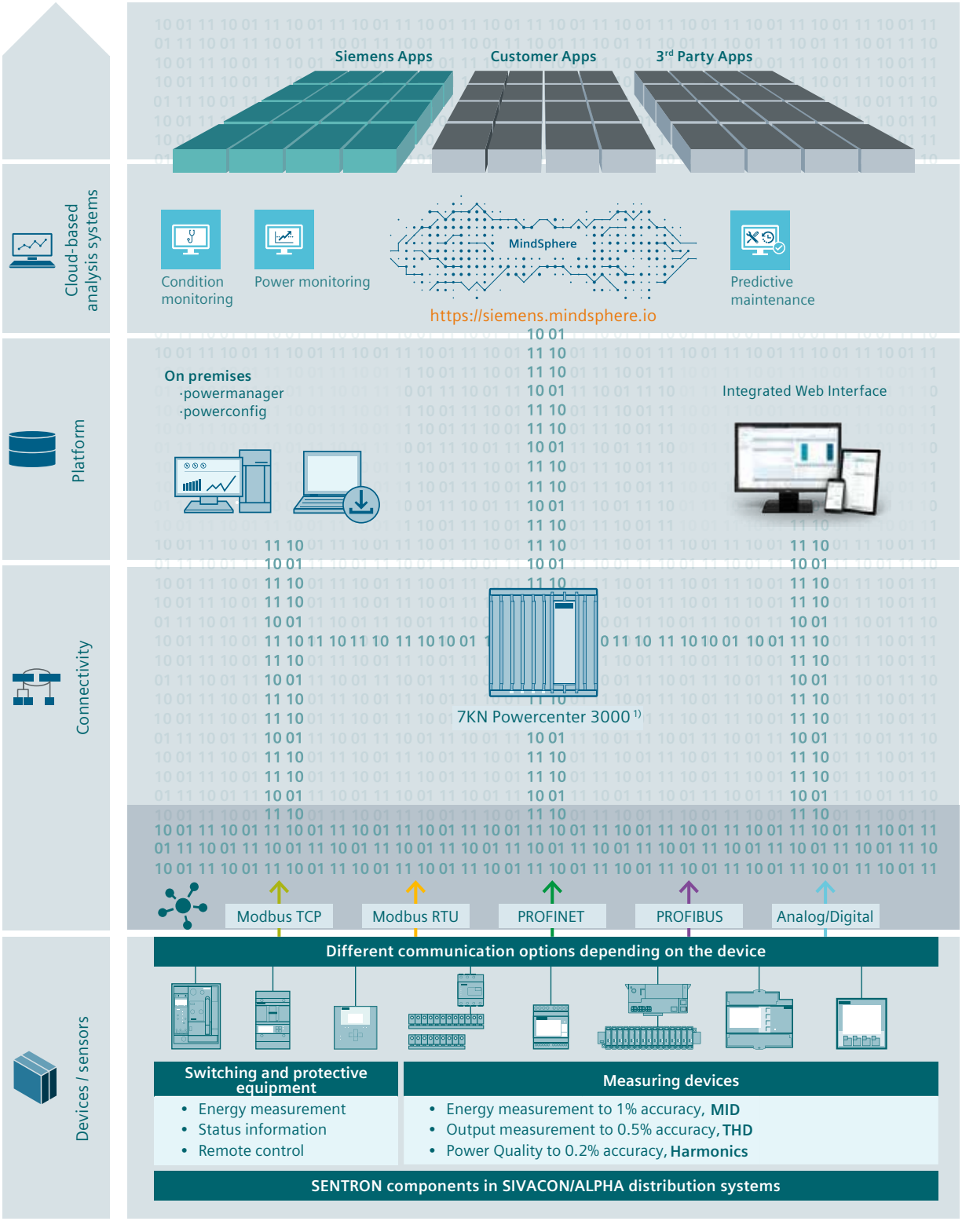
- Maintenance support, even remotely, by transparently presenting the status of a switchgear and controlgear assembly.

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.



1) Modbus TCP

Overview of protection, switching, measuring and monitoring tasks

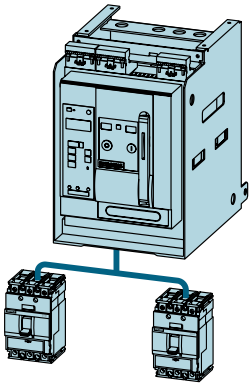
The functions presented here are available in combination or individually. Details can be found in the respective chapter.

Device class	Type	Rated current AC	Page	Line protection	Motor protection	Generator protection	Starter protection	Isolating function
Air circuit breakers	3WL	630 ... 6300 A	1/4	■	■	■		■
Molded case circuit breakers	3VA	16 ... 1600 A	2/1	■	■	■	■	■
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	4/6	■				■
Arc fault detection devices, AFDDs	5SM6	0 ... 40 A	4/6					
Arc fault detection devices, AFDD-MCBs	5SV6	0 ... 40 A	4/6	■				■
ON/OFF switches	5TL1	32 ... 125 A	5/14					
Overvoltage Protection Devices	5SD7	–	6/6					■
Fuses D0	5SG / 5SA		7/6	■			■	
Photovoltaic fuses			7/6	■				
LV HRC fuses			7/6	■	■		■	
SITOR semiconductor fuses			7/6	■		■	■	
Switch disconnectors	3LD	16 ... 250 A	8/6					■
	3KD	16 ... 1,600 A	8/6					■
Fuse switch disconnectors	3NP	0 ... 630 A	8/78	With suitable fuse links			With suitable fuse links	■
Switch disconnector with fuse	3NJ	0 ... 630 A	8/132					■
	3KF	0 ... 630 A	8/116					■
Transfer switching equipment	3KC	16 ... 3,200 A	9/4					■
PAC measuring devices	7KT	Any	10/22					
Motor starter protectors	3RV		Catalog IC 10		■			■
Contactor	3RT		Catalog IC 10					■

Current limitation	Overload protection "L"	Short-circuit protection, delayed "S"	Short-circuit protection, instantaneous "I"	Ground-fault protection "G"	Metering function	Personnel safety / fault current protection	Overvoltage protection	Preventative fire protection	Switching function
	■	■	■	■	■				
■	■	■	■	■	■	■ / ■			
■	■		■						
						■ / ■			
■	■		■			■ / ■			
								■	
■	■		■					■	
							■		
■	■		■						
■	■		■						
■	■		■						
■	■		■						
With suitable fuse links	With suitable fuse links		With suitable fuse links						
									■
					■				
■	■		■						

Overview of protection, switching, measuring and monitoring tasks

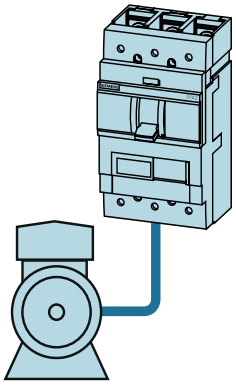
Line protection



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

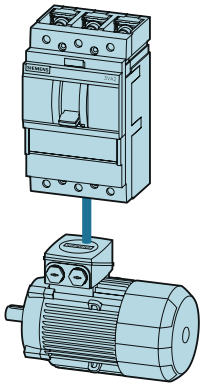
- Cables
- Leads
- Non-motor loads

Generator protection



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

Motor protection

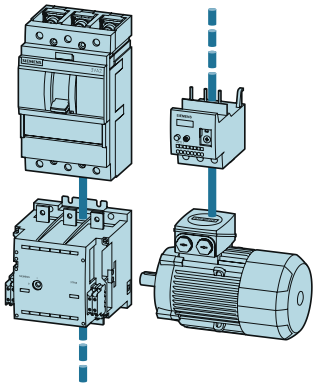


The overload and short-circuit releases are designed for optimal protection and direct starting of three-phase AC squirrel-cage motors.

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 as per IEC 60947-3

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 (See chapter 8,).

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

- Measuring devices and the protection function integrated into a single 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 (MCCB), motor starter protectors (MSP), miniature circuit breakers (MCB) and fuses

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

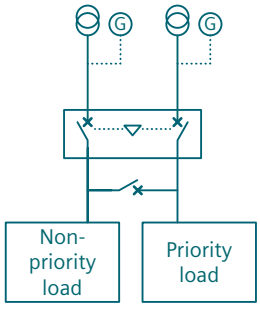
Transfer switching function

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

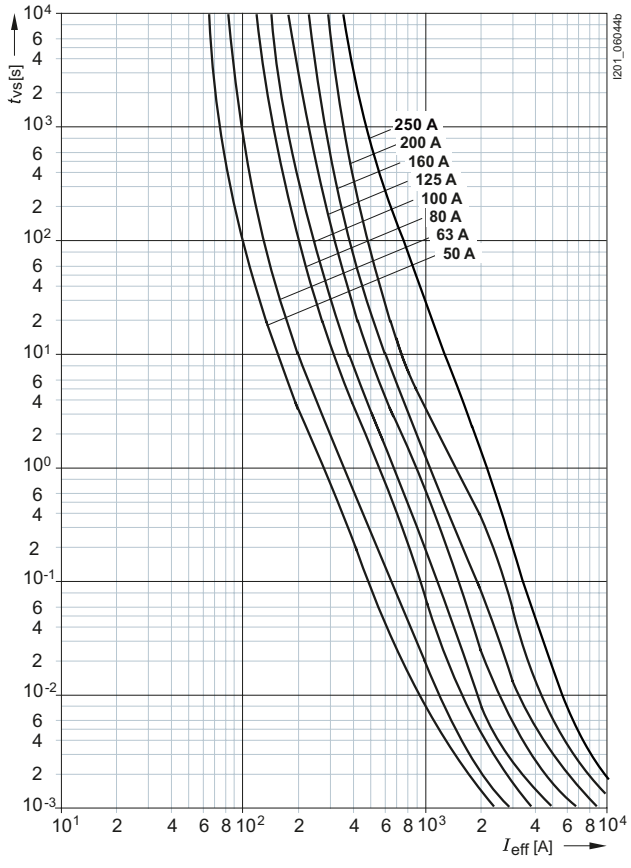
In the following, the functions of the tripping curves are presented as an example.

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)**

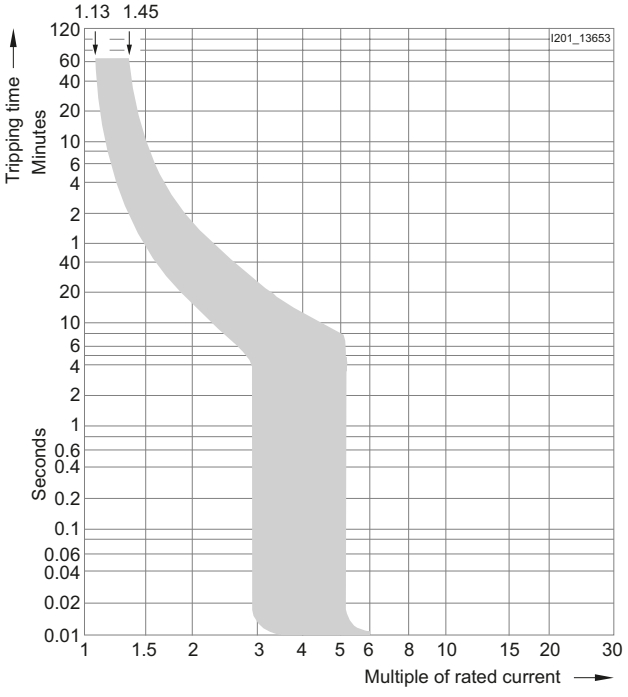


Miniature circuit breakers (MCB)

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 (MCCB)

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

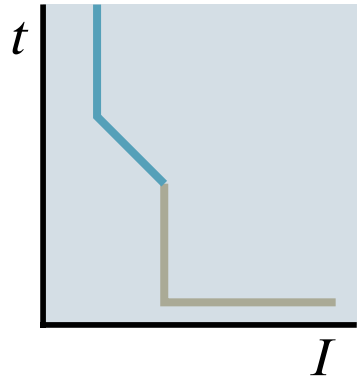
The trip units are classified as:

- 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.

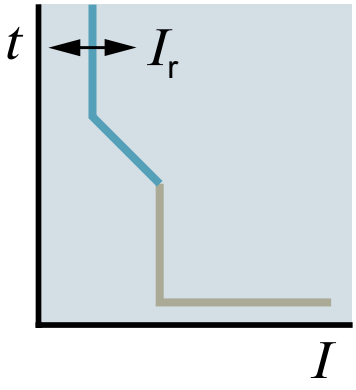
See equipment manual – 3VA molded case circuit breakers with IEC certificate (90318775)

FTFM (Fixed Thermal, Fixed Magnetic Trip Unit)



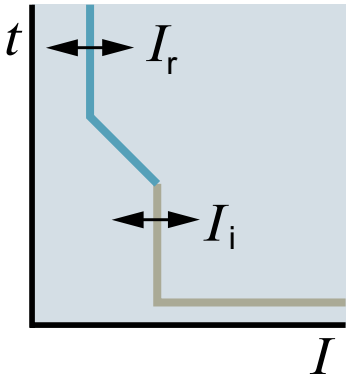
Permanently set thermal overload trip unit, permanently magnetic trip unit with short-circuit protection

ATFM (Adjustable Thermal, Fixed Magnetic Trip Unit)



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

ATAM (Adjustable Thermal, Adjustable Magnetic Trip Unit)



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

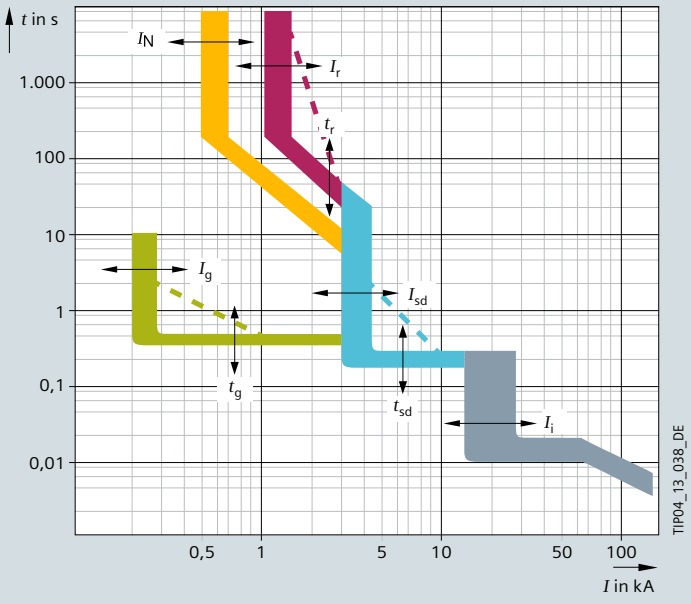
Tripping characteristics

Molded case circuit breakers (MCCB) / air circuit breakers (ACB) with ETU

The choice of electronic trip unit is based on the protection function required 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 the tripping curve (time/current).



L **Overload protection "L"**
Standard I^2t
optional I^4t

N **Neutral protection "N"**
Option: OFF - 1,0 x I_n
(for selected trip units 1,6 / 2,0 × I_n)

S **Short-circuit protection, delayed "S"**
Standard t_{sd} = const.
optional I^2t

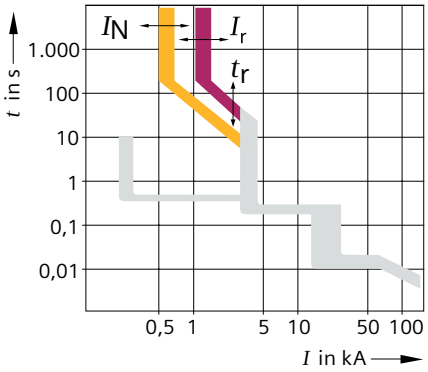
I **Short-circuit protection, instantaneous "I"**

G **Ground-fault protection "G"**
Standard t_g = const.
optional I^2t

Overload protection "L"

The ID letter for overload protection is L (stands for "Longtime 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 characteristic with electronic trip units

The letters Ir refer to the current setting value, and t_r to the associated time delay.



Neutral protection "N"

The ID letter for neutral conductor protection is "N".
This function protects the neutral conductor against overload. The letters IN refer to the current setting value; the associated setting time is identical to tr.

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

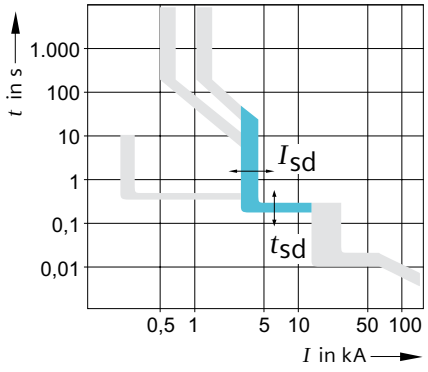
- The neutral conductor has a smaller cross-section than the phase conductors.
- Harmonic levels in the installation are expected to be higher than normal.
- A large number of loads, or predominantly single-phase loads IN, are connected.

Short-circuit protection, delayed "S"

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

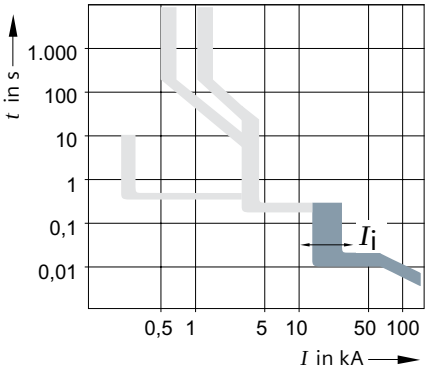
The short-time delayed short-circuit protection function protects phases L1 to L3 and the neutral conductor. The protection function responds if the current in at least one phase exceeds the set tripping current I_{sd} for the set delay period t_{sd}.

The S release has a characteristic curve with current-dependent characteristic I^2t, i.e. the delay time is dependent on the energy content of the short-circuit current present.



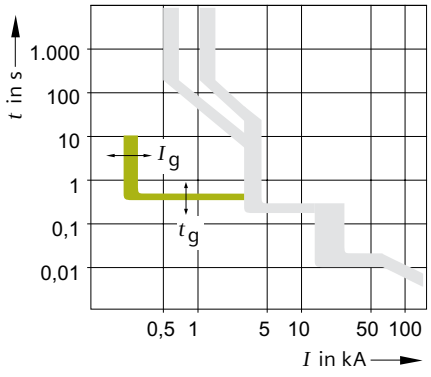
Short-circuit protection, instantaneous "I"

The ID letter for instantaneous short-circuit protection is "I" (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 "G"

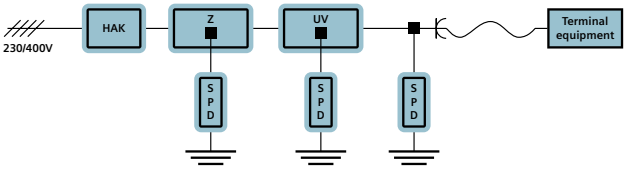
The ID letter for ground-fault protection is "G" (ground fault). The G release measures fault currents between phases and grounded, electrically conductive parts. The ground-fault protection function responds if the ground fault current exceeds the set tripping current I_g for the set delay time t_g. Ground-fault protection can be implemented as a current-independent and a current-dependent function (I^2t).



Overview of protection, switching, measuring and monitoring tasks

Overvoltage protection

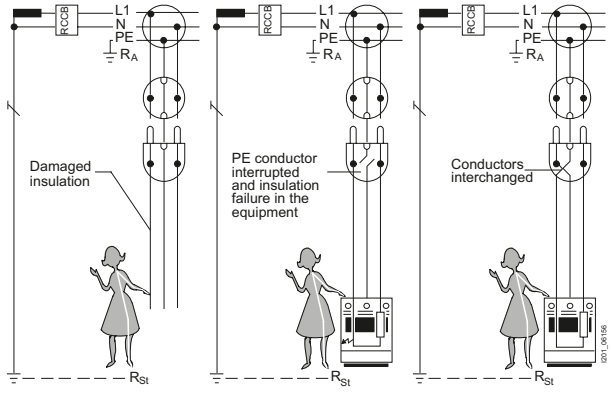
Overvoltage protection refers to the protection of electrical and electronic devices against excessively high electrical voltages. Overvoltage can be caused by switching operations or electrostatic discharging (ESD).



Personnel safety / fault current protection

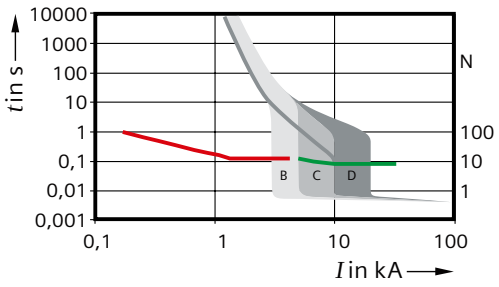
Protection in the event of direct contact:
Additional protection contact refers to direct contact with a part that is live under operating conditions.

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.



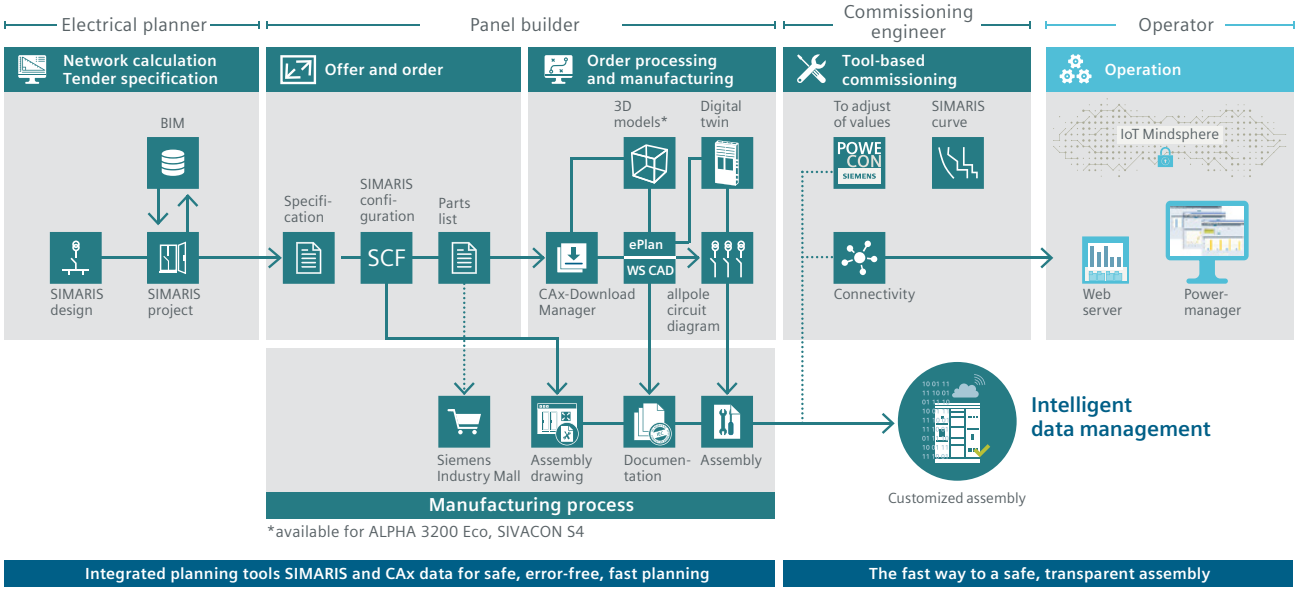
Potential failure causes

- 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



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

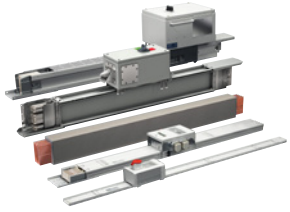
SIVACON S8 power distribution boards and motor control centers

- 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

- Compact, space-saving construction
- Perfectly matched to the SENTRON components

See page 15/16 for the overview

ALPHA 3200 Eco power distribution boards

- **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 1,250 A

See page 15/144 for the overview

SIVACON S4 power distribution boards

- Modular system for safe, end-to-end, cost-efficient power distribution up to 4000 A
- System for creating design-verified switchgear assemblies in accordance with IEC 61439
- Flexible application, thanks to a range of installation methods and variable accessories
- Simplified installation and device connection makes assembly faster

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

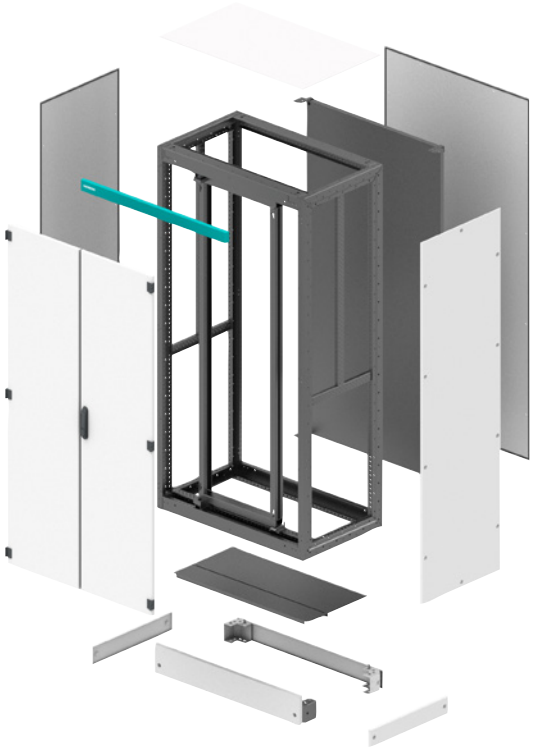
See page 15/112 for the overview

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 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

SIVACON 8MF/8MR system lighting

Offers optimum lighting conditions during installation or maintenance. The LED technology conserves energy and is maintenance-free.

See page 17/34 for the overview

Reliable, versatile and perfectly integrated

All power distribution systems rely on a secure infeed of electrical energy. The 3WL air circuit breakers reliably protect electrical equipment from damage or fire resulting from short circuit, ground fault or overload failures.

The 3WL air circuit breakers are used as incoming-feeder, tie, and outgoing-feeder circuit breakers in electrical installations in industry, buildings and infrastructure applications. They have the ability to communicate and can easily be integrated into higher-level control and energy management systems.

The 3WL air circuit breakers switch and protect motors, capacitors, generators, transformers, busbars and cables. The modular design and standardized range of accessories enable the circuit breakers to be adapted flexibly to different applications. UL 489-compliant versions are available for international use.

The 3WL air circuit breakers can optionally be equipped with a communication module and integrated into higher-level energy management systems. Auxiliary, signaling and position switches report status and fault diagnostics remotely to higher-level control systems.

Air Circuit Breakers

A multitude of additional information ...

Information + ordering

All the important things at a glance

Information to get you started

For information about air circuit breakers, please visit our website
www.siemens.com/3WL

Contact persons in your region

We are there when you need us

You can find your local contacts at
www.siemens.com/lowvoltage/contact

Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
www.siemens.com/lowvoltage/product-support

- Technical basic information – 3WL air circuit breakers (109767789)
- Quick selection guide – 3WL air circuit breakers (109751638)

The relevant tender specifications can be found at
www.siemens.com/lowvoltage/tenderspecifications

Use our conversion tool for quick and easy conversion to Siemens products www.siemens.com/conversion-tool

Siemens YouTube channel

Our video range

- 3WL air circuit breakers (general) 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/2lXiZjB

Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog or by entering this web address incl. Article No.
www.siemens.com/product?Article No.

Configurators

Exactly the right circuit breaker for your application

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

For your configured 3WL air circuit breaker, you can additionally find

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

… can be found in our online services

Commissioning + operation

Configuration software

powerconfig

The combined commissioning and service tool for communication-capable measuring devices and circuit breakers from the SENTRON family.
www.siemens.com/powerconfig

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Characteristic curves
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Training and tutorials

Our training courses can be found at
www.siemens.com/sitrain-lowvoltage

- Protection systems in low-voltage power distribution (WT-LVAPS)
- 3WL air circuit breakers (WT-LVA3WL)
- Communication with SENTRON components (LV-COM)
- Maintenance and operation of 3WL circuit breakers (LV-CBMAIN)

Video tutorial on the 3WL air circuit breaker – descriptive supplement to Operating Instructions
www.lowvoltage.siemens.com/wcms/3wl-tutorial

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- 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)

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

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www.siemens.com/lowvoltage/support-request

We offer a comprehensive portfolio of services.
You can find your local contacts at
www.siemens.com/lowvoltage/contact

You can find further information on services at
www.siemens.com/service-catalog

Technical overview – Air circuit breakers

The fast way to get you to our online services

This page provides you with comprehensive information and links on air circuit breakers
www.siemens.com/lowvoltage/product-support (109766020)

Basic units for AC and DC

IEC 60947-2

AC

			3WL10		3WL11	
Basic data						
Rated voltage		V	Up to 690		Up to 1000	
Rated currents		A	630 ... 1250		630 ... 2000	
Size			0		1	
Installation type			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 up to 690 V AC +20% [6], 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} [5]								
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 [1] / 45 [2]	45	70
	3 s	kA	24	24	36	35 [1] / 45 [2]	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 [1] / 42 [2]	45	66
	3 s	kA	24	24	36	30 [1] / 45 [2]	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	–	–	–	–	–	–

1) Size 1 with $I_{n\ max.}$ ≤1250 A
2) Size 1 with $I_{n\ max.}$ ≥1600 A
3) Size 2 with $I_{n\ max.}$ ≤2500 A
4) Size 2 with $I_{n\ max.}$ ≥3200 A
5) At a rated voltage ≥690 V the I_{cw} value of the circuit breaker corresponds with the I_{cu} or I_{cs} value

System overview, pages 1/20 and 1/38

AC

3WL12

Up to 1150	
800 ... 4000	
2	
Withdrawable	Fixed-mounted
3/4-pole	3/4-pole
460|590	460|590
468|518	462
471	357
VDE, EAC, CCC, CE, C-Tick	
ABS, DNV, LR, BV, GL, PRS, RMRS	
N	**S**	**H**	**C** [7]
66|66	85|85	100|100	130|130
66|66	85|85	100|100	130|130
50|50	75|75	85|85	100|100
–|–	–|–	–|–	–|–
–|–	–|–	85|85	–|–
–|–	–|–	50|50	–|–
66	85	100	100
66	85	85	100
66	66 [3] / 85 [4]	66 [3] / 85 [4]	85
55 [3] / 66 [4]	55 [3] / 75 [4]	55 [3] / 75 [4]	75
50	75	85	100
50	75	85	100
50	66 [3] / 75 [4]	66 [3] / 85 [4]	85
50	55 [3] / 75 [4]	55 [3] / 75 [4]	75
–	–	–	–
66	85	100	130
50	75	85	100
–	–	85/85	–
–	–	–/50	–
–	–	–	–
–	–	–	–

AC

3WL13

Up to 1150	
4000 ... 6300	
3	
Withdrawable	Fixed-mounted
3/4-pole	3/4-pole
704|914	704|914
468|518	462
471	357
VDE, EAC, CCC, VDE, CE, C-Tick	
ABS, DNV, LR, BV, GL, PRS, RMRS	
H	**C 3p**	**C 4p**
100|100	150|150	130|130
100|100	150|150	130|130
85|85	150|150	130|130
–|–	–|–	–|–
85|85	125|125	125|125
70|70	–|–	–|–
100	130	120
100	130	120
100	130	120
100	130	120
85	130	120
85	130	120
85	130	120
85	130	120
–	–	–
100	130	120
85	130	120
85/85	–	–
70/70	–	–
–	–	–
–	–	–

DC

3WL11

1000 DC
2000
1
Fixed-mounted
4-pole
VDE, EAC, CCC, CE, C-Tick
ABS, DNV, LR, BV, GL, PRS, RMRS
DC
–
–
–
–
–
–
–
–
–
–
–
–
–
20
–
–
–
–

DC

3WL12

Up to 600/1000 DC	
1000 ... 4000	
2	
Withdrawable	Fixed-mounted
3/4-pole	3/4-pole
460|590	460|590
468|518	462
471	357
VDE, EAC, CCC, CE, C-Tick	
ABS, DNV, LR, BV, GL, PRS, RMRS	
DC
–
–
–
–
–
–
–
–
–
–
–
–
–
35 [8] / 30 [9] / 25 [10] / 20 [11]
–
–
–
–
35/30
25/20

Breaking capacity

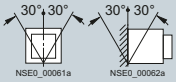
B	Basic
N	ECO
S	Standard
H	High
C	Very high
DC	DC

[6] At 690 V AC +5% the $I_{cu} = I_{cs} = 85$ kA
[7] Up to 3200 A rated current.
[8] At $U_e = 220$ V DC
[9] At $U_e = 300$ V DC
[10] At $U_e = 600$ V DC
[11] At $U_e = 1000$ V DC

System overview, pages 1/20 and 1/38

Basic units for AC

IEC 60947-2

			3WL10				3WL11	
								
			630 A	800 A	1000 A	1250 A	1000 A	1250 A
Rated current								
Isolating function acc. to EN 60947-2			Yes					
Utilization category			B					
Permissible ambient temperature	During operation (in operation with LCD max. 55 °C) [1]	°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	
Supply								
Voltage								
Rated operational voltage U_e at 50/60 Hz	1000 V version	V AC	Up to 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 [9]	kV	2.5				2.5	
Rated rotor operational voltage U_{er}		V					2000	
Permissible load for withdrawable versions [2] [4] [10]								
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 [8]	1210 [8]
Power loss at I_n								
With three-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
Switching cycles								
Switching times								
Make time		ms	<20	<20	<20	<20	35	
Opening time		ms	<20	<20	<20	<20	38	
Electrical make time (through closing coil) [5]		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	73	
Opening time due to ETU, instantaneous short-circuit release		ms	25	25	25	25	50	
Service life: Breaking capacity N and S, 3/4-pole								
Mechanical	Without maintenance	Operating cycles	20000	20000	20000	20000	15000	15000
	With maintenance [6]	Operating cycles	–	–	–	–	25000	25000
Electrical	Without maintenance 440 V	Operating cycles	8000 [7]	8000 [7]	8000 [7]	8000 [7]	–	–
	Without maintenance 690 V	Operating cycles	8000 [7]	8000 [7]	8000 [7]	6500 [7]	10000	10000
	With maintenance [6]	Operating cycles	– [7]	– [7]	– [7]	– [7]	25000	25000
Service life: Breaking capacity H, 3-pole								
Mechanical	Without maintenance	Operating cycles	–	–	–	–	10000	10000
	With maintenance [6]	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 [6]	Operating cycles	–	–	–	–	15000	15000

[1] The LCD on the 3WL10 is always active.
[2] 4000 A, size 2 in fixed-mounted version, 3-pole
[4] ETU76B with graphics display can be used up to max. 55 °C.
[5] Make time through closing coil for synchronization purposes (short-time excited) 50 ms.
[6] Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual). Greasing the breaker mechanism on the 3WL10, no replacement of components.

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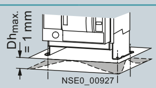
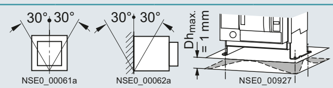
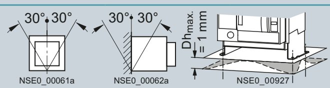
3WL11

3WL12

3WL13

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[8)]	1780[8)]	800[8)]	1000[8)]	1250[8)]	1600[8)]	2000[8)]	2280[8)]	2870[8)]	3600[8)]	4000[8)]	5000[8)]	5500[8)]
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		
73		73								73		
50		50								50		
15000	15000	10000	10000	10000	10000	10000	10000	10000	10000	–	–	–
25000	25000	17500	17500	17500	17500	17500	17500	17500	17500	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–
10000	10000	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

7) Periodic greasing of breaker mechanism on 3WL10 (see Manual), components not to be replaced

8) Cu painted black

9) Motorized operating mechanism U_{imp}=1.2 kV

10) For 3WL size 2 4000A and size 3 6300A with rear vertical main connections.

System overview, pages 1/20 and 1/38

Basic units for AC

IEC 60947-2 (continued)

				3WL10				3WL11	
				630 A	800 A	1000 A	1250 A	1000 A	1250 A
Switching cycles									
Service life: Breaking capacity H, 4-pole									
Mechanical	Without maintenance		Operating cycles	–	–	–	–	10000	10000
	With maintenance [6]		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 [7]		Operating cycles	–	–	–	–	–	–
	With maintenance [6]		Operating cycles	–	–	–	–	10000	10000
Service life: Breaking capacity C									
Mechanical	Without maintenance		Operating cycles	–	–	–	–	–	–
	With maintenance [6]		Operating cycles	–	–	–	–	–	–
Electrical	Without maintenance 690 V		Operating cycles	–	–	–	–	–	–
	With maintenance 690 V [6]		Operating cycles	–	–	–	–	–	–
Switching frequency [8]									
Mechanical / electrical	690 V version		1/h	60 / 30	60 / 30	60 / 30	60 / 30	–	–
	1000 V / 1150 V version		1/h	–	–	–	–	–	–
Connection									
Minimum phase size									
Copper bars, bare			Unit, mm²	2× 40 × 5	2× 50 × 5	2× 50 × 10 [12] 2× 50 × 8 [13]	2× 50 × 10 [12] 2× 50 × 8 [12]	1× 60 × 10	2× 40 × 10
Copper bars, painted black			Unit, mm²	–	–	–	–	1× 60 × 10	2× 40 × 10
Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)									
Standard connection = screw	Without end sleeve					–		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)	
	With end sleeve acc. to DIN 46228 Part 2					–		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)	
	With twin end sleeve					–		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)	
Screwless connection technology	Without end sleeve					0.5 ... 2.5 mm² (AWG 20 ... 14)		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)	
	With end sleeve acc. to DIN 46228 Part 2					0.5 ... 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)	
Position signaling switches									
Screwless connection technology						1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)	
Weights									
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

[6] Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual).

[7] Size 2 with order code "A15" and size 3. Data for very high breaking capacity.

[8] Minimum interval time between 2 tripping operations

[9] 3-pole switching with breaking capacity N and S: 45/h.

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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**
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
10000	10000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
–	–	5000	5000	5000	5000	5000	5000	5000	–	5000	5000	5000
–	–	10000	10000	10000	10000	10000	10000	10000	–	10000	10000	10000
–	–	5000	5000	5000	5000	5000	5000	4000	–	1000	1000	1000
–	–	10000	10000	10000	10000	10000	10000	8000	–	–	–	–
–	20/20	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]	60/60 [9)]
–	–	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
2× 50 × 10	3× 50 × 10	1× 50 × 10	1× 60 × 10	2× 40 × 10	2× 50 × 10	3× 50 × 10	2× 100 × 10	3× 100 × 10	4× 120 × 10	4× 100 × 10	6× 100 × 10	6× 120 × 10
2× 50 × 10	3× 50 × 10	1× 50 × 10	1× 60 × 10	2× 40 × 10	2× 50 × 10	3× 50 × 10	2× 100 × 10	3× 100 × 10	4× 100 × 10	4× 100 × 10	6× 100 × 10	6× 120 × 10
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)		
1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)								1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)		
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		
2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)								2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)		
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		
1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)								1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		
43	43	56	56	56	56	56	59	64	85	82	82	90
45	45	60	60	60	60	60	63	68	121	88	88	96
25	25	31	31	31	31	31	39	45	52	60	60	70
50	50	67	67	67	67	67	71	77	103	99	99	108
54	54	72	72	72	72	72	76	82	146	106	106	108
30	30	37	37	37	37	37	47	54	62	84	84	119

[12)] Horizontal
[13)] Vertical

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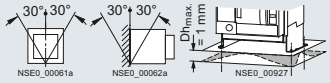
Basic units for DC

IEC 60947-2

				3WL11		3WL12	
				2000 A	1000 A	2000 A	4000 A
Rated current							
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			
Supply							
Voltage							
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	
Permissible load							
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
Power loss at I_n							
With symmetrical load	Withdrawable circuit breaker		W	150	280	770	1640
Switching cycles							
Switching times							
Make time			ms	35		35	
Opening time			ms	38		34	
Electrical make time (through activation solenoid) [1]			ms	100		100	
Electrical opening time (through shunt trip)			ms	73		73	
Electrical opening time (instantaneous undervoltage release)			ms	73		73	
Endurance [3]							
Mechanical	Without maintenance		Operating cycles	10000	10000	10000	10000
	With maintenance [2]		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 [2]		Operating cycles	2000	17500	17500	17500

[1] Make time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

[2] Maintenance means: Replace main contact elements and arc chutes (see Operating Manual).

[3] Further technical specifications on request.

[4] At U_e = 220 V DC

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			3WL11		3WL12	
						
			2000 A	**1000 A**	**2000 A**	**4000 A**
Breaking capacity						
Short-circuit breaking capacity I_{cc}						
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		
Rated short-time withstand current I_{cw}						
0.5 s		kA	–	–		
1 s		kA	20	35 [4] / 30 [5] / 25 [6] / 20 [7]		
2 s		kA	–	–		
3 s		kA	–	–		
Breaking capacity						
Switching frequency						
690 V version		1/h	–	60	60	60
1000 V version		1/h	20	20	20	20
Connection						
Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)						
Standard connection = strain-relief clamp	Without end sleeve		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)			
	With end sleeve acc. to DIN 46228 Part 2		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)			
	With twin end sleeve		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)			
Optional connection = tension spring	Without end sleeve		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)			
	With end sleeve acc. to DIN 46228 Part 2		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)			
Weights						
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

[5] At U_e = 300 V DC
[6] At U_e = 600 V DC
[7] At U_e = 1000 V DC.

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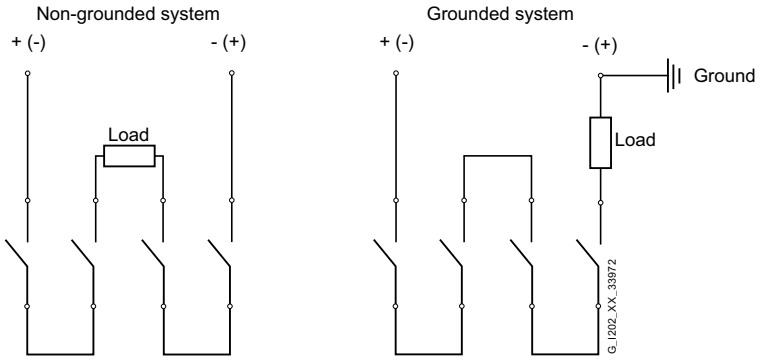
Basic units for DC

Application examples size 1

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



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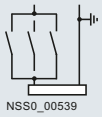
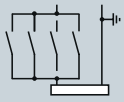
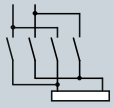
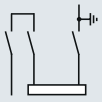
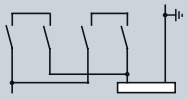
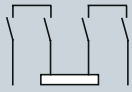
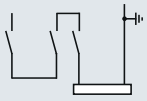
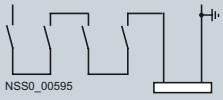
Application examples size 2

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
Rated operational voltage <300 V + 10%				
	 NSS0_00539 only with grounded system [2]		 only with grounded system [3]	
Rated operational voltage >300 V + 10% ... 600 V + 10%				
		 only with grounded system	 only with grounded system [2]	
Rated operational voltage >600 V + 10% ... 1000 V + 10% [4]				
	 only with grounded system		 NSS0_00595 only with grounded system	 only with grounded system

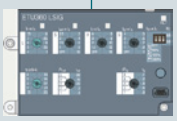
[1] Conducting paths series-connected
[2] 2 parallel conducting paths
[3] 3 parallel conducting paths
[4] Version for 1000 V required, order with "-Z" and order code A05
⊣ Grounded system
▭ Load

System overview, pages 1/20 and 1/38

Electronic trip unit ETU

With watchdog monitoring

3WL10



			ETU320 (LI)	ETU350 (LSI)	ETU360 (LSIG)
Basic protection functions					
L	Overload protection (L tripping operation)	Setting range of operating value $I_r = I_n \times ...$	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× 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× I_n)	–	–	–
		Thermal memory can be switched on/off	Permanently switched on	Permanently switched on	Permanently switched on
		Phase failure sensitivity / asymmetry	–	–	–
S	Short-time delay short-circuit protection (ST tripping)	Setting range of operating value $I_{sd} = I_n \times ...$	–	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× I_n)	0.1 | 0.2 | 0.3 | 0.4 | 0.5 | (Ref. 10× I_n)
		Setting range of delay time t_{sd} (t = 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	–	–	–
I	Instantaneous short-circuit protection (INST tripping operation)	Setting range 2 = $I_n \times ...$	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
N	Neutral conductor protection	Neutral conductor setting range $I_N = I_n \times ...$	OFF | 50% | 100% | 200%	OFF | 50% | 100% | 200%	OFF | 50% | 100% | 200%
G	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 $I_g = I_n \times ...$	–	–	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 = 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× I_n) (I^2t dependent) | Default 0.1 (I^2t)
		ZSI-G function	–	–	–

[1] Sizes 1 and 2 / size 3

System overview, pages 1/20 and 1/38

3WL10		3WL11 – 3WL13				
						
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 × I_n ... 0.8 × I_{cw} OFF
0.05 ... 0.5 s (Ref. 10× I_n)	0.05 ... 0.5 s (Ref. 10× 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
–	–	–	–	–	by **Cubicle**BUS module	by **Cubicle**BUS module
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 ≥20 × I_n, max. 50 kA	Fixed at 2 ≥20 × I_n, max. 50 kA	OFF | 1.5 | 2.2 | 3 | 4 | 6 | 8 | 10 | 12 | 0.8 × I_{cs}	OFF | 1.5 × I_n ... 0.8 × 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) $I_g = I_n$ x	–	–	A [1] (100/400 A) | B [1] (300/600 A); C [1] (600/800 A) | D [1] (900/1000 A); E [1] (1200/1200 A)	A [1] (100/400 A) | B [1] (300/600 A); C [1] (600/800 A) | D [1] (900/1000 A); E [1] (1200/1200 A)	SZ 1, 2: 100 ... 1200 A SZ 3: 400 ... 1200 A
–	50% ... 90% × I_r | (in steps of 1%) PreAlarm	–	–	–	A [1] (100/400 A); B [1] (300/600 A); C [1] (600/800 A); D [1] (900/1000 A); E [1] (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 = const. / I^2t | Default const.	–	–	–	■	■
–	0.1 ... 1 s | (in steps of 0.05 s) (Ref. 2× I_n)	–	–	–	100 | 200 | 300 | 400 | 500 ms	100 ... 500 ms
–	–	–	–	–	by **Cubicle**BUS module	by **Cubicle**BUS module

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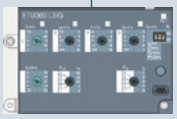
Electronic trip unit ETU

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		–	–	–
Tripping operation as a result of extended protection function: (including: phase asymmetry current/voltage, harmonic distortion current/voltage, under/ overvoltage, phase rotation direction, active power in/opposite to normal direction, under/ over-frequency, protection functions dependent on direction of power flow)		–	–	–
Mode of communication				
Communication PROFIBUS | PROFINET | Modbus RTU | Modbus TCP		–	–	–
Output modules				
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

System overview, pages 1/20 and 1/38

3WL10		3WL11 – 3WL13				
						
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	–	–	–	■	■

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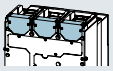
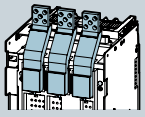
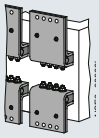
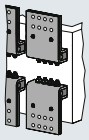
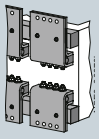
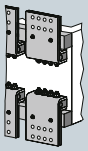
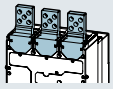
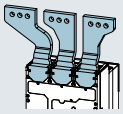
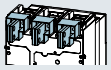
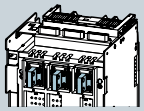
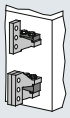
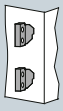
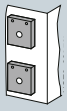
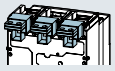
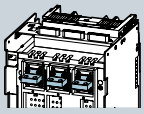
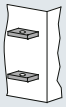
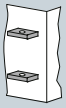
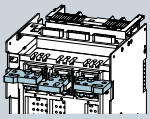
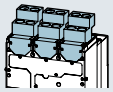
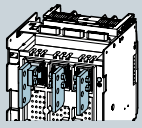
Connection

Main circuit connection

	3WL10		3WL11 – 3WL13			
Connection	**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

3WL 10: 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)

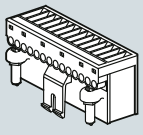
3WL11 – 3WL13: Withdrawable version

- 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

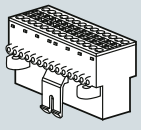
3WL11 – 3WL13: Fixed-mounted version

- 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 (SIGUT) (standard)



Screwless connection (tension spring) (optional)

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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)	■	■
Spring charging motor (MO)	■	■
Mechanical operating cycles counters	■	■

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3WL10 system overview

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

Basic units

Size 0

Trip units

Electronic trip units ETU (LI, LSI, LSIG)

Electronic trip units ETU (LSI, LSIG)

Accessories

Communi-cation 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

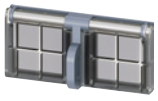
Closing coils

Auxiliary switches and signaling switches

Auxiliary, alarm, and signaling switches

Position signaling switches

Interlocking



Interlocking sets

Locking devices

Locking mechanisms

Door sealing frames

Protective covers

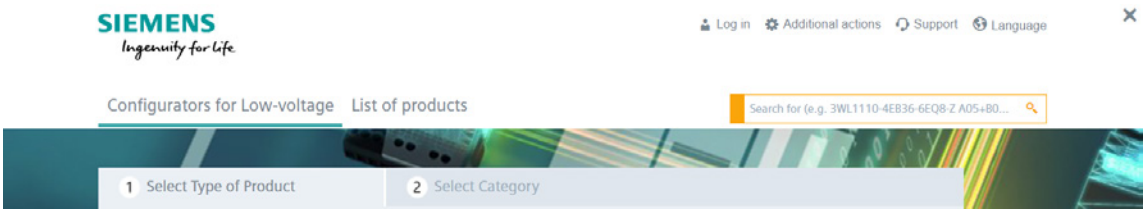
Note:
You will find a detailed range of accessories in the Accessories and spare parts section.

Online configurator highlights

www.siemens.com/lowvoltage/configurators

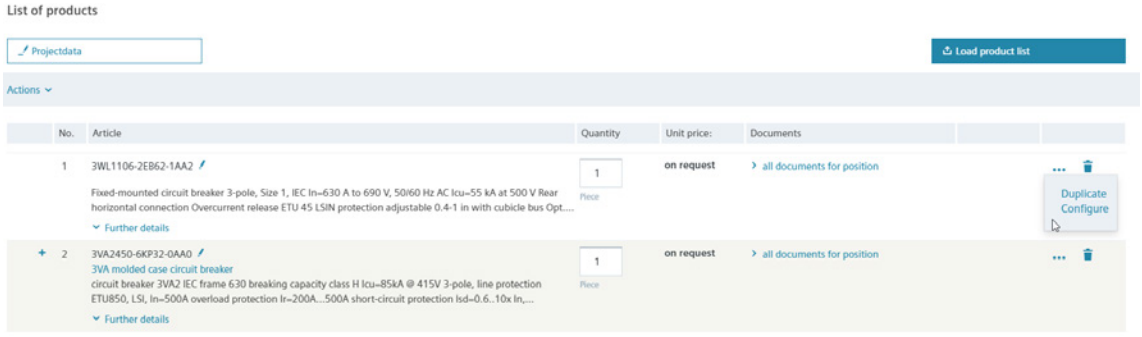
Search function with global direct input

Searches for specific terms and jumps to MLFB based on input to the correct configurator

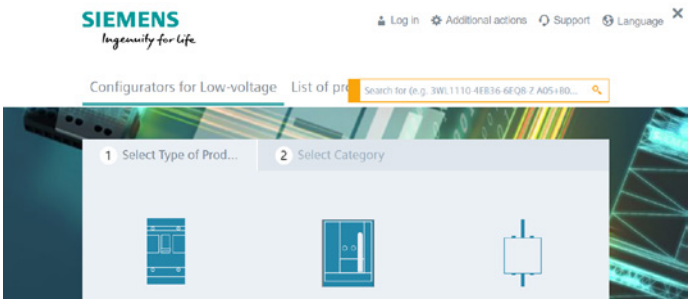


Product list stores multiple configurations and can transfer them collectively to the shopping cart

Recall of completed configurations for modification or additional configuration

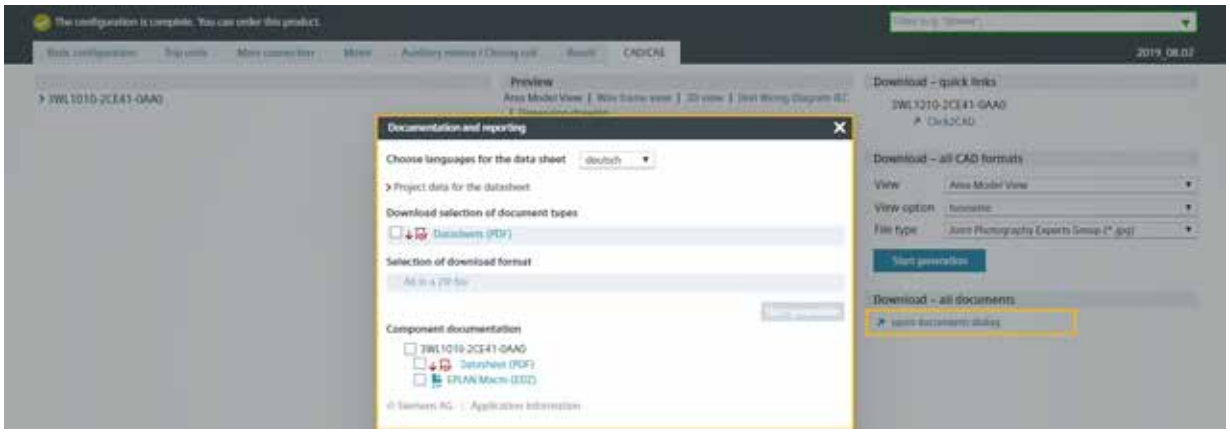


Responsive Design

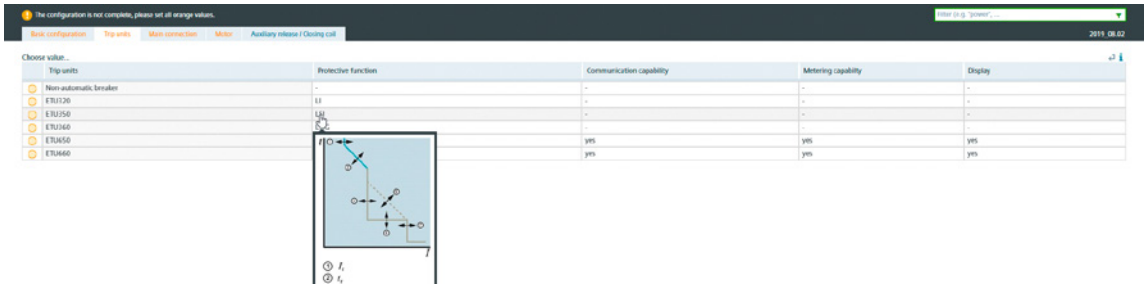


www.siemens.com/lowvoltage/3wl10-configurator

Download an ePlan Selector for 3WL10



Mouseover display of characteristic curves to show the protection function



Direct entry of an already known MLFB or parts of an MLFB

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**

	6	7		8	9	10	11	12		13	14	15	16
3WL10			–						–				

Basic unit and ETU

Max. rated current I_n	630 A							0	6	
	800 A							0	8	
	1000 A							1	0	
	1250 A							1	2	
Short-circuit breaking capacity I_{cu} at 415 V	B	Basic (42 kA)								1
	N	ECO (55 kA)								2
	S	Standard (66 kA)								3
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) [1]			A	B		
			ETU350 LSI	(N) [1]			A	C		
			ETU360 LSIG	(N) [1]			A	D		
Circuit breakers, ETU 6-series		With trip unit	ETU650 (LSI)					E		
			ETU660 (LSIG)					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			

[1] 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

Connection [2]

Installation type	Withdrawable	Without frame	0
		Rear vertical connection	1
		Rear horizontal connection	2
		Adapter for compression 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

[2] Broadened connections available as accessories.

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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 (CC), without remote reset magnet (RR)		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

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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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

Accessories for basic configuration

Mounting options for fixed mounting

- 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.[1)]

			Order code		
Mounting options for fixed mounting [1)]	Floor mounting	Mounting support standard	A	0	7
		Mounting support extended [2)]	S	5	6
	Rear panel mounting onto mounting plate	Side wall extended [2)]	S	5	7

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, 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).

				Order code		
Rating plug	For setting the rated current I_n	For all ETU	400 A	B	0	4
			630 A	B	0	6
			800 A	B	0	8
			1000 A	B	1	0
	For setting the rated current I_n, with overload protection L = OFF	For ETU 6-series	400 A	L	0	4
			630 A	L	0	6
			800 A	L	0	8
			1000 A	L	1	0
			1250 A	L	1	2
	For setting the rated current I_n, For enabling of the residual current protection function. The residual current function is only possible with the MF Advanced metering function.	For ETU660 only	400 A	G	0	4
			630 A	G	0	6
			800 A	G	0	8
			1250 A	G	1	2

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.

			Order code		
Communication modules	COM040	PROFIBUS	F	0	2
	COM041	PROFINET	F	0	3
	COM043	Modbus TCP	F	1	1
	COM042	Modbus RTU	F	1	2

Breaker Connect modules

- When a circuit breaker with a communications interface 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.

		Order code		
Breaker Connect modules	110 ... 240 V AC/DC	F	2	6

I/O modules internal

			Order code		
I/O modules internal	Digital I/O module IOM040	2 inputs, 2 outputs	K	5	6

[1)] These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.
[2)] Not possible in connection with or as an alternative to the mounting support, standard (A07)

System overview, page 1/20

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

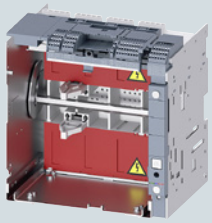
				Order code		
Accessories for the motor						
Mechanical operating cycles counter, 5-digit				C	0	1
Auxiliary switches and signaling switches						
• Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard. • For currents <100 mA for PLC connections, these auxiliary 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 [1]		2 CO | 2 CO | 2 CO (connected | test | disconnected position)		K	5	5
Signaling switches	Ready-to-close signaling switches		1 CO digital, 24 V DC	K	5	0
	Tripped signaling switches (S24)		1 CO digital, 24 V DC	K	5	3
	Spring charged signaling switches (S21)		1 CO digital, 24 V DC	K	5	4
Auxiliary switches	ON / OFF AUX	4 CO digital, 24 V DC		K	5	1
		2 CO 400 V AC + 2 CO digital, 24 V DC		K	5	2
Locking, blocking and interlocking						
Locking devices [1]	To prevent movement of withdrawable circuit breaker	Cylinder lock	Made by Ronis	R	7	8
		For no more than 3 padlocks, 8 mm		R	6	5
Locking mechanisms	To prevent movement to disconnected position			R	7	9
Locking devices	To prevent unauthorized activation in the operator panel (safe OFF)	Cylinder lock, made by Ronis		S	0	8
		For no more than 3 padlocks, plastic 4 mm		S	2	2
		For no more than 1 padlock, metal 7 mm		S	2	3
		For no more than 2 padlocks, metal 8 mm		S	0	7
Interlocking sets	For mechanical ON and/or OFF on the operator panel	For no more than 3 padlocks, plastic 4 mm		S	4	2
		For no more than 1 padlock, metal 7 mm		S	4	3
		For no more than 2 padlocks, metal 8 mm		S	4	4
Protective covers	For mechanical ON/OFF, not lockable			S	4	1
Door sealing frame IP30	IP3x			T	3	0

[1] Can be used not only when guide frame is ordered separately, but also with complete order (breaker + guide frame).

System overview, page 1/20

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 mm² Cu/Al cable connection, for compression lugs	3VW8112-0AD01
	Front connection bars, extended	3VW8112-0AE01
4-pole	Rear vertical	3VW8112-0BA01
	Rear horizontal	3VW8112-0BB01
	4× 240 mm² Cu/Al cable connection, for compression lugs	3VW8112-0BD01
	Front connection bars, extended	3VW8112-0BE01

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3VW8....-.....-.... -Z

			Order code		
Locking, blocking and interlocking					
Locking devices	To prevent movement of withdrawable circuit breaker	Cylinder lock, made by Ronis	R	7	8
		For no more than 3 padlocks, 8 mm	R	6	5
Locking mechanisms	To prevent movement to disconnected position (only in combination with R78 or R65)		R	7	9
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)	K	5	5

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.

System overview, page 1/20

Electronic trip units ETU and accessories

Electronic trip units (ETU)

Version	With communications / metering function / enhanced protection 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

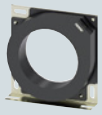
Metering functions for ETU650 or ETU660

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
	For 4-pole circuit breakers with neutral left	Top	3VW9011-0AT75
		Bottom	3VW9011-0AT76
	For 3-pole circuit breakers	Top	3VW9011-0AT72
		Bottom	3VW9011-0AT73

External current transformers for N conductor

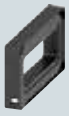
Accessory for	Purpose	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	For 3-pole circuit breakers only	3VW9011-0AA30

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	Purpose	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

Replacement batteries for electronic trip units ETU

Accessory for	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	3VW9011-0AT38

System overview, page 1/4

Electronic trip units ETU and accessories

Rated current module / 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 protection 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 communications interface 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	• 2 A at DC ≤30 V • 0.8 A at 50 V DC • 0.2 A at 150 V DC • 4 A at 250 V AC	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	• 2 A at DC ≤30 V • 0.8 A at 50 V DC • 0.2 A at 150 V DC • 4 A at 250 V AC	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 communications interface of the ETU 6-series is selected in the basic circuit breaker configuration.

Accessory for	Article No.
ETU 6-series	3VW9011-0AT10

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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 communications interface

- 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 communications interface 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 • For the trip test via ETU and tripping solenoid including release • The ETU and the tripping solenoids are activated 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	TD310	3VW9011-0AT32
Breaker Data Adapter • As gateway for parameterization of the ETU with powerconfig • For generation of a report of the set parameters with powerservice	TD410	3VW9011-0AT34
Test devices and Breaker Data Adapters • As gateway for parameterization of the ETU with powerconfig – Testing a tripping operation using powerconfig • For use with the powerservice software – Testing of the basic protection functions LSING – Testing of the enhanced protection functions – Test data storage – Readout of ETU buffer – Generation of a report of the set parameters	TD420	3VW9011-0AT33

System overview, page 1/4

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.
Fixed-mounted	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	3VW9011-0AL75
		Front terminals for main circuit connection, top, bottom	4-pole / 4 units	3VW9011-0AL74
Withdrawable	Front-accessible terminals for main circuit connection	Flange of the guide frame	3-pole / 3 units	3VW9011-0AN01
			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



- To be ordered separately for top and bottom

Fixing	Version	Mounted 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 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.
Fixed-mounted	Circular conductor terminals 4 × 240 mm² for front cable connection, 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
Withdrawable	Set of circular conductor connection pieces 4 × 240 mm² for compression lugs, 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

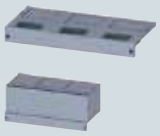
- Auxiliary conductor terminal in push-in version for upgrading fixed-mounted breakers and guide frames.
- The device is always fitted at the factory with the exact number of auxiliary conductor terminals required.

Version	Article No.
Push-in	3VW9011-0AB11

System overview, page 1/20

Accessories for connection

Terminal covers for fixed circuit breakers



- Finger-proof for front main circuit connection for fixed-mounting
- 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

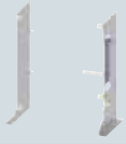
Phase barriers for fixed breakers

- 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

Support for mounting the fixed-mounted breaker on the floor

- For fixed-mounted versions

Version	Purpose	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)	• Fixation for external auxiliary switches AUX 15 W (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16) • Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB52

Extension kit for modification of the side wall of the fixed-mounted breaker

- For fixed-mounted versions
- Rear wall fixing on mounting plate
- For modification for mechanical transmission of switch position on circuit breaker side panel (= Z option S57)

Version	Purpose	Article No.
Extension kit for side wall	• Fixation for external auxiliary switches AUX 15 W (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16) • Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB53

System overview, page 1/20

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

System overview, page 1/20

Auxiliary releases, closing coils

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.

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

System overview, page 1/20

Accessories and spare parts

Interlocking

Locking devices to prevent movement of the withdrawable circuit breakers

Version	Article No.
Ronis cylinder lock (replacement for R78)	3VW9011-0BA80
Padlock 8 mm (replacement 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).

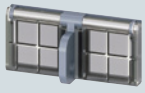
Description	Article No.
Locking mechanism (replacement for R79)	3VW9011-0BA84

Locking devices in OFF position

- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Artikel-Nr.
Cylinder lock, made by Ronis (replacement for S08)	3VW9011-0BA33

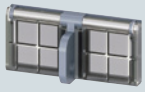
Locking devices in OFF position



- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Version	
Padlock 4 mm (replacement for S22)	Plastic for no more than 3 padlocks	3VW9011-0BA41
Padlock 7 mm (replacement for S23)	Metal for no more than 1 padlock	3VW9011-0BA42
Padlock 8 mm (replacement for S07)	Metal for no more than 2 padlocks	3VW9011-0BA44

Padlockable protective cover ON/OFF on the operator panel



Description	Version	Article No.
Padlock 4 mm (replacement for S42)	Plastic for no more than 3 locks	3VW9011-0BA22
Padlock 7 mm (replacement for S43)	Metal for no more than 1 lock	3VW9011-0BA23
Padlock 8 mm (replacement for S44)	Metal for no more than 2 locks	3VW9011-0BA24

Protective cover for mechanical ON/OFF

- Mechanical ON/OFF to protect against unintentional actuation on the operator panel.
- Not lockable.

Description	Article No.
Not lockable (replacement for S41)	3VW9011-0BA21

Mutual mechanical interlockings

- Mutual mechanical interlocking for 3WL / 3VA with Bowden cable 2 m

Fixing	Mounting	Article No.
Fixed-mounted	Rear panel or floor mounting	3VW9011-0BB21
Withdrawable	Mounting onto guide frame	3VW9011-0BB22

Bowden cable, separate

- One required for each circuit breaker

Variant	Article No.
1000 mm	3VW9011-0BB23
2000 mm	3WL9111-0BB45-0AA0
3000 mm	3WL9111-0BB46-0AA0

System overview, page 1/20

Interlocking

Locking mechanisms to prevent opening of the control cabinet doors in ON position

- 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 mounting 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	Befestigung	Version	Article No.
Replacement 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

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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

Basic units

Sizes 1 to 3

ETU

LI

LSI

LSING

LSIN, LSING

LSIN, LSING

Accessories

Communi-cation modules

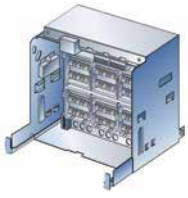
Rating plugs

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

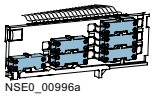
Accessories

Closing coils

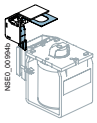
Note:
You will find a detailed range of accessories in the Accessories and spare parts section.

Auxiliary switches

Auxiliary switches



Position signaling switches



Signaling switches

Accessories

Position signaling switches

Further accessories

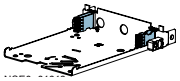
Door sealing frames

Shutters

EMERGENCY-OFF pushbuttons

Operating cycle counters

Support brackets

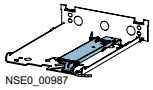


Grounding connections

Interlocking

Interlocking sets

Key operation



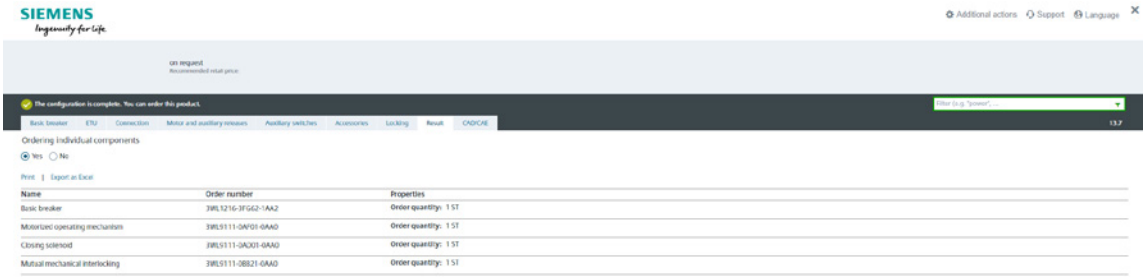
Locking mechanisms

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

Online configurator highlights

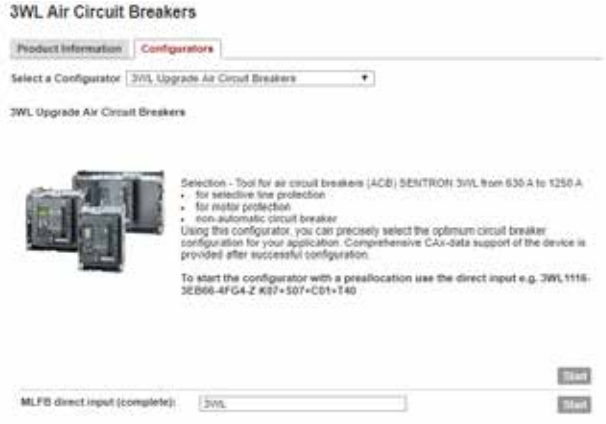
www.siemens.com/lowvoltage/3wl-configurator

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



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

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



System overview, page 1/38

System overview, page 1/38

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

Position		5	6	7		8	9	10	11	12		13	14	15	16
3WL1		■	■	■	–	■	■	■	■	■	–	□	□	□	□

Basic unit and ETU

Size		Position 5
Size	1	1
	2	2
	3	3

Max. rated current I_n		SZ 1	SZ 2	SZ 3	Position 6	Position 7
Max. rated current I_n	630 A	■	–	–	0	6
	800 A	■	■[6]	–	0	8
	1000 A	■	■[6]	–	1	0
	1250 A	■	■[6]	–	1	2
	1600 A	■	■	–	1	6
	2000 A	■	■	–	2	0
	2500 A	–	■	–	2	5
	3200 A	–	■	–	3	2
	4000 A	–	■[6]	■	4	0
	5000 A	–	–	■	5	0
	6300 A	–	–	■	6	3

Short-circuit breaking capacity I_{cu} at 500 V			SZ 1	SZ 2	SZ 3		Position 8
Short-circuit breaking capacity 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	–	■	■[8]	130 kA	5
			–	–	■[9]	150 kA	5

Trip units				Position 9	Position 10
Trip units	Without trip unit		–	A	A
	With trip unit, without ground-fault tripping	ETU 15B [7]	LI	B	B
		ETU 25B	LSI	C	B
		ETU 45B (without display)	LSIN	E	B
		ETU 45B (with display)	LSIN	F	B
		ETU 76B	LSIN	N	B
	With trip unit, with ground-fault tripping	ETU 27B (without display)	LSING	D	G
		ETU 45B (without display)	LSING	E	G
		ETU 45B (with display)	LSING	F	G
		ETU 76B	LSING	N	G

Number of poles		Position 11
Number of poles	3-pole (3WL upgrade)	6
	4-pole (3WL upgrade)	7

Connection

Installation type		SZ 1	SZ 2	SZ 3		Position 12
Installation type	Fixed-mounted	■	■	■	Vertical	1
		■	□[2]	□[3]	Horizontal	2
		□[4]	□[1]	□[5]	Front single hole	3
		■	□[1]	□[5]	Front double hole	4
	Withdrawable	■	■	■	Without guide frame	5
		■	□[2]	□[3]	Horizontal	6
		■	■	■	Vertical	7
		■	□[1]	□[5]	Flanges	8

■ Applies in this case
□ Partially applies in this case

1) Not available for rated current 4000 A and breaking capacity C
2) Not available for rated current 4000 A
3) Not available for rated current 6300 A
4) Not available for rated current 2000 A and breaking capacity H
5) Not available for rated current 5000 A, 6300 A and breaking capacity C
6) Not available for breaking capacity C
7) Not available for size 3
8) Not available for 3-pole
9) Not available for 4-pole

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3WL1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

Operating mechanisms and auxiliary releases

Stored energy mechanism	Manual recharging of the stored energy mechanismc	With mechanical operation		1
		With mechanical and electrical operation	110 V AC 50/60 Hz / 110 V DC	2
			230 V AC 50/60 Hz / 220 V DC	3
	Motorized operating mechanisms	With mechanical and electrical operation	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

1st auxiliary release	Without		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

2nd auxiliary release	Without		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

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

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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

1

				5	6	7		8	9	10	11	12		13	14	15	16
3WL1							–						–				

Basic unit and ETU

Size	1				1			
	2				2			
			SZ 1	SZ 2				
Max. rated current I_n	1000 A		–	■		1	0	
	2000 A		■	■		2	0	
	4000 A		–	■		4	0	
Short-circuit breaking capacity I_{cu}	1000 V DC	20 kA	■	–				8
	600 V DC	25 kA	–	■				8
Non-automatic air circuit breakers	Without trip unit							

Non-automatic air circuit breakers	Without trip unit						A	A
Number of poles	3-pole (3WL upgrade)		–	■				6
	4-pole (3WL upgrade)		■	■				7

Connection

		SZ 1	SZ 2		
Installation type	Fixed-mounted	■	■	Vertical	1
		■	■	Horizontal	2
		–	□[1]	Front single hole	3
		–	□[1]	Front double hole	4
	Withdrawable	–	■	Without guide frame	5
		–	■	Horizontal	6
		–	■	Vertical	7
		–	■	Flanges	8

■ Applies in this case
□ Partially applies in this case

[1] Not available for rated current 4000 A

System overview, page 1/38

3WL1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

Operating mechanisms and auxiliary releases

Stored energy mechanism	Manual recharging of the stored energy mechanism	With mechanical operation		1
		With mechanical and electrical closing, closing coil suitable for uninterrupted duty, 100% ED	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 closing, closing coil suitable for uninterrupted duty, 100% ED	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

1st auxiliary release	Without		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

2nd auxiliary release	Without		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 (≤80 ms), short-delay (≤200 ms)	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

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

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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

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

Accessories for basic configuration

Rated 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 voltage 1150 V AC, order code "A15".

			Order code		
Rated voltage	Size 1 [1]	Up to 2000 A	A	0	5
	Size 2 [1] [2]	Up to 4000 A	A	0	5
	Size 3 [1]	Up to 6300 A	A	0	5

Rated voltage 1150 V AC

- Only for circuit breakers with high breaking capacity H (8th digit of the Article No. is a "4").
- Cannot be combined with rated voltage 1000 V AC, order code "A05".

			Order code		
Rated voltage	Size 2 [1] [2]	Up to 4000 A	A	1	5
	Size 3 [1] [3]	Up to 6300 A	A	1	5

Rated voltage 690 V AC (+ 20%)

- Only for 3WL11 circuit breakers, size 1, with high breaking capacity H (8th digit of the Article No. is a "4").

			Order code		
Rated voltage	Size 1	Up to 2000 A	A	1	6

[1] When ordering withdrawable circuit breaker and guide frame separately, specify order code "A05" for withdrawable circuit breaker and guide frame.

[2] Not possible for circuit breakers with very high breaking capacity C.

[3] Front connections are tinned as standard.

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To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

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 $I_{n\ max.}$.

			Order code		
Module	Sizes 1, 2	250 A	B	0	2
		315 A	B	0	3
		400 A	B	0	4
		500 A	B	0	5
		630 A	B	0	6
		800 A	B	0	8
		1000 A	B	1	0
	Sizes 1, 2, 3	1250 A	B	1	2
		1600 A	B	1	6
		2000 A	B	2	0
	Sizes 2, 3	2500 A	B	2	5
		3200 A	B	3	2
		4000 A	B	4	0
	Size 3	5000 A	B	5	0
		6300 A	B	6	3

Communication and metering function

		Order code		
Breaker status sensor (BSS)	For determining the statuses ON / OFF / Tripped	F	0	1
PROFIBUS DP communication port [1]	Including COM15 and breaker status sensor (BSS)	F	0	2
MODBUS RTU communication port [1]	Including COM16 and breaker status sensor (BSS)	F	1	2
PROFINET IO / Modbus TCP communication port [1] new	Including COM35 and breaker status sensor (BSS)	F	3	5

Metering function Plus (communication modules not included)

		Order code		
Metering function Plus	With internal voltage tap on the lower main conducting paths [2]	F	3	6
	With internal voltage tap on the upper main conducting paths [2]	F	3	7
	For combination with external voltage transformer	F	3	8

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.

	Order code		
EMC filter	F	3	1

Overload and short-circuit protection for neutral conductors

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

		Order code		
Internal current transformer for N conductor	Size 1	F	2	3
	Size 2	F	2	3
	Size 3	F	2	3

[1] When ordering withdrawable circuit breaker and guide frame separately, specify order code "F02", "F12" or "F35" only for withdrawable circuit breaker.

[2] Can only be used for rated voltages up to 690 V AC.

