

SIEMENS

Catalog  
Extract  
LV 10

Edition  
04/2023

SENTRON • SIVACON • ALPHA

# Low-Voltage Power Distribution and Electrical Installation Technology

Residual Current Protective Devices/  
Arc Fault Detection Devices (AFDDs)

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### Technical specifications

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

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# Low-Voltage Power Distribution and Electrical Installation Technology

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## 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 protective devices or residual current operated circuit breakers that will cut the current immediately and safely in the event of a fault.

# Residual Current Protective Devices/ Arc Fault Detection Devices (AFDDs)



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# A wealth of additional information ...

## Information + ordering

### All the important things at a glance

For information about residual current protective devices/arc fault detection devices, please visit our websites

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

[www.siemens.com/circuit-protection](http://www.siemens.com/circuit-protection)

### Your product in detail

Comprehensive information is available at [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Technology Primer
  - Residual current protective devices ([109482301](#))

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

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

### Siemens YouTube channel

- Residual current protective devices (general) [bit.ly/2YuWkNc](https://bit.ly/2YuWkNc)

### Everything you need for your order

You will find an overview of your products at

- Residual current protective devices [sie.ag/2m55Y7j](http://sie.ag/2m55Y7j)
- Arc fault detection devices [sie.ag/3KPJpNn](http://sie.ag/3KPJpNn)

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

## The fast track to the experts

### Contact persons in your region

We offer a comprehensive portfolio of services.

You can find your local contacts at

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

You will find further information on services at

[www.siemens.com/service-offers](http://www.siemens.com/service-offers)

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

Assistance with technical queries is provided at

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

# ... can be found in our online services

## Commissioning + operation

### Your product in detail

Detailed technical information is available to you at [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

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

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

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

Engineering data for CAD or CAE systems are available in the CAX Download Manager at [www.siemens.com/cax](http://www.siemens.com/cax)

### Manuals

Manuals are available for downloading at [www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration Manual
  - Residual current protective devices/arc fault detection devices [\(45303255\)](#)
- Installation Manual
  - Circuit protection devices with communication and measuring function [\(109791805\)](#)
- System Manual
  - Circuit protection devices with communication and measuring function [\(109791806\)](#)

### Face-to-face or online training

Our training courses can be found at [www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- 5SM6/5SV6 arc fault detection devices (WT-LVBAFDD)
- SENTRON circuit protection devices with measuring and communication function (WT-LVBCOM)
- Basic principles of electrical engineering (WT-LVBGET)
- Protection concept (WT-LVBPC)

## Technical overview – Residual current protective devices/arc fault detection devices



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

This page provides you with comprehensive information and links on residual current protective devices/arc fault detection devices

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) [\(109769082\)](#)

# System overview

## Basic units and accessories

### Basic units



5SV3 RCCBs



5SM3 RCCBs



5SM2 RC units



5SU1 RCBOs



5SV1 RCBOs

5SM6 arc fault detection units and  
5SV6 AFDD/MCB and  
5SV6 COM AFDD/MCB

### Electrical accessories



Auxiliary switches (AS)

Fault signal contacts  
(FC)Auxiliary switches and  
fault signal contacts  
(AS+FC)/(AS+FC) COM

Shunt trips (ST)

Undervoltage releases  
(UR)Remote control mecha-  
nisms  
(RC mech.)

### Mechanical accessories



Locking devices



Handle couplers



Touch protection



Wall enclosures

Molded-plastic encl-  
osures

Terminal covers

### Busbars and accessories



Compact busbars



Standard busbars



Terminals



Touch protection



End caps

### RCCB protective socket outlets

In molded-plastic  
enclosureFor mounting  
on device box

#### Note:

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

# Introduction

## Residual current protective devices

4

Selection criteria

Equipment,  
power,  
ambient  
conditions

### Design

RCCBs  
RCBOs  
RC units

### Number of pole

1P+N  
2P  
3P  
3P+N  
4P

### Rated current $I_n$

0.3 ... 125 A

### Types and waveform



|         |  |   |   |   |   |   |   |   |
|---------|--|---|---|---|---|---|---|---|
| Type AC |  | ■ | – | – | – | – | – | – |
| Type A  |  | ■ | ■ | ■ | ■ | – | – | – |
| Type F  |  | ■ | ■ | ■ | ■ | ■ | ■ | – |
| Type B  |  | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Type B+ |  | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

### Version

|               |                                                                                                                            |
|---------------|----------------------------------------------------------------------------------------------------------------------------|
| SIGRES        | With active condensation protection for use in severe ambient conditions                                                   |
| [G]/[K]       | Super resistant, 10 ms short-term delayed devices with increased immunity to false triggering due to transient disruptions |
| [S]           | As an upstream group switch for selective shutdown against downstream RCCBs                                                |
| 500 V         | With their creepage distances and clearances designed for power grids up to 500 V alternating voltage                      |
| 50 ... 400 Hz | Meet the triggering conditions up to 400 Hz due to low decrease in sensitivity with increasing frequency                   |

Protection objective,  
equipment  
directives  
VDE 0100-410,  
VDE 0100-530,  
VDE 0100-7xx,  
VDS 3501,  
shutdown  
conditions  
according to  
VDE 0100-410

### Rated residual current $I_{\Delta n}$ (protection objective)

Additional protection  $I_{\Delta n} \leq 30$  mA  
Error protection  $I_{\Delta n} > 30$  mA  
Fire protection  $I_{\Delta n} \leq 300$  mA

### Characteristic CB (for residual current operated circuit breakers)

A  
B  
C  
D

# RCCBs


**5SV**

| Types                                                       |                                               |                                                                                                                                                         | Instantaneous                                                              | SIGRES,<br>instantaneous | Short-time delayed [G] |
|-------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------|------------------------|
| Type AC                                                     |                                               |                                                                                                                                                         | ■                                                                          | –                        | –                      |
| Type A                                                      |                                               |                                                                                                                                                         | ■                                                                          | ■                        | ■                      |
| Type F                                                      |                                               |                                                                                                                                                         | –                                                                          | –                        | –                      |
| Type B/B+                                                   |                                               |                                                                                                                                                         | –                                                                          | –                        | –                      |
| Peak withstand current 8/20 μs                              |                                               |                                                                                                                                                         |                                                                            |                          |                        |
| Type A                                                      | kA                                            | >1                                                                                                                                                      |                                                                            |                          | >3                     |
| Type F                                                      | kA                                            | –                                                                                                                                                       | –                                                                          | >3                       |                        |
| Type B/B+                                                   | kA                                            | –                                                                                                                                                       | –                                                                          | –                        |                        |
| Minimum operational voltage for operation of test equipment |                                               |                                                                                                                                                         |                                                                            |                          |                        |
| 30-mA devices                                               | V AC                                          | 195                                                                                                                                                     |                                                                            |                          |                        |
| Non-30-mA devices                                           | V AC                                          | 100                                                                                                                                                     |                                                                            |                          |                        |
| 24 V devices                                                | V AC                                          | 20                                                                                                                                                      |                                                                            |                          |                        |
| Terminal conductor cross-sections                           |                                               |                                                                                                                                                         |                                                                            |                          |                        |
| 1 conductor                                                 | Solid/stranded                                | mm <sup>2</sup>                                                                                                                                         | 0.75 ... 35                                                                |                          |                        |
|                                                             | Finely stranded with end sleeve               | mm <sup>2</sup>                                                                                                                                         | 0.75 ... 25                                                                |                          |                        |
|                                                             | Finely stranded without end sleeve            | mm <sup>2</sup>                                                                                                                                         | 1 ... 35                                                                   |                          |                        |
| 2 conductors, same cross-section,<br>same conductor type    | Solid/stranded                                | mm <sup>2</sup>                                                                                                                                         | 0.75 ... 10                                                                |                          |                        |
|                                                             | Finely stranded with end sleeve               | mm <sup>2</sup>                                                                                                                                         | 0.75 ... 4                                                                 |                          |                        |
|                                                             | Finely stranded without end sleeve            | mm <sup>2</sup>                                                                                                                                         | 1 ... 4                                                                    |                          |                        |
| 1 conductor + busbar<br>(pin thickness 1.5 mm)              | Solid/stranded                                | mm <sup>2</sup>                                                                                                                                         | 10 ... 25                                                                  |                          |                        |
|                                                             | Finely stranded with non-insulated end sleeve | mm <sup>2</sup>                                                                                                                                         | 6 ... 25                                                                   |                          |                        |
|                                                             | Finely stranded with insulated end sleeve     | mm <sup>2</sup>                                                                                                                                         | 6 ... 16                                                                   |                          |                        |
| Terminal tightening torque                                  |                                               | Nm                                                                                                                                                      | 2.5... 3.5                                                                 |                          |                        |
| 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),<br>IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40),<br>ÖVE EN 61008,ÖVE/ÖNORM E 8601 |                                                                            |                          |                        |
|                                                             |                                               |                                                                                                                                                         |                                                                            |                          |                        |
| Rated residual current $I_{\Delta n}$                       |                                               | mA                                                                                                                                                      | 10, 30, 100, 300, 500, 1000                                                |                          |                        |
| Rated current $I_n$                                         |                                               | A                                                                                                                                                       | 16 ... 80                                                                  |                          |                        |
| Rated breaking capacity $I_{cn}$                            |                                               | kA                                                                                                                                                      | –                                                                          |                          |                        |
| Connection                                                  |                                               |                                                                                                                                                         | N right   N left                                                           |                          |                        |
| Service life                                                |                                               | Average number of operating cycles                                                                                                                      | >10000                                                                     |                          |                        |
| Test button test cycles                                     |                                               |                                                                                                                                                         | Half-yearly <sup>1)</sup>   SIGRES annually <sup>2)</sup>                  |                          |                        |
| Degree of protection                                        |                                               | Acc. to EN 60529 (VDE 0470-1)                                                                                                                           | IP20, if the distribution board is installed,<br>with connected conductors |                          |                        |
| Touch protection                                            |                                               | Acc. to EN 50274 (VDE 0660-514)                                                                                                                         | Finger and back-of-hand safe                                               |                          |                        |
| Temperature                                                 |                                               | Storage temperature                                                                                                                                     | °C                                                                         | -40 ... +75 °C           |                        |
|                                                             |                                               | Ambient temperature                                                                                                                                     | °C                                                                         | -25 ... +45, marked with |                        |
| Resistance to climate                                       |                                               | Acc. to IEC 60068-2-30                                                                                                                                  | 28 cycles (55 °C; 95% rel. humidity)                                       |                          |                        |
| CFC and silicone-free                                       |                                               |                                                                                                                                                         | ■                                                                          |                          |                        |
| Mains connection                                            |                                               |                                                                                                                                                         | Top   bottom   SIGRES on top only                                          |                          |                        |
| Overvoltage category   Degree of pollution                  |                                               |                                                                                                                                                         | III   2                                                                    |                          |                        |
| Further information                                         |                                               |                                                                                                                                                         |                                                                            |                          |                        |

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<sup>1)</sup> Extension to annual test interval under certain conditions

<sup>2)</sup> Extension to four-yearly test interval under certain conditions

**5SV****SEQUENCE 5SV3****5SM3**

| Super resistant [K]                                                                                                                               | Selective [S] | SIGRES, selective [S] | SIGRES, super resistant [K]                                                             | SIGRES, super resistant [K], 6 mA DC <b>new</b> | SIGRES, selective [S] | Instantaneous                                                                                                        | Selective [S] |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------|---------------|
| –                                                                                                                                                 | –             | –                     | –                                                                                       | –                                               | –                     | ■                                                                                                                    | ■             |
| ■                                                                                                                                                 | ■             | ■                     | –                                                                                       | ■                                               | –                     | ■                                                                                                                    | ■             |
| ■                                                                                                                                                 | ■             | –                     | –                                                                                       | ■                                               | –                     | –                                                                                                                    | –             |
| –                                                                                                                                                 | –             | –                     | ■                                                                                       | ■                                               | ■                     | –                                                                                                                    | –             |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| >3                                                                                                                                                | >5            |                       | –                                                                                       | >1                                              | –                     | >1                                                                                                                   | >5            |
| >3                                                                                                                                                | –             | –                     | –                                                                                       | >3                                              | –                     | –                                                                                                                    | –             |
| –                                                                                                                                                 | –             | –                     | >3                                                                                      | >3                                              | >5                    | –                                                                                                                    | –             |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| 195                                                                                                                                               |               |                       | 70                                                                                      |                                                 |                       | 195                                                                                                                  |               |
| 100                                                                                                                                               |               |                       | 70                                                                                      |                                                 |                       | 195                                                                                                                  |               |
| 20                                                                                                                                                |               |                       | –                                                                                       |                                                 |                       | –                                                                                                                    |               |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| 0.75 ... 35                                                                                                                                       |               |                       | 0.75 ... 35                                                                             |                                                 |                       | 1.5 ... 50 (2 MW)   2.5 ... 50 (4 MW)                                                                                |               |
| 0.75 ... 25                                                                                                                                       |               |                       | 0.75 ... 25                                                                             |                                                 |                       | –                                                                                                                    |               |
| 1 ... 35                                                                                                                                          |               |                       | 1 ... 35                                                                                |                                                 |                       | –                                                                                                                    |               |
| 0.75 ... 10                                                                                                                                       |               |                       | 0.75 ... 10                                                                             |                                                 |                       | –                                                                                                                    |               |
| 0.75 ... 4                                                                                                                                        |               |                       | 0.75 ... 4                                                                              |                                                 |                       | –                                                                                                                    |               |
| 1 ... 4                                                                                                                                           |               |                       | 1 ... 4                                                                                 |                                                 |                       | –                                                                                                                    |               |
| 10 ... 25                                                                                                                                         |               |                       | 0.75 ... 35                                                                             |                                                 |                       | –                                                                                                                    |               |
| 6 ... 25                                                                                                                                          |               |                       | 0.75 ... 25                                                                             |                                                 |                       | –                                                                                                                    |               |
| 6 ... 16                                                                                                                                          |               |                       | 1 ... 35                                                                                |                                                 |                       | –                                                                                                                    |               |
| 2.5... 3.5                                                                                                                                        |               |                       | 2.5 ... 3.0                                                                             |                                                 |                       | 3.0... 3.5                                                                                                           |               |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| 1P+N   3P+N                                                                                                                                       |               |                       | 1P+N   3P+N                                                                             |                                                 |                       | 1P+N   3P+N                                                                                                          |               |
| 24 ... 125   230   400   500                                                                                                                      |               |                       | 230   400                                                                               |                                                 |                       | 230   400                                                                                                            |               |
| 50/60                                                                                                                                             |               |                       | 50/60                                                                                   |                                                 |                       | 50                                                                                                                   |               |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| IEC/EN 61008 (VDE 0664-10), IEC/EN 61008-2-1 (VDE 0664-11), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40), ÖVE EN 61008,ÖVE/ÖNORM E 8601 |               |                       | IEC/EN 62423 (VDE 0664-40), IEC/EN 61543 (VDE 0664-30), DIN VDE 0664-400 (Type B+ only) |                                                 |                       | IEC/EN 61008-1 (VDE 0664-10), IEC/EN 61008-2-1 (VDE 0664-11), IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40) |               |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| 10, 30, 100, 300, 500, 1000                                                                                                                       |               |                       | 30, 300, 500                                                                            |                                                 |                       | 30, 100, 300, 500                                                                                                    |               |
| 16 ... 80                                                                                                                                         |               |                       | 16 ... 80                                                                               |                                                 |                       | 100 ... 125                                                                                                          |               |
| –                                                                                                                                                 |               |                       | –                                                                                       |                                                 |                       | –                                                                                                                    |               |
| N right   N left                                                                                                                                  |               |                       | N right                                                                                 |                                                 |                       | N right                                                                                                              |               |
| >10000                                                                                                                                            |               |                       | >10000                                                                                  |                                                 |                       | >10000                                                                                                               |               |
| Half-yearly <sup>1)</sup>   SIGRES annually <sup>2)</sup>                                                                                         |               |                       | Annually <sup>2)</sup>                                                                  |                                                 |                       | Half-yearly                                                                                                          |               |
| IP20, if the distribution board is installed, with connected conductors                                                                           |               |                       | IP20, if the distribution board is installed, with connected conductors                 |                                                 |                       | IP20, if the distribution board is installed, with connected conductors                                              |               |
| Finger and back-of-hand safe                                                                                                                      |               |                       | Finger and back-of-hand safe                                                            |                                                 |                       | Finger and back-of-hand safe                                                                                         |               |
| -40 ... +75 °C                                                                                                                                    |               |                       | -40 ... +75 °C                                                                          |                                                 |                       | -40 ... +75 °C                                                                                                       |               |
| -25 ... +45, marked with                                                                                                                          |               |                       | -25 ... +45, marked with                                                                |                                                 |                       | -25 ... +45, marked with                                                                                             |               |
| 28 cycles (55 °C; 95% rel. humidity)                                                                                                              |               |                       | 28 cycles (55 °C; 95% rel. humidity)                                                    |                                                 |                       | 28 cycles (55 °C; 95% rel. humidity)                                                                                 |               |
| ■                                                                                                                                                 |               |                       | ■                                                                                       |                                                 |                       | ■                                                                                                                    |               |
| Top   bottom   SIGRES on top only                                                                                                                 |               |                       | Top   bottom   SIGRES on top only                                                       |                                                 |                       | Top   bottom                                                                                                         |               |
| III   2                                                                                                                                           |               |                       | III   2                                                                                 |                                                 |                       | III   2                                                                                                              |               |
|                                                                                                                                                   |               |                       |                                                                                         |                                                 |                       |                                                                                                                      |               |
| See page 4/14                                                                                                                                     |               |                       | See page 4/26                                                                           |                                                 |                       | See page 4/30                                                                                                        |               |

# RC units



## 5SM2 (0.3 ... 63 A)

### Types

Type AC

Type A

Type F

### Instantaneous

■

■

–

### Peak withstand current 8/20 μs

Type A

kA

&gt;1

Type F

kA

–

### Minimum operational voltage for test equipment

30-mA devices

V AC

195

Non-30-mA devices

V AC

100

### Terminal conductor cross-sections

Solid/stranded

mm<sup>2</sup>

1.0 ... 25

Terminal tightening torque

Nm

2.5 ... 3.0

### Poles

Number of poles

2P | 3P | 4P

Rated voltage  $U_n$ 

V AC

230 | 400

Operating frequency

Hz

50 | 50/60

### Standards

IEC/EN 61009-1 (VDE 0664-20), IEC/EN 61009-2-1 (VDE 0664-21),  
IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40)Rated residual current  $I_{\Delta n}$ 

mA

10, 30, 100, 300, 500, 1000

Rated current  $I_n$ 

A

0.3 ... 63

Service life

Average number of operating cycles

&gt;10000

Test button test cycles

Half-yearly<sup>1)</sup>

Degree of protection

Acc. to EN 60529 (VDE 0470-1)