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Accessory options

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1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

			Order code		
Remote resetting					
Automatic reset of the reclosing lockout			K	0	1
• Remote reset for displays and reset buttons including automatic reset of the reclosing lockout					
Remote reset magnets	24 V DC		K	1	0
	48 V DC		K	1	1
	110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC		K	1	2
	208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC		K	1	3

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 [1) 2)]	Size 1		A	0	8
	Size 2		A	0	8
	Size 3		A	0	8

Connection technology for main connections (fixed mounting)

Top: [3)] **horizontal** **Bottom: accessible from front, single hole**	Size 1	Up to 1600 A	N	1	1
	Size 2	Up to 3200 A	N	1	1
	Size 3 [4)]	Up to 4000 A	N	1	1
Top: vertical **Bottom: horizontal**	Size 1	Up to 2000 A	N	2	0
	Size 2	Up to 3200 A	N	2	0
	Size 3	Up to 5000 A	N	2	0
Top: horizontal **Bottom: vertical**	Size 1	Up to 2000 A	N	2	4
	Size 2	Up to 3200 A	N	2	4
	Size 3	Up to 5000 A	N	2	4

Connection technology for main connections (withdrawable versions)

Top and bottom: [5) 6)] **accessible from front, single hole**	Size 1	Up to 1600 A	P	0	0
	Size 2	Up to 3200 A	P	0	0
	Size 3	Up to 4000 A	P	0	0
Top and bottom: [5)] **accessible from front, double hole**	Size 1	Up to 1600 A	P	0	1
	Size 2	Up to 3200 A	P	0	1
	Size 3	Up to 4000 A	P	0	1
Top: [5) 6)] **horizontal** **Bottom: accessible from front, single hole**	Size 1	Up to 1600 A	P	0	7
	Size 2	Up to 3200 A	P	0	7
	Size 3	Up to 4000 A	P	0	7

1) Front connections are tinned as standard.
2) The permissible temperature-rise limits according to IEC 60947-2 are 5 K lower for a tin surface than for a silver surface.
3) Not for 3WL1 size 1 with high breaking capacity H and circuit breakers with very high breaking capacity C.
4) Not for size 3 with very high breaking capacity C.
5) Not for size 2 and 3 circuit breakers with very high breaking capacity C.
6) Not for 3WL1 size 1 with high breaking capacity H

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To specify the options, add "-Z" to the complete Article No. 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	Up to 2000 A	P	1	8
	Size 2	Up to 3200 A	P	1	8
	Size 3	Up to 5000 A	P	1	8
Top: [1] connecting flange Bottom: horizontal	Size 1	Up to 2000 A	P	1	9
	Size 2	Up to 3200 A	P	1	9
	Size 3	Up to 4000 A	P	1	9
Top: horizontal Bottom: vertical	Size 1	Up to 2000 A	P	2	3
	Size 2	Up to 3200 A	P	2	3
	Size 3	Up to 5000 A	P	2	3
Top: [1] horizontal Bottom: connecting flange	Size 1	Up to 2000 A	P	2	8
	Size 2	Up to 3200 A	P	2	8
	Size 3	Up to 4000 A	P	2	8

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

Connection technology for screwless terminals (tension spring)	Fixed-mounted		N	6	1
	Withdrawable		P	6	1

Operating mechanisms and auxiliary releases

Motorized operating mechanisms	Only possible if the 13th digit of the Article No. = "1"	24 ... 30 V DC	M	0	1
		48 ... 60 V DC	M	0	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	0	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	0	6
Mechanical operating cycles counter, 5-digit [2]			C	0	1
Closing coils	• Suitable for uninterrupted duty, 100% OP • Only possible if the 13th digit of the Article No. = "1"	24 V DC	M	2	1
		30 V DC	M	2	2
		48 V DC	M	2	3
		60 V DC	M	2	4
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	2	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	2	6
	• Not suitable for uninterrupted duty, 5% OP, synchronizable [3] • Only possible if the 13th digit of the Article No. = "1"	24 V DC	M	3	1
		48 V DC	M	3	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	3	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	3	6
Opening coils (shunt trips) [3] [4]	Not suitable for uninterrupted duty, 5% OP, synchronizable	24 V DC	M	4	1
		48 V DC	M	4	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	4	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	4	6

[1] Not for size 2 and 3 circuit breakers with very high breaking capacity C.

[2] Only possible with motorized operating mechanism.

[3] Overexcited, i.e. switching time 50 ms (standard >80 ms).

[4] Only possible if the 14th digit of the Article No. for the circuit breaker is "A", i.e. "without 1st auxiliary release".

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Accessory options

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1

To specify the options, add "-Z" to the complete Article No. 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)		R	1	5
	3 CO | 2 CO | 1 CO (connected | test | disconnected position)		R	1	6
Signaling switches	Ready-to-close signaling switches (S20)	1 NO contact	C	2	2
	Spring charged signaling switch [1] (S21)	1 NO contact	C	2	0
	For the first auxiliary release [1] (S22)	1 CO contact	C	2	6
	For the second auxiliary release [1] (S23)	1 CO contact	C	2	7
	1st tripped signaling switch [1] [2] (S24)	1 CO contact	K	0	7
	2nd tripped signaling switch [1] [2] [3] (S25)	1 NO contact	K	0	6
Further accessories					
Pushbuttons / shutdown switches / closing lockouts					
EMERGENCY-OFF pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton		S	2	4
Electrical ON button S10 in the operator panel [1]	Possible only for circuit breakers with closing coil	With sealing cap	C	1	1
		With CES lock	C	1	2
Motor shutdown switch on control panel [4] **(S12)**			S	2	5
Special packaging for increased transport requirements (moisture protection)					
Cardboard packaging with water-repellent coating on corrugated cardboard (moisture protection)			A	6	1
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		R	1	0
Shutters					
Shutter: 2-part, lockable, with padlocks [1]	3-pole, 4-pole		R	2	1

[1] Not possible with "communications interface" option, order code "F02", "F12" or "F35".

[2] Not available for non-automatic air circuit breakers.

[3] Only possible with option "K07".

[4] Only for breakers with motorized operating mechanism, not possible with order codes "C11", "C12".

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To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

Order code

Further 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, size 3	K	6	0

Operating manual, printed version

French/Italian			A	1	1
Spanish/Portuguese			A	1	2

Interlocking

Mechanical interlocks

- Interlocking module with Bowden cable 2 m

Mutual mechanical interlockings		For fixed-mounted breakers	S	5	5
		For withdrawable circuit breakers with guide frame	R	5	5
		For guide frames (ordered separately)	R	5	6
		For withdrawable circuit breakers (ordered separately)	R	5	7

Locking devices (for fixed-mounted and withdrawable versions)

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

Locking devices	To prevent unauthorized activation in the operator panel	Made by CES	S	0	1
		Made by IKON	S	0	3
		Assembly kit FORTRESS or Castell [1]	S	0	5
		Assembly kit for padlocks [2]	S	0	7
		Made by Ronis	S	0	8
		Made by Profalux	S	0	9

Locking devices (for fixed-mounted and withdrawable versions)

Locking devices	For operating mechanism handle with padlock [2]		S	3	3

[1] Locks must be ordered from the manufacturer.

[2] Padlock not included in the scope of supply.

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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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

			Order code		
Interlocking					
Locking devices (for withdrawable version)					
• The disconnector 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 devices	To prevent unauthorized activation in the operator panel	Made by CES	R	6	1
		Made by Ronis	R	6	8
		Made by Profalux	R	6	0
Locking devices (for withdrawable version)					
• Safety lock for mounting onto the circuit breaker					
Locking devices	To prevent movement of withdrawable circuit breaker	Made by CES	S	7	1
		Made by Profalux	S	7	5
		Made by Ronis	S	7	6
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		S	3	0
For withdrawable circuit breakers	To prevent opening of the cabinet door in connected position		R	3	0
	To prevent activation when the cabinet door is open [1) 3)]		R	4	0
	To prevent movement when the cabinet door is open [2)]		R	5	0
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			R	8	1
Made by Profalux			R	8	5
Made by Ronis			R	8	6
Seals					
Door sealing frame for degree of protection IP41			T	4	0
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 to 3.					
Use of the circuit breaker in older guide frames, including the appropriate guide frame coding			A	4	1

[1)] Not available in combination with R50

[2)] Not available in combination with R40

[3)] Combination with R81, R85 and R86 on request

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Further technical specifications

Manual operating mechanism

		3WL11 – 3WL13
Switching on/charging the stored-energy operating mechanism		
Maximum force required to operate the hand lever		≤230 N
Required number of strokes on the hand lever		9

Closing coils

		3WL11 – 3WL13
Primary operating range		
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	0.7 ... 1.26 × U_s
Rated voltage		
Rated control supply voltage U_s	50/60 Hz AC	110 ... 127 V, 208 ... 240 V
	DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V
Operation		
Power consumption	AC/DC	15 VA/15 W
Min. command duration at U_s for the closing coil		60 ms
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; manual operating mechanism with mechanical and electrical closing		1 A TDz (slow)/1 A
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; motor and closing coil for the same rated control supply voltages; motorized operating mechanism with mechanical and electrical closing		6 A TDz (slow)/2 A
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

Motor

		3WL11 – 3WL13
Primary operating range		
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	0.7 ... 1.26 × U_s
Operation		
Power consumption of motor	AC/DC	24/30 V DC, 110 W; 48/60 V DC, 120 W; 110 ... 127 V AC/110 ... 125 V DC, 150 W; 200 ... 240 V AC/220 ... 250 V DC, 130 W
Time required to charge the spring energy store at 1 × U_s		≤10 s
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; motor and closing coil for the same rated control supply voltages		6 A TDz (slow)/2 A
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

Signals of the electronic trip unit

	3WL11 – 3WL13
Signals of the electronic trip unit	
Measuring accuracy of the electronic trip unit	Protection functions acc. to EN 60947; current indication ≤10%; metering function for base quantities ≤1%; metering function for derived quantities ≤4%

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Accessory options

Further technical specifications

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

		3WL11 – 3WL13
Primary operating range		
Response values	Pickup	≥0.85 × U_s (circuit breaker can be closed)
	Dropout	0.35 ... 0.7 × U_s (circuit breaker is tripped)
Primary operating range		0.85 ... 1.1 × 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 ... 1.26 × 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 [1]
	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		
Opening time of the circuit breaker at U_s = 0		200 ms
Version UVR (F3)	Instantaneous	73 ms
	With delay	200 ms
Version UVR-t_d (F8)	With delay, t_d = 0.2 to 3.2 s	0.2 ... 3.2 s
	Reset through additional NC contact – direct tripping	≤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
Response values	Pickup	>0.7 × U_s (circuit breaker is tripped)	>0.7 × U_s (circuit breaker is tripped)	–
Primary operating range		0.7 ... 1.1 × U_s	0.7 ... 1.1 × U_s	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	0.7 ... 1.26 × U_s	0.7 ... 1.26 × U_s	–
Rated voltage				
Rated control supply voltage U_s	50/60 Hz AC	110 ... 127 V, 208 ... 240 V	110 ... 127 V, 208 ... 240 V	110 V, 230 V
	DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V	24 V, 48 V, 110 ... 125 V, 220 ... 250 V	110 V, 220 V
Operation				
Power consumption	AC/DC	15 VA/15 W	15 VA/15 W	1 VA/1 W
Min. command duration at U_s		60 ms	25 ms	–
Storage time at Us/$_s$/ Recharging time at U_s		–	–	max. 5 min/ min. 5 s
Opening time of the circuit breaker				
Opening time of the circuit breaker at U_s = 100%	At AC/DC	80 ms	50 ms	80 ms
Short-circuit protection				
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic		1 A TDz (slow)/1 A	1 A TDz (slow)/1 A	1 A TDz (slow)/1 A

[1] 24 V and 30 V only with undervoltage release UVR (F3)

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Remote reset magnet for mechanical tripped indicator (F7)

		3WL11 – 3WL13
Primary operating range		
Primary operating range		0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 48 V DC 110 V DC 220 V DC	0.7 ... 1.26 × U_s
Operation		
Power consumption	AC/DC	50 VA/50 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 24 V DC and 48 V DC, 1 A TDz (slow)/1 A at 110 V and 208 ... 250 V

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

		3WL11 – 3WL13			
Rated voltage					
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			
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)	

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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	250 V
	Rated operational current I_e/DC-12	6 A	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)		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	1 CO
	"Circuit breaker in test position"	2 CO	or	1 CO
	"Circuit breaker in disconnected position"	1 CO	or	1 CO
Contact reliability (valid from April 1, 2020)		From 1 mA at 5 V DC		
Rated 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)		

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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

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1										1

			SZ 1	SZ 2	SZ 3	
Size	1					1
	2					2
	3					3
Max. rated current I_n	1000 A [6]		■	–	–	1
	1600 A [6]		■	–	–	2
	2000 A [6]		■	■	–	3
	2500 A [6]		–	■	–	4
	3200 A		–	■	–	5
	4000 A [6]		–	■	■	6
	5000 A		–	–	■	7
	6300 A		–	–	■	8
Number of poles	3-pole					F
	4-pole					G
Main connection	Front, single hole		□ [1]	□ [2]	□ [3]	A
	Front, double hole		■	□ [2]	□ [3]	B
	Horizontal		■	□ [2]	□ [4]	C
	Vertical		■	■	■	D
	Connecting flange		■	□ [2]	□ [3]	E
Breaking capacity $I_{cu} = I_{cs}$	N,	55 kA	■	–	–	N
	S,	66 kA	■	–	–	S
	H,	85 kA	□ [5]	–	–	H
	N, S and H	Up to 100 kA	–	■	■	H
	C	130 kA	–	■	–	C
	C	150 kA	–	–	■	C

■ Applies in this case
□ Partially applies in this case

[1] Not available for rated circuit breaker current 2000 A and breaking capacity H
[2] Not available for rated circuit breaker current 4000 A and breaking capacity C
[3] Not available for rated circuit breaker current 5000 A+6300A+breaking capacity C
[4] Not available for rated circuit breaker current 6300 A
[5] Not available for rated circuit breaker current 1000 A + 1600 A
[6] Not available for breaking capacity C

Options

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1										1

Number of auxiliary supply connectors	Without [2]					0
	1 connector					1
	2 connectors					2
	3 connectors					3
	4 connectors					4
Type of auxiliary circuit connections	Without [2]				0	
	With screw terminals (SIGUT, standard)				1	
	With screwless terminals (tension spring)				2	
Position signaling switches	Without			0		
	1 CO | 1 CO | 1 CO (connected | test | isolated position)			1		
	3 CO | 2 CO | 1 CO (connected | test | isolated position)			2		
Shutters	Without		A			
	With shutter, 2-part, lockable		B			

[8] Can only be selected if the number of the auxiliary supply connector is zero.

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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

1

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1	2	–					–		0	1

Max. rated current I_n	2000 A	3
	4000 A	6
Number of poles	3-pole	H
	4-pole	J
Main connection	Front, single hole [1]	A
	Front, double hole [1]	B
	Horizontal	C
	Vertical	D
	Connecting flange	E

[1] Not available for rated circuit breaker current 4000 A

Optionen

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1	2	–					–		0	1

Number of auxiliary supply connectors	Without	0
	1 connector	1
	2 connectors	2
	3 connectors	3
	4 connectors	4
Type of auxiliary circuit connections	Without [2]	0
	With screw terminals (SIGUT, standard)	1
	With screwless terminals (tension spring)	2
Position signaling switches	Without	0
	1 CO | 1 CO | 1 CO (connected | test | isolated position)	1
	3 CO | 2 CO | 1 CO (connected | test | isolated position)	2
Shutters	Without	A
	With shutter, 2-part, lockable	B

[2] Can only be selected if the number of the auxiliary supply connector is zero.

System overview, page 1/38

Accessories and spare parts

Accessories for electronic trip units ETU

Protective devices with device holder and optional metering function

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

Type	With protection 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 new	3WL9314-5AA30-0AA2
ETU76B	LSIN(G)	Without	3WL9317-6AA00-0AA2
		With metering function Plus new	3WL9317-6AA30-0AA2

Rating plugs


NSE0_00992b

- 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


NSE0_01027a

- 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 Ω. 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


NSE0_01609

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


NSE0_00990a


NSE0_00991a

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

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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.

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

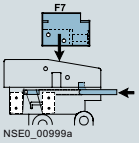
Sealable and lockable covers

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

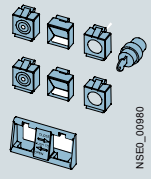
Voltage	Article No.
24 V DC	3WL9111-0AK03-0AA0
48 V DC	3WL9111-0AK04-0AA0
120 V AC / 125 V DC	3WL9111-0AK05-0AA0
208 ... 250 V AC / 208 ... 250 V DC	3WL9111-0AK06-0AA0

Retrofittable internal wiring

Purpose	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	3WL9111-0AK31-0AA0
		ETU Release 2	3WL9111-0AK33-0AA0

Locking devices and interlocks

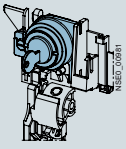
Padlockable protective cover ON / OFF



- 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 devices against unauthorized closing, in the operator panels



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

Variant	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

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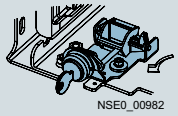
Locking devices and interlocks

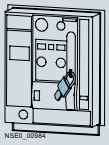
Locking devices against unauthorized closing, for withdrawable circuit breakers


NSE0_00982

- The disconnector 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

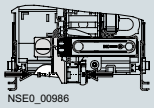
Variant	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA51-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA53-0AA0
Made by KIRK-Key [1]	Without locks, cylinders or keys	3WL9111-0BA57-0AA0
Made by Ronis	Locks, cylinders and keys included	3WL9111-0BA58-0AA0
Made by Profalux	Locks, cylinders and keys included	3WL9111-0BA50-0AA0

Locking devices for operating mechanism handle with padlock


NSE0_00984

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

Locking device against movement of the withdrawable circuit breaker


NSE0_00986

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

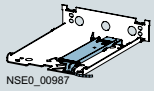
Variant	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA73-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA75-0AA0
Made by Profalux	Locks, cylinders and keys included	3WL9111-0BA76-0AA0
Made by Ronis	Locks, cylinders and keys included	3WL9111-0BA77-0AA0
Made by KIRK-Key [1]	Without locks, cylinders or keys	3WL9111-0BA80-0AA0

Interlocking systems

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

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

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


NSE0_00987

- 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").).

Variant	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 devices to prevent opening of the cabinet door in ON position


NSE0_00988

- 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

[1] Locks, cylinders and keys must be ordered from the manufacturer.

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Accessories and spare parts

Locking devices and interlocks

Locking devices 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").

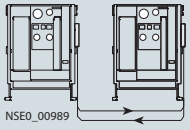
Version	Article No.
Spare part for option R30	3WL9111-0BB13-0AA0

Locking devices 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


NSE0_00989

- 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

- Commissioning /Service Tool for IEC 3WL (ETU Release 2) and 3VA
- With adapter, cable and case

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

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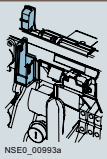
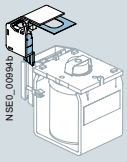
Indicators and control elements

Ready-to-close signaling switches (S20)


NSE0_00993a

Version	Contacts	Article No.
Spare part for option C22	1 NO contact	3WL9111-0AH01-0AA0

Signaling switch (S22 or S23).


NSE0_00994b

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

Version	Contacts	Article No.
Spare part for options C26 to C27	1st or 2nd auxiliary release	3WL9111-0AH02-0AA0

1st tripped signaling switch (S24)

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

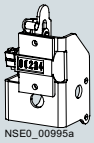
Version	Contacts	Article No.
Spare part for option K07	1 CO contact	3WL9111-0AH14-0AA0

2nd tripped signaling switch (S25)

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally
- Can only be used in combination with 1st tripped signaling switch

Version	Contacts	Article No.
Spare part for option K06	1 NO contact	3WL9111-0AH17-0AA0

Operating cycle counters


NSE0_00995a

- Only in conjunction with motorized operating mechanism.

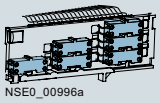
Variant	Version	Article No.
Spare part for option C01	Mechanical	3WL9111-0AH07-0AA0

Spring charged signaling switch

- Not possible with communication port, order code "F02", "F12" or "F35".
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

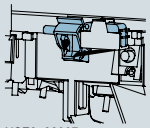
Version	Contacts	Article No.
Spare part for option C20	1 NO contact	3WL9111-0AH08-0AA0

Position signaling switches for guide frames


NSE0_00996a

Version	Contacts	Article No.
Spare part for options R15 to R16	1st block (3 CO contacts)	3WL9111-0AH11-0AA0
	2nd block (6 CO contacts)	3WL9111-0AH12-0AA0

Electrical ON button (S10) for operator panel


NSE0_00997a

- Not possible with communication port, order code "F02", "F12" or "F35"
- Not possible with motor shutdown switch
- Button + wiring (Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally)
- **Note:**
  - Possible only for circuit breakers with closing coil.

Version	Variant	Article No.
Spare part for options C11 to C12	With sealing cap C11	3WL9111-0AJ02-0AA0
	With CES assembly kit C12	3WL9111-0AJ03-0AA0
	With IKON assembly kit	3WL9111-0AJ05-0AA0

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Accessories and spare parts

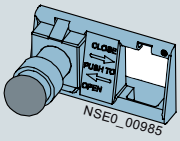
Indicators and control elements

Motor cutout switch (S12)

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

Version	Article No.
Spare part for option S25	3WL9111-0AJ06-0AA0

EMERGENCY-OFF pushbuttons

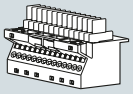


- Mushroom pushbutton instead of the mechanical OFF pushbutton

Variant	Article No.
Spare part for option S24	3WL9111-0BA72-0AA0

Auxiliary conductor connections

Male connectors for circuit breakers ❶



Article No.
3WL9111-0AB01-0AA0

Extension for male connector

- Male connector must be ordered separately

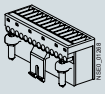
Version	Article No.
1000 V	3WL9111-0AB02-0AA0

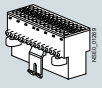
Male connectors and extension

Version	Article No.
1000 V	3WL9111-0AB10-0AA0

Auxiliary supply connection for circuit breakers or guide frames ❷

Version	Article No.
Screw connection (SIGUT)	3WL9111-0AB03-0AA0
Screwless connection (tension spring)	3WL9111-0AB04-0AA0





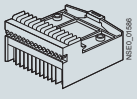
Coding kits ❸

Version	Article No.
For fixed-mounted X5 to X8	3WL9111-0AB07-0AA0

Sliding contact modules for guide frames ❹

Article No.
3WL9111-0AB08-0AA0

One-part sliding contact modules for guide frames ❺



Version	Article No.
Screw terminals (SIGUT)	3WL9111-0AB18-0AA0

Blanking blocks for circuit breakers

Article No.
3WL9111-0AB12-0AA0

For a complete auxiliary current connection you must order:
Fixed-mounted version: ❶ + ❷ + ❸
Withdrawable version: ❶ + ❹ + ❷ and ❶ + ❺

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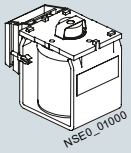
Auxiliary releases

Closing coils / shunt trips



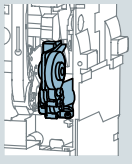
Version	Voltage	Article No.
100% OP	24 V DC	3WL9111-0AD01-0AA0
	30 V DC	3WL9111-0AD02-0AA0
	48 V DC	3WL9111-0AD03-0AA0
	60 V DC	3WL9111-0AD04-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AD05-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AD06-0AA0
5% OP Switching time 50 ms (standard >80 ms).	24 V DC	3WL9111-0AD11-0AA0
	48 V DC	3WL9111-0AD12-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AD13-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AD14-0AA0

Undervoltage release

Version	Voltage	Article No.
Instantaneous	24 V DC	3WL9111-0AE01-0AA0
	30 V DC	3WL9111-0AE02-0AA0
	48 V DC	3WL9111-0AE03-0AA0
	60 V DC	3WL9111-0AE07-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AE04-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AE05-0AA0
	380 ... 415 V AC	3WL9111-0AE06-0AA0
Delayed	48 V DC	3WL9111-0AE11-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AE12-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AE13-0AA0
	380 ... 415 V AC	3WL9111-0AE14-0AA0

Operating mechanism

Motorized operating mechanisms

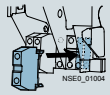


- Auxiliary supply connection X5 required for circuit breakers or guide frames.
  If this is not already available, please order additionally

Voltage	Article No.
24 ... 30 V DC	3WL9111-0AF01-0AA0
48 ... 60 V DC	3WL9111-0AF02-0AA0
110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AF03-0AA0
220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AF04-0AA0

Auxiliary contacts

Auxiliary switch blocks



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

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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
- Hood 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
		3	H, C	3WL9111-0AP07-0AA0
	4-pole	1	N, S, H	3WL9111-0AP08-0AA0
		2	N, S, H	3WL9111-0AP11-0AA0
			C	3WL9111-0AP44-0AA0
		3	H, C	3WL9111-0AP12-0AA0

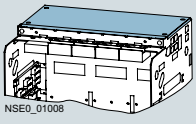
Arc chute

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
	3	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

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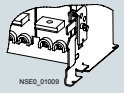
Coding for withdrawable version

Coding for withdrawable version

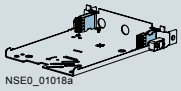


- By customer, for 36 coding variants

Size	Article No.
1 and 2	3WL9111-0AR12-0AA0
3	3WL9111-0AR13-0AA0

Grounding connections

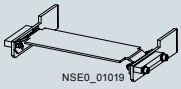
Grounding connection between the guide frame and the withdrawable circuit breaker



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

Size	Article No.
1 and 2 [1]	3WL9111-0BA01-0AA0
3	3WL9111-0BA02-0AA0

Contacting modules for withdrawable circuit breakers



Number of poles	Size	Article No.
3-pole	1	3WL9111-0BA05-0AA0
	2 [1]	3WL9111-0BA06-0AA0
	3	3WL9111-0BA07-0AA0
4-pole	1	3WL9111-0BA08-0AA0
	2 [1]	3WL9111-0BA04-0AA0
	3	3WL9111-0BA10-0AA0

[1] Cannot be used for size 2 with very high breaking capacity C and size 2, 4000 A.

Support brackets

Support brackets

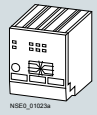
- For mounting fixed-mounted circuit breakers on vertical plane
- Only for sizes 1 and 2 (1 set = 2 units)

Article No.
3WL9111-0BB50-0AA0

CubicleBUS modules

- Each CubicleBUS module 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, CubicleBUS modules and metering functions are available for the electronic trip units ETU45B and ETU76B.

CubicleBUS modules



Type	Article No.
Digital output modules with rotary coding switch, relay outputs	3WL9111-0AT26-0AA0
Digital output modules, configurable, relay outputs	3WL9111-0AT20-0AA0
Digital input module	3WL9111-0AT27-0AA0
Analog output module	3WL9111-0AT23-0AA0
ZSI module	3WL9111-0AT21-0AA0

Preassembled cables for CubicleBUS modules

For connection to 3WL	Length	Article No.
With COM15/COM16/COM35	0.5 m	3WL9111-0BC04-0AA0
	1 m	3WL9111-0BC02-0AA0
	2 m	3WL9111-0BC03-0AA0
Without COM15/COM16/COM35	2 m	3WL9111-0BC05-0AA0

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	3WL9111-0BB68-0AA0

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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 new

Version	Article No.
For electronic trip units ETU45B and ETU76B	3WL9111-0AT65-0AA0

PROFINET IO / Modbus TCP retrofit kits new

- 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	Article No.
For electronic trip units ETU45B and ETU76B	3WL9111-0AT15-0AA0

COM16 Modbus RTU modules

Version	Article No.
For electronic trip units ETU45B and ETU76B	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 ETU45B and ETU76B electronic trip units

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	Article No.
1	3WL9111-0AT62-0AA0
2/3	3WL9111-0AT63-0AA0

Breaker status sensors (BSS)

Version	Article No.
• For acquisition via communication of the circuit breaker states ON / OFF / tripped • For electronic trip units ETU45B and ETU76B	3WL9111-0AT16-0AA0

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Interfaces

Interface to the IEC 61850 new

- 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.

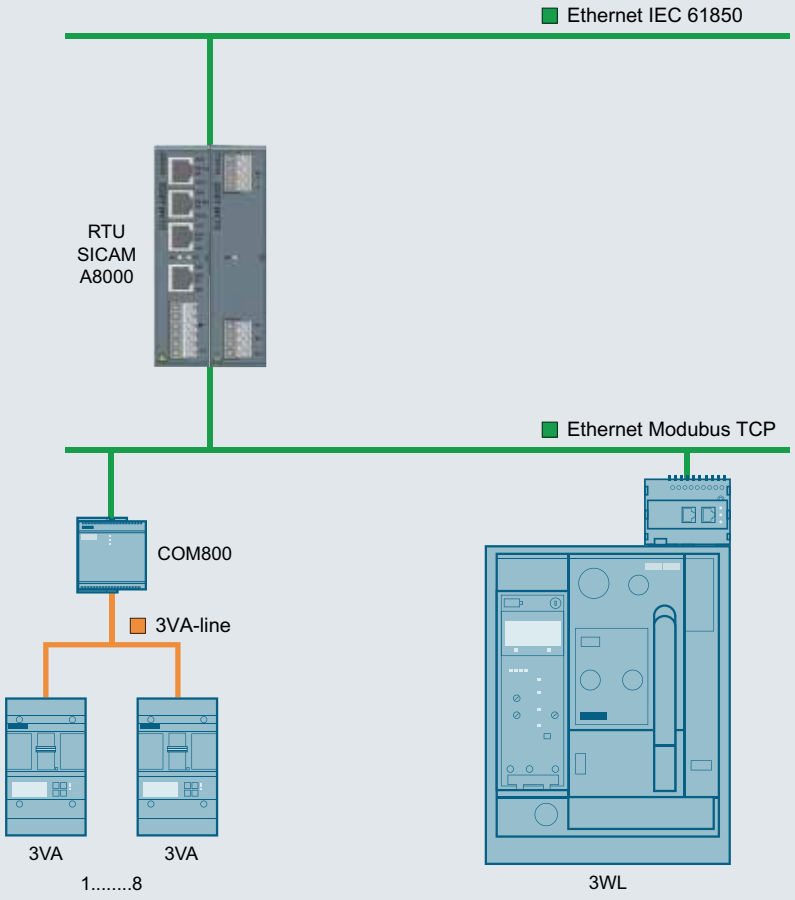
Type	Operating voltage	Article No.
SICAM CP-8021 [1]	–	6MF28021AA00
SICAM CP-8050 [2]	–	6MF2805-0AA00 new
SICAM PS-8620	24 ... 60 V DC (12 W)	6MF28620AA00
SICAM PS-8622	110 ... 220 V DC (12 W)	6MF28622AA00

[1] Designed for maximum data volumes of 20 devices each with 50 data points

[2] Dimensioned for device quantities of 3× 3WL and 8× 3VA

You will find further information at:
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 obtained free of charge from the following link.
https://support.industry.siemens.com/cs/ww/de/ps/24618/ae



System overview, page 1/38

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

Spare parts new

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	Article No.
As spare part or for retrofitting the metering function Plus	3WL9111-0AT06-0AA0

Components for conversion of an existing internal voltage tap [2)]

- 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 to main contact	Size	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 protection 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

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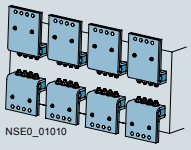
Main conductor connections, fixed-mounted versions (essential accessory)

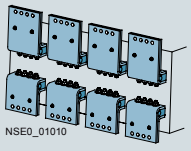
Front-accessible main connections, single hole at top


NSE0_01010

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

Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AL01-0AA0
	1250 ... 1600 A	3WL9111-0AL02-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL03-0AA0
	Up to 2500 A	3WL9111-0AL04-0AA0
	Up to 3200 A	3WL9111-0AL05-0AA0
3	Up to 4000 A	3WL9111-0AL06-0AA0

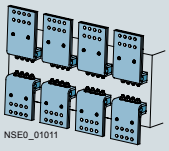
Front-accessible main connections, single hole at bottom


NSE0_01010

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

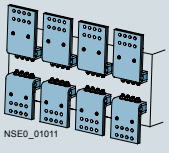
Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AL51-0AA0
	1250 ... 1600 A	3WL9111-0AL52-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL53-0AA0
	Up to 2500 A	3WL9111-0AL54-0AA0
	Up to 3200 A	3WL9111-0AL55-0AA0
3	Up to 4000 A	3WL9111-0AL56-0AA0

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


NSE0_01011

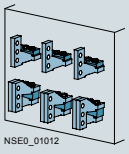
Size	Rated current I_n	Article No.
1	Up to 1000 A [1]	3WL9111-0AL07-0AA0
	1250 ... 2000 A [5]	3WL9111-0AL08-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL11-0AA0
	Up to 2500 A	3WL9111-0AL12-0AA0
	Up to 3200 A	3WL9111-0AL13-0AA0
3	Up to 4000 A	3WL9111-0AL14-0AA0

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


NSE0_01011

Size	Rated current I_n	Article No.
1	Up to 1000 A [1]	3WL9111-0AL57-0AA0
	1250 ... 2000 A [5]	3WL9111-0AL58-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL61-0AA0
	Up to 2500 A	3WL9111-0AL62-0AA0
	Up to 3200 A	3WL9111-0AL63-0AA0
3	Up to 4000 A	3WL9111-0AL64-0AA0

Rear vertical main connections


NSE0_01012

Size	Rated current I_n	Article No.
1 [2]	Up to 2000 A	3WL9111-0AM01-0AA0
2 [3]	Up to 3200 A	3WL9111-0AM02-0AA0
3	Up to 6300 A	3WL9111-0AM03-0AA0

[1] Nor for 3WL1 size 1 with high breaking capacity H
[2] In the case of vertical connection size 1 with breaking capacity N and S, up to 1000 A one 3WL9 111-0AM01-0AA0 vertical connection is required, up to 2000 A or with breaking capacity H two 3WL9 111-0AM01-0AA0 vertical connections are required.
[3] In the case of vertical connection size 2, up to 2500 A one 3WL9 111-0AM02-0AA0 vertical connection is required, up to 3200 A two 3WL9 111-0AM02-0AA0 vertical connections are required.
[4] Not for circuit breakers with very high breaking capacity C.
[5] Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

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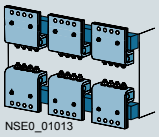
Accessories and spare parts

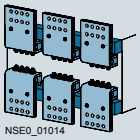
Main conductor connections, withdrawable versions (essential accessory)

Front-accessible main connections, single hole at top or at bottom [1] [2]


NSE0_01013

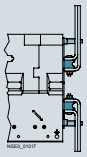
Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AN01-0AA0
	1250 ... 1600 A	3WL9111-0AN02-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN03-0AA0
	Up to 2500 A	3WL9111-0AN04-0AA0
	Up to 3200 A	3WL9111-0AN05-0AA0
3	Up to 4000 A	3WL9111-0AN06-0AA0

Front-accessible main circuit connections, according to DIN 43673, double hole at top or at bottom [1]


NSE0_01014

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN07-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN08-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN11-0AA0
	Up to 2500 A	3WL9111-0AN12-0AA0
	Up to 3200 A	3WL9111-0AN13-0AA0
3	Up to 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

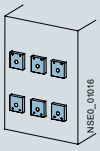

NSE0_01015

Size	Rated current I_n	Terminal pieces	Article No.
1	Up to 1000 A [2]		3WL9111-0AN15-0AA0
	1250 ... 2000 A [5]		3WL9111-0AN16-0AA0
2	Up to 2000 A [3]		3WL9111-0AN17-0AA0
	Up to 2500 A [3]		3WL9111-0AN18-0AA0
	Up to 3200 A [3]		3WL9111-0AN21-0AA0
	1600 ... 3200 A [4]		3WL9111-0AN38-0AA0
3	Up to 5000 A		3WL9111-0AN22-0AA0
	Up to 6300 A	3 units for 3-pole switches	3WL9111-0AN23-0AA0
	Up to 6300 A, top	4 units for 4-pole switches	3WL9111-0AN20-0AA0
	Up to 6300 A, bottom	4 units for 4-pole switches	3WL9111-0AN10-0AA0

Rear horizontal main connections

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN32-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN33-0AA0
2	Up to 2000 A [3]	3WL9111-0AN34-0AA0
	Up to 2500 A [3]	3WL9111-0AN35-0AA0
	Up to 3200 A [3]	3WL9111-0AN36-0AA0
	1600 ... 3200 A [4]	3WL9111-0AN47-0AA0
3	Up to 5000 A	3WL9111-0AN37-0AA0

Connecting flange


NSE0_01016

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN24-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN25-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN26-0AA0
	Up to 2500 A	3WL9111-0AN27-0AA0
	Up to 3200 A	3WL9111-0AN28-0AA0
3	Up to 4000 A	3WL9111-0AN31-0AA0

[1] When using front-accessible main connections (withdrawable circuit breakers) supports are required.
[2] Not for 3WL1 size 1 with high breaking capacity H
[3] Not for circuit breakers with very high breaking capacity C.
[4] Only for circuit breakers with very high breaking capacity C.
[5] Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

System overview, page 1/38

Conversion kit

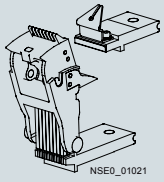
Conversion kit for converting fixed-mounted circuit breakers into withdrawable circuit breakers

- Guide frames and sliding contact modules must be ordered separately.
- Conversion from fixed-mounted to withdrawable is not possible for 3WL1 circuit breakers with very high breaking capacity C

Number of poles	Size	Article No.
3-pole	1	3WL9111-0BC11-0AA0
	2	3WL9111-0BC12-0AA0
	3	3WL9111-0BC13-0AA0
4-pole	1	3WL9111-0BC14-0AA0
	2	3WL9111-0BC15-0AA0
	3	3WL9111-0BC16-0AA0

Main contact elements

Main contact elements [2) 4)]



- **Notes:**
  - The circuit breaker ID No. must be specified when ordering [3)]
  - Specified for each connection (depending on the number of poles on the circuit breaker, order 3 or 4 units)
  - Article No. is automatically adapted to the circuit breaker ID No.

Size	$I_{n\ max.}$	Article No.
1	Up to 1600 A [1)]	3WL9111-0AM90 L1Y
2	Up to 2500 A	3WL9111-0AM91 L1Y
	Up to 4000 A	3WL9111-0AM92 L1Y
3	Up to 6300 A	3WL9111-0AM93 L1Y

1) Not for size 1 circuit breakers with breaking capacity H and circuit breakers with I_n=2000A.
2) Not for circuit breakers with very high breaking capacity C.
3) Please specify the circuit breaker ID No. in plain text when ordering.
4) Replacement of the main contact elements for 3WL1 circuit breakers with very high breaking capacity C is only possible at the factory.

System overview, page 1/38

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

A multitude of additional information ...

Information + ordering

All the important things at a glance

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For information about molded case circuit breakers, please visit our website
www.siemens.com/3VA

Contact persons in your region

We are there when you need us

You can find your local contacts at
www.siemens.com/lowvoltage/contact

Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
www.siemens.com/lowvoltage/product-support

- Technical basic information – 3VA molded case circuit breakers (109766672)

The relevant tender specifications can be found at
www.siemens.com/lowvoltage/tenderspecifications

Use our conversion tool for quick and easy conversion to Siemens products www.siemens.com/conversion-tool

Siemens YouTube channel

Our video range

- 3VA molded case circuit breakers (general)
  bit.ly/2xNxlFA

Everything you need for your order

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- Molded case circuit breakers sie.ag/2mmLcAk

Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog or by entering this web address incl. Article No.
www.siemens.com/product?Article No.

Configurators

Exactly the right circuit breaker for your application

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
www.siemens.com/lowvoltage/3va27-configurator

For your configured 3VA molded case circuit breaker, you can additionally find

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

… can be found in our online services

Commissioning + operation

Configuration software

powerconfig

The combined commissioning and service tool for communication-capable measuring devices and circuit breakers from the SENTRON family.
www.siemens.com/powerconfig

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Characteristic curves
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
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)

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- Protection systems in low-voltage power distribution (WT-LVAPS)
- 3VA molded case circuit breaker (WT-LVA3VA)
- Communication with SENTRON components (LV-COM)

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 (109767421)

Molded case circuit breakers for all applications

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

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
- Rate current range 25 to 1250 A

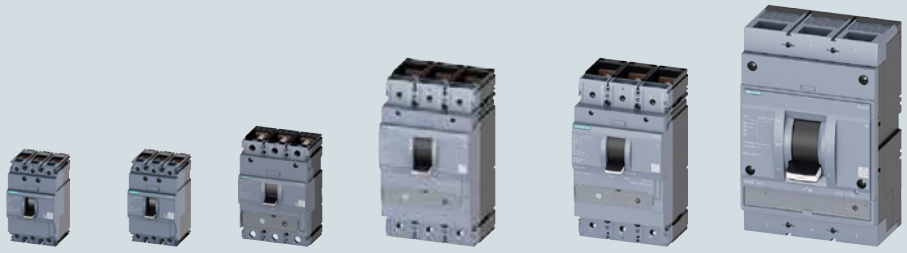
3VA27 molded case circuit breaker

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
- Rate current range 800 to 1600 A

Basic units and accessories



Protective functions	3VA10	3VA11	3VA12	3VA13	3VA14	3VA15 new
Size	100 A	160 A	250 A	400 A	630 A	1000 A
Switch disconnectors						
No protection	–	■	■	■	■	–
Thermal-magnetic						
Line protection	■	■	■	■	■	■
Starter protection	–	■	■	■	■	■
Electronic						
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

Size	100 A	160 A	250 A	400 A	630 A	1000 A
Accessories						
Auxiliary switches and signaling switches	■	■	■	■	■	■
Auxiliary releases	■	■	■	■	■	■
Connection technology	■	■	■	■	■	■
Plug-in version	–	■	■	■	■	–
Draw-out version	–	–	■	■	■	–
Front 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)	–	■	■	–	–	–
Communications interface	–	–	–	–	–	–
EFB300	–	–	–	–	–	–
TD300, TD400 and TD500	–	–	–	–	–	–
Cover frame	■	■	■	■	■	■
DIN rail adapter	■	■	–	–	–	–
Busbar adapter	■	■	■	■	■	–

■ Available – Not available/not present * On request

3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26 new	3VA27
100 A	160 A	250 A	400 A	630 A	1000 A	1250 A	1600 A
–	–	–	–	–	–	–	■
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
–	■	■	■	■	■	–	■
–	■	■	■	■	■	–	■
–	■	■	■	■	■	–	■
–	■	■	■	■	■	–	■

100 A	160 A	250 A	400 A	630 A	1000 A	1250 A	1600 A
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
■	■	■	■	■	–	–	–
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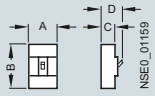
3VA1 basic units up to 1000 A

Technical data



			3VA10			3VA11			3VA11		
Electrical characteristics according to IEC 60947-2											
Number of poles			3/4-pole			1-pole			2-pole		
Size			100 A			160 A			160 A		
Rated operational current I_n at 50 °C ambient temperature			16 ... 100 A			16 ... 160 A			16 ... 160 A		
Rated operational voltage U_e 50/60 Hz AC			690 V			415 V			415 V		
Rated insulation voltage U_i			800 V			500 V			500 V		
Rated impulse withstand voltage U_{pulse}			8 kV			8 kV			8 kV		
Use in IT networks			■			■			■		
Frequency			0 ... 400 Hz			0 ... 400 Hz			0 ... 400 Hz		
Breaking capacity (line protection)			**B**	**N**	**S**	**N**	**S**	**M**	**N**	**S**	**M**
Rated ultimate short-circuit breaking capacity I_{cu}											
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	125 V (1 switching pole)	kA	–	–	–	16	25	30	16	25	30
	250 V (2 switching poles)	kA	25	36	55	–	–	–	36	55	85
	500 V (3 switching poles)	kA	25	36	55	–	–	–	–	–	–
	600 V (4 switching poles)	kA	8	16	25	–	–	–	–	–	–
Rated operational short-circuit breaking capacity I_{cs}											
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 (1 switching pole)	kA	–	–	–	16	25	30	16	25	30
	250 V (2 switching poles)	kA	25	36	55	–	–	–	36	55	85
	500 V (3 switching poles)	kA	25	36	55	–	–	–	–	–	–
	600 V (4 switching poles)	kA	8	16	25	–	–	–	–	–	–
Dimensions											
	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		

■ Available – Not available/not present * On request

3VA11				3VA12			3VA13				3VA14				3VA15 new		
3/4-pole				3/4-pole			3/4-pole				3/4-pole				3/4-pole		
160 A				250 A			400 A				630 A				1000 A		
16 ... 160 A				160 ... 250 A			320 ... 400 A				500 ... 630 A				630 ... 1000 A		
690 V				690 V			690 V				690 V				690 V		
800 V				800 V			800 V				800 V				800 V		
8 kV				8 kV			8 kV				8 kV				8 kV		
■				■			■				■				Up to 500 V		
0 ... 400 Hz				0 ... 400 Hz			0 ... 400 Hz				0 ... 400 Hz				0 ... 400 Hz		
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	25	36	36	*	*	*	*	*	*	*	*	*	*	*
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
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
36	55	85	100	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	–	–	–
16	25	36	55	25	36	55	8	16	25	25	8	16	25	25	–	–	–
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	25	36	36	*	*	*	*	*	*	*	*	*	*	*
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
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
36	55	85	100	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	–	–	–
16	25	36	55	25	36	55	8	16	25	25	8	16	25	25	–	–	–
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 basic units up to 1000 A

Application



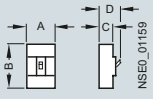
				3VA10	3VA11	3VA11
Electrical characteristics according to IEC 60947-2						
Number of poles				3/4-pole	1-pole	2-pole
Size				100 A	160 A	160 A
Rated operational current I_n at 50 °C ambient temperature				16 ... 100 A	16 ... 160 A	16 ... 160 A
3VA1 molded case circuit breakers for line protection, standard applications (IEC 60947-2)						
Service life (make-break operations)						
Mechanical (NO contact – NC contact)				20000	20000	20000
Electrical	380 ... 415 V	I_n		9000	9000	9000
		$I_n/2$		15000	15000	15000
	690 V			6300	6300	6300
Trip Units						
TM210	FTFM			■	■	■
TM220	ATFM			–	–	–
TM240	ATAM			–	–	–
3VA1 molded case circuit breakers for starter protection (IEC 60947-4-1 standards and specifications acc. to AC-1)						
Rated operational current I_n at 50 °C ambient temperature			A	–	–	–
Service life (switching cycles)						
Mechanical (NO contact – NC contact)				–	–	–
Electrical	380 ... 415 V			–	–	–
Trip Units						
TM120M	AM			–	–	–
Switch disconnectors (IEC 60947-3)						
Electrical characteristics according to IEC 60947-3						
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 * On request

3VA11	3VA12	3VA13	3VA14	3VA15 new
3/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole
160 A	250 A	400 A	630 A	1000 A
16 ... 160 A	160 ... 250 A	320 ... 400 A	500 ... 630 A	630 ... 1000 A
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	*	*	–
2	3	6	7.6 (3P), 6 (4P)	–

3VA2 basic units up to 1600 A

Technical data

			3VA20				3VA21					3VA22				
Electrical characteristics according to IEC 60947-2																
Number of poles			3/4-pole				3/4-pole					3/4-pole				
Size			100 A				160 A					250 A				
Rated operational current I_n at 50 °C ambient temperature			25 ... 100 A				25 ... 160 A					160 ... 250 A				
Rated operational voltage U_e 50/60 Hz AC			690 V				690 V					690 V				
Rated insulation voltage U_i			800 V				800 V					800 V				
Rated impulse withstand voltage U_{pulse}			8 kV				8 kV					8 kV				
Use in IT networks			■				■					■				
Frequency			50/60 Hz				50/60 Hz					50/60 Hz				
Breaking capacity			**M**	**H**	**C**	**L**	**M**	**H**	**C**	**L**	**E**	**M**	**H**	**C**	**L**	**E**
Rated ultimate short-circuit breaking capacity I_{cu}																
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	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rated service short-circuit breaking capacity I_{cs}																
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	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dimensions																
	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 * On request





3VA23					3VA24					3VA25			3VA26 new			3VA27		
3/4-pole					3/4-pole					3/4-pole			3/4-pole			3/4-pole		
400 A					630 A					1000 A			1250 A			1600 A		
250 ... 400 A					400 ... 630 A					630 ... 1000 A			1250 A			800 ... 1600 A		
690 V					690 V					690 V			690 V			690 V		
800 V					800 V					800 V			800 V			1000 V		
8 kV					8 kV					8 kV			8 kV			8 kV		
■					■					■			■			■		
50/60 Hz					50/60 Hz					50/60 Hz			50/60 Hz			50/60 Hz		
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	100
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	85	100
36	55	65	–	–	36	55	85	–	–	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)					138 (3P) | 184 (4P)					210 (3P) | 280 (4P)			210 (3P) | 280 (4P)			210 (3P) | 280 (4P)		
248					248					320			320			291		
110					110					120			120			171 (toggle operating mechanism) | 183 (stored energy operating mechanism)		
137					137					253			253			225		

3VA2 basic units up to 1600 A

Application



			3VA20	3VA21	3VA22
Electrical characteristics according to IEC 60947-2					
Number of poles			3/4-pole	3/4-pole	3/4-pole
Size			100 A	160 A	250 A
Rated operational current I_n at 50 °C ambient temperature			25 ... 100 A	25 ... 160 A	160 ... 250 A
Service life (make-break operations)					
Mechanical (NO contact – NC contact)			25000	25000	25000
Electrical	380 ... 415 V	I_n	15000	14000	12000
		$I_n/2$	20000	20000	17000
	690 V		10500	9800	8400
Trip units					
ETU320	LI		■	■	■
ETU330	LIG		■	■	■
ETU340	ELISA LI		–	■	■
ETU350	LSI		■	■	■
ETU550/ETU850	LSI		■	■	■
ETU560/ETU860	LSIG		■	■	■
ETU650	LSI		–	–	–
ETU360	LSIG		–	–	–
ETU660	LSIG		–	–	–
3VA2 molded case circuit breakers for motor/starter protection (IEC 60947-4-1 standards and specifications acc. to AC-1)					
Rated operational current I_n at 50 °C ambient temperature			–	25 ... 100 A	160 ... 200 A
Service life (make-break operations)					
Mechanical (NO contact – NC contact)			–	25000	25000
Electrical	380 ... 415 V		–	14000	12000
Trip units					
ETU310M	I		–	■	■
ETU350M	LSI		–	■	■
ETU550M	LSI		–	■	■
ETU860M	LSIG		–	■	■
ETU320	LI		–	–	–
ETU350	LSI		–	–	–
ETU360	LSIG		–	–	–
ETU650	LSIG		–	–	–
ETU660	LSIG		–	–	–

■ Available – Not available/not present * On request





3VA23	3VA24	3VA25	3VA26 new	3VA27
3/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole
400 A	630 A	1000 A	1250 A	1600 A
250 ... 400 A	400 ... 630 A	630 ... 1000 A	1250 A	800 ... 1600 A
20000	20000	10000	10000	10000
6000	5000	4600	4600	2000
12000	10000	7000	7000	–
4200	3500	3200	3200	–
■	■	■	■	■
■	■	■	■	–
■	■	■	■	–
■	■	■	■	■
■	■	■	■	–
■	■	■	■	–
–	–	–	–	■
–	–	–	–	■
–	–	–	–	■
250 A	400 ... 500 A	630 ... 800 A	–	800 ... 1600 A
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
				
	TM 2-series	**ETU 3-series**	**ETU 5-series**	**ETU 8-series**
Protection function				
Line protection	TM210, TM220, TM240	ETU320, ETU330, ETU340, ETU350	ETU550, ETU560	ETU850, ETU860
Starter protection	TM120M	ETU310M	–	–
Motor protection	–	ETU350M	ETU550M	ETU860M
Integrated functions				
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
Optional expansions				
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

Protection functions of the 3VA1 with thermal-magnetic trip unit

	TM120M AM	**TM210** FTFM	**TM220** ATFM	**TM240** ATAM
Protections				
Starter protection	■	–	–	–
Line protection	–	■	■	■
Version available with				
1-pole and 2-pole breakers	–	■	–	–
3-pole breaker	■	■	■	■
4-pole breaker	–	■	■	■
Available protection parameters				
I_r adjustable	–	–	■	■
I_i adjustable	■	–	–	■
I_r fixed	–	■	–	–
I_i fixed	–	■	■	–
I_N [1]	–	■	■	■

[1] 3VA10 only without N protection
3VA11, 3VA12, 3VA13, 3VA14 without, 50% or 100% N protection
50% N protection from In ≥100 A

Protection 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
Protection												
Starter protection	■	–	–	–	–	–	–	–	–	–	–	–
Motor protection	–	–	–	–	–	■	–	■	–	–	–	■
Line protection	–	■	■	■	■	–	■	–	■	■	■	–
Generator protection	–	■	■	–	■	–	■	–	■	■	■	–
Version available with												
3-pole without external neutral conductor transformer	■	■	■	■	■	■	–	■	–	–	–	■
3-pole with external neutral conductor transformer	–	–	–	–	–	–	■	–	■	■	■	–
4-pole with protected neutral conductor transformer	–	■	■	■	■	–	■	–	■	■	■	–
Available protection parameters												
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 × I_r	–	■	■	–	■	–	■	–	■	■	■	–
t_c	–	–	–	–	–	■	–	■	–	–	–	■
t_p	–	–	–	–	–	–	–	■	–	–	–	■
Thermal image	■	■	■	■	■	■	■	■	■	■	■	■
Thermal image can be switched on/off	–	–	–	–	–	–	■	–	■	■	■	–
I_{sd}	–	–	–	–	■	■	■	■	■	■	■	■
t_{sd} at 8 × 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 × 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	–	■	■	■	■	■	■	■	■	■	■	■

[1] 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

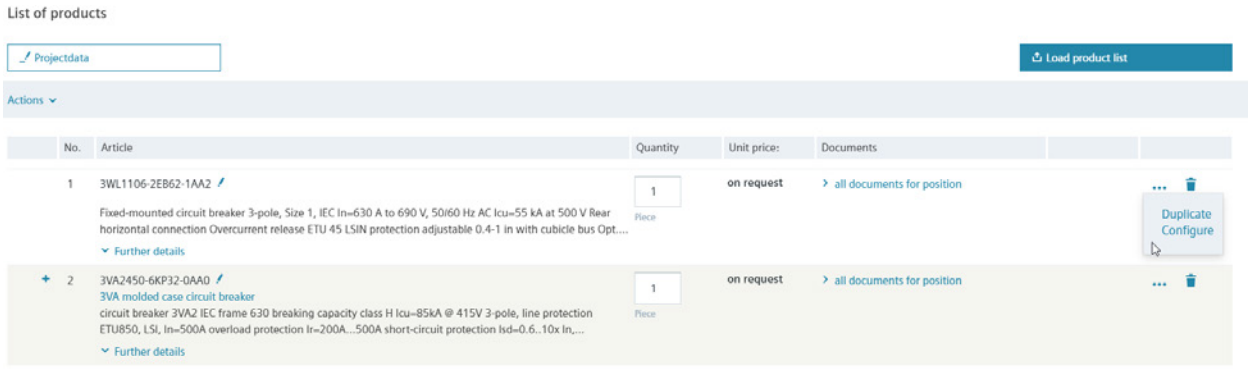
www.siemens.com/lowvoltage/configurators

Search function with global direct input

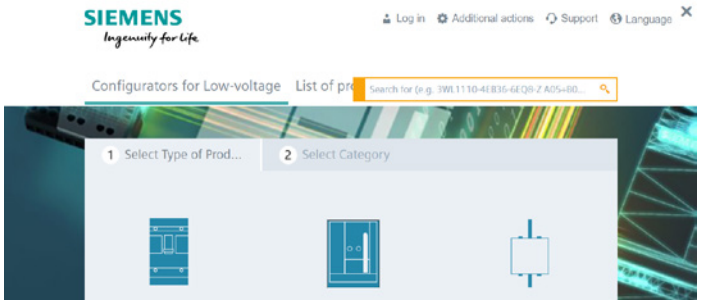
Searches for specific terms and jumps to MLFB based on input to the correct configurator

Product list stores multiple configurations and can transfer them collectively to the shopping cart

Recall of completed configurations for modification or additional configuration

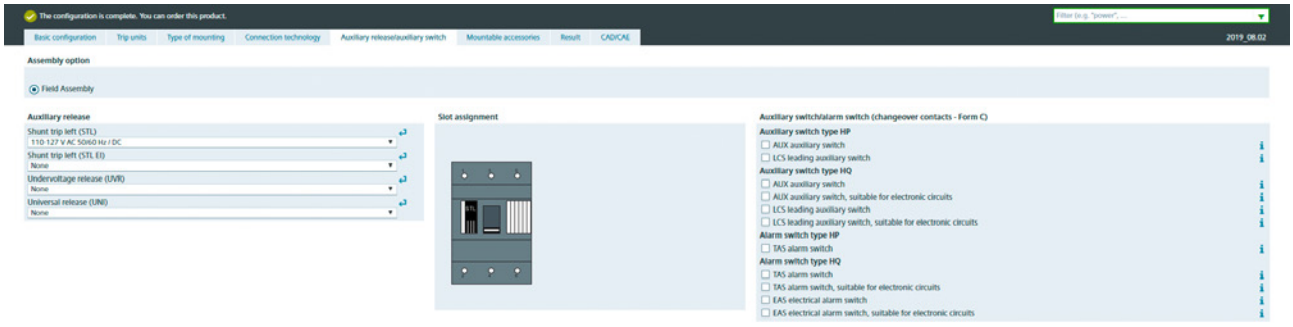


Responsive Design

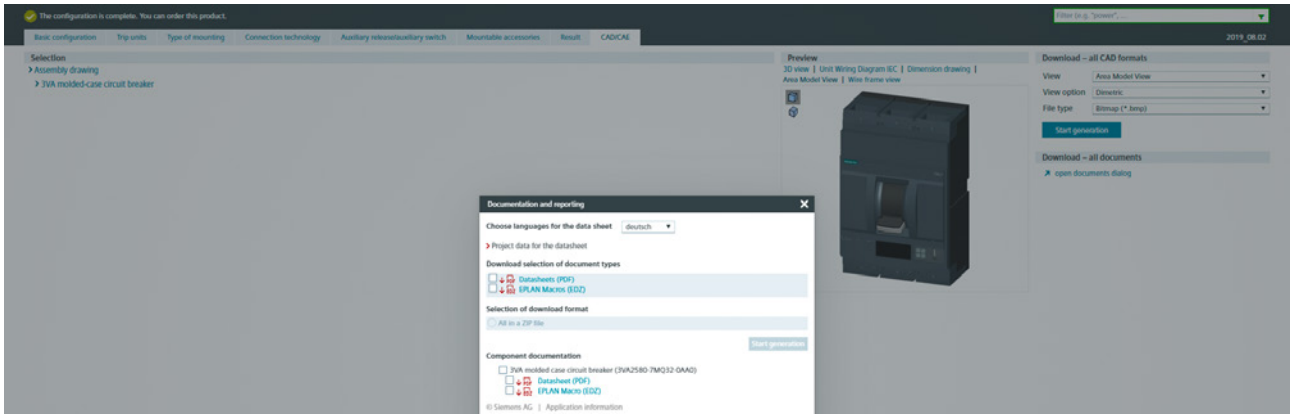


www.siemens.com/lowvoltage/3va-configurator and www.siemens.com/lowvoltage/3va27-configurator

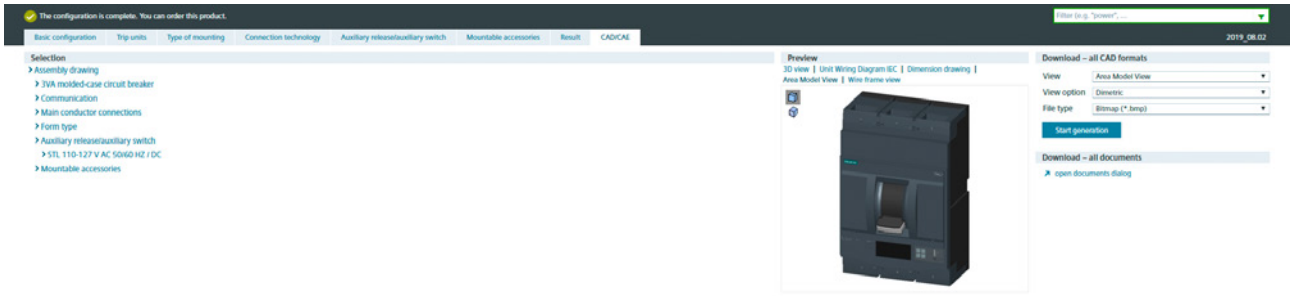
Visualization of the internally mountable accessories (slot assignment)



Download of the individual edz files for 3VA



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



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

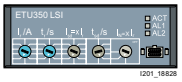
Basic units

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

Installation type

Fixed-mounted

Draw-out 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

Front bus connectors extended

Front bus connectors offset

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


Shunt trip


Universal release


Undervoltage release


Auxiliary switch


Tripped signaling switch


Leading changeover switch LCS


Electrical alarm switches EAS


Short circuit alarm switch SAS

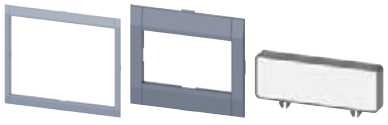
Mountable accessories


Manual operator


Motorized operating mechanism


Residual current device

Additional circuit breaker accessories

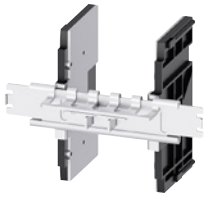

Cover frame


Adapter for DIN rails


Locking device


Cylinder lock

Mechanical interlocks


Sliding bar interlock


Interlocking with rod


Handle interlock using a Bowden cable

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

			3VA10	3VA11	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26	4	5	6	7	8	9	10	11	12
																3VA				–				– 0AA0
Trip units	Thermal-magnetic															1								
	Electronic															2								
Size	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	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	–	■	■		–	–	–	■	■	–	–	–	–			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					
		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	–	–	–	–	–	–	–	–	–	–	■*	–	–			5	0					
		630 A	–	–	–	–	–	–	–	–	–	–	■	■	–			6	3					
		800 A	–	–	–	–	–	–	–	–	–	–	–	■	–			8	0					
		1000 A	–	–	–	–	–	–	–	–	–	–	–	■	–			1	0					
		1250 A	–	–	–	–	–	–	–	–	–	–	–	–	■			1	2					
Short-circuit breaking capacity $I_{cu} = I_{cs}$ 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		–	–	–	–	–	–	–	■	■	■	■	–	–					0				

* With ETU 5-series and 8-series, utilization category B only

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3VA 4 5 6 7 – 8 9 10 11 12 **– 0AA0**

			3VA10	3VA11	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26				9	10	11	12
Protection function thermal-magnetic	No protection		–	■	■	■	■	–	–	–	–	–	–	–	–	SD100	–			A		
	Line protection		■	■	–	–	–	–	–	–	–	–	–	–	–	TM210	FTFM			D		
			–	■	–	–	–	–	–	–	–	–	–	–	–	TM220	ATFM			E		
			–	■	■	■	■	■	–	–	–	–	–	–	–	TM240	ATAM			F		
Protection function thermal-magnetic, neutral conductor protection	No protection																		A			
	Line protection	Without neutral conductor protection																	E			
		50% neutral conductor protection																	F			
		100% neutral conductor protection																	G			
Protection function electronic	Line protection		–	–	–	–	–	–	■	■	■	■	■	■	■	ETU320	LI	(N) [1]	H	L		
			–	–	–	–	–	–	■	■	■	■	■	■	■	ETU330	LIG	(N) [1]	H	M		
			–	–	–	–	–	–	■	■	■	■	■	■	■	ETU340	ELISA LI	(N) [1]	H	K		
	Line and generator protection		–	–	–	–	–	–	■	■	■	■	■	■	■	ETU350	LSI	(N) [1]	H	N		
	Line and generator protection, with display		–	–	–	–	–	–	■	■	■	■	■	■	■	ETU550	LSI	(N) [2]	J	P		
			–	–	–	–	–	–	■	■	■	■	■	■	■	ETU560	LSIG	(N) [2]	J	Q		
	Line and generator protection, with display, with metering function		–	–	–	–	–	–	■	■	■	■	■	■	■	ETU850	LSI	(N) [2]	K	P		
			–	–	–	–	–	–	■	■	■	■	■	■	■	ETU860	LSIG	(N) [2]	K	Q		

[1] Neutral conductor protection for 4-pole breakers
[2] Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or for 4-pole breakers

Number of poles	1-pole	Line protection	–	■*	–	–	–	–	–	–	–	–	–	–	–						1	
	2-pole	Line protection	–	■*	–	–	–	–	–	–	–	–	–	–	–						2	
	3-pole	Line protection	■	■	■	■	■	■	■	■	■	■	■	■	■						3	
		Generator protection	–	–	–	–	–	–	■	■	■	■	■	■	■						3	
	4-pole	Line protection	■	■	■	■	■	■	■	■	■	■	■	■	■						4	
		Generator protection	–	–	–	–	–	–	■	■	■	■	■	■	■						4	

* For TM210 only

Connection technology	Nut keeper kit	Line protection	■	■	■	■	■	■	■	■	■	■	■	■	■							2
		Generator protection	–	–	–	–	–	–	■	■	■	■	■	■	■							2
	Box terminal	Line protection	■	■	–	–	–	–	■	■	–	–	–	–	–							6
		Generator protection	–	–	–	–	–	–	■	■	–	–	–	–	–							6

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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**

			3VA11	3VA12	3VA13	3VA14	3VA15	3VA21	3VA22	3VA23	3VA24	3VA25	4	5	6	7	8	9	10	11	12
													3VA				–				– 0AA0
Trip units	Thermal-magnetic												1								
	Electronic												2								
Size	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				

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3VA 4 5 6 7 – 8 9 10 11 12 – **0AA0**

			3VA11	3VA12	3VA13	3VA14	3VA15	3VA21	3VA22	3VA23	3VA24	3VA25				9	10	11	12
Protection function thermal-magnetic	Starter protection		■	–	–	–	–	–	–	–	–	–		TM110M	FM	M	G		
			■	■	■	■	■	–	–	–	–	–		TM120M	AM	M	H		
Protection 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	Starter protection	■	■	■	■	■	■	■	■	■	–						3	
		Motor protection	–	–	–	–	–	■	■	■	■	■						3	
Connection technology	Nut keeper kit	Starter protection	■	■	■	■	■	■	■	■	■	–							2
		Motor protection	–	–	–	–	–	■	■	■	■	■							2
	Box terminal	Starter protection	■	–	–	–	–	■	–	–	–	–							6
		Motor protection	–	–	–	–	–	■	–	–	–	–							6

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Internal accessories

Auxiliary switches and alarm switches

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

Auxiliary switches AUX

- Used to signal the position of the main contacts of the molded case circuit breaker
- The contacts of the auxiliary switch and the molded case circuit breaker close in unison

Type	Width	I_e	U_e AC/DC	Version	3VA10	3VA11	3VA12 3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24 3VA25
HQ	7 mm (1 slot)	6 A	240 V/250 V	Standard			3VA9988-0AA12		
		<1 A	24 V/24 V	Electronic-compatible			3VA9988-0AA13		
HP	14 mm (2 slots)	10 A	600 V/250 V	Standard			3VA9988-0AA11		

Leading changeover switches LCS

- Used for load shedding, for example
- Signal the opening of the main contacts with a lead time of 20 ms in advance of circuit breaker trips

Type	Width	I_e	U_e AC/DC	Version	3VA10	3VA11	3VA12 3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24 3VA25
HQ	7 mm (1 slot)	6 A	240 V/250 V	Standard	–		3VA9988-0AA22		
		<1 A	24 V/24 V	Electronic-compatible	–		3VA9988-0AA23		
HP	14 mm (2 slots)	10 A	600 V/250 V	Standard	–		3VA9988-0AA21		

Trip alarm switches TAS

- Signal every circuit breaker tripping operation
- Are actuated whenever the molded case circuit breaker switches to the TRIP position

Type	Width	I_e	U_e AC/DC	Version	3VA10	3VA11	3VA12 3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24 3VA25
HQ	7 mm (1 slot)	6 A	240 V/250 V	Standard			3VA9988-0AB12		
		<1 A	24 V/24 V	Electronic-compatible			3VA9988-0AB13		
HP	14 mm (2 slots)	10 A	600 V/250 V	Standard			3VA9988-0AB11		

Short circuit alarm switches SAS

- Signal tripping operations only if they have been initiated by a short circuit
- The tripping operation must be reset by deliberate acknowledgement of the fault before the molded case circuit breaker can be switched to ON again

Type	Width	I_e	U_e AC/DC	Version	3VA10	3VA11	3VA12 3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24 3VA25
HQ	7 mm (1 slot)	6 A	240 V/250 V	Standard	3VA9988-0AB32	3VA9988-0AB32	3VA9988-0AB34	3VA9988-0AB36	–
		<1 A	24 V/24 V	Electronic-compatible	3VA9988-0AB33	3VA9988-0AB33	3VA9988-0AB35	3VA9988-0AB37	–

Electrical alarm switches EAS

- 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

Type	Width	I_e	U_e AC/DC	Version	3VA10	3VA11	3VA12 3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24 3VA25
HQ	7 mm (1 slot)	6 A	240 V/250 V	Standard	–	–	–	–	3VA9988-0AB22
		<1 A	24 V/24 V	Electronic-compatible	–	–	–	–	3VA9988-0AB23

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Auxiliary releases

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

			3VA10 3VA11 3VA12 3VA13 3VA14 3VA15	3VA20 3VA21 3VA22 3VA23 3VA24	3VA25
Shunt trips left STL					
• Used for remote-controlled tripping of the molded case circuit breaker • Have particularly low power consumption • Especially suitable for electrical interlocking in the EI variant					
Version	**U_e 50/60 Hz AC**	**U_e DC**			
Standard	–	12 V		3VA9988-0BL10	
	24 V	24 ... 30 V		3VA9988-0BL30	
	48 ... 60 V	48 ... 60 V		3VA9988-0BL31	
	110 ... 127 V	110 ... 127 V		3VA9988-0BL32	
	208 ... 277 V	220 ... 250 V		3VA9988-0BL33	
	380 ... 600 V	–		3VA9988-0BL20	
Electrical (EI)	–	24 V		3VA9988-0BM10	
Shunt trips flexible STF					
• Used for remote-controlled tripping of the molded case circuit breaker • Flexible installation					
Version	**U_e 50/60 Hz AC**	**U_e DC**			
	24 V	–	–	3VA9988-0BA20	–
	48 ... 60 V	–	–	3VA9988-0BA21	–
	110 ... 127 V	–	–	3VA9988-0BA22	–
	208 ... 277 V	–	–	3VA9988-0BA23	–
	380 ... 500 V	–	–	3VA9988-0BA24	–
	600 V	–	–	3VA9988-0BA25	–
Universal releases UNI					
• Combination of shunt trip and undervoltage release					
Version	**U_e 50/60 Hz AC**	**U_e DC**			
	–	12 V		3VA9908-0BD11	
	–	24 V		3VA9908-0BD12	
	–	48 V		3VA9908-0BD13	
Undervoltage releases UVR					
• Trip the molded case circuit breaker in the event that the rated voltage of a monitored circuit drops below a minimum permissible limit or fails altogether					
Version	**U_e 50/60 Hz AC**	**U_e DC**			
	–	12 V		3VA9908-0BB10	
	–	24 V		3VA9908-0BB11	
	24 V	–		3VA9908-0BB20	
	–	48 V		3VA9908-0BB12	
	48 V	–		3VA9908-0BB21	
	–	60 V		3VA9908-0BB13	
	60 V	–		3VA9908-0BB22	
	110 V	–		3VA9908-0BB23	
	120 ... 127 V	–		3VA9908-0BB24	
	–	125 ... 127 V		3VA9908-0BB14	
	208 ... 230 V	–		3VA9908-0BB25	
	–	220 ... 230 V		3VA9908-0BB15	
	–	250 V		3VA9908-0BB16	
	380 ... 400 V	–		3VA9908-0BB26	
	440 ... 480 V	–		3VA9908-0BB27	
Time-delay devices for undervoltage releases					
Version	**U_e 50/60 Hz AC**	**U_e DC**			
	110 V	110 V		3VA9988-0BF21	
	230 V	230 V		3VA9988-0BF22	
	–	24 V		3VA9988-0BF23	

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Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

				3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
Front mounted rotary operators								
• Handle • For IEC • Degree of protection IP30 • For 3-pole and 4-pole breakers								
	Version	**Illumination kit**	**Door interlock**					
	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	–
Door mounted rotary operators with tolerance compensation								
• Shaft 300 mm (325 mm for 3VA15/3VA25) • With mounting tolerance compensation • Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25) • Degree of protection IP65 • For 3-pole and 4-pole breakers								
	Version	**Illumination kit**	**Door interlock**					
	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 new
	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 new
Door mounted rotary operators without tolerance compensation new								
 • Shaft 300 mm (325 mm for 3VA15/3VA25) • Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25) • Degree of protection IP65 • For 3-pole and 4-pole breakers								
	Version	**Illumination kit**	**Door interlock**					
	Standard (gray)	Without	With	3VA9157-0FK61	3VA9257-0FK61	3VA9267-0FK61	3VA9467-0FK61	3VA9687-0FK61
Door mounted rotary operators without handle								
 • For IEC • Degree of protection IP30 • For 3-pole and 4-pole breakers								
	Version	**Illumination kit**	**Door interlock**					
	With shaft stub (gray)	–	Without	3VA9157-0GK00	3VA9257-0GK00	3VA9267-0GK00	3VA9467-0GK00	3VA9687-0GK00

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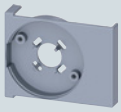
			3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
Side wall mounted rotary operators							
 • Rotary operator with shaft 300 mm • Handle with masking plate 75 × 75 mm • Degree of protection IP65 • For 3-pole and 4-pole breakers							
Version	**Mounting bracket**	**Illumination kit**					
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	–
Side wall mounted rotary operators with mounting plates							
 • Rotary operator with short shaft and mounting plate for mounting directly on the side wall • Handle with masking plate 75 × 75 mm • Degree of protection IP65 • For 3-pole and 4-pole breakers							
Version	**Mounting bracket**	**Illumination kit**					
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	–	–
Extended DIN rails for N/PE terminals new							
							
Version	**Rated current**						
For mounting plate	Up to 250 A		3VA9987-0GL30	3VA9987-0GL30	3VA9987-0GL30	–	–
Auxiliary switch modules for rotary operating mechanisms new							
							
Version							
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	–
Mounting adapters for side wall mounted rotary operators new							
							
Version							
Necessary accessories for 3VA side wall mounted rotary operators, if 3VA9...-0GX.0 auxiliary switch modules are used			3VA9257-0GX01	3VA9257-0GX01	3VA9467-0GX01	–	–
Masking plates, standard new							
Version							
Necessary accessories for door mounted rotary operators and 3VA side wall mounted rotary operators, if 3VA9...-0GX.0 auxiliary switch modules are used			8UD1900-0BB01	8UD1900-0BB01	8UD1900-0BB01	8UD1900-0BB01	–
Masking plates, EMERGENCY STOP new							
Version							
Necessary accessories for door mounted rotary operators and 3VA side wall mounted rotary operators, if 3VA9...-0XG.0 auxiliary switch modules are used			8UD1900-0BB05	8UD1900-0BB05	8UD1900-0BB05	8UD1900-0BB05	–

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Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

			3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
Supplementary handles for door mounted rotary operators							
	• For operation when cabinet door is open						
	Version						
	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
Handles							
	• With masking plate						
	Version	**Tolerance compensation**					
	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
Handle extensions							
	• Note: The handle extension is already included in the scope of supply of the breakers.						
			–	–	–	3VA9487-0SC10	3VA9987-0SC10
Shafts							
	**Variant**	**Length**					
	8 × 8 mm	300 mm		8UD1900-2WA00			–
		600 mm		8UD1900-2WB00			–
	12 × 12 mm	300 mm	–	–	–	–	8UD1900-4WA00
		600 mm	–	–	–	–	8UD1900-4WB00
Adapters for shafts							
	Variant	**Purpose**					
	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
Door couplings							
	Variant						
	8 × 8 mm			8UD1900-2HA00			–
	12 × 12 mm		–	–	–	–	8UD1900-4HA00

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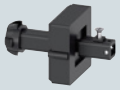
	3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
Mounting tolerance compensations					
Variant					
 8 × 8 mm	8UD1900-2GA00				–
 12 × 12 mm	–	–	–	–	8UD1900-4GA00
Fixing brackets for shafts					
	3VA9287-0GA80		3VA9487-0GA80		3VA9687-0GA80
Variable depth adapters					
Variant					
 8 × 8 mm	3VA9487-0GB10				–

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Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

		3VA10 3VA11 3VA12	3VA13 3VA14	3VA15	3VA20 3VA21 3VA22 3VA23 3VA24	3VA25
Labeling plates for manual operators						
				3VA9087-0SX10		
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						
	**Purpose**	**Key**				
For door mounted rotary operator and side wall mounted rotary operator (in the masking plate)	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						
	**Purpose**	**Key**				
For door mounted rotary operator and side wall mounted rotary operator (in the masking plate)	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 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)					
Rated current						
100 ... 630 A		3VA9980-0LF20	3VA9980-0LF20	–	3VA9980-0LF20	–
1000 A		–	–	3VA9680-0LF20	–	3VA9680-0LF20

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Motor operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

Side mounted motor operators (MO310)

- Cover size 45 mm

Addressable via control signals	Isolating features in accordance with IEC/EN 60947-1	Make time, typically for 3VA1	Make time, typically for 3VA2	Break time, typically for 3VA1	Break time, typically for 3VA2	Rated operational power
■	■	<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 for 3VA1	Make time, typically for 3VA2	Break time, typically for 3VA1	Break time, typically for 3VA2	Rated operational power
■	■	<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)

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 powerconfig and 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 for 3VA1	Make time, typically for 3VA2	Break time, typically for 3VA1	Break time, typically for 3VA2	Rated operational power
■	■	–	<80 ms	–	<80 ms	300 W, max. 500 W (60 ms)

Mechanical operating cycles counters (for installation in the SEO520)

Mounting	Article No.
For installation in the SEO520	3VA9987-0HX10

Cylinder lock adapters for SEO520

Mounting	Article No.
For installation of cylinder locks in the SEO520	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

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		3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24
Rated control supply voltage	**With communication**				
42 ... 60 V AC, 24 ... 60 V DC	–	3VA9117-0HB10	–	–	–
110 ... 230 V AC, 110 ... 250 V DC	–	3VA9117-0HB20	–	–	–
Rated control supply voltage	**With communication**				
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
Rated control supply voltage	**With communication**				
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	–

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 SEO520 stored energy operator additionally has:
Reset mode 3: Reset via OFF-signal with additional acknowledge signal

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Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

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	Connection options		Scope of supply			3VA10 3VA11
Box terminals						
	❶	❷	3 single terminals	Copper stranded 1.5 … 70 mm²		3VA9153-0JA11
				6 … 120 mm²		–
				25 … 185 mm²		–
				50 … 185 mm²		–
				35 … 300 mm²		–
	❶	❷	4 single terminals	1.5 … 70 mm²		3VA9154-0JA11
				6 … 120 mm²		–
				25 … 185 mm²		–
				50 … 185 mm²		–
				35 … 300 mm²		–
Nut keeper kits						
	Connection options		**Scope of supply**	**Max. tap width**	**Max. tap thickness**	
	❶	❷	3 single terminals	17 mm	6.5 mm	3VA9113-0QA00
				25 mm	8 mm	–
				35 mm	10 mm	–
			Nut keeper kit for 3-pole breakers, 1 terminal cover	50 mm	25 mm	–
	❶	❷	4 single terminals	17 mm	6.5 mm	3VA9114-0QA00
				25 mm	8 mm	–
				35 mm	10 mm	–
			Nut keeper kit for 4-pole breakers, 1 terminal cover	50 mm	28 mm	–
Circular conductor terminals, 1 cable						
	Connection options		**Scope of supply**	**Copper/aluminum stranded**		
	❶	❷	3 single terminals	1.5 … 10 mm² new		3VA9113-0JB10
				1.5 … 50 mm²		–
				10 … 95 mm²		3VA9113-0JB11
				16 … 185 mm²		–
				35 … 185 mm²		–
				50 … 300 mm²		–
	❶	❷	4 single terminals	1.5 … 10 mm² new		3VA9114-0JB10
				1.5 … 50 mm²		–
				10 … 95 mm²		3VA9114-0JB11
				16 … 185 mm²		–
				35 … 185 mm²		–
				50 … 300 mm²		–

[1] Only permitted up to 400 A
[2] Maximum current-carrying capacity of copper cables 380 A
Maximum current-carrying capacity of aluminum cables 310 A

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3VA12	3VA20 3VA21	3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
–	–	–	–	–
3VA9253-0JA11	3VA9163-0JA12	3VA9163-0JA12	–	–
–	3VA9263-0JA12	3VA9263-0JA12	–	–
3VA9253-0JA12	–	–	–	–
–	–	–	3VA9483-0JA13 [1]	–
–	–	–	–	–
3VA9254-0JA11	3VA9164-0JA12	3VA9164-0JA12	–	–
–	3VA9264-0JA12	3VA9264-0JA12	–	–
3VA9254-0JA12	–	–	–	–
–	–	–	3VA9484-0JA13 [1]	–
–	–	–	–	–
3VA9213-0QA00	3VA9203-0QA00	3VA9203-0QA00	–	–
–	–	–	3VA9403-0QA00	–
–	–	–	–	3VA9603-0QA00
–	–	–	–	–
3VA9214-0QA00	3VA9204-0QA00	3VA9204-0QA00	–	–
–	–	–	3VA9404-0QA00	–
–	–	–	–	3VA9604-0QA00
–	–	–	–	–
–	3VA9103-0JB11	–	–	–
–	–	–	–	–
–	–	3VA9263-0JB12	–	–
3VA9253-0JB12	–	–	–	–
–	–	–	3VA9383-0JB13 [2]	–
–	–	–	–	–
–	3VA9104-0JB11	–	–	–
–	–	–	–	–
–	–	3VA9264-0JB12	–	–
3VA9254-0JB12	–	–	–	–
–	–	–	3VA9384-0JB13 [2]	–

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Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

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					3VA10 3VA11
Circular conductor terminals with auxiliary conductor terminals, 1 cable [2]					
	Connection options		**Scope of supply**	**Copper / aluminum stranded**	
	❶	❷	3 single terminals	1.5 ... 10 mm² new	3VA9113-0JG10
				1.5 ... 50 mm²	–
				10 ... 95 mm²	3VA9113-0JG11
				16 ... 185 mm²	–
				50 ... 185 mm²	–
				50 ... 300 mm²	–
	❶	❷	4 single terminals	1.5 ... 10 mm² new	3VA9114-0JG10
				1.5 ... 50 mm²	–
				10 ... 95 mm²	3VA9114-0JG11
				16 ... 185 mm²	–
				50 ... 185 mm²	–
				50 ... 300 mm²	–
Circular conductor terminals, 2 cables					
	Connection options		**Scope of supply**	**Copper / aluminum stranded**	**Aux. conductor terminal**
	❶	❷	3 single terminals, 1 short terminal cover	120 ... 300 mm²	No –
					Yes [2] –
	❶	❷	4 single terminals, 1 short terminal cover	120 ... 300 mm²	No –
					Yes [2] –
Circular conductor terminals, 3 cables					
	Connection options		**Scope of supply**	**Copper / aluminum stranded**	**Aux. conductor terminal**
	❶	❷	3 single terminals, 1 short terminal cover	120 ... 185 mm²	No –
					Yes [2] –
	❶	❷	4 single terminals, 1 short terminal cover	120 ... 185 mm²	No –
					Yes [2] –
Auxiliary conductor terminals for box terminals [2]					
	**Version**				
	Fixed-mounted				3VA9110-0WB00
	Plug-in and draw-out technology				3VA9150-0WB00
Auxiliary conductor terminals for busbars [2]					
	**Version**				
	Fixed-mounted				3VA9110-0WC00
	Plug-in and draw-out technology				3VA9150-0WC00

[1] Maximum current-carrying capacity of copper cables 380 A
Maximum current-carrying capacity of aluminum cables 310 A
[2] Maximum current-carrying capacity 15 A
Maximum cable connection up to 2.5 mm²

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3VA12	3VA20 3VA21	3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
–	–	–	–	–
–	3VA9103-0JG11	–	–	–
–	–	–	–	–
–	–	3VA9263-0JG12	–	–
3VA9253-0JG12	–	–	–	–
–	–	–	3VA9383-0JG13 [1]	–
–	3VA9104-0JG11	–	–	–
–	–	–	–	–
–	–	3VA9264-0JG12	–	–
3VA9254-0JG12	–	–	–	–
–	–	–	3VA9384-0JG13 [1]	–
–	–	–	–	3VA9503-0JB23
–	–	–	–	3VA9503-0JG23
–	–	–	–	3VA9504-0JB23
–	–	–	–	3VA9504-0JG23
–	–	–	–	3VA9503-0JB32
–	–	–	–	3VA9503-0JG32
–	–	–	–	3VA9504-0JB32
–	–	–	–	3VA9504-0JG32
3VA9200-0WB00	3VA9200-0WB00	3VA9200-0WB00	3VA9480-0WB00	–
3VA9280-0WB00	3VA9280-0WB00	3VA9280-0WB00	3VA9480-0WB00	–
3VA9200-0WC00	3VA9200-0WC00	3VA9200-0WC00	3VA9480-0WC00	–
3VA9280-0WC00	3VA9280-0WC00	3VA9280-0WC00	3VA9480-0WC00	–

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Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

Note:
All bus connectors extended and rear connections are Cu/Sn 6 r plated according to ISO 2093

Front bus connectors extended

Number of poles	Connection options		Scope of supply	Max. tap width	Max. tap thickness
1P	❶	–	1 busbar connection piece	22 mm	8 mm
3P	❶	❷	3 single terminals, 2 phase barriers	22 mm	8 mm
				32 mm	10 mm
				40 mm	12.5 mm
				50 mm	28 mm
4P	❶	❷	4 single terminals, 3 phase barriers	22 mm	8 mm
				32 mm	10 mm
				40 mm	12.5 mm
				50 mm	28 mm

Front bus connectors offset

- 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	❶	❷	3 single terminals, 2 phase barriers	30 mm	8 mm
				35 mm	10 mm
				60 mm	12.5 mm
4P	❶	❷	4 single terminals, 3 phase barriers	30 mm	8 mm
				35 mm	10 mm
				60 mm	12.5 mm

Bus connectors edgewise

Number of poles	Connection options		Scope of supply	Max. tap width	Max. tap thickness
3P	❶	❷	3 single terminals, 2 phase barriers	20 mm	6 mm
				25 mm	7 mm
				40 mm	8 mm
4P	❶	❷	4 single terminals, 3 phase barriers	20 mm	6 mm
				25 mm	7 mm
				40 mm	8 mm

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3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9151-0QB00	–	–	–	–
3VA9153-0QB00	–	–	–	–
–	3VA9253-0QB00	3VA9263-0QB00	–	–
–	–	–	3VA9483-0QB00	–
–	–	–	–	3VA9603-0QB00
3VA9154-0QB00	–	–	–	–
–	3VA9254-0QB00	3VA9264-0QB00	–	–
–	–	–	3VA9484-0QB00	–
–	–	–	–	3VA9604-0QB00
3VA9153-0QC00	–	–	–	–
–	3VA9253-0QC00	3VA9263-0QC00	–	–
–	–	–	3VA9483-0QC00	–
3VA9154-0QC00	–	–	–	–
–	3VA9254-0QC00	3VA9264-0QC00	–	–
–	–	–	3VA9484-0QC00	–
3VA9153-0QD00	–	–	–	–
–	3VA9253-0QD00	3VA9263-0QD00	–	–
–	–	–	3VA9483-0QD00	–
3VA9154-0QD00	–	–	–	–
–	3VA9254-0QD00	3VA9264-0QD00	–	–
–	–	–	3VA9484-0QD00	–

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Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

Note:
All bus connectors extended and rear connections are Cu/Sn 6 r plated according to ISO 2093

Nut keeper units, right-angled [1)]

	Number of poles	Connection options			Max. tap width	Max. tap thickness
	3P	❶	❷	3 single terminals, 2 phase barriers	22 mm	8 mm
					32 mm	10 mm
					40 mm	12.5 mm
	4P	❶	❷	4 single terminals, 3 phase barriers	22 mm	8 mm
					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	2 short connection studs flat, 2 long connection studs 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

[1)] Can only be connected to breaker side N, 1, 3, 5

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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	–
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	–

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Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

Circular conductor terminals, 2P

Connection options		Scope of supply	Number of cables	Copper/aluminum stranded	Aux. conductor terminal
❶	–	2 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 … 150 mm²	Yes [1]
					No
			6	1.5 … 35 mm²	No

Circular conductor terminals, 3P

Connection options		Scope of supply	Number of cables	Copper/aluminum stranded	Aux. conductor terminal
❶	–	3 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 … 150 mm²	Yes [1]
					No
				50 … 240 mm²	Yes [1]
					No
			2	25 … 150 mm²	Yes [1]
					No
				70 … 300 mm²	Yes [1]
					No
			4	120 … 240 mm²	Yes [1]
					No
			6	1.5 … 35 mm²	No
–	❷	3 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 … 150 mm²	Yes [1]
				50 … 240 mm²	Yes [1]
			2	25 … 150 mm²	Yes [1]
				70 … 300 mm²	Yes [1]
			6	1.5 … 35 mm²	No

Circular conductor terminals, 4P

Connection options		Scope of supply	Number of cables	Copper/aluminum stranded	Aux. conductor terminal
❶	–	4 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 … 150 mm²	Yes [1]
					No
				50 … 240 mm²	Yes [1]
					No
			2	25 … 150 mm²	Yes [1]
					No
				70 … 300 mm²	Yes [1]
					No
			4	120 … 240 mm²	Yes [1]
					No
			6	1.5 … 35 mm²	No
–	❷	4 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 … 150 mm²	Yes [1]
				50 … 240 mm²	Yes [1]
			2	25 … 150 mm²	Yes [1]
				70 … 300 mm²	Yes [1]
			6	1.5 … 35 mm²	No

[1] Maximum current-carrying capacity 15 A
Maximum cable connection up to 2.5 mm²

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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
3VA9113-0JF60	3VA9213-0JF60	3VA9223-0JF60	3VA9303-0JF60	–
3VA9153-0JC12	–	–	–	–
–	3VA9253-0JC13	3VA9263-0JC13	–	–
–	3VA9253-0JC22	3VA9263-0JC22	–	–
–	–	–	3VA9483-0JC23	–
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
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	–

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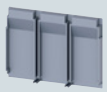
Connection technology

❶ For mounting onto the circuit breaker
❷ For mounting onto draw-out and plug-in units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

					3VA10	3VA11
Terminal covers specially for fixed mounting						
	Version	**Number of poles**	**Mounting location**			
	Short	1P	❶	–	3VA9111-0WD10	3VA9111-0WD10
		2P	❶	–	3VA9111-0WD20	3VA9111-0WD20
		3P	❶	–	3VA9111-0WD30	3VA9111-0WD30
		4P	❶	–	3VA9111-0WD40	3VA9111-0WD40
	Extended [1]	2P	❶	–	3VA9111-0WF20	3VA9111-0WF20
		3P	❶	–	3VA9111-0WF30	3VA9111-0WF30
		4P	❶	–	3VA9111-0WF40	3VA9111-0WF40
	Broadened [1]	3P	❶	–	3VA9111-0WG30	3VA9111-0WG30
		4P	❶	–	3VA9111-0WG40	3VA9111-0WG40
Terminal covers specially for plug-in and draw-out units (spare part)						
	• 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					
	**Version**	**Number of poles**	**Mounting location**			
	Short	3P	❶	–	3VA9113-0KB01	3VA9113-0KB01
		4P	❶	–	3VA9114-0KB01	3VA9114-0KB01
Terminal covers for plug-in or draw-out sockets						
	• For touch protection in the termination area of the plug-in or draw-out socket • For mounting onto the plug-in or draw-out socket					
	Version	**Number of poles**	**Mounting location**			
	Short	3P	–	❷	–	3VA9153-0KB03
		4P	–	❷	–	3VA9154-0KB03
						
	Extended [1]	3P	–	❷	–	3VA9153-0KB04
			–	❷	–	3VA9154-0KB04
	Broadened [1]	3P	–	❷	–	3VA9153-0KB05
		4P	–	❷	–	3VA9154-0KB05
Insulating plates						
	Version	**Number of poles**	**Mounting location**			
	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

[1] Including insulating plate
[2] Suitable for circular conductor terminals 2/4 cables

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3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
–	–	–	–
–	–	–	–
3VA9211-0WD30	3VA9221-0WD30	3VA9481-0WD30	3VA9601-0WD30
3VA9211-0WD40	3VA9221-0WD40	3VA9481-0WD40	3VA9601-0WD40
–	–	–	–
3VA9211-0WF30	3VA9221-0WF30	3VA9481-0WF30	3VA9601-0WE30 [2] new
3VA9211-0WF40	3VA9221-0WF40	3VA9481-0WF40	3VA9601-0WE40 [2] new
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	–
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	–
–	–	–	–
3VA9211-0WJ30	3VA9221-0WJ30	3VA9481-0WJ30	–
3VA9211-0WJ40	3VA9221-0WJ40	3VA9481-0WJ40	–
3VA9211-0WK30	3VA9221-0WK30	3VA9481-0WK30	–
3VA9211-0WK40	3VA9221-0WK40	3VA9481-0WK40	–

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Connection technology

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

		3VA10	3VA11
Phase barriers (fixed mounting, plug-in and draw-out units)			
	Scope of supply		
	2 phase barriers	3VA9152-0WA00	
DC insulation plates for 3VA1 for fixed-mounted molded case circuit breakers			
	Number of poles		
	3P	3VA9113-0SG10	
	4P	3VA9114-0SG10	
Side plates for 3VA1 for fixed-mounted molded case circuit breakers			
	Number of poles	**Mounting**	
	2P	On 2-pole molded case circuit breakers	3VA9112-0SG20

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3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
3VA9252-0WA00	3VA9262-0WA00	3VA9482-0WA00	3VA9602-0WA00
–	–	–	–
–	–	–	–
–	–	–	–

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Plug-in and draw-out technology

Thanks to plug-in and draw-out 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, draw-out or fixed-mounted units

In addition, draw-out 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 draw-out unit, without contacted main current paths
- Transmission of the state of the molded case circuit breaker (ON, OFF, TRIP) via the COM060 communication module

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3va-configurator

		3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24
Draw-out units, complete kits					
	• Scope of supply: – Draw-out socket – Conversion kit – Mounting screw kit • **Note:** The crank handle for the draw-out unit must be ordered separately.				
	Number of poles				
	3P	–	3VA9213-0KD00	3VA9123-0KD00	3VA9323-0KD00
	4P	–	3VA9214-0KD00	3VA9124-0KD00	3VA9324-0KD00
Draw-out units, conversion kits					
	• Scope of supply: – Screw-fastened terminal covers for molded case circuit breakers – Side panels – Plug-in contacts – Cable cages – Autotrip plunger • **Note:** The crank handle for the draw-out unit must be ordered separately.				
	Number of poles				
	3P	–	3VA9213-0KD10	3VA9123-0KD10	3VA9323-0KD10
	4P	–	3VA9214-0KD10	3VA9124-0KD10	3VA9324-0KD10
Plug-in units, complete kits					
	• Scope of supply: – Plug-in base – Conversion kit – Mounting screw kit				
	Number of poles				
	3P	3VA9113-0KP00	3VA9213-0KP00	3VA9123-0KP00	3VA9323-0KP00
	4P	3VA9114-0KP00	3VA9214-0KP00	3VA9124-0KP00	3VA9324-0KP00
Plug-in units, conversion kits					
	• Scope of supply: – Screw-fastened terminal covers for molded case circuit breakers – Plug-in contacts – Cable cages – Autotrip plunger				
	Number of poles				
	3P	3VA9113-0KP10	3VA9213-0KP10	3VA9123-0KP10	3VA9323-0KP10
	4P	3VA9114-0KP10	3VA9214-0KP10	3VA9124-0KP10	3VA9324-0KP10

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	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24
Cable cages for plug-in/draw-out units (spare part)				
 • For routing of the required cables from the internal accessories on the back of the circuit breaker				
Number of poles				
3P/4P	3VA9157-0KB02	3VA9257-0KB02	3VA9167-0KB02	3VA9367-0KB02
Door feedthroughs				
	–	3VA9257-0KT00	3VA9167-0KT00	3VA9367-0KT00
Autotrip plungers (spare part)				
 **Version**				
Plug-in unit	3VA9157-0KP81	3VA9257-0KP81	3VA9267-0KP81	3VA9457-0KP81
Draw-out unit	–	3VA9257-0KD81	3VA9267-0KD81	3VA9457-0KD81

Accessories

Communication links for draw-out unit

Scope of supply	Article No.
Set of cables with three special position signaling switches, 3VA9987-0KC10 connecting cables	3VA9987-0KC00

Position signaling switches for draw-out unit and plug-in unit

	Article No.
	3VA9987-0KB00

Connecting cables

Purpose	Article No.
Connection of position signaling switches for communication with COM060	3VA9987-0KC10

Crank handles for draw-out units

Version	Scope of supply	Article No.
Insulated	Including crank handle holder	3VA9987-0KD81

Auxiliary circuit connectors

• Each auxiliary circuit connector is designed for 4 cables.

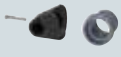
Version	Article No.
For all draw-out units	3VA9987-0KD80
For all plug-in units	3VA9987-0KP80

Cylinder locks

• Scope of supply:
  – 1 lock with 2 keys
• For locking or interlocking
• **Note:** Not for 3VA15/3VA25!

Key	Lock number	Article No.
1	1	3VA9980-0VL10
3	3	3VA9980-0VL30
4	4	3VA9980-0VL40

Cylinder lock adapters for draw-out units



• To prevent unauthorized withdrawal or insertion of the circuit breaker into the draw-out unit
• Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions

Purpose	Article No.
For fitting a cylinder lock in the right-hand side wall of the draw-out unit	3VA9980-0LF40

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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

Mounted onto the side (left)

- Can be mounted onto switch disconnectors and molded case circuit breakers

Number of poles	Type	Sensitivity [3]	Rated residual response current $I_{\Delta n}$	Limit value of non-tripping time Δt	Rated voltage U_e	Fault current frequency	Pre-alarm			Tripped signal		
								NC / NO	COM	TRIP	NC / NO	COM
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	–	–	■	■	–

Mounted below (under trip unit)

- Can be mounted onto molded case circuit breakers

Number of poles	Type	Sensitivity [3]	Rated residual response current $I_{\Delta n}$	Limit value of non-tripping time Δt	Rated voltage U_e	Fault current frequency	Pre-alarm			Tripped signal		
								NC / NO	COM	TRIP	NC / NO	COM
3-pole	RCD520	Type A	0.03 ... 5 A.	0 ... 3 s	127 ... 480 V AC	50/60 Hz	1	–	–	■	■	–
	RCD520B [1][4] new	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 [2]	Type A	0.03 ... 30 A [5]	0 ... 10 s	127 ... 690 V AC	50/60 Hz	2	■	■	■	■	■
4-pole	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 [4] new	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 [2]	Type A	0.03 ... 30 A [5]	0 ... 10 s	127 ... 690 V AC	50/60 Hz	2	■	■	■	■	■

Residual current releases (spare part) new

Version	Scope of supply
For RCD310 or RCD510	RCR, RCR-RCD cables

[1] 3-pole version in 4-pole enclosure
[2] With energy infeed from below, the required auxiliary switch (AUX) must be ordered separately
[3] Type A: pulse current sensitive, type B/B+: universal current sensitive
[4] Sensitivity selectable for type B/B+
[5] $I_{\Delta n}$ = 30A: type AC
[6] 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.
[7] 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 monitorin devices, page 11/1

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			3VA11	3VA12	3VA20 3VA21	3VA22	3VA23	3VA24
Monitoring mode (tripping can be disabled as an option)	**Remote test/ remote reset**	**Communication-capable**						
■	–	–	3VA9113-0RS20 [6]	3VA9213-0RS20 [7]	–	–	–	–
■	–	–	3VA9114-0RS10 [6]	–	–	–	–	–
■	–	–	3VA9114-0RS20 [6]	3VA9214-0RS20 [7]	–	–	–	–

Monitoring mode (tripping can be disabled as an option)	**Remote test/ remote reset**	**Communication-capable**						
–	–	–	3VA9113-0RL20	3VA9213-0RL20	–	–	–	–
■	–	–	3VA9113-0RL21	–	–	–	–	–
■	■	■	–	–	3VA9123-0RL30	3VA9223-0RL30	3VA9323-0RL30	3VA9423-0RL30
–	–	–	3VA9114-0RL10	–	–	–	–	–
–	–	–	3VA9114-0RL20	3VA9214-0RL20	–	–	–	–
■	–	–	3VA9114-0RL21	–	–	–	–	–
■	■	■	–	–	3VA9124-0RL30	3VA9224-0RL30	3VA9324-0RL30	3VA9424-0RL30
			3VA9988-0BR10	3VA9988-0BR10	–	–	–	–

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Communication

Metering function [1]			ETU 5-series	ETU 8-series	Display in ETU	Display DSP800	Communication COM800/COM100
Current							
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	$I_{leading\ axis} = (I_1 + I_2 + I_3)/3$	A	–	■	–	□	■
Asymmetry of the phase currents	I_{nba}	%	–	■	–	□	■
THD of the 3 phases	$THDI_1$, $THDI_2$, $THDI_3$	%	–	■	–	□	■
Voltage							
Phase voltages incl. mean value	U_{12}, U_{23}, U_{31}, U_{phavg}	V	–	■	□	□	■
Voltages to N conductor incl. mean value	U_{1N}, U_{2N}, U_{3N}, U_{Navg}	V	–	■	–	□	■
Voltage unbalance		%	–	■	–	□	■
THD phase/phase and phase/N	$THDI_1$, $THDI_2$, $THDI_3$	%	–	■	–	□	■
Power							
Active power, total and per phase	P_1, P_2, P_3, P_{tot}	kW	–	■	□ (P_{tot})	□	■
Apparent power, total and per phase	S_1, S_2, S_3, S_{tot}	kVA	–	■	–	□	■
Reactive power, total and per phase	Q_1, Q_2, Q_3, Q_{tot}	kVAr	–	■	□	□	■
Power factor of the fundamental	P_{F1}, P_{F2}, P_{F3}, P_{Favg}		–	■	□ (PF_{avg})	□	■
Energy							
Active energy, infeed and feedback	E_p	kWh	–	■	□	□	■
Reactive energy, infeed and feedback	E_q	kVArh	–	■	–	□	■
Apparent energy	E_s	kVAh	–	■	–	□	■
Frequency							
Present frequency	f	Hz	–	■	□	□	■
Maximum pointer function							
Min./max. current, voltage, power	With time stamp	–	–	–	–	–	■

[1] Depending on ETU version ■ Available □ Displayable – Not available

	3VA20 3VA21 3VA22	3VA23 3VA24 3VA25
COM060 communication modules		
• For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply) • Including a T-Connector		
Purpose		
Communication to the COM800/COM100 breaker data server via 3VA line	3VA9187-0TB10	3VA9387-0TB10
24 V modules		
• 24 V DC • For mounting in the right-hand accessories compartment of the 3VA2		
Purpose		
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

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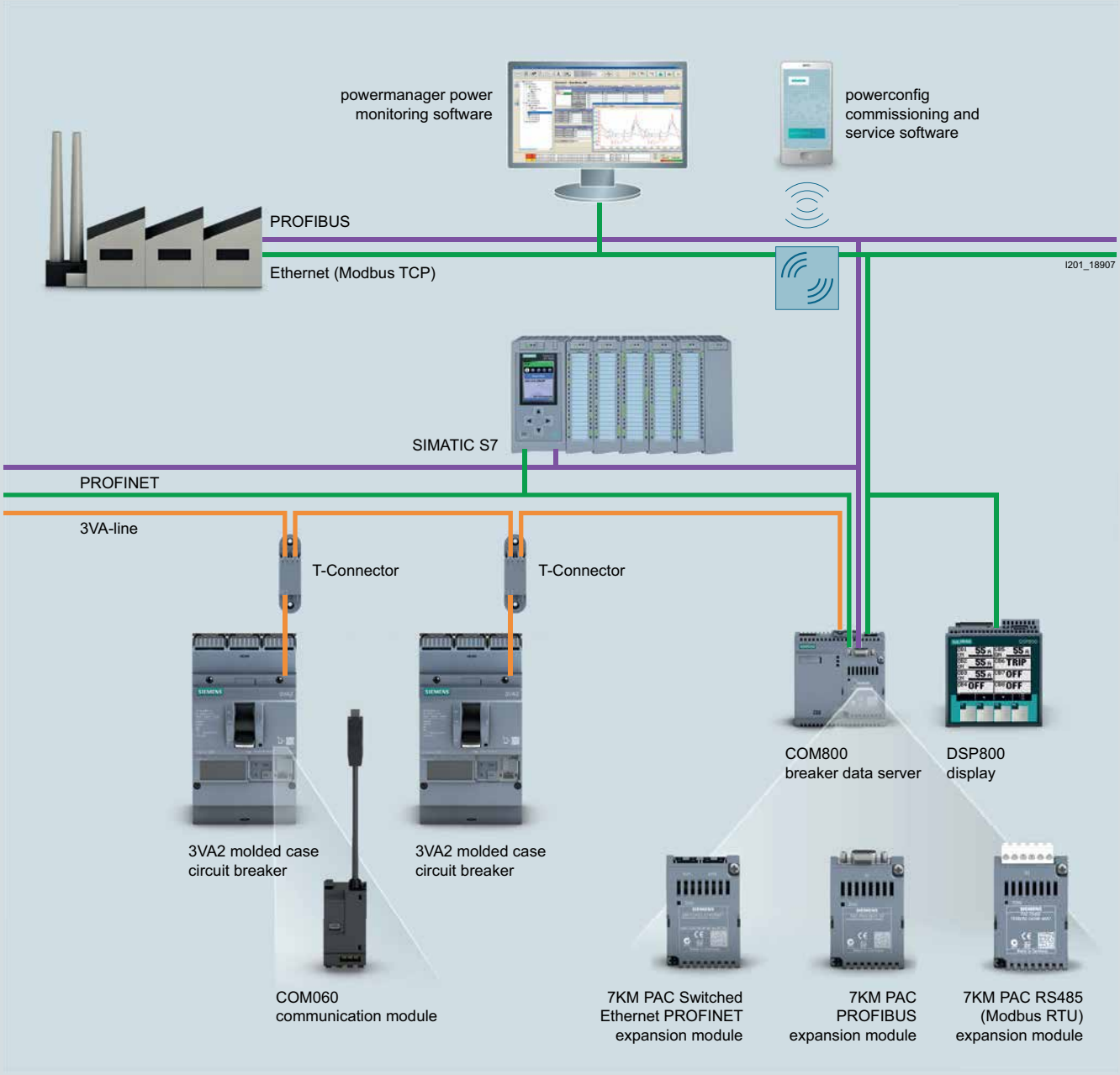


System overview, page 2/20

Communication

Breaker data server

COM800 breaker data servers

Version	Article No.
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	3VA9987-0TA10

COM100 breaker data servers

Version	Article No.
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	3VA9987-0TA20

7KM PAC PROFIBUS DP expansion modules

Purpose	Article No.
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.	7KM9300-0AB01-0AA0

7KM PAC Switched Ethernet PROFINET expansion modules

Purpose	Article No.
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, PROFIenergy and Modbus TCP protocols.	7KM9300-0AE01-0AA0

7KM PAC RS485 Modbus RTU expansion modules

Purpose	Article No.
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.	7KM9300-0AM00-0AA0

Interfaces to IEC 61850 new

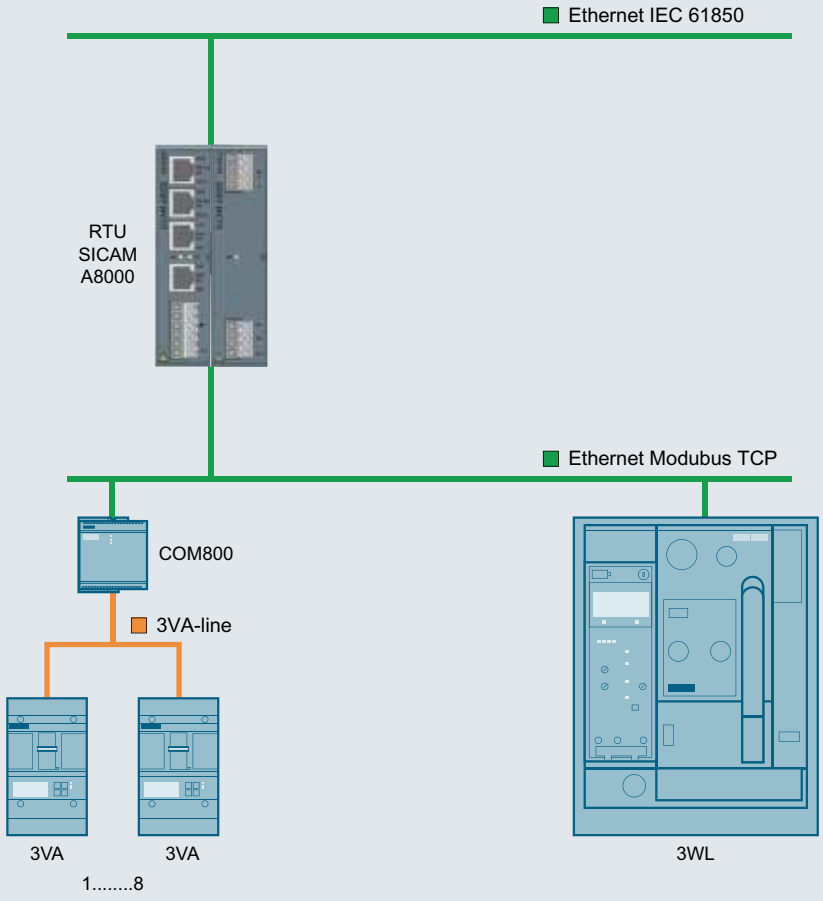
Purpose: The SICAM A8000 smart breaker data server connects the circuit breakers from the SENTRON portfolio via the MODBUS TCP/IP protocol and transmits data via communication protocols (e.g.: IEC 61850, IEC 60870-5-104, IEC 60870-5-101, MODBUS and DNP) to higher-level systems.

Type	Processor assembly	Operating voltage	Article No.
SICAM CP-8021 [1]	4 interfaces		6MF28021AA00
SICAM PS-8620	–	24 ... 60 V DC (12 W)	6MF28620AA00
SICAM PS-8622	–	110 ... 220 V DC (12 W)	6MF28622AA00

[1] Dimensioned for device quantities of 8× 3VA and 1× 3W

You will find further information at:
www.siemens.com/sicam-a8000

System overview, page 2/20



Communication

Accessories for communication

T-connectors (spare part)

Purpose	Article No.
Provides a stub connection to the COM060 and loops through to the next circuit breaker.	3VA9987-0TG10

DIN rail adapters

Purpose	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)

Purpose	Article No.
For COM800 and COM060	3VA9987-0TE10

Voltage tap to external N conductors (spare part)

Purpose	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

Purpose	Rated current I_n	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 I_n	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

Purpose	Article No.
For displaying the status and measured values of up to eight devices • 3VA2 via COM800/100 • 3VA27 • 3WL10 • 3WL11-13 • PAC3200T	3VA9987-0TD10

System overview, page 2/20

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

Purpose	Article No.
For connection to the ETU of 3VA2 molded case circuit breakers	3VA9987-0UA10

Connecting cables for EFB300

Length	Purpose	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

Purpose	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

- Energy supply via batteries or the USB-C interface
- USB-C interface for connecting a PC with 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

Purpose	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 powerconfig
- Including external power supply
- Including connecting cable to 3VA2 molded case circuit breaker

Purpose	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)

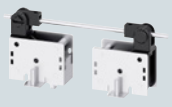
Voltage	Article No.
110 ... 240 V	3VA9987-0MX10

Connecting cables for connecting TD500 to 3VA2 molded case circuit breakers (spare part)

Article No.
3VA9987-0MY10

System overview, page 2/20

Locking, blocking and interlocking

			3VA11	3VA12	3VA20 3VA21 3VA22
Locking					
• The locking devices make it possible to lock the 3VA molded case circuit breakers in either the OFF or the ON operating position.					
Version					
 Cylinder lock	Key 1 (lock number 1)			3VA9980-0VL10	
	Key 3 (lock number 3)			3VA9980-0VL30	
	Key 4 (lock number 4)			3VA9980-0VL40	
 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 device for toggle operating mechanism			3VA9088-0LB10		3VA9388-0LB10
Interlocking					
• Using interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers. • The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time. • The following methods of interlocking can be used on 3VA molded case circuit breakers: – Front interlock – Rear interlock					
Version					
 Cylinder lock	Key 1 (lock number 1)			3VA9980-0VL10	
	Key 3 (lock number 3)			3VA9980-0VL30	
	Key 4 (lock number 4)			3VA9980-0VL40	
 Sliding bar interlock			3VA9158-0VF30	3VA9258-0VF30	3VA9168-0VF30
 Module for handle interlock using a 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/draw-out technology			3VA9088-0VM30	
Mounting frame for rear interlock with rod	Profile rails			3VA9088-0VK10	
	Mounting plate		3VA9158-0VK20	3VA9258-0VK20	3VA9268-0VK20

[1] Available from Q1/2020
[2] 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)

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3VA13 3VA14	
3VA23 3VA24	3VA15 3VA25

Locking

		Use in	Locking in OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10	–	Breakers, motor-drive mechanisms, manual operators, draw-out technology	■	■	■	–	–
3VA9980-0VL30	–						
3VA9980-0VL40	–						
3VA9367-0LF10	3VA9587-0LF10	Circuit breaker	■	■	■	–	–
3VA9388-0LB10	3VA9588-0LB10	Circuit breaker	■	■	■	–	–

Interlocking

		Use in	Locking in OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10	–	Breakers, manual operators	■	■	■	–	Unlimited
3VA9980-0VL30	–						
3VA9980-0VL40	–						
3VA9368-0VF30	–	Circuit breaker	–	–	■	–	3
3VA9367-0VF10	3VA9587-0VF10	Circuit breaker	–	–	■	–	3
3VA9980-0VC10							
3VA9980-0VC20							
3VA9980-0VC30							
3VA9088-0VM10	3VA9588-0VM10 [1) 2)]	Circuit breaker, fixed-mounted	–	–	–	■	2
3VA9088-0VM30	–	Plug-in/draw-out technology				■	
3VA9088-0VK10	–		–	–	–	■	
3VA9468-0VK20	–						

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Cover frame and mounting

		3VA10 3VA11	3VA12
Cover frames for door cutouts for molded case circuit breakers			
			
Number of poles	**Door cut-out with trip unit**		
3P	No	3VA9053-0SB10	3VA9253-0SB10
	Yes	3VA9053-0SB20	3VA9253-0SB20
4P	No	3VA9054-0SB10	3VA9254-0SB10
	Yes	3VA9054-0SB20	3VA9254-0SB20
Cover frames for MO320 motor operators			
			
Purpose			
MO320 motor operator		3VA9053-0SB20	3VA9257-0SB30
Motor operator with SEO520 stored energy operator		–	–
Cover frames for RCD320, RCD520 and RCD820 residual current devices			
			
Number of poles			
3P		3VA9053-0SB10	3VA9253-0SB10
4P		3VA9054-0SB10	3VA9254-0SB10
Cover frames for front mounted rotary operators			
			
		3VA9053-0SB10	3VA9253-0SB10
Cover frames for door feedthroughs			
			
		–	3VA9253-0SB20
Labeling plates for cover frame			
			
			3VA9087-0SX10
Adapters for DIN rails for 3VA1 molded case circuit breakers			
			
Number of poles			
1P		3VA9181-0SH10	–
2P		3VA9182-0SH10	–
3P and 4P		3VA9187-0SH10	–
3P and 4P in connection with RCD310 or RCD510		3VA9187-0SH20	–
Mounting screw kits			
			
Purpose	**Number of poles**		
For fixed-mounted breakers	1P	3VA9111-0SS10	–
	2P and 3P (apart from 125 A/160 A with 55 kA and 70 kA)	3VA9116-0SS10	
	3P (125 A/160 A with 55 kA and 70 kA) and 4P	3VA9114-0SS10	
	3P	–	–
	4P	–	–
	3P and 4P	–	–
For plug-in technology	–	3VA9114-0SS10	
For plug-in and draw-out technology	–	–	3VA9114-0SS10

Adapter for 60 mm busbar system (8US), see page 13/26

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3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25
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
–	–	–
3VA9124-0SS10	3VA9328-0SS10	–

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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

Basic units

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)

Further accessories

Padlockable protective cover

Locking device

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 toggle 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

	6	7		8	9	10	11	12		13	14	15	16
3VA27			–						–				

Basic units and ETUs

					6	7	8	9	10	11	12
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	Toggle 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) [1]				A	B		
			ETU350 LSI	(N) [1]				A	C		
			ETU360 LSIG	(N) [1]				A	D		
Circuit breakers, ETU 6-series		With trip unit	ETU650 LSI	(N) [1]					E		
			ETU660 LSIG	(N) [1]					F		
	Without communications interface	Without metering function						A			
	With communications interface	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			

[1] Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

				11
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

Connection

			12
Installation type	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

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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

System overview, page 2/64

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

	6	7		8	9	10	11	12		13	14	15	16
3VA27			–						–				

Basic units 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	Stored energy operating mechanism	55 kA				1				
		85 kA				2				
		110 kA				3				
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) [1]	A	B				
			ETU350 LSI	(N) [1]	A	C				
			ETU360 LSIG	(N) [1]	A	D				
Circuit breakers, ETU 6-series		With trip unit	ETU650 LSI	(N) [1]		E				
			ETU660 LSIG	(N) [1]		F				
	Without communications interface	Without metering function			A					
	With communications interface	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					

[1] 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

Installation type	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

Motor

Operating mechanisms	Manual operator		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

System overview, page 2/64

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
		240 ... 250 V AC/DC	J
	Closing coil (CC) and additional 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

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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

To specify the options, add „-Z" to the complete Article No. and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Order code

Accessories for basic configuration

Mounting options for fixed mounting

- 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.[1)]

Mounting options for fixed mounting[1)]	Floor mounting	Mounting support standard	≣	◢		A	0	7
		Mounting support extended[2)]	≣	◢		S	5	6
	Rear panel mounting onto mounting plate	Side wall extended[2)]	≣	◢		S	5	7

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	For setting the rated current I_n	For all ETU	400 A	≣	◢		B	0	4
			630 A	≣	◢		B	0	6
			800 A	≣	◢		B	0	8
			1000 A	≣	◢		B	1	0
			1200 A	≣	◢		B	1	2
	For setting the rated current I_n, with overload protection L = OFF	For ETU 6-series	400 A	≣	◢		L	0	4
			630 A	≣	◢		L	0	6
			800 A	≣	◢		L	0	8
			1000 A	≣	◢		L	1	0
			1250 A	≣	◢		L	1	2
			1600 A	≣	◢		L	1	6
	For setting the rated current I_n, For enabling the residual current protection function. The residual current function is only possible with the MF Advanced metering function.	For ETU660 only	400 A	≣	◢		G	0	4
			630 A	≣	◢		G	0	6
			800 A	≣	◢		G	0	8
			1250 A	≣	◢		G	1	2

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	COM043	Modbus TCP	≣	◢		F	1	1
	COM042	Modbus RTU	≣	◢		F	1	2

Breaker Connect modules

- When a circuit breaker with a communications interface 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		≣	◢		F	2	6

I/O modules internal

I/O modules internal	IOM040 digital I/O module	2 inputs, 2 outputs	≣	◢		K	5	6

≣ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

[1)] These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.

[2)] Not possible in connection with or as an alternative to the mounting support, standard (A07).

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To specify the options, add „-Z" to the complete Article No. and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Accessories for motors

					Order code		
5-digit mechanical operating cycles counter					C	0	1

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		2 CO | 2 CO | 2 CO (connected | test | disconnected position)			K	5	5
Signaling switch	Ready-to-close signaling	1 CO contact digital 24 V DC			K	5	0
	Tripped signaling switch (S24)	1 CO contact digital 24 V DC			K	5	3
	Spring charged signaling switch (S21)	1 CO contact digital 24 V DC			K	5	4
Auxiliary switch	On / Off AUX	4 CO contacts digital 24 V DC			K	5	1
		2 CO contacts 400 V AC, and 2 CO contacts digital 24 V DC			K	5	2

Locking, blocking and interlocking

Locking devices	To prevent movement of withdrawable circuit breaker	Cylinder lock	Made by Ronis		R	7	8
		For no more than three 8-mm padlocks			R	6	5
Locking mechanism	To prevent movement to disconnected position				R	7	9
Locking device	To prevent unauthorized activation in the operator panel (safe OFF)	Cylinder lock, made by Ronis			S	0	8
		For no more than 3 padlocks, plastic 4 mm			S	2	2
		For no more than 1 padlock, metal 7 mm			S	2	3
		For no more than 2 padlocks, metal 8 mm			S	0	7
Padlockable protective cover	For mechanical ON and/or OFF on the operator panel	For no more than 3 padlocks, plastic 4 mm			S	4	2
		For no more than 1 padlock, metal 7 mm			S	4	3
		For no more than 2 padlocks, metal 8 mm			S	4	4
Protective cover	For mechanical ON/OFF, not lockable				S	4	1
Door sealing frame IP30	IP3x				T	3	0

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with toggle operating mechanism

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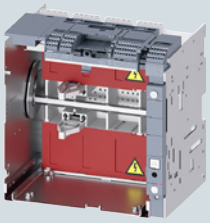
Guide frames

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. 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	3VA27 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 No. and indicate the appropriate order code(s).

3VW8....-.....-.... -Z

Order code

Locking, blocking and interlocking

						Order code		
Locking device	To prevent movement of withdrawable circuit breaker	Cylinder lock, made by Ronis	≡	◢		R	7	8
		For no more than 3 8-mm padlocks	≡	◢		R	6	5
Locking mechanism	To prevent movement to disconnected position (only in combination with R78 or R65)		≡	◢		R	7	9

Auxiliary/signaling switches

						Order code		
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)	≡	◢		K	5	5

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 toggle operating mechanism

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Electronic trip unit ETU and accessories

Electronic trip units (ETU)

Version	With communications / metering function, enhanced protection functions	Type	Protective function			3VA27 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

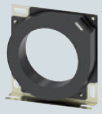
Metering functions for ETU650 or ETU660

Description	Protective function / version	Arrangement			3VA27 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 N conductor right	Top or bottom	≋	◢	3VW9011-0AT08
	For 4-pole circuit breakers with N conductor left	Top	≋	◢	3VW9011-0AT75
		Bottom	≋	◢	3VW9011-0AT76
	For 3-pole circuit breakers	Top	≋	◢	3VW9011-0AT72
		Bottom	≋	◢	3VW9011-0AT73

External current transformers for N conductors

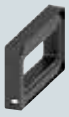
Accessory for	Purpose			3VA27 Article No.
 ETU320, ETU350, ETU360, ETU650, ETU660	Only for 3-pole circuit breakers	≋	◢	3VW9011-0AA30

External current transformers for grounded transformer star points

Accessory for	G_{ret} (Ground return)			3VA27 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	Purpose			3VA27 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			3VA27 Article No.
 ETU320, ETU350, ETU360, ETU650, ETU660	24 V DC	≋	–	3VW9011-0AK03
	110 V AC/DC	≋	–	3VW9011-0AK05
	250 V AC/DC	≋	–	3VW9011-0AK06

Replacement batteries for electronic trip unit ETU

Accessory for			3VA27 Article No.
 ETU320, ETU350, ETU360, ETU650, ETU660	≋	◢	3VW9011-0AT38

≋ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

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Electronic trip unit ETU and accessories

Rated current modules / rating plugs

- Only one module is possible per circuit breaker.

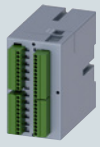
Accessory for	Version	Rated current I_n			3VA27 Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	Rating plugs for setting (< $I_{n\ max}$) the rated current I_n	400 A	✓	✓	3VW9011-0AA53
		630 A	✓	✓	3VW9011-0AA55
		800 A	✓	✓	3VW9011-0AA56
		1000 A	✓	✓	3VW9011-0AA57
		1250 A	✓	✓	3VW9011-0AA58
		1600 A	✓	✓	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 protection 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 communications interface to the ETU 6-series is selected.

Communication module	Protocol			3VA27 Article No.
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			3VA27 Article No.
ETU 6-series	• 2 A at ≤ 30 V DC • 0.8 A at 50 V DC • 0.2 A at 150 V DC • 4 A at 250 V AC	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			3VA27 Article No.
ETU 6-series	• 2 A at ≤ 30 V DC • 0.8 A at 50 V DC • 0.2 A at 150 V DC • 4 A at 250 V AC	2	2	✓	✓	3VW9011-0AT30

✓ For molded case circuit breakers with stored energy operating mechanism

✓ For molded case circuit breakers with toggle operating mechanism

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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 communications interface of theETU 6-series is selected in the basic circuit breaker configuration.

Accessory for			3VA27 Article No.
ETU 6-series	≋	–	3VW9011-0AT10

Breaker Connect modules

- For 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 signals for communications interfaces

- 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 communications interface of the ETU 6-series is selected.

Function			Article No.
Ready-to-close signaling switch for communication (COM RTC)	≋	–	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	Type			Article No.
Test device • 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	TD310	≋	◢	3VW9011-0AT32
Breaker data adapter • As gateway for parameterization of the ETU with powerconfig • For generation of a report of the set parameters with powerservice	TD410	≋	◢	3VW9011-0AT34
Test device and breaker data adapter • As gateway for parameterization of the ETU with powerconfig – Testing a tripping operation using powerconfig • For use with the powerservice software – Testing of the basic protection functions LSING – Testing of the enhanced protection functions – Test data storage – Readout of ETU buffer – Generation of a report of the set parameters	TD420	≋	◢	3VW9011-0AT33

≋ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

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Accessories for connection and insulation

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

Version	Description	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	3-pole / 3 units	3VW9011-0AL73
		Front terminals for main circuit connection, bottom	3-pole / 3 units	3VW9011-0AL75
		Front terminals for main circuit connection, top/ bottom	4-pole / 4 units	3VW9011-0AL74
Withdrawable	Front-accessible terminals for main circuit connection	Guide frame flange	3-pole / 3 units	3VW9011-0AN01
			4-pole / 4 units	3VW9011-0AN02
	Broadened main circuit connections	Front-accessible terminals for	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 connec-	3-pole / 3 units	3VW9011-0AN75
			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 mm² for front cable connection, 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 mm² for cable lugs for rear cable connection	Rear vertical main connec- tions	3-pole / 3 units	3VW9011-0AN71
			4-pole / 4 units	3VW9011-0AN72

Auxiliary supply connectors in push-in version

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with toggle operating mechanism

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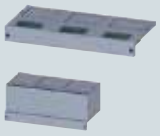
- Auxiliary conductor terminal in push-in version for upgrading fixed-mounted breakers and guide frames.
- The device is always fitted at the factory with the exact number of auxiliary conductor terminals required.

Version	3VA27 Article No.
Push-in	3VW9011-0AB11

Terminal covers for fixed circuit breakers



- Finger-proof for front terminals for main circuit connection for fixed-mounting
- 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 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	Purpose	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)	• Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16), • Mutual mechanical interlocking to 3WL/3VA (for 3VW9011-0BB21)	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	Purpose	Article No.
Extension kit for side wall	• Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16), • Mutual mechanical interlocking to 3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB53

Spring charging motor (MO)

For molded case circuit breakers with stored energy operating mechanism

For molded case circuit breakers with toggle operating mechanism

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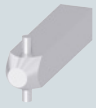
Motor operators and manual operators

Description	Voltage			3VA27 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 rotary operating mechanism incl. door sealing frame	Standard	Gray	IP30	–	◢	3VW9727-0EK11
	EMERCENCY-OFF	Yellow-red	IP30	–	◢	3VW9727-0EK15
Door mounted rotary operator	Standard	Gray	IP30	–	◢	3VW9727-0FK21
	EMERCENCY-OFF	Yellow-red	IP30	–	◢	3VW9727-0FK25
	Basic without handle		IP30	–	◢	3VW9727-0GK00
	Shaft stub		IP30	–	◢	8UD1900-3WD00
	Handle	Gray	IP30	–	◢	8UD1861-0AB11
		Yellow-red	IP30	–	◢	8UD1861-0AB15

Closing coils CC / shunt trips ST

⋇ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

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Auxiliary release, closing coil

- **Note:**
  - For molded case circuit breakers with stored energy operators, the products can only be used as closing coils CC
  - For molded case circuit breakers with handle mechanisms, the products can be used as closing coils CC and shunt trips ST.

Voltage	3VA27 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 draw-out 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

Auxiliary / signaling switches for toggle operating mechanisms

≋ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

System overview, page 2/64

Auxiliary release, closing coil

- 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
  - 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 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		3VA27 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)	≋ ✓	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 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	≋ ✓	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

Locking devices to prevent movement of the withdrawable circuit breakers

≋ For molded case circuit breakers with stored energy operating mechanism

✓ For molded case circuit breakers with toggle operating mechanism

System overview, page 2/64

Locking devices and interlocks

Version			3VA27 Article No.
Ronis cylinder lock (replacement for R78)	≋	◢	3VW9011-0BA80
Padlock 8 mm (replacement 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).

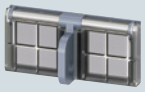
Description			Article No.
Locking mechanism (replacement for R79)	≋	◢	3VW9011-0BA84

Locking devices in OFF position

- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description			Article No.
Cylinder lock, made by Ronis (replacement for S08)	≋	–	3VW9011-0BA33

Locking devices in OFF position



- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Version			Article No.
Padlock 4 mm (replacement for S22)	Plastic for no more than 3 locks	≋	–	3VW9011-0BA41
Padlock 7 mm (replacement for S23)	Metal for no more than 1 lock	≋	–	3VW9011-0BA42
Padlock 8 mm (replacement for S07)	Metal for no more than 2 locks	≋	–	3VW9011-0BA44

Locking devices in OFF position for toggle operating mechanisms with rotary operators

- To prevent unauthorized activation in the case of molded case circuit breakers with rotary operator

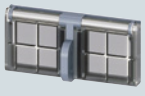
Description			Article No.
For Ronis	–	◢	3VW9727-0VL10

Locking devices in OFF position for toggle operating mechanisms without rotary operators

- To prevent unauthorized activation 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

Padlockable protective covers ON/OFF on the operator panels



Description	Version			Article No.
Padlock 4 mm (replacement for S42)	Plastic for no more than 3 locks	≋	–	3VW9011-0BA22
Padlock 7 mm (replacement for S43)	Metal for no more than 1 lock	≋	–	3VW9011-0BA23
Padlock 8 mm (replacement for S44)	Metal for no more than 2 locks	≋	–	3VW9011-0BA24

Protective covers for mechanical ON/OFF

≋ For molded case circuit breakers with stored energy operating mechanism

◢ For molded case circuit breakers with toggle operating mechanism

System overview, page 2/64

Locking devices and interlocks

- Mechanical ON/OFF to protect against unintentional actuation on the operator panel.
- Not lockable.

Description		Article No.
Not lockable (replacement for S41)	–	3VW9011-0BA21

Mutual mechanical interlocking

- Mutual mechanical interlocking with Bowden cable 2 m

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

Variant	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 mounting 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.
Replacement 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 toggle operating mechanism

System overview, page 2/64

3VL up to 1600 A, IEC

3VL molded case circuit breaker

Product Discontinuation

The 3VL molded case circuit breaker up to 1600 A IEC will only be able to be ordered as a spare part from 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 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

A multitude of additional information ...

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All the important things at a glance

Information to get you started

For information about miniature circuit breakers, please visit our website
www.siemens.com/mcb
www.siemens.com/protection-concept

Contact persons in your region

We are there when you need us

You can find your local contacts at
www.siemens.com/lowvoltage/contact

Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
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

Use our conversion tool for quick and easy conversion to Siemens products www.siemens.com/conversion-tool

Siemens YouTube channel

Our video range

- Miniature circuit breakers (general)
  bit.ly/2kJP2Dq

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- Miniature circuit breakers sie.ag/2kTFXI5

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… can be found in our online services

Commissioning + operation

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Characteristic curves
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- Configuration manual – Miniature circuit breakers (45302792)

The fast track to the experts

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/lowvoltage/support-request

We offer a comprehensive portfolio of services.
You can find your local contacts at
www.siemens.com/lowvoltage/contact

You can find further information on services at
www.siemens.com/service-catalog

Training and tutorials

Our training courses can be found at
www.siemens.com/sitrain-lowvoltage

- 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 (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

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.

Electronic 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.

Thermomagnetic 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.

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..

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)


Shunt trip (ST)


Undervoltage releases (UR)


Remote controlled mechanisms (RC mech.)


5SM6 arc fault detection devices

Mechanical accessories


Rotary operating mechanisms


Spacers


Terminal covers


Wall enclosures

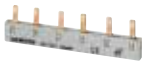

Molded-plastic enclosures

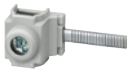

Holders for front panel installation


Intermediate 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				
Standards			IEC/EN 60898-1	IEC/EN 60898-1
Basic data				
Breaking capacity I_{cn} for AC (230/400 V) acc. to IEC/EN 60898-1 AC		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, CEBEC, TSE	VDE, CEBEC, TSE
Marine classifications			–	–
Operational voltage				
Max. AC, acc. to EN 60898-1/-2, EN 60947-2		V	250/440	250/440
Max. DC per pole, acc. to EN 60898-1/-2, EN 60947-2		V	60	60
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^2	0.75 ... 35	0.75 ... 35
	Finely stranded with end sleeve	mm^2	0.75 ... 25	0.75 ... 25
	Finely stranded without end sleeve	mm^2	1 ... 35	1 ... 35
Conductor cross-section 2 wires (same cross-section and same conductor type)	Solid/stranded	mm^2	0.75 ... 10	0.75 ... 10
	Finely stranded with end sleeve	mm^2	0.75 ... 4	0.75 ... 4
	Finely stranded without end sleeve	mm^2	1 ... 4	1 ... 4
Conductor cross-section 1-wire + busbar (pin thickness 1.5 mm)	Solid/stranded	mm^2	10 ... 25	10 ... 25
	Finely stranded with non-insulated end sleeve	mm^2	6 ... 25	6 ... 25
	Finely stranded with insulated end sleeve	mm^2	6 ... 16	6 ... 16
Ambient conditions				
Ambient temperature		°C	–25 ... +45 [1]	–25 ... +45 [1]
Storage temperature		°C	–40 ... +75 [3]	–40 ... +75 [3]
Shock acc. to IEC 60068-2-27 150 m/s^2 at 11 ms half-sine			–	–
Resistance to vibrations acc. to IEC 60068-2-6 50 m/s^2 at 25 ... 150 Hz and 60 m/s^2 at 35 Hz (4 s)			–	–
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				
Catalog LV 10			See page 3/12	See page 3/14

[1] Periodically +55 °C, max. 95% humidity
[2] Max. 95% humidity
[3] 95% humidity up to 55 °C

System overview, page 3/5

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	–
0.3 ... 63	10 ... 20	2 ... 40	2 ... 40	16 ... 100
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, CEBEC, IMQ	VDE	VDE, IMQ, NF, CCC	VDE, IMQ, NF, CCC	VDE
–	–	–	DNV-GL	–
250/440	250/440	250	250	–
60	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			2.5 ... 16 (top)
0.75 ... 10	–	–	–	–
0.75 ... 4	–	–	–	–
1 ... 4	–	–	–	–
10 ... 25	–	–	–	–
6 ... 25	–	–	–	–
6 ... 16	–	–	–	–
–25 ... +55 [2]	–25 ... +45 [1]	–25 ... +45 [1]	–25 ... +45 [1]	–25 ... +55
–40 ... +75 [3]	–40 ... +75 [3]	–40 ... +75	–40 ... +75	–40 ... +70
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
2/III	2/III	2/III	2/III	3/IV
See page 3/16	See page 3/18	See page 3/20	See page 3/22	See page 3/38

System overview, page 3/5

Miniature circuit breakers

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

				5SY6	5SY4
Standards					
Standards				IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077
Basic data					
Breaking capacity I_{cn}	For AC (230/400 V) acc. to IEC/EN 60898-1 AC		kA	6	10
	Acc. to UL1077 and CSA C22.2 No.235			Suplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	Suplementary 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 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	0.3 ... 63	0.3 ... 80
Number of poles				1P | 2P | 3P | 4P | 1P+N | 3P+N	1P | 2P | 3P | 4P | 1P+N | 3P+N
Tripping characteristic				B | C	A | B | C | D
Approvals					
General product approvals				VDE, IMQ, CCC, cULus	VDE, IMQ, CCC, cULus
Marine classifications				DNV-GL, LR, BV, RINA, ABS	DNV-GL, LR, BV, RINA, ABS
Operational voltage					
Max. AC	Acc. to EN 60898-1/-2, EN 60947-2		V	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 [1]	72 [1]
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^2	0.75 ... 35	0.75 ... 35
	Finely stranded, with end sleeve		mm^2	0.75 ... 25	0.75 ... 25
	Conductors (Cu 60/75 °C I_n ≤40 A; 60 °C I_n >40 A)			AWG 18 ... 4	AWG 18 ... 4
Terminal tightening torque			Nm	2.5 ... 3.5 max.	2.5 ... 3.5 max.
			lb-in	22 ... 26	22 ... 26
Ambient conditions					
Ambient temperature			°C	–25 ... +55 [4]	–40 ... +70 [3]
Storage temperature			°C	–40 ... +75 [3]	–40 ... +75 [3]
Shock acc. to IEC 60068-2-27 150 m/s^2 at 11 ms half-sine				■	■
Resistance to vibrations acc. to IEC 60068-2-6 50 m/s^2 at 25 ... 150 Hz and 60 m/s^2 at 35 Hz (4 s)				■	■
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				3/III	3/III [2]
More information					
Catalog LV 10				See page 3/24	See page 3/26

[1] Exempt: C/D 0.3 A ... 0.5 A
[2] 5SY54.. 4-pole, degree of pollution 2 for overvoltage category II
[3] 95% humidity up to 55 °C
95% rel. humidity up to +55°C
55% rel. humidity up to +70°C
[4] Max. 95% humidity
[5] When used with a busbar at the front or 2 conductors, the terminal area at the rear is restricted, see notes on the Internet

System overview, page 3/5

				
5SP4	**5SY5**	**5SY7**	**5SY8**	**5SJ4..HG..**
IEC/EN 60898-1 UL 1077	IEC/EN 60898-2 UL 1077	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077	IEC/EN 60947-2 UL 1077	IEC/EN 60947-2 UL 489
10	10	15	25	–
Suplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	Suplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	Suplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	Suplementary protector, OC, FW 0, OL 0, TC 3 at 50°C	–
U2: see Certificate of Compliance	U2: see Certificate of Compliance	U2: see Certificate of Compliance	U2: 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	– | –	– | –	– | –	–
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, cULus	VDE, CCC, cULus	VDE, IMQ, CCC, cULus	cULus	VDE, CCC, UL
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 [1]	72 [1]	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) [5]
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 [4]	–40 ... +70 [3]	–40 ... +70 [3]	–25 ... +55 [4]	–25 ... +55 [4]
–40 ... +75 [3]	–40 ... +75 [3]	–40 ... +75 [3]	–40 ... +75 [3]	–40 ... +75 [3]
–	■	■	–	■
■	■	■	■	■
–	■	■	–	–
■	■	■	–	–
3/III	3/III	3/III	3/III	3/III
See page 3/28	See page 3/30	See page 3/32	See page 3/34	See page 3/36

System overview, page 3/5

Device protection switches

For advanced applications for industry and machine manufacturing

			5SY17
Standards			
Standards			IEC 60934 UL 1077
Basic data			
Breaking capacity I_{cn}	for AC (230/400 V) acc. to IEC/EN 60898-1 AC	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, cULus
Operational voltage			
Max. AC	Acc. to EN 60898-1/-2, EN 60947-2	V	250
	Acc. to UL 1077, CSA C22.2 No.235	V	277
Max. DC per pole		V	72
Rated impulse withstand voltage U_{imp}		kV	4
Rated frequency f_n		Hz	50/60
Connection			
Dual-chamber terminal			–
Conductor cross-section 1 wire	Solid/stranded	mm^2	0.75 ... 16
	Finely stranded with end sleeve	mm^2	0.75 ... 10
	Finely stranded with insulated end sleeve	mm^2	0.75 ... 10
	Finely stranded without end sleeve	mm^2	0.75 ... 16
	Conductor cross-section AWG		–
2-wire (same cross-section)	Solid/stranded	mm^2	0.75 ... 4
	Finely stranded with end sleeve	mm^2	0.75 ... 2.5
	Finely stranded with insulated end sleeve	mm^2	0.75 ... 1.5
	Finely stranded without end sleeve	mm^2	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
Storage temperature		°C	–40 ... +70
Shock acc. to IEC 60068-2-27 150 m/s^2 at 11 ms half-sine			–
Resistance to vibrations acc. to IEC 60068-2-6 50 m/s^2 at 25 ... 150 Hz and 60 m/s^2 at 35 Hz (4 s)			–
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			
Catalog LV 10			See page 3/40

[1] Max. 95% humidity

System overview, page 3/5

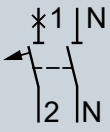
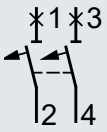
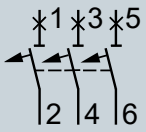
5SK9

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 × I_n / 1s | Short-circuit 2 × I_n / <10 ms
–
cULus
–
–
30
0.5
–
–
0.2 ... 4
0.2 ... 2.5
0.2 ... 2.5
–
AWG 24 ... 12
–
–
–
–
–
–
–25 ... +60 [1]
–40 ... +70
–
–
–
–
–
See page 3/41

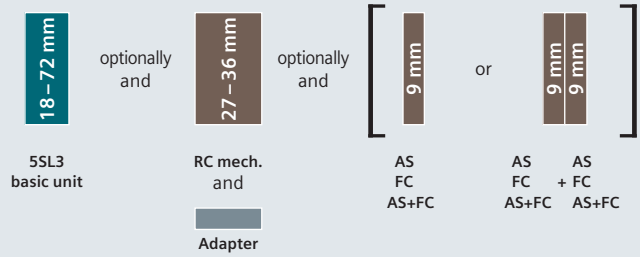
System overview, page 3/5

5SL3 miniature circuit breakers

4.5 kA

	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
Mounting width	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	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
RC mech.	Remote controlled mechanisms	See page 3/50

System overview, page 3/5

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

Accessories

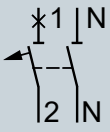
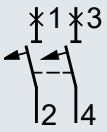
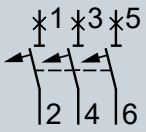
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022

Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-6
3–4 MW		5ST3820-7

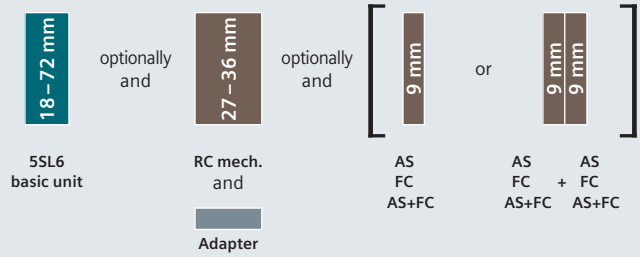
System overview, page 3/5

5SL6 miniature circuit breakers

6 kA

	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
Mounting width	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	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
RC mech.	Remote controlled mechanisms	See page 3/50

System overview, page 3/5

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

Accessories

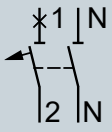
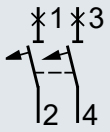
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022

Auxiliary switches and fault signal contacts (AS+FC)		Article No.
1 CO (AS) + 1 CO (FC)		5ST3062
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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-6
3–4 MW		5ST3820-7

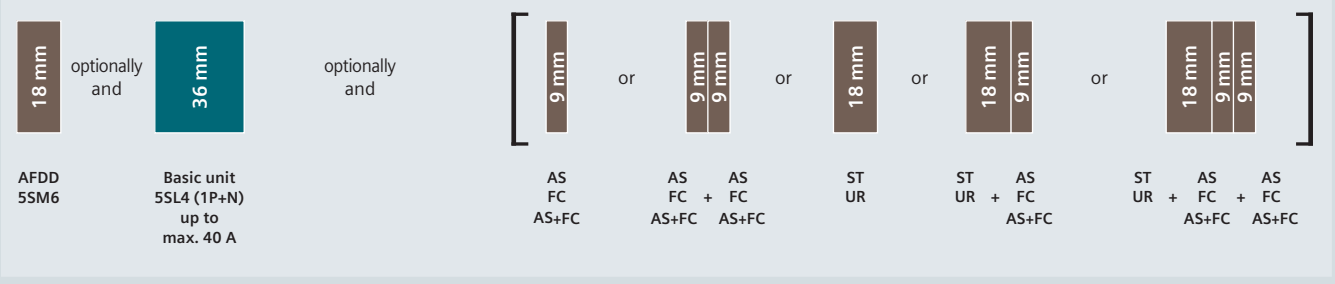
System overview, page 3/5

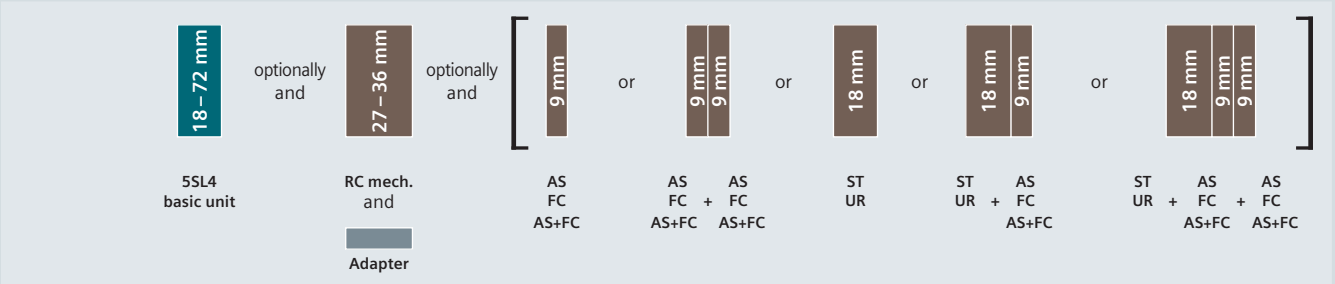
5SL4 miniature circuit breakers

10 kA

	1P 230/400 V AC			1P+N 230 V AC			2P 400 V AC		
Mounting width	1 MW			2 MW			2 MW		
									
Rated current I_n	Characteristic B	C	D	Characteristic B	C	D	Characteristic 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 devices	See page 3/51	AS+FC	Auxiliary switches and fault signal contacts	See page 3/47	UR Undervoltage releases	See page 3/49
AS	Auxiliary switches	See page 3/44	ST	Shunt trip	See page 3/48	RC mech. Remote controlled mechanisms	See page 3/50
FC	Fault signal contacts	See page 3/46					

System overview, page 3/5

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

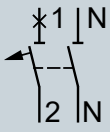
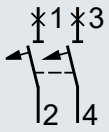
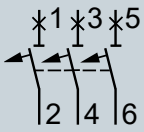
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO (AS) + 1 CO (FC)		5ST3062
Shunt trip (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-6
3–4 MW		5ST3820-7
Arc fault detection devices (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

System overview, page 3/5

5SJ6...-.KS miniature circuit breakers

6 kA – plug-in terminal on outgoing side

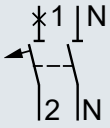
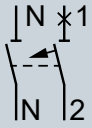
	1P 230/400 V AC		1P+N 230/400 V AC		2P 230/400 V AC		3P 230/400 V AC	
Mounting width	1 MW		2 MW		2 MW		3 MW	
								
Rated current I_n	Characteristic		Characteristic		Characteristic		Characteristic	
	B	C	B	C	B	C	B	C
10 A	5SJ6110-6KS	5SJ6110-7KS	5SJ6510-6KS	5SJ6510-7KS	5SJ6210-6KS	5SJ6210-7KS	5SJ6310-6KS	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

System overview, page 3/5

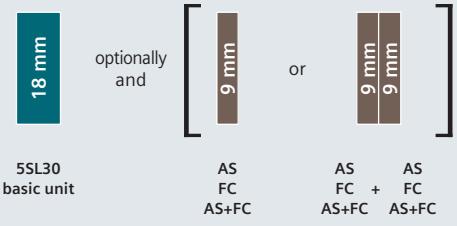
System overview, page 3/5

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	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47

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Accessories

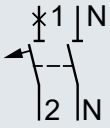
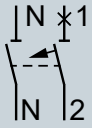
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016

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

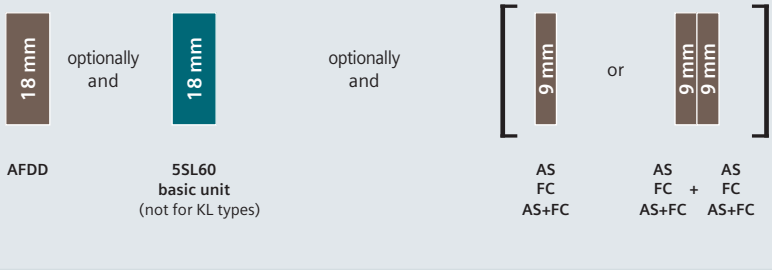
System overview, page 3/5

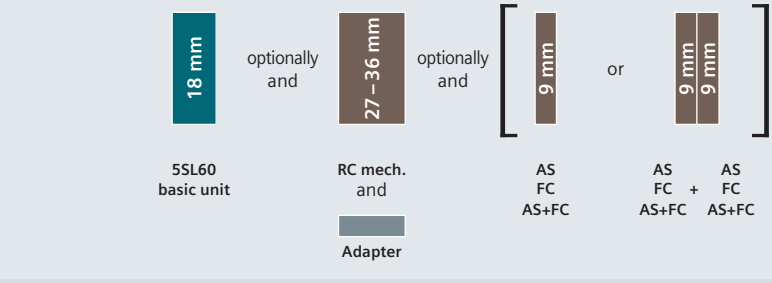
5SL60 miniature circuit breakers

1P+N 6 kA compact miniature circuit breakers

	1P+N (N pole right) 230 V AC		1P+N (N pole left) 230 V AC
Mounting width	1 MW		1 MW
			
Rated current I_n	Characteristic B	C	Characteristic 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 devices	See page 3/51
AS	Auxiliary switches	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
RC mech.	Remote controlled mechanisms	See page 3/50

System overview, page 3/5

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

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

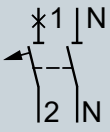
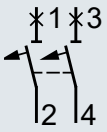
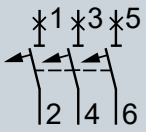
Adapters for remote controlled mechanisms (RC mech.)	Article No.
1 MW	5ST3820-6

Arc fault detection devices (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

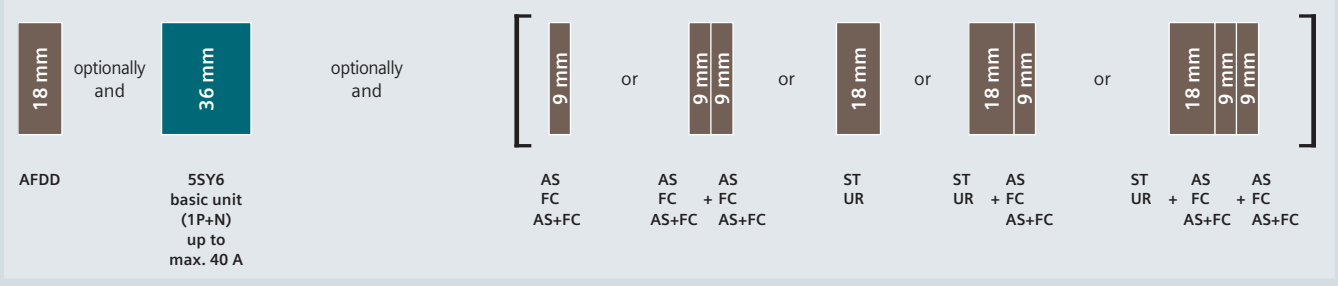
System overview, page 3/5

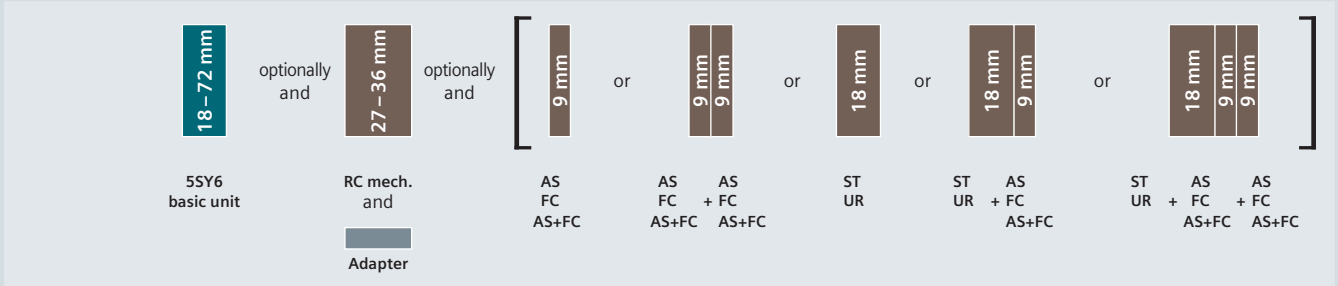
5SY6 miniature circuit breakers

6 kA

	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
Mounting width	1 MW		2 MW		2 MW		3 MW	
								
Rated current I_n	Characteristic B	C	Characteristic B	C	Characteristic B	C	Characteristic 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 devices See page 3/51
AS Auxiliary switches See page 3/44
FC Fault signal contacts See page 3/46
AS+FC Auxiliary switches and fault signal contacts See page 3/47
ST Shunt trip See page 3/48
UR Undervoltage releases See page 3/49
RC mech. Remote controlled mechanisms See page 3/50