IP20, if the distribution board is installed, with connected conductors

Touch protection

Acc. to EN 50274 (VDE 0660-514)

Finger and back-of-hand safe

Temperature

Storage temperature

°C

-40 ... +75 °C

Ambient temperature

°C

-25 ... +45, marked with

Resistance to climate

Acc. to IEC 60068-2-30

28 cycles (55 °C; 95% rel. humidity)

CFC and silicone-free

■

Mains connection

Top | bottom

Overvoltage category | Degree of pollution

III | 2

### Further information

See page 4/32

<sup>1)</sup> Extension to annual test interval under certain conditions<sup>2)</sup> Extension to four-yearly test interval under certain conditions



## 5SM2 (0.3 ... 63 A)

## 5SM2 (80 ... 100 A)

| Super resistant [K]                                                                                                     | Selective [S]  | SIGRES, instantaneous | Instantaneous                                                                                                           | Selective [S] |
|-------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|---------------|
| ■                                                                                                                       | ■              | –                     | ■                                                                                                                       | ■             |
| ■                                                                                                                       | ■              | ■                     | ■                                                                                                                       | ■             |
| ■                                                                                                                       | –              | –                     | –                                                                                                                       | –             |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| >3                                                                                                                      | >5             | >1                    | >1                                                                                                                      | >5            |
| >3                                                                                                                      | –              | –                     | –                                                                                                                       | –             |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| 195                                                                                                                     |                |                       | 195                                                                                                                     |               |
| 100                                                                                                                     |                |                       | 100                                                                                                                     |               |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| 1.0 ... 25                                                                                                              |                |                       | 6.0 ... 50                                                                                                              |               |
| 2.5 ... 3.0                                                                                                             |                |                       | 2.5 ... 3.0                                                                                                             |               |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| 2P   3P   4P                                                                                                            |                | 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),<br>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),<br>IEC/EN 61543 (VDE 0664-30), IEC/EN 62423 (VDE 0664-40) |               |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| 30                                                                                                                      | 300, 500, 1000 | 30, 300               | 30, 300                                                                                                                 | 300, 1000     |
| 0.3 ... 63                                                                                                              |                |                       | 80 ... 100                                                                                                              |               |
| >10000                                                                                                                  |                |                       | >10000                                                                                                                  |               |
| Half-yearly <sup>1)</sup>                                                                                               |                | Yearly <sup>2)</sup>  | Half-yearly <sup>1)</sup>                                                                                               |               |
| IP20, if the distribution board is installed, with connected conductors                                                 |                |                       | IP20, if the distribution board is installed,<br>with connected conductors                                              |               |
| Finger and back-of-hand safe                                                                                            |                |                       | Finger and back-of-hand safe                                                                                            |               |
| -40 ... +75 °C                                                                                                          |                |                       | -40 ... +75 °C                                                                                                          |               |
| -25 ... +45, marked with             |                |                       | -25 ... +45, marked with           |               |
| 28 cycles (55 °C; 95% rel. humidity)                                                                                    |                |                       | 28 cycles (55 °C; 95% rel. humidity)                                                                                    |               |
| ■                                                                                                                       |                |                       | ■                                                                                                                       |               |
| Top   bottom                                                                                                            |                |                       | Top   bottom                                                                                                            |               |
| III   2                                                                                                                 |                |                       | III   2                                                                                                                 |               |
|                                                                                                                         |                |                       |                                                                                                                         |               |
| See page 4/32                                                                                                           |                |                       | See page 4/32                                                                                                           |               |

# RCBOs



## 5SU1 (up to 40 A)

| Types                                               |                                               |                                    | Instantaneous                                                                                                                 | Short-time delayed/<br>Super resistant | Selective [S] |
|-----------------------------------------------------|-----------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------|
| Type AC                                             |                                               |                                    | ■                                                                                                                             | ■                                      | –             |
| Type A                                              |                                               |                                    | ■                                                                                                                             | ■                                      | ■             |
| Type B                                              |                                               |                                    | –                                                                                                                             | –                                      | –             |
| Type B+                                             |                                               |                                    | –                                                                                                                             | –                                      | –             |
| Type F                                              |                                               |                                    | –                                                                                                                             | ■                                      | –             |
| Peak withstand current 8/20 μs                      |                                               |                                    |                                                                                                                               |                                        |               |
| Type A                                              |                                               | kA                                 | >1                                                                                                                            | >3                                     | >5            |
| Type F                                              |                                               | kA                                 | –                                                                                                                             | >3                                     | –             |
| Minimum voltage for operation of the test equipment |                                               |                                    |                                                                                                                               |                                        |               |
| 30-mA devices                                       |                                               | V AC                               | 195                                                                                                                           |                                        |               |
| Non-30-mA devices                                   |                                               | V AC                               | 100                                                                                                                           |                                        |               |
| Terminal conductor cross-sections                   |                                               |                                    |                                                                                                                               |                                        |               |
| 1 conductor at front + busbar at rear               | Solid/stranded                                | mm²                                | 0.75 ... 35                                                                                                                   |                                        |               |
|                                                     | Finely stranded with end sleeve               | mm²                                | 0.75 ... 25                                                                                                                   |                                        |               |
|                                                     | Finely stranded without end sleeve            | mm²                                | 1 ... 25                                                                                                                      |                                        |               |
| 2 conductors at rear                                | Solid/stranded                                | mm²                                | 0.75 ... 6                                                                                                                    |                                        |               |
|                                                     | Finely stranded with non-insulated end sleeve | mm²                                | 0.75 ... 4                                                                                                                    |                                        |               |
|                                                     | Finely stranded with insulated end sleeve     | mm²                                | 0.75 ... 4                                                                                                                    |                                        |               |
|                                                     | Finely stranded without end sleeve            | mm²                                | 1 ... 4                                                                                                                       |                                        |               |
| Terminal tightening torque                          |                                               | Nm                                 | 2.5 ... 3.0                                                                                                                   |                                        |               |
| Poles                                               |                                               |                                    |                                                                                                                               |                                        |               |
| Number of poles                                     |                                               |                                    | 1P+N   2P                                                                                                                     |                                        |               |
| Rated voltage $U_n$                                 |                                               | V AC                               | 110   230                                                                                                                     |                                        |               |
| Operating frequency                                 |                                               | Hz                                 | 50   50/60                                                                                                                    |                                        |               |
| Standards                                           |                                               |                                    |                                                                                                                               |                                        |               |
|                                                     |                                               |                                    | IEC/EN 61009-1 (VDE 0664-20),<br>IEC/EN 61009-2-1 (VDE 0664-21),<br>IEC/EN 61543 (VDE 0664-30),<br>IEC/EN 62423 (VDE 0664-40) |                                        |               |
|                                                     |                                               |                                    |                                                                                                                               |                                        |               |
| Rated residual current $I_{\Delta n}$               |                                               | mA                                 | 10, 30, 100, 300                                                                                                              |                                        |               |
| Rated current $I_n$                                 |                                               | A                                  | 6 ... 40                                                                                                                      |                                        |               |
| Rated breaking capacity $I_{cn}$                    |                                               | kA                                 | 4.5   6   10                                                                                                                  |                                        |               |
| Connection                                          |                                               |                                    | N right   N left                                                                                                              |                                        |               |
| Service life                                        |                                               | Average number of operating cycles | >10000                                                                                                                        |                                        |               |
| Test button test cycles                             |                                               |                                    | Half-yearly <sup>1)</sup>                                                                                                     |                                        |               |
| Degree of protection                                |                                               | Acc. to EN 60529 (VDE 0470-1)      | IP20, if the distribution board is installed,<br>with connected conductors                                                    |                                        |               |
| Touch protection                                    |                                               | Acc. to EN 50274 (VDE 0660-514)    | Finger and back-of-hand safe                                                                                                  |                                        |               |
| Temperature                                         | Storage temperature                           | °C                                 | -40 ... +75 °C                                                                                                                |                                        |               |
|                                                     | Ambient temperature                           | °C                                 | -25 ... +45, marked with                 |                                        |               |
| Resistance to climate                               |                                               | Acc. to IEC 60068-2-30             | 28 cycles (55 °C; 95% rel. humidity)                                                                                          |                                        |               |
| CFC and silicone-free                               |                                               |                                    | ■                                                                                                                             |                                        |               |
| Mains connection                                    |                                               |                                    | Top   bottom                                                                                                                  |                                        |               |
| Energy limitation class                             |                                               |                                    | 3                                                                                                                             |                                        |               |
| Overvoltage category   Degree of pollution          |                                               |                                    | III   2                                                                                                                       |                                        |               |
| Further information                                 |                                               |                                    |                                                                                                                               |                                        |               |

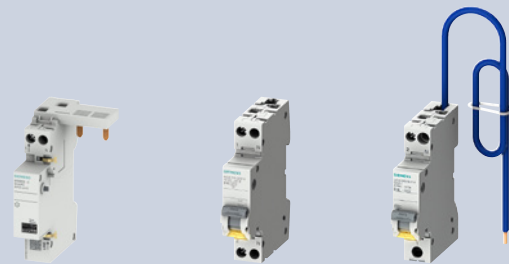
See page 4/42

<sup>1)</sup> Extension to annual test interval under certain conditions

**5SV1****5SU1 (up to 32 A)****5SU1 (125 A)****5SU1 (100 A, 125 A)**

| Instantaneous                                                                                                                 | Short-time delayed/<br>Super resistant | Instantaneous                                                              | Short-time delayed/<br>Super resistant | Instantaneous                                                                                                                 | Short-time delayed/<br>Super resistant | Short-time delayed/<br>Super resistant                                                                                        | Selective [S] |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------|
| ■                                                                                                                             | –                                      | –                                                                          | –                                      | ■                                                                                                                             | ■                                      | –                                                                                                                             | –             |
| ■                                                                                                                             | ■                                      | ■                                                                          | ■                                      | ■                                                                                                                             | ■                                      | –                                                                                                                             | –             |
| –                                                                                                                             | –                                      | –                                                                          | –                                      | –                                                                                                                             | –                                      | ■                                                                                                                             | ■             |
| –                                                                                                                             | –                                      | –                                                                          | –                                      | –                                                                                                                             | –                                      | ■                                                                                                                             | ■             |
| –                                                                                                                             | ■                                      | –                                                                          | –                                      | –                                                                                                                             | –                                      | –                                                                                                                             | –             |
| >1                                                                                                                            | >3                                     | >0.25                                                                      | >3                                     | >1                                                                                                                            | >3                                     | >3                                                                                                                            | >5            |
| –                                                                                                                             | >3                                     | –                                                                          | –                                      | –                                                                                                                             | –                                      | –                                                                                                                             | –             |
| 195                                                                                                                           |                                        | 2P, 4P: 195 V   3P: 340 V                                                  |                                        | 195                                                                                                                           |                                        | 195                                                                                                                           |               |
| 100                                                                                                                           |                                        | 2P, 4P: 195 V   3P: 340 V                                                  |                                        | 100                                                                                                                           |                                        | 100                                                                                                                           |               |
| 0.75 ... 16                                                                                                                   |                                        | 1 ... 35                                                                   |                                        | 25 ... 50                                                                                                                     |                                        | 20 ... 50                                                                                                                     |               |
| 0.75 ... 10                                                                                                                   |                                        | 1 ... 35                                                                   |                                        | 25 ... 35                                                                                                                     |                                        | 25 ... 35                                                                                                                     |               |
| 0.75 ... 16                                                                                                                   |                                        | –                                                                          |                                        | –                                                                                                                             |                                        | –                                                                                                                             |               |
| 0.75 ... 4                                                                                                                    |                                        | –                                                                          |                                        | –                                                                                                                             |                                        | –                                                                                                                             |               |
| 0.75 ... 2.5                                                                                                                  |                                        | –                                                                          |                                        | –                                                                                                                             |                                        | –                                                                                                                             |               |
| 0.75 ... 1.5                                                                                                                  |                                        | –                                                                          |                                        | –                                                                                                                             |                                        | –                                                                                                                             |               |
| 0.75 ... 4                                                                                                                    |                                        | –                                                                          |                                        | –                                                                                                                             |                                        | –                                                                                                                             |               |
| 1.2 ... 2.0                                                                                                                   |                                        | 2.0                                                                        |                                        | 3.0 ... 3.5                                                                                                                   |                                        | 3.0 ... 3.5                                                                                                                   |               |
| 1P+N                                                                                                                          |                                        | 2P   3P   4P                                                               |                                        | 2P   4P                                                                                                                       |                                        | 4P                                                                                                                            |               |
| 230                                                                                                                           |                                        | 230 V   400 V                                                              |                                        | 230   400                                                                                                                     |                                        | 400   430                                                                                                                     |               |
| 50   50/60                                                                                                                    |                                        | 50   50/60                                                                 |                                        | 50   50/60                                                                                                                    |                                        | 50/60                                                                                                                         |               |
| IEC/EN 61009-1 (VDE 0664-20),<br>IEC/EN 61009-2-1 (VDE 0664-21),<br>IEC/EN 61543 (VDE 0664-30),<br>IEC/EN 62423 (VDE 0664-40) |                                        | IEC/EN 61009-1 (VDE 0664-20),<br>IEC/EN 61009-2-1 (VDE 0664-21)            |                                        | IEC/EN 61009-1 (VDE 0664-20),<br>IEC/EN 61009-2-1 (VDE 0664-21),<br>IEC/EN 61543 (VDE 0664-30),<br>IEC/EN 62423 (VDE 0664-40) |                                        | IEC/EN 61009-1 (VDE 0664-20),<br>IEC/EN 61009-2-1 (VDE 0664-21),<br>IEC/EN 61543 (VDE 0664-30),<br>IEC/EN 62423 (VDE 0664-40) |               |
| 30, 300                                                                                                                       |                                        | 30, 300                                                                    |                                        | 30, 300, 1000                                                                                                                 |                                        | 30, 300                                                                                                                       |               |
| 2 ... 16                                                                                                                      |                                        | 6 ... 32                                                                   |                                        | 125                                                                                                                           |                                        | 100, 125                                                                                                                      |               |
| 4.5   6                                                                                                                       |                                        | 6   10                                                                     |                                        | 10                                                                                                                            |                                        | 10                                                                                                                            |               |
| N right                                                                                                                       |                                        | –                                                                          |                                        | N right   N left                                                                                                              |                                        | N right   N left                                                                                                              |               |
| >10 000                                                                                                                       |                                        | >10000                                                                     |                                        | >10000                                                                                                                        |                                        | >10000                                                                                                                        |               |
| Half-yearly <sup>1)</sup>                                                                                                     |                                        | Monthly                                                                    |                                        | Half-yearly <sup>1)</sup>                                                                                                     |                                        | Half-yearly <sup>1)</sup>                                                                                                     |               |
| IP20, if the distribution board is<br>installed, with connected conductors                                                    |                                        | IP20, if the distribution board is<br>installed, with connected conductors |                                        | IP20, if the distribution board is<br>installed, with connected conductors                                                    |                                        | IP20, if the distribution board is<br>installed, with connected conductors                                                    |               |
| Finger and back-of-hand safe                                                                                                  |                                        | Finger and back-of-hand safe                                               |                                        | Finger and back-of-hand safe                                                                                                  |                                        | Finger and back-of-hand safe                                                                                                  |               |
| –40 ... +75 °C                                                                                                                |                                        | –40 ... +70 °C                                                             |                                        | –40 ... +75 °C                                                                                                                |                                        | –40 ... +75 °C                                                                                                                |               |
| –25 ... +45, marked with                                                                                                      |                                        | –25 ... +40, marked with                                                   |                                        | –25 ... +45, marked with                                                                                                      |                                        | –25 ... +45, marked with                                                                                                      |               |
| 28 cycles (55 °C; 95% rel. humidity)                                                                                          |                                        | 28 cycles (55 °C; 95% rel. humidity)                                       |                                        | 28 cycles (55 °C; 95% rel. humidity)                                                                                          |                                        | 28 cycles (55 °C; 95% rel. humidity)                                                                                          |               |
| ■                                                                                                                             |                                        | –                                                                          |                                        | ■                                                                                                                             |                                        | ■                                                                                                                             |               |
| Top   bottom                                                                                                                  |                                        | Top   bottom                                                               |                                        | Top   bottom                                                                                                                  |                                        | Top   bottom                                                                                                                  |               |
| 3                                                                                                                             |                                        | 3   1                                                                      |                                        | 3                                                                                                                             |                                        | 3                                                                                                                             |               |
| III   2                                                                                                                       |                                        | III   3                                                                    |                                        | III   2                                                                                                                       |                                        | III   2                                                                                                                       |               |
| See page 4/50                                                                                                                 |                                        | See page 4/44                                                              |                                        | See page 4/42                                                                                                                 |                                        | See page 4/49                                                                                                                 |               |

# Arc fault detection devices (AFDDs)



5SM6

5SV6

5SV6...KP..

| Poles                                      |                                    |    | 5SM6                                 | 5SV6                                        | 5SV6...KP..                               |
|--------------------------------------------|------------------------------------|----|--------------------------------------|---------------------------------------------|-------------------------------------------|
| Number of poles                            |                                    |    | 2P                                   | 1P + N                                      | 1P + N                                    |
| Rated voltage $U_n$                        | V AC                               |    | 230                                  | 230                                         | 230                                       |
| Operating frequency                        | Hz                                 |    | 50                                   | 50                                          | 50                                        |
| Terminal conductor cross-sections          |                                    |    |                                      |                                             |                                           |
| Solid and stranded                         | mm <sup>2</sup>                    |    | 0.75 ... 16                          | 0.75 ... 16                                 | 0.75 ... 16 (top)<br>0.75 ... 35 (bottom) |
| Finely stranded with end sleeve            | mm <sup>2</sup>                    |    | 0.75 ... 10                          | 0.75 ... 10                                 | 0.75 ... 10 (top)<br>0.75 ... 25 (bottom) |
| Terminal tightening torque                 | Nm                                 |    | 2.0 ... 2.5                          | 1.2 ... 2.0                                 | 1.2 ... 2.0 (top)<br>2.5 ... 3.5 (bottom) |
| Standards                                  |                                    |    | IEC/EN 62606                         | IEC/EN 62606                                | IEC/EN 62606                              |
| Rated current $I_n$                        | A                                  |    | Up to 16/40 A                        | 6 ... 40                                    | 6 ... 40                                  |
| Service life                               | Average number of operating cycles |    | >10000                               | >10000                                      | >10000                                    |
| Mounting position                          |                                    |    | Any                                  | Any                                         | Any                                       |
| Degree of protection                       | Acc. to EN 60529 (VDE 0470-1)      |    | IP20, with connected conductors      | IP20, with connected conductors             | IP20, with connected conductors           |
| Touch protection                           | Acc. to EN 50274 (VDE 0660-514)    |    | Finger and back-of-hand safe         | Finger and back-of-hand safe                | Finger and back-of-hand safe              |
| Temperature                                | Storage temperature                | °C | -40 ... +75 °C                       | -40 ... +75 °C                              | -40 ... +75 °C                            |
|                                            | Ambient temperature                | °C | -25 ... +45, marked with             | -25 ... +45, marked with                    | -25 ... +45, marked with                  |
| Resistance to climate                      | Acc. to IEC 60068-2-30             |    | 28 cycles (55 °C; 95% rel. humidity) | 28 cycles (55 °C; 95% rel. humidity)        | 28 cycles (55 °C; 95% rel. humidity)      |
| CFC and silicone-free                      |                                    |    | ■                                    | ■                                           | ■                                         |
| Mains connection                           |                                    |    | Bottom                               | Top   bottom                                | Bottom                                    |
| Overvoltage category   Degree of pollution |                                    |    | III   2                              | III   2                                     | III   2                                   |
| Tripping in the event of overvoltage       | V                                  |    | >275                                 | >285                                        | >285                                      |
| Additional functions                       |                                    |    |                                      |                                             |                                           |
| Communication and measuring function       |                                    |    | –                                    | ■                                           | –                                         |
| Further information                        |                                    |    |                                      |                                             |                                           |
|                                            |                                    |    | <a href="#">See page 4/52</a>        | <a href="#">See page 4/53 and page 4/54</a> | <a href="#">See page 4/53</a>             |



# 5SV RCCBs

Type A, 1P + N

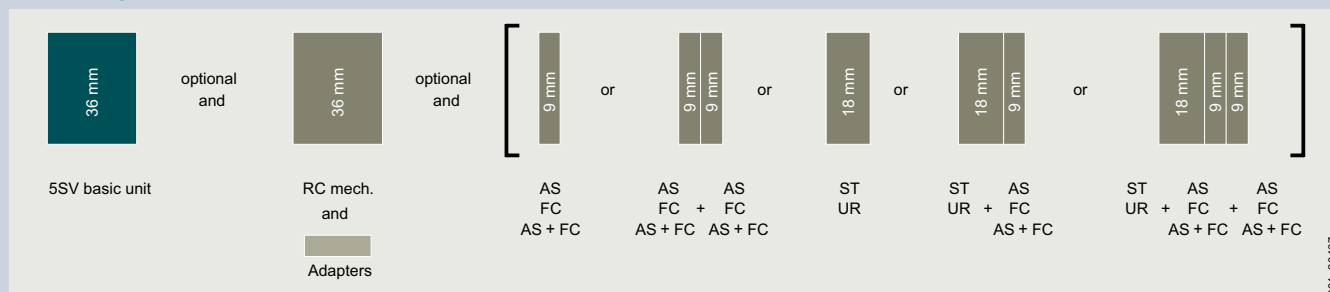
| Rated voltage $U_n$<br>N connection | Instantaneous                                                                     |                                                                                   |                                                                                     | Instantaneous<br>(only available in Belgium) <sup>2)</sup>                          |
|-------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                     | 24 ... 125 V AC                                                                   | 230 V AC                                                                          |                                                                                     | 230 V AC                                                                            |
|                                     | Right                                                                             | Right                                                                             | Left                                                                                | Right                                                                               |
|                                     |  |  |  |  |

| $I_{\Delta n}$ | $I_n$ | Thermal overload protection <sup>1)</sup> | Bulk packaging (36 units) |               |               |             |             |
|----------------|-------|-------------------------------------------|---------------------------|---------------|---------------|-------------|-------------|
| Type A         |       |                                           |                           |               |               |             |             |
| 10 mA          | 16 A  | –                                         | –                         | –             | 5SV3111-6     | 5SV3111-6KL | –           |
|                | 25 A  | –                                         | –                         | –             | 5SV3112-6     | –           | –           |
| 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 |
| 100 mA         | 80 A  | –                                         | –                         | –             | 5SV3317-6     | 5SV3317-6KL | –           |
|                | 25 A  | –                                         | –                         | –             | 5SV3412-6     | 5SV3412-6KL | 5SV3612-6BA |
|                | 40 A  | –                                         | –                         | –             | 5SV3414-6     | 5SV3414-6KL | 5SV3614-6BA |
|                | 63 A  | –                                         | –                         | –             | 5SV3416-6     | 5SV3416-6KL | 5SV3616-6BA |
| 300 mA         | 80 A  | –                                         | –                         | –             | 5SV3417-6     | 5SV3417-6KL | –           |
|                | 25 A  | –                                         | –                         | –             | 5SV3612-6     | 5SV3612-6KL | –           |
|                | 40 A  | –                                         | –                         | –             | 5SV3614-6     | 5SV3614-6KL | –           |
|                | 63 A  | –                                         | –                         | –             | 5SV3616-6     | 5SV3616-6KL | –           |
|                | 80 A  | –                                         | –                         | –             | 5SV3617-6     | 5SV3617-6KL | –           |

<sup>1)</sup> Thermal overload protection according to OVE E 8101 possible up to rated current of the RCCB (40 A, 63 A).

<sup>2)</sup> These products cannot be used in France according to NF C 15-100. Product complies with the specifications of the Belgian market only.  
(Simultaneous tripping of the 3 poles and the N conductor.) Available for the export market only.

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

1201\_20467

| SIGRES, instantaneous                                                            | Short-time delayed [G]                                                            | Super resistant [K]                                                               | Selective [S]                                                                     |                                                                                     | SIGRES, super resistant [K], 6 mA DC <b>new</b>                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 230 V AC                                                                         | 230 V AC                                                                          | 230 V AC                                                                          | 230 V AC                                                                          |                                                                                     | 230 V AC                                                                            |
| Right                                                                            | Right                                                                             | Right                                                                             | Right                                                                             | Left                                                                                | Right                                                                               |
|  |  |  |  |  |  |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| 5SV3311-6KK12                                                                    | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| 5SV3312-6KK12                                                                    | –                                                                                 | 5SV3312-6KK01                                                                     | –                                                                                 | –                                                                                   | 5SV3322-6KK60                                                                       |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| 5SV3314-6KK12                                                                    | –                                                                                 | 5SV3314-6KK01                                                                     | –                                                                                 | –                                                                                   | 5SV3324-6KK60                                                                       |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                   | –                                                                                   |
| –                                                                                | 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.   | Shunt trips (ST)                         |                                   | Article No.                                       |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------|------------------------------------------|-----------------------------------|---------------------------------------------------|
| 1 NO + 1 NC                                                                                                                              | Standard                   | 5ST3010       | 110 ... 415 V AC, 110 ... 220 V DC       |                                   | 5ST3030                                           |
|                                                                                                                                          | For low power              | 5ST3013       | 24 ... 48 V AC/DC                        |                                   | 5ST3031                                           |
|                                                                                                                                          | For low power (with diode) | 5ST3013-0XX01 | 12 V DC                                  |                                   | 5ST3031-0XX01                                     |
| 2 NO                                                                                                                                     | Standard                   | 5ST3011       | Undervoltage releases (UR) <sup>1)</sup> |                                   | Article No.                                       |
|                                                                                                                                          | For low power              | 5ST3014       | With integrated auxiliary switch         | 230 V AC                          | 5ST3040                                           |
| 2 NC                                                                                                                                     | Standard                   | 5ST3012       |                                          | 110 V DC                          | 5ST3041                                           |
|                                                                                                                                          | For low power              | 5ST3015       |                                          | 24 V DC                           | 5ST3042                                           |
| 1 CO                                                                                                                                     | Standard                   | 5ST3016       | Without integrated auxiliary switch      | 230 V AC                          | 5ST3043                                           |
| Fault signal contacts (FC)                                                                                                               |                            | Article No.   |                                          | 110 V DC                          | 5ST3044                                           |
| 1 NO + 1 NC                                                                                                                              |                            | 5ST3020       |                                          | 24 V DC                           | 5ST3045                                           |
| 2 NO                                                                                                                                     |                            | 5ST3021       | Remote control mechanisms (RC mech.)     |                                   | Article No.                                       |
| 2 NC                                                                                                                                     |                            | 5ST3022       | Power                                    | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3055                                           |
| Auxiliary switches and fault signal contacts (AS+FC)                                                                                     |                            | Article No.   |                                          | 177 ... 270 V AC                  | 5ST3056                                           |
| 1 CO (AS) + 1 CO (FC)                                                                                                                    |                            | 5ST3062       | Power with ARD                           | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3057                                           |
| 5ST3 COM (AS+FC)                                                                                                                         |                            | 5ST3062-0MC   |                                          | 177 ... 270 V AC                  | 5ST3058                                           |
| <sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits |                            |               | Power with extended function             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3070                                           |
|                                                                                                                                          |                            |               |                                          | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071                                           |
|                                                                                                                                          |                            |               |                                          |                                   | Adapters for remote control mechanisms (RC mech.) |
|                                                                                                                                          |                            |               | 2 MW                                     |                                   | 5ST3820-6                                         |

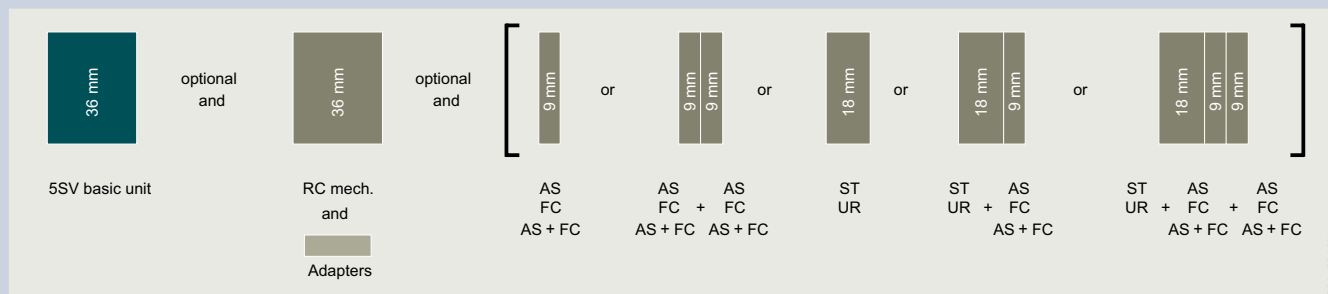
# 5SV RCCBs

Type F, 1P + N

|                     | Super resistant [K]                                                               | Selective [S]                                                                      | SIGRES, super resistant [K],<br>6 mA DC <b>new</b>                                  |
|---------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 230 V AC                                                                          | 230 V AC                                                                           | 230 V AC                                                                            |
| N connection        | Right                                                                             | Right                                                                              | Right                                                                               |
|                     |  |  |  |

| $I_{\Delta n}$ | $I_n$ |           |           |               |
|----------------|-------|-----------|-----------|---------------|
| Type F         |       |           |           |               |
| 30 mA          | 25 A  | 5SV3312-3 | –         | 5SV3322-3KK60 |
|                | 40 A  | 5SV3314-3 | –         | 5SV3324-3KK60 |
|                | 63 A  | 5SV3316-3 | –         | –             |
|                | 80 A  | 5SV3317-3 | –         | –             |
| 300 mA         | 25 A  | 5SV3612-3 | –         | –             |
|                | 40 A  | 5SV3614-3 | 5SV3614-7 | –             |
|                | 63 A  | 5SV3616-3 | –         | –             |
|                | 80 A  | 5SV3617-3 | 5SV3617-7 | –             |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-OMC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 2 MW                                              |                                   | 5ST3820-6     |

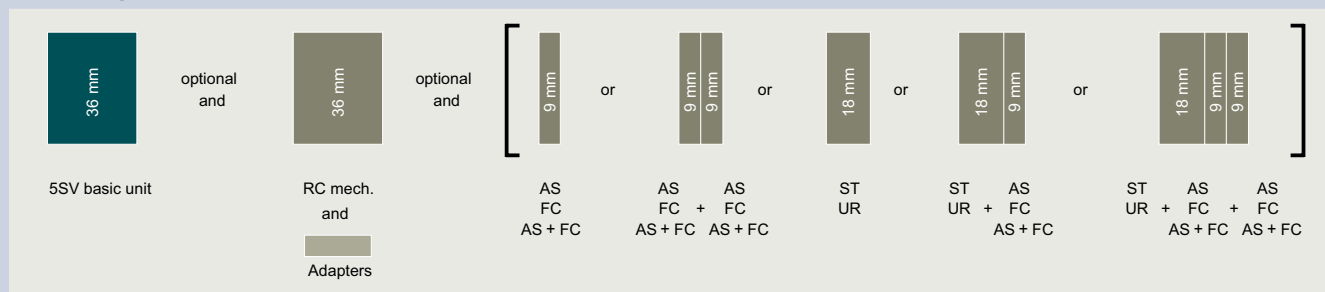
# 5SV RCCBs

Type AC, 1P + N (2 MW)

| Rated voltage $U_n$<br>N connection | Instantaneous                                                                       |                                                                                    |
|-------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                                     | 230 V AC<br>Right                                                                   | 24 ... 125 V AC<br>Right                                                           |
|                                     | Left                                                                                |                                                                                    |
|                                     |    |  |
|                                     |  |                                                                                    |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging (36 units) |               |               |               |
|----------------|-------|---------------------------|---------------|---------------|---------------|
| Type AC        |       |                           |               |               |               |
| 10 mA          | 16 A  | –                         | 5SV4111-0     | 5SV4111-0KL   | –             |
|                | 25 A  | –                         | 5SV4112-0     | –             | –             |
| 30 mA          | 16 A  | –                         | 5SV4311-0     | 5SV4311-0KL   | 5SV4311-0KK13 |
|                | 25 A  | –                         | 5SV4312-0     | 5SV4312-0KL   | 5SV4312-0KK13 |
|                |       | ■                         | 5SV4312-0GV01 | –             | –             |
|                | 40 A  | –                         | 5SV4314-0     | 5SV4314-0KL   | 5SV4314-0KK13 |
|                |       | ■                         | 5SV4314-0GV01 | 5SV4314-0GV02 | –             |
|                | 63 A  | –                         | 5SV4316-0     | 5SV4316-0KL   | 5SV4316-0KK13 |
|                | 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   | –             |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/56</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-OMC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 2 MW                                              |                                   | 5ST3820-6     |

# 5SV RCCBs

Type A, 3P + N (4 MW)

## Instantaneous

Rated voltage  $U_n$   
N connection

400 V AC

Right



Left



400 V AC/400 Hz

Right



500 V AC

Right

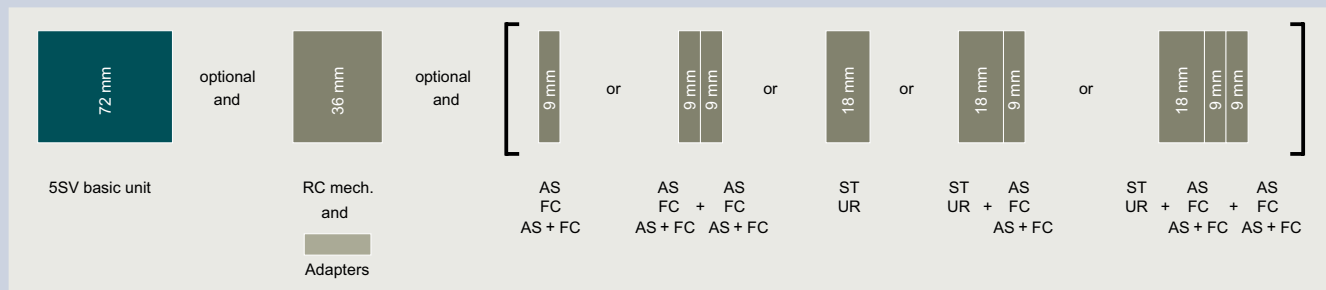


| $I_{\Delta n}$ | $I_n$   | Thermal overload protection <sup>1)</sup> | Bulk packaging (18 units) |               |               |               |           |
|----------------|---------|-------------------------------------------|---------------------------|---------------|---------------|---------------|-----------|
| <b>Type A</b>  |         |                                           |                           |               |               |               |           |
| 30 mA          | 25 A    | —                                         | —                         | 5SV3342-6     | 5SV3342-6KL   | 5SV3342-6KK03 | 5SV3352-6 |
|                |         | ■                                         | ■                         | 5SV3342-6GV01 | —             | —             | —         |
|                | 40 A    | —                                         | —                         | 5SV3344-6     | 5SV3344-6KL   | 5SV3344-6KK03 | 5SV3354-6 |
|                |         | ■                                         | ■                         | 5SV3344-6GV01 | 5SV3344-6GV02 | —             | —         |
|                | 63 A    | —                                         | —                         | 5SV3344-6LA   | —             | —             | —         |
|                |         | ■                                         | ■                         | 5SV3346-6     | 5SV3346-6KL   | —             | 5SV3356-6 |
|                |         | —                                         | ■                         | 5SV3346-6GV01 | —             | —             | —         |
|                | 80 A    | —                                         | —                         | 5SV3346-6LA   | —             | —             | —         |
|                |         | ■                                         | —                         | 5SV3347-6     | 5SV3347-6KL   | —             | 5SV3357-6 |
|                | 100 mA  | —                                         | —                         | 5SV3442-6     | —             | —             | —         |
| 100 mA         | 25 A    | —                                         | —                         | 5SV3442-6     | —             | —             | —         |
|                |         | ■                                         | —                         | 5SV3444-6     | —             | —             | —         |
|                | 40 A    | —                                         | —                         | 5SV3444-6     | —             | —             | —         |
|                |         | ■                                         | —                         | 5SV3444-6LA   | —             | —             | —         |
|                | 63 A    | —                                         | —                         | 5SV3446-6     | —             | —             | —         |
|                |         | ■                                         | —                         | 5SV3446-6LA   | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3447-6     | —             | —             | —         |
|                | 80 A    | —                                         | —                         | 5SV3447-6     | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3642-6     | 5SV3642-6KL   | —             | 5SV3652-6 |
|                | 300 mA  | —                                         | —                         | 5SV3642-6     | 5SV3642-6KL   | —             | 5SV3652-6 |
| 300 mA         | 25 A    | —                                         | —                         | 5SV3642-6     | 5SV3642-6KL   | —             | 5SV3652-6 |
|                |         | ■                                         | —                         | 5SV3644-6     | 5SV3644-6KL   | —             | 5SV3654-6 |
|                | 40 A    | —                                         | —                         | 5SV3644-6     | 5SV3644-6KL   | —             | 5SV3654-6 |
|                |         | ■                                         | —                         | —             | —             | —             | —         |
|                | 63 A    | —                                         | —                         | 5SV3646-6     | 5SV3646-6KL   | —             | 5SV3656-6 |
|                |         | ■                                         | —                         | —             | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3647-6     | 5SV3647-6KL   | —             | 5SV3657-6 |
|                | 80 A    | —                                         | —                         | 5SV3647-6     | 5SV3647-6KL   | —             | 5SV3657-6 |
|                |         | —                                         | —                         | 5SV3742-6     | —             | —             | —         |
|                | 500 mA  | —                                         | —                         | 5SV3742-6     | —             | —             | —         |
| 500 mA         | 25 A    | —                                         | —                         | 5SV3742-6     | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3744-6     | —             | —             | —         |
|                | 40 A    | —                                         | —                         | 5SV3744-6     | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3746-6     | 5SV3746-6KL   | —             | —         |
|                | 63 A    | —                                         | —                         | 5SV3746-6     | 5SV3746-6KL   | —             | —         |
|                |         | —                                         | ■                         | 5SV3746-6GV01 | —             | —             | —         |
|                |         | —                                         | —                         | 5SV3747-6     | —             | —             | —         |
|                | 80 A    | —                                         | —                         | 5SV3747-6     | —             | —             | —         |
|                |         | —                                         | —                         | —             | —             | —             | —         |
|                | 1000 mA | —                                         | —                         | —             | —             | —             | —         |
| 1000 mA        | 63 A    | —                                         | —                         | —             | —             | —             | —         |
|                |         | —                                         | —                         | —             | —             | —             | —         |

<sup>1)</sup> Thermal overload protection according to OVE E 8101 possible up to rated current of the RCCB (40 A, 63 A).