System overview, page 3/5

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

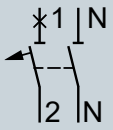
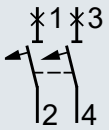
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO (AS) + 1 CO (FC)		5ST3062
Shunt trip (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2
Arc fault detection devices (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

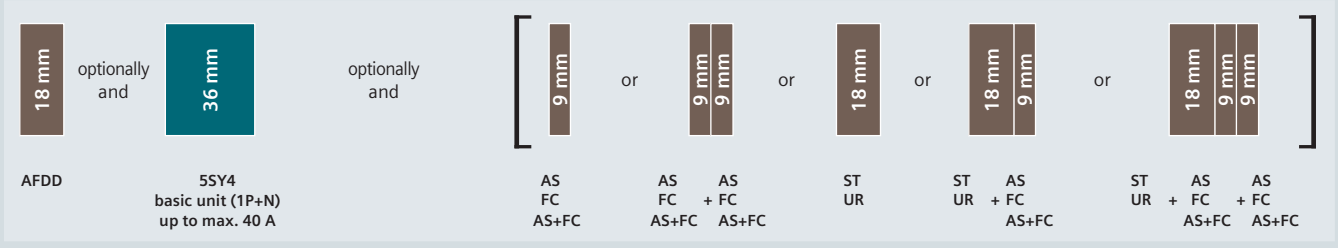
System overview, page 3/5

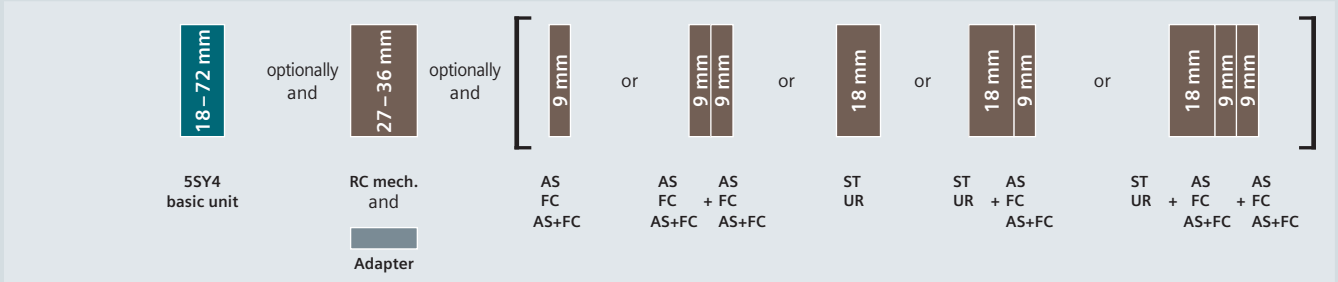
5SY4 miniature circuit breakers

10 kA

	1P 230/400 V AC				1P+N 230 V AC				2P 400 V AC			
Mounting width	1 MW				2 MW				2 MW			
												
Rated current	Characteristic				Characteristic				Characteristic			
I_n	A	B	C	D	A	B	C	D	A	B	C	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 new	5SY4101-7	5SY4101-8	5SY4501-5	–	5SY4501-7	5SY4501-8	5SY4201-5	5SY4201-6 new	5SY4201-7	5SY4201-8
1.6 A	5SY4115-5	5SY4115-6 new	5SY4115-7	5SY4115-8	5SY4515-5	5SY4515-6 new	5SY4515-7	5SY4515-8	5SY4215-5	5SY4215-6 new	5SY4215-7	5SY4215-8
2 A	5SY4102-5	5SY4102-6	5SY4102-7	5SY4102-8	5SY4502-5	–	5SY4502-7	5SY4502-8	5SY4202-5	5SY4202-6 new	5SY4202-7	5SY4202-8
3 A	5SY4103-5	5SY4103-6 new	5SY4103-7	5SY4103-8	5SY4503-5	–	5SY4503-7	5SY4503-8	5SY4203-5	5SY4203-6 new	5SY4203-7	5SY4203-8
4 A	5SY4104-5	5SY4104-6	5SY4104-7	5SY4104-8	5SY4504-5	5SY4504-6 new	5SY4504-7	5SY4504-8	5SY4204-5	5SY4204-6 new	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 new	5SY4108-7	5SY4108-8	5SY4508-5	–	5SY4508-7	5SY4508-8	5SY4208-5	5SY4208-6 new	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





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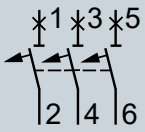
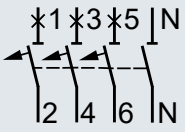
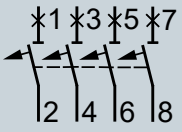
3P 400 V AC 3 MW				3P+N 400 V AC 4 MW				4P 400 V AC 4 MW			
											
Characteristic				Characteristic				Characteristic			
A	B	C	D	A	B	C	D	A	B	C	D
–	–	5SY4314-7	5SY4314-8	–	–	5SY4614-7	5SY4614-8	–	–	5SY4414-7	5SY4414-8
5SY4305-5	–	5SY4305-7	5SY4305-8	–	–	5SY4605-7	5SY4605-8	–	–	5SY4405-7	5SY4405-8
5SY4301-5	5SY4301-6 new	5SY4301-7	5SY4301-8	5SY4601-5	–	5SY4601-7	5SY4601-8	5SY4401-5	–	5SY4401-7	5SY4401-8
5SY4315-5	5SY4315-6 new	5SY4315-7	5SY4315-8	5SY4615-5	–	5SY4615-7	5SY4615-8	5SY4415-5	–	5SY4415-7	5SY4415-8
5SY4302-5	5SY4302-6 new	5SY4302-7	5SY4302-8	5SY4602-5	–	5SY4602-7	5SY4602-8	5SY4402-5	–	5SY4402-7	5SY4402-8
5SY4303-5	5SY4303-6 new	5SY4303-7	5SY4303-8	5SY4603-5	–	5SY4603-7	5SY4603-8	5SY4403-5	–	5SY4403-7	5SY4403-8
5SY4304-5	5SY4304-6 new	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 new	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

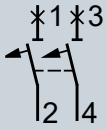
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO (AS) + 1 CO (FC)		5ST3062
Shunt trip (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		5ST3031-0XX01

Arc fault detection devices (AFDD)		Article No.
For basic units 1P+N (2 MW)	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2
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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2

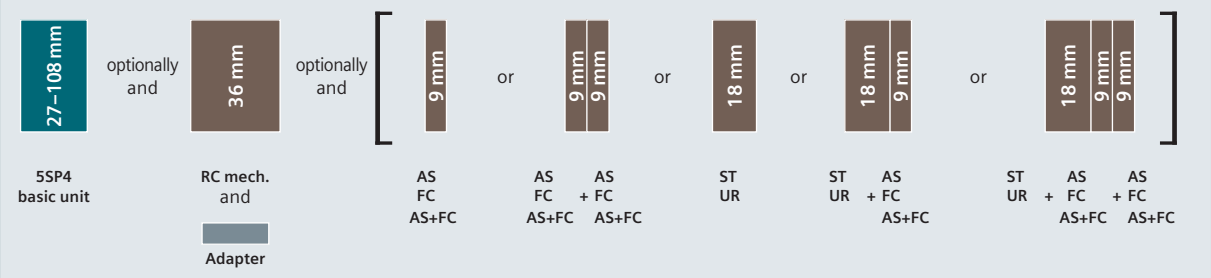
System overview, page 3/5

5SP4 miniature circuit breakers

10 kA

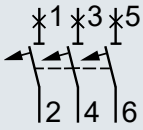
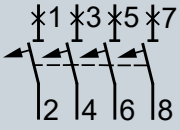
	1P 230/400 V AC			2P 400 V AC		
Mounting width	1.5 MW			3 MW		
						
Rated current I_n	Characteristic			Characteristic		
	B	C	D	B	C	D
80 A	5SP4180-6	5SP4180-7	5SP4180-8	5SP4280-6	5SP4280-7	5SP4280-8
100 A	5SP4191-6	5SP4191-7	5SP4191-8	5SP4291-6	5SP4291-7	5SP4291-8
125 A	5SP4192-6	5SP4192-7	–	5SP4292-6	5SP4292-7	–

Mounting concept



AS	Auxiliary switches	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
ST	Shunt trip	See page 3/48
UR	Undervoltage releases	See page 3/49
RC mech.	Remote controlled mechanisms	See page 3/50

System overview, page 3/5

3P 400 V AC 4.5 MW 			4P 400 V AC 6 MW 		
Characteristic			**Characteristic**		
B	**C**	**D**	**B**	**C**	**D**
5SP4380-6	5SP4380-7	5SP4380-8	5SP4480-6	5SP4480-7	5SP4480-8
5SP4391-6	5SP4391-7	5SP4391-8	5SP4491-6	5SP4491-7	5SP4491-8
5SP4392-6	5SP4392-7	–	5SP4492-6	5SP4492-7	–

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

Shunt trip (ST)	Article No.
110 ... 415 V AC, 110 ... 220 DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

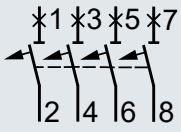
Remote controlled mechanisms (RC mech.)		Article No.
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070

Adapters for remote controlled mechanisms (RC mech.)	Article No.
1.5 MW	5ST3820-1
3–6 MW	5ST3820-2

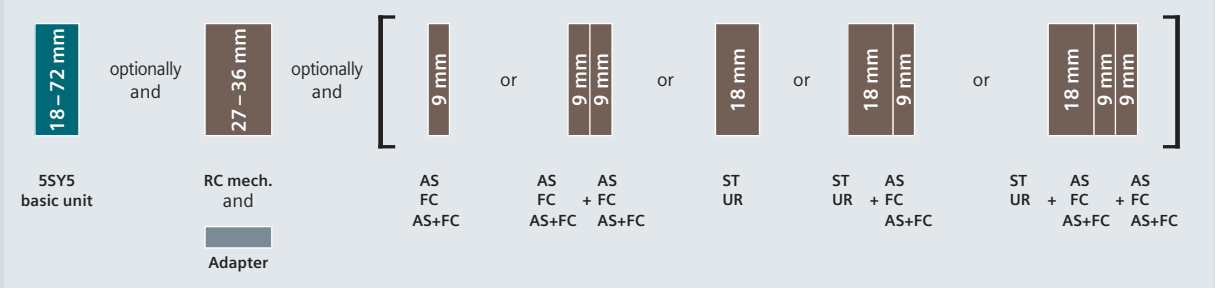
System overview, page 3/5

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 B	 C	Characteristic B	 C	Characteristic 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 new	5SY5202-7	–	5SY5402-7
3 A	–	5SY5103-7	–	5SY5203-7	–	5SY5403-7
4 A	5SY5104-6	5SY5104-7	5SY5204-6 new	5SY5204-7	–	5SY5404-7
6 A	5SY5106-6	5SY5106-7	5SY5206-6	5SY5206-7	5SY5406-6	5SY5406-7
8 A	5SY5108-6 new	5SY5108-7	5SY5208-6 new	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	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
ST	Shunt trip	See page 3/48
UR	Undervoltage releases	See page 3/49
RC mech.	Remote controlled mechanisms	See page 3/50

System overview, page 3/5

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

Shunt trip (ST)	Article No.
110 ... 415 V AC, 110 ... 220 DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

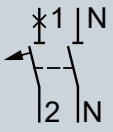
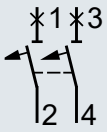
Remote controlled mechanisms (RC mech.)		Article No.
Basic	12 ... 30 V AC, 12 ... 48 V DC	5ST3053
	177 ... 270 V AC	5ST3054
Power	12 ... 30 V AC, 12 ... 48 V DC	5ST3055
	177 ... 270 V AC	5ST3056
Power with ARD	12 ... 30 V AC, 12 ... 48 V DC	5ST3057
	177 ... 270 V AC	5ST3058
Power with extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070

Adapters for remote controlled mechanisms (RC mech.)	Article No.
1–2 MW	5ST3820-1
4 MW	5ST3820-2

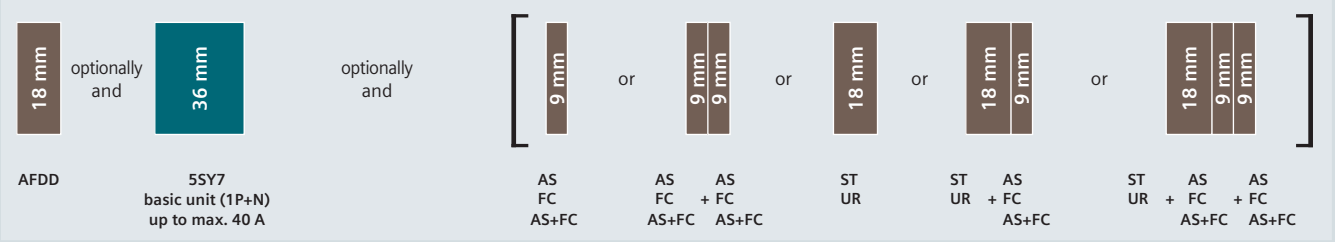
System overview, page 3/5

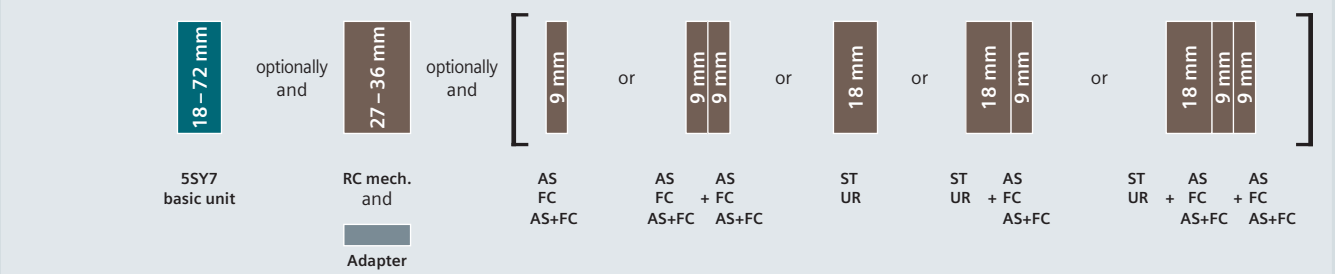
5SY7 miniature circuit breakers

15 kA

	1P 230/400 V AC			1P+N 230 V AC			2P 400 V AC		
Mounting width	1 MW			2 MW			2 MW		
									
Rated current	Main MCB, line side of meter	Characteristic			Characteristic			Characteristic		
I_n		B	C	D	B	C	D	B	C	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 devices See page 3/51
AS Auxiliary switches See page 3/44
FC Fault signal contacts See page 3/46
AS+FC Auxiliary switches and fault signal contacts See page 3/47
ST Shunt trips See page 3/48
UR Undervoltage releases See page 3/49
RC mech. Remote controlled mechanisms See page 3/50

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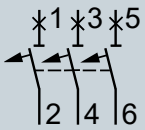
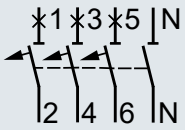
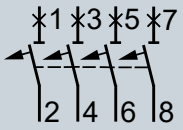
3P 400 V AC 3 MW			3P+N 400 V AC 4 MW			4P 400 V AC 4 MW		
								
Characteristic			Characteristic			Characteristic		
B	C	D	B	C	D	B	C	D
–	5SY7314-7	5SY7314-8	–	5SY7614-7	5SY7614-8	–	5SY7414-7	5SY7414-8
–	5SY7305-7	5SY7305-8	–	5SY7605-7	5SY7605-8	–	5SY7405-7	5SY7405-8
–	5SY7301-7	5SY7301-8	–	5SY7601-7	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

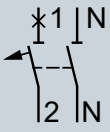
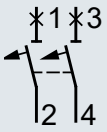
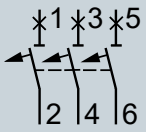
Auxiliary switches (AS)		Article No.
1 NO + 1 NC	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO	Standard	5ST3011
	For low power	5ST3014
2 NC	Standard	5ST3012
	For low power	5ST3015
1 CO	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO + 1 NC		5ST3020
2 NO		5ST3021
2 NC		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO (AS) + 1 CO (FC)		5ST3062
Shunt trip (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2
Arc fault detection devices (AFDD)		**Article No.**
For basic units 1P+N (2 MW)	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2

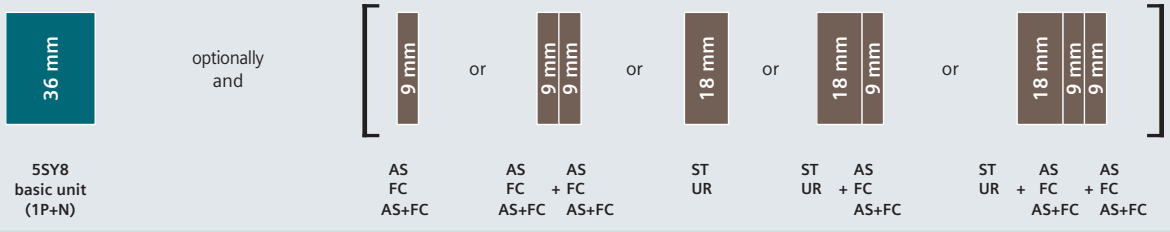
System overview, page 3/5

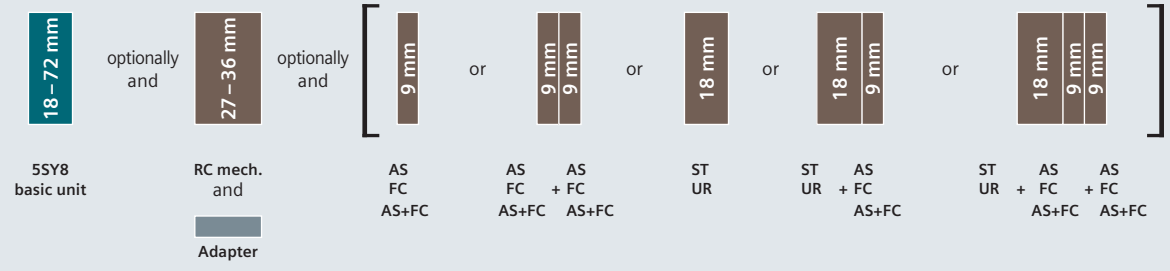
5SY8 miniature circuit breakers

25 kA

	1P 230/400 V AC		1P+N 230 V AC		2P 400 V AC		3P 400 V AC	
Mounting width	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 devices See page 3/51
AS Auxiliary switches See page 3/44
FC Fault signal contacts See page 3/46
AS+FC Auxiliary switches and fault signal contacts See page 3/47
ST Shunt trips See page 3/48
UR Undervoltage releases See page 3/49
RC mech. Remote controlled mechanisms See page 3/50

System overview, page 3/5

3P+N 400 V AC 4 MW		4P 400 V AC 4 MW	
Characteristic		Characteristic	
C	D	C	D
5SY8614-7	5SY8614-8	5SY8414-7	5SY8414-8
5SY8605-7	5SY8605-8	5SY8405-7	5SY8405-8
5SY8601-7	5SY8601-8	5SY8401-7	5SY8401-8
5SY8615-7	5SY8615-8	5SY8415-7	5SY8415-8
5SY8602-7	5SY8602-8	5SY8402-7	5SY8402-8
5SY8603-7	5SY8603-8	5SY8403-7	5SY8403-8
5SY8604-7	5SY8604-8	5SY8404-7	5SY8404-8
5SY8606-7	5SY8606-8	5SY8406-7	5SY8406-8
5SY8608-7	5SY8608-8	5SY8408-7	5SY8408-8
5SY8610-7	5SY8610-8	5SY8410-7	5SY8410-8
–	–	–	–
5SY8613-7	5SY8613-8	5SY8413-7	5SY8413-8
5SY8616-7	5SY8616-8	5SY8416-7	5SY8416-8
5SY8620-7	5SY8620-8	5SY8420-7	5SY8420-8
5SY8625-7	5SY8625-8	5SY8425-7	5SY8425-8
5SY8632-7	5SY8632-8	5SY8432-7	5SY8432-8
5SY8640-7	5SY8640-8	5SY8440-7	5SY8440-8
5SY8650-7	5SY8650-8	5SY8450-7	5SY8450-8
5SY8663-7	5SY8663-8	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
Shunt trip (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1–2 MW		5ST3820-1
3–4 MW		5ST3820-2

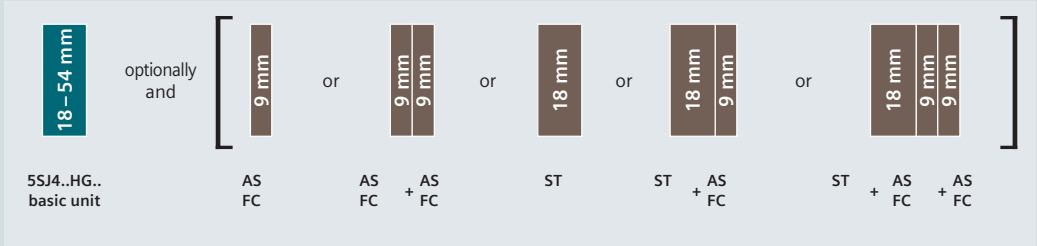
System overview, page 3/5

5SJ4..HG.. miniature circuit breakers

According to UL489, 14/10 kA

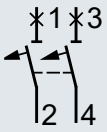
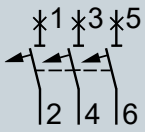
	1P "same polarity only"			1P			
	240 V AC	240 V AC	240 V AC	240 V AC	480Y/277 V AC	240 V AC	480Y/277 V AC
Mounting width	1 MW			1 MW			
							
Rated current I_n	Characteristic			Characteristic			
	B	C	D	C	C	D	D
0.3 A	–	5SJ4114-7HG40	5SJ4114-8HG40	5SJ4114-7HG41	5SJ4114-7HG42	5SJ4114-8HG41	5SJ4114-8HG42
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 3/44
FC Fault signal contacts See page 3/46
ST Shunt trip See page 3/48

System overview, page 3/5

2P				3P			
240 V AC	480Y/277 V AC	240 V AC	480Y/277 V AC	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
5SJ4230-7HG41	5SJ4230-7HG42	5SJ4230-8HG41	5SJ4230-8HG42	5SJ4330-7HG41	5SJ4330-7HG42	5SJ4330-8HG41	5SJ4330-8HG42
5SJ4232-7HG41	5SJ4232-7HG42	5SJ4232-8HG41	5SJ4232-8HG42	5SJ4332-7HG41	5SJ4332-7HG42	5SJ4332-8HG41	5SJ4332-8HG42
5SJ4235-7HG41	5SJ4235-7HG42	5SJ4235-8HG41	–	5SJ4335-7HG41	5SJ4335-7HG42	5SJ4335-8HG41	–
5SJ4240-7HG41	5SJ4240-7HG42	5SJ4240-8HG41	–	5SJ4340-7HG41	5SJ4340-7HG42	5SJ4340-8HG41	–
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	–

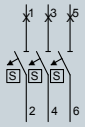
Accessories

Auxiliary switches (AS) acc. to UL 489	Article No.
1 NO + 1 NC	5ST3010-0HG
2 NO	5ST3011-0HG
2 NC	5ST3012-0HG
Fault signal contacts (FC) acc. to UL 489	**Article No.**
1 NO + 1 NC	5ST3020-0HG
2 NO	5ST3021-0HG
2 NC	5ST3022-0HG
Shunt trip (ST) acc. to UL 489	**Article No.**
110 ... 415 V AC, 110 ... 220 V DC	5ST3030-0HG
24 ... 48 V AC/DC	5ST3031-0HG

System overview, page 3/5

5SP3 selective main miniature circuit breakers (SHU)

25 kA, mounting on a 40 mm busbar

	1P 230/400 V AC				3× 1P 230/400 V AC
Mounting width	1.5 MW				4.5 MW
					
Rated current I_n	Characteristic E				Characteristic 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 40 mm busbar

	3× 1P 230/400 V AC
Mounting width	4.5 MW
	
Rated current I_n	Characteristic E
80 A	5SP3780-1
100 A	5SP3791-1

Specific accessories

Busbar adapters

- For fitting 5SP37..-1 SHU circuit breakers
- Plug-on

Busbar spacing	Article No.
40 mm	5ST1328

Breaker blocking covers

Purpose	Article No.
To prevent manual switching OFF	5ST1318

Operating protective covers (spare part)

- Multiple locking options against accidental and intentional operation
  - With padlock
  - With Phillips screwdriver
  - With special wrench (Antilux)
  - These can be installed by the operator or the power utility
- 3 units included with the main miniature circuit breaker (SHU) 5SP37..-1

Version	Article No.
Transparent	5ST1323

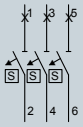
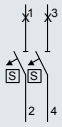
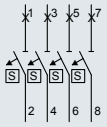
Terminal covers

- Terminal covers in compliance with cladding dimensions acc. to DIN 43880
- 2 units required per device

	Article No.
	5ST1316

System overview, page 3/5

25 kA, mounting on a mounting rail

	1P 230/400 V AC	3× 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

25 kA, mounting on a mounting rail or 40 mm busbar

	1P 230/400 V AC
Mounting width	1.5 MW
	
Rated current I_n	**Characteristic E**
80 A	5SP3780
100 A	5SP3791

Specific accessories

Mounting plates

- For mounting on standard mounting rails according to EN 60715
- For 1 or 2 standard mounting rails, universal application, tier spacing 125 mm

Article No.
5ST1322

Busbar adapters

- For fitting 3 5SP37.. SHU circuit breakers
- Plug-on

Busbar spacing	Article No.
40 mm	5ST1328

Breaker blocking covers

Purpose	Article No.
To prevent manual switching OFF	5ST1318

Operating protective covers (spare part)

- Multiple locking options against accidental and intentional operation
  - With padlock
  - With Phillips screwdriver
  - With special wrench (Antilux)
  - These can be installed by the operator or the power utility

Version	Article No.
Transparent	5ST1323

Terminal covers

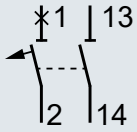
- Terminal covers in compliance with cladding dimensions acc. to DIN 43880
- 2 units required per device

Article No.
5ST1316

System overview, page 3/5

5SY17 device protection switches

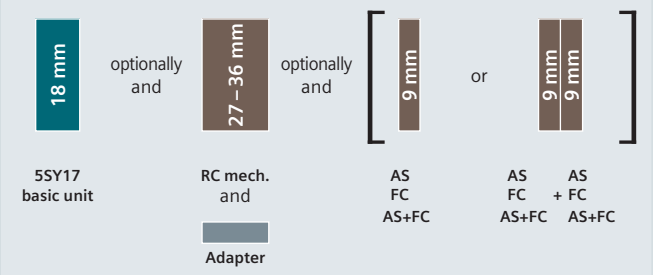
Electromechanical

	1P+AS	
	230 V AC/60 V DC	230 V AC/60 V DC
Mounting width	1 MW (18 mm)	
		

3

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	See page 3/44
FC	Fault signal contacts	See page 3/46
AS+FC	Auxiliary switches and fault signal contacts	See page 3/47
RC mech.	Remote controlled mechanisms	See page 3/50

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
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
Adapters for remote controlled mechanisms (RC mech.)		**Article No.**
1 MW		5ST3820-6

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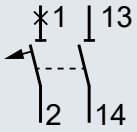
5SK9 device protection switches

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

Specific accessories

Connecting combs

Variant	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 mm² terminal blocks

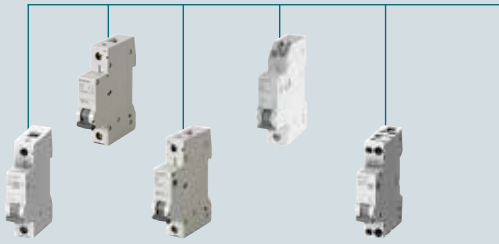
Variant	Number of poles	Max. load current I_{max}	Article No.
For bypassing the power supply	2-pole	40 A	8WH9020-0AC10

Siehe allgemeines Zubehör page 14/57 onwards

System overview, page 3/5

Overview of the modular system

Miniature circuit breakers



				5SL3	5SL6	5SL4	5SJ6...-.KS	5SL30
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)	Standard	5ST3062	■	■	■	–	■
Shunt trip (ST)			**Article No.**					
	110 ... 415 V AC, 110 ... 220 V DC		5ST3030	–	–	■	–	–
	24 ... 48 V AC/DC		5ST3031	–	–	■	–	–
	12 V DC new		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	■	■	□	–	–
5SM6 arc fault detection devices			**Article No.**					
	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	–	–	–	–	–
Standard busbars			**Article No.**					
	Cannot be cut		5ST36..	■	■	■	■	■
	Can be cut		5ST37..	■	■	■	■	■
Compact busbars			**Article No.**					
	Cannot be cut		5ST36..	□	□	□	–	■
	Can be cut		5ST37..	□	□	□	–	■

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■ Suitable for all versions □ Suitable for some versions

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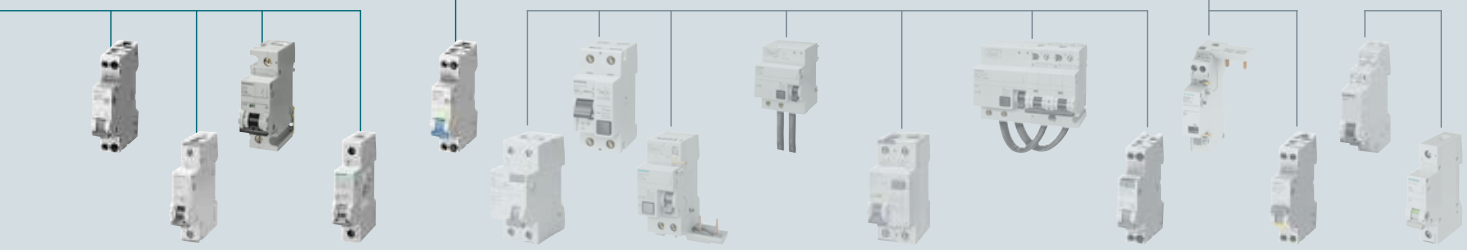
Device protection switches

Miniature circuit breakers

Residual current protective devices

Arc fault detection devices

Switching devices



5SL60	5SY	5SP4	5SJ4..HG..	5SY17	5SV	5SM3	5SM2	5SM2 (100 A)	5SU1	5SU1 (125 A)	5SV1	5SM6	5SV6	5TE8	5TL
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	–	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	–	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	–	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	–	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	–	■	■	–	■	■	■	■	■	□	■	■	■
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	–	–
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	–	–
■	■	■	...-0HG	■	■	–	■	■	■	■	■	□	■	–	–
■	■	■	–	■	■	–	■	■	■	■	■	□	■	–	–
–	■	■	...-0HG	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	...-0HG	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
–	■	■	–	–	■	–	■	■	■	■	–	□	–	–	–
□	□	■	–	■	–	–	–	–	■	–	■	–	–	–	■
□	□	■	–	■	–	–	–	–	■	–	■	–	–	–	■
□	□	■	–	■	■	–	■	–	■	–	■	–	–	–	■
□	□	■	–	■	■	–	■	–	■	–	■	–	–	–	■
□	□	■	–	■	■	–	■	–	■	–	■	–	–	–	■
□	□	■	–	■	■	–	■	–	■	–	■	–	–	–	■
□	□	■	–	■	■	–	■	–	■	–	■	–	–	–	■
–	□	–	–	–	–	–	–	–	■	–	■	–	–	–	–
□	–	–	–	–	–	–	–	–	–	–	■	–	–	–	–
–	□	–	–	–	–	–	–	–	■	–	■	–	–	–	–
□	–	–	–	–	–	–	–	–	–	–	■	–	–	–	–
■	■	■	■	■	■	–	■	■	■	■	■	□	■	□	■
■	■	■	■	■	■	–	■	■	■	■	■	□	■	□	■
■	–	–	–	■	■	–	–	–	–	–	■	■	■	–	–
■	–	–	–	–	■	–	–	–	–	–	■	■	■	–	–
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System overview, page 3/5

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				
Auxiliary switches (AS)									
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 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
Auxiliary switches (AS) with TEST button									
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 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
Auxiliary switches (AS) acc. to UL 489									
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

[1] Handle coupler 5ST3805-1 required

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Further technical specifications

		5ST3010, 5ST3010-2 5ST3011, 5ST3011-2 5ST3012, 5ST3012-2	5ST3013, 5ST3014 5ST3015, 5ST3016 5ST3013-0XX01	5ST3013-2 5ST3014-2 5ST3015-2	5ST3010-0HG 5ST3011-0HG 5ST3012-0HG
Standards					
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1			–
	UL, CSA	UL 1077, CSA C22.2 No. 235			UL 489, UL-File E321559, CSA 22.2 No. 5-02
Contacts					
Minimum contact load		50 mA, 24 V	1 mA, 5 V DC	5 mA, 5 V DC	50 mA, 24 V
Maximum contact load		–	100 mA, 30 V DC	30 mA, 30 V DC	–
Contact load acc. to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A	–		6 A
	400 V AC, AC-14	2 A	–		2 A
	24 V DC, DC-13	6 A	–		6 A (3 A)
	60 V DC, DC-13	3 A	–		3 A (1.5 A)
	110 V DC, DC-13	1 A	–		1 A (0.75 A)
	220 V DC, DC-13	1 A	–		1 A (0.5 A)
Contact load acc. to UL	120 V AC	–			6 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 A
Service life, on average, with rated load	Actuations	20000			12000
Safety					
Short-circuit protection		Miniature circuit breaker or gG 6 A fuse			
Connections					
Conductor cross-sections		0.5 ... 2.5 mm^2 (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	50 m/s^2			
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s^2			

System overview, page 3/5

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

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			
Fault signal contacts (FC)							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	1 NO + 1 NC	0.5 MW	5ST3020
					2 NO	0.5 MW	5ST3021
					2 NC	0.5 MW	5ST3022
Fault signal contacts (FC) with TEST and RESET button							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 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
Fault signal contacts (FC) acc. to UL 489							
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

[1] Handle coupler 5ST3805-1 required

Further technical specifications

		5ST3020, 5ST3020-2 5ST3021, 5ST3021-2 5ST3022, 5ST3022-2	5ST3020-0HG 5ST3021-0HG 5ST3022-0HG
Standards			
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1	
	UL, CSA	UL 1077, CSA C22.2 No. 235	UL 489, UL-File E321559, CSA 22.2 No. 5-02
Contacts			
Minimum contact load		50 mA, 24 V	
Contact load acc. to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A	
	400 V AC, AC-14	2 A	
	24 V DC, DC-13	6 A	6 A (3 A)
	60 V DC, DC-13	3 A	3 A (1.5 A)
	110 V DC, DC-13	1 A	1 A (0.75 A)
	220 V DC, DC-13	1 A	1 A (0.5 A)
Contact load acc. to UL	120 V AC	–	6 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 A
Service life, on average, with rated load	Actuations	20000	12000
Safety			
Short-circuit protection		Miniature circuit breaker or gG 6 A fuse	
Connections			
Conductor cross-sections		0.5 ... 2.5 mm² (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	50 m/s²	
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s²	

System overview, page 3/5

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			
Auxiliary switches and fault signal contacts (AS+FC)							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	1 CO (AS) + 1 CO (FC)	0.5 MW	5ST3062

[1] Handle coupler 5ST3805-1 required

Further technical specifications

		5ST3062
Standards		
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1
	UL, CSA	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 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A
	400 V AC, AC-14	2 A
Contact load acc. to IEC/EN 62019 (acc. to 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)
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^2 (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	50 m/s^2
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s^2

System overview, page 3/5

Electrical accessories

Shunt trip (ST)

- For remote-controlled tripping of the mounted device

For combining with basic units Miniature circuit breakers	RCCBs	RCBOs	Rated voltage U_n	Mounting width (1 MW = 18 mm)	Article No.
Shunt trip (ST)					
5SL4, 5SY, 5SP	5SV	5SU1 [1]	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030
			24 ... 48 V AC/DC	1 MW	5ST3031
			12 V DC new	1 MW	5ST3031-0XX01
Shunt trip (ST) acc. to UL 489					
5SJ4...-.HG	–	–	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030-0HG
			24 ... 60 V AC/DC	1 MW	5ST3031-0HG

[1] Handle coupler 5ST3805-1 required

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Further technical specifications		5ST3030	5ST3031	5ST3031-0XX01	5ST3030-0HG	5ST3031-0HG
Standards						
Standards	IEC/EN	EN 60947-1			IEC/EN 60947-1	
	UL, CSA	–			UL 489, UL-File E321559, CSA 22.2 No. 5-02	
Supply						
Primary operating range		0.7 ... 1.1 × U_n				
Rated frequency f_n		50 ... 60 Hz		–	50 ... 60 Hz	
Contacts						
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	
Safety						
Short-circuit protection		Miniature circuit breaker B/C 6 A or fuse gG 6 A				
Connections						
Conductor cross-sections		0.5 ... 2.5 mm² (AWG 22 ... 14)				
Terminals	Max. tightening torque	0.8 Nm (6.8 lb-in)				
Ambient conditions						
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	50 m/s²				
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s²				

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Undervoltage releases (UR)

- Integrated, e.g. in EMERGENCY-STOP loops
- Ensure that the mounted device trips in the event of an emergency, which, in turn, ensures disconnection of the control circuit according to EN 60204.
- Trip the mounted device if the voltage is interrupted or too low or prevents the mounted device from closing

For combining with basic units Miniature circuit breakers	RCCBs	RCBOs	Rated voltage U_n	Mounting width (1 MW = 18 mm)	Article No.
With integrated auxiliary switch					
5SL4, 5SY, 5SP4	5SV	5SU1 [1]	230 V AC	1 MW	5ST3040
			110 V DC	1 MW	5ST3041
			24 V DC	1 MW	5ST3042
Without integrated auxiliary switch					
5SL4, 5SY, 5SP4	5SV	5SU1 [1]	230 V AC	1 MW	5ST3043
			110 V DC	1 MW	5ST3044
			24 V DC	1 MW	5ST3045

[1] Handle coupler 5ST3805-1 required

Further technical specifications

		5ST304.
Standards		
Standards	IEC/EN	EN 60947-1
Supply		
Primary operating range		0.85 ... 1.1 × U_n
Rated frequency f_n		50/60 Hz
Contacts		
Minimum contact load		50 mA, 24 V
Tripping operations		Max. 2000
Service life, on average, with rated load		20000 actuations
Safety		
Short-circuit protection		Miniature circuit breaker B/C 6 A or fuse gG 6 A
Connections		
Conductor cross-sections		0.5 ... 2.5 mm² (AWG 22 ... 14)
Terminals	Max. tightening torque	0.8 Nm (6.8 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	50 m/s²
Resistance to vibrations at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s²

System overview, page 3/5

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 voltage U_n	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 DIN EN 61373 / DIN EN 50155 "1B"	12 ... 30 V AC, 12 ... 48 V DC	2 MW	5ST3070

Further technical specifications	5ST3053	5ST3054	5ST3055	5ST3056	5ST3057	5ST3058	5ST3070
Standards							
Standards	EN 50557 (VDE 0640-20)						
Supply							
Rated frequency f_n	50 ... 60 Hz						
Rated power dissipation in standby	≤1 VA						
Contacts							
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						
Sliding selector with locking device	–	■					
Integrated auxiliary switches	–		1W (1CO); 2 A; 250 V				
Integrated fault signal contact	–		1W (1CO); 2 A; 250 V				
Connections							
Conductor cross-sections	0.5 ... 1.5 mm² (AWG 14 ... 30)						
Terminal tightening torque	0.2 ... 0.25 Nm (2.0 lb-in)						
Ambient conditions							
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 miniature circuit breakers

Basic units	Mounting width 1–2 MW	3–4 MW	3–6 MW	Adapters
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

System overview, page 3/5

5SM6 arc fault detection devices (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 2-pole (no KL types)	5SV1	Up to 16 A	1 MW	5SM6011-2
			Up to 40 A	1 MW	5SM6014-2
2 MW	5SY [1], 5SL4 (1P+N devices only)	5SU1.5	Up to 16 A	1 MW	5SM6021-2
			Up to 40 A	1 MW	5SM6024-2

[1] Not for 5SY5, 5SY8, 5SL60 2-pole

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 switching 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^2
	Finely stranded with end sleeve	0.75 ... 10 mm^2
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 3/54 onwards
Suitable busbars and end caps, page 3/66 onwards

System overview, page 3/5

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

Versions	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

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

System overview, page 3/5

Device labels

- Adhesive
- For modular installation devices, e.g. 5SY, 5SL, 5TL1

Versions	Article No.
15 mm x 6 mm, white (WIN 098)	8WH8210-0AA35
15 mm x 6 mm, yellow (WIN 099)	8WH8210-0AA36

Terminal covers, gray

- For surface mounting, degree of protection IP40
- Sealable
- Can be used with 35 mm mounting rail

For widths up to	Article No.
2.5 MW	5SW3004
4.5 MW	5SW3005

Wall enclosures, gray

- For flush mounting, degree of protection IP40
- Can be used with 35 mm mounting rail

For widths up to	Article No.
2.5 MW	5SW3006
4.5 MW	5SW3007

Molded-plastic enclosures, gray

- For surface mounting, degree of protection IP54
- Sealable
- Can be used with 35 mm mounting rail
- With transparent hinged lid

For widths up to	Article No.
4.5 MW	5SW1200

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 plate	5ST2134
Angled profile	5ST2135
Alternatively flat profile	5ST2136

Holders for front panel installation

- Universal use for devices from 1 to 6 MW

Cutout height	Cutout width	Article No.
$45^{+0.5}$ mm	23, 41, 59, 77, 95 or 113 mm	7LF9006

Intermediate frames

- For 70 mm devices in 55 mm ALPHA SIMBOX small distribution boards

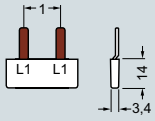
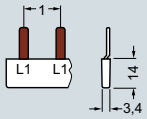
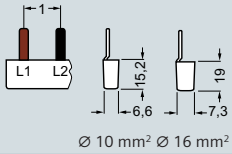
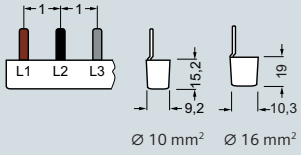
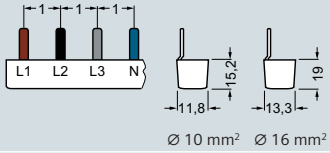
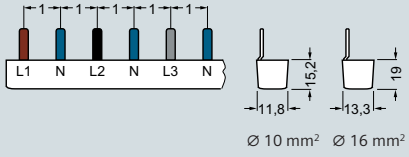
Versions	Article No.
1-tier	8GB4561
2-tier	8GB4562
3-tier	8GB4563
4-tier	8GB4564

System overview, page 3/5

Standard busbars

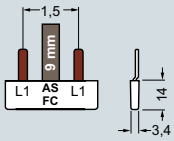
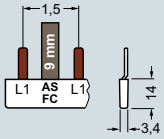
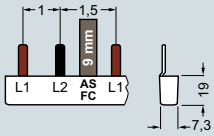
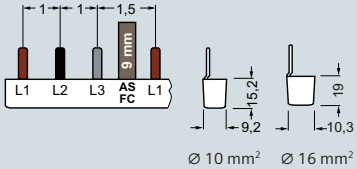
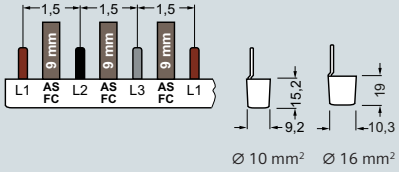
5ST36, fixed length, cannot be cut

For miniature circuit breakers (MCBs)

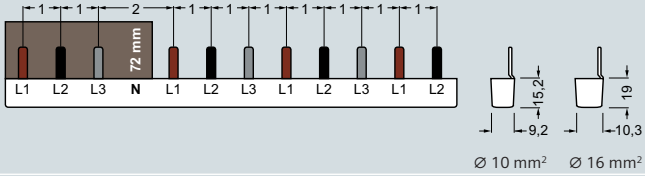
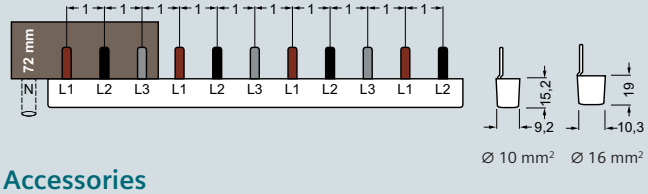
Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 10 mm²	16 mm²
Single-phase				**Article No.**	**Article No.**
	For 2 MCBs 1P	2 MW	33 mm	5ST3600	5ST3630
	For 6 MCBs 1P	6 MW	105 mm	5ST3601	5ST3631
	For 12 MCBs 1P	12 MW	212 mm	5ST3602	5ST3632
Two-phase				**Article No.**	**Article No.**
	For 2 MCBs 2P	4 MW	76 mm	5ST3606	5ST3636
	For 3 MCBs 2P	6 MW	105 mm	5ST3607	5ST3637
	For 6 MCBs 2P	12 MW	210 mm	5ST3608	5ST3638
Three-phase				**Article No.**	**Article No.**
	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
	Combi pack: 20× 5ST3613 + 10× 5ST3614 + 50× 5ST3615 + 50× 5ST3655			5ST3656	–
	Combi pack: 20× 5ST3643 + 10× 5ST3644 + 50× 5ST3645 + 50× 5ST3655			–	5ST3657
Four-phase				**Article No.**	**Article No.**
	For 2 MCBs 4P or 3P+N	8 MW	138 mm/ 140 mm	5ST3621	5ST3651
	For 3 MCBs 4P or 3P+N	12 MW	210 mm	5ST3622	5ST3652
	For 6 MCBs 2P or 1P+N	12 MW	210 mm	5ST3623	5ST3653

System overview, page 3/5

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 mm²	16 mm²
Single-phase				**Article No.**	**Article No.**
	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
Two-phase				**Article No.**	**Article No.**
	For 2 MCBs 2P	4 MW	76 mm	–	5ST3640
	For 3 MCBs 2P	6 MW	121 mm	–	5ST3641
	For 5 MCBs 2P	10 MW	210 mm	–	5ST3642
Three-phase				**Article No.**	**Article No.**
	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

For MCBs with RCCB

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 10 mm²	16 mm²
Three-phase				**Article No.**	**Article No.**
	For 8 MCBs 1P with 1 RCCB 3P+N, N right	12 MW	210 mm	5ST3624	5ST3654
	For 8 MCBs 1P with 1 RCCB 3P+N, N left	12 MW	192 mm	5ST3667	5ST3668

Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm²	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 mm²	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 mm²	Short	5ST3768
	Short, IP20	5ST3771-2
Touch protection		**Article No.**
For free connections, yellow (RAL 1004) 5× 1 pin		5ST3655

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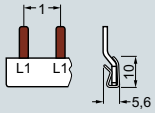
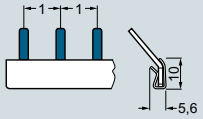
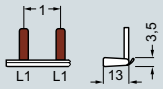
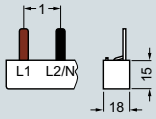
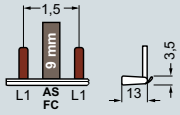
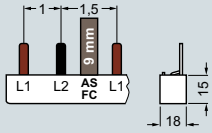
Standard busbars

5ST37, can be cut

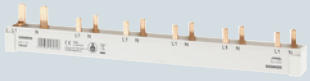
For miniature circuit breakers (MCBs)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Color	Conductor cross-section 10 mm²	16 mm²
Single-phase, straight						**Article No.**	**Article No.**
	For MCB 1P+N compact	12 MW	216 mm	■	Gray	5ST3762	–
					Blue	5ST3687-0	–
		56 MW	1016 mm	–	Gray	5ST3764	–
					Blue	5ST3787-0	–
Single-phase, angled 45°						**Article No.**	**Article No.**
	For MCB 1P+N compact	12 MW	216 mm	■	Blue	5ST3763	–
		56 MW	1016 mm	–	Blue	5ST3765	–
Single-phase, angled 90°						**Article No.**	**Article No.**
	For MCBs 1P	12 MW	214 mm	■		5ST3730	5ST3700
		56 MW	1016 mm	–		5ST3731	5ST3701
Two-phase						**Article No.**	**Article No.**
	für 2TE Geräte (2P / 1+N)	12 MW	214 mm	■		5ST3734	5ST3704
		56 MW	1016 mm	–		5ST3735	5ST3705

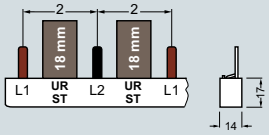
For MCBs equipped with auxiliary switch (AS) / fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.		Conductor cross-section 10 mm²	16 mm²
Single-phase, angled 90°						**Article No.**	**Article No.**
	For MCBs 1P	12 MW	214 mm	■		5ST3732	5ST3702
		56 MW	1016 mm	–		5ST3733	5ST3703
Two-phase						**Article No.**	**Article No.**
	For MCBs 2P	12 MW	214 mm	■		5ST3736	5ST3706
		56 MW	1016 mm	–		5ST3737	5ST3707

System overview, page 3/5



For MCBs equipped with undervoltage release (UR) / shunt release (ST)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm²	Conductor cross-section 16 mm²
Two-phase					**Article No.**	**Article No.**
	For MCBs 1P with UR / ST	56 MW	1016 mm	–	5ST3735-2	–

3

Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm²	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 mm²	Cable entry on the left	5ST3760-4
	Cable entry in the center	5ST3760-3
	Cable entry on the right	5ST3760-5

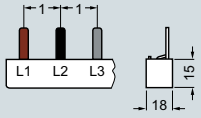
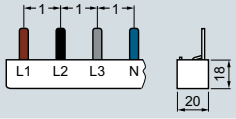
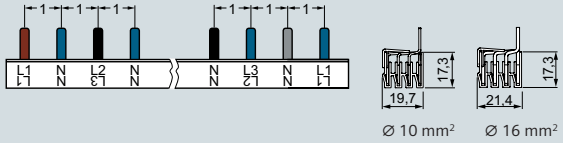
Terminals for infeed at side		Article No.
For conductors up to 25 mm²	Short	5ST3768
	Short, IP20	5ST3771-2
End caps		**Article No.**
For single-phase busbars (MCB 1P+N compact)	Gray	5ST3766
	Blue	5ST3767
	White	5ST3748
For two-phase busbars		5ST3750
Touch protection		**Article No.**
For free connections, yellow (RAL 1004) 5× 1 pin		5ST3655

System overview, page 3/5

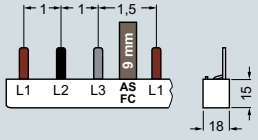
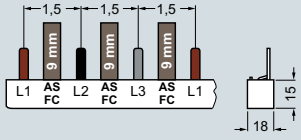
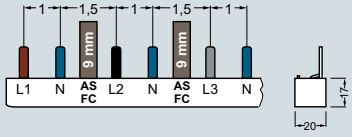
Standard busbars

5ST37, can be cut

For miniature circuit breakers (MCBs)

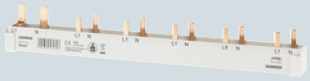
Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm²	16 mm²
Three-phase					**Article No.**	**Article No.**
	For MCBs 3P	12 MW	214 mm	■	5ST3738	5ST3708
		56 MW	1016 mm	–	5ST3740	5ST3710
Four-phase					**Article No.**	**Article No.**
	For MCBs 4P or 3P+N	12 MW	214 mm	■	5ST3745	5ST3715
		56 MW	1016 mm	–	5ST3746	5ST3716
	For RCBOs or MCBs 1P+N	56 MW	1000 mm	–	5ST3770-2	5ST3770-3

For MCBs equipped with auxiliary switch (AS) / fault signal contact (FC)

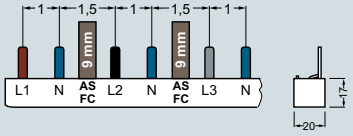
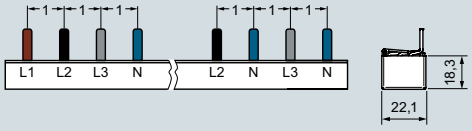
Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm²	16 mm²
Three-phase					**Article No.**	**Article No.**
	For MCBs 3P	12 MW	214 mm	■	5ST3741	5ST3711
		56 MW	1016 mm	–	5ST3742	5ST3712
	For MCBs 1P	12 MW	214 mm	■	5ST3743	5ST3713
		56 MW	1016 mm	–	5ST3744	5ST3714
Four-phase					**Article No.**	**Article No.**
	For MCBs 1P+N	56 MW	1016 mm	–	5ST3746-2	–

3

System overview, page 3/5



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 mm²	16 mm²
Four-phase					**Article No.**	**Article No.**
	For RCCBs/MCBs	56 MW	1016 mm	–	5ST3746-2	–
	For 6 MCBs 1P+N with 1 RCCB 3P+N, N right	16 MW	292 mm	■	5ST3770-4	5ST3770-5

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Accessories

Terminals for 5ST36 and 5ST37		Article No.
For conductors up to 25 mm²	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 mm²	Cable entry on the left	5ST3760-4
	Cable entry in the center	5ST3760-3
	Cable entry on the right	5ST3760-5

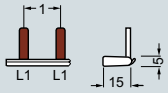
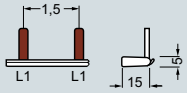
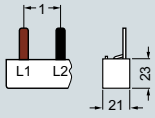
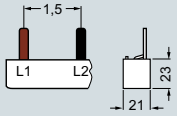
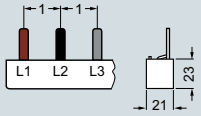
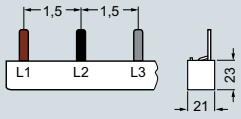
End caps	Article No.
For three-phase busbars	5ST3750
For four-phase busbars	5ST3718
Touch protection	**Article No.**
For free connections, yellow (RAL 1004) 5× 1 pin	5ST3655

System overview, page 3/5

Standard busbars

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 mm²	25 mm²
Single-phase				**Article No.**	**Article No.**
	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
Two-phase				**Article No.**	**Article No.**
	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
Three-phase				**Article No.**	**Article No.**
	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

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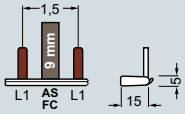
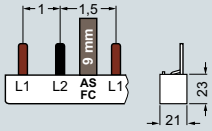
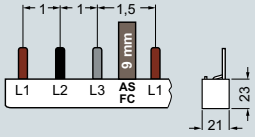
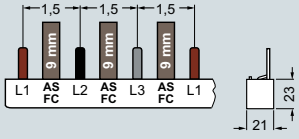
System overview, page 3/5

für LS mit angebautem Hilfsstrom- (AS) / Fehlersignalschalter (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 18 mm²	25 mm²
Single-phase				**Article No.**	**Article No.**
	For MCBs 1P	56 MW	1000 mm	5ST3703-0HG	–
Two-phase				**Article No.**	**Article No.**
	For MCBs 2P	56 MW	1000 mm	5ST3707-0HG	–
Three-phase				**Article No.**	**Article No.**
	For MCBs 3P	56 MW	1000 mm	5ST3712-0HG	–
	For MCBs 1P	56 MW	1000 mm	5ST3714-0HG	–

Accessories

Terminals according to UL 508		Article No.
For infeed at the device	35 mm²	5ST3770-0HG
For infeed at the busbar	50 mm²	5ST3770-1HG

End caps acc. to UL 508	Article No.
For single-phase busbars	5ST3748-0HG
For two- and three-phase busbars	5ST3750-0HG

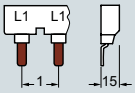
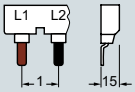
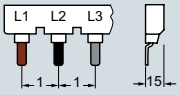
Touch protection acc. to UL 508	Article No.
For open terminals, yellow 5× 1 pin	5ST3655-0HG

System overview, page 3/5

Standard busbars

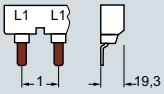
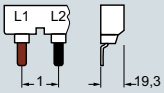
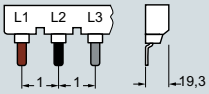
5ST3.. acc. to UL 489 specially for 5SJ4... -.HG..

Fixed length, cannot be cut, for miniature circuit breakers (MCBs) [1)]

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 16 mm²
Single-phase				**Article No.**
	For 6 MCBs 1P	6 MW	100 mm	5ST3663-0HG
	For 12 MCBs 1P	12 MW	205 mm	5ST3663-1HG
	For 18 MCBs 1P	18 MW	310 mm	5ST3663-2HG
Two-phase				**Article No.**
	For 6 MCBs 1P	6 MW	100 mm	5ST3664-0HG
	For 12 MCBs 1P	12 MW	205 mm	5ST3664-1HG
	For 18 MCBs 1P	18 MW	310 mm	5ST3664-2HG
Three-phase				**Article No.**
	For 2 MCBs 3P	6 MW	100 mm	5ST3665-0HG
	For 4 MCBs 3P	12 MW	205 mm	5ST3665-1HG
	For 6 MCBs 3P	18 MW	310 mm	5ST3665-2HG

[1)] 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 mm²
Single-phase				**Article No.**
	For MCBs 1P	56 MW	1016 mm	5ST3701-3HG
Two-phase				**Article No.**
	For MCBs 2P	56 MW	1016 mm	5ST3705-3HG
Three-phase				**Article No.**
	For MCBs 3P	56 MW	1016 mm	5ST3710-3HG

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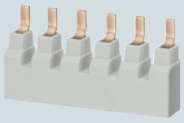
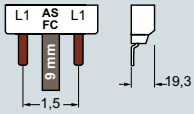
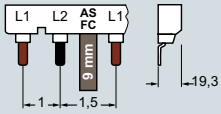
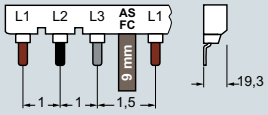
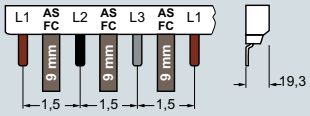


Can be cut, for MCBs equipped with auxiliary switch (AS) / fault signal contact (FC)

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	Conductor cross-section 18 mm²
Single-phase				**Article No.**
	For MCBs 1P	56 MW	1016 mm	5ST3703-3HG
Two-phase				**Article No.**
	For MCBs 2P	56 MW	1016 mm	5ST3707-3HG
Three-phase				**Article No.**
	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 mm²	5ST3666-0HG
	18 mm²	5ST3770-3HG
For infeed at the busbar	16 mm²	5ST3666-2HG
End caps acc. to UL 489		**Article No.**
For single-, two- and three-phase busbars		5ST3750-3HG
Touch protection acc. to UL 489		**Article No.**
For open terminals, yellow 3× 1 pin	For 5ST37..-.HG busbars that cannot be cut	5ST3666-1HG
	For 5ST37..-3HG busbars that can be cut	5ST3655-3HG

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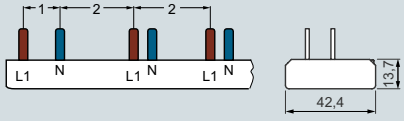
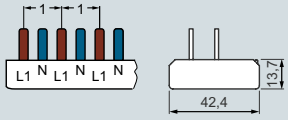
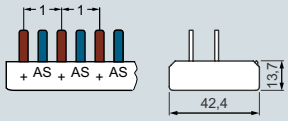
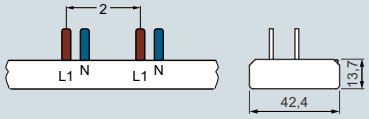
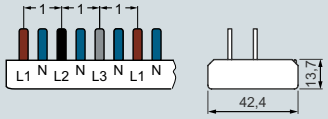
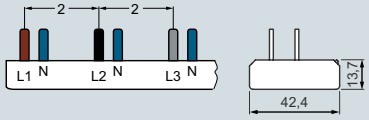
Compact busbars

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 mm²
Two-phase, for infeed via RCCB					**Article No.**
	For 1× RCCB 1P+N and 5× compact devices equipped with 5SM6 arc fault detection device	12 MW	216 mm	■	5ST3685-0
Two-phase					**Article No.**
	For compact devices	6 MW	113 mm	■	5ST3674-6 new
		9 MW	166 mm	■	5ST3674-7 new
		12 MW	218 mm	■	5ST3674-0
	For 12x CBE (device protection switch) 5SY17	12 MW	218 mm	■	5ST3674-1 new
	For 6× compact devices equipped with 5SM6 arc fault detection device	11 MW	200 mm	■	5ST3676-0
Four-phase					**Article No.**
	For compact devices	6 MW	113 mm	■	5ST3673-6 new
		9 MW	116 mm	■	5ST3673-7 new
		12 MW	218 mm	■	5ST3673-0
		14 MW	254 mm	■	5ST3673-4 new
	For 6× compact devices equipped with 5SM6 arc fault detection device	11 MW	200 mm	■	5ST3675-0

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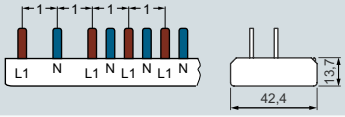
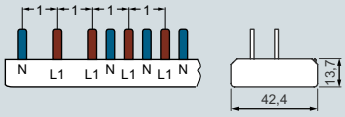
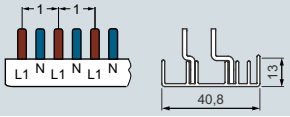
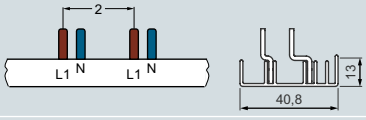
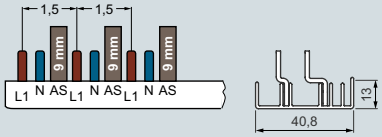
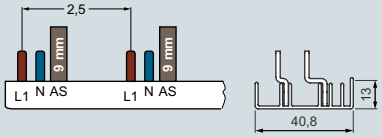
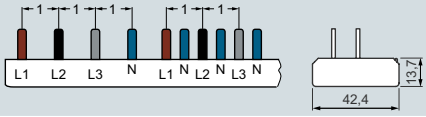
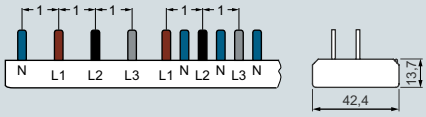
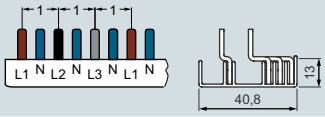
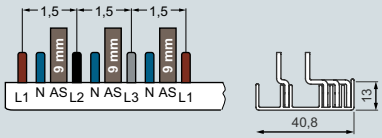
System overview, page 3/5

5ST37, can be cut

Pin spacing in MW (1 MW = 18 mm)	Application	No. of MW	Length	End caps incl.	Conductor cross-section 10 mm²
Two-phase, for infeed via RCCB					**Article No.**
	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
Two-phase					**Article No.**
	For compact devices	60 MW	1060 mm	–	5ST3774-0
	For compact devices equipped with 5SM6 arc fault detection device	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 device and auxiliary switch	58.5 MW	1036 mm	–	5ST3780-0
Four-phase, for infeed via RCCB					**Article No.**
	For 1× RCCB 3P+N and 8× compact devices	12 MW	216 mm	■	5ST3783-0
	For 1× RCCB 3P+N (RCCB N-left only) and 8× compact devices	12 MW	216 mm	■	5ST3783-0KL
Four-phase					**Article No.**
	For compact devices	60 MW	1060 mm	–	5ST3773-0
	For compact devices equipped with 5SM6 arc fault detection device	59 MW	1042 mm	–	5ST3775-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3777-0

Accessories

Terminals for infeed at side	
For conductors up to 25 mm² Short, IP20	5ST3771-2

End caps	Article No.
Two- and three-phase busbars	5ST3788-0

Touch protection		Article No.
For free connections, yellow (RAL 1004)	For pins L1, N	5ST3655
	For pins L2, L3	5ST3655-0HG

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Accessories for busbars

General accessories

Terminals

	For conductors	Version	Cable entry	Infeed	Article No.
	Up to 25 mm²	Short	–	Side	5ST3768
		Short, IP20	–	Side	5ST3771-2
	Up to 25 mm²	–	Center	–	5ST3768-3
			Left	–	5ST3768-4
			Right	–	5ST3768-5
	Up to 30 mm²	–	–	Busbar	5ST3770-1HG
	Up to 35 mm²	–	–	Device	5ST3770-0HG
	Up to 35 mm²	For 5SJ4... -.HG..	–	Miniature circuit breaker	5ST3666-0HG
		For 5ST37..-3HG that can be cut	–	Miniature circuit breaker	5ST3770-3HG
	Up to 50 mm²	–	Center	–	5ST3760-3
			Left	–	5ST3760-4
			Right	–	5ST3760-5
	Up to 50 mm²	–	–	Busbar	5ST3666-2HG

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5ST36	5ST37	5ST37 (acc. to UL 508)	5ST3.. (acc. to UL 489)	5ST3 compact
■	■			
■	■			
	■			
	■			
	■			
		■		
		■		
			■	
			■	
	■			
	■			
	■			
			■	

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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 mm² conductors	20× 5ST3613 + 10× 5ST3614 + 50× 5ST3615 + 50× 5ST3655	–	5ST3656
For 16 mm² conductors	20× 5ST3643 + 10× 5ST3644 + 50× 5ST3645 + 50× 5ST3655	For 5ST337..-3HG	5ST3657

End caps

Version	Color	Article No.
For single-phase busbars	Gray	5ST3748
For two- and three-phase busbars	Gray	5ST3750
For four-phase busbars	Gray	5ST3718
For single-, two- and three-phase busbars	Gray	5ST3750-3HG
–	Gray	5ST3766
–	Blue	5ST3767
For single-phase busbars	Gray	5ST3748-0HG
For two- and three-phase busbars	Gray	5ST3750-0HG
For two- and four-phase compact busbars	Gray	5ST3788-0

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5ST36	5ST37	5ST37 (acc. to UL 508)	5ST3.. (acc. to UL 489)	5ST3 compact
■				■
		■		■
			■	
			■	
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	■			
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			■	
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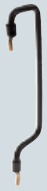
Accessories for busbars

General accessories

Series connectors



Conductor cross-section	Length of cable	Color	Number of phases	Article No.
10 mm²	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 mm²	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

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5ST36	5ST37	5ST37 (acc. to UL 508)	5ST3.. (acc. to UL 489)	5ST3 compact
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			
	■			

System overview, page 3/5

Distribution blocks for standard rail mounting

Acc. to IEC

Distribution blocks acc. to IEC

	Number of poles	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
Standards					
Standards			IEC 60947-7-1		
Supply					
Operational voltage AC			690 V		
Max. rated current			80 A	125 A	160 A
Conductor cross-section					
Inputs per pole	Solid/stranded		1× 2.5 ... 16 mm²	1× 6 ... 35 mm²	1× 10 ... 50 mm²
	Finely stranded with end sleeve		1× 1.5 ... 10 mm²	1× 6 ... 25 mm²	1× 10 ... 35 mm²
Outputs per pole	Solid/stranded		8× 1.5 ... 10 mm²	5× 1.5 ... 6 mm² 2× 4 ... 16 mm²	8× 2.5 ... 16 mm² 3× 10 ... 35 mm²
	Finely stranded with end sleeve		8× 1.5 ... 10 mm²	5× 1.5 ... 6 mm² (small) 2× 4 ... 10 mm² (large)	8× 1.5 ... 16 mm² (small) 3× 10 ... 25 mm² (large)
Tightening torque					
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
Safety					
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
Ambient conditions					
Permissible ambient temperature			–25 ... +70 °C		
Degree of protection	Acc. to EN 60529		IP 20		
Approved cable			Copper		

System overview, page 3/5

According to IEC and UL

Distribution blocks acc. to IEC and UL

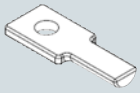
Number of poles	Operational voltage U_e	Rated current I_e	Mounting width	Article No.
1-pole	600 V AC	80 A	1.5 MW	5ST2504
		125 A	1.5 MW	5ST2505
		160 A	2 MW	5ST2507
		250 A	2.5 MW	5ST2508
		350 A	2.5 MW	5ST2511

Connector for 5ST2505 distribution board

- Touch protection
- 20 mm²
- 32 mm

Version	Article No.
Single-phase	5ST2506

Terminal lug for ring terminal ends



Versions	Article No.
For 5ST2508 distribution block	5ST2510
For 5ST2511 distribution block	5ST2512

Further technical specifications

			5ST2504	5ST2505	5ST2507	5ST2508	5ST2511
Standards							
Standards			UL 1059 / UL 486E / IEC 60947-7-1 UL File No. E80027 / XCFR2 C22.2 No. 158 -1987 / XCFR8				
Supply							
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
Conductor cross-section							
Inputs per pole	Solid/stranded	Large	3× 2.5 ... 25 mm²	10 ... 35 mm²	10 ... 70 mm²	35 ... 120 mm²	95 ... 185 mm²
			AWG 3× 14 ... 4	AWG 1× 8 ... 2	AWG 1× 8 ... 2/0	AWG 1× 2 ... 4/0	AWG 1× 3/0 ... 350 MCM
		Small	–	2.5 ... 25 mm²	–		
			–	AWG 1× 14 ... 6	–		
	Finely stranded with end sleeve	Large	3× 2.5 ... 16 mm²	10 ... 35 mm²	10 ... 50 mm²	35 ... 95 mm²	95 ... 150 mm²
			AWG 3× 14 ... 6	AWG 1× 8 ... 2	AWG 1× 8 ... 1	AWG 1× 2 ... 3/0	AWG 3/0 ... 300 MCM
		Small	–	2.5 ... 25 mm²	–		
			–	AWG 1× 14 ... 6	–		
Outputs per pole	Solid/stranded	Top	2.5 ... 6 mm²	2.5 ... 16 mm²	2.5 ... 16 mm²	2.5 ... 10 mm²	2× 2.5... 35 mm²
			AWG 4× 14 ... 10	AWG 6× 14 ... 4	AWG 6× 14 ... 4	AWG 4× 16 ... 8	AWG 2× 14 ... 2
		Center	–			2.5 ... 16 mm²	5× 2.5 ... 16 mm²
			–			AWG 5 x 14 ... 6	
		Bottom	2.5 ... 6 mm²	–		2× 2.5... 35 mm²	4× 2.5 ... 10 mm²
			AWG 4× 14 ... 10	–		AWG 2 x 14 ... 2	AWG 4 x 14 ... 8
	Finely stranded with end sleeve	Top	2.5 ... 6 mm²	2.5 ... 16 mm²		2× 2.5... 25 mm²	
			AWG 4× 14 ... 10	AWG 6× 14 ... 6	AWG 6× 14 ... 4	AWG 2× 14 ... 4	
		Bottom	2.5 ... 6 mm²	–		2× 2.5... 25 mm²	4× 2.5 ... 25 mm²
			AWG 4× 14 ... 10	–		AWG 2 x 14 ... 4	AWG 5 x 14 ... 4

Continued on next page

System overview, page 3/5

Distribution blocks for standard rail mounting

According to IEC and UL (continued)

Further technical specifications			5ST2504	5ST2505	5ST2507	5ST2508	5ST2511
Tightening torque							
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	
Safety							
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)				
Ambient conditions							
Permissible ambient temperature			–25 ... +70 °C				
Degree of protection	Acc. to EN 60529		IP20				
Fire class			UL 94V-0				
Approved cable			Copper				

System overview, page 3/5

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 mm²	Black	5ST2523
		Blue	5ST2524
	10 mm²	Black	5ST2525
		Blue	5ST2526
200 mm	6 mm²	Black	5ST2527
		Blue	5ST2528
	10 mm²	Black	5ST2530
		Blue	5ST2531

Crimp connector

- For connection to cables 4/6 mm²

Article No.
5ST2532

Mounting brackets

- For mounting on the rear of the standard mounting rail (pair)

Article No.
5ST2533

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 mm²), 63 A (10 mm²)
Connecting cable type	H07VK
Ambient temperature	−5 ... +60 °C

System overview, page 3/5

More safety for humans, plants and assets

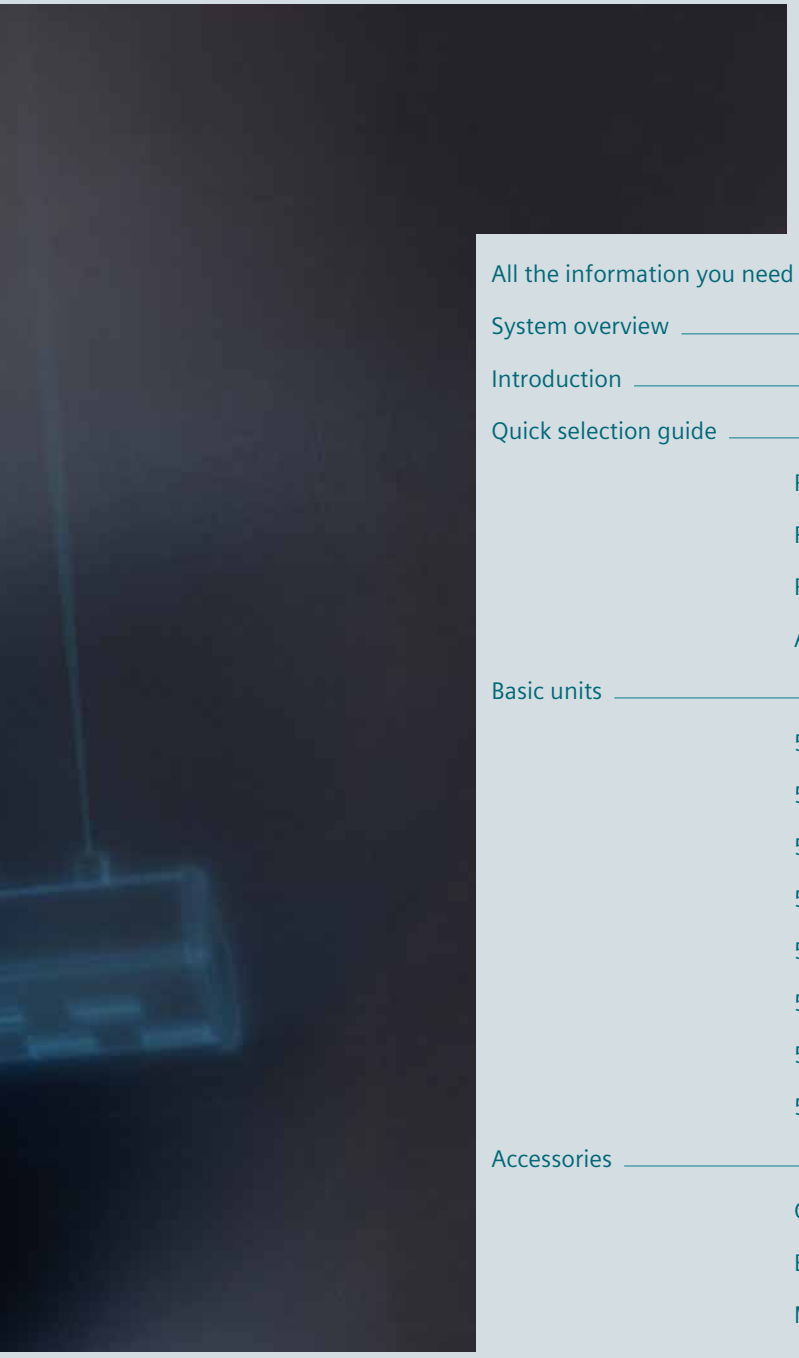
The number of electrical consumers in residential homes and commercial buildings has increased dramatically in recent decades.

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 Proctive Devices / Arc Fault Detection Devices (AFDDs)



A multitude of additional information ...

Information + ordering

All the important things at a glance

Information to get you started

For information about residual current protective devices / arc fault detection devices, please visit our websites
www.siemens.com/rccb
www.siemens.com/protection-concept

Contact persons in your region

We are there when you need us

You can find your local contacts at
www.siemens.com/lowvoltage/contact

Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
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

Use our conversion tool for quick and easy conversion to Siemens products www.siemens.com/conversion-tool

Siemens YouTube channel

Our video range

- Residual current protective devices (general)
  bit.ly/2kKQhCj

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

Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog or by entering this web address incl. Article No.
www.siemens.com/product?Article No.