<sup>2)</sup> These products cannot be used in France according to NF C 15-100. Product complies with the specifications of the Belgian market only. (Simultaneous tripping of the 3 poles and the N conductor.) Available for the export market only.

## Mounting concept



AS Auxiliary switch  
FC Fault signal contact  
AS+FC Auxiliary switch and fault signal contact

See page 4/58  
See page 4/60  
See page 4/61

ST Shunt trips  
UR Undervoltage release  
RC mech. Remote control mechanism

See page 4/64  
See page 4/65  
See page 4/66

| Instantaneous<br>(only available in<br>Belgium) <sup>2)</sup>                    | SIGRES,<br>instantaneous                                                          | Short-time<br>delayed [G]                                                         | Super resistant [K]                                                               | Selective [S]                                                                     |                                                                                    | SIGRES,<br>selective [S]                                                            | SIGRES,<br>super resistant [K],<br>6 mA DC <b>new</b>                               |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 400 V AC                                                                         | 400 V AC                                                                          | 400 V AC                                                                          | 400 V AC                                                                          | 400 V AC                                                                          |                                                                                    | 400 V AC                                                                            | 230 V AC                                                                            |
| Right                                                                            | Right                                                                             | Right                                                                             | Right                                                                             | Right                                                                             | Left                                                                               | Right                                                                               | Rechts                                                                              |
|  |  |  |  |  |  |  |  |
| 5SV3342-6BA                                                                      | 5SV3342-6KK12                                                                     | —                                                                                 | 5SV3342-6KK01                                                                     | —                                                                                 | —                                                                                  | —                                                                                   | 5SV3342-6KK60                                                                       |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| 5SV3344-6BA                                                                      | 5SV3344-6KK12                                                                     | 5SV3344-6LB01                                                                     | 5SV3344-6KK01                                                                     | —                                                                                 | —                                                                                  | —                                                                                   | 5SV3344-6KK60                                                                       |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3344-6LA01                                                                     | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| 5SV3346-6BA                                                                      | 5SV3346-6KK12                                                                     | 5SV3346-6LB01                                                                     | 5SV3346-6KK01                                                                     | —                                                                                 | —                                                                                  | —                                                                                   | 5SV3346-6KK60                                                                       |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3346-6LA01                                                                     | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | 5SV3347-6KK12                                                                     | 5SV3347-6LB01                                                                     | 5SV3347-6KK01                                                                     | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3444-6LB01                                                                     | —                                                                                 | 5SV3444-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3444-6LA01                                                                     | —                                                                                 | 5SV3444-8LA                                                                       | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3446-6LB01                                                                     | —                                                                                 | 5SV3446-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | 5SV3446-6LA01                                                                     | —                                                                                 | 5SV3446-8LA                                                                       | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| 5SV3642-6BA                                                                      | 5SV3642-6KK12                                                                     | —                                                                                 | 5SV3642-6KK01                                                                     | 5SV3642-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |
| 5SV3644-6BA                                                                      | 5SV3644-6KK12                                                                     | —                                                                                 | 5SV3644-6KK01                                                                     | 5SV3644-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | 5SV3644-8LA                                                                       | —                                                                                  | —                                                                                   | —                                                                                   |
| 5SV3646-6BA                                                                      | 5SV3646-6KK12                                                                     | —                                                                                 | 5SV3646-6KK01                                                                     | 5SV3646-8                                                                         | 5SV3646-8KL                                                                        | 5SV3646-8KK12                                                                       | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | 5SV3646-8LA                                                                       | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | 5SV3647-6KK12                                                                     | —                                                                                 | 5SV3647-6KK01                                                                     | 5SV3647-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                 | —                                                                                  | —                                                                                   | —                                                                                   |
| —                                                                                | —                                                                                 | —                                                                                 | —                                                                                 | 5SV3846-8                                                                         | —                                                                                  | —                                                                                   | —                                                                                   |

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | Article No.   |
| With integrated<br>auxiliary switch               | 230 V AC                          | 5ST3040       |
|                                                   | 110 V DC                          | 5ST3041       |
|                                                   | 24 V DC                           | 5ST3042       |
| Without integrated<br>auxiliary switch            | 230 V AC                          | 5ST3043       |
|                                                   | 110 V DC                          | 5ST3044       |
|                                                   | 24 V DC                           | 5ST3045       |
| Remote control 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<br>function                   | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3070       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 4 MW                                              |                                   | 5ST3820-7     |

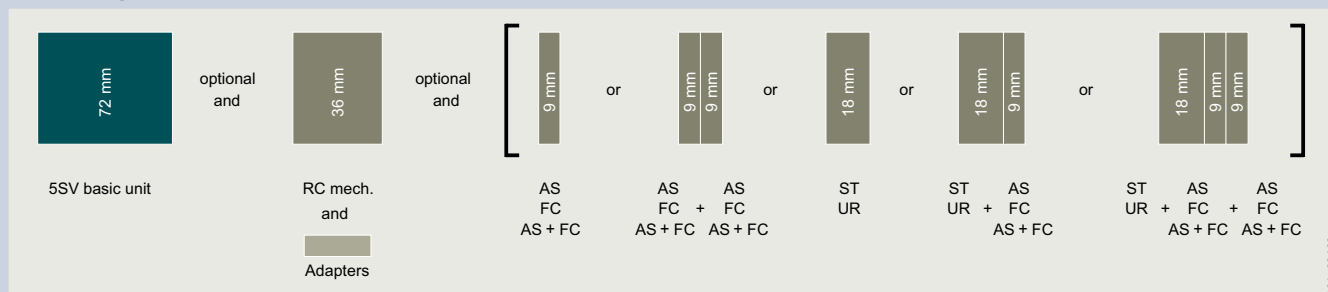
# 5SV RCCBs

Type F, 3P + N (4 MW)

|                     | Super resistant [K]                                                               | Selective [S]                                                                      | SIGRES, super resistant [K],<br>6 mA DC <b>new</b>                                  |
|---------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 400 V AC                                                                          | 400 V AC                                                                           | 230 V AC                                                                            |
| N connection        | Right                                                                             | Right                                                                              | Right                                                                               |
|                     |  |  |  |

| $I_{\Delta n}$ | $I_n$ |           |           |               |
|----------------|-------|-----------|-----------|---------------|
| Type F         |       |           |           |               |
| 30 mA          | 25 A  | 5SV3342-3 | –         | 5SV3342-3KK60 |
|                | 40 A  | 5SV3344-3 | –         | 5SV3344-3KK60 |
|                | 63 A  | 5SV3346-3 | –         | 5SV3346-3KK60 |
|                | 80 A  | 5SV3347-3 | –         | –             |
| 300 mA         | 25 A  | 5SV3642-3 | –         | –             |
|                | 40 A  | 5SV3644-3 | 5SV3644-7 | –             |
|                | 63 A  | 5SV3646-3 | –         | –             |
|                | 80 A  | 5SV3647-3 | 5SV3647-7 | –             |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 4 MW                                              |                                   | 5ST3820-7     |

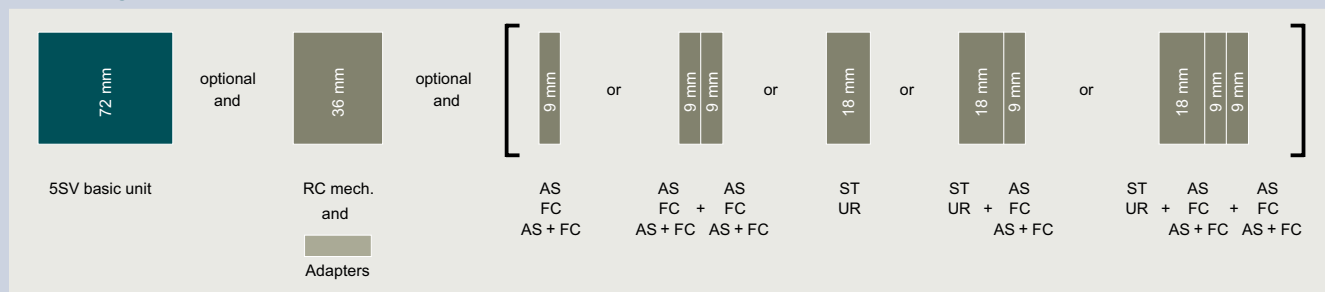
# 5SV RCCBs

Type AC, 3P + N (4 MW)

| Rated voltage $U_n$<br>N connection | Instantaneous                                                                     |                                                                                     |
|-------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                     | Right                                                                             | Left                                                                                |
|                                     |  |  |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging<br>(18 units) |               |             |
|----------------|-------|------------------------------|---------------|-------------|
| Type AC        |       |                              |               |             |
| 30 mA          | 25 A  | —                            | 5SV4342-0     | 5SV4342-0KL |
|                |       | ■                            | 5SV4342-0GV01 | —           |
|                | 40 A  | —                            | 5SV4344-0     | 5SV4344-0KL |
|                |       | ■                            | 5SV4344-0GV01 | —           |
|                | 63 A  | —                            | 5SV4346-0     | 5SV4346-0KL |
| 100 mA         | 80 A  | —                            | 5SV4347-0     | 5SV4347-0KL |
|                | 25 A  | —                            | 5SV4442-0     | —           |
|                | 40 A  | —                            | 5SV4444-0     | —           |
|                | 63 A  | —                            | 5SV4446-0     | —           |
|                | 80 A  | —                            | 5SV4447-0     | —           |
| 300 mA         | 25 A  | —                            | 5SV4642-0     | 5SV4642-0KL |
|                | 40 A  | —                            | 5SV4644-0     | 5SV4644-0KL |
|                | 63 A  | —                            | 5SV4646-0     | 5SV4646-0KL |
|                | 80 A  | —                            | 5SV4647-0     | 5SV4647-0KL |
| 500 mA         | 25 A  | —                            | 5SV4742-0     | —           |
|                | 40 A  | —                            | 5SV4744-0     | —           |
|                | 63 A  | —                            | 5SV4746-0     | —           |
|                | 80 A  | —                            | 5SV4747-0     | —           |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 4 MW                                              |                                   | 5ST3820-7     |

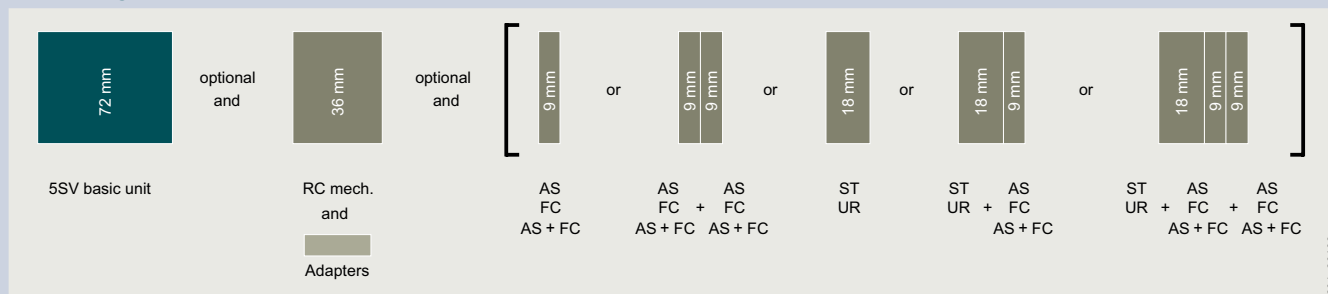
# 5SV3 RCCBs (SIQUENCE)

Type B, 1P + N (4 MW)

|                     | SIGRES, super resistant [K]                                                        | SIGRES, super resistant [K],<br>6 mA DC <b>new</b>                                  |
|---------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 230 V AC                                                                           | 230 V AC                                                                            |
| N connection        | Right                                                                              | Right                                                                               |
|                     |  |  |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging (18 units) |               |               |
|----------------|-------|---------------------------|---------------|---------------|
| <b>Type B</b>  |       |                           |               |               |
| 30 mA          | 16 A  | —                         | 5SV3321-4     | —             |
|                | 25 A  | —                         | 5SV3322-4     | 5SV3322-4KK60 |
|                | 40 A  | —                         | 5SV3324-4     | 5SV3324-4KK60 |
|                |       | ■                         | 5SV3324-4GV01 | —             |
|                | 63 A  | —                         | 5SV3326-4     | 5SV3326-4KK60 |
|                | 80 A  | —                         | —             | 5SV3327-4KK60 |
| 300 mA         | 16 A  | —                         | 5SV3621-4     | —             |
|                | 25 A  | —                         | 5SV3622-4     | —             |
|                | 40 A  | —                         | 5SV3624-4     | —             |
|                | 63 A  | —                         | 5SV3626-4     | —             |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-OMC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 4 MW                                              |                                   | 5ST3820-7     |

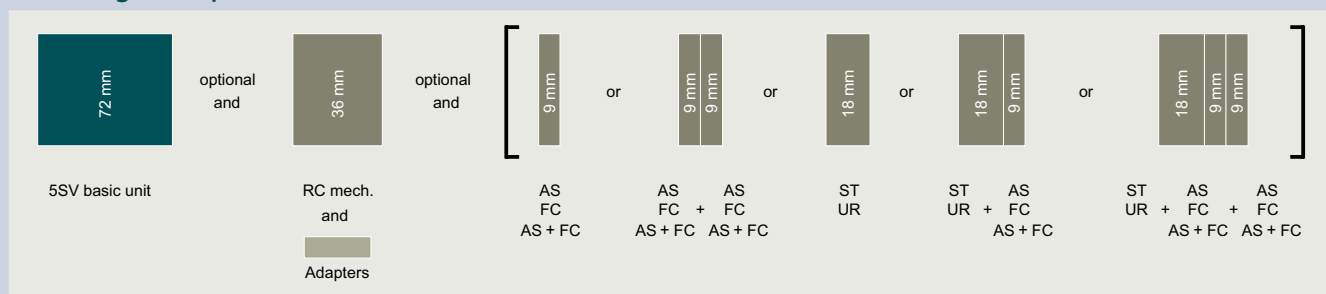
# 5SV3 RCCBs (SIQUENCE)

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

|                     | SIGRES, super resistant [K]                                                       | SIGRES, super resistant [K], 6 mA DC <b>new</b>                                    | SIGRES, selective [S]                                                               |
|---------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | AC 230 ... 400 V                                                                  | AC 230 ... 400 V                                                                   | AC 230 ... 400 V                                                                    |
| N connection        | Right                                                                             | Right                                                                              | Right                                                                               |
|                     |  |  |  |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging (18 units) |               |               |               |
|----------------|-------|---------------------------|---------------|---------------|---------------|
| <b>Type B</b>  |       |                           |               |               |               |
| 30 mA          | 25 A  | –                         | 5SV3342-4     | 5SV3342-4KK60 | –             |
|                |       | ■                         | 5SV3342-4GV01 | –             | –             |
|                | 40 A  | –                         | 5SV3344-4     | 5SV3344-4KK60 | –             |
|                |       | ■                         | 5SV3344-4GV01 | –             | –             |
|                | 63 A  | –                         | 5SV3346-4     | 5SV3346-4KK60 | –             |
| 300 mA         |       | ■                         | 5SV3346-4GV01 | –             | –             |
|                | 80 A  | –                         | 5SV3347-4     | 5SV3347-4KK60 | –             |
|                | 25 A  | –                         | 5SV3642-4     | –             | –             |
|                |       | ■                         | 5SV3642-4GV01 | –             | –             |
|                | 40 A  | –                         | 5SV3644-4     | –             | –             |
| 500 mA         |       | ■                         | 5SV3644-4GV01 | –             | –             |
|                | 63 A  | –                         | 5SV3646-4     | –             | 5SV3646-5     |
|                |       | ■                         | 5SV3646-4GV01 | –             | –             |
|                | 80 A  | –                         | 5SV3647-4     | –             | 5SV3647-5     |
|                | 25 A  | –                         | 5SV3742-4     | –             | –             |
| Type B+        | 40 A  | –                         | 5SV3744-4     | –             | –             |
|                | 63 A  | –                         | 5SV3746-4     | –             | 5SV3746-5     |
|                | 80 A  | –                         | 5SV3747-4     | –             | 5SV3747-5     |
| <b>Type B+</b> |       |                           |               |               |               |
| 30 mA          | 25 A  | –                         | 5SV3342-4KK14 | –             | –             |
|                | 40 A  | –                         | 5SV3344-4KK14 | –             | –             |
|                | 63 A  | –                         | 5SV3346-4KK14 | –             | –             |
|                | 80 A  | –                         | 5SV3347-4KK14 | –             | –             |
| 300 mA         | 25 A  | –                         | 5SV3642-4KK14 | –             | –             |
|                | 40 A  | –                         | 5SV3644-4KK14 | –             | –             |
|                | 63 A  | –                         | 5SV3646-4KK14 | –             | 5SV3646-5KK14 |
|                | 80 A  | –                         | 5SV3647-4KK14 | –             | 5SV3647-5KK14 |

## Mounting concept



|          |                                           |                               |
|----------|-------------------------------------------|-------------------------------|
| AS       | Auxiliary switch                          | <a href="#">See page 4/58</a> |
| FC       | Fault signal contact                      | <a href="#">See page 4/60</a> |
| AS+FC    | Auxiliary switch and fault signal contact | <a href="#">See page 4/61</a> |
| ST       | Shunt trips                               | <a href="#">See page 4/64</a> |
| UR       | Undervoltage release                      | <a href="#">See page 4/65</a> |
| RC mech. | Remote control mechanism                  | <a href="#">See page 4/66</a> |

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-OMC   |

<sup>1)</sup> Combination of undervoltage release with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/EMERGENCY-STOP circuits

| Shunt trips (ST)                                  |                                   | Article No.   |
|---------------------------------------------------|-----------------------------------|---------------|
| 110 ... 415 V AC, 110 ... 220 V DC                |                                   | 5ST3030       |
| 24 ... 48 V AC/DC                                 |                                   | 5ST3031       |
| 12 V DC                                           |                                   | 5ST3031-0XX01 |
| Undervoltage releases (UR) <sup>1)</sup>          |                                   | 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 control 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       |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No.   |
| 4 MW                                              |                                   | 5ST3820-7     |

# 5SM3 RCCBs

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

Rated voltage  $U_n$  230 V AC  
N connection Right



| $I_{\Delta n}$ | $I_n$ |             |
|----------------|-------|-------------|
| <b>Type A</b>  |       |             |
| 30 mA          | 100 A | 5SM3318-6KK |
|                | 125 A | 5SM3315-6KK |
| 100 mA         | 100 A | 5SM3418-6KK |
|                | 125 A | 5SM3415-6KK |
| 300 mA         | 100 A | 5SM3618-6KK |
|                | 125 A | 5SM3615-6KK |
| <b>Type AC</b> |       |             |
| 30 mA          | 100 A | 5SM3318-0KK |
|                | 125 A | 5SM3315-0KK |
| 100 mA         | 100 A | 5SM3418-0KK |
|                | 125 A | 5SM3415-0KK |
| 300 mA         | 100 A | 5SM3618-0KK |
|                | 125 A | 5SM3615-0KK |

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

|                     | Instantaneous                                                                      | Selective [S]                                                                       |
|---------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 400 V AC                                                                           | 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 | –         |

4

### Accessories

| Auxiliary switches (AS)   | Article No. |
|---------------------------|-------------|
| 1 NO + 1 NC      Standard | 5SW3330     |

# 5SM2 RC units

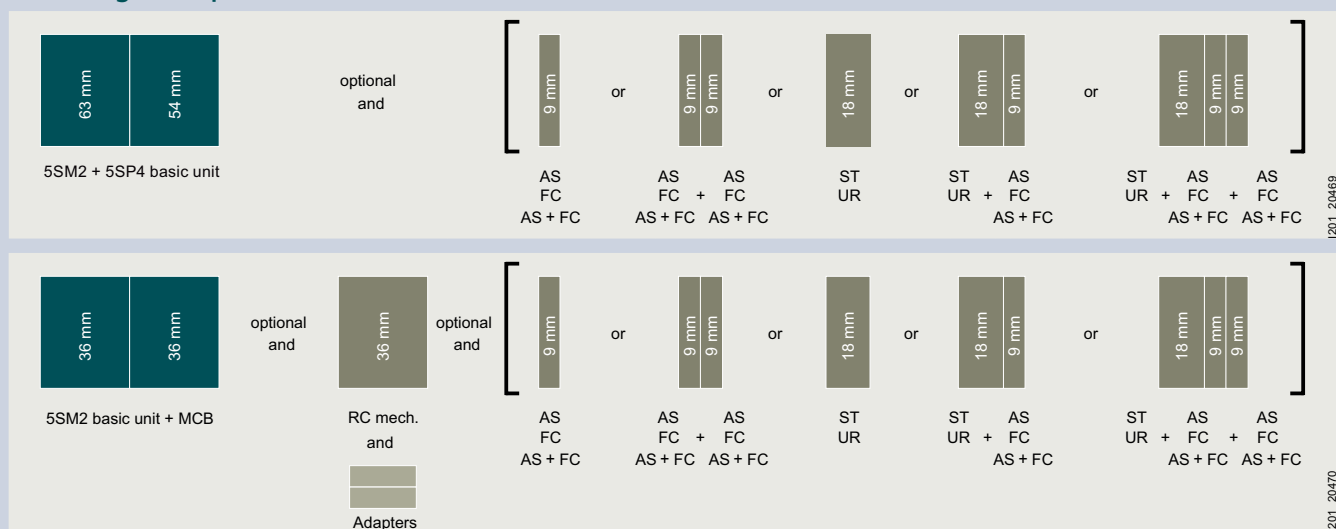
Type A, F and AC, 2-pole

|                     | For 5SY miniature circuit breakers <sup>1)</sup>                                  |                                                                                    |                                                                                     |
|---------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 230 V AC                                                                          |                                                                                    |                                                                                     |
| Version             | Instantaneous                                                                     | Super resistant [K]                                                                | Selective [S]                                                                       |
| Mounting width      | 2 MW                                                                              | 2 MW                                                                               | 2 MW                                                                                |
|                     |  |  |  |

| $I_{\Delta n}$ | $I_n$        |           |               |           |
|----------------|--------------|-----------|---------------|-----------|
| <b>Type A</b>  |              |           |               |           |
| 10 mA          | 0.3 ... 16 A | 5SM2121-6 | –             | –         |
| 30 mA          | 0.3 ... 40 A | 5SM2322-6 | 5SM2322-6KK01 | –         |
|                | 0.3 ... 63 A | 5SM2325-6 | 5SM2325-6KK01 | –         |
|                | 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 | –         | –             | –         |
| <b>Type F</b>  |              |           |               |           |
| 30 mA          | 0.3 ... 40 A | –         | 5SM2322-3     | –         |
|                | 0.3 ... 63 A | –         | 5SM2325-3     | –         |
| <b>Type AC</b> |              |           |               |           |
| 10 mA          | 0.3 ... 40 A | 5SM2121-0 | –             | –         |
| 30 mA          | 0.3 ... 40 A | 5SM2322-0 | –             | –         |
|                | 0.3 ... 63 A | 5SM2325-0 | –             | –         |
|                | 80 ... 100 A | –         | –             | –         |
| 300 mA         | 0.3 ... 40 A | 5SM2622-0 | –             | 5SM2622-2 |
|                | 0.3 ... 63 A | 5SM2625-0 | –             | 5SM2625-2 |
|                | 80 ... 100 A | –         | –             | –         |
| 500 mA         | 0.3 ... 63 A | 5SM2725-0 | –             | –         |
| 1000 mA        | 0.3 ... 63 A | 5SM2825-0 | –             | –         |

<sup>1)</sup> Not suitable for use with 5SY5 and type A + type F not suitable for use with 5SY8

## Mounting concept



MCB Miniature circuit breaker [See page 3/1](#)

AS Auxiliary switch [See page 4/58](#)

FC Fault signal contact [See page 4/60](#)

AS+FC Auxiliary switch and

fault signal contact

ST Shunt trips

[See page 4/61](#)

[See page 4/64](#)

UR Undervoltage release

RC mech. Remote control mechanism

[See page 4/65](#)

[See page 4/66](#)

| For 5SL4 miniature circuit breakers                                              |                                                                                   | For 5SP4 miniature circuit breakers (B and C characteristics)                     |                                                                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 230 V AC                                                                         |                                                                                   | 230 V AC                                                                          |                                                                                     |
| Instantaneous                                                                    | Selective [S]                                                                     | Instantaneous                                                                     | Selective [S]                                                                       |
| 2 MW                                                                             | 2 MW                                                                              | 3.5 MW                                                                            | 3.5 MW                                                                              |
|  |  |  |  |
|                                                                                  |                                                                                   |                                                                                   |                                                                                     |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2323-6                                                                        | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2326-6                                                                        | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | 5SM2327-6                                                                         | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2623-6                                                                        | 5SM2623-8                                                                         | –                                                                                 | –                                                                                   |
| 5SM2626-6                                                                        | 5SM2626-8                                                                         | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | 5SM2627-6                                                                         | 5SM2627-8                                                                           |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | 5SM2827-8                                                                           |
|                                                                                  |                                                                                   |                                                                                   |                                                                                     |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
|                                                                                  |                                                                                   |                                                                                   |                                                                                     |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2323-0                                                                        | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2326-0                                                                        | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| 5SM2623-0                                                                        | 5SM2623-2                                                                         | 5SM2327-0                                                                         | –                                                                                   |
| 5SM2626-0                                                                        | 5SM2626-2                                                                         | 5SM2627-0                                                                         | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |
| –                                                                                | –                                                                                 | –                                                                                 | –                                                                                   |

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   | Undervoltage releases (UR)                        |                                | Article No.           |
|------------------------------------------------------|----------------------------|---------------|---------------------------------------------------|--------------------------------|-----------------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       | With integrated auxiliary switch                  | 230 V AC                       | 5ST3040               |
|                                                      | For low power              | 5ST3013       |                                                   | 110 V DC                       | 5ST3041               |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |                                                   | 24 V DC                        | 5ST3042               |
| 2 NO                                                 | Standard                   | 5ST3011       | Without integrated auxiliary switch               | 230 V AC                       | 5ST3043               |
|                                                      | For low power              | 5ST3014       |                                                   | 110 V DC                       | 5ST3044               |
| 2 NC                                                 | Standard                   | 5ST3012       |                                                   | 24 V DC                        | 5ST3045               |
|                                                      | For low power              | 5ST3015       |                                                   |                                |                       |
| 1 CO                                                 | Standard                   | 5ST3016       | Remote control mechanisms (RC mech.)              |                                | Article No.           |
| Fault signal contacts (FC)                           |                            |               | Power                                             | 12 ... 30 V AC, 12 ... 48 V DC | 5ST3055               |
|                                                      |                            |               |                                                   | 177 ... 270 V AC               | 5ST3056               |
| 1 NO + 1 NC                                          |                            | 5ST3020       | Power with ARD                                    | 12 ... 30 V AC, 12 ... 48 V DC | 5ST3057               |
| 2 NO                                                 |                            | 5ST3021       |                                                   | 177 ... 270 V AC               | 5ST3058               |
| 2 NC                                                 |                            | 5ST3022       | Power with extended function                      | 12 ... 30 V AC, 12 ... 48 V DC | 5ST3070               |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   | Adapters for remote control mechanisms (RC mech.) |                                |                       |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       | 5SM2 with 5SY (2P)                                |                                | 5ST3820-3 + 5ST3820-1 |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |                                                   |                                |                       |
| Shunt trips (ST)                                     |                            | Article No.   | 5SM2 with 5SL (2P)                                |                                | 5ST3820-3 + 5ST3820-6 |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       |                                                   |                                |                       |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       |                                                   |                                |                       |
| 12 V DC                                              |                            | 5ST3031-0XX01 |                                                   |                                |                       |

# 5SM2 RC units

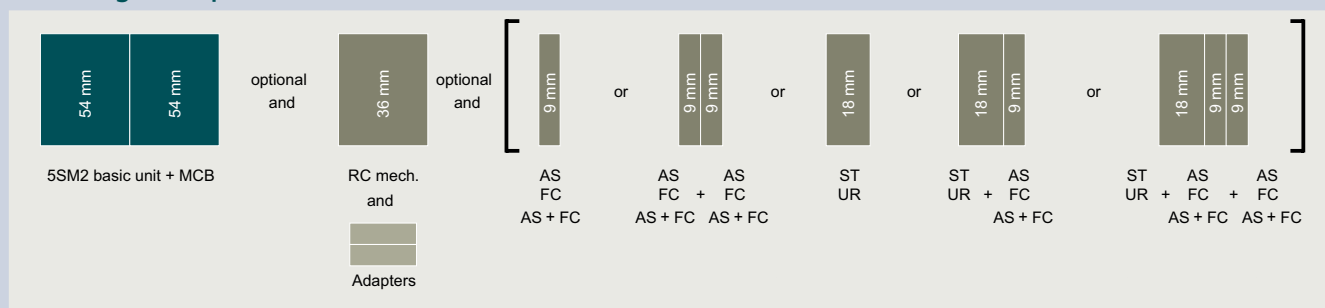
## Type A and AC, 3-pole

|                     | For 5SY miniature circuit breakers <sup>1)</sup>                                  |                                                                                   |                                                                                    | For 5SL4 miniature circuit breakers                                                 |                                                                                     |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$ | 400 V AC                                                                          |                                                                                   |                                                                                    | 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 | –             | –         | –         | –         |

<sup>1)</sup> Not suitable for use with 5SY5 and type A not suitable for use with 5SY8

## Mounting concept



MCB      Miniature circuit breaker  
 AS      Auxiliary switch  
 FC      Fault signal contact  
 AS+FC      Auxiliary switch and fault signal contact

[See page 3/1](#)  
[See page 4/58](#)  
[See page 4/60](#)  
[See page 4/61](#)

ST      Shunt trips  
 UR      Undervoltage release  
 RC mech.      Remote control mechanism

[See page 4/64](#)  
[See page 4/65](#)  
[See page 4/66](#)

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |
| Shunt trips (ST)                                     |                            | Article No.   |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       |
| 12 V DC                                              |                            | 5ST3031-0XX01 |

| Undervoltage releases (UR)                        |                                | Article No.           |
|---------------------------------------------------|--------------------------------|-----------------------|
| With integrated auxiliary switch                  | 230 V AC                       | 5ST3040               |
|                                                   | 110 V DC                       | 5ST3041               |
|                                                   | 24 V DC                        | 5ST3042               |
| Without integrated auxiliary switch               | 230 V AC                       | 5ST3043               |
|                                                   | 110 V DC                       | 5ST3044               |
|                                                   | 24 V DC                        | 5ST3045               |
| Remote control 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 control mechanisms (RC mech.) |                                | Article No.           |
| 5SM2 with 5SY (3P)                                |                                | 5ST3820-3 + 5ST3820-2 |
| 5SM2 with 5SL (3P)                                |                                | 5ST3820-3 + 5ST3820-7 |

# 5SM2 RC units

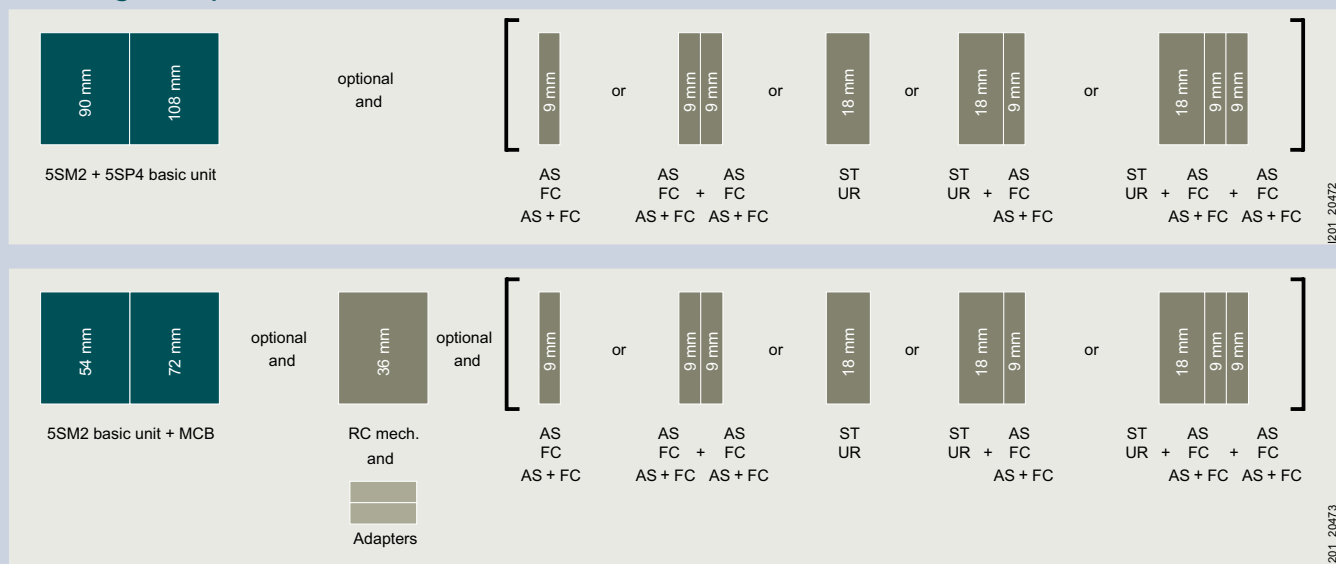
Type A and AC, 4-pole

| Rated voltage $U_n$<br>Version<br>Mounting width | For 5SY miniature circuit breakers <sup>1)</sup>                                  |                                                                                    |                                                                                     |                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                  | 400 V AC                                                                          |                                                                                    |                                                                                     |                                                                                     |
|                                                  | Instantaneous                                                                     | Super resistant [K]                                                                | Selective [S]                                                                       | SIGRES, instantaneous                                                               |
|                                                  | 3 MW                                                                              | 3 MW                                                                               | 3 MW                                                                                | 3 MW                                                                                |
|                                                  |  |  |  |  |

| $I_{\Delta n}$ | $I_n$        |           |               |           |               |
|----------------|--------------|-----------|---------------|-----------|---------------|
| <b>Type A</b>  |              |           |               |           |               |
| 30 mA          | 0.3 ... 40 A | 5SM2342-6 | 5SM2342-6KK01 | –         | –             |
|                | 0.3 ... 63 A | 5SM2345-6 | 5SM2345-6KK01 | –         | 5SM2345-6KK12 |
|                | 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 | 5SM2645-6KK12 |
|                | 80 ... 100 A | –         | –             | –         | –             |
| 500 mA         | 0.3 ... 63 A | 5SM2745-6 | –             | 5SM2845-8 | –             |
| 1000 mA        | 0.3 ... 40 A | –         | –             | 5SM2842-8 | –             |
|                | 0.3 ... 63 A | –         | –             | 5SM2845-8 | –             |
|                | 80 ... 100 A | –         | –             | –         | –             |
| <b>Type AC</b> |              |           |               |           |               |
| 30 mA          | 0.3 ... 40 A | 5SM2342-0 | –             | –         | –             |
|                | 0.3 ... 63 A | 5SM2345-0 | –             | –         | –             |
|                | 80 ... 100 A | –         | –             | –         | –             |
| 300 mA         | 0.3 ... 40 A | 5SM2642-0 | –             | –         | –             |
|                | 0.3 ... 63 A | 5SM2645-0 | –             | 5SM2645-2 | –             |
|                | 80 ... 100 A | –         | –             | –         | –             |
| 500 mA         | 0.3 ... 63 A | 5SM2745-0 | –             | –         | –             |
| 1000 mA        | 0.3 ... 63 A | –         | –             | 5SM2845-2 | –             |