... can be found in our online services

Commissioning + operation

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Characteristic curves
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- Configuration manual – Residual current protective devices / arc fault detection devices (45303255)

The fast track to the experts

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/lowvoltage/support-request

We offer a comprehensive portfolio of services.
You can find your local contacts at
www.siemens.com/lowvoltage/contact

You can find further information on services at
www.siemens.com/service-catalog

Training and tutorials

Our training courses can be found at
www.siemens.com/sitrain-lowvoltage

- Protection concept (WT-LVBPC)
- 5SM6 arc fault detection devices (WT-LVBAFDD)

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 (109769082)

System overview

Basic devices and accessories

Basic units


5SV3 RCCBs


5SM3 RCCBs


5SM2 RC units


5SU1 RCBOs


5SV1 RCBOs


5SM6 and 5SV6
arc fault detection devices

4

Electrical accessories


Auxiliary switches (AS)


Fault signal contacts (FC)


Auxiliary switches and fault signal contacts (AS+FC)


Shunt releases (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 enclosure


For 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

					6 mA	10 mA		
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 creep and air distances 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 $I_{\Delta n}$ ≤30 mA

Error protection $I_{\Delta n}$ >30 mA

Fire protection $I_{\Delta n}$ ≤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 / Type B+			–	–	–
Surge current withstand capability 8/20 µs					
Type A		kA	>1	>1	>3
Type F		kA	–	–	>3
Type B / Type B+		kA	–	–	–
Minimum operational voltage for test function operation					
30-mA devices		V AC	195		
Non-30-mA devices		V AC	100		
24 V devices		V AC	20		
Terminal conductor cross-sections					
1-wire	Solid/stranded	mm^2	0.75 ... 35		
	Finely stranded with end sleeve	mm^2	0.75 ... 25		
	Finely stranded without end sleeve	mm^2	1 ... 35		
2-wire, same cross-section, same conductor type	Solid/stranded	mm^2	0.75 ... 10		
	Finely stranded with end sleeve	mm^2	0.75 ... 4		
	Finely stranded without end sleeve	mm^2	1 ... 4		
1-wire + busbar (pin thickness 1.5 mm)	Solid/stranded	mm^2	10 ... 25		
	Finely stranded with non-insulated end sleeve	mm^2	6 ... 25		
	Finely stranded with insulated end sleeve	mm^2	6 ... 16		
Terminal tightening torque		Nm	2.5... 3.5		
Poles					
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		
Standards					
			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 switching cycles		>10000		
Test button Test cycles			Half-yearly [1] | SIGRES annually [2]		
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 to +75 °C		
	Ambient temperature	°C	-25 to +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		
More information					
Catalog LV 10			See page 4/18		

[1] Extension to annual test interval under certain conditions
[2] Extension to four-yearly test interval under certain conditions

System overview, page 4/4



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), EC/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		>10 000	
Half-yearly [1] | SIGRES annually [2]			Annually [2]		Half-yearly	
IP20, if the distribution board is installed, with connected conductors						
Finger and back-of-hand safe						
-40 to +75 °C						
-25 to +45, marked with ❄						
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 4/18			See page 4/26		See page 4/30	

System overview, page 4/4

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^2	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 switching cycles		>10000
Test button Test cycles			half-yearly [1]
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 to +75 °C
	Ambient temperature	°C	-25 to +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			
Catalog LV 10			See page 4/32

[1] Extension to annual test interval under certain conditions

System overview, page 4/4

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 [1]	half-yearly [1]	half-yearly [1]	half-yearly [1]
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 to +75 °C		-40 to +75 °C	
-25 to +45, marked with		-25 to +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	
See page 4/32		See page 4/32	

System overview, page 4/4

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			–	■	–
Surge current withstand capability 8/20 µs 8/20 µs					
Type A		kA	>1	>3	>5
Type F		kA	–	>3	–
Minimum voltage for operation of the test equipment					
30-mA devices		AC V	195		
Non-30-mA devices		AC V	100		
Terminal conductor cross-sections					
1 conductor at front + busbar at rear	Solid/stranded	mm^2	0.75 ... 35		
	Finely stranded with end sleeve	mm^2	0.75 ... 25		
	Finely stranded without end sleeve	mm^2	1 ... 25		
2 conductors at rear	Solid/stranded	mm^2	0.75 ... 6		
	Finely stranded with non-insulated end sleeve	mm^2	0.75 ... 4		
	Finely stranded with insulated end sleeve	mm^2	0.75 ... 4		
	Finely stranded without end sleeve	mm^2	1 ... 4		
Terminal tightening torque		Nm	2.5 ... 3.0		
Poles					
Number of poles			1P+N | 2P		
Rated voltage U_n		AC V	110 | 230		
Operating frequency		Hz	50 | 50/60		
Standards					
			IEC/DIN EN 61009-1 (VDE 0664-20), IEC/DIN EN 61009-2-1 (VDE 0664-21), IEC/DIN EN 61543 (VDE 0664-30), IEC/DIN 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 switching cycles		>10000		
Test button Test cycles			Half-yearly [1]		
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 to +75 °C		
	Ambient temperature	°C	-25 to +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		
More information					
Catalog LV 10			See page 4/42		

[1] Extension to annual test interval under certain conditions

System overview, page 4/4

5SV1		5SU1 (125 A)		5SU1 (100 A, 125 A)	
Instantaneous	Short-time delayed / Super resistant	Instantaneous	Short-time delayed / Super resistant	Short-time delayed / Super resistant	Selective [S]
■	–	■	■	–	–
■	■	■	■	–	–
–	–	–	–	■	■
–	–	–	–	■	■
–	■	–	–	–	–
>1	>3	>1	>3	>3	>5
–	>3	–	–	–	–
195		195		195	
100		100		100	
0.75 ... 16		25 ... 50		20 ... 50	
0.75 ... 10		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		3.0 ... 3.5		3.0 ... 3.5	
1P+N		2P | 4P		4P	
230		230 | 400		400 | 430	
50 | 50/60		50 | 50/60		50/60	
IEC/DIN EN 61009-1 (VDE 0664-20), IEC/DIN EN 61009-2-1 (VDE 0664-21), IEC/DIN EN 61543 (VDE 0664-30), IEC/DIN EN 62423 (VDE 0664-40)		IEC/DIN EN 61009-1 (VDE 0664-20), IEC/DIN EN 61009-2-1 (VDE 0664-21), IEC/DIN EN 61543 (VDE 0664-30), IEC/DIN EN 62423 (VDE 0664-40)		IEC/DIN EN 61009-1 (VDE 0664-20), IEC/DIN EN 61009-2-1 (VDE 0664-21), IEC/DIN EN 61543 (VDE 0664-30), IEC/DIN EN 62423 (VDE 0664-40)	
30, 300		30, 300, 1000		30, 300	
2 ... 16		125		100, 125	
4.5 | 6		10		10	
N right		N right | N left		N right | N left	
>10 000		>10000		>10000	
Half-yearly [1]		Half-yearly [1]		Half-yearly [1]	
IP20, if the distribution board is installed, with connected conductors					
Finger and back-of-hand safe					
-40 to +75 °C					
-25 to +45, marked with					
28 cycles (55 °C; 95% rel. air humidity)					
■		■		■	
Top | bottom		Top | bottom		Top | bottom	
3		3		3	
III | 2		III | 2		III | 2	
See page 4/48		See page 4/42		See page 4/47	

System overview, page 4/4

Arc fault detection devices (AFDD)



			5SM6	5SV6	5SV6....KP..
Poles					
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^2	0.75 ... 16	0.75 ... 16	0.75 ... 16 (top) 0.75 ... 35 (bottom)
Finely stranded with end sleeve		mm^2	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 switching cycles		>10000	>10000	>10000
Mounting position			Any	Any	Any
Degree of protection	Acc. to EN 60529 (VDE 0470-1)		IP20, with connected conductors		
Touch protection	Acc. to EN 50274 (VDE 0660-514)		Finger and back-of-hand safe		
Temperatures	Storage temperature	°C	-40 to +75 °C		
	Ambient temperature	°C	-25 to +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			Bottom	Top | bottom	Bottom
Overvoltage category | Pollution degree			III | 2	III | 2	III | 2
Tripping in the event of overvoltage		V	>275	>285	>285
More information					
Catalog LV 10			See page 4/50	See page 4/51	See page 4/51

System overview, page 4/4

System overview, page 4/4

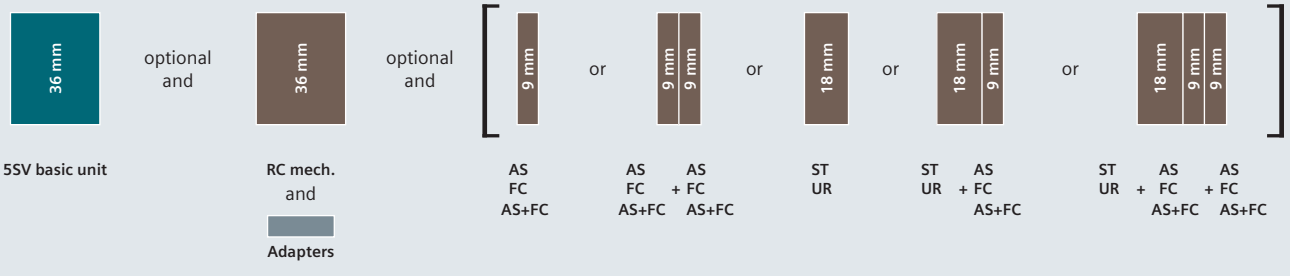
5SV RCCBs

Type A, 1P+N (2 MW)

				Instantaneous			Instantaneous (only available in Belgium) [2]
				24 ... 125 V AC	230 V AC		230 V AC
			N connection	Right	Right	Left	Right
							
$I_{\Delta n}$	I_n	Thermal overload protection [1]	Bulk packaging (36 units)				
Type A							
10 mA	16 A	–	–	–	5SV3111-6	5SV3111-6KL	–
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	–	–
		■	–	–	5SV3314-6LA	–	–
	63 A	–	–	5SV3316-6KK13	5SV3316-6	5SV3316-6KL	5SV3316-6BA
	80 A	–	–	–	5SV3317-6	5SV3317-6KL	–
100 mA	25 A	–	–	–	5SV3412-6	5SV3412-6KL	5SV3612-6BA
	40 A	–	–	–	5SV3414-6	5SV3414-6KL	5SV3614-6BA
	63 A	–	–	–	5SV3416-6	5SV3416-6KL	5SV3616-6BA
	80 A	–	–	–	5SV3417-6	5SV3417-6KL	–
300 mA	25 A	–	–	–	5SV3612-6	5SV3612-6KL	–
	40 A	–	–	–	5SV3614-6	5SV3614-6KL	–
	63 A	–	–	–	5SV3616-6	5SV3616-6KL	–
	80 A	–	–	–	5SV3617-6	5SV3617-6KL	–

[1] Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).
[2] 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	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

SIGRES, instantaneous 230 V AC	Short-time delayed [G] 230 V AC	Super resistant [K] 230 V AC	Selective [S] 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)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO contact + 1 NC contact		5ST3020
2 NO contacts		5ST3021
2 NC contacts		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO contact (AS) + 1 CO contact (FC)		5ST3062
Shunt releases (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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.**
2 MW		5ST3820-6

System overview, page 4/4

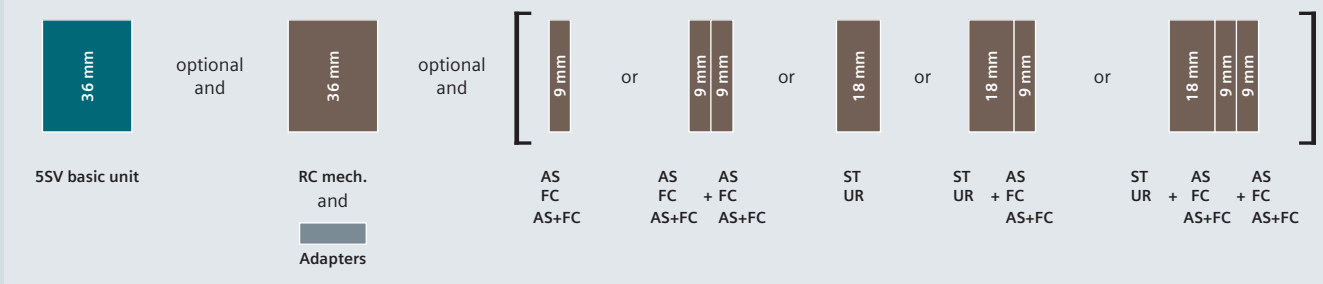
5SV RCCBs

Type F, 1P+N (2 MW)

		Super resistant [K] 230 V AC	Selective [S] 230 V AC
N connection		Right	Right
			
$I_{\Delta n}$	I_n		
Type F			
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

4

Mounting concept



AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

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Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
2 MW	5ST3820-6

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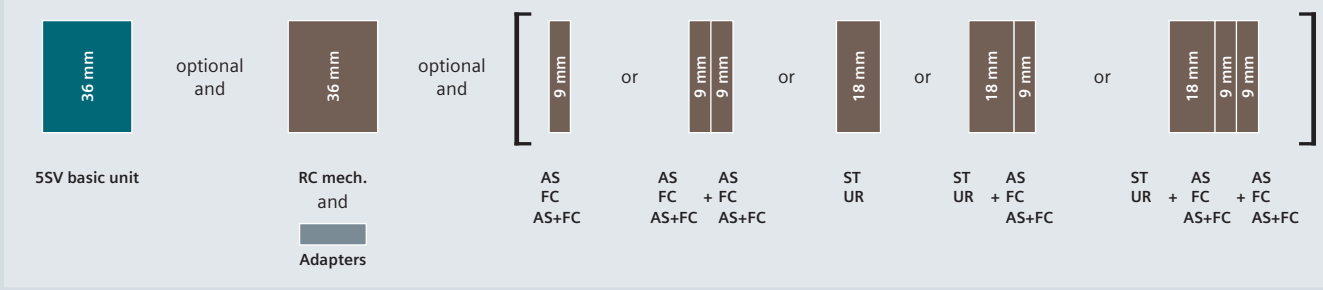
5SV RCCBs

Type AC, 1P+N (2 MW)

				Instantaneous			Short-time delayed [G]
				230 V AC		24 ... 125 V AC	230 V AC
			N connection	Right	Left	Right	Right
							
$I_{\Delta n}$	I_n	Thermal overload protection [1]	Bulk packaging (36 units)				
Type AC							
10 mA	16 A	–	–	5SV4111-0	5SV4111-0KL	–	–
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	5SV4314-0LA01
		–	■	5SV4314-0GV01	5SV4314-0GV02	–	–
		■	–	5SV4314-0LA	–	–	–
	63 A	–	–	5SV4316-0	5SV4316-0KL	5SV4316-0KK13	–
	80 A	–	–	5SV4317-0	5SV4317-0KL	–	–
100 mA	25 A	–	–	5SV4412-0	–	–	–
	40 A	–	–	5SV4414-0	5SV4414-0KL	–	–
	63 A	–	–	5SV4416-0	5SV4416-0KL	–	–
	80 A	–	–	5SV4417-0	–	–	–
300 mA	25 A	–	–	5SV4612-0	5SV4612-0KL	–	–
	40 A	–	–	5SV4614-0	5SV4614-0KL	–	–
	63 A	–	–	5SV4616-0	5SV4616-0KL	–	–
	80 A	–	–	5SV4617-0	5SV4617-0KL	–	–

[1] Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).

Mounting concept



AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
2 MW	5ST3820-6

System overview, page 4/4

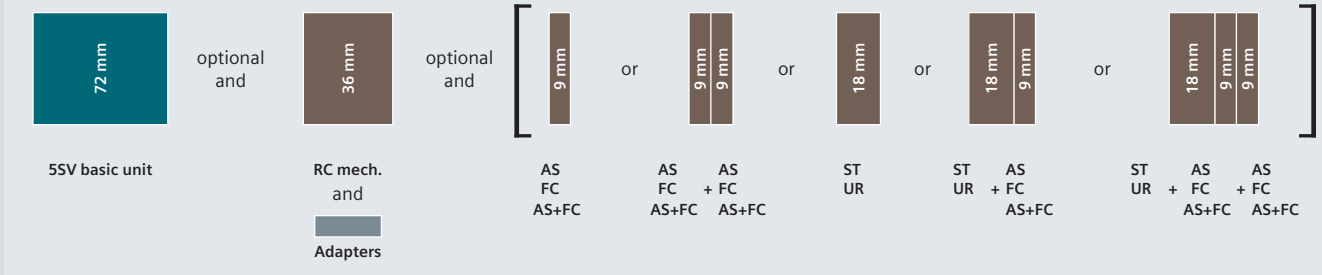
5SV RCCBs

Type A, 3P + N (4 MW)

				Instantaneous			
				400 V AC		400 V AC/400 Hz	500 V AC
			N connection	Right	Left	Right	Right
							
$I_{\Delta n}$	I_n	Thermal overload protection [1]	Bulk packaging (18 units)				
Type A							
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	–	–
		■	–	5SV3344-6LA	–	–	–
	63 A	–	–	5SV3346-6	5SV3346-6KL	–	5SV3356-6
		–	■	5SV3346-6GV01	–	–	–
		■	–	5SV3346-6LA	–	–	–
	80 A	–	–	5SV3347-6	5SV3347-6KL	–	5SV3357-6
100 mA	25 A	–	–	5SV3442-6	–	–	–
	40 A	–	–	5SV3444-6	–	–	–
		■	–	5SV3444-6LA	–	–	–
	63 A	–	–	5SV3446-6	–	–	–
		■	–	5SV3446-6LA	–	–	–
	80 A	–	–	5SV3447-6	–	–	–
300 mA	25 A	–	–	5SV3642-6	5SV3642-6KL	–	5SV3652-6
	40 A	–	–	5SV3644-6	5SV3644-6KL	–	5SV3654-6
		■	–	–	–	–	–
	63 A	–	–	5SV3646-6	5SV3646-6KL	–	5SV3656-6
		■	–	–	–	–	–
	80 A	–		5SV3647-6	5SV3647-6KL	–	5SV3657-6
500 mA	25 A	–	–	5SV3742-6	–	–	–
	40 A	–	–	5SV3744-6	–	–	–
	63 A	–	–	5SV3746-6	5SV3746-6KL	–	–
		–	■	5SV3746-6GV01	–	–	–
	80 A	–	–	5SV3747-6	–	–	–
1000 mA	63 A	–	–	–	–	–	–

[1] Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).
[2] 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	See page 4/54	ST	Shunt release	See page 4/59
FC	Fault signal contact	See page 4/56	UR	Undervoltage release	See page 4/60
AS+FC	Auxiliary switch and fault signal contact	See page 4/58	RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Instantaneous (only available in Belgium) [2] 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 contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
4 MW	5ST3820-6

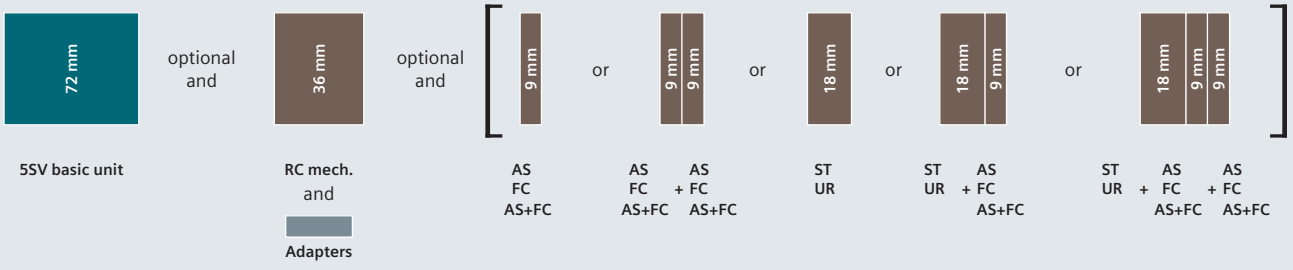
System overview, page 4/4

5SV RCCBs

Type F, 3P+N (4 MW)

		Super resistant [K] 400 V AC	Selective [S] 400 V AC
N connection		Right	Right
			
$I_{\Delta n}$	I_n		
Type F			
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	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
4 MW	5ST3820-6

System overview, page 4/4

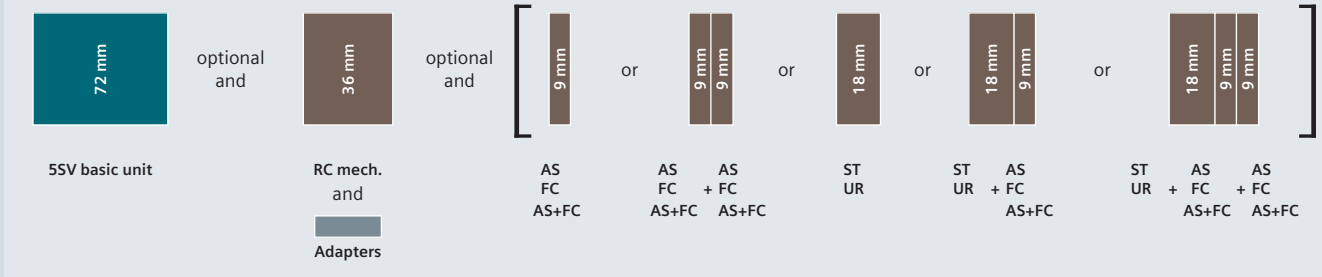
5SV RCCBs

Type AC, 3P+N (4 MW)

				Instantaneous 400 V AC		Short-time delayed [G] 400 V AC
			N connection	Right	Left	Right
						
$I_{\Delta n}$	I_n	Thermal overload protection [1]	Bulk packaging (18 units)			
Type AC						
30 mA	25 A	–	–	5SV4342-0	5SV4342-0KL	–
		–	■	5SV4342-0GV01	–	–
	40 A	–	–	5SV4344-0	5SV4344-0KL	5SV4344-0LA01
		–	■	5SV4344-0GV01	–	–
		■	–	5SV4344-0LA	–	–
	63 A	–	–	5SV4346-0	5SV4346-0KL	5SV4346-0LA01
		■	–	5SV4346-0LA	–	–
	80 A	–	–	5SV4347-0	5SV4347-0KL	–
100 mA	25 A	–	–	5SV4442-0	–	–
	40 A	–	–	5SV4444-0	–	5SV4444-0LA01
		■	–	5SV4444-0LA	–	–
	63 A	–	–	5SV4446-0	–	5SV4446-0LA01
		■	–	5SV4446-0LA	–	–
	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	–	–

[1] Thermal overload protection according to ÖVE/ÖNORM E 8001 possible up to rated current of the RCCB (40 A, 63 A).

Mounting concept



AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
4 MW	5ST3820-6

System overview, page 4/4

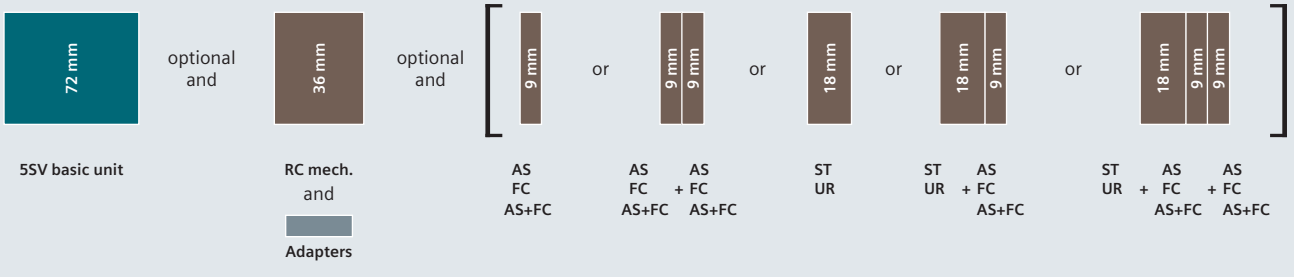
5SV3 RCCBs (SIQUENCE)

Type B, 1P+N (4 MW)

	SIGRES, super resistant [K] 230 V AC
N connection	Right

$I_{\Delta n}$	I_n	Bulk packaging (18 units)	
Type 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	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
4 MW	5ST3820-6

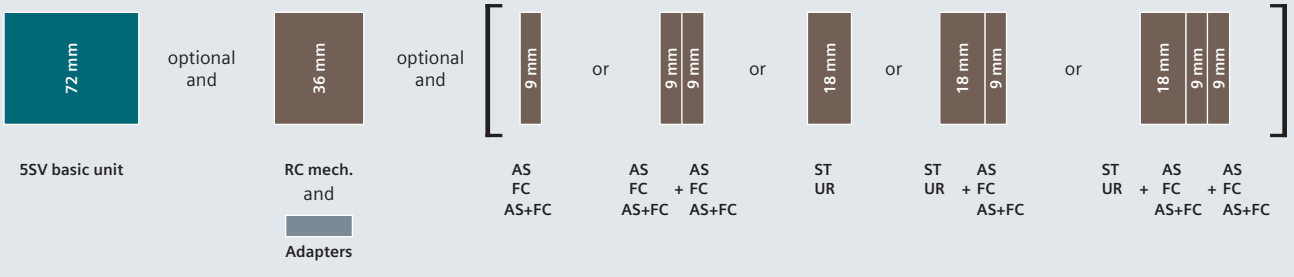
System overview, page 4/4

5SV3 RCCBs (SIQUENCE)

Type B and B +, 3P+N (4 MW)

			SIGRES, super resistant [K] 230 ... 400 V AC	SIGRES, selective [S] 230 ... 400 V AC
		N connection	Right	Right
				
$I_{\Delta n}$	I_n	Bulk packaging (18 units)		
Type 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
Type 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	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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.
4 MW	5ST3820-6

System overview, page 4/4

5SM3 RCCBs

Type A and AC, 1P+N (2 MW), high-current

		Instantaneous 230 V AC
	N connection	Right
		
$I_{\Delta n}$	I_n	
Type A		
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
Type AC		
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

4

System overview, page 4/4

Type A and AC, 3P + N (4 MW), high-current

		Instantaneous 400 V AC	Selective [S] 400 V AC
N connection		Right	Right
			
$I_{\Delta n}$	**I_n**		
Type A			
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
Type AC			
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	–

System overview, page 4/4

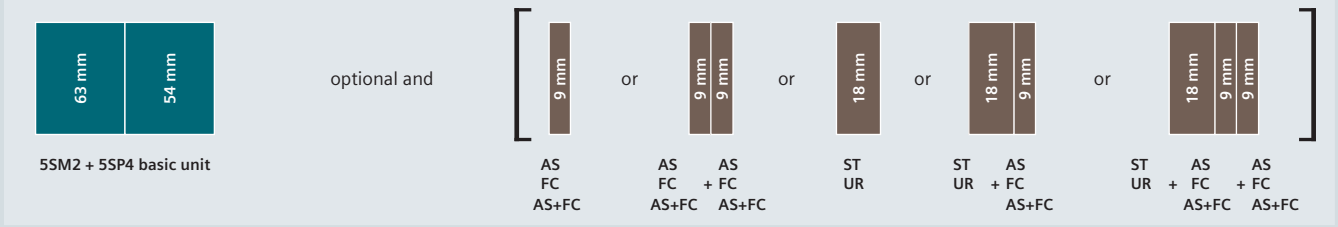
5SM2 RC units

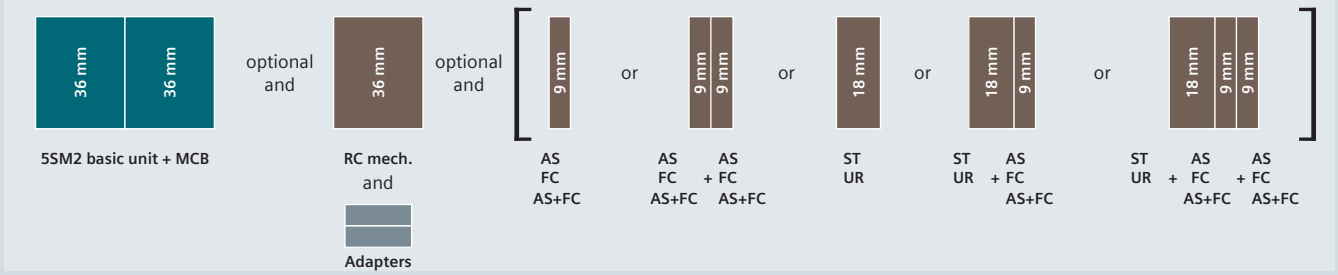
Type A, F and AC, 2-pole

		For 5SY miniature circuit breakers [1] 230 V AC		
Version		Instantaneous	Super resistant [K]	Selective [S]
Mounting width		2 MW	2 MW	2 MW
				
$I_{\Delta n}$	I_n			
Type A				
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	–
	80 ... 100 A	–	–	–
100 mA	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	–	–	–
Type F				
30 mA	0.3 ... 40 A	–	5SM2322-3	–
	0.3 ... 63 A	–	5SM2325-3	–
Type AC				
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	–	–

[1] but not for 5SY5 or 5SY8

Mounting concept





MCB Miniature circuit breaker See page 3/1
AS Auxiliary switch See page 4/54
FC Fault signal contact See page 4/56
AS+FC Auxiliary switch and fault signal contact See page 4/58
ST Shunt release See page 4/59
UR Undervoltage release See page 4/60
RC mech. Remote controlled mechanism See page 4/61

System overview, page 4/4

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	–	–	–
–	–	5SM2327-0	–
5SM2623-0	5SM2623-2	–	–
5SM2626-0	5SM2626-2	–	–
–	–	5SM2627-0	–
–	–	–	–
–	–	–	–

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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
5SM2 with 5SL (2P)	5ST3820-3 + 5ST3820-6

System overview, page 4/4

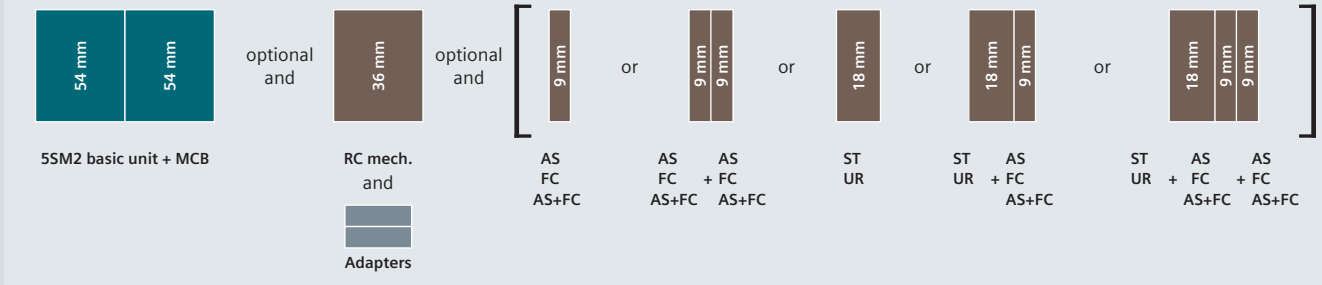
5SM2 RC units

Type A and AC, 3-pole

		For 5SY miniature circuit breakers [1] 400 V AC			For 5SL4 miniature circuit breakers 400 V AC	
Version		Instantaneous	Super resistant [K]	Selective [S]	Instantaneous	Selective [S]
Mounting width		3 MW	3 MW	3 MW	3 MW	3 MW
						
$I_{\Delta n}$	I_n					
Type A						
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	–	–	–	–
300 mA	0.3 ... 40 A	5SM2632-6	–	–	5SM2633-6	–
	0.3 ... 63 A	5SM2635-6	–	5SM2635-8	5SM2636-6	5SM2636-8
500 mA	0.3 ... 63 A	5SM2735-6	–	5SM2735-8	–	–
1000 mA	0.3 ... 40 A	–	–	5SM2832-8	–	–
	0.3 ... 63 A	–	–	5SM2835-8	–	–
Type AC						
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	–	–	–	–

[1] but not for 5SY5 or 5SY8

Mounting concept



MCB	Miniature circuit breaker	See page 3/1	ST	Shunt release	See page 4/59
AS	Auxiliary switch	See page 4/54	UR	Undervoltage release	See page 4/60
FC	Fault signal contact	See page 4/56	RC mech.	Remote controlled mechanism	See page 4/61
AS+FC	Auxiliary switch and fault signal contact	See page 4/58			

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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 (3P)	5ST3820-3 + 5ST3820-2
5SM2 with 5SL (3P)	5ST3820-3 + 5ST3820-7

System overview, page 4/4

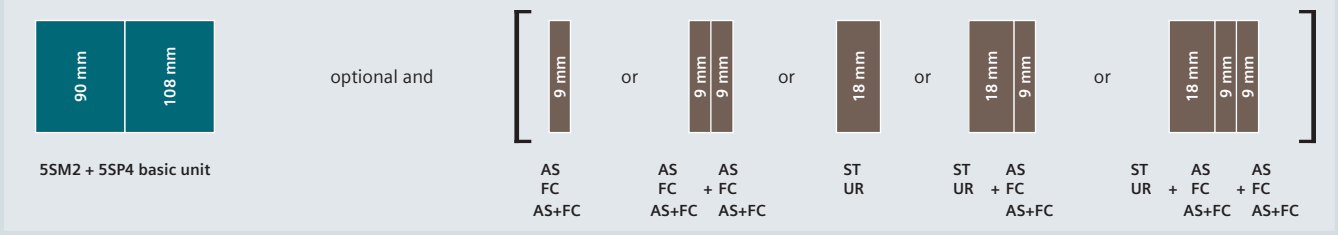
5SM2 RC units

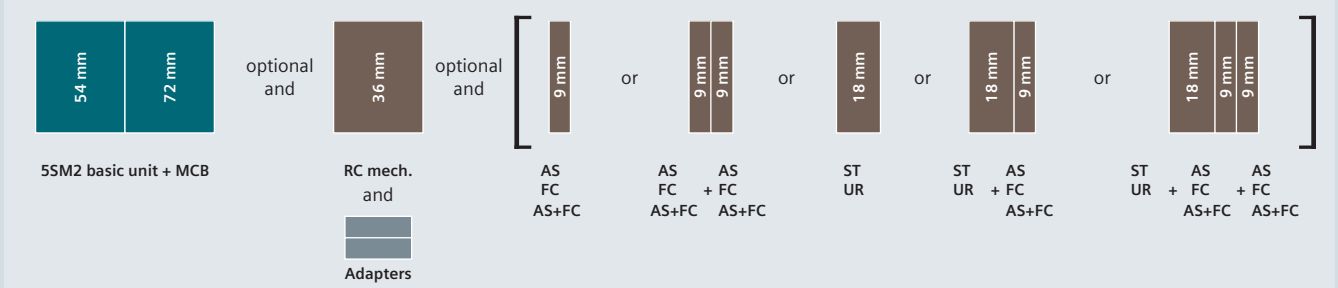
Type A and AC, 4-pole

		For 5SY miniature circuit breakers [1] 400 V AC		
Version		Instantaneous	Super resistant [K]	Selective [S]
Mounting width		3 MW	3 MW	3 MW
				
$I_{\Delta n}$	**I_n**			
Type A				
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	–	–
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	–	5SM2745-8
1000 mA	0.3 ... 40 A	–	–	5SM2842-8
	0.3 ... 63 A	–	–	5SM2845-8
	80 ... 100 A	–	–	–
Type AC				
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

[1] but not for 5SY5 or 5SY8

Mounting concept





MCB Miniature circuit breaker See page 3/1
AS Auxiliary switch See page 4/54
FC Fault signal contact See page 4/56
AS+FC Auxiliary switch and fault signal contact See page 4/58
ST Shunt release See page 4/59
UR Undervoltage release See page 4/60
RC mech. Remote controlled mechanism See page 4/61

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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.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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 (4P)	5ST3820-3 + 5ST3820-2
5SM2 with 5SL (4P)	5ST3820-3 + 5ST3820-7

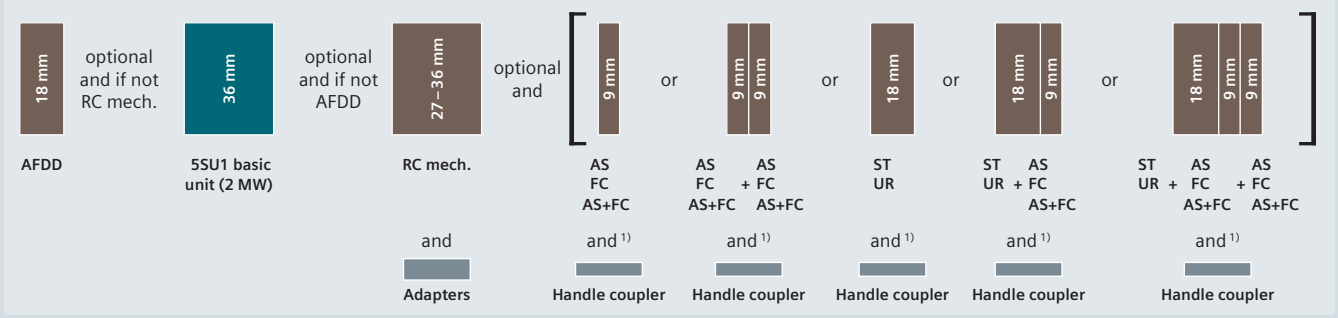
System overview, page 4/4

5SU1 RCBOs

Type A, 1P+N

			Instantaneous 230 V AC			
		Mounting width	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	C	Characteristic B	C
Type A						
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



1) 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 device	See page 4/50
AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Instantaneous		Short-time delayed [G], Super resistant [K]	
230 V AC		230 V AC	
2 MW		2 MW	
10 kA		10 kA	
Right		Right	
			
Characteristic		Characteristic	
B	C	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 contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

Adapter for RC mechanism	Article No.
2 MW	5ST3820-5

Arc fault detection devices (AFDD)		Article No.
For 5SU1 basic units	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2

System overview, page 4/4

5SU1 RCBOs

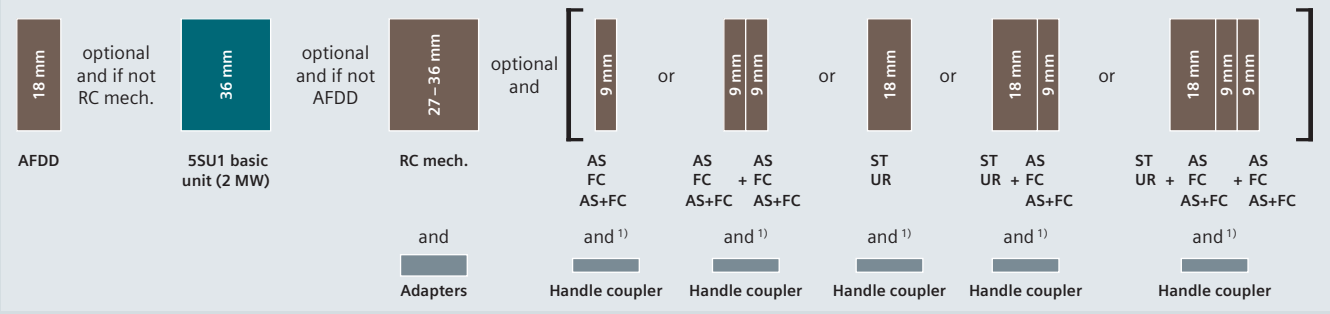
Type F, 1P+N

	Super resistant [K] 230 V AC
Mounting width	2 MW
Short-circuit breaking capacity	10 kA
N connection	Right

4

$I_{\Delta n}$	I_n	Characteristic B	Characteristic C
Type F			
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



1) 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 device	See page 4/50
AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

Adapter for RC mechanism	Article No.
2 MW	5ST3820-5

Arc fault detection devices (AFDD)		Article No.
For 5SU1 basic units	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2

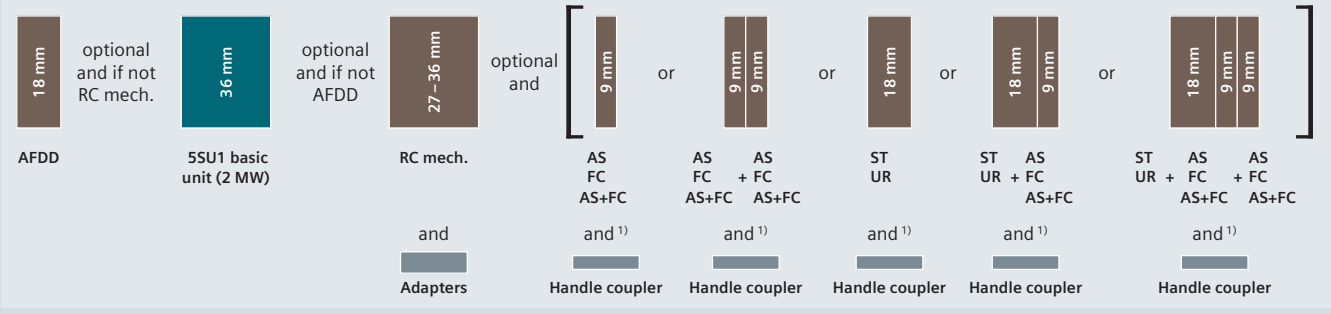
System overview, page 4/4

5SU1 RCBOs

Type AC, 1P+N

			Instantaneous 230 V AC			
		Mounting width	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	C	Characteristic B	C
Type AC						
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	–	–	–	–	–
	40 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



1) 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 device	See page 4/50
AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58
ST	Shunt release	See page 4/59
UR	Undervoltage release	See page 4/60
RC mech.	Remote controlled mechanism	See page 4/61

System overview, page 4/4

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 contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

Adapter for RC mechanism	Article No.
2 MW	5ST3820-5

Arc fault detection devices (AFDD)		Article No.
For 5SU1 basic units	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2

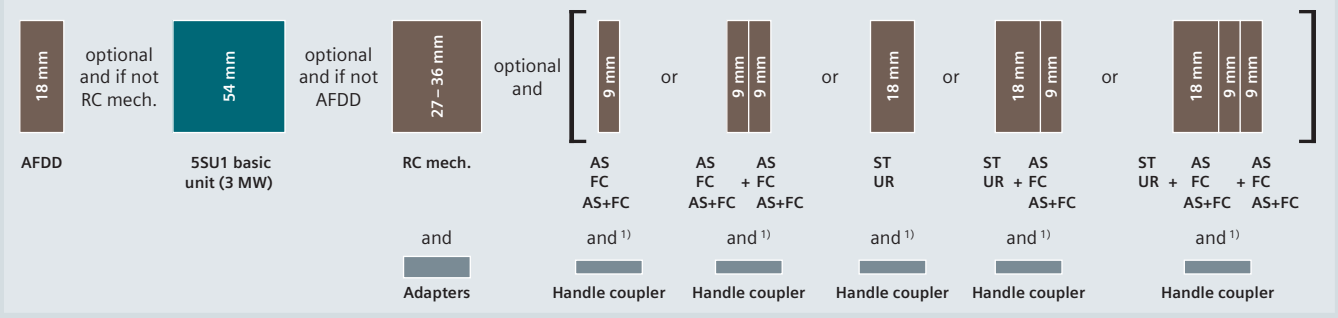
System overview, page 4/4

5SU1 RCBOs

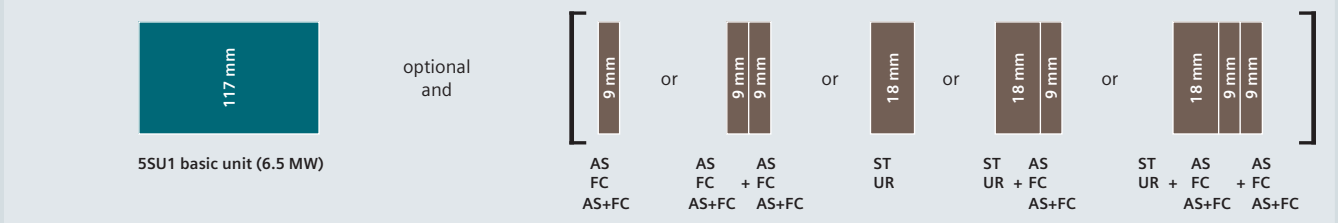
Type A and AC, 2-pole

		Instantaneous		
		110 V AC		230 V AC
Mounting width		3 MW		3 MW
Short-circuit breaking capacity		10 kA		10 kA
				
$I_{\Delta n}$	I_n	Characteristic		Characteristic
		B	C	B
Type A				
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	–	–	–
300 mA	125 A	–	–	–
Type AC				
30 mA	125 A	–	–	–
300 mA	125 A	–	–	–

Mounting concept



1) 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 device	See page 4/50	AS+FC	Auxiliary switch and fault signal contact	See page 4/58	UR	Undervoltage release	See page 4/60
AS	Auxiliary switch	See page 4/54				RC mech.	Remote controlled mechanism	See page 4/61
FC	Fault signal contact	See page 4/56	ST	Shunt release	See page 4/59			

System overview, page 4/4

			Selective [S] 230 V AC	
		6.5 MW	6.5 MW	
		10 kA	10 kA	
				
	Characteristic		Characteristic	
C	B	C	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	5SU1624-7WK82
–	5SU1324-0KK82	5SU1324-1KK82	–	–
–	5SU1624-0KK82	5SU1624-1KK82	–	–

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO contact + 1 NC contact		5ST3020
2 NO contacts		5ST3021
2 NC contacts		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO contact (AS) + 1 CO contact (FC)		5ST3062
Shunt releases (ST)		**Article No.**
110 ... 415 V AC, 110 ... 220 V DC		5ST3030
24 ... 48 V AC/DC		5ST3031
12 V DC new		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
Adapter for RC mechanism		**Article No.**
2 MW		5ST3820-5
Arc fault detection devices (AFDD)		**Article No.**
For 5SU1 basic units (3 MW)	I_n up to 16 A	5SM6021-2
	I_n up to 40 A	5SM6024-2

System overview, page 4/4

5SU1 RCBOs

Type A and AC, 4-pole

		Instantaneous 400 V AC		Selective [S] 400 V AC	
Mounting width		11 MW		11 MW	
Short-circuit breaking capacity		10 kA		10 kA	
					
$I_{\Delta n}$	I_n	Characteristic B	C	Characteristic B	C
Type A					
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
Type AC					
30 mA	125 A	5SU1344-0KK82	5SU1344-1KK82	–	–
300 mA	125 A	5SU1644-0KK82	5SU1644-1KK82	–	–

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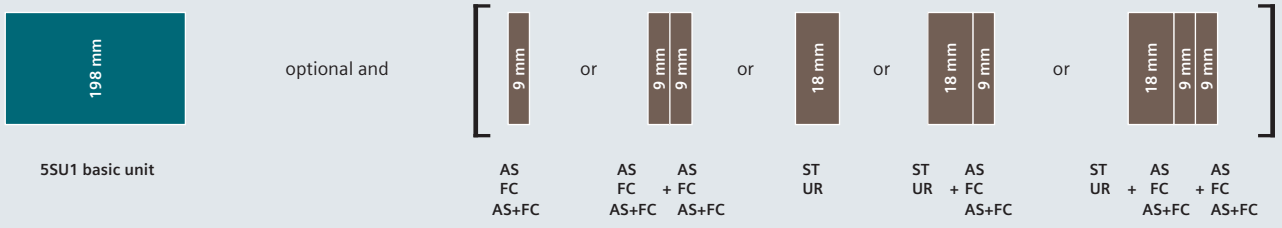
Mounting concept



AS Auxiliary switch See page 4/54
FC Fault signal contact See page 4/56
AS+FC Auxiliary switch and fault signal contact See page 4/58

ST Shunt release See page 4/59
UR Undervoltage release See page 4/60

System overview, page 4/4

Type B and B+, 4-pole

		Super resistant [K]			Selective [S]	
		400 V AC		480 V AC	400 V AC	
Mounting width		11 MW		11 MW	11 MW	
Short-circuit breaking capacity		10 kA		10 kA	10 kA	
						
$I_{\Delta n}$	I_n	Characteristic		Characteristic	Characteristic	
		C	D	C	C	D
Type B						
30 mA	100 A	5SU1374-7AK81	5SU1374-8AK81	–	–	–
	125 A	5SU1374-7AK82	–	–	–	–
300 mA	100 A	5SU1674-7AK81	5SU1674-8AK81	5SU1674-7CK81	–	5SU1674-8BK81
	125 A	5SU1674-7AK82	–	5SU1674-7CK82	5SU1674-7BK82	–
Type B+						
30 mA	100 A	5SU1374-7DK81	5SU1374-8DK81	–	–	–
	125 A	5SU1374-7DK82	–	–	–	–
300 mA	100 A	5SU1674-7DK81	5SU1674-8DK81	5SU1674-7FK81	–	5SU1674-8EK81
	125 A	5SU1674-7DK82	–	5SU1674-7FK82	5SU1674-7EK82	–

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Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

Shunt releases (ST)	Article No.
110 ... 415 V AC, 110 ... 220 V DC	5ST3030
24 ... 48 V AC/DC	5ST3031
12 V DC new	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

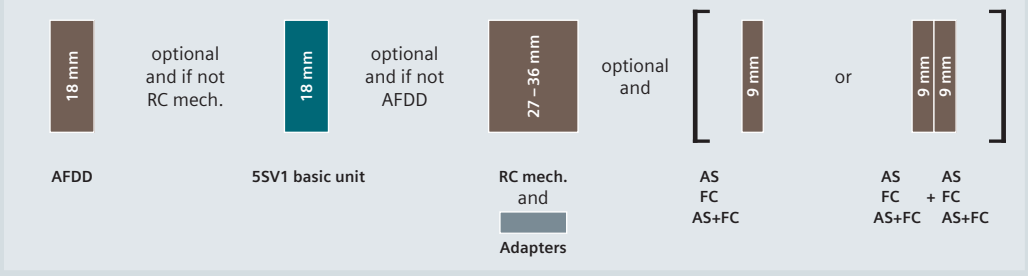
System overview, page 4/4

5SV1 RCBOs

Type A, 1P+N

			Instantaneous 230 V AC				Short-time delayed [G], Super resistant [K] new 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 B	C	Characteristic B	C	Characteristic B	C
Type A								
30 mA	2 A	–	–	5SV1313-7KK02	–	5SV1316-7KK02	–	–
	4 A	–	–	5SV1313-7KK04	–	5SV1316-7KK04	–	–
	6 A	–	5SV1313-6KK06	5SV1313-7KK06	5SV1316-6KK06	5SV1316-7KK06	–	–
		■	–	–	5SV1316-6GV06	5SV1316-7GV06	–	–
		–	–	–	–	–	5SV1316-6LK06	5SV1316-7LK06
	10 A	–	5SV1313-6KK10	5SV1313-7KK10	5SV1316-6KK10	5SV1316-7KK10	–	–
		■	–	–	5SV1316-6GV10	5SV1316-7GV10	–	–
		–	–	–	–	–	5SV1316-6LK10	5SV1316-7LK10
	13 A	–	5SV1313-6KK13	5SV1313-7KK13	5SV1316-6KK13	5SV1316-7KK13	–	–
		■	–	–	5SV1316-6GV13	5SV1316-7GV13	–	–
		–	–	–		–	5SV1316-6LK13	5SV1316-7LK13
	16 A	–	5SV1313-6KK16	5SV1313-7KK16	5SV1316-6KK16	5SV1316-7KK16	–	–
		■	–	–	5SV1316-6GV16	5SV1316-7GV16	–	–
		–	–	–	–	–	5SV1316-6LK16	5SV1316-7LK16
300 mA new	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 device See page 4/50
AS Auxiliary switch See page 4/54
FC Fault signal contact See page 4/56
AS+FC Auxiliary switch and fault signal contact See page 4/58
RC mech. Remote controlled mechanism See page 4/61

System overview, page 4/4

Type F and AC, 1P+N

			Instantaneous 230 V AC			Super resistant [K] new 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 C	Characteristic B	C	Characteristic B	C
Type F							
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
Type AC							
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 new	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	–	–

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016

Fault signal contacts (FC)	Article No.
1 NO contact + 1 NC contact	5ST3020
2 NO contacts	5ST3021
2 NC contacts	5ST3022

Auxiliary switches and fault signal contacts (AS+FC)	Article No.
1 CO contact (AS) + 1 CO contact (FC)	5ST3062

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 extended function	12 ... 30 V AC, 12 ... 48 V DC	5ST3070

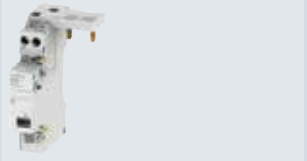
Adapter for RC mechanism	Article No.
1 MW	5ST3820-6

Arc fault detection devices (AFDD)		Article No.
For 5SV1 basic units	I_n up to 16 A	5SM6011-2

System overview, page 4/4

5SM6 arc fault detection devices

For combination with an MCB or RCBO

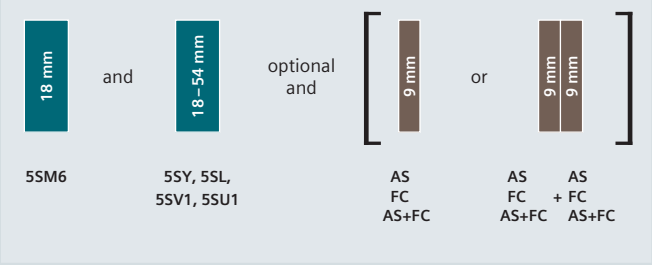


For combination with basic units			Rated current I_n	
Width of basic unit	Miniature circuit breakers	RCBO		
1 MW	5SL60 (no KL types)	5SV1	Up to 16 A	5SM6011-2
			Up to 40 A	5SM6014-2
2 MW	5SY [1], 5SL4 (only 1+N devices)	5SU1 (2 MW, 3 MW)	Up to 16 A	5SM6021-2
			Up to 40 A	5SM6024-2

[1] but not for 5SY5 or 5SY8

4

Mounting concept



AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58

The mounting concept shown is only one example of how devices and accessories can be combined.

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO contact + 1 NC contact		5ST3020
2 NO contacts		5ST3021
2 NC contacts		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO contact (AS) + 1 CO contact (FC)		5ST3062

siehe Suitable busbars, page 4/64 onwards
siehe Suitable terminals and end caps, page 4/64 onwards

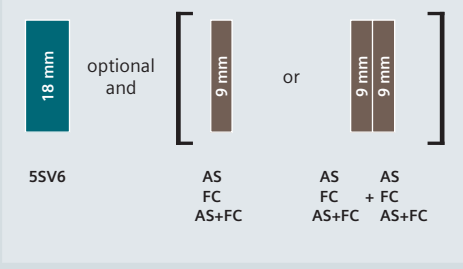
System overview, page 4/4

5SV6 arc fault detection devices

With integrated miniature circuit breaker

Mounting width	1 MW		1 MW pigtail	
				
Rated current I_n	**Bulk packaging (12 units)**	**Characteristic B**	**Characteristic C**	**Characteristic B**	**Characteristic C**
6 A	–	5SV6016-6KK06	5SV6016-7KK06	5SV6016-6KP06 new	5SV6016-7KP06 new
	■	5SV6016-6GV06	5SV6016-7GV06	–	–
10 A	–	5SV6016-6KK10	5SV6016-7KK10	5SV6016-6KP10 new	5SV6016-7KP10 new
	■	5SV6016-6GV10	5SV6016-7GV10	–	–
13 A	–	5SV6016-6KK13	5SV6016-7KK13	5SV6016-6KP13 new	5SV6016-7KP13 new
	■	5SV6016-6GV13	–	–	–
16 A	–	5SV6016-6KK16	5SV6016-7KK16	5SV6016-6KP16 new	5SV6016-7KP16 new
	■	5SV6016-6GV16	5SV6016-7GV16	–	–
20 A	–	5SV6016-6KK20	5SV6016-7KK20	5SV6016-6KP20 new	5SV6016-7KP20 new
25 A	–	5SV6016-6KK25	5SV6016-7KK25	5SV6016-6KP25 new	5SV6016-7KP25 new
	■	5SV6016-6GV25	–	–	–
32 A	–	5SV6016-6KK32	5SV6016-7KK32	5SV6016-6KP32 new	5SV6016-7KP32 new
40 A	–	5SV6016-6KK40	5SV6016-7KK40	5SV6016-6KP40	5SV6016-7KP40

Mounting concept



AS	Auxiliary switch	See page 4/54
FC	Fault signal contact	See page 4/56
AS+FC	Auxiliary switch and fault signal contact	See page 4/58

Accessories

Auxiliary switches (AS)		Article No.
1 NO contact + 1 NC contact	Standard	5ST3010
	For low power	5ST3013
	For low power (with diode)	5ST3013-0XX01
2 NO contacts	Standard	5ST3011
	For low power	5ST3014
2 NC contacts	Standard	5ST3012
	For low power	5ST3015
1 CO contact	Standard	5ST3016
Fault signal contacts (FC)		**Article No.**
1 NO contact + 1 NC contact		5ST3020
2 NO contacts		5ST3021
2 NC contacts		5ST3022
Auxiliary switches and fault signal contacts (AS+FC)		**Article No.**
1 CO contact (AS) + 1 CO contact (FC)		5ST3062

siehe Suitable busbars, page 4/64 onwards
siehe Suitable terminals and end caps, page 4/64 onwards

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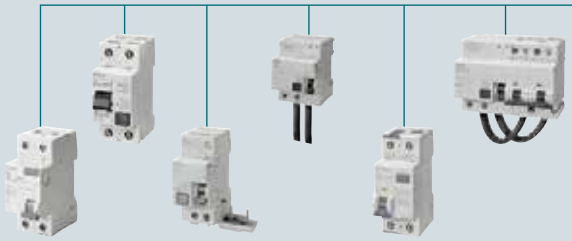
Overview of modular system

Residual current protective devices



				5SV	5SM3	5SM2 + LS	5SM2 + 5SP4	5SU1	5SU1 (125 A)
5SM6 arc fault detection devices			**Article No.**						
	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	–	–	–	–	–	–
Auxiliary switches (AS)			**Article No.**						
	1 NO contact + 1 NC contact	Standard	5ST3010	■	–	■	■	■	■
		For low power	5ST3013	■	–	■	■	■	■
		For low power (with diode)	5ST3013-0XX01	■	–	■	■	■	■
	2 NO contacts	Standard	5ST3011	■	–	■	■	■	■
		For low power	5ST3014	■	–	■	■	■	■
	2 NC contacts	Standard	5ST3012	■	–	■	■	■	■
		For low power	5ST3015	■	–	■	■	■	■
	1 CO contact	Standard	5ST3016	■	–	■	■	■	■
Fault signal contacts (FC)			**Article No.**						
	1 NO contact + 1 NC contact		5ST3020	■	–	■	■	■	■
	2 NO contacts		5ST3021	■	–	■	■	■	■
	2 NC contacts		5ST3022	■	–	■	■	■	■
Auxiliary switches and fault signal contacts (AS+FC)			**Article No.**						
	1 CO contact (AS) + 1 CO contact (FC)	Standard	5ST3062	■	–	■	■	■	■
Shunt releases (ST)			**Article No.**						
	110 ... 415 V AC, 110 ... 220 V DC		5ST3030	■	–	■	■	■	■
	24 ... 48 V AC/DC		5ST3031	■	–	■	■	■	■
	12 V DC new		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.**						
	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	■	–	■	–	■	–
Standard busbars			**Article No.**						
	Cannot be cut		5ST36..	■	–	■	■	■	■
	Can be cut		5ST37..	■	–	■	■	■	■
Compact busbars			**Article No.**						
	Cannot be cut		5ST36..	■	–	–	–	–	–
	Can be cut		5ST37..	■	–	–	–	–	–
				from page 4/18			from page 4/32		

■ Suitable for all versions □ Suitable for some versions

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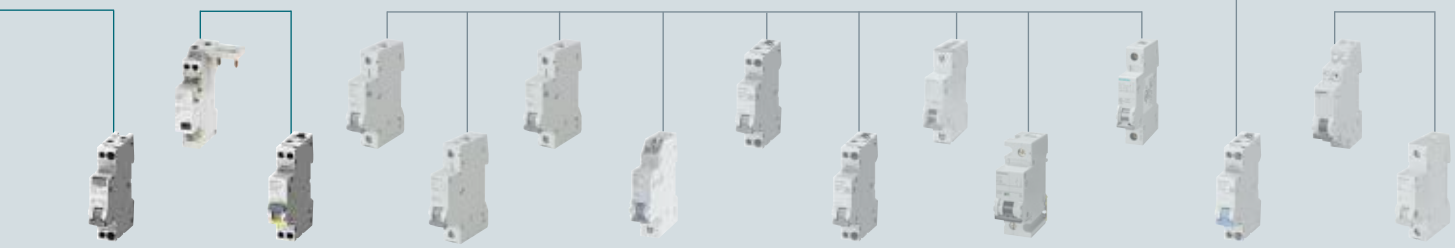
Device protection switches

Arc fault detection devices | Miniature circuit breakers | Switching devices



5SV1	5SM6	5SV6	5SL3	5SL6	5SL4	5SJ6...-.KS	5SL30	5SL60	5SY	5SP4	5SJ4..HG..	5SY17	5TE8	5TL
–	–	–	–	–	□	–	–	–	□	–	–	–	–	–
■	–	–	–	–	–	–	–	□	–	–	–	–	–	–
–	–	–	–	–	□	–	–	–	□	–	–	–	–	–
■	–	–	–	–	–	–	–	□	–	–	–	–	–	–
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	■	■
■	□	■	■	■	■	–	■	■	■	■	–	■	■	■
■	□	■	■	■	■	–	■	■	■	■	–	■	■	■
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	■	■
■	□	■	■	■	■	–	■	■	■	■	–	■	■	■
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	■	■
■	□	■	■	■	■	–	■	■	■	■	–	■	■	■
■	□	■	■	■	■	–	■	■	■	■	–	■	■	■
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	–	–
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	–	–
■	□	■	■	■	■	–	■	■	■	■	...-0HG	■	–	–
■	□	■	■	■	■	–	■	■	■	■	–	■	–	–
–	□	–	–	–	■	–	–	–	■	■	...-0HG	–	–	–
–	□	–	–	–	■	–	–	–	■	■	...-0HG	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
–	□	–	–	–	■	–	–	–	■	■	–	–	–	–
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	–	–	■	■	□	–	–	□	□	■	–	■	–	■
■	□	■	■	■	■	■	■	■	■	■	■	■	□	■
■	□	■	■	■	■	■	■	■	■	■	■	■	□	■
■	■	■	□	□	□	–	■	■	–	–	–	■	–	–
■	■	■	□	□	□	–	■	■	–	–	–	–	–	–
	from page 4/50		from page 3/12									from page 3/40	from page 5/6	

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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				
Auxiliary switches (AS)									
–	–	5SM3 (3P+N, 100/125 A)	–	–	–	1 NO contact + 1 NC contact	Standard	0.5 MW	5SW3330
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	5TL1, 5TE8	1 NO contact + 1 NC contact	Standard	0.5 MW	5ST3010
							For low power	0.5 MW	5ST3013
							For low power (with diode)	0.5 MW	5ST3013-0XX01
						2 NO contacts	Standard	0.5 MW	5ST3011
							For low power	0.5 MW	5ST3014
						2 NC contacts	Standard	0.5 MW	5ST3012
							For low power	0.5 MW	5ST3015
						1 CO contact	Standard	0.5 MW	5ST3016
Auxiliary switches (AS) with TEST button									
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	5TL1, 5TE8	1 NO contact + 1 NC contact	Standard	0.5 MW	5ST3010-2
							For low power	0.5 MW	5ST3013-2
						2 NO contacts	Standard	0.5 MW	5ST3011-2
							For low power	0.5 MW	5ST3014-2
						2 NC contacts	Standard	0.5 MW	5ST3012-2
							For low power	0.5 MW	5ST3015-2

[1] Handle coupler 5ST3805-1 required

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Further technical specifications

		5ST3010, 5ST3010-2, 5ST3011, 5ST3011-2, 5ST3012, 5ST3012-2, 5ST3016	5ST3013, 5ST3014, 5ST3015, 5ST3013-0XX01	5ST3013-2 5ST3014-2 5ST3015-2
Standards				
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1		
	UL, CSA	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	30 mA, 30 V DC
Contact load according to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A	–	
	400 V AC, AC-14	2 A	–	
	24 V DC, DC-13	6 A	–	
	60 V DC, DC-13	3 A	–	
	110 V DC, DC-13	1 A	–	
	220 V DC, DC-13	1 A	–	
Service life, on average, with rated load		20 000 actuations		
Safety				
Short-circuit protection		Miniature circuit breakers or gG 6 A fuse		
Connections				
Conductor cross-sections		0.5 ... 2.5 mm^2 (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	50 m/s^2		
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s^2		

System overview, page 4/4

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			
Fault signal contacts (FC)							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	1 NO contact + 1 NC contact	0.5 MW	5ST3020
					2 NO contacts	0.5 MW	5ST3021
					2 NC contacts	0.5 MW	5ST3022
Fault signal contacts (FC) with Test and Reset buttons							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	1 NO contact + 1 NC contact	0.5 MW	5ST3020-2
					2 NO contacts	0.5 MW	5ST3021-2
					2 NC contacts	0.5 MW	5ST3022-2

[1] Handle coupler 5ST3805-1 required

Further technical specifications

		5ST3020, 5ST3020-2 5ST3021, 5ST3021-2 5ST3022, 5ST3022-2
Standards		
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1
	UL, CSA	UL 1077, CSA C22.2 No. 235
Contacts		
Minimum contact load		50 mA, 24 V
Contact load according to IEC/EN 62019 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A
	400 V AC, AC-14	2 A
	24 V DC, DC-13	6 A
	60 V DC, DC-13	3 A
	110 V DC, DC-13	1 A
	220 V DC, DC-13	1 A
Service life, on average, with rated load		20 000 actuations
Safety		
Short-circuit protection		Miniature circuit breakers or gG 6 A fuse
Connections		
Conductor cross-sections		0.5 ... 2.5 mm^2 (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	50 m/s^2
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s^2

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Electrical accessories

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			
Auxiliary switches and fault signal contacts (AS+FC)							
5SL, 5SY, 5SP4	5SY17	5SV	5SU1 [1], 5SV1	5SV6	1 CO contact (AS) + 1 CO contact (FC)	0.5 MW	5ST3062

[1] Handle coupler 5ST3805-1 required

Further technical specifications

		5ST3062
Standards		
Standards	IEC/EN	IEC/EN 62019, IEC/EN 60947-5-1
	UL, CSA	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 and IEC/EN 60947-5-1	230 V AC, AC-13	6 A
	400 V AC, AC-14	2 A
Contact load according to IEC/EN 62019 (acc. to 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)
Service life, on average, with rated load		20 000 actuations
Safety		
Short-circuit protection		Miniature circuit breakers or gG 6 A fuse
Connections		
Conductor cross-sections		0.5 ... 2.5 mm^2 (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	50 m/s^2
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s^2

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Shunt releases (ST)

- For remote-controlled tripping of the mounted device

For combination with basic units Miniature circuit breakers	RCCBs	RCBO	Rated voltage U_n	Width (1 MW = 18 mm)	Article No.
Shunt releases (ST)					
5SL4, 5SY, 5SP4	5SV	5SU1 [1]	110 ... 415 V AC, 110 ... 220 V DC	1 MW	5ST3030
			AC/24 ... 48 V DC	1 MW	5ST3031
			12 V DC new	1 MW	5ST3031-0XX01

[1] Handle coupler 5ST3805-1 required

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Further technical specifications

		5ST3030	5ST3031	5ST3031-0XX01
Standards				
Standards	IEC/EN	EN 60947-1		
Supply				
Primary operating range		0.7 ... 1.1 × U_n		
Rated frequency f_n		50 ... 60 Hz		–
Contacts				
Minimum contact load		50 mA, 24 V		1 mA, 5 V
Tripping operations		Max. 2000		
Service life, on average, with rated load	Actuations	20000		
Safety				
Short-circuit protection		Miniature circuit breakers B/C 6 A or fuse gG 6 A		
Connections				
Conductor cross-sections		0.5 ... 2.5 mm² (AWG 22 ... 14)		
Terminals	Max. tightening torque	0.8 Nm [6.8 lb-in]		
Environmental conditions				
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	50 m/s²		
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s²		

System overview, page 4/4

Electrical accessories

Undervoltage releases (UR)

- Integrated, for example, in EMERGENCY-OFF 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 combination with basic units Miniature circuit breakers	RCCBs	RCBO	Rated voltage U_n	Width (1 MW = 18 mm)	Article No.
With integrated auxiliary switch					
5SL4, 5SY, 5SP4	5SV	5SU1 [1]	230 V AC	1 MW	5ST3040
			110 V DC	1 MW	5ST3041
			24 V DC	1 MW	5ST3042
Without integrated auxiliary switch					
5SL4, 5SY, 5SP4	5SV	5SU1 [1]	230 V AC	1 MW	5ST3043
			110 V DC	1 MW	5ST3044
			24 V DC	1 MW	5ST3045

[1] Handle coupler 5ST3805-1 required

Further technical specifications		5ST304.
Standards		
Standards	IEC/EN	EN 60947-1
Supply		
Primary operating range		0.85 ... 1.1 × U_n
Rated frequency f_n		50/60 Hz
Contacts		
Minimum contact load		50 mA, 24 V
Tripping operations		Max. 2000
Service life, on average, with rated load	Actuations	20000
Safety		
Short-circuit protection		Miniature circuit breakers B/C 6 A or fuse gG 6 A
Connections		
Conductor cross-sections		0.5 ... 2.5 mm² (AWG 22 ... 14)
Terminals	Max. tightening torque	0.8 Nm [6.8 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	50 m/s²
Vibration resistance at 10 ... 150 Hz	Acc. to IEC 60068-2-6	50 m/s²

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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 voltage U_n	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

Further technical specifications

		5ST3053	5ST3054	5ST3055	5ST3056	5ST3057	5ST3058	5ST3070
Standards								
Standards		EN 50557 (VDE 0640-20)						
Supply								
Rated frequency f_n		50 ... 60 Hz						
Rated power dissipation on standby		≤1 VA						
Contacts								
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						
Sliding selector with locking device		–	■					
Integrated auxiliary switches		–		1CO; 2 A; 250 V				
Integrated fault signal contacts		–		1CO; 2 A; 250 V				
Connections								
Conductor cross-sections		0.5 ... 1.5 mm² (AWG 14 ... 30)						
Terminal tightening torque		0.2 ... 0.25 Nm (2.0 lb-in)						
Environmental conditions								
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							Adapters
	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

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Mechanical accessories

Handle couplers for additional components

- Necessary for mounting the additional components auxiliary switches, fault signal contacts, shunt trips and undervoltage releases onto the 5SU1 RCBO
- 1 set = 5 units

	Article No.
	5ST3805-1

Handle locking devices

- To prevent undesired mechanical ON/OFF switching
- Sealable and lockable
- For padlock with 3 ... 6 mm shackle

Version	Article No.
For 5SV RCCBs, 5SV1 RCBOs, 5SV6 arc fault detection devices	5ST3806
For 5SU1 RCBOs	5ST3801-1

Locking device

- For 5SV RCCBs, 5SV1 RCBOs, 5SV6 arc fault detection devices

Comprising:	Article No.
5ST3806 handle locking device and 5ST3802 padlock	5ST3807

Padlock

- For 5ST3801 and 5ST3806 handle locking devices and remote operating mechanisms 5ST3054 ... 58, 5ST3070

	Article No.
	5ST3802

Device labels

- For adhesive attachment
- For modular installation devices, such as 5SY, 5SL, 5TL1

Versions	Article No.
15 mm x 6 mm, white (WIN 098)	8WH8210-0AA35
15 mm x 6 mm, yellow (WIN 099)	8WH8210-0AA36

Covers for connection terminals

- For 5SV3 and 5SV4 residual current operated circuit breakers, sealable (2 units in plastic bag)

Mounting width	Article No.
2 MW	5SW3010
4 MW	5SW3008

Terminal covers, gray

- For surface mounting, IP40 degree of protection
- Sealable
- Can be used with 35 mm DIN rail

For width up to	Article No.
2.5 MW	5SW3004
4.5 MW	5SW3005

Wall enclosures, gray

- For flush mounting, IP40 degree of protection
- Can be used with 35 mm DIN rail

For width up to	Article No.
2.5 MW	5SW3006
4.5 MW	5SW3007

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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

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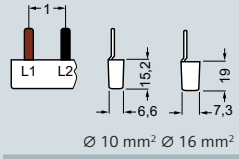
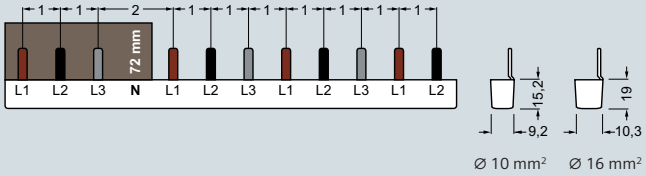
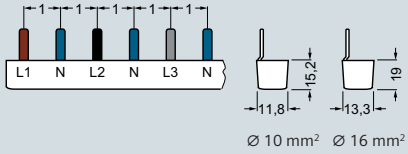
Standard busbars

5ST36, fixed lengths, cannot be cut

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	Conductor cross-section 10 mm²	16 mm²
Two-phase				Article No.	Article No.
 Ø 10 mm² Ø 16 mm²	For 6 MCBs 2P	12 MW	210 mm	5ST3608	5ST3638
Three-phase, for MCBs with RCCB				Article No.	Article No.
 Ø 10 mm² Ø 16 mm²	For 8 MCBs 1P with 1 RCCB 3P+N, N right	12 MW	210 mm	5ST3624	5ST3654
Four-phase				Article No.	Article No.
 Ø 10 mm² Ø 16 mm²	For 6 MCBs 2P or 1P+N	12 MW	215 mm	5ST3623	5ST3653

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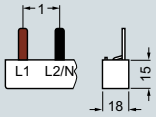
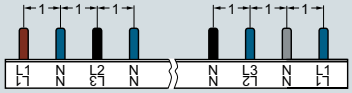
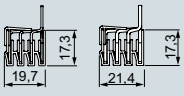
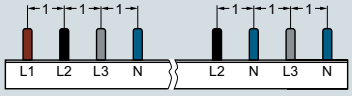
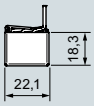
5ST37, schneidbar

Pin spacings in MW (1 MW = 18 mm)		Application	Number of MWs	Length	End caps included	Conductor cross-section 10 mm²	16 mm²
Two-phase						**Article No.**	**Article No.**
		For 2 MW units (2P / 1+N)	12 MW	214 mm	■	5ST3734	5ST3704
			56 MW	1016 mm	–	5ST3735	5ST3705
Four-phase, for MCBs with RCCB						**Article No.**	**Article No.**
		For MCBs 2P with 1 RCCB 1P+N	56 MW	1000 mm	–	5ST3770-2	5ST3770-3
						Ø 10 mm²	Ø 16 mm²
		For 6 MCBs 1P+N with 1 RCCB 4P N right	16 MW	292 mm	■	5ST3770-4	5ST3770-5

Accessories for busbars 5ST36 and 5ST37

End caps for 5ST37

Version	Article No.
For two-phase and three-phase busbars	5ST3750
For 4-phase busbars	5ST3718

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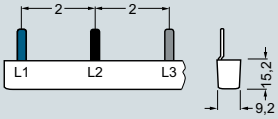
System overview, page 4/4

Standard busbars

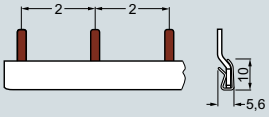
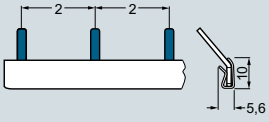
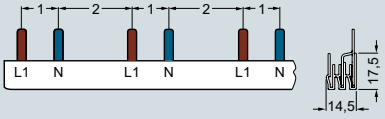
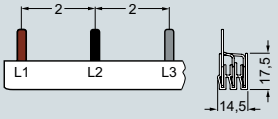
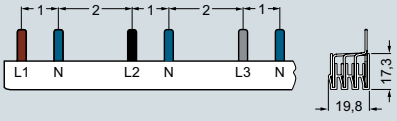
5ST36 and 5ST37

Fixed lengths, cannot be cut, for devices with add-on 5SM6 arc fault detection devices

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	Endkappen inkl.	Color	Conductor cross-section 10 mm²
Three-phase						**Article No.**
	For 5SM601	12 MW	210 mm	–	Gray	5ST3615-1

4

Can be cut, for devices with add-on 5SM6 arc fault detection devices

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	Endkappen inkl.	Color	Conductor cross-section 10 mm²
Single-phase, straight						**Article No.**
	For 5SM601.	56 MW	1000 mm	–	Gray	5ST3764-1
					Blue	5ST3765-2
Single-phase, angled 45°						**Article No.**
	For 5SM601.	56 MW	1000 mm	–	Blue	5ST3765-1
Two-phase						**Article No.**
	For 5SM602. (1P+N)	56 MW	1000 mm	–	Gray	5ST3735-1
Three-phase						**Article No.**
	For 5SM601.	60 MW	1050 mm	–	Gray	5ST3740-1
Four-phase						**Article No.**
	For 5SM602.	52 MW	950 mm	–	Gray	5ST3746-1

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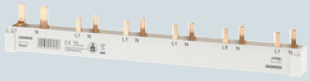
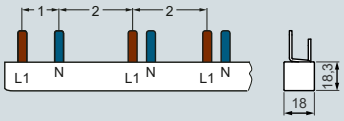


Can be cut, for devices with add-on 5SM6 arc fault detection devices and infeed via RCCB

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Color	Conductor cross-section 16 mm²
Two-phase						**Article No.**
	For RCCB 2P N-right and 5 AFDD (5SM601.) + compact device	12 MW	214 mm	■	Gray	5ST3772

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Accessories

Terminals for infeed at side		Article No.
For conductors up to 25 mm²	Short	5ST3768
	Short, IP20	5ST3771-2
	Long	5ST3771-1

End caps		Article No.
For single-phase busbars	Gray	5ST3766
	Blue	5ST3767
For two- and three-phase busbars		5ST3750
For four-phase busbars		5ST3718

Touch protection	Article No.
For free connections, yellow (RAL 1004) 5× 1 pin	5ST3655

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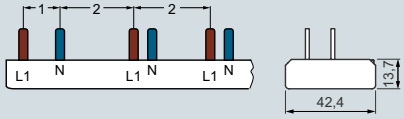
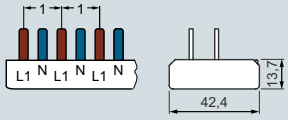
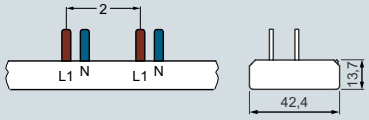
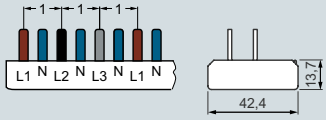
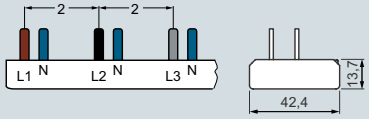
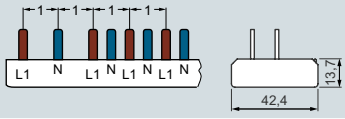
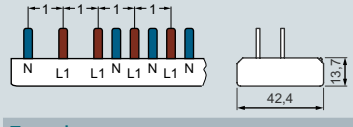
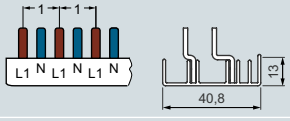
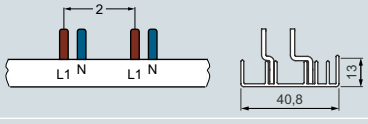
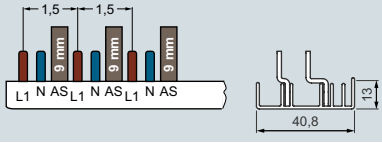
Compact busbars

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 mm²
Two-phase, for infeed via RCCB					**Article No.**
	For 1 x RCCB 1P+N and 5 x compact devices equipped with 5SM6 arc fault detection device	12 MW	216 mm	■	5ST3685-0
Two-phase					**Article No.**
	For compact devices	6 MW	113 mm	■	5ST3674-6 new
		9 MW	166 mm	■	5ST3674-7 new
		12 MW	218 mm	■	5ST3674-0
	For 6 compact devices equipped with 5SM6 arc fault detection device	12 MW	200 mm	■	5ST3676-0
Four-phase					**Article No.**
	For compact devices	6 MW	113 mm	■	5ST3673-6 new
		9 MW	166 mm	■	5ST3673-7 new
		12 MW	218 mm	■	5ST3673-0
		14 MW	254 mm	■	5ST3673-4 new
	For 6 compact devices equipped with 5SM6 arc fault detection device	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 mm²
Two-phase, for infeed via RCCB					**Article No.**
	For 1 x RCCB 1P+N and 10 x compact devices	12 MW	215 mm	■	5ST3784-0
	For 1 x RCCB 1P+N (RCCB N left only) and 10 x compact devices	12 MW	215 mm	■	5ST3784-0KL
Two-phase					**Article No.**
	For compact devices	60 MW	1060 mm	■	5ST3774-0
	For compact devices equipped with 5SM6 arc fault detection device	59 MW	1042 mm	–	5ST3776-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3778-0

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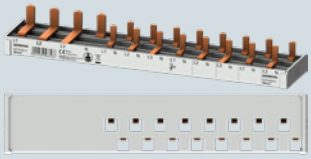
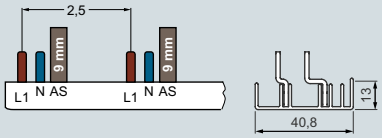
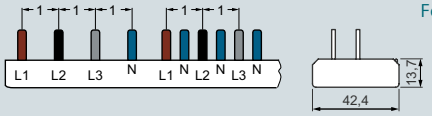
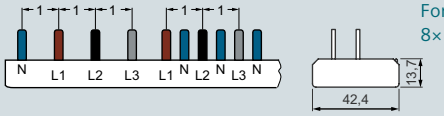
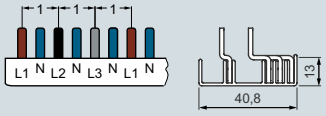
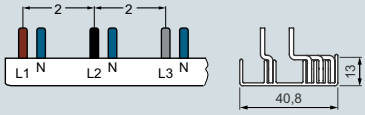
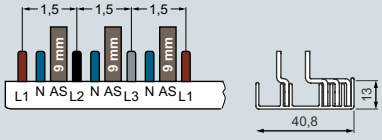


5ST37, can be cut

Pin spacings in MW (1 MW = 18 mm)	Application	Number of MWs	Length	End caps included	Conductor cross-section 10 mm²
Two-phase					**Article No.**
	For compact devices equipped with 5SM6 arc fault detection device and auxiliary switch	58.5 MW	1036 mm	–	5ST3780-0
Four-phase, for infeed via RCCB					**Article No.**
	For 1× RCCB 3P+N and 8× compact devices	12 MW	216 mm	■	5ST3783-0
	For 1× RCCB 3P+N (RCCB N left only) and 8× compact devices	12 MW	216 mm	■	5ST3783-0KL
Four-phase					**Article No.**
	For compact devices	60 MW	1060 mm	–	5ST3773-0
	For compact devices equipped with 5SM6 arc fault detection device	59 MW	1042 mm	–	5ST3775-0
	For compact devices equipped with auxiliary switch	59.5 MW	1055 mm	–	5ST3777-0

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 two-phase and four-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 mm²	Lateral	5ST3771-2

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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.

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www.siemens.com/lowvoltage/product-support

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Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- Configuration manual – Switching devices (45315361)

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You can find further information on services at
www.siemens.com/service-catalog

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 (109769083)

System overview

Basic units and accessories

Installation switching devices

5TE8
control switches

5TE48
pushbuttons

5TE58
light indicators

5TE81/82, 5TL1
On/Off switches, 5TE2

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

Accessories

Auxiliary switches (AS)

Shunt trips (ST)

Undervoltage releases (UR)

Handle locking devices

LEDs

Caps/covers

Connectors

Timers

7LF4 digital time switches

7LF5 mechanical time switches

7LF6 timers for buildings new

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 mm²		1 ... 6 mm²		1 ... 6 mm²
Flexible conductor cross-section, with end sleeve	1 ... 6 mm²		1 ... 6 mm²		1 ... 6 mm²
					

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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	–	–	–	–
3 NO	400 V	1 MW	5TE8103	–	–	–	–
		1.5 MW	–	5TE8108	–	–	–
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
Standards		
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
Supply		
Rated power dissipation P_v	Per pole	0.7 VA
Contacts		
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/mechanical service life	Actuations	10000 / 25000
Safety		
Clearances	Open contacts	2× >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
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	0.8 ... 1.0 Nm
Environmental conditions		
Permissible ambient temperature		–5 ... +40 °C
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

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Accessories

Auxiliary switches (AS)

- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Version	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

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

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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 mm²		1 … 6 mm²		1 … 6 mm²	
Max. cable length	Standard		Standard		Standard	
						
Contacts	**U_e AC**	**Mounting width**				
1 NO	230 V	1 MW		–		–	1× red	5TE4821
				–		–		–
2x 1 NO	400 V	1 MW	1× green, 1× blue	5TE4804		–		–
2 NO	400 V	1 MW		–	1× gray	5TE4811	1× red	5TE4823
1 NO + 1 NC	400 V	1 MW	1× gray	5TE4800	1× gray	5TE4810		–
			1× red	5TE4805		–	1× red	5TE4820
			1× green	5TE4806		–		–
			1× yellow	5TE4807		–		–
			1× blue	5TE4808		–		–
2x (1 NO + 1 NC)	400 V	1 MW		–		–		–
2 NO + 2 NC	400 V	1 MW	1× gray	5TE4801-2	1× gray	5TE4811-2		–
3 NO + 1 NC	400 V	1 MW	1× gray	5TE4802	1× gray	5TE4812-1		–
3 NO + N	400 V	1 MW		–	1× gray	5TE4812		–
2 NC	400 V	1 MW		–		–	1× red	5TE4824
4 NC	400 V	1 MW		–	1× gray	5TE4813		–
2 CO	400 V	1 MW		–	1× gray	5TE4814		–

Further technical specifications

		5TE48
Standards		
Standards		IEC/EN 60947-3 (VDE 0660-107), IEC/EN 60669-1 (VDE 0632-1)
Approvals		IEC/EN 60947-3 (VDE 0660-107)
Supply		
Rated power dissipation P_v	Per pole	0.6 VA
Contacts		
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
Safety		
Clearances	Open contacts	2× >2 mm
	Between the poles	>7 mm
Creepage distances		>7 mm
Rated impulse withstand voltage U_{imp}		>5 kV
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
	Max. tightening torque	0.8 … 1.0 Nm
Environmental conditions		
Permissible ambient temperature		–5 … +40 °C
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C

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		Double pushbuttons with maintained-contact function and/or momentary-contact function			
With LED		**Without LED**		**With LED**	
20 A		20 A		20 A	
1 ... 6 mm²		1 ... 6 mm²		1 ... 6 mm²	
150 m		Standard		Standard	
					
1× red	5TE4822		–		–
1× blue new	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 replacement

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
		Blue	5TG8056-4
	115 V AC/DC	White	5TG8057-0
		Red	5TG8057-1
		Yellow	5TG8057-2
		Green	5TG8057-3
		Blue	5TG8057-4
	230 V AC	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		

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5TE58 light indicators

With LED

		5TE58 light indicators			
Rigid conductor cross-section		1.5 ... 6 mm²		1.5 ... 6 mm²	
Flexible conductor cross-section, with end sleeve		1 ... 6 mm²		1 ... 6 mm²	
Max. cable length		Standard		250 m	
					
U_e 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 new	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
Supply		
Rated power dissipation P_v	LED	0.4 VA
Safety		
Clearances	Between the terminals	>7 mm
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

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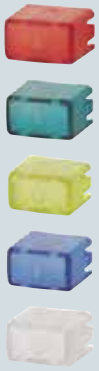
Accessories

LEDs for manual replacement

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
		Blue	5TG8056-4
	115 V AC/DC	White	5TG8057-0
		Red	5TG8057-1
		Yellow	5TG8057-2
		Green	5TG8057-3
		Blue	5TG8057-4
	230 V AC	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



Version	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		

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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 mm²	1.5 ... 6 mm²
Flexible conductor cross-section, with end sleeve	1 ... 6 mm²	1 ... 6 mm²

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

		5TE81	5TE82
Standards			
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)	
Supply			
Rated power dissipation P_v	Per pole	0.7 VA	
Contacts			
Minimum contact load		10 V; 300 mA	
Rated making/rated breaking capacity	At p.f. = 0.65	60 A / 60 A	96 A / 96 A
Rated short-time withstand current I_{cw} per conducting path at p.f. = 0.7	Up to 0.2 s	650 A	1000 A
	Up to 0.5 s	400 A	630 A
	Up to 1 s	290 A	450 A
	Up to 3 s	170 A	250 A
Thermal rated current I_{th}		20 A	32 A
Electrical/mechanical service life	Actuations	10000 / 25000	
Safety			
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	
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	

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Accessories

Auxiliary switches (AS)

- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Version	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

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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 mm²	1 ... 35 mm²	1 ... 35 mm²	2.5 ... 50 mm²	2.5 ... 50 mm²
Flexible conductor cross-section, with end sleeve	1 ... 25 mm²	1 ... 25 mm²	1 ... 25 mm²	2.5 ... 50 mm²	2.5 ... 50 mm²






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
Standards							
Standards		IEC/EN 60947-3 (VDE 0660-107)					
Approvals		EN 60669-1					
Supply							
Rated power dissipation P_v	Per pole, max.	0.7 VA	0.9 VA	2.2 VA	3.5 VA	5.5 VA	8.6 VA
Contacts							
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	375 A / 375 A
Rated short-time withstand current I_{cw} per conducting path at p.f. = 0.7 [1]	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	125 A
Electrical/mechanical service life	Switching cycles	10000 / 20000	10000	5000	2000		
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	15 kW	30 kW	39 kW	48 kW	
Safety							
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 gL/gG)		10 kA					
Rated impulse withstand voltage U_{imp}		>5 kV					
Connections							
Terminals	± Screw (Pozidriv)	PZ 2					
	Max. tightening torque	3.5 Nm					
Environmental conditions							
Permissible ambient temperature		–5 ... +40 °C					
Resistance to climate at 95% relative humidity	Acc. to DIN 50015	45 °C					

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	125 A	
	2.5 ... 50 mm²	
	2.5 ... 50 mm²	
		
	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	Version	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.
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 mm²

Number of poles	I_e	U_e 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 mm² with blue color marking

Number of poles	I_e	U_e AC	Mounting width	Article No.
1-pole	125 A	230 V	1 MW	5TL1192-3

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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 mm²
Flexible conductor cross-section, with end sleeve	0.75 ... 25 mm²

Contacts	Max. operational voltage U_{max} DC	Mounting width	Auxiliary switches can be retrofitted
4 NO	1000 V	4 MW	5TE2515-1

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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/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 ... 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

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Accessories

Auxiliary switches (AS)

- For right-hand-side retrofitting with factory-fitted brackets

Contacts	Version	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_n	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)

Version	Rated operational voltage U_n	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

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5TE busbars

For modular installation devices

Single-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^2 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 single-phase busbars

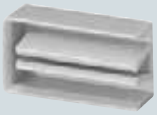
Length	Division	Article No.
210 mm	12 MW version with 1 MW modular clearance	5TE9100

Two-phase busbar

- For all 5TE8 switches, 20 A and 32 A
- Infeed to unit terminal with conductor cross-section of 6 mm^2 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-conductor connection using 2 two-phase busbars
- Both copper conductors of the two-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 two-phase busbars



- End caps for 5TE9101 two-phase busbars to maintain insulation clearances when the bar is being cut
- 1 set = 10 units

Article No.
5TE9102

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5TT41 remote control switches

Rated current 16 A

	Rated operational current I_e 16 A
Rigid conductor cross-section	1 ... 6 mm²
Flexible conductor cross-section, with end sleeve	1 ... 6 mm²

Contacts	U_e	U_c AC	U_c DC	Mounting width 1 MW	Mounting width 2 MW	Auxiliary switches can be retrofitted
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	–	■	–	5TT4105-0
		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	–	■	–	5TT4102-0
		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	–	–	■	5TT4103-0
		24 V	–	–	■	5TT4103-2
4 NO	400 V	230 V	–	–	■	5TT4104-0
		24 V	–	–	■	5TT4104-2
		–	110 V	–	■	5TT4114-1
			24 V	–	■	5TT4114-2

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Further technical specifications

		5TT4101 5TT4102 5TT4105	5TT4111 5TT4112 5TT4115	5TT4103 5TT4104 5TT4114
Standards				
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		
Supply				
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	4.5 W / 7 VA		9 W / 13 VA
	Per pole, max.	1.2 W		
Contacts				
Contact gap		>1.2 mm		
Minimum contact load		10 V; 100 mA		
Electrical service life at I_e/U_e, p.f. = 0.6, incandescent lamp load 600 W	Switching 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		
Safety				
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		
Function				
Manual operation		Yes		
Switching position indication		Yes		
Connections				
Terminals	± Screw (Pozidriv)	PZ 1		
	Max. tightening torque	0.8 ... 1 Nm		
Environmental conditions				
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	Version	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

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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 mm²	1 ... 6 mm²
			Flexible conductor cross-section, with end sleeve	1 ... 6 mm²	1 ... 6 mm²
					
Contacts	U_e	U_c 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 mm²	1 ... 6 mm²
			Flexible conductor cross-section, with end sleeve	1 ... 6 mm²	1 ... 6 mm²
					
Contacts	U_e	U_c 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

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Further technical specifications

		5TT412 5TT415	5TT413 5TT414
Standards			
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	
Supply			
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	4.5 W / 7 VA	
	Per pole, max.	1.2 W	
Contacts			
Contact gap		>1.2 mm	
Minimum contact load		10 V; 100 mA	
Electrical service life at I_e/U_e, p.f. = 0.6, incandescent lamp load 600 W	Switching 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	
Safety			
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	
Function			
Manual operation		Yes	
Switching position indication		Yes	–
Connections			
Terminals	± Screw (Pozidriv)	PZ 1	
	Max. tightening torque	0.8 ... 1 Nm	
Environmental conditions			
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	Version	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

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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 mm²	1 ... 10 mm²	1 ... 10 mm²	2.5 ... 25 mm²	2.5 ... 25 mm²
Flexible conductor cross-section, with end sleeve	1 ... 10 mm²	1 ... 10 mm²	1 ... 10 mm²	2.5 ... 25 mm²	2.5 ... 25 mm²
					

Contacts	U_e	U_c AC	U_c DC	Mounting width					
For AC applications – auxiliary switches can be retrofitted									
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	–	–	–	–
		24 V	–	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
		24 V	–	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
For DC applications									
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	–	–

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Further technical specifications

		5TT440	5TT442	5TT445	5TT446	5TT447
Standards						
Standards		IEC 60669-2-2			IEC/EN 60947-4-1	
Approvals		CE				
Supply						
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
Contacts						
Contact gap		>3 mm				
Minimum contact load AC		10 V; 100 mA				
Electrical service life at I_e/U_e, p. f. = 0.6, incandescent lamp load 600 W	Switching 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^{-1}	450 h^{-1}		360 h^{-1}	
Safety						
Different phases between magnet coil and contact		Permissible				
Rated impulse withstand voltage U_{imp}		3 kV				
Function						
Manual operation		Yes				
Switching position indication		Yes				
Connections						
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^2				
Environmental conditions						
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

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5TT4 auxiliary switches

For 5TT4 remote control switches

	Auxiliary switches for 5TT41	Auxiliary switches for 5TT44
Rigid conductor cross-section	0.5 ... 2.5 mm²	1 ... 4 mm²
Flexible conductor cross-section, with end sleeve	0.5 ... 2.5 mm²	1 ... 4 mm²

Contacts	Version	I_e	U_e	Mounting width		
Auxiliary switches						
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	–
Auxiliary switches, central with diode for central function (no auxiliary switch)						
			250 V AC	0.5 MW	–	5TT4931
Auxiliary switches, group with several diodes for group function (no auxiliary switch)						
			250 V AC	0.5 MW	–	5TT4932

Further technical specifications

		Auxiliary switches for 5TT41	Auxiliary switches for 5TT44		
		5TT4900 5TT4901	5TT4930	5TT4931	5TT4932
Standards					
Standards		EN 60947-1 (VDE 0660 Part 100) EN 60947-5-1 (VDE 0660 Part 200)	IEC/EN 60947-5-1		
Approvals		–	CE, EAC		
Supply					
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		
Contacts					
Contact gap		<1.2 mm	>3 mm		
Minimum contact load		5 V; 1 mA	12 V; 5 mA		
Electrical service life at I_e/U_e, p.f. = 0.6, incandescent lamp load 600 W	Switching cycles	–	100000	–	
Safety					
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	–		
Function					
Manual operation		–	No		
Switching position indication		–	No		
Connections					
Terminals	± Screw (Pozidriv)	PZ 1	PZ 1		
	Max. tightening torque	0.5 Nm	0.8 Nm		
Environmental conditions					
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)		

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Accessories

Compensator

- For increasing the glow lamp load by 20 mA

U_e	Mounting width	Article No.
250 V AC	1 MW	5TT4920

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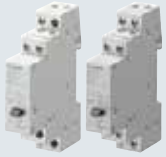
5TT42 switching relays

Rated current 16 A

	Rated operational current I_e 16 A
Rigid conductor cross-section	1 ... 6 mm²
Flexible conductor cross-section, with end sleeve	1 ... 6 mm²



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

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Further technical specifications

		5TT4201-.	5TT4202-.	5TT4204-.	5TT4205-.	5TT4206-.	5TT4207-.	5TT4217-.
Standards								
Standards		EN 60947-5-1, EN 60669-2-2						
Approvals		VDE, CCC						
Supply								
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						
Contacts								
Contact gap		>1.2 mm						
Minimum contact load		10 V AC; 100 mA						
Electrical service life at I_e/U_e, p.f. = 0.6, incandescent lamp load 600 W	Switching cycles	50000						
Safety								
Different phases between magnet coil and contact		Permissible						
Safe separation		>6 mm						
Rated impulse withstand voltage U_{imp}		4 kV						
Function								
Manual operation		Yes						
Connections								
Terminals	± Screw (Pozidriv)	PZ 1						
	Max. tightening torque	0.8 ... 1 Nm						
Environmental conditions								
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

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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 mm²	1.5 ... 25 mm²	1.5 ... 25 mm²	1.5 ... 25 mm²
Main connection conductor cross-section, stranded with end sleeve	1.0 ... 6 mm²	1.5 ... 16 mm²	1.5 ... 16 mm²	1.5 ... 16 mm²
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				
Insta contactors with manual switch								
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
Insta contactors with O/I/Automatic								
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	–	–

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Further technical specifications

		5TT500	5TT503	5TT504	5TT505
Standards					
Standards		EN 60947-4-1; EN 60947-5-1; EN 61095			
Approvals		UL 508; UL File No. E303328			
Supply					
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
Contacts					
Contact gap (NO contacts)	Min.	3.6 mm			
Minimum switching capacity	(= minimum contact load)	≥17 V; 50 mA			
Electrical service life at I_e and load	AC-1/AC-7a switching cycles	200000		100000	
	AC-3/AC-7b switching cycles	300000	500000		150000
Mechanical service life	Switching cycles	3 million			
Switching of resistive loads AC-1 at rated operational power P_s	Single-phase (NO contacts)	4 kW (230 V)	5.4 kW (400 V)	8.7 kW (400 V)	13.3 kW (400 V)
	Three-phase (NO contacts)	–	16 kW (400 V)	26 kW (400 V)	40 kW (400 V)
Switching of three-phase asynchronous motors AC-3 at rated operational power P_s	Single-phase (NO contacts)	1.3 kW / 0.75 kW	1.3 kW / 1.3 kW	3.7 kW / 3.7 kW	5/5 kW
	Three-phase (NO contacts)	–	4 kW	11 kW	15 kW
Maximum switching frequency at load	AC-1/AC-7a / AC-3/AC-7b	600 h^{-1}			
Safety					
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
Function					
Switching times	Closing (NO contacts)	15 ms ... 45 ms		15 ms ... 20 ms	
	Opening (NO contacts)	20 ms ... 50 ms	20 ms ... 70 ms	35 ms ... 45 ms	
Connections					
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^2			
	Stranded, with end sleeve	1.0 ... 2.5 mm^2			
	AWG cables	16 ... 10			
Main connection conductor cross-section	Solid	1.0 ... 10 mm^2	1.5 ... 25 mm^2		
	Stranded, with end sleeve	1.0 ... 6 mm^2	1.5 ... 16 mm^2		
	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.		
Environmental conditions					
Permissible ambient temperature	For operation [1] / For storage	–15 ... +55 °C / –50 ... +80 °C			
Degree of protection	Acc. to EN 60529	IP 20, with connected conductors			
Characteristics according to UL 508					
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

[1] 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

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5TT58 Insta contactors

AC technology

	Rated operational current I_e			
	20 A	25 A	40 A	63 A
Main connection conductor cross-section, rigid	1.0 ... 10 mm²	1.0 ... 10 mm²	1 ... 25 mm²	1 ... 25 mm²
Main connection conductor cross-section, flexible with end sleeve	1.0 ... 6 mm²	1.0 ... 6 mm²	1 ... 16 mm²	1 ... 16 mm²
				

Contacts	U_e	U_c AC		Mounting width				
Insta contactors without manual switch								
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	5TT5850-0
			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
		24 V		2 MW	–	5TT5833-2	–	–
				3 MW	–	–	5TT5843-2	5TT5853-2
1 NO + 1 NC	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
		24 V		2 MW	–	5TT5832-2	–	–
				3 MW	–	–	5TT5842-2	5TT5852-2
3 NO + 1 NC	400 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
Insta contactors with manual switch O/I/Automatic								
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
		24 V		2 MW	–	5TT5830-8	–	–
				3 MW	–	–	5TT5840-8	–
1 NO + 1 NC	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	–
		24 V		2 MW	–	5TT5831-8	–	–
				3 MW	–	–	5TT5841-8	–

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Further technical specifications

		5TT580.	5TT582. 5TT583.	5TT584.	5TT585.
Standards					
Standards		IEC 60947-4-1, IEC 60947-5-1, IEC 61095; EN 60947-4-1, EN 60947-5-1, EN 61095, VDE 0660			
Supply					
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
Contacts					
Contact gap	Minimum	3.6 mm		3.4 mm	
Minimum switching capacity	(= minimum contact load)	≥17 V; 50 mA			
Electrical service life at I_e and load	AC-1/AC-7a switching cycles	200000		100000	
	AC-3/AC-7b switching cycles	300000	500000	150000	
Mechanical service life	Switching cycles	3 million			
Switching of resistive loads AC-1/AC-7a for rated operational power P_s	Single-phase (230 V) (NO contacts)	4 kW	5.4 kW	8.7 kW	13.3 kW
	Three-phase (400 V) (NO contacts)	–	16 kW	26 kW	40 kW
Switching of three-phase asynchronous motors AC-3/AC-7b for rated operational power P_s	Single-phase (230 V) (NO contacts)	1.3 kW [1]	1.3 kW	3.7 kW	5 kW
	Three-phase (400 V) (NO contacts)	–	4 kW	11 kW	15 kW
Maximum switching frequency at load		600 h^{-1}			
Safety					
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
Function					
Switching times	Closing (NO contacts)	15 ms ... 25 ms	10 ms ... 20 ms	15 ms ... 20 ms	
	Opening (NO contacts)	20 ms		10 ms	
	Closing (NC contacts)	20 ms ... 30 ms		5 ms ... 10 ms	
	Opening (NC contacts)	10 ms		10 ms ... 15 ms	
Connections					
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^2			
	Flexible, with end sleeve	1.0 ... 2.5 mm^2			
Main connection conductor cross-section	Rigid	1.0 ... 10 mm^2		1 ... 25 mm^2	
	Flexible, with end sleeve	1.0 ... 6 mm^2		1 ... 16 mm^2	
Tightening torque	Coil connection	0.6 Nm			
	Main connection	1.2 Nm		3.5 Nm	
Environmental conditions					
Permissible ambient temperature	For operation/for storage	–5 ... +55 °C / –30 ... +80 °C			
Degree of protection	Acc. to EN 60529	IP 20, with connected conductors			

[1] For NO contacts only.

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

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5TT5 auxiliary switches

For 5TT5 Insta contactor

Rigid conductor cross-section	1 ... 2.5 mm²
Flexible conductor cross-section, with end sleeve	1 ... 2.5 mm²

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

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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)	≥12 V; 5 mA
Mechanical service life	Switching cycles	3 million
Maximum switching frequency at load		600 h^{-1}
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	± Screw (Pozidriv)	PZ 1
Conductor cross-section	Rigid	1 ... 2.5 mm²
	Flexible, with end sleeve	1 ... 2.5 mm²
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	IP 20, with connected conductors

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5TT3 soft-starting devices

For two-phase motor control

Rigid conductor cross-section	Max. 2× 2.5 mm²
Flexible conductor cross-section, with end sleeve	Min. 1× 0.5 mm²

Version	U_e AC	Mounting width	
Three-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× I_N, T_{AN} = 10 s, v_u = 20%	Switching cycles (up to 3 kW)	36 h^{-1}
	Switching cycles (from 3 ... 5.5 kW)	20 h^{-1}
Recovery time		100 ms
Connections		
Conductor cross-section	Rigid	Max. 2× 2.5 mm²
	Flexible, with end sleeve	Min. 1× 0.5 mm²
Environmental conditions		
Permissible ambient temperature		–20 ... +60 °C
Resistance to climate	Acc. to EN 60068-1	20/60/4

System overview, page 5/4

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 switching cycles	At p.f. = 1	6000 (20 A)
Mechanical switching cycles		>5 million
Incandescent lamp load		5 A
Energy-saving lamp load		300 W
Fluorescent lamp load	Parallel p.f. correction 70 µF	60 VA
	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 [1]		28
Battery type		Li primary cell
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm²
	Flexible, with end sleeve	Max. 2.5 mm²
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

[1] A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.

System overview, page 5/4

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

		Top
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		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 switching cycles	At p.f. = 1	100000
Mechanical switching 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
Safety		
Different phases between operating mechanism and contact		Permissible [2]
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	±1.5 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 [1]		28 (14 per channel)
Program memory	Captive	No
Battery type		Li primary cell
Connections		
Terminals	± Screw (Pozidriv)	PZ 1
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm²
	Flexible, with end sleeve	Max. 2.5 mm²
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

[1] A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.
[2] 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.

System overview, page 5/4

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 switching cycles	At p.f. = 1	100000
Mechanical switching 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 [2]
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 [1]		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 mm²
	Flexible, with end sleeve	Max. 2.5 mm²
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

[1] A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.
[2] 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.

System overview, page 5/4

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 switching cycles	At p.f. = 1	100000
Mechanical switching 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 [2]
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 [1]		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 mm²
	Flexible, with end sleeve	Max. 2.5 mm²
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

[1] A program consists of an ON time, an OFF time and assigned ON and OFF days or day blocks.
[2] 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.

System overview, page 5/4

7LF4 digital time switches

Accessories

		Mini	Top	Profi	Astro
Data keys					
 • For Profi and Astro digital time switches • Programming at the PC (7LF4941-0 USB adapter and software required) • Read-in of programs to the time switch • Writing of programs from the time switch • Transfer of programs – From PC to time switch and vice versa – From time switch to time switch					
	Article No.				
	7LF4941-1	–	–	■	■
USB adapter and software					
 • For Profi and Astro digital time switches • For the reading and writing of data keys at the PC • Including programming software • Including 7LF4941-1 data key for Profi and Astro • Compatible with 7LF4940-1 data key (predecessor model) and 7LF4940-2 data key • Can be connected via USB interface • System requirements: – Windows 7, Windows Vista, Windows 2000, Windows ME, Windows XP or Windows 98 Second Edition – USB connection – 40 MB free disk space					
	Article No.				
	7LF4941-0	–	–	■	■
Holders for front panel installation					
 • Universal application for devices from 1 MW ... 6 MW • Cutout dimensions: – Height $45^{+0.5}$ mm – Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm					
	Article No.				
	7LF9006	■	■	■	■

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7LF5 mechanical time switches

Time switches without power reserve

		For standard mounting rail		For wall mounting (surface mounting)
				
Contacts	**Mounting width**			
With day disk				
1 NO	1 MW	7LF5300-1	–	–
1 CO	3 MW	–	7LF5300-5	–
	–	–	–	7LF5301-0
With week disk				
1 CO	3 MW	–	7LF5300-6	–

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Further technical specifications

		7LF5300-1	7LF5300-5	7LF5300-6	7LF5301-0
Standards					
Standards		EN 60730-1, -2-7, UL 917, UL 917, CSA C22.2 No. 14 and 177			
Approvals		VDE, UL file: E301698			
Supply					
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			
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	4 A			
Contacts					
Minimum contact load		4 V / 1 mA			
Electrical switching cycles	At p.f. = 1	100000			
Mechanical switching cycles		20 million			
Incandescent lamp load		5 A			
Fluorescent lamp load	Parallel p.f. correction 70 µF	60 VA			
	Uncorrected	1400 VA			
Safety					
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			
Function					
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
Connections					
Terminals	± Screw (Pozidriv)	PZ 1			
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm²			
	Flexible, with end sleeve	Max. 2.5 mm²			
	Flexible, without end sleeve	Max. 4 mm²			
Environmental conditions					
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 $45^{+0.5}$ mm
  - Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm

Article No.
7LF9006

System overview, page 5/4

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				
With day disk					
1 NO	1 MW	7LF5301-1	–	–	–
1 CO	3 MW	–	7LF5301-6	7LF5301-4	–
	–	–	–	–	7LF5305-0
With week disk					
1 CO	3 MW	–	7LF5301-7	7LF5301-5	–

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System overview, page 5/4

Further technical specifications

		7LF5301-1	7LF5301-4	7LF5301-5	7LF5301-6	7LF5301-7	7LF5305-0
Standards							
Standards		EN 60730-1, -2-7, UL 917, UL 917, CSA C22.2 No. 14 and 177					
Approvals		VDE, UL file: E301698					
Supply							
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		
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	4 A					
Contacts							
Minimum contact load		4 V / 1 mA					
Electrical switching cycles	At p.f. = 1	100000					
Mechanical switching cycles		20 million					
Incandescent lamp load		5 A					
Fluorescent lamp load	Parallel p.f. correction 70 µF	60 VA					
	Uncorrected	1400 VA					
Safety							
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					
Function							
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					
Connections							
Terminals	± Screw (Pozidriv)	PZ 1					
Conductor cross-sections of main current path	Rigid	1.5 ... 4 mm²					
	Flexible, with end sleeve	Max. 2.5 mm²					
	Flexible, without end sleeve	Max. 4 mm²					
Environmental conditions							
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 $45^{+0.5}$ mm
  - Width 23 mm, 41 mm, 59 mm, 77 mm, 95 mm or 113 mm

Article No.
7LF9006

System overview, page 5/4

7LF6 timers for buildings new

	Standard stairwell lighting timers	Multi stairwell lighting timers
3-wire circuit	■	■
4-wire circuit	■	■
Zero crossing circuit	■	■
Operation	Resettable	Resettable
		

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Contacts	Warning of impending switch-off	Mounting width		
1 NO	–	1 MW	7LF6310	–
	Flickering	1 MW	–	7LF6311

Further technical specifications

		7LF6310	7LF6311
Supply			
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	
Contacts			
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 µF	1000 W	
Compact fluorescent lamp load		1000 W	
LED		1000 W	
Electronic transformers		2000 VA	
Conventional transformers		2000 VA	
Function			
Setting range		0.5 ... 10 min	0.5 ... 12 min
Manual switches		Yes	
Programs		–	7 [1]
Environmental conditions			
Permissible ambient temperature	For operation	–20 ... +55 °C	
	For storage	–20 ... +60 °C	
Degree of protection	Installed	IP30	
Pollution degree		2	

[1] 7 functions, can be selected using selector switch on the device

System overview, page 5/4

5TT3 timers for industrial applications

	Multifunction timers	Delay timers
Programmable for:	• Response delay • Passing make contact function • Pulse generator, delayed • Clock generator, starting with impulse • OFF-delay • Pulse converter • Passing break contact function • Response delay/OFF-delay	–
		
Contacts / **Mounting width**		
1 CO / 1 MW	5TT3185	5TT3181

Further technical specifications

		5TT3185	5TT3181
Standards			
Standards		EN 60255; DIN VDE 0435-110	
Supply			
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. 1.5 VA	Approx. 5 VA
Contacts			
Contact gap		µm contact	
Minimum contact load		10 V / 300 mA	
Electrical service life	Switching cycles	1.5×10^5	–
	At AC-15	–	1.5×10^5
Safety			
Rated impulse withstand voltage U_{imp}	Input / output	>4 kV	
Function			
Setting range		1 s ... 300 h	
Recovery time		15 ... 80 ms	Approx. 40 ms
Connections			
Terminals	± Screw (Pozidriv)	PZ 2	
Conductor cross-sections of main current path	Rigid	Max. 2× 2.5 mm²	
	Flexible, with end sleeve	Min. 2× 1.5 mm²	
Environmental conditions			
Permissible ambient temperature		–40 ... +60 °C	
Resistance to climate	Acc. to EN 60068-1	40/60/4	

System overview, page 5/4

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.

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Overvoltage Protection Devices

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Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
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

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- Overvoltage protection devices sie.ag/2kTfytV

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Commissioning + operation

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- Configuration manual – Overvoltage protection devices (45315289)

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- 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 (109769084)

System overview

Basic units

5SD74 lightning arresters type 1

5SD74 combination surge arresters type 1 + type 2

5SD74 combination surge arresters type 1 / type 2

5SD74 surge arresters type 2 (standard design)

5SD74 surge arresters type 3

Replacement plugs

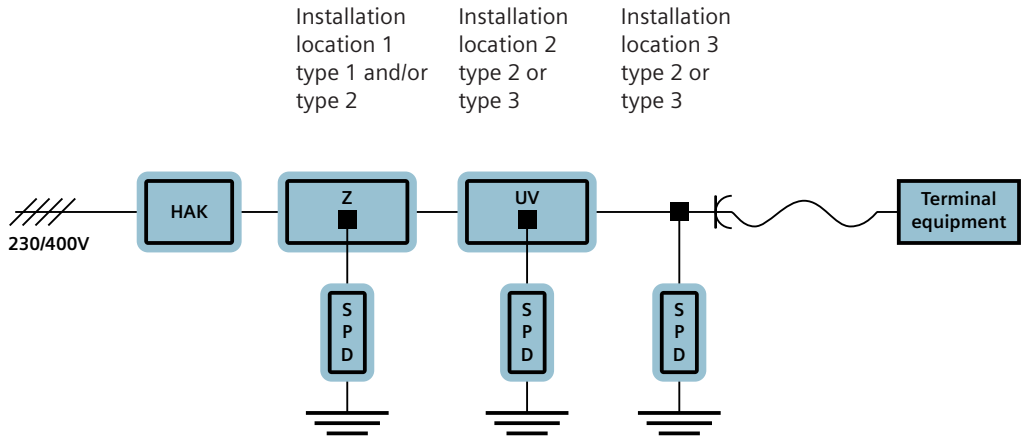
N-PE

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				
With remote signaling					
1 + 0	–[1]	5SD7411-2	–	–	–
1 + 1	4 MW	–	–	5SD7412-1	–
3 + 0	6 MW	–	5SD7413-1	–	–
3 + 1	8 MW	–	–	–	5SD7414-1

[1] No modular installation device.

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Further technical specifications

		5SD7411-2	5SD7412-1	5SD7413-1	5SD7414-1
Standards					
Standards		IEC 61643-11, EN 61643-11			
Approvals		–	KEMA, UL/cUL		
Voltage					
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
Current					
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
Function					
Response time t_A	L-N and L-PEN	≤100 ns			
	L-N and N-PE	–	≤100 ns	–	≤100 ns
Connections					
Conductor cross-section	Finely stranded	16 ... 50 mm²	2.5 ... 25 mm²		
	Solid	16 ... 50 mm²	2.5 ... 35 mm²		
Protection devices					
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		
Environmental conditions					
Degree of protection		IP20, with connected conductors			
Temperature range		–40 ... +80 °C			

System overview, page 6/4

Accessories

Replacement 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

System overview, page 6/4

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			
With remote signaling				
1 + 1	4 MW	–	5SD7442-1	–
3 + 0	6 MW	5SD7443-1	–	–
3 + 1	8 MW	–	–	5SD7444-1

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Further technical specifications

		5SD7442-1	5SD7443-1	5SD7444-1
Standards				
Standards		IEC 61643-11; EN 61643-11		
Approvals		KEMA, UL/cUL		
Voltage				
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
Current				
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
Function				
Response time t_A	L-N and L-PEN	≤25 ns		
	L-N and N-PE	≤100 ns	–	≤100 ns
Connections				
Conductor cross-section	Finely stranded	2.5 … 25 mm²		
	Solid	2.5 … 35 mm²		
Protection devices				
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		
Environmental conditions				
Degree of protection		IP20, with connected conductors		
Temperature range		–40 … +80 °C		
Display				
Visual function/fault indication		Yes		

System overview, page 6/4

Accessories

Replacement 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

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System overview, page 6/4

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
With remote signaling						
1 + 0	–[1]	5SD7411-2	–	–	–	–
3 + 0	3 MW	–	5SD7413-3	–	–	
3 + 1	4 MW	–	–	–	5SD7414-3	–
Without remote signaling						
1 + 1	2 MW	–	–	5SD7412-2	–	–
3 + 0	3 MW	–	5SD7413-2	–	–	5SD7483-6
3 + 1	4 MW	–	–	–	5SD7414-2	–

[1] No modular installation device.

Further technical specifications

		5SD7411-2	5SD7412-2	5SD7413-2 5SD7413-3	5SD7414-2 5SD7414-3	5SD7483-6
Standards						
Standards		IEC 61643-11				EN 50539
Approvals		–	KEMA			
Voltage						
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	–
Current						
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	–
Function						
Response time t_A	L-N and L-PEN	<100 ns	≤25 ns			
	L-N and N-PE	–	≤100 ns	–	≤100 ns	≤25 ns
Connections						
Conductor cross-section	Finely stranded	16 ... 50 mm²	1.5 ... 25 mm²			
	Solid	16 ... 50 mm²	1.5 ... 35 mm²			
Protection devices						
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			–
Environmental conditions						
Degree of protection		IP20, with connected conductors				
Temperature range		–40 ... +80 °C				

System overview, page 6/4

Accessories

Replacement 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

System overview, page 6/4

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**						
With remote signaling							
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
Without remote signaling								
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
Standards								
Standards		IEC 61643-11; EN 61643-11						
Approvals		KEMA					–	KEMA, UL/cUL
Voltage								
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	–	
Current								
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	–	
Function								
Response time t_A	L-N and L-PEN	–	≤25 ns	≤100 ns	≤25 ns			
	L-N and N-PE	≤100 ns	–			≤100 ns	–	
Connections								
Conductor cross-section	Finely stranded	1.5 ... 25 mm²						
	Solid	1.5 ... 35 mm²						
Protection devices								
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						
Environmental conditions								
Degree of protection		IP20, with connected conductors						
Temperature range		–40 ... +80 °C						

System overview, page 6/4

Accessories

Replacement 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

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System overview, page 6/4

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 µs)			
		L-N or L-(PE)N	N-PE		
With remote signaling					
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	–	–
Without remote signaling					
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
Standards			
Standards		IEC 61643-11, EN 61643-11	
Approvals		KEMA/UL/cUL	
Voltage			
Protection level U_p	L-N and L-PEN	≤1.50 kV	
	L-PE	≤1.90 kV	
	N-PE	≤1.50 kV	
Current			
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN	20 kA	
	N-PE	20 kA	
Max. discharge surge current $I_{max.}$ (8/20 µs)	L-N	40 kA	
	N-PE	40 kA	
Function			
Response time t_A	L-N and L-PEN	≤25 ns	
	L-N and N-PE	≤100 ns	
Connections			
Conductor cross-section	Finely stranded	2.5 ... 16 mm²	
	Solid	2.5 ... 25 mm²	
Protection devices			
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	
Environmental conditions			
Degree of protection		IP20, with connected conductors	
Temperature range		–40 ... +80 °C	

System overview, page 6/4

Accessories

Replacement 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

System overview, page 6/4

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**			
With remote signaling				
1 + 0	1 MW	5SD7432-5 new	5SD7432-6 new	5SD7432-7 new

6

Further technical specifications

		5SD7432-5	5SD7432-6	5SD7432-7
Standards				
Standards		IEC 61643-11; EN 61643-11		
Approvals		KEMA/UL/cUL		
Voltage				
Protection level U_p	L-N, L-PE and N-PE	≤200/≤600 V	≤750/≤850 V	≤1250/≤1400 V
Current				
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	
Function				
Response time t_A		≤100 ns		
Connections				
Conductor cross-section	Finely stranded	0.2 ... 2.5 mm²		
	Solid	0.2 ... 4 mm²		
Protection devices				
Required back-up fuse, max.	(gG/B/C)	25 A		
Environmental conditions				
Degree of protection		IP20, with connected conductors		
Temperature range		–40 ... +80 °C		
Display				
Visual function/fault indication		Yes		

System overview, page 6/4

System overview, page 6/4

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.

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- Technology primer – Fuse systems (109482303)

The relevant tender specifications can be found at
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- Certificates

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- Configuration manual – Fuse systems (45314810)
- Planning manual – Planning with SIVACON 8PS (109478425)

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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 (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

Cylindrical fuses

SILIZED

Photovoltaic cumulative fuses

Photovoltaic 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 of fuse systems according to IEC

Fuse links


Standard	IEC	IEC
Rated current I_n	2 ... 100 A	2 ... 100 A
Voltage U_n (AC)	400 V	500 ... 750 V
Voltage U_n (DC)	250 V	500 ... 750 V
Design / application	NEOZED / SILIZED	DIAZED / SILIZED

Selection according to protection task

Cables and lines, general (gG)	■	■
Motor protection (aM)	–	–
Power semiconductor (aR, gR, gS)	■	■
Photovoltaic protection (gPV)	–	–
Battery protection (aR, gR, gBAT)	–	–
Type	5SE	5SA, 5SB, 5SC, 5SD
More information	See page 7/32 See page 7/34	See page 7/33 See page 7/34

Fuse holders and bases

For protection tasks

Overview, see page 7/8

	Floor fixation	Standard mounting rail	Busbar	Type	Stand-ard	More information		
Fuse bases	–	■	■	5SG	IEC	See page 7/12	■	–
	■	■	■	5SF	IEC	See page 7/18	–	■
	■	–	–	3NH	IEC / UL	See page 7/22	–	–
	■	–	–	3NH7	IEC	See page 7/22	–	–
	–	■	■	3NW7	IEC / UL	See page 7/24	–	–
	–	■	–	3NC..	IEC / UL	See page 7/25	–	–
	–	■	–	3NW7...-4	IEC	See page 7/26	–	–

For protection and switching tasks

System overview, see page 8/80, 8/116

	Floor fixation	Standard mounting rail	Busbar	Type	Stand-ard	More information		
Fuse switch disconnectors	■	■	■	3NP1	IEC / UL	See page 8/80	–	–
	■	–	■	3NP5	IEC / UL	See page 8/94	–	–
	–	■	■	5SG7	IEC	See page 8/144	■	–
	–	–	■	3NJ4	IEC	See page 8/98	–	–
Switch disconnector with fuse	■	■	–	3KF LV HRC	IEC	See page 8/116	–	–
	■	■	–	3KF SITOR	IEC / UL	See page 8/116	–	–
	–	–	■	3NJ62	IEC	See page 8/132	–	–


System overview, page 7/4

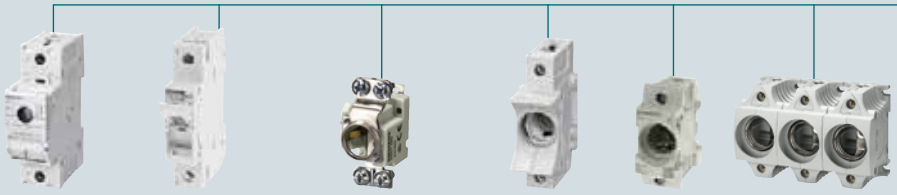
Overview, see page 7/30

					
IEC	IEC	IEC / UL	IEC / UL	IEC	UL
2 ... 1250 A	0.5 ... 100 A	2 ... 2400 A	1 ... 125 A	2 ... 630 A	0.5 ...30 A
400 ... 690 V	400 ... 690 V	500 ... 2500 V	600 ... 1500 V	–	600 V
250 ... 400 V	–	440 ... 3000 V	250 ... 1000 V	1000 ... 1500 V	150 ... 300 V
LV HRC	Cylindrical	SITOR LV HRC	SITOR cylindrical	Photovoltaic	Class CC
■	■	–	–	–	■
■	■	–	–	–	■
–	–	■	■	–	–
–	–	–	–	■	–
–	–	■	■	–	–
3NA, 3ND	3NW6, 3NW8	3NE, 3NC	3NC10	3NE..., 3NW...	3NW1, 3NW2, 3NW3
See page 7/36	See page 7/41	See page 7/42	See page 7/59	See page 7/35 See page 7/64	See page 7/65
–	–	–	–	–	–
–	–	–	–	–	–
■	–	■	–	–	–
–	–	–	–	■	–
–	■	–	–	–	■
–	–	–	■	–	–
–	–	–	–	■	–
■	–	■	–	–	–
■	–	■	–	–	–
–	–	–	–	–	–
■	–	–	–	–	–
■	–	(■)	–	–	–
–	–	■	–	–	–
■	–	–	–	–	–

System overview, page 7/4

Overview of fuse holders, bases and D0 fuse switching devices

IEC



			MINIZED switch disconnectors	MINIZED fuse switch disconnectors	NEOZED fuse bases			NEOZED comfort bases	NEOZED fuse bases	DIAZED fuse bases
Basic data										
Size			D02	D01	D01	D02	D03	D01, D02	D01, D02	NDz, DII, DIII
Variant			5SG71	5SG76	5SG15 5SG55	5SG16 5SG56	5SG18	5SG1301 5SG1701 5SG5301 5SG5701	5SG1302 5SG1702 5SG5302 5SG5702	5SF
Standards										
Standards			DIN VDE 0638; DIN EN 60947-3 (VDE 0660-107) EC/EN 60947-3	DIN VDE 0638; DIN 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			–	–		–		–	–	–
Approvals			–	–		–		–	–	–
Technical specifications AC										
Rated voltage	U_n	V AC	230/400, 240/415	230/400, 240/415	400	400	400	–	–	500, 690, 750
	U_n acc. to UL	V AC	–	–	–	–	–	–	–	–
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-22 B, AC-23 B (35A)	AC-22 A	–	–	–	–	–	–
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-22 B	–	–	–	–	–	–	–
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										
Catalog LV 10			See page 7/13	See page 7/12	See page 7/16					See page 7/18

[1] Extended rated voltage up to 1000 V (except LV HRC bus-mounting bases).

System overview, page 7/4

IEC






Cylindrical fuse holders		LV HRC fuse bases, LV HRC bus-mounting bases						Photovoltaic cumulative fuse bases						NEOZED bus-mounting bases for 5SG 60 mm compact busbar systems	NEOZED SR60 bus-mounting bases	DIAZED SR60 bus-mounting bases	
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, DIN VDE 0636-3	IEC 60269-3, DIN VDE 0636-3
UL File number E171267		KEMA; UL file number E171267-IZLT2						–	–	–	–	–	–	–	–	–	–
–	–	–						–	–	–	–	–	–	–	–	–	–
400	690	690 [1]	690 [1]	690 [1]	690 [1]	690 [1]	690	–	–	–	–	–	–	400	400	500	690
–	700	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
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			

System overview, page 7/4

Overview of fuse holders, bases and D0 fuse switching devices

IEC / UL

			LV HRC fuse bases, LV HRC bus-mounting bases						Fuse holders for SITOR semiconductor fuses (cylindrical fuse design)			
Basic data												
Size			000/00	0	1	2	3	4	10 × 38 mm	14 × 51 mm	22 × 58 mm	22 × 127 mm
Variant			–	–	–	–	–	–	3NC10	3NC14	3NC22	3NC23
Standards												
Standards			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
Approvals			KEMA, UL file number E171267-IZLT2						UL 4248-1; UL File number E171267; CSA C22.2 No. 39-M			–
Approvals			–						UL, CSA	UL, CSA	UL, CSA	–
Technical specifications AC												
Rated voltage	U_n	V AC	690 [1]	690 [1]	690 [1]	690 [1]	690 [1]	690	690	690	690	1500
	U_n acc. to UL	V AC	–	–	–	–	–	–	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	1250	32	50	100	63
	I_n acc. to UL/CSA	A	–	–	–	–	–	–	30	50 (UL), 40 (CSA)	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	440		800		1000
	U_n acc. to UL	V DC	–	–	–	–	–	–	–	–	–	–
Short-circuit strength		kA DC	25	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	90	3 (6 mm²), 4.3 (10 mm²)	5 (10 mm²), 6.5 (25 mm²)	9.5 (35 mm²), 11 (50 mm²)	15 (1 ... 50 mm²)
Pollution degree			–	–	–	–	–	–	2	2	2	–
Further information												
Catalog LV 10			See page 7/22						See page 7/60			

[1] Extended rated voltage up to 1000 V (except LV HRC bus-mounting bases).

System overview, page 7/4

IEC / UL

UL

Cylindrical fuse holders		Photovoltaic cylindrical fuse holders		Class CC fuse holders	Class J fuse holders				
10 × 38 mm	14 × 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		(File number E469670, CCC) (variants without signal detector)	(E355487)	UL 4248-1; UL File number E171267; CSA C22.2	UL File number E171267; CSA File number 233322; Class number 6225-01				
,		–	–	–	,	,	c us	c us	, Busbar device: c us
690	690	–	–	–	–	–	–	–	–
600	700	–	–	600	600	600	600	600	600
–	–	–	–	–	–	–	–	–	–
100	100	–	–	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
–	–	–	–	–	–	–	–	–	–
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 mm²), 4.3 (10 mm²)	–				
–		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				

System overview, page 7/4

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

System overview, page 7/4

MINIZED switch disconnectors

Number of poles	1P	1P+N	2P	3P	3P+N
					
Size	**Rated current**					
D02	25 A	–	–	–	5SG7133-8BA25 [1]	–
	35 A	–	–	–	5SG7133-8BA35 [1]	–
	50 A	–		–	5SG7133-8BA50 [1]	–
	63 A	5SG7113	5SG7153	5SG7123	5SG7133	5SG7163

[1] Versions for Austria only, with permanently fitted adapter sleeves and incl. fuse link

Accessories

Reducers

Use	Article No.
For D01 fuse links in MINIZED D02 switch disconnectors	5SH5527

Auxiliary switches (AS)

Version	Article No.
1 NO contact + 1 NC contact	5ST3010
2 NO contacts	5ST3011
2 NC contacts	5ST3012

Auxiliary switches (AS) with TEST button

Version	Article No.
1 NO contact + 1 NC contact	5ST3010-2
2 NO contacts	5ST3011-2
2 NC contacts	5ST3012-2

System overview, page 7/4

NEOZED bus-mounting switch disconnectors

For 8US 60 mm busbar systems

							Size D02		
						Mounting width	1.5 MW	1.5 MW	1.5 MW
									
For flat copper profiles	**Rated current I_e**		**Rated voltage U_e**			**Standard**	**Without LED signal detector**		**With LED signal detector**
	IEC	**UL 508**	**IEC AC**	**IEC DC**	**UL 508**				
Box terminals									
5 mm and 10 mm	63 A	–	400 V AC	–	–	IEC	5SG7234-1 [2]	–	5SG7234-2 [2]
			400 V AC	110 V DC	–	IEC	–	5SG7230 [1]	–

[1] In the case of permanent load over 35 A, we recommend the use of lateral module 5SH5526. Please observe EN 60439-1, Table 1.
[2] In the case of permanent load over 35 A, we recommend the use of lateral module 5SH5533. Please observe EN 60439-1, Table 1.

Suitable accessories

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Auxiliary switches

- For signaling the switching state for bus-mounting switch disconnectors

Contacts	**Mounting width**	**Article No.**	**Article No.**	**Article No.**
1 CO contact	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	**Article No.**	**Article No.**	**Article No.**
For NEOZED D01 fuse links in SR60 bus-mounting switch disconnectors	5SH5527	5SH5527	5SH5527

See SITOR semiconductor fuse links (cylindrical fuse design) **from page 13/1**

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NEOZED fuse bases

		Comfort bases made of molded plastic		Fuse bases made of molded plastic		
				Without LED signal detector		With LED signal detector
	Number of poles	1P	3P	1P	3P	1P
						
Size	**Rated current**					
D01	16 A	5SG1301	5SG5301	5SG1302	5SG5302	5SG1302-1
D02	63 A	5SG1701	5SG5701	5SG1702	5SG5702	5SG1702-1
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	5SH4317
			D02	5SH4362

NEOZED adapter sleeves

	Fuse size	Rated current	Color	Article No.
	D01	2 A	Pink	5SH5002
		4 A	Brown	5SH5004
		6 A	Green	5SH5006
		10/13 A	Red	5SH5010
	D01 fuse links in D02 base and MINIZED D02 switch disconnectors	2 A	Pink	5SH5402
		4 A	Brown	5SH5404
		6 A	Green	5SH5406
		10/13 A	Red	5SH5410
		16 A	Gray	5SH5416
	D02	20 A	Blue	5SH5020
		25 A	Yellow	5SH5025
		32 A	Violet	5SH5032
		35/40 A	Black	5SH5035
		50 A	White	5SH5050
	D03	80 A	Silver	5SH5080

System overview, page 7/4

	Fuse bases made of ceramic					
	With clamp-type terminal		With saddle terminal		With screw head contact	
3P	1P	3P	1P	3P	1P	3P
						
5SG5302-1	5SG1553	5SG5553	–	–	–	–
5SG5702-1	–	–	5SG1653	5SG5653	5SG1693	5SG5693
–	–	–	–	–	5SG1812	–

NEOZED covers

Fuse size	Article No.
D03	5SH5233

NEOZED adapter sleeve fitters

	Article No.
	5SH5100

NEOZED retaining springs

Use	Article No.
For D01 fuse links in D02 screw caps, 2 ... 16 A	5SH5400

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System overview, page 7/4

DIAZED fuse bases

		Fuse bases made of molded plastic		Fuse bases made of ceramic	
		With box terminal		With clamp-type terminal	With saddle terminal
	Number of poles	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 [1]	5SF5268 [1]	–	5SF1205 [1]

[1] Can also be used for 690 V AC / 600 V DC.

Accessories

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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	Rated current	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

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With screw head contact	
1P	
	
U_n AC/DC 750/750 V	
–	
5SF4230	

DIAZED adapter sleeves for screw caps

Use	Article No.
For DII fuse links in DIII base	5SH302

DIAZED adapter sleeve fitters

Use	Article No.
For DII / DIII screw adapters	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

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Bus-mounting bases

For 8US busbar systems

				Compact busbar systems	60 mm busbar systems			
				NEOZED design	NEOZED design		DIAZED design	
			Number of poles	3P	3P		3P	
								
Size	**I_n**	**Mounting width**	**U_n AC/DC**	**With touch protection**	**Standard**	**With touch protection**	**Standard**	**With touch protection**
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 [1]	–	–	–	5SF6215	5SF6220

[1] Can also be used for 690 V AC / 600 V DC.

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Accessories

Covers for 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

See SITOR semiconductor fuse links (cylindrical fuse design) **from page 13/1**

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Photovoltaic cumulative fuse bases

			With flat terminals, ceramic	With swiveling mechanism	With swiveling mechanism and microswitch for tripped signaling
					
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	–

Accessories

Terminal covers for PV fuse bases with swiveling mechanism

Fuse link size	Article No.
1, 1L, 1XL	3NX3121
2L, 2XL	3NX3122
3L	3NX3123

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System overview, page 7/4

LV HRC fuse bases

	Ceramic			
Number of poles	1P			
				
Size	**Rated current**	**Flat terminals**	**Plug-in terminal**	**Saddle-type terminal**	**Double busbar terminal**
000/00	160 A	3NH3030	3NH3031	3NH3032	–
0 [1]	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	–	–	–	–

[1] 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.
	When using fuse links with non-insulated grip lugs	3NX3116

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		Molded plastic	With swivel device
3P		1P	1P
			
Flat terminals	**Saddle-type terminal**	**Flat terminals**	**Flat terminals**
3NH4030	3NH4032	3NH3051	–
–	–	–	–
3NH4230	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	3NH7520

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Covers for LV HRC fuse bases

- Red color
- With inscription "Isolating point"
- Observe width 60 mm of the blank insert when using for size 1

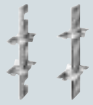
Size	Article No.
000/00	3NX1003
1, 2, 3	3NX1004

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



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Cylindrical fuse holders

Number of poles	1P		1P+N	2P	3P		3P+N
							
Size	**Rated current**	**Standard**	**Bus-mounting fuse holders**	**Standard**	**Standard**	**Standard**	**Compact**	**Standard**
Without LED signal detector								
8 mm × 32 mm	20 A	3NW7313	–	3NW7353	3NW7323	3NW7333	–	3NW7363
10 mm × 38 mm	30 A	–	3NW7431	–	–	–	–	–
	32 A	3NW7013	–	3NW7053	3NW7023	3NW7033	3NW7033-1	3NW7063
14 mm × 51 mm	50 A	3NW7111	–	3NW7151	3NW7121	3NW7131	–	3NW7161
22 mm × 58 mm	100 A	3NW7211	–	3NW7251	3NW7221	3NW7231	–	3NW7261
With LED signal detector								
8 mm × 32 mm	20 A	3NW7314	–	3NW7354	3NW7324	3NW7334	–	3NW7364
10 mm × 38 mm	32 A	3NW7014	–	3NW7054	3NW7024	3NW7034	3NW7034-1	3NW7064
14 mm × 51 mm	50 A	3NW7112	–	3NW7152	3NW7122	3NW7132	–	3NW7162
22 mm × 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 mm × 51 mm	3NW7901
	22 mm × 58 mm	3NW7902
Switching state of fuse holder	8 mm × 32 mm and 10 mm × 38 mm	3NW7903

Auxiliary switches for cylindrical fuse holders, compact

Rated operational current I_e/AC-12	Rated operational voltage U_e	Contacts	Article No.
5 A	Max. 250 V	1 NO contact + 1 NC contact	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 mm² ... 35 mm²	5ST2600

See SITOR semiconductor fuse links (cylindrical fuse design) **from page 13/1**

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Fuse holders and bases for SITOR semiconductor fuses

For SITOR fuses with bolt-on links or blade contacts

				Ceramic	Metal
					
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				Cylindrical fuse bases		
	Number of poles	**1P**		**2P**	**3P**	**1P**	**2P**	**3P**
								
Size	**Rated voltage AC / DC**	**Signaling switch**						
		Without	**With**					
10 mm × 38 mm	600 / – V	–	–	–	–	3NC1038-1	3NC1038-2	3NC1038-3
	690 / 800 V	3NC1091	–	3NC1092	3NC1093	–	–	–
14 mm × 51 mm	690 / 800 V	3NC1491	3NC1491-5	3NC1492	3NC1493	–	–	–
22 mm × 58 mm	690 / 800 V	3NC2291	3NC2291-5	3NC2292	3NC2293	–	–	–
22 mm × 127 mm	1500 / 1000 V	3NC2391-0MK	–	3NC2392-0MK	3NC2393-0MK	–	–	–

Accessories

Fuse tongs

For sizes	Article No.
10 mm × 38 mm 14 mm × 51 mm 22 mm × 58 mm	3NC1000

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Photovoltaic cylindrical fuse holders

		Without signal detector			With signal detector	
	Number of poles	1P	1P	2P	1P	2P
						
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 mm × 38 mm	30 A	3NW7013-4	–	3NW7023-4	3NW7014-4	3NW7024-4
10 mm × 85 mm	32 A	–	3NW7613-4	–	–	–

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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	3P
									
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

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Class CC fuse holders

		Standard			Compact		Bus-mounting fuse holders for 8US 60 mm busbar systems
Number of poles		1P	2P	3P	3P		1P
							
Rated current	Rated voltage				Signal detector without	Signal detector with	
30 A	600 V	3NW7513-0HG	3NW7523-0HG	3NW7533-0HG	3NW7533-1HG	3NW7534-1HG	3NW7431-0HG

See SITOR semiconductor fuse links (cylindrical fuse design) from page 13/1

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Overview

IEC

		NEOZED fuse links	DIAZED fuse links	SILIZED fuse links	LV HRC fuse links
Basic data					
Design		NEOZED	DIAZED	NEOZED, DIAZED	LV HRC
Size		D01, D02, D03	NDz, DII, DIII	D01, D02, DII, DIII, DIV	000/00, 0, 1, 2, 3, 4, 4a
Operational class		gG	gG	gR	gG, aM
Rated current	A	2 ... 100	2 ... 100	10 ... 100	2 ... 1250
Standards					
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 DIN VDE 0636
Approvals		–	–	–	CSA 22.2
Technical specifications AC					
Rated voltage AC	V	400	500 ... 750	400 ... 500	400 ... 690 600 (CSA)
Rated breaking capacity AC	kA	50	50	50	120
Technical specifications DC					
Rated voltage DC	V	250	500 ... 750	250 ... 500	250 ... 440
Rated breaking capacity DC	kA	8	8	8	25
Further information					
Catalog LV 10		See page 7/33	See page 7/33	See page 7/34	Page 7/36

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IEC			IEC / UL		UL
					
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	Cylindrical	LV HRC	LV HRC	Cylindrical	Cylindrical
8 × 32 mm, 10 × 38 mm, 14 × 51 mm, 22 × 58 mm	10 × 38 mm, 10 × 85 mm	1, 1L, 2L, 3L, 1XL, 2XL	000, 00, 1, 2, 3	10 × 38 mm, 14 × 51 mm, 22 × 58 mm	–
gG, aM	gPV	gPV	gS, gR, aR	gS, gR, aR	–
0.5 ... 100	2 ... 20	63 ... 630	6 ... 2400	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	IEC 60269-6	IEC 60269-6	IEC 60269-4	IEC 60269-2	–
UL 4248-1; CSA	–	–	UL 4248-1 UL 4248-13	UL 4248-1 UL 4248-13	UL 4248-1 CSA C22.2
400 ... 690 400 ... 600 (UL / CSA)	–	–	500 ... 2500	690 ... 1500 600 ... 1500 (UL / CSA)	600
20 ... 120	–	–	100 ... 150	100	200
–	1000 ... 1500	1000 ... 1500	400 ... 1500	250 ... 1000	150 ... 300
–	30	30	–	–	–
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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

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DIAZED fuse links

	Size DII E27		Size DIII [1] 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 new	–	–	5SD8016	5SD605	–	5SA2611 new	–
20 A	Blue	5SB2711 new	–	–	5SD8020	5SD606	–	5SA2711 new	–
25 A	Yellow	5SB2811 new	–	–	5SD8025	5SD607	–	5SA2811 new	–
32 A	Violet	–	–	5SB4011 new	–	–	–	–	–
35 A	Black	–	–	5SB4111 new	5SD8035	5SD608	–	–	–
50 A	White	–	–	5SB4211 new	5SD8050	5SD610	–	–	–
63 A	Copper	–	–	5SB4311 new	5SD8063	5SD611	–	–	–
80 A	Silver	–	–	–	–	–	5SC211	–	–
100 A	Red	–	–	–	–	–	5SC221	–	–

[1] For 2 A ... 25 A use screw adaptor DII

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SILIZED fuse links

Operational class gR

			NEOZED design Size D01	Size D02	DIAZED design Size DII	Size DIII	Size DIV
							
I_n	Operating value I^2t	Power loss P_v	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^2s	6.9 W	5SE1310	–	–	–	–
16 A	60 A^2s	12.1 W	–	–	5SD420	–	–
	120 A^2s	6.2 W	5SE1316	–	–	–	–
20 A	139 A^2s	12.3 W	–	–	5SD430	–	–
	190 A^2s	8.1 W	–	5SE1320	–	–	–
25 A	205 A^2s	12.5 W	–	–	5SD440	–	–
	215 A^2s	8.2 W	–	5SE1325	–	–	–
30 A	310 A^2s	13.5 W	–	–	5SD480	–	–
35 A	470 A^2s	16.7 W	–	5SE1335	–	–	–
	539 A^2s	14.8 W	–	–	–	5SD450	–
50 A	1250 A^2s	18.5 W	–	–	–	5SD460	–
	1960 A^2s	12.0 W	–	5SE1350	–	–	–
63 A	1890 A^2s	28 W	–	–	–	5SD470	–
	4230 A^2s	15.5 W	–	5SE1363	–	–	–
80 A	4200 A^2s	34.3 W	–	–	–	–	5SD510
100 A	8450 A^2s	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	–	–

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LV HRC fuse links

Operational class gG, with combination alarm

	Size 000			Size 00			Size 1		
Mounting width	21 mm			30 mm			30 mm		
									
I_n	U_n AC/DC			U_n AC/DC			U_n AC/DC		
	400/– V	500/250 V	690 [1]/250 V	400/– V	500/250 V	690 [1]/250 V	400/– V	500/440 V	690 [1]/440 V
Insulated grip lugs									
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	–	–	–	–	–	–	–	–	–
Non-insulated grip lugs									
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	–	–	–	–	–	–	–	–	–

[1] Manufacturer's confirmation for 690 V +10% rated voltage available on request.

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Size 1 47.2 mm			Size 2 47.2 mm			Size 2 57.8 mm		
								
U_n AC/DC 400/– V	500/440 V	690 [1]/440 V	U_n AC/DC 400/– V	500/440 V	690 [1]/440 V	U_n AC/DC 400/– V	500/440 V	690 [1]/440 V
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	3NA6214	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	3NA6220-4	3NA6220	–	–	–	–
–	–	–	3NA6222-4	3NA6222	–	–	–	–
–	–	–	3NA6224-4	3NA6224	3NA6224-6	–	–	–
–	–	–	3NA6230-4	3NA6230	3NA6230-6	–	–	–
–	–	–	3NA6232-4	3NA6232	3NA6232-6	–	–	–
–	–	–	3NA6236-4	3NA6236	3NA6236-6	–	–	–
3NA6140-4	3NA6140	3NA6140-6	3NA6240-4	3NA6240	3NA6240-6	–	–	–
3NA6142-4	3NA6142	–	3NA6242-4	3NA6242	–	–	–	3NA6242-6
3NA6144-4	3NA6144	–	3NA6244-4	3NA6244	–	–	–	3NA6244-6
–	–	–	–	–	–	3NA6250-4	3NA6250	3NA6250-6
–	–	–	–	–	–	3NA6252-4	3NA6252	3NA6252-6
–	–	–	–	–	–	3NA6254-4	3NA6254	–
–	–	–	–	–	–	3NA6260-4	3NA6260	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–
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–	–	–	–	3NA7214	–	–	–	–
–	–	–	–	–	–	–	–	–
–	–	–	–	3NA7220	–	–	–	–
–	–	–	–	3NA7222	–	–	–	–
–	–	–	–	3NA7224	3NA7224-6	–	–	–
–	–	–	–	3NA7230	3NA7230-6	–	–	–
–	–	–	–	3NA7232	3NA7232-6	–	–	–
–	–	–	–	3NA7236	3NA7236-6	–	–	–
–	3NA7140	3NA7140-6	–	3NA7240	3NA7240-6	–	–	–
–	3NA7142	–	–	3NA7242	–	–	–	3NA7242-6
–	3NA7144	–	–	3NA7244	–	–	–	3NA7244-6
–	–	–	–	–	–	–	–	3NA7250-6
–	–	–	–	–	–	–	3NA7252	3NA7252-6
–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	3NA7260	–

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System overview, page 7/4

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 [1]/250 V	U_n AC/DC 500/250 V	690 [1]/250 V	U_n AC/DC 500/440 V	U_n AC/DC 500/440 V	690 [1]/440 V	U_n AC/DC 500/440 V	690 [1]/440 V
Non-insulated grip lugs										
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	–	–	–	–	–	–	–	–	–	–

[1] Manufacturer's confirmation for 690 V +10% rated voltage available on request.