<sup>1)</sup> Not suitable for use with 5SY5 and type A not suitable for use with 5SY8

## Mounting concept



MCB Miniature circuit breaker [See page 3/1](#)  
 AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)

AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)  
 ST Shunt trips [See page 4/64](#)

UR Undervoltage release [See page 4/65](#)  
 RC mech. Remote control mechanism [See page 4/66](#)

| For 5SL4 miniature circuit breakers                                              |                                                                                   | For 5SP4 miniature circuit breakers (B and C characteristics)                     |                                                                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 400 V AC                                                                         |                                                                                   | 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 + 1 NC                                          | Standard                       | 5ST3010               |
|                                                      | For low power                  | 5ST3013               |
|                                                      | For low power (with diode)     | 5ST3013-0XX01         |
| 2 NO                                                 | Standard                       | 5ST3011               |
|                                                      | For low power                  | 5ST3014               |
| 2 NC                                                 | Standard                       | 5ST3012               |
|                                                      | For low power                  | 5ST3015               |
| 1 CO                                                 | Standard                       | 5ST3016               |
| Fault signal contacts (FC)                           |                                | Article No.           |
| 1 NO + 1 NC                                          |                                | 5ST3020               |
| 2 NO                                                 |                                | 5ST3021               |
| 2 NC                                                 |                                | 5ST3022               |
| Auxiliary switches and fault signal contacts (AS+FC) |                                | Article No.           |
| 1 CO (AS) + 1 CO (FC)                                |                                | 5ST3062               |
| 5ST3 COM (AS+FC)                                     |                                | 5ST3062-0MC           |
| Shunt trips (ST)                                     |                                | Article No.           |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                                | 5ST3030               |
| 24 ... 48 V AC/DC                                    |                                | 5ST3031               |
| 12 V DC                                              |                                | 5ST3031-0XX01         |
| Undervoltage releases (UR)                           |                                | Article No.           |
| With integrated auxiliary switch                     | 230 V AC                       | 5ST3040               |
|                                                      | 110 V DC                       | 5ST3041               |
|                                                      | 24 V DC                        | 5ST3042               |
| Without integrated auxiliary switch                  | 230 V AC                       | 5ST3043               |
|                                                      | 110 V DC                       | 5ST3044               |
|                                                      | 24 V DC                        | 5ST3045               |
| Remote control 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 control mechanisms (RC mech.)    |                                | Article No.           |
| 5SM2 with 5SY (4P)                                   |                                | 5ST3820-3 + 5ST3820-2 |
| 5SM2 with 5SL (4P)                                   |                                | 5ST3820-3 + 5ST3820-7 |

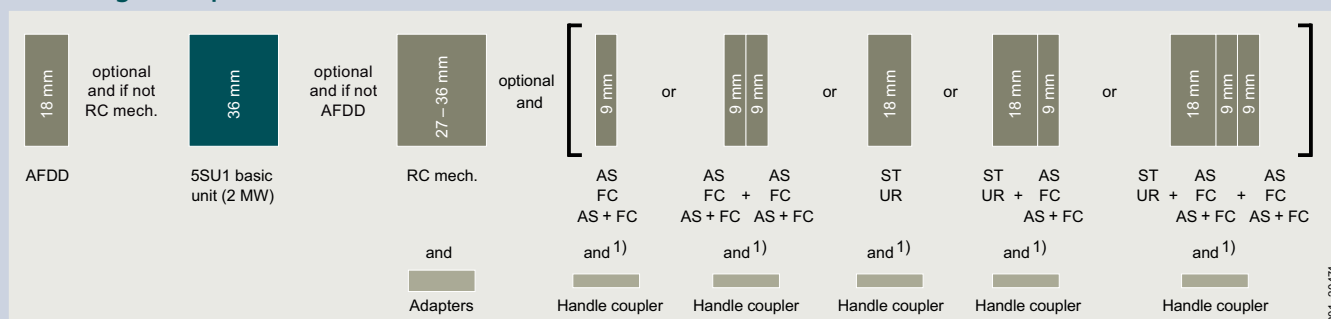
# 5SU1 RCBOs

Type A, 1P + N

|                                 | Instantaneous                                                                     |                                                                                   |                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$             | 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<br>(36 units) | Characteristic<br>C | C             | Characteristic<br>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



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit  
AS Auxiliary switch  
FC Fault signal contact  
AS+FC Auxiliary switch and fault signal contact

[See page 4/52](#)  
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ST Shunt trips  
UR Undervoltage release  
RC mech. Remote control mechanism

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[See page 4/65](#)  
[See page 4/66](#)

| 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.   | Undervoltage releases (UR)                        |                                   | Article No. |
|------------------------------------------------------|----------------------------|---------------|---------------------------------------------------|-----------------------------------|-------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       | With integrated auxiliary switch                  | 230 V AC                          | 5ST3040     |
|                                                      | For low power              | 5ST3013       |                                                   | 110 V DC                          | 5ST3041     |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |                                                   | 24 V DC                           | 5ST3042     |
| 2 NO                                                 | Standard                   | 5ST3011       | Without integrated auxiliary switch               | 230 V AC                          | 5ST3043     |
|                                                      | For low power              | 5ST3014       |                                                   | 110 V DC                          | 5ST3044     |
| 2 NC                                                 | Standard                   | 5ST3012       |                                                   | 24 V DC                           | 5ST3045     |
|                                                      | For low power              | 5ST3015       |                                                   |                                   |             |
| 1 CO                                                 | Standard                   | 5ST3016       | Handle couplers for AS, FC, AS+FC, ST and UR      |                                   | Article No. |
| Fault signal contacts (FC)                           |                            |               | 1 set = 5 units                                   |                                   | 5ST3805-1   |
| 1 NO + 1 NC                                          |                            | 5ST3020       | Remote control mechanisms (RC mech.)              |                                   | Article No. |
| 2 NO                                                 |                            | 5ST3021       | Basic                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3053     |
| 2 NC                                                 |                            | 5ST3022       |                                                   | 177 ... 270 V AC                  | 5ST3054     |
| Auxiliary switches and fault signal contacts (AS+FC) |                            |               | Power                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3055     |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |                                                   | 177 ... 270 V AC                  | 5ST3056     |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   | Power with ARD                                    | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3057     |
| Shunt trips (ST)                                     |                            |               |                                                   | 177 ... 270 V AC                  | 5ST3058     |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       | Power with extended function                      | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3070     |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       |                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071     |
| 12 V DC                                              |                            | 5ST3031-0XX01 | Adapters for remote control mechanisms (RC mech.) |                                   | Article No. |
|                                                      |                            |               | 2 MW                                              |                                   | 5ST3820-5   |
|                                                      |                            |               | Arc fault detection units (AFDD)                  |                                   | Article No. |
|                                                      |                            |               | For 5SU1 basic units                              | $I_n$ up to 16 A                  | 5SM6021-2   |
|                                                      |                            |               |                                                   | $I_n$ up to 40 A                  | 5SM6024-2   |

# 5SU1 RCBOs

Type F, 1P + N

Rated voltage  $U_n$  230 V AC  
 Mounting width 2 MW  
 Short-circuit breaking capacity 10 kA  
 N connection Right

Super resistant [K]

230 V AC

2 MW

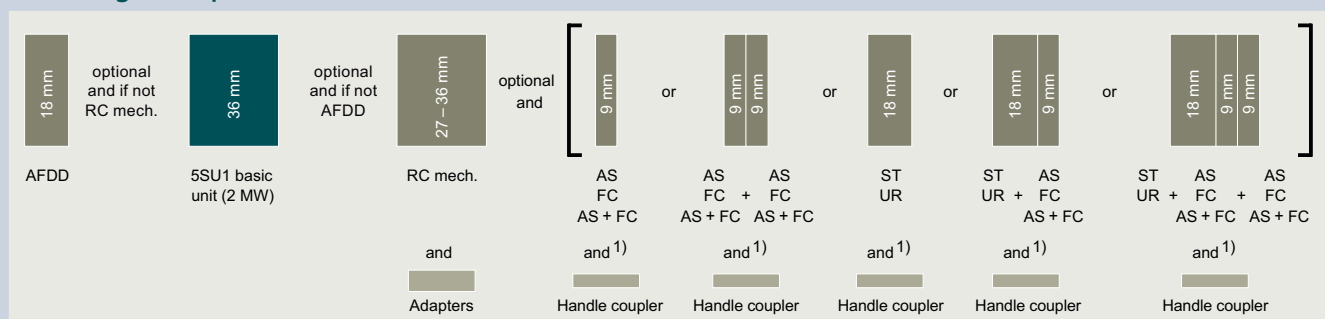
10 kA

Right



| $I_{\Delta n}$ | $I_n$ | Characteristic |               |
|----------------|-------|----------------|---------------|
| Type F         |       | B              | C             |
| 30 mA          | 6 A   | 5SU1354-3KK06  | 5SU1354-4KK06 |
|                | 10 A  | 5SU1354-3KK10  | 5SU1354-4KK10 |
|                | 13 A  | 5SU1354-3KK13  | 5SU1354-4KK13 |
|                | 16 A  | 5SU1354-3KK16  | 5SU1354-4KK16 |
|                | 20 A  | 5SU1354-3KK20  | 5SU1354-4KK20 |
|                | 25 A  | 5SU1354-3KK25  | 5SU1354-4KK25 |
|                | 32 A  | 5SU1354-3KK32  | 5SU1354-4KK32 |
|                | 40 A  | 5SU1354-3KK40  | 5SU1354-4KK40 |

## Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit

[See page 4/52](#)

AS Auxiliary switch

[See page 4/58](#)

FC Fault signal contact

[See page 4/60](#)

AS+FC Auxiliary switch and fault signal contact

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ST Shunt trips

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UR Undervoltage release

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RC mech. Remote control mechanism

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## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |
| Shunt trips (ST)                                     |                            | Article No.   |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       |
| 12 V DC                                              |                            | 5ST3031-0XX01 |

| Undervoltage releases (UR)                        |                                   | Article No. |
|---------------------------------------------------|-----------------------------------|-------------|
| With integrated auxiliary switch                  | 230 V AC                          | 5ST3040     |
|                                                   | 110 V DC                          | 5ST3041     |
|                                                   | 24 V DC                           | 5ST3042     |
| Without integrated auxiliary switch               | 230 V AC                          | 5ST3043     |
|                                                   | 110 V DC                          | 5ST3044     |
|                                                   | 24 V DC                           | 5ST3045     |
| Handle couplers for AS, FC, AS+FC, ST and UR      |                                   | Article No. |
| 1 set = 5 units                                   |                                   | 5ST3805-1   |
| Remote control 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     |
|                                                   | AC 170 ... 277 V, DC 77 ... 286 V | 5ST3071     |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No. |
| 2 MW                                              |                                   | 5ST3820-5   |
| Arc fault detection units (AFDD)                  |                                   | Article No. |
| For 5SU1 basic units                              | $I_n$ up to 16 A                  | 5SM6021-2   |
|                                                   | $I_n$ up to 40 A                  | 5SM6024-2   |

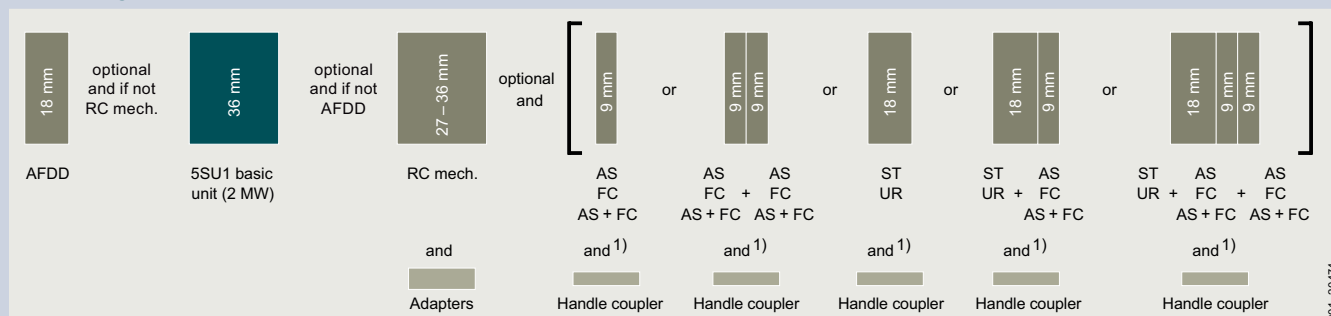
# 5SU1 RCBOs

Type AC, 1P + N

|                                 | Instantaneous                                                                     |                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Rated voltage $U_n$             | 230 V AC                                                                          |                                                                                   |
| Mounting width                  | 2 MW                                                                              | 2 MW                                                                              |
| Short-circuit breaking capacity | 4.5 kA                                                                            | 4.5 kA                                                                            |
| N connection                    | Right                                                                             | Left                                                                              |
|                                 |  |  |

| $I_{\Delta n}$ | $I_n$ | 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 |
| 100 mA         | 40 A  | —                         | 5SU1353-1KK40    | 5SU1353-1KL40 | 5SU1356-0KK40    | 5SU1356-1KK40 |
|                | 6 A   | —                         | —                | —             | —                | —             |
|                | 10 A  | —                         | —                | —             | —                | —             |
|                | 13 A  | —                         | —                | —             | —                | —             |
|                | 16 A  | —                         | —                | —             | —                | —             |
|                | 20 A  | —                         | —                | —             | —                | —             |
|                | 25 A  | —                         | —                | —             | —                | —             |
| 300 mA         | 32 A  | —                         | —                | —             | —                | —             |
|                | 40 A  | —                         | —                | —             | —                | —             |
|                | 6 A   | —                         | 5SU1653-1KK06    | 5SU1653-1KL06 | 5SU1656-0KK06    | 5SU1656-1KK06 |
|                | 10 A  | —                         | 5SU1653-1KK10    | 5SU1653-1KL10 | 5SU1656-0KK10    | 5SU1656-1KK10 |
|                | 13 A  | —                         | 5SU1653-1KK13    | 5SU1653-1KL16 | 5SU1656-0KK13    | 5SU1656-1KK13 |
|                | 16 A  | —                         | 5SU1653-1KK16    | —             | 5SU1656-0KK16    | 5SU1656-1KK16 |
|                |       | ■                         | 5SU1653-1GV16    | —             | —                | —             |
|                | 20 A  | —                         | 5SU1653-1KK20    | 5SU1653-1KL20 | 5SU1656-0KK20    | 5SU1656-1KK20 |
|                | 25 A  | —                         | 5SU1653-1KK25    | 5SU1653-1KL25 | 5SU1656-0KK25    | 5SU1656-1KK25 |
|                | 32 A  | —                         | 5SU1653-1KK32    | 5SU1653-1KL32 | 5SU1656-0KK32    | 5SU1656-1KK32 |
|                | 40 A  | —                         | 5SU1653-1KK40    | 5SU1653-1KL40 | 5SU1656-0KK40    | 5SU1656-1KK40 |

## Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.