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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 500/440 V	690 [1]/440 V	U_n AC/DC 500/440 V	690 [1]/440 V	U_n AC/DC 500/440 V	690 [1]/440 V	U_n AC/DC 500/440 V	690 [1]/440 V	U_n AC/DC 500/440 V	U_n AC/DC 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

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System overview, page 7/4

LV HRC fuse links

Operational class aM, with front indicator

	Size 000	Size 00	Size 1		Size 2		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/DC 500/– V	U_n AC/DC 500/– V	U_n AC/DC 690/– V	U_n AC/DC 690/– V	U_n AC/DC 690/– V	U_n AC/DC 690/– V	U_n AC/DC 690/– V	U_n AC/DC 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

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Cylindrical fuse links

Operational class gG

	Size 8 × 32 mm	Size 10 × 38 mm		Size 14 × 51 mm		Size 22 × 58 mm	
							
I_n	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

	Size 10 × 38 mm		Size 14 × 51 mm			Size 22 × 58 mm	
							
I_n	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	–

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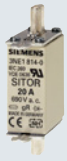
SITOR semiconductor fuse links (LV HRC design)

Operational class gS, with blade contacts without slots

				Size 000	Size 00	Size 1	Size 2	Size 3
								
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 690/– V [1]	U_n AC/DC 690/– V [1]	U_n AC/DC 690/– V [1]	U_n AC/DC 690/– V [1]	U_n AC/DC 690/– V [1]
16 A	200 A^2s	4 W	1.0	3NE1813-0	–	–	–	–
20 A	430 A^2s	5 W	1.0	3NE1814-0	–	–	–	–
25 A	780 A^2s	5 W	1.0	3NE1815-0	–	–	–	–
35 A	1700 A^2s	3.5 W	1.0	3NE1803-0	–	–	–	–
40 A	3000 A^2s	3 W	1.0	3NE1802-0	–	–	–	–
50 A	4400 A^2s	6 W	1.0	3NE1817-0	–	–	–	–
63 A	9000 A^2s	7 W	1.0	3NE1818-0	–	–	–	–
80 A	18000 A^2s	8 W	1.0	3NE1820-0	–	–	–	–
100 A	33000 A^2s	10 W	1.0	–	3NE1021-0	–	–	–
125 A	63000 A^2s	11 W	1.0	–	3NE1022-0	–	–	–
160 A	60000 A^2s	24 W	1.0	–	–	3NE1224-0	–	–
200 A	100000 A^2s	27 W	1.0	–	–	3NE1225-0	–	–
250 A	200000 A^2s	30 W	1.0	–	–	3NE1227-0	–	–
315 A	310000 A^2s	38 W	1.0	–	–	3NE1230-0	–	–
350 A	430000 A^2s	42 W	1.0	–	–	–	3NE1331-0	–
400 A	590000 A^2s	45 W	1.0	–	–	–	3NE1332-0	–
450 A	750000 A^2s	53 W	1.0	–	–	–	3NE1333-0	–
500 A	950000 A^2s	56 W	1.0	–	–	–	3NE1334-0	–
560 A	1700000 A^2s	50 W	1.0	–	–	–	–	3NE1435-0
630 A	2350000 A^2s	55 W	1.0	–	–	–	–	3NE1436-0
710 A	3400000 A^2s	58 W	1.0	–	–	–	–	3NE1437-0
800 A	5000000 A^2s	58 W	1.0	–	–	–	–	3NE1438-0

[1] For the max. DC voltage, see the Configuration Manual "Fuse Systems", chapter "Configuration", "Use with direct current"

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Operational class gR, with bolt-on links

				Size 000	Size 00
			Screw fixing, mounting dimension	M8, 80 mm	M10, 80 mm
					
I_n	Operating value I^2t	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^2s	7 W	0.9	3NE8714-1	–
25 A	140 A^2s	9 W	0.9	3NE8715-1	–
32 A	285 A^2s	10 W	0.9	3NE8701-1	–
40 A	490 A^2s	12 W	0.9	3NE8702-1	–
50 A	815 A^2s	15 W	0.9	3NE8717-1	–
80 A	3200 A^2s	23 W	On req.	–	3NE8020-3MK
100 A	5200 A^2s	29 W	On req.	–	3NE8021-3MK
Further information					
Catalog LV 10				For further currents for operational class aR, see page 7/48	For further currents for operational class aR, see page 7/48

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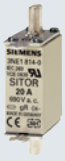
SITOR semiconductor fuse links (LV HRC design)

Operational class gR, with blade contacts without slots

				Size 000	Size 00	Size 0
						
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 690/400 V	U_n AC/DC 690 V [1]	U_n AC/DC 1000 V [1]
6 A	37 A^2s	2.7 W	On req.	3NE8810-0MK	–	–
10 A	50 A^2s	4.5 W	On req.	3NE8812-0MK	–	–
16 A	73 A^2s	6.7 W	On req.	3NE8813-0MK	–	–
20 A	90 A^2s	8 W	On req.	3NE8814-0MK	–	–
25 A	150 A^2s	8.1 W	On req.	3NE8815-0MK	–	–
	180 A^2s	7 W	0.95	–	3NE8015-1	–
32 A	280 A^2s	12 W	0.9	–	–	3NE4101
	350 A^2s	10.5 W	On req.	3NE8801-0MK	–	–
35 A	400 A^2s	9 W	0.95	–	3NE8003-1	–
40 A	480 A^2s	12 W	On req.	3NE8802-0MK	–	–
	500 A^2s	13 W	0.9	–	–	3NE4102
50 A	700 A^2s	14 W	0.90	–	3NE8017-1	–
	800 A^2s	16 W	0.9	–	–	3NE4117
	1050 A^2s	14.5 W	On req.	3NE8817-0MK	–	–
63 A	1400 A^2s	16 W	0.95	–	3NE8018-1	–
	1960 A^2s	23 W	On req.	3NE8818-0MK	–	–
80 A	5800 A^2s	10.5 W	1.0	–	3NE1020-2	–
100 A	11000 A^2s	12 W	1.0	–	3NE1021-2	–
125 A	23000 A^2s	13.5 W	1.0	–	3NE1022-2	–
160 A	18600 A^2s	32 W	1.0	–	–	–
200 A	51800 A^2s	35 W	1.0	–	–	–
250 A	80900 A^2s	37 W	1.0	–	–	–
315 A	168000 A^2s	40 W	1.0	–	–	–
350 A	177000 A^2s	43 W	1.0	–	–	–
400 A	224000 A^2s	50 W	1.0	–	–	–
450 A	276500 A^2s	58 W	1.0	–	–	–
500 A	398000 A^2s	64 W	1.0	–	–	–
560 A	890000 A^2s	60 W	1.0	–	–	–
630 A	1390000 A^2s	60 W	1.0	–	–	–
670 A	1640000 A^2s	64 W	1.0	–	–	–
710 A	1818000 A^2s	72 W	1.0	–	–	–
	2460000 A^2s	65 W	1.0	–	–	–
800 A	2475000 A^2s	84 W	1.0	–	–	–
	3350000 A^2s	72 W	1.0	–	–	–
850 A	3640000 A^2s	76 W	1.0	–	–	–
Further information						
Catalog LV 10				For further currents for operational class aR, see page 7/49	–	For further currents for operational class aR, see page 7/49

[1] For the max. DC voltage, see the Configuration Manual „Fuse Systems", chapter "Configuration", "Use with direct current"

Size 1	Size 2	Size 3	
			
U_n AC/DC 690 V [1]	U_n AC/DC 690 V [1]	U_n AC/DC 600/– V [1]	690 V [1]
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
3NE1224-2	–	–	–
3NE1225-2	–	–	–
3NE1227-2	–	–	–
3NE1230-2	–	–	–
–	3NE1331-2	–	–
–	3NE1332-2	–	–
–	3NE1333-2	–	–
–	3NE1334-2	–	–
–	–	–	3NE1435-2
–	–	–	3NE1436-2
–	–	–	3NE1447-2
–	–	–	3NE1437-2
–	–	3NE1437-1	–
–	–	–	3NE1438-2
–	–	3NE1438-1	–
–	–	–	3NE1448-2
–	–	–	–

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SITOR semiconductor fuse links (LV HRC design)

Operational class gR, with slotted blade contacts

	With 2 oblong slots Size 3		With oblong and transverse slots Size 1	
Screw fixing, mounting dimension (lateral)	M10, 110 mm		M10, 110 mm	
				

I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 500 V [1]	 690 V [1]	U_n AC/DC 690 V [1]	 1000/600 V
32 A	4500 A^2s	9 W	On req.	–	–	–	3NE3201-0MK
40 A	900 A^2s	26 W	On req.	–	–	–	–
	6000 A^2s	13 W	On req.	–	–	–	3NE3202-0MK
50 A	1800 A^2s	27 W	On req.	–	–	–	–
	8000 A^2s	18 W	On req.	–	–	–	3NE3217-0MK
63 A	3100 A^2s	34 W	On req.	–	–	–	–
	9000 A^2s	25 W	On req.	–	–	–	3NE3218-0MK
150 A	17600 A^2s	40 W	0.85	–	3NC8423-0C	–	–
	33000 A^2s	35 W	0.85	3NC2423-0C	–	–	–
160 A	18600 A^2s	32 W	1.0	–	–	3NE1224-3	–
200 A	38400 A^2s	55 W	0.85	–	3NC8425-0C	–	–
	51800 A^2s	35 W	1.0	–	–	3NE1225-3	–
	64000 A^2s	40 W	0.85	3NC2425-0C	–	–	–
250 A	70400 A^2s	72 W	0.85	–	3NC8427-0C	–	–
	80900 A^2s	37 W	1.0	–	–	3NE1227-3	–
	99000 A^2s	50 W	0.85	3NC2427-0C	–	–	–
300 A	132000 A^2s	65 W	0.85	3NC2428-0C	–	–	–
315 A	168000 A^2s	40 W	1.0	–	–	3NE1230-3	–
350 A	176000 A^2s	95 W	0.85	–	3NC8431-0C	–	–
	177000 A^2s	43 W	1.0	–	–	–	–
	249000 A^2s	60 W	0.85	3NC2431-0C	–	–	–
400 A	224000 A^2s	50 W	1.0	–	–	–	–
450 A	276500 A^2s	58 W	1.0	–	–	–	–
500 A	398000 A^2s	64 W	1.0	–	–	–	–
	448000 A^2s	130 W	0.85	–	3NC8434-0C	–	–
560 A	890000 A^2s	60 W	1.0	–	–	–	–
630 A	1390000 A^2s	60 W	1.0	–	–	–	–
670 A	1640000 A^2s	64 W	1.0	–	–	–	–
710 A	1818000 A^2s	72 W	1.0	–	–	–	–
800 A	2475000 A^2s	84 W	1.0	–	–	–	–
850 A	3640000 A^2s	76 W	1.0	–	–	–	–
1000 A	1400000 A^2s	138 W	1.0	–	–	–	–
1100 A	3000000 A^2s	110 W	1.0	–	–	–	–
1250 A	4100000 A^2s	104 W	1.0	–	–	–	–
1350 A	4800000 A^2s	126 W	1.0	–	–	–	–
1400 A	5200000 A^2s	127 W	1.0	–	–	–	–
1600 A	6900000 A^2s	152 W	1.0	–	–	–	–
1700 A	6400000 A^2s	179 W	1.0	–	–	–	–
1700 A	10000000 A^2s	143 W	1.0	–	–	–	–
1900 A	8200000 A^2s	196 W	1.0	–	–	–	–
Further information							
Catalog LV 10				For further currents for operational class aR, see page 7/52	–	–	–

[1] For the max. DC voltage, see the Configuration Manual „Fuse Systems“, chapter “Configuration”, “Use with direct current”
[2] Minimum clearance 90 mm

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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 [2]	M12, 110 mm [2]
						
U_n AC/DC 690 V [1]	U_n AC/DC 1500/1000 V	U_n AC/DC 500 V [1]	690 V [1]	U_n AC/DC 690 V [1]	U_n AC/DC 690 V [1]	U_n AC/DC 690 V [1]
–	–	–	–	–	–	–
–	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
–	–	For further currents for operational class aR, see page 7/52	For further currents for operational class aR, see page 7/52	For further currents for operational class aR, see page 7/52	–	–

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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	Operating value I^2t	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^2s	16 W	0.95	3NE8718-1	–
80 A	2700 A^2s	18 W	0.9	3NE8720-1	–
100 A	4950 A^2s	19 W	0.95	3NE8721-1	–
125 A	9100 A^2s	23 W	0.95	3NE8722-1	–
160 A	17000 A^2s	31 W	0.9	3NE8724-1	–
200 A	30000 A^2s	36 W	0.9	3NE8725-1	–
250 A	55000 A^2s	42 W	0.9	3NE8727-1	–
315 A	85500 A^2s	54 W	0.85	3NE8731-1	–
350 A	135000 A^2s	58.8 W	On req.	–	3NE8031-3MK
400 A	170000 A^2s	74.5 W	On req.	–	3NE8032-3MK
Further information					
Catalog LV 10				For further currents for operational class gR, see page 7/43	For further currents for operational class gR, see page 7/43

System overview, page 7/4

Operational class aR, with blade contacts without slots

				Size 000		Size 00	Size 0	Size 1	Size 2
									
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 500/440 V	690/440 V	U_n AC/DC 690 V [1]	U_n AC/DC 1000 V [1]	U_n AC/DC 690/440 V	U_n AC/DC 690/440 V
63 A	1500 A^2s	20 W	0.9	–	–	–	3NE4118	–	–
80 A	2200 A^2s	23.3 W	On req.	–	3NE8820-0MK	–	–	–	–
	2400 A^2s	19 W	0.95	–	–	3NE8020-1	–	–	–
	3000 A^2s	22 W	0.9	–	–	–	3NE4120	–	–
100 A	3650 A^2s	27 W	On req.	–	3NE8821-0MK	–	–	–	–
	4200 A^2s	22 W	0.95	–	–	3NE8021-1	–	–	–
	6000 A^2s	24 W	0.9	–	–	–	3NE4121	–	–
	6050 A^2s	25.5 W	On req.	–	–	–	–	3NE8221-0MK	–
125 A	6500 A^2s	28 W	0.95	–	–	3NE8022-1	–	–	–
	7800 A^2s	30 W	On req.	–	3NE8822-0MK	–	–	–	–
	8900 A^2s	28.5 W	On req.	–	–	–	–	3NE8222-0MK	–
	14000 A^2s	30 W	0.9	–	–	–	3NE4122	–	–
160 A	13000 A^2s	38 W	0.95	–	–	3NE8024-1	–	–	–
	14000 A^2s	34 W	On req.	3NE8824-0MK	–	–	–	–	–
	16200 A^2s	37 W	On req.	–	–	–	–	3NE8224-0MK	–
	29000 A^2s	35 W	0.9	–	–	–	3NE4124	–	–
200 A	26000 A^2s	49 W	On req.	–	–	–	–	3NE8225-0MK	–
250 A	59000 A^2s	52 W	On req.	–	–	–	–	3NE8227-0MK	–
315 A	120000 A^2s	68 W	On req.	–	–	–	–	3NE8230-0MK	–
350 A	83500 A^2s	68.6 W	On req.	–	–	–	–	–	3NE8331-0MK
400 A	136000 A^2s	72.8 W	On req.	–	–	–	–	–	3NE8332-0MK
450 A	207000 A^2s	80.1 W	On req.	–	–	–	–	–	3NE8333-0MK
500 A	318000 A^2s	77.5 W	On req.	–	–	–	–	–	3NE8334-0MK
550 A	399000 A^2s	86.4 W	On req.	–	–	–	–	–	3NE8335-0MK
630 A	740000 A^2s	90.7 W	On req.	–	–	–	–	–	3NE8336-0MK
Further information									
Catalog LV 10				For further currents for operational class gR, see page 7/44		–	For further currents for operational class gR, see page 7/44	–	–

[1] For the max. DC voltage, see the Configuration Manual „Fuse Systems“, chapter “Configuration”, “Use with direct current”

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System overview, page 7/4

SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with slotted blade contacts

				With 2 oblong slots Size 3	With oblong and transverse slots Size 1		
			Screw fixing, mounting dimension	M10, 110 mm	M8, 80 mm	M10, 110 mm	
							
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 500 V [1]	U_n AC/DC 690/440 V	U_n AC/DC 1000/– V [1]	1000/600 V
80 A	3900 A^2s	42 W	On req.	–	–	–	–
100 A	3200 A^2s	25 W	On req.	–	3NE8221-3MK	–	–
	4800 A^2s	28 W	0.95	–	–	3NE3221	–
	8700 A^2s	45 W	On req.	–	–	–	–
125 A	6000 A^2s	28 W	On req.	–	3NE8222-3MK	–	–
	7200 A^2s	36 W	0.95	–	–	3NE3222	–
	11800 A^2s	59 W	On req.	–	–	–	–
160 A	10500 A^2s	35 W	On req.	–	3NE8224-3MK	–	–
	13000 A^2s	42 W	1.0	–	–	3NE3224	–
	37000 A^2s	54 W	On req.	–	–	–	–
200 A	17500 A^2s	42 W	On req.	–	3NE8225-3MK	–	–
	30000 A^2s	42 W	1.0	–	–	3NE3225	–
	70000 A^2s	56 W	On req.	–	–	–	–
250 A	28500 A^2s	53.5 W	On req.	–	3NE8227-3MK	–	–
	29700 A^2s	105 W	0.85	–	–	–	–
	48000 A^2s	50 W	1.0	–	–	3NE3227	–
	165000 A^2s	59 W	On req.	–	–	–	–
315 A	53500 A^2s	61 W	On req.	–	3NE8230-3MK	–	–
	60700 A^2s	120 W	0.85	–	–	–	–
	80000 A^2s	60 W	0.95	–	–	3NE3230-0B	–
	250000 A^2s	76 W	On req.	–	–	–	–
	300000 A^2s	245 W	On req.	–	–	–	–
350 A	66000 A^2s	69 W	On req.	–	3NE8231-3MK	–	–
	100000 A^2s	75 W	0.95	–	–	3NE3231	–
400 A	110000 A^2s	70.5 W	On req.	–	3NE8232-3MK	–	–
	135000 A^2s	80 W	1.0	–	–	–	–
		85 W	0.9	–	–	3NE3232-0B	–
	390000 A^2s	50 W	0.85	3NC2432-0C	–	–	–
	470000 A^2s	89 W	On req.	–	–	–	–
450 A	175000 A^2s	90 W	1.0	–	–	–	–
		95 W	0.9	–	–	3NE3233	–
	180000 A^2s	71 W	On req.	–	3NE8233-3MK	–	–
	191000 A^2s	140 W	0.85	–	–	–	–
500 A	215000 A^2s	84 W	On req.	–	3NE8234-3MK	–	–
	260000 A^2s	90 W	1.0	–	–	–	–
	276000 A^2s	155 W	0.85	–	–	–	–
	500000 A^2s	105 W	On req.	–	–	–	3NE3234-0MK08
	800000 A^2s	109 W	On req.	–	–	–	–
550 A	290000 A^2s	87 W	On req.	–	3NE8235-3MK	–	–
	700000 A^2s	110 W	On req.	–	–	–	3NE3235-0MK08
560 A	360000 A^2s	95 W	1.0	–	–	–	–
630 A	440000 A^2s	96 W	On req.	–	3NE8236-3MK	–	–
	600000 A^2s	100 W	1.0	–	–	–	–
	850000 A^2s	127 W	On req.	–	–	–	3NE3236-0MK08
	1100000 A^2s	163 W	On req.	–	–	–	–
710 A	800000 A^2s	105 W	1.0	–	–	–	–
	923000 A^2s	155 W	0.95	–	–	–	–
800 A	850000 A^2s	130 W	0.95	–	–	–	–
900 A	920000 A^2s	165 W	0.95	–	–	–	–
Further information							
Catalog LV 10				For further currents for operational class gR, see page 7/46	–	–	–

[1] For the max. DC voltage, see the Configuration Manual „Fuse Systems“, chapter “Configuration”, “Use with direct current”

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Size 2

M10, 110 mm					M10, 170 mm	M10, 190 mm	M12, 260 mm
							
U_n AC/DC					U_n AC/DC	U_n AC/DC	U_n AC/DC
690/– V [1]	800/– V [1]	800 V [1]	900/– V [1]	1000/– V [1]	1500/1000 V	1500/1000 V	–/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	–	–	–	–	–	–	–
–	–	–	–	–	For further currents for operational class gR, see page 7/46	–	–

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SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with slotted blade contacts

				With oblong and transverse slots Size 3					
			Screw fixing, mounting dimension	M10, 110 mm		M10, 130 mm	M10, 170 mm	M10, 210 mm	
									
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 500 V [1]	600 V [1]	U_n AC/DC 1000 V [1]	U_n AC/DC 1500 V [1]	U_n AC/DC 1500 V [1]	2000 V [1]
100 A	13500 A^2s	25 W	1.0	–	–	3NE3421-0C	–	–	–
125 A	34500 A^2s	78 W	1.0	–	–	–	–	–	–
160 A	54000 A^2s	56 W	1.0	–	–	–	–	3NE5424-0C	–
200 A	138000 A^2s	75 W	1.0	–	–	–	–	–	3NE7425-0U
224 A	54000 A^2s	85 W	1.0	–	–	3NE3626-0C	–	–	–
	138000 A^2s	80 W	1.0	–	–	–	–	3NE5426-0C	–
250 A	84000 A^2s	130 W	1.0	–	–	–	3NE5627-0C	–	–
	218000 A^2s	110 W	1.0	–	–	–	–	–	3NE7427-0U
315 A	72500 A^2s	80 W	0.95	–	–	–	–	–	–
	218000 A^2s	80 W	1.0	–	–	3NE3430-0C	–	–	–
	311000 A^2s	115 W	1.0	–	–	–	–	3NE5430-0C	–
350 A	428000 A^2s	135 W	1.0	–	–	–	–	3NE5431-0C	–
	555000 A^2s	120 W	1.0	–	–	–	–	–	3NE7431-0U
400 A	163000 A^2s	95 W	0.95	–	–	–	–	–	–
	364000 A^2s	110 W	1.0	–	–	3NE3432-0C	–	–	–
	390000 A^2s	50 W	0.85	3NC2432-3C	–	–	–	–	–
	620000 A^2s	205 W	1.0	–	–	–	–	–	–
	870000 A^2s	150 W	1.0	–	–	–	–	–	3NE7432-0U
450 A	488000 A^2s	110 W	1.0	–	–	3NE3635-0C	–	–	–
	590000 A^2s	160 W	1.0	–	–	–	3NE5633-0C	–	–
	870000 A^2s	145 W	0.95	–	–	–	–	3NE5433-0C	–
	960000 A^2s	160 W	1.0	–	–	–	–	–	3NE7633-0U
500 A	290000 A^2s	115 W	0.90	–	–	–	–	–	–
	870000 A^2s	95 W	1.0	–	–	3NE3434-0C	–	–	–
	1270000 A^2s	235 W	1.0	–	–	–	–	–	–
525 A	1120000 A^2s	210 W	1.0	–	–	–	–	–	–
600 A	1950000 A^2s	145 W	1.0	–	–	–	3NE5643-0C	–	–
630 A	244000 A^2s	120 W	0.85	–	–	–	–	–	–
	418000 A^2s	145 W	0.85	–	–	–	–	–	–
	650000 A^2s	120 W	0.95	–	–	–	–	–	–
	1280000 A^2s	132 W	1.0	–	–	3NE3636-0C	–	–	–
	1950000 A^2s	220 W	1.0	–	–	–	–	–	3NE7636-0U
	2800000 A^2s	275 W	1.0	–	–	–	–	–	–
710 A	346000 A^2s	130 W	0.85	–	–	–	–	–	–
	569000 A^2s	150 W	0.85	–	–	–	–	–	–
	1950000 A^2s	145 W	1.0	–	–	3NE3637-0C	–	–	–
	3110000 A^2s	275 W	1.0	–	–	–	–	–	–
800 A	498000 A^2s	135 W	0.9	–	–	–	–	–	–
	819000 A^2s	155 W	0.85	–	–	–	–	–	–
	985000 A^2s	145 W	0.90	–	–	–	–	–	–
900 A	677000 A^2s	145 W	0.9	–	–	–	–	–	–
	1160000 A^2s	165 W	0.9	–	–	–	–	–	–
1000 A	975000 A^2s	155 W	0.95	–	–	–	–	–	–
	1670000 A^2s	170 W	0.9	–	–	–	–	–	–
	2480000 A^2s	140 W	0.85	–	3NC8444-3C	–	–	–	–
1100 A	1382000 A^2s	165 W	0.95	–	–	–	–	–	–
	1910000 A^2s	185 W	0.9	–	–	–	–	–	–
1250 A	1990000 A^2s	175 W	0.95	–	–	–	–	–	–
	2600000 A^2s	210 W	0.9	–	–	–	–	–	–
1400 A	2100000 A^2s	200 W	0.95	–	–	–	–	–	–
1600 A	2860000 A^2s	240 W	0.9	–	–	–	–	–	–
Further information									
Catalog LV 10				For further currents for operational class gR, see page 7/46		–	–	–	–

[1] For the max. DC voltage, see the Configuration Manual „Fuse Systems", chapter "Configuration", "Use with direct current"

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M12, 80 mm		M12, 110 mm				M12, 140 mm	M12, 210 mm		M12, 260 mm
							 		
U_n AC/DC 500 V [1]	690 V [1]	U_n AC/DC 800 V [1]	1000 V [1]	1100 V [1]	1250 V [1]	U_n AC/DC 1000 V [1]	U_n AC/DC 1500 V [1]	2000 V [1]	U_n AC/DC 2500 V [1]
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	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	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–

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SITOR semiconductor fuse links (LV HRC design)

Operational class aR, with female thread at both ends

				Size 3		
			Screw fixing, flange dimension	M10, 109 mm	M12, 52 mm	
						
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC/DC 1000/– V	U_n AC/DC 500/– V	690/– V
315 A	72500 A^2s	80 W	0.95	–	–	–
400 A	163000 A^2s	95 W	0.95	–	–	–
450 A	488000 A^2s	110 W	1.0	3NE3635-6	–	–
500 A	290000 A^2s	115 W	0.90	–	–	–
630 A	244000 A^2s	125 W	0.9	–	–	3NC3236-6U
	418000 A^2s	130 W	0.90	–	–	–
	650000 A^2s	120 W	0.95	–	–	–
710 A	346000 A^2s	130 W	0.9	–	–	3NC3237-6U
	569000 A^2s	140 W	0.90	–	–	–
800 A	498000 A^2s	135 W	0.95	–	–	3NC3238-6U
	819000 A^2s	150 W	0.90	–	–	–
	985000 A^2s	145 W	0.95	–	–	–
900 A	677000 A^2s	140 W	0.95	–	–	3NC3240-6U
	1160000 A^2s	160 W	0.95	–	–	–
1000 A	975000 A^2s	145 W	1.0	–	–	3NC3241-6U
	1670000 A^2s	165 W	0.95	–	–	–
1100 A	1382000 A^2s	150 W	1.0	–	–	3NC3242-6U
	1910000 A^2s	175 W	0.95	–	–	–
1250 A	1990000 A^2s	155 W	1.0	–	–	3NC3243-6U
	2600000 A^2s	185 W	0.95	–	–	–
1400 A	2100000 A^2s	175 W	1.0	–	3NC3244-6U	–
1600 A	2860000 A^2s	195 W	0.95	–	3NC3245-6U	–

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M12, 73 mm		M12, 73 mm	
			
U_n AC/DC		U_n AC/DC	
800/– V	1000/– V	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	–	–	–
–	–	–	–
–	–	–	–

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SITOR semiconductor fuse links (LV HRC design)

Operational class gR, special designs

				Without installation bracket	With installation bracket For SITOR 6QG11 thyristor sets
			Screw fixing, flange dimension	M10, 89 mm	
					
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC 600 V	U_n AC 1000 V
50 A	1100 A^2s	20 W	0.85	–	3NE4117-5
850 A	2480000 A^2s	85 W	1.0	3NE9440-6	–

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Operational class aR, special designs

				Without installation bracket For screwing onto water-cooled busbars			
			Flange dimension	83 mm			
							
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n AC 600 V	900 V	U_n AC 800 V	1000 V
100 A	7400 A^2s	35 W	0.85	–	–	–	–
170 A	60500 A^2s	43 W	0.85	–	–	–	–
200 A	44000 A^2s	50 W	0.85	–	–	–	–
250 A	29700 A^2s	105 W	0.85	–	–	–	–
	635000 A^2s	25 W	0.9	–	–	–	–
315 A	60700 A^2s	120 W	0.85	–	–	–	–
350 A	260000 A^2s	80 W	0.9	–	–	3NC5531	–
	1430000 A^2s	32 W	0.9	–	–	–	–
450 A	191000 A^2s	140 W	0.85	–	–	–	–
	395000 A^2s	90 W	0.85	–	–	–	–
500 A	276000 A^2s	155 W	0.85	–	–	–	–
600 A	888000 A^2s	150 W	0.9	–	–	–	3NC5840
630 A	888000 A^2s	145 W	0.9	–	–	3NC5841	–
710 A	620000 A^2s	150 W	0.9	–	3NE6437-7	–	–
	923000 A^2s	155 W	0.95	–	–	–	–
800 A	1728000 A^2s	170 W	0.9	–	–	–	3NC5838
900 A	1920000 A^2s	170 W	0.9	–	–	–	–
1250 A	2480000 A^2s	210 W	0.9	3NE9450-7	–	–	–

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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	–	–	–	–	–

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SITOR semiconductor fuse links (LV HRC design)

DC fuses, operational class gR, with slotted blade contacts

				Size 2L
			Screw fixing	M12
				
I_n	Operating value I^2t	Power loss P_v	Varying load factor WL	U_n DC 900 V
400 A	180000 A^2s [1]	75 W	–	3NB1234-3KK20

[1] I^2t at U_{VSI} 1400 V is 240000 A^2s

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DC fuses, operational class aR, with slotted blade contacts

				Size 1L	Size 2L	Size 3L	Size 2 × 3L	Size 3 × 3L
			Screw fixing	M12	M12	M12	M12	M12
								
I_n	Operating value I^2t at U_{VSI} 1500 V [2]	Power loss P_v	Varying load factor WL	U_n DC/U_{VSI} 1250 V/1500 V	U_n DC/U_{VSI} 1250 V/1500 V	U_n DC/U_{VSI} 1250 V/1500 V	U_n DC/U_{VSI} 1250 V/1500 V	U_n DC/U_{VSI} 1250 V/1500 V
200 A	39000 A^2s	50 W	–	3NB1126-4KK11	–	–	–	–
250 A	80500 A^2s	51 W	–	3NB1128-4KK11	–	–	–	–
315 A	129000 A^2s	63 W	–	–	3NB1231-4KK11	–	–	–
400 A	290000 A^2s	68 W	–	–	3NB1234-4KK11	–	–	–
500 A	600000 A^2s	89 W	–	–	–	3NB1337-4KK11	–	–
800 A	1910000 A^2s	135 W	–	–	–	3NB1345-4KK11	–	–
800 A	1150000 A^2s	160 W	–	–	–	–	3NB2345-4KK16	–
1000 A	2250000 A^2s	195 W	–	–	–	–	3NB2350-4KK16	–
1400 A	5100000 A^2s	250 W	–	–	–	–	3NB2355-4KK16	–
1600 A	7450000 A^2s	275 W	–	–	–	–	3NB2357-4KK16	–
2100 A	1195000 A^2s	365 W	–	–	–	–	–	3NB2364-4KK17
2400 A	18100000 A^2s	445 W	–	–	–	–	–	3NB2366-4KK17

[2] I^2t at U_n 1250 V is reduced by the factor k = 0.79.

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SITOR semiconductor fuse links (cylindrical fuse design)

Cylindrical fuses, operational class gS

			Size 22 × 127 mm
			
I_n	Operating value I^2t	Power loss P_v	U_n AC/DC 1500/1000 V
1 A	2 A^2s	2 W	3NC2301-0MK
2 A	4.4 A^2s	2.5 W	3NC2302-0MK
4 A	55 A^2s	5.3 W	3NC2304-0MK
6 A	150 A^2s	6.4 W	3NC2306-0MK
10 A	540 A^2s	3.1 W	3NC2310-0MK
16 A	1120 A^2s	4.7 W	3NC2316-0MK
20 A	2850 A^2s	5.4 W	3NC2320-0MK
25 A	3300 A^2s	6.9 W	3NC2325-0MK
32 A	9050 A^2s	6.7 W	3NC2332-0MK
Further information			
Catalog LV 10			For further currents for operational class gR, see page 7/60 Operational class aR, see page 7/62

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SITOR semiconductor fuse links (cylindrical fuse design)

Operational class gR

			Size 10 × 38 mm		Size 14 × 51 mm			
								
I_n	Operating value I^2t	Power loss P_v	U_n AC/DC 690/440 V	690/250 V	U_n AC/DC 690/700 V [1]	690/600 V	690/440 V	690/250 V
6 A	3.5 A^2s	3.1 W	–	–	3NC1406-0MK	–	–	–
	6.5 A^2s	2.5 W	3NC1006-0MK	–	–	–	–	–
10 A	15 A^2s	4.6 W	–	–	3NC1410-0MK	–	–	–
	17 A^2s	4.3 W	–	–	–	–	–	–
	18 A^2s	3.3 W	3NC1010-0MK	–	–	–	–	–
12 A	35 A^2s	4 W	3NC1012-0MK	–	–	–	–	–
16 A	32 A^2s	6.7 W	–	–	–	3NC1416-0MK	–	–
	45 A^2s	6 W	3NC1016-0MK	–	–	–	–	–
	52 A^2s	4.4 W	–	–	–	–	–	–
20 A	68 A^2s	7.4 W	–	–	–	3NC1420-0MK	–	–
	90 A^2s	6.5 W	–	–	–	–	–	–
	110 A^2s	7.8 W	–	3NC1020-0MK	–	–	–	–
25 A	108 A^2s	8.4 W	–	–	–	3NC1425-0MK	–	–
	120 A^2s	9.5 W	–	–	–	–	–	–
	140 A^2s	8.7 W	–	3NC1025-0MK	–	–	–	–
	160 A^2s	8.5 W	–	–	–	–	–	–
	180 A^2s	8.1 W	–	–	–	–	–	–
32 A	175 A^2s	12.3 W	–	–	–	3NC1432-0MK	–	–
	220 A^2s	12.3 W	–	–	–	–	–	–
	400 A^2s	8.9 W	–	–	–	–	–	–
	420 A^2s	9 W	–	–	–	–	–	–
	450 A^2s	12 W	–	3NC1032-0MK	–	–	–	–
40 A	400 A^2s	14.8 W	–	–	–	–	–	–
	470 A^2s	11.7 W	–	–	–	–	3NC1440-0MK	–
	600 A^2s	11 W	–	–	–	–	–	–
	700 A^2s	12.5 W	–	–	–	–	–	–
	18500 A^2s	9.4 W	–	–	–	–	–	–
50 A	830 A^2s	16.3 W	–	–	–	–	–	3NC1450-0MK
	980 A^2s	17.5 W	–	–	–	–	–	–
	1250 A^2s	13.8 W	–	–	–	–	–	–
	1250 A^2s	15.2 W	–	–	–	–	–	–
63 A	2050 A^2s	18.8 W	–	–	–	–	–	–
	2400 A^2s	17.5 W	–	–	–	–	–	–
80 A	4400 A^2s	23 W	–	–	–	–	–	–
100 A	11500 A^2s	28.7 W	–	–	–	–	–	–
Further information								
Catalog LV 10			–	–	–	–	–	–

[1] DC voltage according to UL

System overview, page 7/4

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 [1]	690/600 V	690/440 V	690/250 V	U_n AC/DC 1500/1000 V	U_n AC/DC 690/440 V	U_n AC/DC 690/440 V
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	3NC1810-0MK	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	3NC1816-0MK	–
–	–	–	–	–	–	–
–	–	–	–	–	3NC1820-0MK	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	3NC2625-0MK
–	–	–	–	–	–	–
–	–	–	–	–	3NC1825-0MK	–
3NC2225-0MK	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	3NC2632-0MK
–	–	–	–	–	3NC1832-0MK	–
–	3NC2232-0MK	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	3NC2640-0MK
–	–	–	–	–	–	–
–	–	–	–	–	3NC1840-0MK	–
–	–	3NC2240-0MK	–	–	–	–
–	–	–	–	3NC2340-0MK	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	3NC2650-0MK
–	–	–	–	–	3NC1850-0MK	–
–	–	–	3NC2250-0MK	–	–	–
–	–	–	–	–	–	3NC2663-0MK
–	–	–	3NC2263-0MK	–	–	–
–	–	–	3NC2280-0MK	–	–	–
–	–	–	3NC2200-0MK	–	–	–
–	–	–	–	For further currents for operational class gG, see page 7/59 Operational class aR, see page 7/62	–	–

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SITOR semiconductor fuse links (cylindrical fuse design)

Operational class aR

			Size 10 × 38 mm [1]		Size 14 × 51 mm			
					Standard			With striking pin
								
I_n	Operating value I^2t	Power loss P_v	U_n AC/DC 600/700 V [2]	600/– V	U_n AC/DC 660/– V	690/700 V [2]	690/250 V	U_n AC/DC 690/600 V [1]
1 A	1.2 A^2s	5 W	–	–	3NC1401	–	–	–
2 A	10 A^2s	3 W	–	–	3NC1402	–	–	–
3 A	8 A^2s	1.2 W	3NC1003	–	–	–	–	–
	15 A^2s	2.5 W	–	–	3NC1403	–	–	–
4 A	25 A^2s	3 W	–	–	3NC1404	–	–	–
5 A	11 A^2s	1.5 W	–	–	–	3NC1405	–	–
6 A	11 A^2s	1.5 W	–	–	–	3NC1406	–	–
	20 A^2s	1.5 W	3NC1006	–	–	–	–	–
8 A	30 A^2s	2 W	3NC1008	–	–	–	–	–
10 A	22 A^2s	4 W	–	–	–	3NC1410	–	–
	32 A^2s	4 W	–	–	–	–	–	3NC1410-5
	60 A^2s	2.5 W	3NC1010	–	–	–	–	–
12 A	110 A^2s	3 W	3NC1012	–	–	–	–	–
15 A	63 A^2s	5.5 W	–	–	–	–	–	3NC1415-5
	70 A^2s	5.5 W	–	–	–	3NC1415	–	–
16 A	150 A^2s	3.5 W	3NC1016	–	–	–	–	–
20 A	100 A^2s	6 W	–	–	–	3NC1420	–	–
	200 A^2s	4.8 W	3NC1020	–	–	–	–	–
	220 A^2s	4.6 W	–	–	–	–	–	–
	234 A^2s	6 W	–	–	–	–	–	3NC1420-5
	240 A^2s	5 W	–	–	–	–	–	–
25 A	250 A^2s	6 W	3NC1025	–	–	–	–	–
	300 A^2s	5.6 W	–	–	–	–	–	–
	320 A^2s	7 W	–	–	–	3NC1425	–	–
	350 A^2s	6 W	–	–	–	–	–	–
	378 A^2s	7 W	–	–	–	–	–	3NC1425-5
30 A	400 A^2s	9 W	–	–	–	3NC1430	–	–
	466 A^2s	9 W	–	–	–	–	–	3NC1430-5
32 A	450 A^2s	7 W	–	–	–	–	–	–
	500 A^2s	7.5 W	–	3NC1032	–	–	–	–
	500 A^2s	8 W	–	–	–	–	–	–
	600 A^2s	7.6 W	–	–	–	3NC1432	–	3NC1432-5
40 A	700 A^2s	8.5 W	–	–	–	–	–	–
	750 A^2s	8 W	–	–	–	3NC1440	–	3NC1440-5
	800 A^2s	9 W	–	–	–	–	–	–
50 A	1350 A^2s	9.5 W	–	–	–	–	–	–
	1500 A^2s	9.5 W	–	–	–	–	–	–
	1800 A^2s	9 W	–	–	–	3NC1450	–	3NC1450-5
	26000 A^2s	11.6 W	–	–	–	–	–	–
63 A	2100 A^2s	16.7 W	–	–	–	–	3NC1463-0MK	–
	2600 A^2s	11 W	–	–	–	–	–	–
	3000 A^2s	11 W	–	–	–	–	–	–
80 A	3500 A^2s	22.5 W	–	–	–	–	–	–
	5500 A^2s	13.5 W	–	–	–	–	–	–
	6000 A^2s	13.5 W	–	–	–	–	–	–
100 A	5400 A^2s	31.5 W	–	–	–	–	–	–
	8000 A^2s	16 W	–	–	–	–	–	–
	8500 A^2s	16 W	–	–	–	–	–	–
125 A	11800 A^2s	39 W	–	–	–	–	–	–
	29000 A^2s	35.3 W	–	–	–	–	–	–
Further information								
Catalog LV 10			–	–	–	–	–	–

[1] Observe DC voltage acc. to UL, time constant and minimum breaking current MBC
[2] CCC approval

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Size 22 × 58 mm				Size 22 × 127 mm	Size 26 × 103 mm
Standard		With striking pin			With M8 bolt-on links
					
U_n AC/DC		U_n AC/DC		U_n AC/DC	U_n AC/DC
690/700 V [2]	690/250 V	600/500 V [1]	690/500 V [1]	1500/1000 V	690/440 V
–	–	–	–	–	–
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–	–	–	–	–	–
3NC2220	–	–	–	–	–
–	–	–	–	–	–
–	–	–	3NC2220-5	–	–
–	–	–	–	–	–
3NC2225	–	–	–	–	–
–	–	–	–	–	–
–	–	–	3NC2225-5	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
3NC2232	–	–	–	–	–
–	–	–	–	–	–
–	–	–	3NC2232-5	–	–
–	–	–	–	–	–
3NC2240	–	–	–	–	–
–	–	–	–	–	–
–	–	–	3NC2240-5	–	–
3NC2250	–	–	–	–	–
–	–	–	3NC2250-5	–	–
–	–	–	–	–	–
–	–	–	–	3NC2350-0MK	–
–	–	–	–	–	–
3NC2263	–	–	–	–	–
–	–	–	3NC2263-5	–	–
–	–	–	–	–	3NC2680-0MK
3NC2280	–	–	–	–	–
–	–	–	3NC2280-5	–	–
–	–	–	–	–	3NC2600-0MK
3NC2200	–	–	–	–	–
–	–	3NC2200-5	–	–	–
–	–	–	–	–	3NC2611-0MK
–	3NC2211-0MK	–	–	–	–
–	–	–	–	For further currents for operational class gR, see page 7/60 Operational class gS see page 7/59	–

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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% [1]	U_n DC 1000 V	U_n DC 1200 V	1500 V
2 A	1.4 W	0.6 W	3NW6002-4	–	–
	2.7 W	1.1 W	–	–	3NW6604-4
4 A	1.6 W	0.7 W	3NW6004-4	–	–
	3.0 W	1.2 W	–	–	3NW6601-4
6 A	1.7 W	0.7 W	3NW6001-4	–	–
	3.6 W	1.5 W	–	–	3NW6608-4
8 A	1.9 W	0.8 W	3NW6008-4	–	–
	3.7 W	1.6 W	–	–	3NW6603-4
10 A	2.3 W	1.0 W	3NW6003-4	–	–
	3.3 W	1.4 W	–	–	3NW6606-4
12 A	2.7 W	1.1 W	3NW6006-4	–	–
	3.7 W	1.6 W	–	–	3NW6605-4
16 A	3.2 W	1.3 W	3NW6005-4	–	–
	4.0 W	1.7 W	–	3NW6607-4	–
20 A	3.4 W	1.4 W	3NW6007-4	–	–

[1] Tested in fuse holders 3NW7013-4 and 3NW7613-4.

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Class CC fuse links

Acc. to UL

		Characteristic: Slow	Characteristic: Slow, current-limiting	Characteristic: Quick
				
I_n	I_n [1]			
0.6 A	6 / 10 A	3NW1006-0HG	–	–
0.8 A	8 / 10 A	3NW1008-0HG	–	–
1 A	–	3NW1010-0HG	3NW3010-0HG	3NW2010-0HG
1.5 A	1 ½ A	3NW1015-0HG	–	–
2 A	–	3NW1020-0HG	3NW3020-0HG	3NW2020-0HG
2.5 A	–	3NW1025-0HG	–	–
3 A	–	3NW1030-0HG	3NW3030-0HG	3NW2030-0HG
4 A	–	3NW1040-0HG	3NW3040-0HG	3NW2040-0HG
5 A	–	3NW1050-0HG	3NW3050-0HG	3NW2050-0HG
6 A	–	3NW1060-0HG	3NW3060-0HG	3NW2060-0HG
7.5 A	–	3NW1075-0HG	–	–
8 A	–	3NW1080-0HG	3NW3080-0HG	3NW2080-0HG
10 A	–	3NW1100-0HG	3NW3100-0HG	3NW2100-0HG
12 A	–	–	3NW3120-0HG	3NW2120-0HG
15 A	–	3NW1150-0HG	3NW3150-0HG	3NW2150-0HG
20 A	–	3NW1200-0HG	3NW3200-0HG	3NW2200-0HG
25 A	–	3NW1250-0HG	3NW3250-0HG	3NW2250-0HG
30 A	–	3NW1300-0HG	3NW3300-0HG	3NW2300-0HG

[1] American English wording

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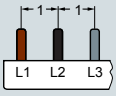
Busbars

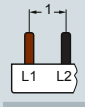
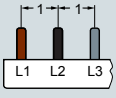
According to IEC and UL, can be cut

Pin spacing 1 MW

Pin spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	Article No.
Single-phase					
	For MINIZED D01 fuse switch disconnectors	220 mm	With end caps	16 mm²	5ST2186
		1000 mm	Without end caps	16 mm²	5ST2190
Single-phase, angled					Article No.
	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm For Class CC fuse holders	214 mm	With end caps	16 mm²	5ST3700
		1016 mm	Without end caps	16 mm²	5ST3701
Two-phase					Article No.
	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm For Class CC fuse holders	214 mm	With end caps	16 mm²	5ST3704
		1016 mm	Without end caps	16 mm²	5ST3705
	For MINIZED D01 fuse switch disconnectors	220 mm	With end caps	16 mm²	5ST2187
		1000 mm	Without end caps	16 mm²	5ST2191
Three-phase					Article No.
	For cylindrical fuse holders 8 × 32 mm and 10 × 38 mm For SITOR cylindrical fuse holders 10 × 38 mm For Class CC fuse holders	214 mm	With end caps	16 mm²	5ST3708
		1016 mm	Without end caps	16 mm²	5ST3710
	For MINIZED D01 fuse switch disconnectors	220 mm	With end caps	16 mm²	5ST2188
		1000 mm	Without end caps	16 mm²	5ST2192

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.
Single-phase					
	For Class CC fuse holders 10 × 38 mm (3NC1091, 3NW7513-0HG)	1000 mm	Without end caps	18 mm²	5ST3701-0HG
Two-phase					Article No.
	For Class CC fuse holders 10 × 38 mm (3NC1092, 3NW7523-0HG)	1000 mm	Without end caps	18 mm²	5ST3705-0HG
Three-phase					Article No.
	For Class CC fuse holders 10 × 38 mm (3NC1093, 3NW7533-0HG)	1000 mm	Without end caps	18 mm²	5ST3710-0HG

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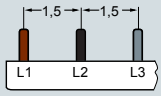
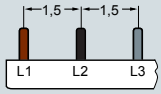
According to IEC and UL, can be cut

Pin spacing 1.5 MW

Pin spacing in MW (1 MW = 18 mm)	Application	Length	Version	Conductor cross-section	
Single-phase					**Article No.**
	For NEOZED D01 / D02 fuse bases made of molded plastic 5SG1.30, 5SG1.31, 5SG5.30	1000 mm	Without end caps, non-insulated	36 mm²	5SH5322
Single-phase, angled					**Article No.**
	For MINIZED D02 switch disconnectors 5SG71.3 For NEOZED D01 / D02 fuse bases made of molded plastic 5SG1301, 5SG1701, 5SG5301, 5SG5701, 5SG1302, 5SG1702, 5SG5302, 5SG5702 For NEOZED D01 / D02 fuse bases made of ceramic with saddle terminals For cylindrical fuse holders 14 × 51 mm For SITOR cylindrical fuse holders 14 × 51 mm	1016 mm	Without end caps	16 mm²	5ST3703
Three-phase					**Article No.**
	For MINIZED D02 switch disconnectors 5SG71.3 For NEOZED D01 / D02 fuse bases made of molded plastic 5SG1301, 5SG1701, 5SG5301, 5SG5701, 5SG1302, 5SG1702, 5SG5302, 5SG5702 For NEOZED D01 / D02 fuse bases made of ceramic with saddle terminals For cylindrical fuse holders 14 × 51 mm For SITOR cylindrical fuse holders 14 × 51 mm	1016 mm	Without end caps	16 mm²	5ST3714
	For NEOZED D01 / D02 fuse bases made of molded plastic 5SG1.30, 5SG1.31, 5SG5.30 For NEOZED D01 / D02 fuse bases made of ceramic with clamp-type terminals and screw head contacts	1000 mm	Without end caps	16 mm²	5SH5320

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	
1-phase					**Article No.**
	For fuse holders 14 × 51 mm (3NC1491, 3NW7111)	1000 mm	Without end caps	18 mm²	5ST3703-0HG
				25 mm²	5ST3701-2HG
Two-phase					
	For fuse holders 14 × 51 mm (3NC1492, 3NW7121)	1000 mm	Without end caps	25 mm²	5ST3705-2HG
3-phase					**Article No.**
	For fuse holders 14 × 51 mm (3NC1493, 3NW7131)	1000 mm	Without end caps	18 mm²	5ST3714-0HG
				25 mm²	5ST3710-2HG

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Busbars

Accessories

For busbars according to IEC

Terminals

- For NEOZED D01 / D02 fuse bases made of ceramic
- For DIAZED DII / DIII fuse bases made of ceramic

	Terminal version	Conductor cross-section	Article No.
	Terminal version S	2 ... 25 mm²	5SH5327
	Terminal versions B and K	6 ... 25 mm²	5SH5328

Bus-mounting terminal

- For DIAZED EZR bus-mounting bases
- Non-insulated

Conductor cross-section	Article No.
1.5 ... 16 mm²	8JH4122
10 ... 35 mm²	8JH4124

Touch protection

- For free connections, yellow (RAL 1004) 5 × 1 pin

Article No.
5ST3655

End caps

	Version	For bar type	Article No.
	For single-phase busbars	5ST2190	5ST2196
		5ST37 and 5SH55	5ST3748
	For two-phase and three-phase busbars	5ST2191 and 5ST2192	5ST2197
		5ST37 and 5SH5320	5ST3750

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For busbars according to UL 508

Terminals according to UL 508

	Version	Infeed	Article No.
	For busbars 35 mm²	Device	5ST3770-0HG
	For busbars 30 mm²	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 single-phase busbars	5ST3748-0HG
	For two- and three-phase busbars	5ST3750-0HG

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System overview, page 7/4

LV HRC signal detectors, electronic fuse monitoring

LV HRC signal detectors

- Only for SIEMENS LV HRC fuse links 3NA3, 3NA7, 3ND 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 termination 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 HRC fuse links 3NA3, 3NA7, 3ND 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 termination 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

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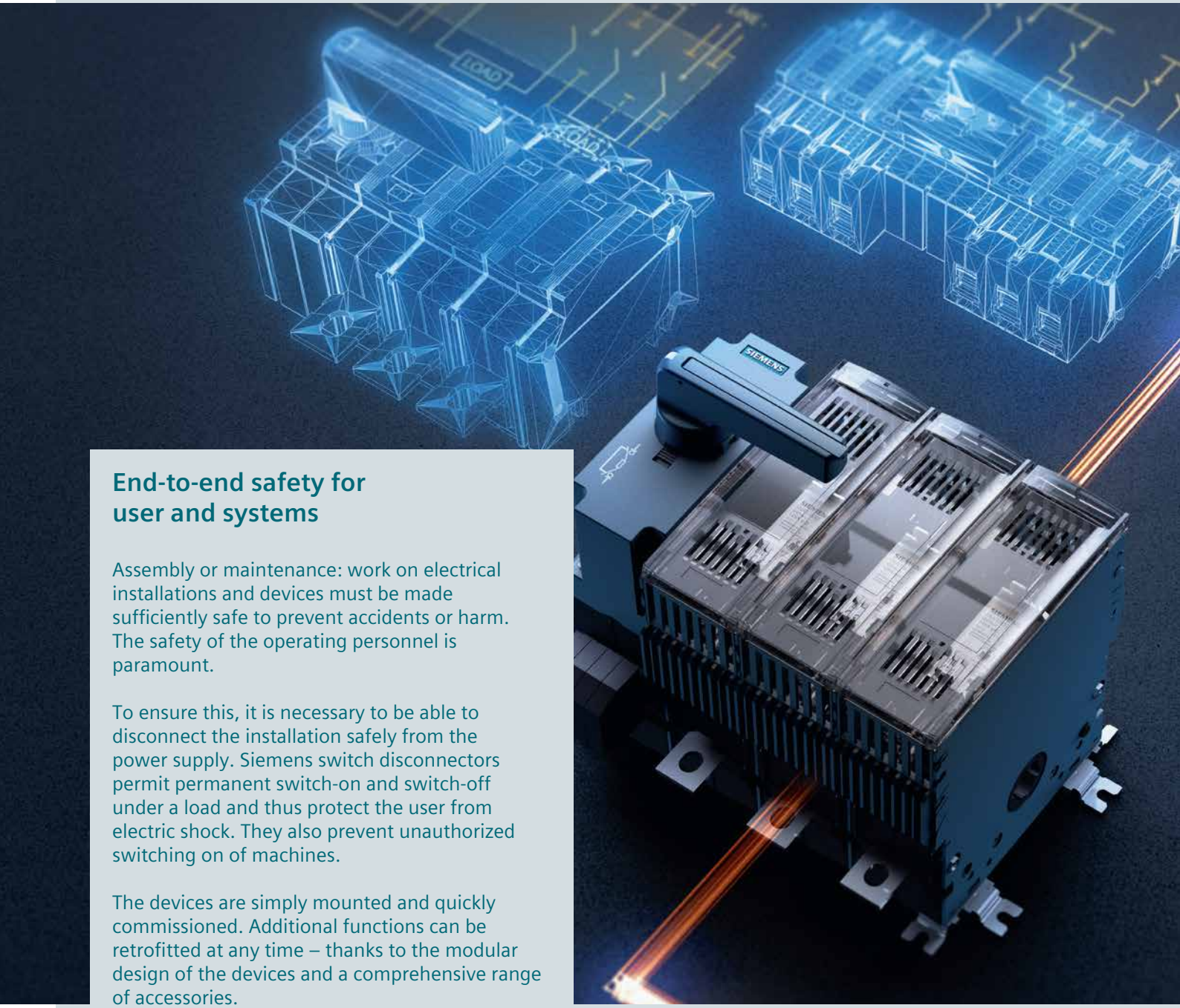
System overview, page 7/4



End-to-end safety for user and systems

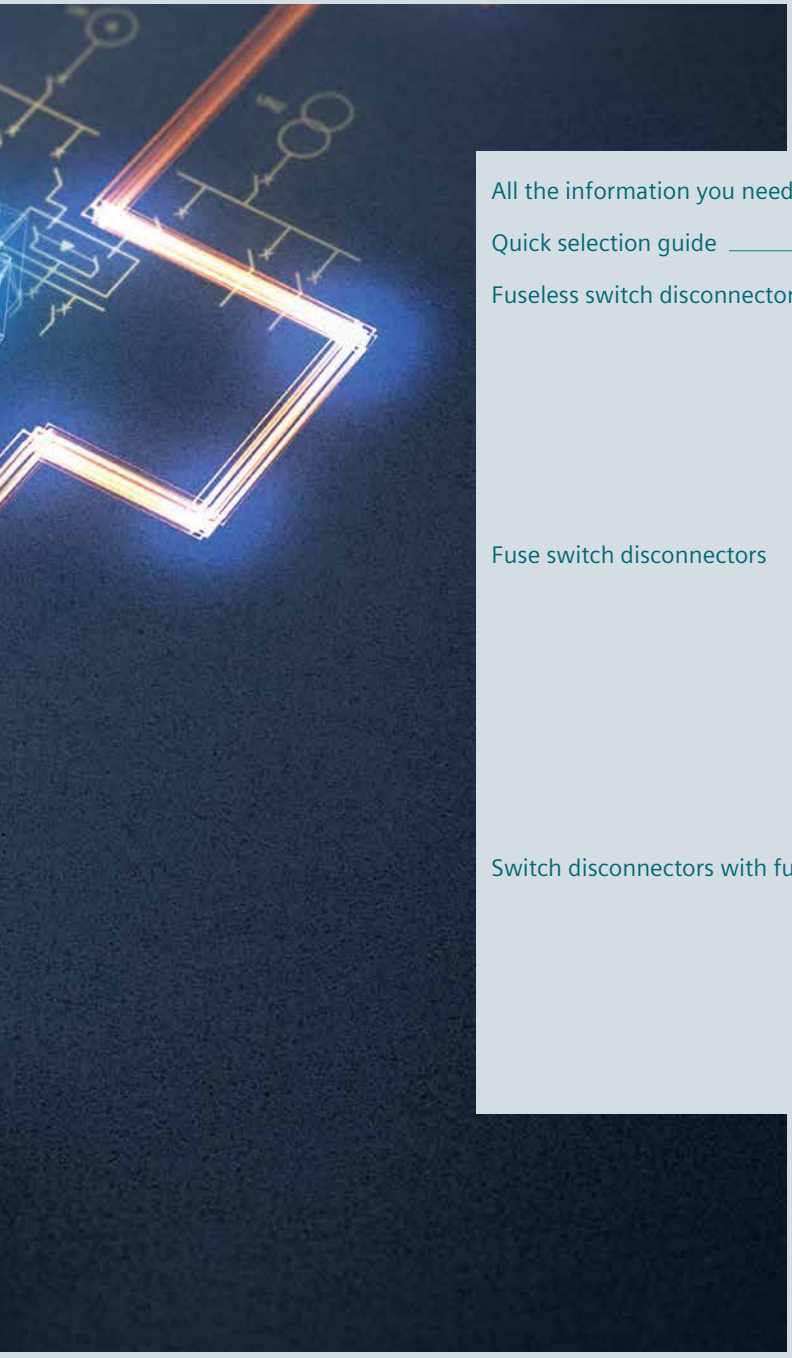
Assembly or maintenance: work on electrical installations and devices must be made sufficiently safe to prevent accidents or harm. The safety of the operating personnel is paramount.

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



A multitude of additional information ...

Information + ordering

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Your product in detail

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- Technical basic information – Switch disconnectors and transfer switching equipment (109763354)

The relevant tender specifications can be found at
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Exactly the right switch disconnector for your application

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and your 3NP1 fuse switch disconnector at
www.siemens.com/lowvoltage/3np1-configurator

Choose the right SITOR semiconductor fuse for your application
www.siemens.com/lowvoltage/sitor-configurator

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Everything you need for your order

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- Switching devices
  sie.ag/2mryctm

Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog or by entering this web address incl. Article No.
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 at
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 – 3NJ6 switch disconnectors with fuses – End-to-end safety for user and systems (109755619)

… can be found in our online services

Commissioning + operation

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information
www.siemens.com/lowvoltage/product-support

- Operating instructions
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/lowvoltage/cax

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
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 disconnector (109758120)
- System manual – SENTRON 3NP1 fuse switch disconnector (33515690)

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www.siemens.com/service-catalog

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 (109764946)

Quick selection guide

Load switching devices for all applications

Fuseless switch disconnectors [3]

Functional switching [1]

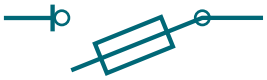
	Type	3LD3	3LD2	3LD5 UL new	3KD	3VA	5TE
	Rated current I_n	16 ... 63 A	16 ... 250 A	30 ... 160A	16 ... 2000 A	63 ... 630 A	100 ... 200 A
	Short-circuit current max.	6 kA	50 kA	50 kA	100 kA	110 kA [5]	33 kA
Selection acc. to utilization category	**AC max.**	AC-3	AC-3	AC-3	AC-23A	AC-23A	AC-23A
	DC max.	–	DC-22A	–	DC-23A	DC-23A (up to 250 A)	DC-23A
	Suitable fuses	–	–	–	–	–	–
Types of mounting	**Floor mounting**	■	■	■	■	■	–
	Mounting on a standard mounting rail	■	■ (up to 125 A)	■ (up to 30 A)	■ (up to 250 A)	■ (up to 160 A)	■
	Front mounting (e.g. in panel door)	■	■	■	–	–	–
	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 8/10

[1] 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.

[2] Devices for occasional switching usually have a substantially lower electrical endurance and are switched no more than 1× per minute in the tests.

[3] Pure switching without protection function



Fuse switch disconnectors [4]

Occasional switching [2]

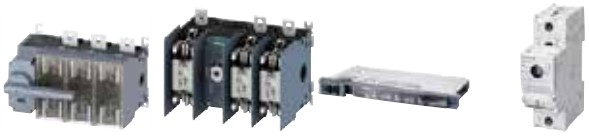
3NP1	3NP5	3NJ4	5SG76
160 ... 630 A	160 ... 630 A	160 ... 1600 A	16 A
120 kA	100 kA	120 kA	50 kA
AC-23B	AC-23B	AC-23B	AC-22A
DC-23B	DC-23B	–	–
IEC LV HRC	IEC LV HRC	IEC LV HRC	Neozed
■	■	–	–
■	–	–	■
–	–	–	–
40/60 mm	40/60 mm	60/100/185 mm	–
–	–	–	–
■	■	■	■
–	–	–	–
–	–	–	–
■	–	–	■
■	–	–	■
■	■	■	■
■	–	–	■
–	–	–	–
■	■	■	■
–	–	■	–

from page 8/80

Switch disconnectors with fuse [4]

Functional switching [1]

Occasional switching [2]



3KF LV HRC	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 LV HRC	IEC LV HRC, optimized for semiconductor protection	IEC LV HRC/BS	Neozed
■	■	–	–
■	■	–	■
–	–	–	–
–	–	185 mm	60 mm
–	–	■	–
■	■	■	■
■	■	–	–
–	–	■	–
–	–	■	■
■	■	■	■
■	■	■	■
–	–	–	–
■	■	■	■
–	–	–	–

from page 8/116

[4] The suitable fuses protect persons, motors, installations and generators against short circuit and overload

[5] With a line-side fuse for 415 V

Fuseless switch disconnectors

Quick selection guide

			3LD3					3LD2		
Type			**3LD30**	**3LD31**	**3LD32**	**3LD33**	**3LD34**	**3LD20**	**3LD21**	**3LD22**
General technical specifications acc. to IEC 60947-3										
General technical specifications										
Rated uninterrupted current I_u		A	16	25	32	40	63	16	25	32
Rated operational voltage U_e	At 50/60 Hz AC	V			690				690	
	At DC – 2 conducting paths in series	V			–				–	
	At DC – 3 conducting paths in series	V			–				–	
	At DC – 4 conducting paths in series	V			–				–	
Operating and short-circuit behavior										
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	11.5
	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 | bei 400 V	kW	5.5	7.5	9.5	11.5	18.5	5.5	7.5	9.5
	At AC-3 | bei 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
Degree of protection										
Maximum achievable IP degree of protection (with a rotary operating mechanism)					IP65				IP65	
General technical specifications acc. to UL										
General technical specifications										
Certification according to UL standard					UL 508				UL 508	
I_n acc. to UL 508 | UL489		A	16 | –	25 | –	32 | –	40 | –	63 | –	16 | –	25 | –	32 | –
U_e acc. to UL 508 | UL489		V AC			600 | –				600 | –	
Operating and short-circuit behavior										
Operational power, three-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	
More information										
Catalog LV 10 04/2020					see page 8/10				see page 8/20	

3LD2					3LD5 UL new				5TE			
												
3LD25	**3LD27**	**3LD28**	**3LD23**	**3LD24**	**3LD50**	**3LD52**	**3LD56**	**3LD58**	**5TE1.1**	**5TE1.2**	**5TE1.3**	**5TE1.4**
63	100	125	160	250	32	100	125	160	100	125	160	200
		690				690			690	690	690	690
		–				–			110	110	110	110
		–				–			–	–	–	–
		–				–			220	220	220	220
–	–	–	–	–	–	–	–	–	–	–	–	–
63	100	125	160	250	32	100	125	160	100	100	160	200
63	100	125	160	250	32	100	125	160	100	100	160	200
63	100	125	140	230	32	100	125	160	–	–	–	–
63	100	125	140	230	32	100	125	160	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–
43	70	80	132	224	32	100	125	160	80	80	125	125
22	34	39	47	58	22	39	47	58	40	40	63	80
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	100	100	160	160
–	–	–	–	–	–	–	–	–	100	100	160	160
–	–	–	–	–	–	–	–	–	100	100	160	160
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	100	100	160	160
22	37	45	75	132	15	45	55	75	44	44	69	88
18.5	30	37	45	55	18.5	37	45	55	36	36	60	76
18.5	30	37	50	110	15	45	55	75	–	–	–	–
15	22	30	37	45	15	30	37	45	–	–	–	–
1.26	2	2	4	4	1.26	4	4	4	2.5	2.5	3	3
–	–	–	–	–	–	–	–	–				
50	50	25	50	50	50	50	50	50	50	50	50	50
50	50	25	50	50	50	50	50	30	33	33	33	33
IP65					IP65				No info.			
UL 508					UL508 / UL489				UL 508			
63|–	100|–	125|–	160|–	250|–	30|30	100|100	125|125	150|150	–	80|–	100|–	125|–
		600|–				480|480			–		480|–	
40	60	75	75	100	20	60	75	100	–	20	15	15
50	75	100	50	75	–	–	–	–	–	–	–	–
5|5	10|10	10|10	10|10	10|10	50|–	65|–	65|–	50|–	–	50|–	50|–	50|–
		RK5			J|CC	J	J	J	–	J	J	J
see page 8/20					see page 8/52				see page 8/76			

Fuseless switch disconnectors

Quick selection guide

Type			3KD 16	3KD 22	3KD 26	3KD 28..–M.	3KD 28..–N	3KD 30..–M.	3KD 30..–N.	3KD 32	3KD 34
General technical specifications acc. to IEC 60947-3											
General technical specifications											
Rated uninterrupted current I_u		A	16	32	63	80	80	100	100	125	160
Rated operational voltage U_e	At 50/60 Hz AC	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
	At DC – 2 conducting paths in series	V	220	220	220	220	220	220	220	220	220
	At DC – 3 conducting paths in series	V	440	440	440	440	440	440	440	440	440
	At DC – 4 conducting paths in series	V	–	–	–	–	–	–	–	–	–
Operating and short-circuit behavior											
Rated operational current I_e [1]	At AC-20A | AC-20B at 1000 V	A	16	32	63	80	80	100	100	125	160
	At AC-21A | AC-21B at 400 V	A	16	32	63	80	80	100	100	125	160
	At AC-21A | AC-21B at 690 V	A	16	32	63	80	80	100	100	125	160
	At AC-22A | AC-22B at 400 V	A	16	32	63	80	80	100	100	125	160
	At AC-22A | AC-22B at 690 V	A	16	32	63	80	80	100	100	125	160
	At AC-22A | AC-22B at 1000 V	A	16	32	63	80	80	80	100	125	160
	At AC-23A | AC-23B at 400 V	A	16	32	63	80	80	80	100	125	160
	At AC-23A | AC-23B at 690 V	A	16	32	63	80	80	80	100	125	160
	At DC-20A | DC-20B at 1000 V	A	16	32	63	80	80	100	100	125	160
	At DC-21A | DC-21B at 110 V	A	16	32	63	80	80	80	100	125	160
	At DC-21A | DC-21B at 220 V	A	16	32	63	80	80	80	100	125	160
	At DC-21A | DC-21B at 440 V	A	16	32	63	80	80	80	100	125	160
	At DC-22A | DC-22B at 220 V	A	16	32	63	80	80	80	100	125	160
	At DC-22A | DC-22B at 440 V	A	16	32	63	80	80	80	100	125	160
	At DC-23A | DC-23B at 220 V	A	16	32	63	80	80	80	100	125	160
	At DC-23A | DC-23B at 440 V	A	16	32	63	80	80	80	100	125	160
Motor switching capacity	At AC-23A | AC-23B at 400 V	kW	7.5	15	30	45	45	45	55	55	90
	At AC-23A | AC-23B at 690 V	kW	11	30	55	75	75	75	90	110	110
	At AC-3 | bei 400 V	kW	–	–	–	–	–	–	–	–	–
	At AC-3 | bei 690 V	kW	–	–	–	–	–	–	–	–	–
Rated short-time withstand current I_{cw}	At 690 V AC (t=1 s)	kA	3	3	3	3	4	3	4	4	4
	At 1000 V AC (t=1 s)	kA	3	3	3	3	4	3	4	4	4
Rated conditional short-circuit current with upstream fuse	At 400/415 V AC	kA	100	100	100	100	100	100	100	100	100
	At 690 V AC	kA	100	100	100	100	80	100	80	80	80
Degree of protection											
Maximum achievable IP degree of protection (with a rotary operating mechanism)			IP65								
General technical specifications acc. to UL											
General technical specifications											
Certification according to UL standard			–								
I_n acc. to UL 508 | UL489		A	–								
U_e acc. to UL 508 | UL489		V AC	–								
Operating and short-circuit behavior											
Operational power, three-phase	At 480 V	hp	–								
	At 600 V	hp	–								
Short circuit current rating (SCCR)	At 480 V | at 600 V	kA	–								
Fuse type			–								
More information											
Catalog LV 10 04/2020			see page 8/62								

3KD

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
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
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
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
200	200	200	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
160	200	200	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
160	200	200	250	315	400	400	500	630	800	800	1000	1250	1600	1600
160	200	160	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
160	200	160	250	315	400	400	500	630	800	1000	1000	1250	1600	2000
200	200	250	250	315	400	500	500	630	800	1000	1000	1250	1600	2000
160	200	160	250	315	400	400	500	630	800	800	1000	1250	1600	1600
160	200	160	250	315	400	400	500	630	800	800	1000	1250	1600	1600
160	200	160	250	315	400	400	500	630	800	800	1000	1250	1600	1600
160	200	160	250	315	400	400	500	630	800	800	–	–	–	–
160	200	160	250	315	400	400	500	630	800	800	–	–	–	–
160	200	160	250	315	400	400	500	630	800	800	–	–	–	–
160	200	160	250	315	400	400	500	630	800	800	–	–	–	–
90	110	90	132	160	200	200	250	355	400	560	560	710	900	1000
110	185	110	250	315	315	315	500	630	800	1000	1000	1000	1000	1000
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4	13	4	13	13	13	13	30	30	30	30	55	55	55	55
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	80	80	80
80	80	80	80	80	80	80	80	80	80	80	80	100	100	65
IP65														
–														
–														
–														
–														
–														
–														
–														
see page 8/62														

3LD switch disconnectors

System overview of 3LD3 main control and EMERGENCY-STOP switches

Basic units for front mounting

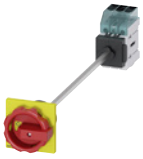

3P rotary operating mechanisms


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)

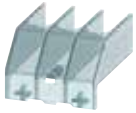


Knob-operated mechanisms for front or floor mounting (center hole)


Door-coupling rotary operating mechanisms


Door-coupling knob-operated mechanisms

Other accessories

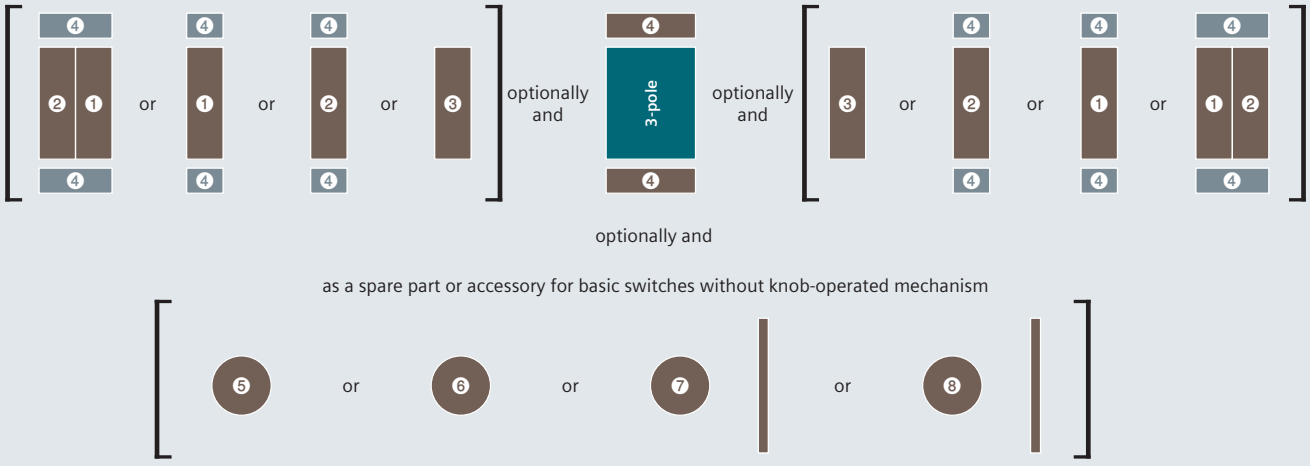


Terminal covers, 1 and 3-pole



Inscription labels

Note:
You will find a detailed range of accessories with the basic units.

Mounting concept and accessories



Legend

❶ N switching contact [1)]
❷ N/PE terminal
❸ Auxiliary switch
❹ Terminal cover
❺ Rotary operating mechanism, center-hole mounting
❻ Knob-operated mechanism, center-hole mounting
❼ Door-coupling rotary operating mechanism, center-hole mounting
❽ Door-coupling knob-operated mechanism, center-hole mounting

[1)] The N switching contact ❶ first has to be mounted on the basic unit

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Mounting types

You will find further information under:
sie.ag/2UlrAvy

Front mounting

The switches for front mounting are mounted on the inside of the panel door via the operating mechanism. The switches are mounted via the 22.5 mm diameter center hole.

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 its zero 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

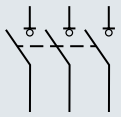
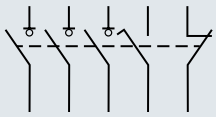
The switches for distribution board mounting are suited for operation in distribution boards and for switching inside control cabinets or distributors. They have cap and mounting dimensions acc. to DIN 43880 and can be fitted under the same cover together with miniature circuit breakers. The selector switches can be locked in their OFF position with no more than one padlock with a hasp 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_{rms}

	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
Rotary operating mechanisms				
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
Knob-operated mechanisms				
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)
Additional poles								
	**Variant**	**Contacts**	**Article No.**					
	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	■	■	■	■	■
Auxiliary switches								
		**Contacts**	**Article No.**					
		1 NO + 1 NC	3LD9340-6B	■	■	■	■	■
Rotary operating mechanisms								
		**Color**	**Article No.**					
		Black	3LD9344-4C	■	■	■	■	■
		Red/yellow	3LD9344-5C	■	■	■	■	■
Knob-operated mechanisms								
		**Color**	**Article No.**					
		Black	3LD9343-6C	■	■	■	■	■
		Red/yellow	3LD9343-7C	■	■	■	■	■

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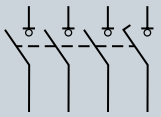
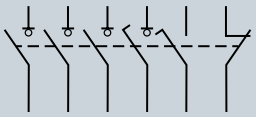
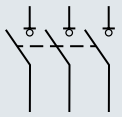
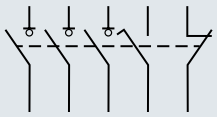
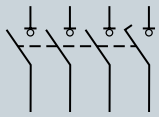
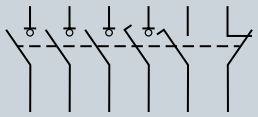
Operating mechanisms, red/yellow					
3P+N		3P		3P+N	
					
Without auxiliary switch	1 NO + 1 NC	Without auxiliary switch	1 NO + 1 NC	Without auxiliary switch	1 NO + 1 NC
3LD3054-0TL51	3LD3054-1TL51	3LD3054-0TK53	3LD3054-1TK53	3LD3054-0TL53	3LD3054-1TL53
3LD3154-0TL51	3LD3154-1TL51	3LD3154-0TK53	3LD3154-1TK53	3LD3154-0TL53	3LD3154-1TL53
3LD3254-0TL51	3LD3254-1TL51	3LD3254-0TK53	3LD3254-1TK53	3LD3254-0TL53	3LD3254-1TL53
3LD3354-0TL51	3LD3354-1TL51	3LD3354-0TK53	3LD3354-1TK53	3LD3354-0TL53	3LD3354-1TL53
3LD3454-0TL51	3LD3454-1TL51	3LD3454-0TK53	3LD3454-1TK53	3LD3454-0TL53	3LD3454-1TL53
3LD3050-0TL11	3LD3050-1TL11	3LD3050-0TK13	3LD3050-1TK13	3LD3050-0TL13	3LD3050-1TL13
3LD3150-0TL11	3LD3150-1TL11	3LD3150-0TK13	3LD3150-1TK13	3LD3150-0TL13	3LD3150-1TL13
3LD3250-0TL11	3LD3250-1TL11	3LD3250-0TK13	3LD3250-1TK13	3LD3250-0TL13	3LD3250-1TL13
3LD3350-0TL11	3LD3350-1TL11	3LD3350-0TK13	3LD3350-1TK13	3LD3350-0TL13	3LD3350-1TL13
3LD3450-0TL11	3LD3450-1TL11	3LD3450-0TK13	3LD3450-1TK13	3LD3450-0TL13	3LD3450-1TL13

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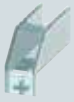
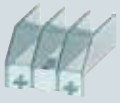
			3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Terminal covers							
	• Pack of 4 units						
	Version	**Article No.**					
	For N switching contacts, N terminals or PE terminals	3LD9341-2A	■	■	■	■	■
	For 3-pole 3LD3 switch disconnectors	3LD9341-0A	■	■	■	■	■
Inscription labels							
	• 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	■	■	■	■	■

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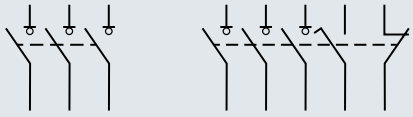
3LD switch disconnectors

3LD3 main control and EMERGENCY-STOP switches, floor mounting, 6 kA_{rms}



	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
Rotary operating mechanisms				
16 A	7.5 kW	5.5 kW	3LD3048-0TK51	3LD3048-1TK51
25 A	9 kW	7.5 kW	3LD3148-0TK51	3LD3148-1TK51
32 A	11.5 kW	9.5 kW	3LD3248-0TK51	3LD3248-1TK51
40 A	18.5 kW	11.5 kW	3LD3348-0TK51	3LD3348-1TK51
63 A	22 kW	18.5 kW	3LD3448-0TK51	3LD3448-1TK51
Knob-operated mechanisms				
16 A	7.5 kW	5.5 kW	3LD3040-0TK11	3LD3040-1TK11
25 A	9 kW	7.5 kW	3LD3140-0TK11	3LD3140-1TK11
32 A	11.5 kW	9.5 kW	3LD3240-0TK11	3LD3240-1TK11
40 A	18.5 kW	11.5 kW	3LD3340-0TK11	3LD3340-1TK11
63 A	22 kW	18.5 kW	3LD3440-0TK11	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								
	**Variant**	**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	■	■	■	■	■
Auxiliary switches								
		**Contacts**	**Article No.**					
		1 NO + 1 NC	3LD9340-6C	■	■	■	■	■
Rotary operating mechanisms								
	**Version**	**Color**	**Article No.**					
	Incl. funnel	Black	3LD9344-2C	■	■	■	■	■
		Red/yellow	3LD9344-3C	■	■	■	■	■
Knob-operated mechanisms								
	**Version**	**Color**	**Article No.**					
	Incl. funnel	Black	3LD9343-4C	■	■	■	■	■
		Red/yellow	3LD9343-5C	■	■	■	■	■

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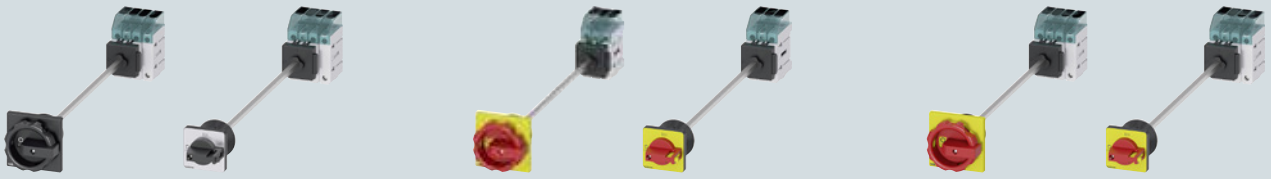
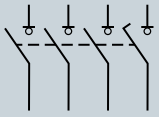
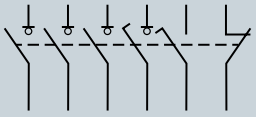
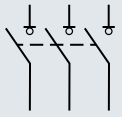
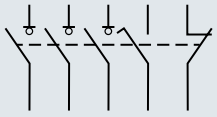
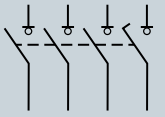
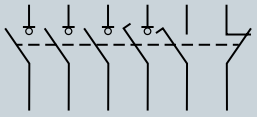


Operating mechanisms, red/yellow

3P+N		3P		3P+N	
					
Without auxiliary switch	**1 NO + 1 NC**	**Without auxiliary switch**	**1 NO + 1 NC**	**Without auxiliary switch**	**1 NO + 1 NC**
3LD3048-0TL51	3LD3048-1TL51	3LD3048-0TK53	3LD3048-1TK53	3LD3048-0TL53	3LD3048-1TL53
3LD3148-0TL51	3LD3148-1TL51	3LD3148-0TK53	3LD3148-1TK53	3LD3148-0TL53	3LD3148-1TL53
3LD3248-0TL51	3LD3248-1TL51	3LD3248-0TK53	3LD3248-1TK53	3LD3248-0TL53	3LD3248-1TL53
3LD3348-0TL51	3LD3348-1TL51	3LD3348-0TK53	3LD3348-1TK53	3LD3348-0TL53	3LD3348-1TL53
3LD3448-0TL51	3LD3448-1TL51	3LD3448-0TK53	3LD3448-1TK53	3LD3448-0TL53	3LD3448-1TL53
3LD3040-0TL11	3LD3040-1TL11	3LD3040-0TK13	3LD3040-1TK13	3LD3040-0TL13	3LD3040-1TL13
3LD3140-0TL11	3LD3140-1TL11	3LD3140-0TK13	3LD3140-1TK13	3LD3140-0TL13	3LD3140-1TL13
3LD3240-0TL11	3LD3240-1TL11	3LD3240-0TK13	3LD3240-1TK13	3LD3240-0TL13	3LD3240-1TL13
3LD3340-0TL11	3LD3340-1TL11	3LD3340-0TK13	3LD3340-1TK13	3LD3340-0TL13	3LD3340-1TL13
3LD3440-0TL11	3LD3440-1TL11	3LD3440-0TK13	3LD3440-1TK13	3LD3440-0TL13	3LD3440-1TL13

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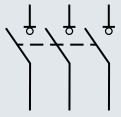
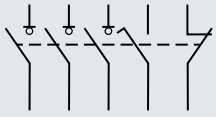
				3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Door-coupling rotary operating mechanisms								
	**Variant**	**Color**	**Article No.**					
	Rotary operating mechanisms 66 × 66 mm	Black	3LD9344-2CA	■	■	■	■	■
		Red/yellow	3LD9344-3CA	■	■	■	■	■
	Knob-operated mechanisms 48 × 48 mm	Black	3LD9343-4CA	■	■	■	■	■
		Red/yellow	3LD9343-5CA	■	■	■	■	■
Terminal covers								
	• Pack of 4 units							
	**Version**		**Article No.**					
	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.**					
	German / English (Hauptschalter / Main Switch)		3LD9346-1A	■	■	■	■	■
	French / Spanish (Interrupteur Principal / Interruptor Principal)		3LD9346-2A	■	■	■	■	■
	Without inscription		3LD9346-3A	■	■	■	■	■

System overview, page 8/10

3LD switch disconnectors

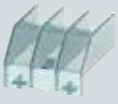
3LD3 main control and EMERGENCY-STOP switches, installation in distribution boards and basic switches without direct operating mechanism, 6kA$_{rms}$

	Operating mechanisms, black	
Number of poles	3P	
		
Uninterrupted current I_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**
Basic switch with masking plate and selector knob, standard rail mounting				
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
Basic switches without knob-operated mechanism				
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

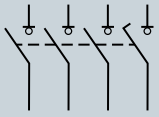
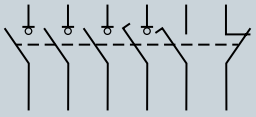
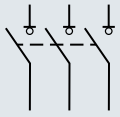
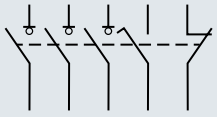
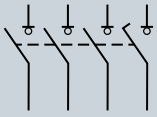
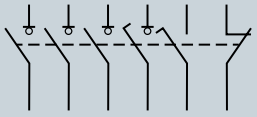
Mounting:
- Using screws or snap-on mounting on 35 mm mounting rails

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)
Additional poles								
	**Variant**	**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	■	■	■	■	■
Auxiliary switches								
		**Contacts**	**Article No.**					
		1 NO + 1 NC	3LD9340-6C	■	■	■	■	■
Terminal covers								
	• 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	■	■	■	■	■

System overview, page 8/10



Operating mechanisms, red/yellow					
3P+N		3P		3P+N	
					
Without auxiliary switch	**1 NO + 1 NC**	**Without auxiliary switch**	**1 NO + 1 NC**	**Without auxiliary switch**	**1 NO + 1 NC**
3LD3030-0TL11	3LD3030-1TL11	3LD3030-0TK13	3LD3030-1TK13	3LD3030-0TL13	3LD3030-1TL13
3LD3130-0TL11	3LD3130-1TL11	3LD3130-0TK13	3LD3130-1TK13	3LD3130-0TL13	3LD3130-1TL13
3LD3230-0TL11	3LD3230-1TL11	3LD3230-0TK13	3LD3230-1TK13	3LD3230-0TL13	3LD3230-1TL13
3LD3330-0TL11	3LD3330-1TL11	3LD3330-0TK13	3LD3330-1TK13	3LD3330-0TL13	3LD3330-1TL13
3LD3430-0TL11	3LD3430-1TL11	3LD3430-0TK13	3LD3430-1TK13	3LD3430-0TL13	3LD3430-1TL13
3LD3010-0TL05	3LD3010-1TL05	–	–	–	–
3LD3110-0TL05	3LD3110-1TL05	–	–	–	–
3LD3210-0TL05	3LD3210-1TL05	–	–	–	–
3LD3310-0TL05	3LD3310-1TL05	–	–	–	–
3LD3410-0TL05	3LD3410-1TL05	–	–	–	–

Accessories for basic switches without operating mechanism

				3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Rotary operating mechanisms								
	**Version**	**Color**	**Article No.**					
	Incl. funnel	Black	3LD9344-2C	■	■	■	■	■
		Red/yellow	3LD9344-3C	■	■	■	■	■
Knob-operated mechanisms								
	**Version**	**Color**	**Article No.**					
	Incl. funnel	Black	3LD9343-4C	■	■	■	■	■
		Red/yellow	3LD9343-5C	■	■	■	■	■
Door-coupling rotary operating mechanisms								
	**Variant**	**Color**	**Article No.**					
	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	■	■	■	■	■
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	■	■	■	■	■

System overview, page 8/10

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)
Switching contacts for N conductor (4th contact)								
	Version	**Contacts**	**Article No.**					
	For front mounting	Leading switch-on, lagging switch-off	3LD9340-0B	■	■	■	■	■
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Leading switch-on, lagging switch-off	3LD9340-0C	■	■	■	■	■
N terminals								
	Version	**Contacts**	**Article No.**					
	For front mounting	Through-type	3LD9340-2B	■	■	■	■	■
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Through-type	3LD9340-2C	■	■	■	■	■
PE terminals								
	Version	**Contacts**	**Article No.**					
	For front mounting	Through-type	3LD9340-3B	■	■	■	■	■
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	Through-type	3LD9340-3C	■	■	■	■	■
Auxiliary switches								
	Version	**Contacts**	**Article No.**					
	For front mounting	1 NO + 1 NC	3LD9340-6B	■	■	■	■	■
	For floor mounting, installation in distribution boards and basic switches without knob-operated mechanism	1 NO + 1 NC	3LD9340-6C	■	■	■	■	■

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System overview, page 8/10

				3LD30 (16 A)	3LD31 (25 A)	3LD32 (32 A)	3LD33 (40 A)	3LD34 (63 A)
Rotary operating mechanisms								
	Version	**Color**	**Article No.**					
	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	■	■	■	■	■
Knob-operated mechanisms								
	Version	**Color**	**Article No.**					
	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	■	■	■	■	■
Door-coupling rotary operating mechanisms								
	Version	**Variant**	**Color**	**Article No.**				
	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	■	■	■	■	■
Terminal covers								
	• For front mounting, floor mounting, installation in distribution boards and basic switches without knob-operated mechanism • Pack of 4 units							
	Number of poles		**Article No.**					
	1-pole		3LD9341-2A	■	■	■	■	■
	3-pole		3LD9341-0A	■	■	■	■	■
Inscription labels								
	• Pack of 10 units • Not for installation in distribution boards							
	Inscription		**Article No.**					
	German / English (Hauptschalter / Main Switch)		3LD9346-1A	■	■	■	■	■
	French / Spanish (Interrupteur Principal / Interruptor Principal)		3LD9346-2A	■	■	■	■	■
	Without inscription		3LD9346-3A	■	■	■	■	■

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System overview, page 8/10

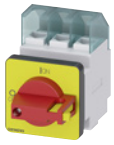
3LD switch disconnectors

System overview of 3LD2 switch disconnectors

Basic units for front mounting


3P rotary operating mechanisms

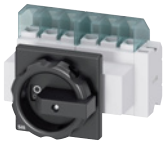

3P knob-operated mechanisms (3LD23 / 3LD24)


3P knob-operated mechanisms


3P+N rotary operating mechanisms


3P+N knob-operated mechanisms (3LD23 / 3LD24)


3P+N knob-operated mechanisms


6P rotary operating mechanisms

Basic units for floor mounting


3P rotary operating mechanisms


3P knob-operated mechanisms (3LD23 / 3LD24)


3P knob-operated mechanisms, defeatable


3P+N rotary operating mechanisms


3P+N knob-operated mechanisms (3LD23 / 3LD24)


3P+N knob-operated mechanisms, defeatable


6P rotary operating mechanisms

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Basic units for installation in distribution boards/enclosures, DC


3P knob-operated mechanisms


3P+N knob-operated mechanisms


8P DC isolators

Additional poles and auxiliary switches


N switching contacts


N/PE terminals (through-type)


Auxiliary switches (standard version)


Auxiliary switch for mounting on the front new

Operating mechanisms


Rotary operating mechanisms for 4-hole and center-hole mounting


Knob-operated mechanisms (3LD23 / 3LD24)


Switching shafts


Coupling pieces without ON-lock


Assembly tools for center-hole mounting

Other accessories

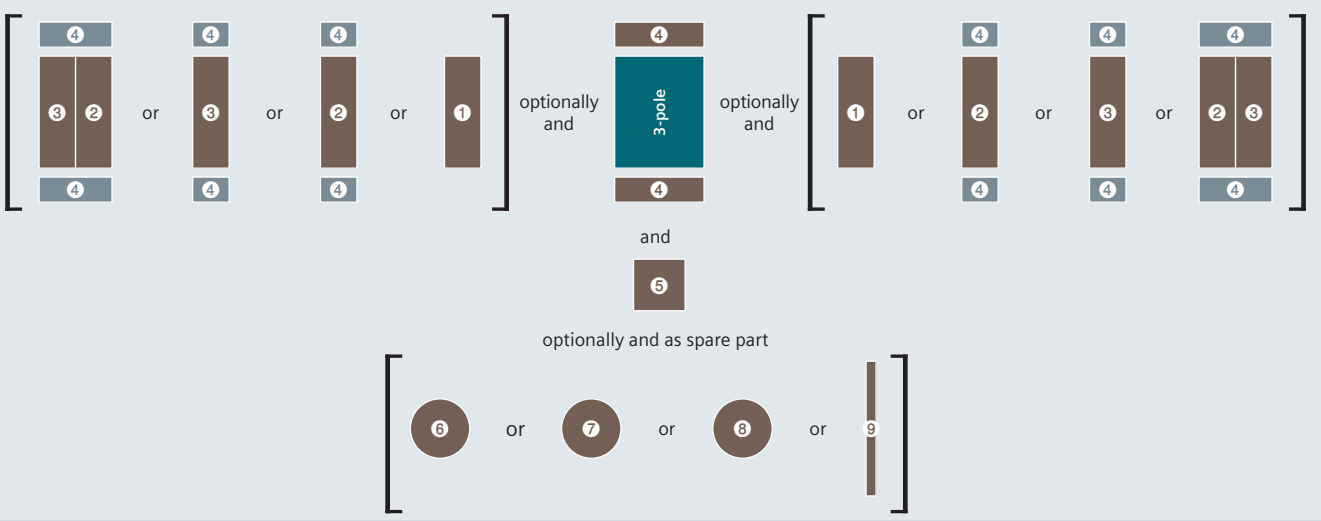

Terminal covers, 1-pole


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

❶ Auxiliary switch
❷ N switching contact [1]
❸ N/PE terminal
❹ Terminal cover
❺ Auxiliary switch for mounting on the front [2]
❻ Rotary operating mechanism, center-hole mounting
❼ Rotary operating mechanism, four-hole mounting
❽ Knob-operated mechanism, four-hole mounting
❾ Switching shaft (300 or 600)

[1] The N switching contact ❷ first has to be mounted on the basic unit
[2] Can only be used with four-hole front mounting and floor mounting

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Mounting types

You will find further information under:
sie.ag/2UlrAvy

Front mounting

The switches for front mounting are mounted on the inside of the panel door via the operating mechanism. 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.