AFDD Arc fault detection unit

[See page 4/52](#)

ST Shunt trips

[See page 4/64](#)

AS Auxiliary switch

[See page 4/58](#)

UR Undervoltage release

[See page 4/65](#)

FC Fault signal contact

[See page 4/60](#)

RC mech. Remote control mechanism

[See page 4/66](#)

AS+FC Auxiliary switch and fault signal contact

[See page 4/61](#)

| 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 B                                                                 | C             | Characteristic 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.   | Undervoltage releases (UR)                        |                                   | Article No. |
|------------------------------------------------------|----------------------------|---------------|---------------------------------------------------|-----------------------------------|-------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       | With integrated                                   | 230 V AC                          | 5ST3040     |
|                                                      | For low power              | 5ST3013       | auxiliary switch                                  | 110 V DC                          | 5ST3041     |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |                                                   | 24 V DC                           | 5ST3042     |
| 2 NO                                                 | Standard                   | 5ST3011       | Without integrated                                | 230 V AC                          | 5ST3043     |
|                                                      | For low power              | 5ST3014       | auxiliary switch                                  | 110 V DC                          | 5ST3044     |
| 2 NC                                                 | Standard                   | 5ST3012       |                                                   | 24 V DC                           | 5ST3045     |
|                                                      | For low power              | 5ST3015       | Handle couplers for AS, FC, AS+FC, ST and UR      |                                   | Article No. |
| 1 CO                                                 | Standard                   | 5ST3016       | 1 set = 5 units                                   |                                   | 5ST3805-1   |
| Fault signal contacts (FC)                           |                            | Article No.   | Remote control mechanisms (RC mech.)              |                                   | Article No. |
| 1 NO + 1 NC                                          |                            | 5ST3020       | Basic                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3053     |
| 2 NO                                                 |                            | 5ST3021       |                                                   | 177 ... 270 V AC                  | 5ST3054     |
| 2 NC                                                 |                            | 5ST3022       | Power                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3055     |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |                                                   | 177 ... 270 V AC                  | 5ST3056     |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       | Power with ARD                                    | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3057     |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |                                                   | 177 ... 270 V AC                  | 5ST3058     |
| Shunt trips (ST)                                     |                            | Article No.   | Power with extended function                      | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3070     |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       |                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071     |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       | Adapters for remote control mechanisms (RC mech.) |                                   | Article No. |
| 12 V DC                                              |                            | 5ST3031-0XX01 | 2 MW                                              |                                   | 5ST3820-5   |
| Arc fault detection units (AFDD)                     |                            | Article No.   | Arc fault detection units (AFDD)                  |                                   | Article No. |
| For 5SU1 basic units                                 |                            |               | For 5SU1 basic units                              | $I_n$ up to 16 A                  | 5SM6021-2   |
|                                                      |                            |               |                                                   | $I_n$ up to 40 A                  | 5SM6024-2   |

# 5SU1 RCBOs

Type A, 2/3/4-pole with residual current tripped indication

2-pole  
Instantaneous

Rated voltage  $U_n$  230 V AC  
Short-circuit breaking capacity 6 kA

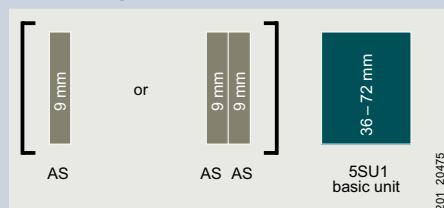


10 kA



| $I_{\Delta n}$ | $I_n$ | Characteristic |               | Characteristic |               |
|----------------|-------|----------------|---------------|----------------|---------------|
|                |       | B              | C             | B              | C             |
| 30 mA          | 6 A   | 5SU1326-6FP06  | 5SU1326-7FP06 | 5SU1324-6FP06  | 5SU1324-7FP06 |
|                | 10 A  | 5SU1326-6FP10  | 5SU1326-7FP10 | 5SU1324-6FP10  | 5SU1324-7FP10 |
|                | 13 A  | 5SU1326-6FP13  | 5SU1326-7FP13 | 5SU1324-6FP13  | 5SU1324-7FP13 |
|                | 16 A  | 5SU1326-6FP16  | 5SU1326-7FP16 | 5SU1324-6FP16  | 5SU1324-7FP16 |
|                | 20 A  | 5SU1326-6FP20  | 5SU1326-7FP20 | 5SU1324-6FP20  | 5SU1324-7FP20 |
|                | 25 A  | 5SU1326-6FP25  | 5SU1326-7FP25 | 5SU1324-6FP25  | 5SU1324-7FP25 |
|                | 32 A  | 5SU1326-6FP32  | 5SU1326-7FP32 | 5SU1324-6FP32  | 5SU1324-7FP32 |
| 300 mA         | 6 A   | —              | —             | —              | —             |
|                | 10 A  | —              | —             | —              | —             |
|                | 16 A  | —              | —             | —              | —             |
|                | 20 A  | —              | —             | —              | —             |
|                | 25 A  | —              | —             | —              | —             |
|                | 32 A  | —              | —             | —              | —             |

## Mounting concept



AS

Auxiliary switch

[See page 4/58](#)

| 2-pole<br>Short-time delayed, super resistant [K]                                |               | 3-pole<br>Instantaneous                                                           |               | 4-pole<br>Instantaneous                                                             |               |
|----------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|---------------|
| 230 V AC                                                                         |               | 400 V AC                                                                          |               | 400 V AC                                                                            |               |
| 10 kA                                                                            |               | 6 kA                                                                              |               | 6 kA                                                                                |               |
|  |               |  |               |  |               |
| Characteristic                                                                   |               | Characteristic                                                                    |               | Characteristic                                                                      |               |
| B                                                                                | C             | B                                                                                 | C             | B                                                                                   | C             |
| –                                                                                | 5SU1324-7FR06 | 5SU1336-6FP06                                                                     | 5SU1336-7FP06 | 5SU1346-6FP06                                                                       | 5SU1346-7FP06 |
| –                                                                                | 5SU1324-7FR10 | 5SU1336-6FP10                                                                     | 5SU1336-7FP10 | 5SU1346-6FP10                                                                       | 5SU1346-7FP10 |
| –                                                                                | –             | 5SU1336-6FP13                                                                     | 5SU1336-7FP13 | 5SU1346-6FP13                                                                       | 5SU1346-7FP13 |
| 5SU1324-6FR16                                                                    | 5SU1324-7FR16 | 5SU1336-6FP16                                                                     | 5SU1336-7FP16 | 5SU1346-6FP16                                                                       | 5SU1346-7FP16 |
| 5SU1324-6FR20                                                                    | 5SU1324-7FR20 | 5SU1336-6FP20                                                                     | 5SU1336-7FP20 | 5SU1346-6FP20                                                                       | 5SU1346-7FP20 |
| 5SU1324-6FR25                                                                    | 5SU1324-7FR25 | 5SU1336-6FP25                                                                     | 5SU1336-7FP25 | 5SU1346-6FP25                                                                       | 5SU1346-7FP25 |
| –                                                                                | 5SU1324-7FR32 | 5SU1336-6FP32                                                                     | 5SU1336-7FP32 | 5SU1346-6FP32                                                                       | 5SU1346-7FP32 |
| –                                                                                | –             | 5SU1636-6FP06                                                                     | 5SU1636-7FP06 | 5SU1646-6FP06                                                                       | 5SU1646-7FP06 |
| –                                                                                | –             | 5SU1636-6FP10                                                                     | 5SU1636-7FP10 | 5SU1646-6FP10                                                                       | 5SU1646-7FP10 |
| –                                                                                | –             | 5SU1636-6FP16                                                                     | 5SU1636-7FP16 | 5SU1646-6FP16                                                                       | 5SU1646-7FP16 |
| –                                                                                | –             | 5SU1636-6FP20                                                                     | 5SU1636-7FP20 | 5SU1646-6FP20                                                                       | 5SU1646-7FP20 |
| –                                                                                | –             | 5SU1636-6FP25                                                                     | 5SU1636-7FP25 | 5SU1646-6FP25                                                                       | 5SU1646-7FP25 |
| –                                                                                | –             | 5SU1636-6FP32                                                                     | 5SU1636-7FP32 | 5SU1646-6FP32                                                                       | 5SU1646-7FP32 |

## Accessories

| Auxiliary switches (AS) |          | Article No. |
|-------------------------|----------|-------------|
| 1 CO                    | Standard | 5ST1010-0FP |

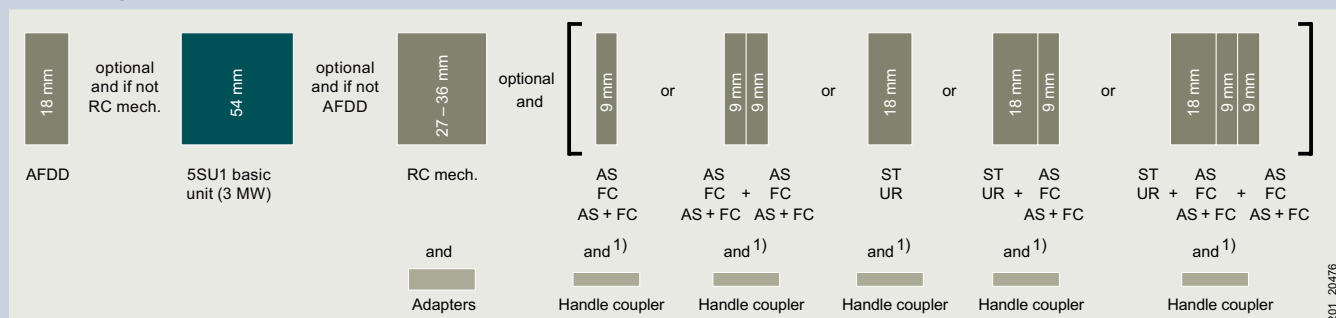
# 5SU1 RCBOs

Type A and AC, 2-pole

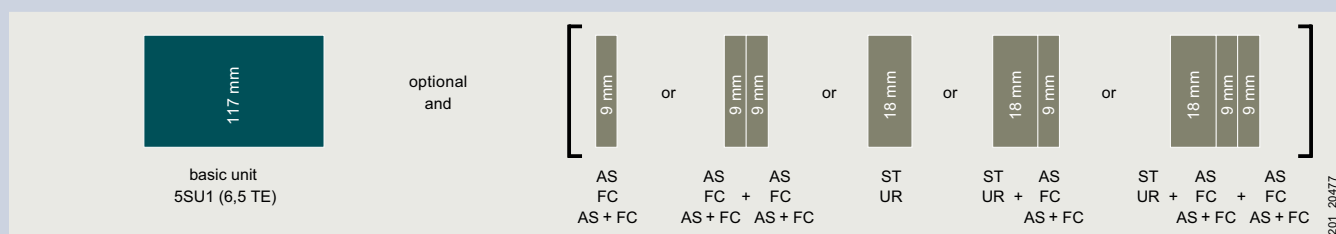
|                                 | Instantaneous                                                                     |                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated voltage $U_n$             | 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 B | Characteristic C | Characteristic B |
|----------------|-------|------------------|------------------|------------------|
| <b>Type A</b>  |       |                  |                  |                  |
| 30 mA          | 6 A   | 5SU1324-6KX06    | 5SU1324-7KX06    | 5SU1324-6FA06    |
|                | 10 A  | 5SU1324-6KX10    | 5SU1324-7KX10    | 5SU1324-6FA10    |
|                | 13 A  | 5SU1324-6KX13    | 5SU1324-7KX13    | 5SU1324-6FA13    |
|                | 16 A  | 5SU1324-6KX16    | 5SU1324-7KX16    | 5SU1324-6FA16    |
|                | 20 A  | 5SU1324-6KX20    | 5SU1324-7KX20    | 5SU1324-6FA20    |
|                | 25 A  | 5SU1324-6KX25    | 5SU1324-7KX25    | 5SU1324-6FA25    |
|                | 32 A  | 5SU1324-6KX32    | 5SU1324-7KX32    | 5SU1324-6FA32    |
|                | 40 A  | 5SU1324-6KX40    | 5SU1324-7KX40    | 5SU1324-6FA40    |
|                | 125 A | —                | —                | —                |
| 300 mA         | 125 A | —                | —                | —                |
| <b>Type AC</b> |       |                  |                  |                  |
| 30 mA          | 125 A | —                | —                | —                |
| 300 mA         | 125 A | —                | —                | —                |

## Mounting concept



<sup>1)</sup> Handle couplers are required for direct attachment of the components to the 5SU1. No handle coupler is required for attaching the components to the RC mech.



AFDD Arc fault detection unit [See page 4/52](#)

AS Auxiliary switch [See page 4/58](#)

FC Fault signal contact [See page 4/60](#)

AS+FC Auxiliary switch and

fault signal contact

ST Shunt trips

[See page 4/61](#)

[See page 4/64](#)

UR Undervoltage release

RC mech. Remote control mechanism

[See page 4/65](#)

[See page 4/66](#)

|                                                                                   |                  |               | Selective [S]                                                                      |               |
|-----------------------------------------------------------------------------------|------------------|---------------|------------------------------------------------------------------------------------|---------------|
|                                                                                   |                  |               | 230 V AC                                                                           |               |
|                                                                                   |                  |               | 6.5 MW                                                                             |               |
|                                                                                   |                  |               | 10 kA                                                                              |               |
|  |                  |               |  |               |
| C                                                                                 | Characteristic B | C             | Characteristic B                                                                   | C             |
| 5SU1324-7FA06                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA10                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA13                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA16                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA20                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA25                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA32                                                                     | –                | –             | –                                                                                  | –             |
| 5SU1324-7FA40                                                                     | –                | –             | –                                                                                  | –             |
| –                                                                                 | 5SU1324-6KK82    | 5SU1324-7KK82 | –                                                                                  | –             |
| –                                                                                 | 5SU1624-6KK82    | 5SU1624-7KK82 | 5SU1624-6WK82                                                                      | 5SU1624-7WK82 |
| –                                                                                 | 5SU1324-0KK82    | 5SU1324-1KK82 | –                                                                                  | –             |
| –                                                                                 | 5SU1624-0KK82    | 5SU1624-1KK82 | –                                                                                  | –             |

## Accessories

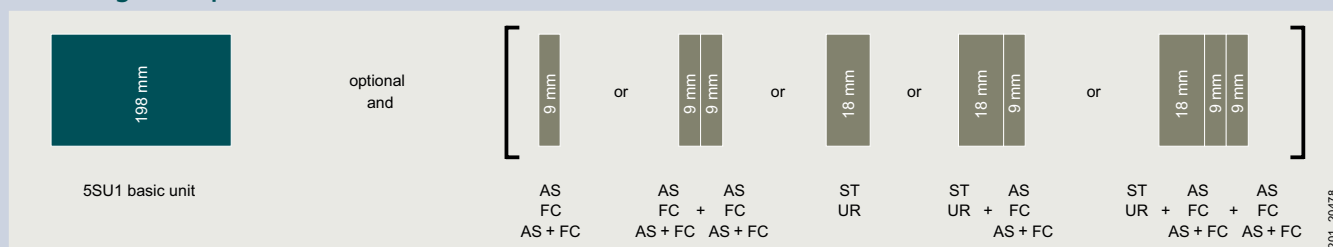
| Auxiliary switches (AS)                              |                                   |  | Article No. |  |               |
|------------------------------------------------------|-----------------------------------|--|-------------|--|---------------|
| 1 NO + 1 NC                                          | Standard                          |  |             |  | 5ST3010       |
|                                                      | For low power                     |  |             |  | 5ST3013       |
|                                                      | For low power (with diode)        |  |             |  | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                          |  |             |  | 5ST3011       |
|                                                      | For low power                     |  |             |  | 5ST3014       |
| 2 NC                                                 | Standard                          |  |             |  | 5ST3012       |
|                                                      | For low power                     |  |             |  | 5ST3015       |
| 1 CO                                                 | Standard                          |  |             |  | 5ST3016       |
| Fault signal contacts (FC)                           |                                   |  | Article No. |  |               |
| 1 NO + 1 NC                                          |                                   |  |             |  | 5ST3020       |
| 2 NO                                                 |                                   |  |             |  | 5ST3021       |
| 2 NC                                                 |                                   |  |             |  | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                                   |  | Article No. |  |               |
| 1 CO (AS) + 1 CO (FC)                                |                                   |  |             |  | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                                   |  |             |  | 5ST3062-0MC   |
| Shunt trips (ST)                                     |                                   |  | Article No. |  |               |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                                   |  |             |  | 5ST3030       |
| 24 ... 48 V AC/DC                                    |                                   |  |             |  | 5ST3031       |
| 12 V DC                                              |                                   |  |             |  | 5ST3031-0XX01 |
| Undervoltage releases (UR)                           |                                   |  | Article No. |  |               |
| With integrated auxiliary switch                     | 230 V AC                          |  |             |  | 5ST3040       |
|                                                      | 110 V DC                          |  |             |  | 5ST3041       |
|                                                      | 24 V DC                           |  |             |  | 5ST3042       |
| Without integrated auxiliary switch                  | 230 V AC                          |  |             |  | 5ST3043       |
|                                                      | 110 V DC                          |  |             |  | 5ST3044       |
|                                                      | 24 V DC                           |  |             |  | 5ST3045       |
| Handle couplers for AS, FC, AS+FC, ST and UR         |                                   |  | Article No. |  |               |
| 1 set = 5 units                                      |                                   |  |             |  | 5ST3805-1     |
| Remote control mechanisms (RC mech.)                 |                                   |  | Article No. |  |               |
| Basic                                                | 12 ... 30 V AC, 12 ... 48 V DC    |  |             |  | 5ST3053       |
|                                                      | 177 ... 270 V AC                  |  |             |  | 5ST3054       |
| Power                                                | 12 ... 30 V AC, 12 ... 48 V DC    |  |             |  | 5ST3055       |
|                                                      | 177 ... 270 V AC                  |  |             |  | 5ST3056       |
| Power with ARD                                       | 12 ... 30 V AC, 12 ... 48 V DC    |  |             |  | 5ST3057       |
|                                                      | 177 ... 270 V AC                  |  |             |  | 5ST3058       |
| Power with extended function                         | 12 ... 30 V AC, 12 ... 48 V DC    |  |             |  | 5ST3070       |
|                                                      | 170 ... 277 V AC, 77 ... 286 V DC |  |             |  | 5ST3071       |
| Adapters for remote control mechanisms (RC mech.)    |                                   |  | Article No. |  |               |
| 2 MW                                                 |                                   |  |             |  | 5ST3820-5     |
| Arc fault detection units (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     |

# 5SU1 RCBOs

Type A and AC, 4-pole

|                                 | Instantaneous                                                                     |               | Selective [S]                                                                      |               |
|---------------------------------|-----------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------|---------------|
| Rated voltage $U_n$             | 400 V AC                                                                          |               | 400 V AC                                                                           |               |
| Mounting width                  | 11 MW                                                                             |               | 11 MW                                                                              |               |
| Short-circuit breaking capacity | 10 kA                                                                             |               | 10 kA                                                                              |               |
|                                 |  |               |  |               |
| $I_n$                           | Characteristic                                                                    |               | Characteristic                                                                     |               |
|                                 | B                                                                                 | C             | B                                                                                  | C             |
|                                 |                                                                                   |               |                                                                                    |               |
| 125 A                           | 5SU1344-6KK82                                                                     | 5SU1344-7KK82 | –                                                                                  | –             |
| 125 A                           | 5SU1644-6KK82                                                                     | 5SU1644-7KK82 | 5SU1644-6WK82                                                                      | 5SU1644-7WK82 |
| 125 A                           | –                                                                                 | –             | 5SU1844-6WK82                                                                      | 5SU1844-7WK82 |
|                                 |                                                                                   |               |                                                                                    |               |
| 125 A                           | 5SU1344-0KK82                                                                     | 5SU1344-1KK82 | –                                                                                  | –             |
| 125 A                           | 5SU1644-0KK82                                                                     | 5SU1644-1KK82 | –                                                                                  | –             |