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 its zero 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

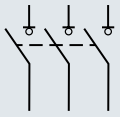
The DC isolators in the enclosure are suitable for disconnecting loads of up to 800 V DC due to their 8-pole design. To provide additional safety, the isolators can be locked in the 0 position.

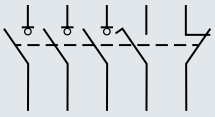
3LD switch disconnectors

3LD2 main control switches, front mounting, 25 ... 50 kA_{eff}

Operating mechanisms, black

Number of poles **3P**



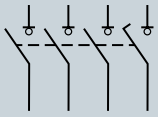
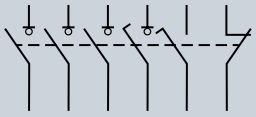
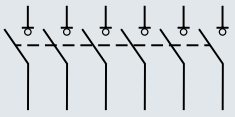
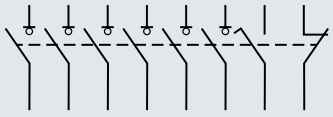


Uninterrupted current I_u At AC-21A, 380 ... 440 V	Operational power P At AC-23A, 380 ... 440 V	Operational power P At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
Rotary operating mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2003-0TK51	3LD2003-1TP51
25 A	9.5 kW	7.5 kW	3LD2103-0TK51	3LD2103-1TP51
32 A	11.5 kW	9.5 kW	3LD2203-0TK51	3LD2203-1TP51
63 A	22 kW	18.5 kW	3LD2504-0TK51	3LD2504-1TP51
100 A	37 kW	30 kW	3LD2704-0TK51	3LD2704-1TP51
125 A	45 kW	37 kW	3LD2804-0TK51	3LD2804-1TP51
160 A	75 kW	50 kW	3LD2305-0TK11	3LD2305-0TK11 + 3LD9200-5B
250 A	132 kW	110 kW	3LD2405-0TK11	3LD2405-0TK11 + 3LD9200-5B
Rotary operating mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2054-0TK51	3LD2054-1TP51
25 A	9.5 kW	7.5 kW	3LD2154-0TK51	3LD2154-1TP51
32 A	11.5 kW	9.5 kW	3LD2254-0TK51	3LD2254-0TK51 + 3LD9200-5B
63 A	22 kW	18.5 kW	3LD2555-0TK51	3LD2555-0TK51 + 3LD9200-5B
Knob-operated mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2022-0TK11	3LD2022-0TK11 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2122-0TK11	3LD2122-0TK11 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2222-0TK11	3LD2222-0TK11 + 3LD9200-5B
Knob-operated mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2050-0TK11	3LD2050-0TK11 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2150-0TK11	3LD2150-0TK11 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2250-0TK11	3LD2250-0TK11 + 3LD9200-5B

Scope of supply:
- Including terminal covers for the infeed side

Accessories, see page 8/26

System overview, page 8/20

3P+N		6P	
			
Without auxiliary switch	**1 NO + 1 NC (standard version)**	**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	–	–

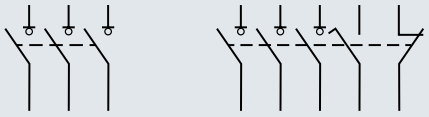
System overview, page 8/20

3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, front mounting, 25 ... 50 kA_{eff}

Operating mechanisms, red/yellow

Number of poles **3P**

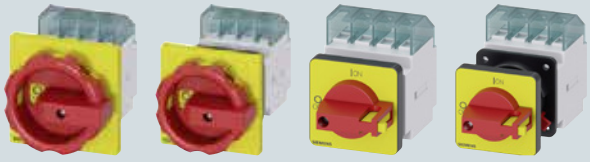


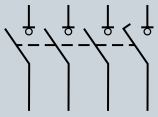
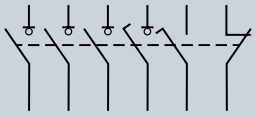
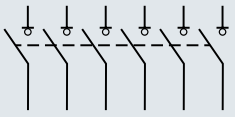
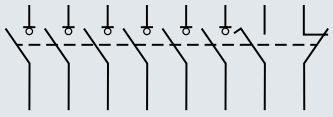
Uninterrupted current I_u At AC-21A, 380 ... 440 V	Operational power P At AC-23A, 380 ... 440 V	Operational power P At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
Rotary operating mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2003-0TK53	3LD2003-1TP53
25 A	9.5 kW	7.5 kW	3LD2103-0TK53	3LD2103-1TP53
32 A	11.5 kW	9.5 kW	3LD2203-0TK53	3LD2203-1TP53
63 A	22 kW	18.5 kW	3LD2504-0TK53	3LD2504-1TP53
100 A	37 kW	30 kW	3LD2704-0TK53	3LD2704-1TP53
125 A	45 kW	37 kW	3LD2804-0TK53	3LD2804-1TP53
160 A	75 kW	50 kW	3LD2305-0TK13	3LD2305-0TK13 + 3LD9200-5B
250 A	132 kW	110 kW	3LD2405-0TK13	3LD2405-0TK13 + 3LD9200-5B
Rotary operating mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2054-0TK53	3LD2054-1TP53
25 A	9.5 kW	7.5 kW	3LD2154-0TK53	3LD2154-1TP53
32 A	11.5 kW	9.5 kW	3LD2254-0TK53	3LD2254-0TK53 + 3LD9200-5B
63 A	22 kW	18.5 kW	3LD2555-0TK53	3LD2555-0TK53 + 3LD9200-5B
Knob-operated mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2022-0TK13	3LD2022-0TK13 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2122-0TK13	3LD2122-0TK13 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2222-0TK13	3LD2222-0TK13 + 3LD9200-5B
Knob-operated mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2050-0TK13	3LD2050-0TK13 + 3LD9200-5B
25 A	9.5 kW	7.5 kW	3LD2150-0TK13	3LD2150-0TK13 + 3LD9200-5B
32 A	11.5 kW	9.5 kW	3LD2250-0TK13	3LD2250-0TK13 + 3LD9200-5B

Scope of supply:
- Including terminal covers for the infeed side

Accessories, see page 8/26

System overview, page 8/20



3+N		6P	
			
Without auxiliary switch	**1 NO + 1 NC (standard version)**	**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	–	–

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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)
Switching contacts for N conductor (4th contact)											
	**Contacts**		**Article No.**								
	Leading switch-on, lagging switch-off		3LD9220-0B		■	■					
			3LD9250-0BA				■				
			3LD9280-0B					■	■		
			3LD9240-0B							■	■
N/PE terminals											
	**Contacts**		**Article No.**								
	Through-type		3LD9200-2B	■							
			3LD9220-2B		■	■					
			3LD9250-2BA				■				
			3LD9280-2B					■	■		
			3LD9240-2B							■	■
Auxiliary switches (standard version)											
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off										
	Contacts	**Contact surface**	**Article No.**								
	1 NO + 1 NC	Standard	3LD9200-5B	■	■	■	■	■	■	■	■
		Gold-plated	3LD9200-5BF	■	■	■	■	■	■	■	■
Auxiliary switch for mounting on the front											
	• Mounted on the switch shaft • For four-hole front mounting only • For long leading times (20 ... 150 ms)										
	Contacts	**Contact surface**	**Article No.**								
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■		
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■		
Rotary operating mechanisms											
	• Lockable in 0 position with up to 3 padlocks										
	Version	**Mounting**	**Article No.**								
	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.**								
	For main control switches	Four-hole mounting	3LD9243-1B							■	■
	For EMERGENCY-STOP switches	Four-hole mounting	3LD9243-3B							■	■

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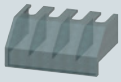
			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Terminal covers										
	• Pack of 4 units									
	Number of poles	**Article No.**								
	1-pole	3LD9201-2A	■							
		3LD9221-2A		■	■					
		3LD9251-2A				■				
		3LD9281-2A					■	■		
		3LD9241-2A							■	■
	3-pole	3LD9221-0A		■	■					
		3LD9251-0A				■				
	4-pole	3LD9201-1A	■							
Inscription labels										
	• Pack of 10 units									
	Inscription	**Article No.**								
	German / English (Hauptschalter / Main Switch)	3LD9286-1A	■	■	■	■	■	■		
	Without inscription	3LD9286-4A	■	■	■	■	■	■		
Assembly tools										
	• For center-hole mounting with nut • Pack of 5 units									
	Version	**Article No.**								
	For main control switches and EMERGENCY-STOP switches	3LD9256-0A	■	■	■	■				

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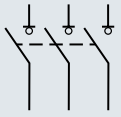
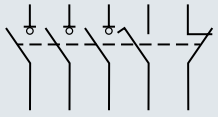
System overview, page 8/20

3LD switch disconnectors

3LD2 main control switches, floor mounting, 25 ... 50 kA_{eff}

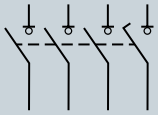
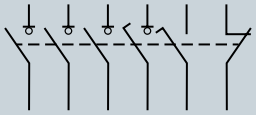
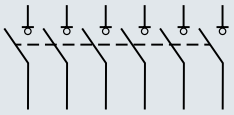
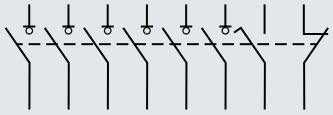
	Operating mechanisms, black	
Number of poles	3P	
		
Uninterrupted current I_u At AC-21A, 380 ... 440 V	Operational power P At AC-23A, 380 ... 440 V	Operational power P At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
Door-coupling rotary operating mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2013-0TK51	3LD2013-0TK51 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2113-0TK51	3LD2113-0TK51 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2213-0TK51	3LD2213-0TK51 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2514-0TK51	3LD2514-0TK51 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2714-0TK51	3LD2714-0TK51 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2814-0TK51	3LD2814-0TK51 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2318-0TK11	3LD2318-0TK11 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2418-0TK11	3LD2418-0TK11 + 3LD9200-5C
Door-coupling rotary operating mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2044-0TK51	3LD2044-0TK51 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2144-0TK51	3LD2144-0TK51 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2244-0TK51	3LD2244-0TK51 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2545-0TK51	3LD2545-0TK51 + 3LD9200-5C
Defeatable door-coupling knob-operated mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2017-0TK11	3LD2017-0TK11 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2217-0TK11	3LD2217-0TK11 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2517-0TK11	3LD2517-0TK11 + 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 8/32

System overview, page 8/20

3P+N			6P	
				
Without auxiliary switch	**1 NO + 1 NC (standard version)**		**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		–	–

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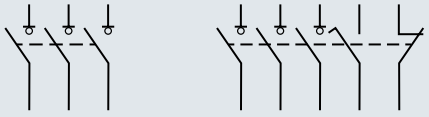
3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, floor mounting, 25 ... 50 kA_{eff}

Operating mechanisms, red/yellow

Number of poles **3P**



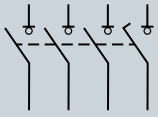
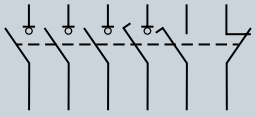
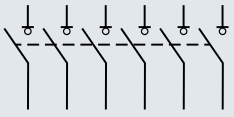
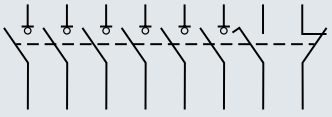
Uninterrupted current I_u At AC-21A, 380 ... 440 V	Operational power P At AC-23A, 380 ... 440 V	Operational power P At AC-3A, 380 ... 440 V	Without auxiliary switch	1 NO + 1 NC (standard version)
Door-coupling rotary operating mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2013-0TK53	3LD2013-0TK53 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2113-0TK53	3LD2113-0TK53 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2213-0TK53	3LD2213-0TK53 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2514-0TK53	3LD2514-0TK53 + 3LD9200-5C
100 A	37 kW	30 kW	3LD2714-0TK53	3LD2714-0TK53 + 3LD9200-5C
125 A	45 kW	37 kW	3LD2814-0TK53	3LD2814-0TK53 + 3LD9200-5C
160 A	75 kW	50 kW	3LD2318-0TK13	3LD2318-0TK13 + 3LD9200-5C
250 A	132 kW	110 kW	3LD2418-0TK13	3LD2418-0TK13 + 3LD9200-5C
Door-coupling rotary operating mechanism, center-hole mounting Ø 22.5 mm				
16 A	7.5 kW	5.5 kW	3LD2044-0TK53	3LD2044-0TK53 + 3LD9200-5C
25 A	9.5 kW	7.5 kW	3LD2144-0TK53	3LD2144-0TK53 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2244-0TK53	3LD2244-0TK53 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2545-0TK53	3LD2545-0TK53 + 3LD9200-5C
Defeatable door-coupling knob-operated mechanism, four-hole mounting				
16 A	7.5 kW	5.5 kW	3LD2017-0TK13	3LD2017-0TK13 + 3LD9200-5C
32 A	11.5 kW	9.5 kW	3LD2217-0TK13	3LD2217-0TK13 + 3LD9200-5C
63 A	22 kW	18.5 kW	3LD2517-0TK13	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 8/32

System overview, page 8/20

3P+N		6P	
			
Without auxiliary switch	**1 NO + 1 NC (standard version)**	**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	–	–

System overview, page 8/20

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.**								
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
		3LD9250-0CA				■				
		3LD9280-0C					■	■		
		3LD9240-0C							■	■
N/PE terminals										
	**Contacts**	**Article No.**								
	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.**							
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■	■
Auxiliary switch for mounting on the front										
	• Mounted on the switch shaft • For long leading times (20 ... 150 ms)									
	Contacts	**Contact surface**	**Article No.**							
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■		
			3LD9240-5D new							■	■
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■		
			3LD9240-5DF new							■	■
Rotary operating mechanisms										
	• Lockable in 0 position with up to 3 padlocks									
	Version	**Mounting**	**Article No.**							
	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.**							
	For main control switches	Four-hole mounting	3LD9243-1B						■	■
	For EMERGENCY-STOP switches	Four-hole mounting	3LD9243-3B						■	■
8UC7.. door-coupling rotary operating mechanisms										
	• To achieve defeatability from 3LD27 (100 A) to 3LD24 (250 A)									
	Type	**Version**	**Article No.**							
	8UC71	Standard	8UC7110-1BB					■	■		
		EMERGENCY-STOP	8UC7120-3BB					■	■		
	8UC72	Standard	8UC7210-1BB							■	■
		EMERGENCY-STOP	8UC7220-3BB							■	■

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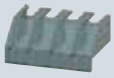
				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)	3LD23 (160 A)	3LD24 (250 A)
Coupling drivers											
	**Version**		**Article No.**								
	For 8UC71 door-coupling rotary operating mechanisms		8UC6011					■	■		
	For 8UC72 door-coupling rotary operating mechanisms		8UC6012							■	■
Switching shafts											
	**Cross-section**	**Length**	**Article No.**								
	6 × 6 mm	300 mm	3LD9205-0C	■	■	■	■	■	■		
		600 mm	3LD9205-2C	■	■	■	■	■	■		
	8 × 8 mm	300 mm	3LD9245-0C							■	■
		600 mm	3LD9245-2C							■	■
Coupling pieces											
	• Without ON-lock										
	Article No.										
			3LD9242-4F							■	■
Terminal covers											
	• Pack of 4 units										
	Number of poles		**Article No.**								
	1-pole		3LD9201-2A	■							
			3LD9221-2A		■	■					
			3LD9251-2A				■				
			3LD9281-2A					■	■		
			3LD9241-2A							■	■
	3-pole		3LD9221-0A		■	■					
			3LD9251-0A				■				
	4-pole		3LD9201-1A	■							
Inscription labels											
	• Pack of 10 units										
	Inscription		**Article No.**								
	German / English (Hauptschalter / Main Switch)		3LD9286-1A	■	■	■	■	■	■		
	Without inscription		3LD9286-4A	■	■	■	■	■	■		
Assembly tools											
	• For center-hole mounting with nut • Pack of 5 units										
	Version		**Article No.**								
	For main control switches and EMERGENCY-STOP switches		3LD9256-0A	■	■	■	■				

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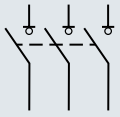
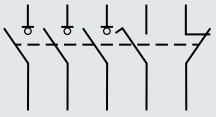
3LD switch disconnectors

3LD2 main control switches, installation in distribution boards, 25 ... 50 kA_{eff}

	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)
Knob-operated mechanisms with masking plate		
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.								
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
		3LD9250-0CA				■				
		3LD9280-0C					■	■		
		3LD9240-0C							■	■
N/PE terminals										
	Contacts	Article No.								
	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.								
	1 NO + 1 NC / Standard	3LD9200-5C	■	■	■	■	■	■	■	■
	Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■	■
	2 NO / Standard	3LD9200-6C	■	■	■	■	■	■	■	■

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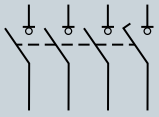
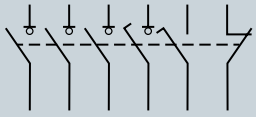
3P+N





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 + 3LD9250-0CA	3LD2530-0TK11 + 3LD9250-0CA + 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

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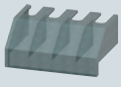
Terminal covers

- Pack of 4 units



Number of poles	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-pole	3LD9201-2A	■							
	3LD9221-2A		■	■					
	3LD9251-2A				■				
	3LD9281-2A					■	■		
	3LD9241-2A							■	■
3-pole	3LD9221-0A		■	■					
	3LD9251-0A				■				
4-pole	3LD9201-1A	■							

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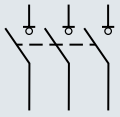
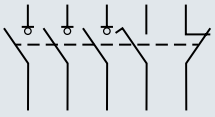
3LD switch disconnectors

3LD2 EMERGENCY-STOP switches, installation in distribution boards, 25 ... 50 kA_{eff}

	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)**
Knob-operated mechanisms with masking plate				
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.**								
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
		3LD9250-0CA				■				
		3LD9280-0C					■	■		
		3LD9240-0C							■	■
N/PE terminals										
	**Contacts**	**Article No.**								
	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.**							
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■	■	■
	2 NO	Standard	3LD9200-6C	■	■	■	■	■	■	■	■

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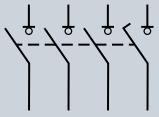
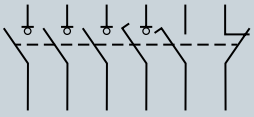
3+N

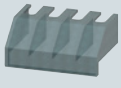




Without auxiliary switch	1 NO + 1 NC (standard version)
3LD2030-1TL13	3LD2030-1TL13 + 3LD9200-5C
3LD2130-0TK13 + 3LD9220-0C	3LD2130-0TK13 + 3LD9220-0C + 3LD9200-5C
3LD2230-0TK13 + 3LD9220-0C	3LD2230-0TK13 + 3LD9220-0C + 3LD9200-5C
3LD2530-0TK13 + 3LD9250-0CA	3LD2530-0TK13 + 3LD9250-0CA + 3LD9200-5C
3LD2730-0TK13 + 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

Terminal covers

- Pack of 4 units



Number of poles	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-pole	3LD9201-2A	■							
	3LD9221-2A		■	■					
	3LD9251-2A				■				
	3LD9281-2A					■	■		
	3LD9241-2A							■	■
3-pole	3LD9221-0A		■	■					
	3LD9251-0A				■				
4-pole	3LD9201-1A	■							

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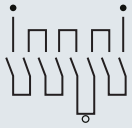
3LD switch disconnectors

DC isolators, 50 kA_{rms}

	Operating mechanisms, black
Number of poles	8P
	

Mains voltage	Rated current I_e At DC-21A, 800 V DC	Rated current I_e At DC-22A, 800 V DC	Without auxiliary switch
Knob-operated mechanisms			
800 V DC	32 A	16 A	3LD2230-8VQ11-0AF6

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3LD switch disconnectors

Accessories for 3LD2 main control and EMERGENCY-STOP switches

Additional poles

				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)											
	**Version**	**Contacts**	**Article No.**								
	For front mounting	Leading switch-on, lagging switch-off	3LD9220-0B		■	■					
			3LD9250-0BA				■				
			3LD9280-0B					■	■		
			3LD9240-0B							■	■
	For floor mounting, installation in distribution boards	Leading switch-on, lagging switch-off	3LD9220-0C		■	■					
			3LD9250-0CA				■				
			3LD9280-0C					■	■		
			3LD9240-0C							■	■
N/PE terminals											
	**Version**	**Contacts**	**Article No.**								
	For front mounting	Through-type	3LD9200-2B	■							
			3LD9220-2B		■	■					
			3LD9250-2BA				■				
			3LD9280-2B					■	■		
			3LD9240-2B							■	■
	For floor mounting, installation in distribution boards	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										
	**Version**	**Contacts**	**Article No.**								
	For front mounting	1 NO + 1 NC, standard	3LD9200-5B	■	■	■	■	■	■	■	■
		1 NO + 1 NC, gold-plated	3LD9200-5BF	■	■	■	■	■	■	■	■
	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	■	■	■	■	■	■	■	■
Auxiliary switch for mounting on the front											
	• Mounted on the front of the switch shaft • For four-hole front mounting and floor mounting only • Not suitable for front-mounted 3LD23 (160 A) ... 3LD24 (250 A) • For long leading times (20 ... 150 ms)										
	Contacts	**Contact surface**	**Article No.**								
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■		
			3LD9240-5D new							■	■
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■		
			3LD9240-5DF new							■	■

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Operating mechanisms

Switch	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)
Rotary operating mechanisms										
• Lockable in 0 position with up to 3 padlocks • Center-hole mounting, including seal and nut • Four-hole mounting, including seal										
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 • Including seal										
For main control switches	Four-hole mounting	3LD9243-1B							■	■
For EMERGENCY-STOP switches	Four-hole mounting	3LD9243-3B							■	■

Version	Cross-section	Length	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)
Switching shafts											
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							■	■
Coupling pieces											
• Without ON-lock											
For floor mounting			3LD9242-4F							■	■

Other accessories

Number of poles	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)
Terminal covers									
• Pack of 4 units									
1-pole	3LD9201-2A	■							
	3LD9221-2A		■	■					
	3LD9251-2A				■				
	3LD9281-2A					■	■		
	3LD9241-2A							■	■
3-pole	3LD9221-0A		■	■					
	3LD9251-0A				■				
4-pole	3LD9201-1A	■							

Inscription	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)
Inscription labels									
• Pack of 10 units									
German / English (Hauptschalter / Main Switch)	3LD9286-1A	■	■	■	■	■	■		
Without inscription	3LD9286-4A	■	■	■	■	■	■		

Switch	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)
Montagewerkzeug									
• For center-hole mounting with nut • Pack of 5 units									
For main control switches and EMERGENCY-STOP switches	3LD9256-0A	■	■	■	■				

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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 new

3P / 6P
molded-plastic enclosures new

3P / 6P
molded-plastic enclosures new

DC isolators in enclosure

8P DC isolators in a
molded-plastic 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)

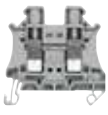
Auxiliary switch for mounting on
the front new

Operating mechanisms

Rotary operators for center-hole mounting

Further accessories

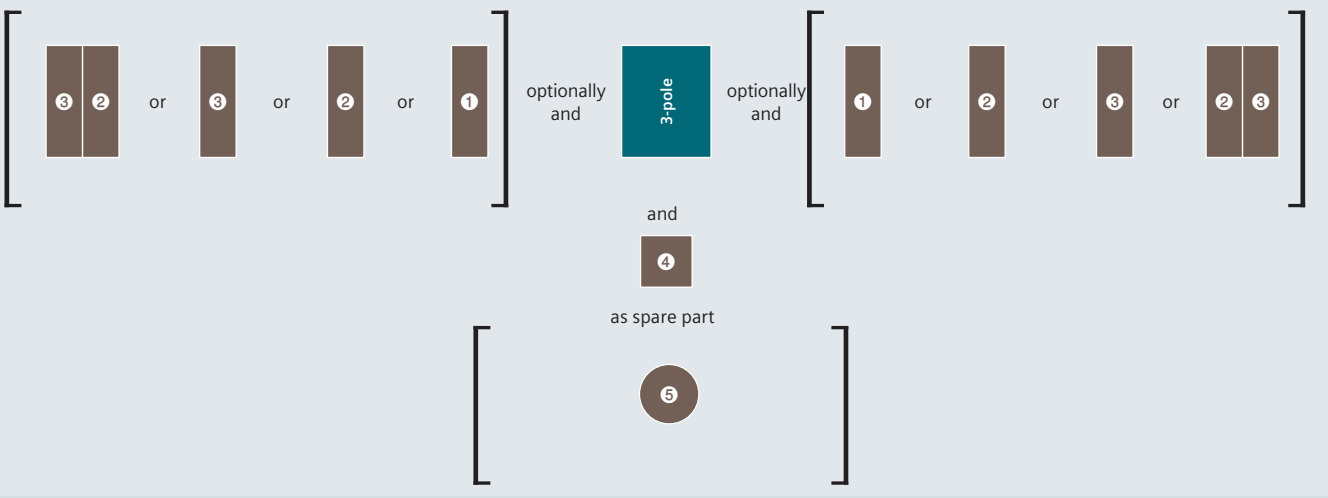
Shield terminal new



Through-type terminal

Note:
You will find a detailed range of accessories with the basic units.

Mounting concept and accessories



Legend

❶ Auxiliary switch
❷ N switching contact [1)]
❸ N/PE terminal
❹ Auxiliary switch for mounting on the front
❺ Rotary operating mechanism, center-hole mounting

[1)] The N switching contact ❷ first has to be mounted on the basic unit
Note: Depending on the enclosure size, not all accessories can be used in combination

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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

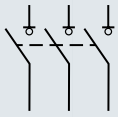
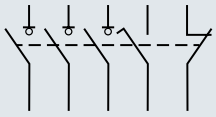
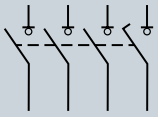
As the switches can be locked in the 0 position, they can also be used as maintenance and repair switches. The DC isolators in the enclosure are suitable for disconnecting loads of up to 800 V DC due to their 8-pole design.

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 (20-150ms) NO contact switches the converter group off before the main contacts of the switch open. This produces an AC20 state and it is then possible to switch safely at the converter output. 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_{eff}

			Operating mechanisms, black					
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	3LD2064-0TB51	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

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Accessories

				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Switching contacts for N conductor (4th contact)									
	Contacts		Article No.						
	Leading switch-on, lagging switch-off		3LD9220-0C		■	■			
			3LD9250-0CA				■		
			3LD9280-0C					■	■
N/PE terminals									
	Contacts		Article No.						
	Through-type		3LD9200-2C	■					
			3LD9220-2C		■	■			
			3LD9250-2CA				■		
			3LD9280-2C					■	■
Auxiliary switches (standard version)									
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off								
	Contacts	Contact surface	Article No.						
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■
	2 NO + 1 NC	Standard	3LD9200-6C	■	■	■	■	■	■
Auxiliary switch for mounting on the front									
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150 ms)								
	Contacts	Contact surface	Article No.						
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■
Rotary operating mechanisms									
	• Lockable in 0 position with up to 3 padlocks								
			Article No.						
			3LD9224-1G	■	■	■			
			3LD9284-1G				■	■	■

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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+N	3LD2165-3VB51	N	3LD2165-4VD51
PE	3LD2264-1TC51	+ 3LD9200-5C	PE+N	3LD2265-3VB51	N	3LD2265-4VD51
PE	3LD2565-1TC51	+ 3LD9200-5C	PE+N	3LD2566-3VB51	PE+N	3LD2566-4VD51
N	3LD2766-1GP51	+ 3LD9280-0C		–		–
N	3LD2866-1GP51	+ 3LD9280-0C		–		–

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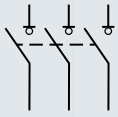
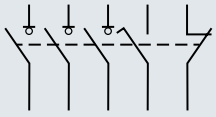
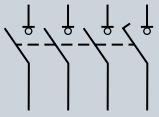
3LD switch disconnectors

3LD2 EMERGENCY-STOP switches in enclosure, 25 ... 50 kA_{eff}

			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

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Accessories

				3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Switching contacts for N conductor (4th contact)									
	Contacts		Article No.						
	Leading switch-on, lagging switch-off		3LD9220-0C		■	■			
			3LD9250-0CA				■		
			3LD9280-0C					■	■
N/PE terminals									
	Contacts		Article No.						
	Through-type		3LD9200-2C	■					
			3LD9220-2C		■	■			
			3LD9250-2CA				■		
			3LD9280-2C					■	■
Auxiliary switches (standard version)									
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off								
	Contacts	Contact surface	Article No.						
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■
	2 NO + 1 NC	Standard	3LD9200-6C	■	■	■	■	■	■
Auxiliary switch for mounting on the front									
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150 ms)								
	Contacts	Contact surface	Article No.						
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■
Rotary operating mechanisms									
	• Lockable in 0 position with up to 3 padlocks								
			Article No.						
			3LD9224-3G	■	■	■			
			3LD9284-3G				■	■	■

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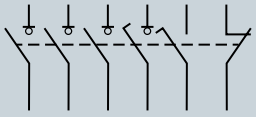
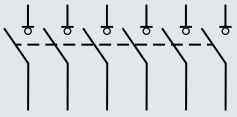
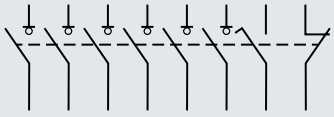
6P



1 NO + 1 NC (standard version)



Without auxiliary switch



1 NO + 1 NC (standard version)

Base terminal			Base terminal		Base terminal	
PE	3LD2064-1TC53	+ 3LD9200-5C		–		–
PE	3LD2164-1TC53	+ 3LD9200-5C	PE+N	3LD2165-3VB53	N	3LD2165-4VD53
PE	3LD2264-1TC53	+ 3LD9200-5C	PE+N	3LD2265-3VB53	N	3LD2265-4VD53
PE	3LD2565-1TC53	+ 3LD9200-5C	PE+N	3LD2566-3VB53	PE+N	3LD2566-4VD53
N	3LD2766-1GP53 + 3LD9280-0C			–		–
N	3LD2866-1GP53 + 3LD9280-0C			–		–

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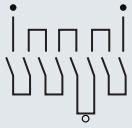
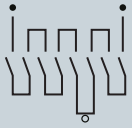
3LD switch disconnectors

3LD2 DC isolators in a molded-plastic enclosure

	Operating mechanisms, black	Operating mechanisms, red/yellow
Number of poles	8P	8P
		

Mains voltage	Rated current I_e At DC-21A, 800 V DC	Rated 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

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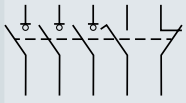
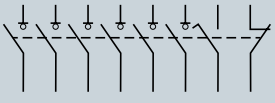
3LD2 maintenance and repair switches with EMC shield plate, 25 ... 50 kA_{eff} new

	Operating mechanisms, black	
Number of poles	3P	6P
		

Uninterrupted current I_u 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-23 A, 50/60 Hz, 380 ... A440 V	1 NO + 1 NC (Auxiliary switch for mounting on the front) new		1 NO + 1 NC (Auxiliary switch for mounting on the front) new	
Knob-operated mechanisms with masking plate				Base terminal		Base terminal	
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

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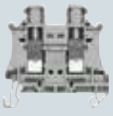
3LD2 maintenance and repair switches with EMC shield plate, 25 ... 50 kA_{eff}

Accessories

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Switching contacts for N conductor (4th contact)								
	**Contacts**	**Article No.**						
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■			
		3LD9250-0CA				■		
		3LD9280-0C					■	■
N/PE terminals								
	**Contacts**	**Article No.**						
	Through-type	3LD9200-2C	■					
		3LD9220-2C		■	■			
		3LD9250-2CA				■		
		3LD9280-2C					■	■
Auxiliary switches (standard version)								
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off							
	Contacts / **Contact surface**	**Article No.**						
	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 front of the switch shaft • For long leading times (20 ... 150 ms)							
	Contacts / **Contact surface**	**Article No.**						
	1 NO + 1 NC / Standard	3LD9280-5D new	■	■	■	■	■	■
	Gold-plated	3LD9280-5DF new	■	■	■	■	■	■
Rotary operating mechanisms								
	• Lockable in 0 position with up to 3 padlocks							
	Version	**Article No.**						
	Main control switches	3LD9224-1G	■	■	■			
		3LD9284-1G				■	■	■
	EMERGENCY-STOP switches	3LD9224-3G	■	■	■			
		3LD9284-3G				■	■	■
Terminal blocks								
	**Version**	**Article No.**						
	Through-type terminal with screw connection	8WH1000-0AF00	■	■	■	■	■	■
Shield terminal								
	**Terminal area**	**Article No.**						
	3...12 mm	3LD9228-1G	■	■	■	■	■	■

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3LD switch disconnectors

Accessories for 3LD2 switch disconnectors in enclosure

Additional poles

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Switching contacts for N conductor (4th contact)								
	**Contacts**	**Article No.**						
	Leading switch-on, lagging switch-off	3LD9220-0C		■	■			
		3LD9250-0CA				■		
		3LD9280-0C					■	■
N/PE terminals								
	**Contacts**	**Article No.**						
	Through-type	3LD9200-2C	■					
		3LD9220-2C		■	■			
		3LD9250-2CA				■		
		3LD9280-2C					■	■
Auxiliary switches (standard version)								
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off							
	Contacts	**Contact surface**	**Article No.**					
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■	■	■
	2 NO + 1 NC	Standard	3LD9200-6C	■	■	■	■	■	■
Auxiliary switch for mounting on the front								
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150 ms)							
	Contacts	**Contact surface**	**Article No.**					
	1 NO + 1 NC	Standard	3LD9280-5D new	■	■	■	■	■	■
		Gold-plated	3LD9280-5DF new	■	■	■	■	■	■

Operating mechanisms

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Rotary operating mechanisms								
	• Lockable in 0 position with up to 3 padlocks							
	Version	**Article No.**						
	Main control switches	3LD9224-1G	■	■	■			
		3LD9284-1G				■	■	■
	EMERGENCY-STOP switches	3LD9224-3G	■	■	■			
		3LD9284-3G				■	■	■

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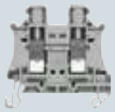
Connection parts

			3LD20 (16 A)	3LD21 (25 A)	3LD22 (32 A)	3LD25 (63 A)	3LD27 (100 A)	3LD28 (125 A)
Reihenklemme								
	**Version**	**Article No.**						
	Through-type terminal with screw connection	8WH1000-0AF00	■	■	■	■	■	■
Shield terminal								
	**Terminal area**	**Article No.**						
	3...12 mm	3LD9228-1G	■	■	■	■	■	■

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System overview, page 8/42

3LD switch disconnectors

System overview of 3LD5 UL main control and EMERGENCY-STOP switches new

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 operators for four-hole mounting


Coupling heads with and without tolerance compensation


Supplementary handles for UL508A/NFPA79


Switching shafts

Other accessories

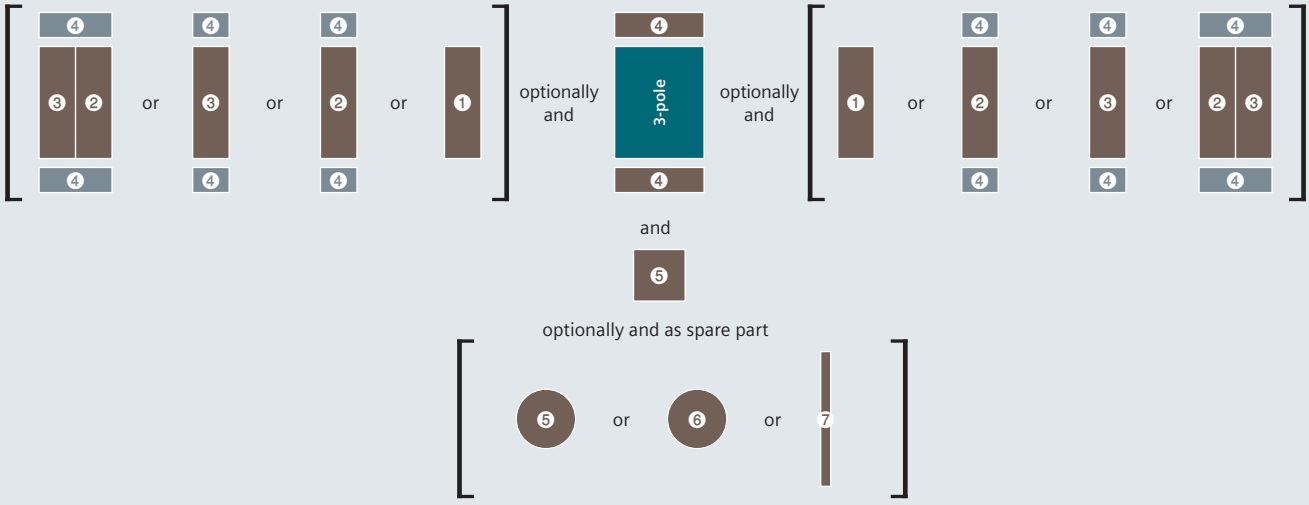

Terminal covers, 1-pole


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

❶ Auxiliary switch
❷ N switching contact [1)]
❸ N/PE terminal
❹ Terminal cover
❺ Rotary operating mechanism, four-hole mounting
❻ Knob-operated mechanism, four-hole mounting
❼ Switching shaft (300 oder 600 mm)

[1)] The N switching contact ❷ first has to be mounted on the basic unit

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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 the panel door via the operating mechanism. 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

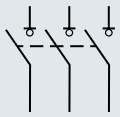
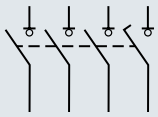
The switches for floor mounting with direct operating mechanism up to 30 A are snapped onto 35 mm standard mounting rails according to EN 60715 or screw-mounted on mounting panels. The switches for 100 to 160 A (3LD54 ... 3LD58) are exclusively screwed onto mounting panels.

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 its zero 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_u At AC-21A, 380 ... 440 V	I_n / General use acc. UL489/508	Operational power P At AC-23A, 380 ... 440 V		
Rotary operating mechanism, four-hole mounting				
32	30	15	3LD5020-0TK11	3LD5020-0TL11
100	100	45	3LD5420-0TK11	3LD5420-0TL11
125	125	55	3LD5620-0TK11	3LD5620-0TL11
160	150	75	3LD5820-0TK11	3LD5820-0TL11

Scope of supply:
- Including terminal covers for the infeed side

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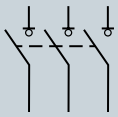
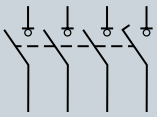
Accessories for front mounting

			3LD50	3LD54	3LD56	3LD58
Switching contacts for N conductor (4th contact)						
	**Contacts**	**Article No.**				
	Leading switch-on, lagging switch-off	3LD9250-0BA	■			
		3LD9240-0B		■	■	■
N/PE terminals						
	**Contacts**	**Article No.**				
	Through-type	3LD9250-2BA	■			
		3LD9240-2B		■	■	■
Auxiliary switches (standard version)						
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off					
	Contacts / **Contact surface**	**Article No.**				
	1 NO + 1 NC / Standard	3LD9200-5B	■	■	■	■
	Gold-plated	3LD9200-5BF	■	■	■	■
Auxiliary switch for mounting on the front						
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150ms)					
	Contacts / **Contact surface**	**Article No.**				
	1 NO + 1 NC / Standard	3LD9280-5D new	■			
		3LD9240-5D new		■	■	■
	Gold-plated	3LD9280-5DF new	■			
		3LD9240-5DF new		■	■	■
Rotary operating mechanisms						
	• Auxiliary switch for mounting on the front					
	Version	**Article No.**				
	For main control switches	3LD9284-1B	■			
	For EMERGENCY-STOP switches	3LD9284-3B	■			

System overview, page 8/52

Operating mechanisms, red/yellow

3P	3P+N
	
3LD5020-0TK13	3LD5020-0TL13
3LD5420-0TK13	3LD5420-0TL13
3LD5620-0TK13	3LD5620-0TL13
3LD5820-0TK13	3LD5820-0TL13

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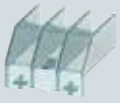
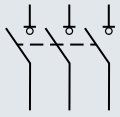
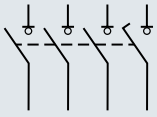
		3LD50	3LD54	3LD56	3LD58
Knob-operated mechanisms					
	• Lockable in 0 position with up to 3 padlocks				
Version	**Article No.**				
For main control switches	3LD9243-1B		■	■	■
For EMERGENCY-STOP switches	3LD9284-3B		■	■	■
Terminal covers					
	• Pack of 4 units				
Number of poles	**Article No.**				
 1-pole	3LD9251-2A	■			
	3LD9241-2A		■	■	■
 3-pole	3LD9251-0A	■			
Inscription labels					
	• Pack of 10 units				
Inscription	**Article No.**				
German / English (Hauptschalter / Main Switch)	3LD9286-1A	■	■	■	■
Without inscription	3LD9286-4A	■	■	■	■

System overview, page 8/52

3LD switch disconnectors

3LD5 UL main control and EMERGENCY-STOP switches, floor mounting with direct operating mechanism, SCCR 50 ... 65 kA

Number of poles	Operating mechanisms, black	
	3P	3P+N
		

Uninterrupted current I_u At AC-21A, 380 ... 440 V	I_n / General use acc. UL489/508	Operational power P At AC-23A, 380 ... 440 V		
Rotary operating mechanism, four-hole mounting				
32	30	15	3LD5000-0TK11	3LD5000-0TL11
100	100	45	3LD5400-0TK11	3LD5400-0TL11
125	125	55	3LD5600-0TK11	3LD5600-0TL11
160	150	75	3LD5800-0TK11	3LD5800-0TL11

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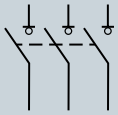
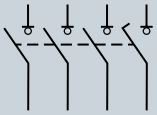
Scope of supply:
- Including terminal covers for the infeed side

Accessories for floor mounting with direct operating mechanisms

			3LD50	3LD54	3LD56	3LD58
Switching contacts for N conductor (4th contact)						
	**Contacts**	**Article No.**				
	Leading switch-on, lagging switch-off	3LD9250-0CA	■			
		3LD9240-0C		■	■	■
N/PE terminals						
	**Contacts**	**Article No.**				
	Through-type	3LD9250-2CA	■			
		3LD9240-2C		■	■	■
Auxiliary switches						
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off					
	Contacts / **Contact surface**	**Article No.**				
	1 NO + 1 NC, Standard	3LD9200-5C	■	■	■	■
	1 NO + 1 NC, Gold-plated	3LD9200-5CF	■	■	■	■
Terminal covers						
	• Pack of 4 units					
	Number of poles	**Article No.**				
	1-pole	3LD9251-2A	■			
		3LD9241-2A		■	■	■
	3-pole	3LD9251-0A	■			

System overview, page 8/52

Operating mechanisms, red/yellow

3P	3P+N
	
3LD5000-0TK13	3LD5000-0TL13
3LD5400-0TK13	3LD5400-0TL13
3LD5600-0TK13	3LD5600-0TL13
3LD5800-0TK13	3LD5800-0TL13

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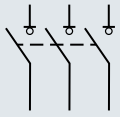
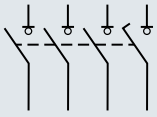
System overview, page 8/52

3LD switch disconnectors

3LD5 UL main control and EMERGENCY-STOP switches, floor mounting with door-coupling rotary operating mechanism, SCCR 50 ... 65 kA

Number of poles	Operating mechanisms, black	
	3P	3P+N
		

Uninterrupted current I_u At AC-21A, 380 ... 440 V	I_n / General use acc. UL489/508	Operational power P At AC-23A, 380 ... 440 V		
Rotary operating mechanism, four-hole mounting				
32	30	15	3LD5010-0TK11	3LD5010-0TL11
100	100	45	3LD5410-0TK11	3LD5410-0TL11
125	125	55	3LD5610-0TK11	3LD5610-0TL11
160	150	75	3LD5810-0TK11	3LD5810-0TL11

Scope of supply:
- Including terminal covers for the infeed side
- Defeatable door-coupling rotary operating mechanisms
- Without tolerance compensation

Accessories for floor mounting with door mounted rotary operator

				3LD50	3LD54	3LD56	3LD58
Switching contacts for N conductor (4th contact)							
	Contacts		Article No.				
	Leading switch-on, lagging switch-off		3LD9250-0CA	■			
			3LD9240-0C		■	■	■
N/PE terminals							
	Contacts		Article No.				
	Through-type		3LD9250-2CA	■			
			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.				
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■
		Vergoldet	3LD9200-5CF	■	■	■	■
Auxiliary switch for mounting on the front							
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150ms)						
	Contacts	Contact surface	Article No.				
	1 NO + 1 NC	Standard	3LD9280-5D new	■			
			3LD9240-5D new		■	■	■
		Gold-plated	3LD9280-5DF new	■			
			3LD9240-5DF new		■	■	■
Handles							
	• Supplied with a masking frame, but without an extension shaft or coupling driver • Can be locked with up to 3 padlocks						
	Labeling	Color	Article No.				
	O-I	Gray	8UD1771-2AD01	■			
			8UD1731-2AD01		■	■	■
		Red/yellow	8UD1771-2AD05	■			
			8UD1731-2AD05		■	■	■

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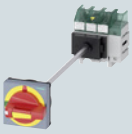
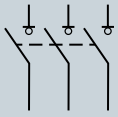
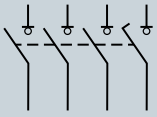


Operating mechanisms, red/yellow	
3P	**3P+N**
	
3LD5010-0TK13	3LD5010-0TL13
3LD5410-0TK13	3LD5410-0TL13
3LD5610-0TK13	3LD5610-0TL13
3LD5810-0TK13	3LD5810-0TL13

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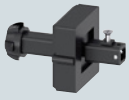
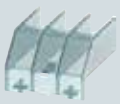
			3LD50	3LD54	3LD56	3LD58
Supplementary handles for door-coupling rotary operating mechanism						
 • For requirements according to UL508A/NFPA79 • Can be locked with up to 1 padlocks in 0 position • Can only be switched on by deliberate action						
Labeling	**Color**	**Article No.**				
O-I	Gray	3LD9287-1C	■			
		3LD9247-1C		■	■	■
	Red/yellow	3LD9287-3C	■			
		3LD9247-3C		■	■	■
Coupling drivers						
	**Version**	**Article No.**				
	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.**				
	1-pole	3LD9251-2A	■			
		3LD9241-2A		■	■	■
	3-pole	3LD9251-0A	■			
Inscription labels						
 • Pack of 10 units						
Inscription		**Article No.**				
German / English (Hauptschalter / Main Switch)		3LD9286-1A	■	■	■	■
Without inscription		3LD9286-4A	■	■	■	■

System overview, page 8/52

3LD switch disconnectors

Accessories for 3LD5 UL main control and EMERGENCY-STOP switches

Additional poles

			3LD50	3LD54	3LD56	3LD58
Switching contacts for N conductor (4th contact) for front mounting						
	**Contacts**	**Article No.**				
	Leading switch-on, lagging switch-off	3LD9250-0BA	■			
		3LD9240-0B		■	■	■
Switching contacts for N conductor (4th contact) for floor mounting						
	**Contacts**	**Article No.**				
	Leading switch-on, lagging switch-off	3LD9250-0CA	■			
		3LD9240-0C		■	■	■
N/PE terminals for front mounting						
	**Contacts**	**Article No.**				
	Through-type	3LD9250-2BA	■			
		3LD9240-2B		■	■	■
N/PE terminals for floor mounting						
	**Contacts**	**Article No.**				
	Through-type	3LD9250-2CA	■			
		3LD9240-2C		■	■	■

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Auxiliary switches (standard version) for front mounting						
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off					
	Contacts	**Contact surface**	**Article No.**			
	1 NO + 1 NC	Standard	3LD9200-5B	■	■	■	■
		Gold-plated	3LD9200-5BF	■	■	■	■
Auxiliary switches (standard version) for floor mounting						
	• For mounting on the left and/or right • Lagging switch-on, leading switch-off					
	Contacts	**Contact surface**	**Article No.**			
	1 NO + 1 NC	Standard	3LD9200-5C	■	■	■	■
		Gold-plated	3LD9200-5CF	■	■	■	■
Auxiliary switch for mounting on the front						
	• Mounted on the front of the switch shaft • For long leading times (20 ... 150ms)					
	Contacts	**Contact surface**	**Article No.**			
	1 NO + 1 NC	Standard	3LD9280-5D new	■			
			3LD9240-5D new		■	■	■
		Gold-plated	3LD9280-5DF new	■			
			3LD9240-5DF new		■	■	■

System overview, page 8/52

Operating mechanisms

Rotary operating mechanism for front mounting

- Lockable in 0 position with up to 3 padlocks

Version	Article No.	3LD50	3LD54	3LD56	3LD58
For main control switches	3LD9284-1B	■			
For EMERGENCY-STOP switches	3LD9284-3B	■			

Knob-operated mechanism for front mounting

- Lockable in 0 position with up to 3 padlocks

Version	Article No.	3LD50	3LD54	3LD56	3LD58
For main control switches	3LD9243-1B		■	■	■
For EMERGENCY-STOP switches	3LD9284-3B		■	■	■

Handles for floor mounting

- Supplied with a masking frame, but without an extension shaft or coupling driver
- Can be locked with up to 3 padlocks

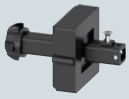
Labeling	Color	Article No.	3LD50	3LD54	3LD56	3LD58
O-I	Gray	8UD1771-2AD01	■			
		8UD1731-2AD01		■	■	■
	Red/yellow	8UD1771-2AD05	■			
		8UD1731-2AD05		■	■	■

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	3LD54	3LD56	3LD58
O-I	Gray	3LD9287-1C	■			
		3LD9247-1C		■	■	■
	Red/yellow	3LD9287-3C	■			
		3LD9247-3C		■	■	■

Coupling drivers for floor mounting with door-coupling rotary operating mechanism

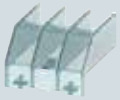


Version	Article No.	3LD50	3LD54	3LD56	3LD58
With tolerance compensation	8UD1900-1GA00	■			
	8UD1900-2GA00		■	■	■
Without tolerance compensation	8UD1900-1HA00	■			
	8UD1900-2HA00		■	■	■

Other accessories

Terminal covers

- Pack of 4 units



Number of poles	Article No.	3LD50	3LD54	3LD56	3LD58
1-pole	3LD9251-2A	■			
	3LD9241-2A		■	■	■
3-pole	3LD9251-0A	■			

Inscription labels

- Pack of 10 units

Inscription	3LD50	3LD54	3LD56	3LD58
German / English (Hauptschalter / Main Switch)			■	■
Without inscription			■	■

System overview, page 8/52

3KD switch disconnectors

System overview

Complete assemblies 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

Front-mounted devices, 6-pole for DC applications

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

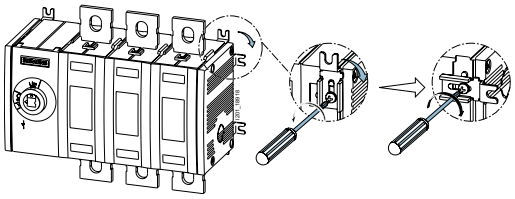
Accessories for DC applications

Note:
You will find a detailed range of accessories with the basic units.

Types of mounting

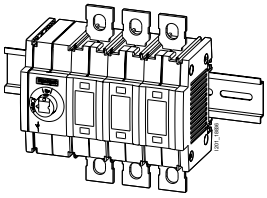
You will find further information under:
sie.ag/2UlrAvy

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

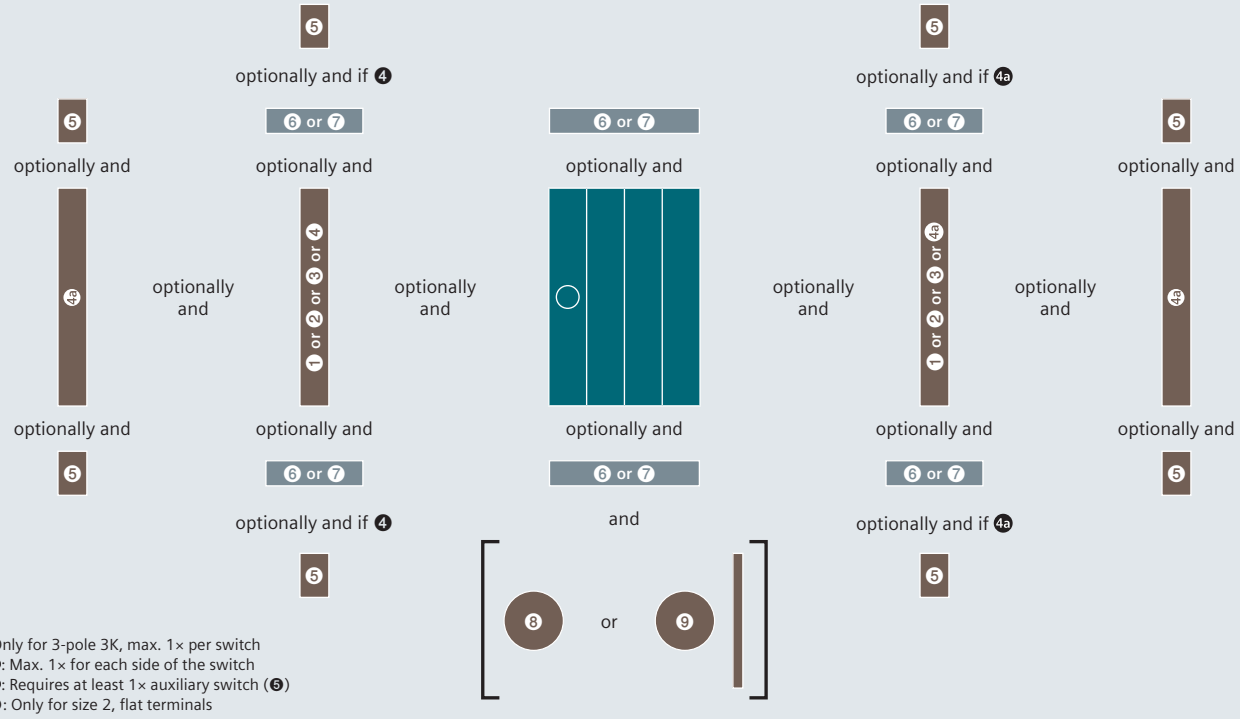


Sizes 1 and 2 can be snapped onto a standard mounting rail (TH35 according to EN 60715) as an alternative mounting method.

3KD switch disconnectors

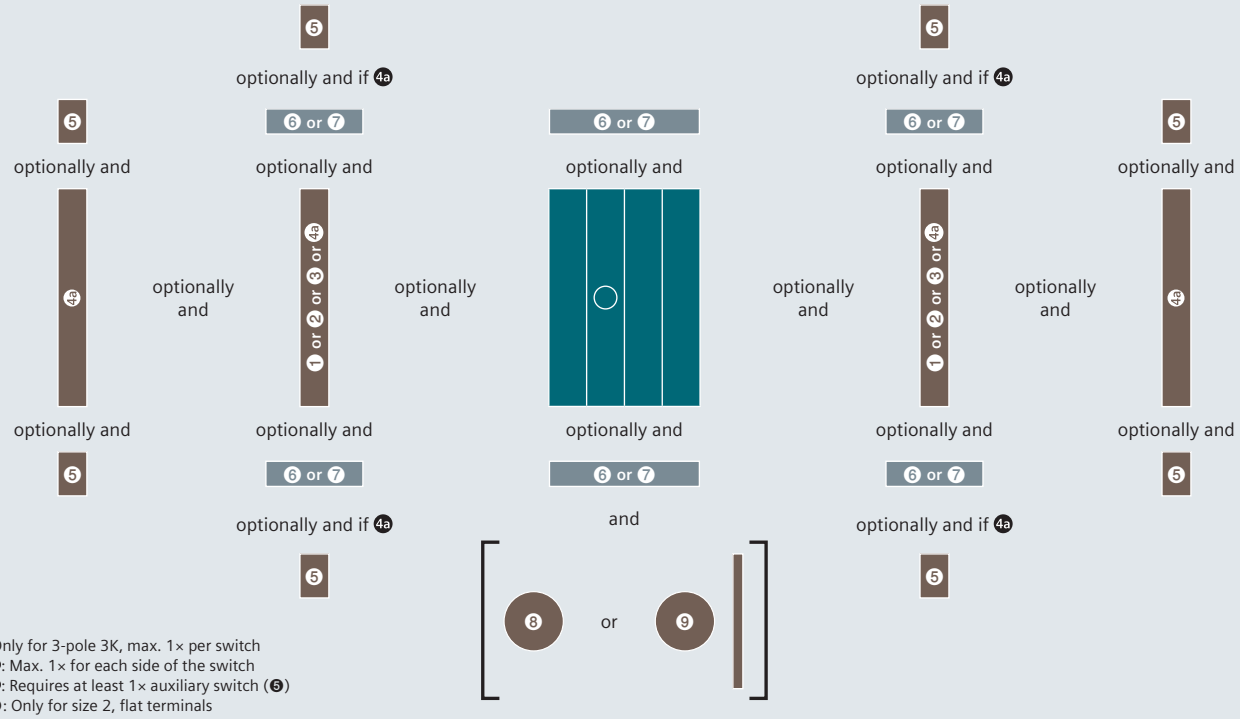
Mounting concept and accessories

Front operating mechanism left, sizes 1 and 2, 3/4-pole



❸: Only for 3-pole 3K, max. 1× per switch
❹/❹b: Max. 1× for each side of the switch
❹/❹b: Requires at least 1× auxiliary switch (❺)
❻,❼: Only for size 2, flat terminals

Front operating mechanism center, size 1 and 2, 3/4-pole



❸: Only for 3-pole 3K, max. 1× per switch
❹/❹b: Max. 1× for each side of the switch
❹/❹b: Requires at least 1× auxiliary switch (❺)
❻,❼: Only for size 2, flat terminals

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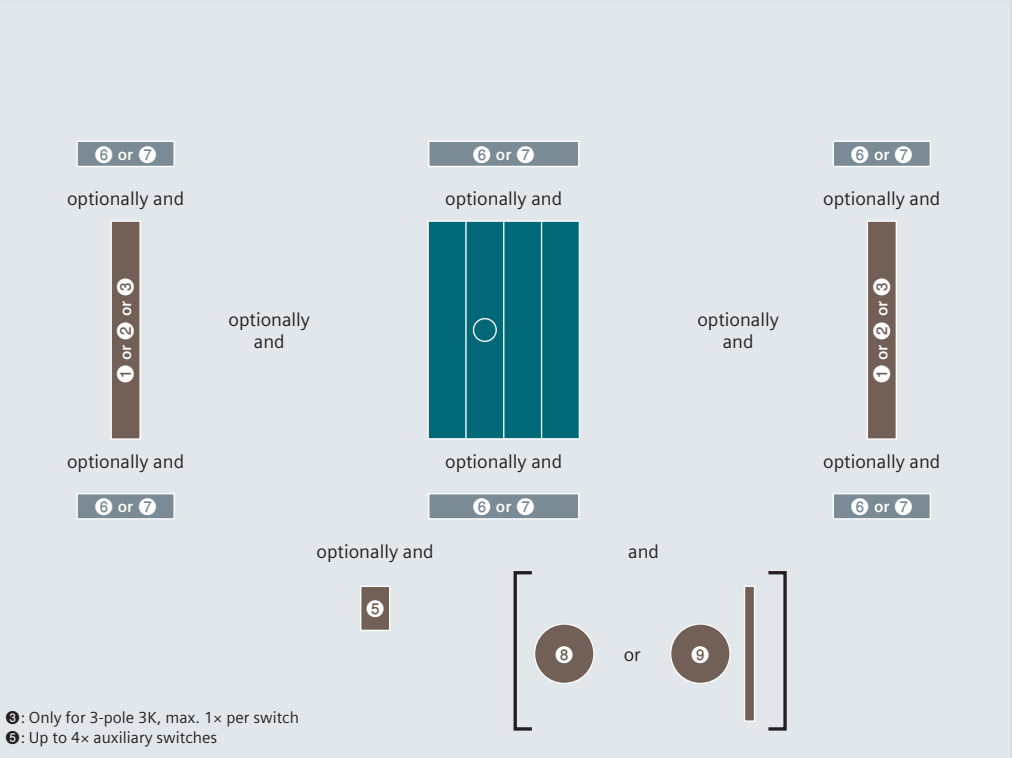
System overview, page 8/62

Front operating mechanism center or left, sizes 3 to 5, 3/4-pole



❸: Only for 3-pole 3K, max. 1× per switch
❺: Up to 4× auxiliary switches

Legend

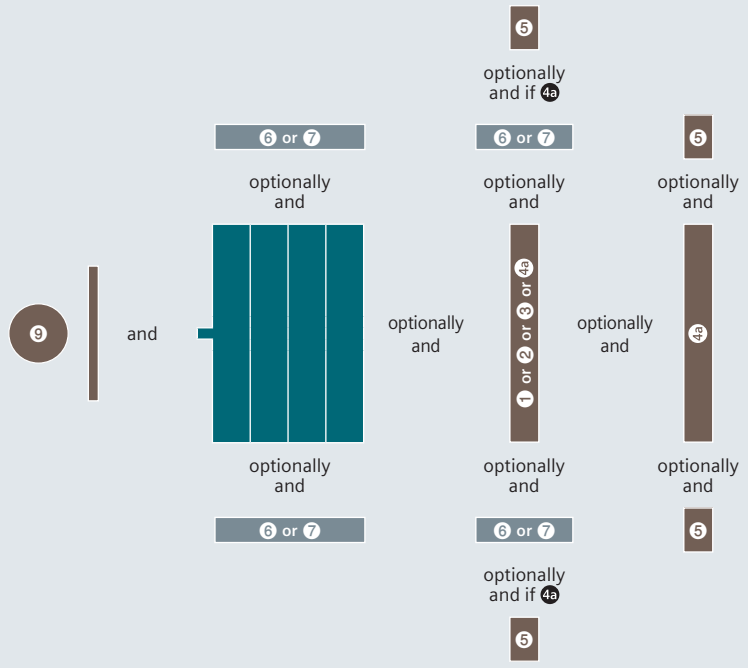
❶ Neutral conductor terminal
❷ N/PE terminal
❸ 4th contact element
❹ Auxiliary switch module, version with test function and version with leading NO contact and test function
❹a Auxiliary switch module for auxiliary switches, standard version
❺ Auxiliary switch
❻ Phase barrier
❼ Terminal cover
❽ Direct operating mechanism
❾ Door-coupling rotary operating mechanism

System overview, page 8/62

3KD switch disconnectors

Mounting concept and accessories

Lateral operating mechanism left, sizes 1 and 2, 3/4-pole

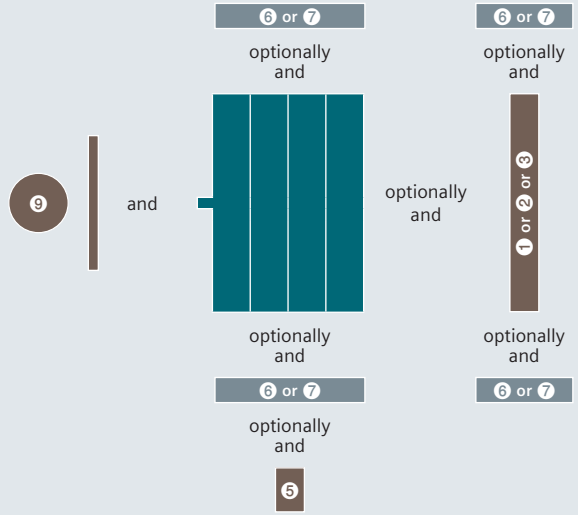


❸: Only for 3-pole 3K
❹a: Max. 1× per switch
❹b: Requires at least 1× auxiliary switch (❺)
❻,❼: Only for size 2, flat terminals

Legend

❶ Neutral conductor terminal
❷ N/PE terminal
❸ 4th contact element
❹a Auxiliary switch module for auxiliary switches, standard version
❺ Auxiliary switch
❻ Phase barrier
❼ Terminal cover
❾ Door-coupling rotary operating mechanism

Lateral operating mechanism left, sizes 3 to 5, 3/4-pole



❸: Only for 3-pole 3K
❺: Up to 4× auxiliary switches

Legend

❶ Neutral conductor terminal
❷ N/PE terminal
❸ 4th contact element
❺ Auxiliary switch
❻ Phase barrier
❼ Terminal cover
❾ Door-coupling rotary operating mechanism

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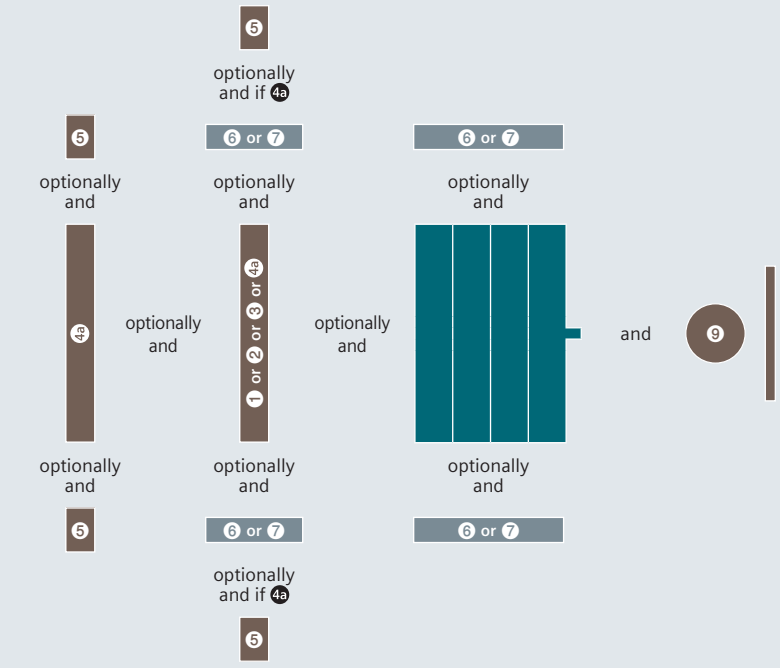
Lateral operating mechanism right, sizes 1 and 2, 3/4-pole



❸: Only for 3-pole 3K
❹a: Max. 1× per switch
❹b: Requires at least 1× auxiliary switch (❺)
❻,❼: Only for size 2, flat terminals

Legend

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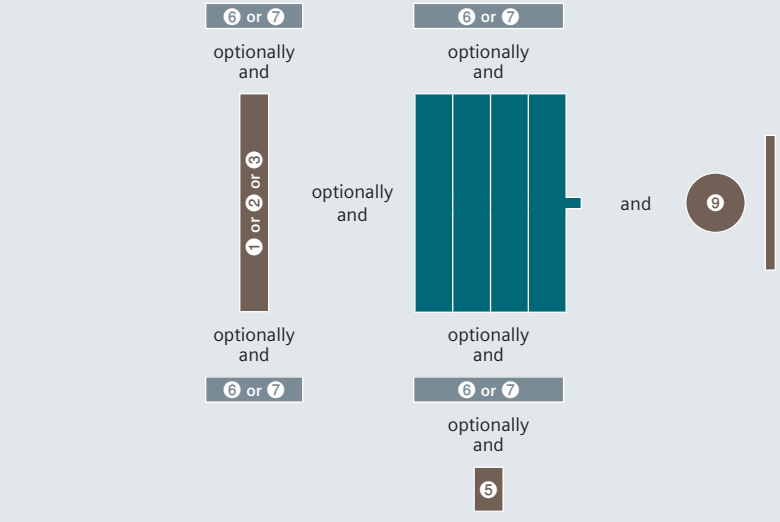
❷ N/PE terminal
❸ 4th contact element
❹a Auxiliary switch module for auxiliary switches, standard version
❺ Auxiliary switch
❻ Phase barrier
❼ Terminal cover
❾ Door-coupling rotary operating mechanism

Lateral operating mechanism right, sizes 3 to 5, 3/4-pole



❸: Only for 3-pole 3K
❺: Up to 4× auxiliary switches

Legend

❶ Neutral conductor terminal
❷ N/PE terminal
❸ 4th contact element
❺ Auxiliary switch
❻ Phase barrier
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