## Mounting concept



AS Auxiliary switch  
FC Fault signal contact  
AS+FC Auxiliary switch and fault signal contact

[See page 4/58](#)  
[See page 4/60](#)  
[See page 4/61](#)

ST Shunt trips  
UR Undervoltage release

[See page 4/64](#)  
[See page 4/65](#)

## Type B and B+, 4-pole

| Rated voltage $U_n$<br>Mounting width<br>Short-circuit breaking capacity | Super resistant [K]                                                               |               | Selective [S]                                                                       |                |               |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|----------------|---------------|
|                                                                          | 400 V AC                                                                          |               | 480 V AC                                                                            |                |               |
|                                                                          | 11 MW                                                                             |               | 11 MW                                                                               |                |               |
|                                                                          | 10 kA                                                                             |               | 10 kA                                                                               |                |               |
|                                                                          |  |               |  |                |               |
| $I_n$                                                                    | Characteristic                                                                    |               | Characteristic                                                                      | Characteristic |               |
|                                                                          | C                                                                                 | D             | C                                                                                   | C              | D             |
|                                                                          |                                                                                   |               |                                                                                     |                |               |
| 100 A                                                                    | 5SU1374-7AK81                                                                     | 5SU1374-8AK81 | –                                                                                   | –              | –             |
| 125 A                                                                    | 5SU1374-7AK82                                                                     | –             | –                                                                                   | –              | –             |
| 100 A                                                                    | 5SU1674-7AK81                                                                     | 5SU1674-8AK81 | 5SU1674-7CK81                                                                       | –              | 5SU1674-8BK81 |
| 125 A                                                                    | 5SU1674-7AK82                                                                     | –             | 5SU1674-7CK82                                                                       | 5SU1674-7BK82  | –             |
|                                                                          |                                                                                   |               |                                                                                     |                |               |
| 100 A                                                                    | 5SU1374-7DK81                                                                     | 5SU1374-8DK81 | –                                                                                   | –              | –             |
| 125 A                                                                    | 5SU1374-7DK82                                                                     | –             | –                                                                                   | –              | –             |
| 100 A                                                                    | 5SU1674-7DK81                                                                     | 5SU1674-8DK81 | 5SU1674-7FK81                                                                       | –              | 5SU1674-8EK81 |
| 125 A                                                                    | 5SU1674-7DK82                                                                     | –             | 5SU1674-7FK82                                                                       | 5SU1674-7EK82  | –             |

4

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |
| Shunt trips (ST)                                     |                            | Article No.   |
| 110 ... 415 V AC, 110 ... 220 V DC                   |                            | 5ST3030       |
| 24 ... 48 V AC/DC                                    |                            | 5ST3031       |
| 12 V DC                                              |                            | 5ST3031-0XX01 |
| Undervoltage releases (UR)                           |                            | Article No.   |
| With integrated auxiliary switch                     | 230 V AC                   | 5ST3040       |
|                                                      | 110 V DC                   | 5ST3041       |
|                                                      | 24 V DC                    | 5ST3042       |
| Without integrated auxiliary switch                  | 230 V AC                   | 5ST3043       |
|                                                      | 110 V DC                   | 5ST3044       |
|                                                      | 24 V DC                    | 5ST3045       |

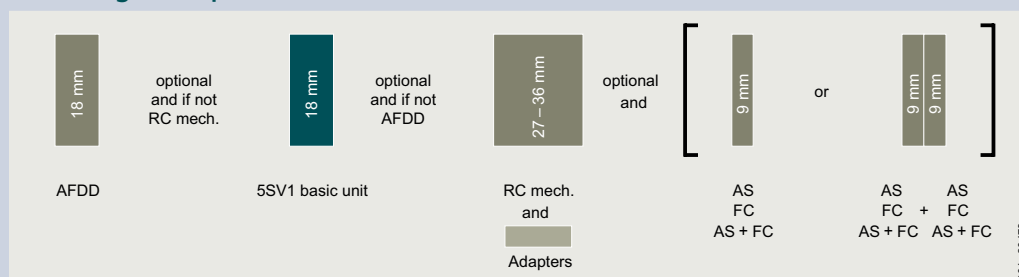
# 5SV1 RCBOs

Type A, 1P + N

|                                 | Instantaneous                                                                     | Short-time delayed [G],<br>Super resistant [K]                                    |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Rated voltage $U_n$             | 230 V AC                                                                          | 230 V AC                                                                          |
| Mounting width                  | 1 MW                                                                              | 1 MW                                                                              |
| Short-circuit breaking capacity | 4.5 kA                                                                            | 6 kA                                                                              |
| N connection                    | Right                                                                             | Right                                                                             |
|                                 |  |  |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging<br>(12 units) | Characteristic<br>B | Characteristic<br>C | Characteristic<br>B | Characteristic<br>C | Characteristic<br>B | Characteristic<br>C |
|----------------|-------|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Typ 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       | 5SV1316-6LK06       | 5SV1316-7LK06       |
|                | ■     | –                            | –                   | 5SV1316-6GV06       | 5SV1316-7GV06       | –                   | –                   | –                   |
|                | 10 A  | –                            | 5SV1313-6KK10       | 5SV1313-7KK10       | 5SV1316-6KK10       | 5SV1316-7KK10       | 5SV1316-6LK10       | 5SV1316-7LK10       |
|                | ■     | –                            | –                   | 5SV1316-6GV10       | 5SV1316-7GV10       | –                   | –                   | –                   |
|                | 13 A  | –                            | 5SV1313-6KK13       | 5SV1313-7KK13       | 5SV1316-6KK13       | 5SV1316-7KK13       | 5SV1316-6LK13       | 5SV1316-7LK13       |
|                | ■     | –                            | –                   | 5SV1316-6GV13       | 5SV1316-7GV13       | –                   | –                   | –                   |
| 300 mA         | 16 A  | –                            | 5SV1313-6KK16       | 5SV1313-7KK16       | 5SV1316-6KK16       | 5SV1316-7KK16       | 5SV1316-6LK16       | 5SV1316-7LK16       |
|                | ■     | –                            | –                   | 5SV1316-6GV16       | 5SV1316-7GV16       | –                   | –                   | –                   |
|                | 2 A   | –                            | –                   | 5SV1613-7KK02       | –                   | 5SV1616-7KK02       | –                   | –                   |
|                | 4 A   | –                            | –                   | 5SV1613-7KK04       | –                   | 5SV1616-7KK04       | –                   | –                   |
|                | 6 A   | –                            | 5SV1613-6KK06       | 5SV1613-7KK06       | 5SV1616-6KK06       | 5SV1616-7KK06       | –                   | –                   |
|                | 10 A  | –                            | 5SV1613-6KK10       | 5SV1613-7KK10       | 5SV1616-6KK10       | 5SV1616-7KK10       | –                   | –                   |
|                | 13 A  | –                            | 5SV1613-6KK13       | 5SV1613-7KK13       | 5SV1616-6KK13       | 5SV1616-7KK13       | –                   | –                   |
|                | 16 A  | –                            | 5SV1613-6KK16       | 5SV1613-7KK16       | 5SV1616-6KK16       | 5SV1616-7KK16       | –                   | –                   |

## Mounting concept



AFDD Arc fault detection units  
AS Auxiliary switch  
FC Fault signal contact

[See page 4/52](#)  
[See page 4/58](#)  
[See page 4/60](#)

AS+FC Auxiliary switch and fault signal contact  
RC mech. Remote control mechanism

[See page 4/61](#)  
[See page 4/66](#)

## Type F and AC, 1P + N

|                                 | Instantaneous                                                                     | Super resistant [K]                                                               |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Rated voltage $U_n$             | 230 V AC                                                                          | 230 V AC                                                                          |
| Mounting width                  | 1 MW                                                                              | 1 MW                                                                              |
| Short-circuit breaking capacity | 4.5 kA                                                                            | 6 kA                                                                              |
| N connection                    | Right                                                                             | Right                                                                             |
|                                 |  |  |

| $I_{\Delta n}$ | $I_n$ | Bulk packaging<br>(12 units) | Characteristic<br>C | Characteristic<br>B | Characteristic<br>C | Characteristic<br>B | Characteristic<br>C |
|----------------|-------|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Type F</b>  |       |                              |                     |                     |                     |                     |                     |
| 30 mA          | 6 A   | –                            | –                   | –                   | –                   | 5SV1316-3KK06       | 5SV1316-4KK06       |
|                | 10 A  | –                            | –                   | –                   | –                   | 5SV1316-3KK10       | 5SV1316-4KK10       |
|                | 13 A  | –                            | –                   | –                   | –                   | 5SV1316-3KK13       | 5SV1316-4KK13       |
|                | 16 A  | –                            | –                   | –                   | –                   | 5SV1316-3KK16       | 5SV1316-4KK16       |
| <b>Type AC</b> |       |                              |                     |                     |                     |                     |                     |
| 30 mA          | 2 A   | –                            | 5SV1313-1KK02       | –                   | 5SV1316-1KK02       | –                   | –                   |
|                | 4 A   | –                            | 5SV1313-1KK04       | –                   | 5SV1316-1KK04       | –                   | –                   |
|                | 6 A   | –                            | 5SV1313-1KK06       | 5SV1316-0KK06       | 5SV1316-1KK06       | –                   | –                   |
|                | 10 A  | –                            | 5SV1313-1KK10       | 5SV1316-0KK10       | 5SV1316-1KK10       | –                   | –                   |
|                | ■     | –                            | 5SV1313-1GV10       | –                   | 5SV1316-1GV10       | –                   | –                   |
|                | 13 A  | –                            | 5SV1313-1KK13       | 5SV1316-0KK13       | 5SV1316-1KK13       | –                   | –                   |
|                | 16 A  | –                            | 5SV1313-1KK16       | 5SV1316-0KK16       | 5SV1316-1KK16       | –                   | –                   |
|                | ■     | –                            | 5SV1313-1GV16       | –                   | 5SV1316-1GV16       | –                   | –                   |
| 300 mA         | 2 A   | –                            | 5SV1613-1KK02       | –                   | 5SV1616-1KK02       | –                   | –                   |
|                | 4 A   | –                            | 5SV1613-1KK04       | –                   | 5SV1616-1KK04       | –                   | –                   |
|                | 6 A   | –                            | 5SV1613-1KK06       | 5SV1616-0KK06       | 5SV1616-1KK06       | –                   | –                   |
|                | 10 A  | –                            | 5SV1613-1KK10       | 5SV1616-0KK10       | 5SV1616-1KK10       | –                   | –                   |
|                | 13 A  | –                            | 5SV1613-1KK13       | 5SV1616-0KK13       | 5SV1616-1KK13       | –                   | –                   |
|                | 16 A  | –                            | 5SV1613-1KK16       | 5SV1616-0KK16       | 5SV1616-1KK16       | –                   | –                   |

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

| Remote control mechanisms (RC mech.)              |                                   | Article No. |
|---------------------------------------------------|-----------------------------------|-------------|
| Basic                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3053     |
|                                                   | 177 ... 270 V AC                  | 5ST3054     |
| Power                                             | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3055     |
|                                                   | 177 ... 270 V AC                  | 5ST3056     |
| Power with ARD                                    | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3057     |
|                                                   | 177 ... 270 V AC                  | 5ST3058     |
| Power with extended function                      | 12 ... 30 V AC, 12 ... 48 V DC    | 5ST3070     |
|                                                   | 170 ... 277 V AC, 77 ... 286 V DC | 5ST3071     |
| Adapters for remote control mechanisms (RC mech.) |                                   | Article No. |
| 1 MW                                              |                                   | 5ST3820-6   |
| Arc fault detection units (AFDD)                  |                                   | Article No. |
| For 5SV1 basic units                              | $I_n$ up to 16 A                  | 5SM6011-2   |

# 5SM6 arc fault detection units

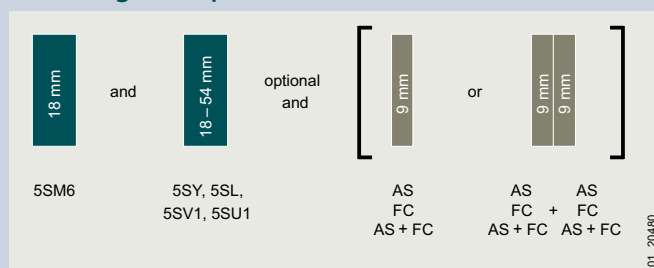
For combination with an MCB or RCBO



| For combination with basic units |                                                             |                   | Rated current $I_n$ |           |
|----------------------------------|-------------------------------------------------------------|-------------------|---------------------|-----------|
| Width of basic unit              | Miniature circuit breakers                                  | RCBO              |                     |           |
| 1 MW                             | 5SL60 (no KL types)                                         | 5SV1              | Up to 16 A          | 5SM6011-2 |
|                                  |                                                             |                   | Up to 40 A          | 5SM6014-2 |
| 2 MW                             | 5SY <sup>1)</sup> , 5SL4<br>(only 1+N devices, not compact) | 5SU1 (2 MW, 3 MW) | Up to 16 A          | 5SM6021-2 |
|                                  |                                                             |                   | Up to 40 A          | 5SM6024-2 |

<sup>1)</sup> Not suitable for use with 5SY5 or 5SY8

## Mounting concept



AS Auxiliary switch

FC Fault signal contact

AS+FC Auxiliary switch and fault signal contact

[See page 4/58](#)

[See page 4/60](#)

[See page 4/61](#)

The mounting concept shown is only one example of how devices and accessories can be combined.

## Accessories

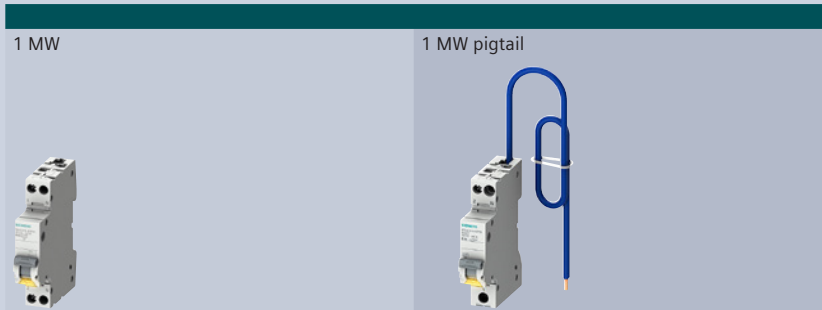
| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

See suitable busbars, from page 4/70 onwards

See suitable terminals and end caps, from page 4/70 onwards

# 5SV6 AFDD/MCB

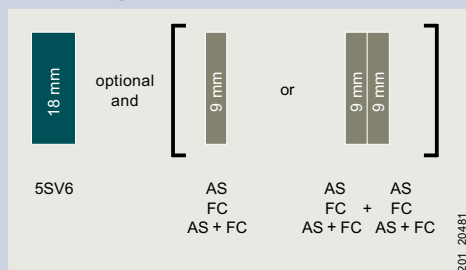
Mounting width



| Rated current $I_n$ | Bulk packaging<br>(12 units) | Characteristic |               | Characteristic |               |
|---------------------|------------------------------|----------------|---------------|----------------|---------------|
|                     |                              | B              | C             | B              | C             |
| 6 A                 | —                            | 5SV6016-6KK06  | 5SV6016-7KK06 | 5SV6016-6KP06  | 5SV6016-7KP06 |
|                     | ■                            | 5SV6016-6GV06  | 5SV6016-7GV06 | —              | —             |
| 10 A                | —                            | 5SV6016-6KK10  | 5SV6016-7KK10 | 5SV6016-6KP10  | 5SV6016-7KP10 |
|                     | ■                            | 5SV6016-6GV10  | 5SV6016-7GV10 | —              | —             |
| 13 A                | —                            | 5SV6016-6KK13  | 5SV6016-7KK13 | 5SV6016-6KP13  | 5SV6016-7KP13 |
|                     | ■                            | 5SV6016-6GV13  | —             | —              | —             |
| 16 A                | —                            | 5SV6016-6KK16  | 5SV6016-7KK16 | 5SV6016-6KP16  | 5SV6016-7KP16 |
|                     | ■                            | 5SV6016-6GV16  | 5SV6016-7GV16 | —              | —             |
| 20 A                | —                            | 5SV6016-6KK20  | 5SV6016-7KK20 | 5SV6016-6KP20  | 5SV6016-7KP20 |
| 25 A                | —                            | 5SV6016-6KK25  | 5SV6016-7KK25 | 5SV6016-6KP25  | 5SV6016-7KP25 |
|                     | ■                            | 5SV6016-6GV25  | —             | —              | —             |
| 32 A                | —                            | 5SV6016-6KK32  | 5SV6016-7KK32 | 5SV6016-6KP32  | 5SV6016-7KP32 |
| 40 A                | —                            | 5SV6016-6KK40  | 5SV6016-7KK40 | 5SV6016-6KP40  | 5SV6016-7KP40 |

4

## Mounting concept



- AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)

## Accessories

| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

See suitable busbars, from page 4/70 onwards  
 See suitable terminals and end caps, from page 4/70 onwards

# 5SV6 COM AFDD/MCB

With communication and measuring function

Mounting width 1 MW

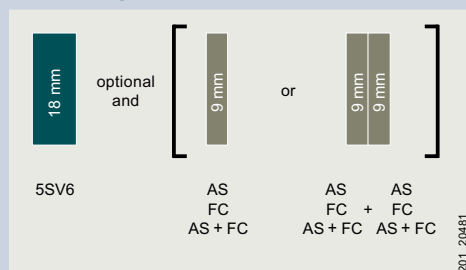


| Rated current $I_n$ | Characteristic |               |
|---------------------|----------------|---------------|
|                     | B              | C             |
| 6 A                 | 5SV6016-6MC06  | 5SV6016-7MC06 |
| 10 A                | 5SV6016-6MC10  | 5SV6016-7MC10 |
| 13 A                | 5SV6016-6MC13  | 5SV6016-7MC13 |
| 16 A                | 5SV6016-6MC16  | 5SV6016-7MC16 |
| 20 A                | 5SV6016-6MC20  | 5SV6016-7MC20 |
| 25 A                | 5SV6016-6MC25  | 5SV6016-7MC25 |
| 32 A                | 5SV6016-6MC32  | 5SV6016-7MC32 |

## Note:

Please note the country-specific radio licenses of the products at [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates) (109801197)

## Mounting concept



AS Auxiliary switch [See page 4/58](#)  
 FC Fault signal contact [See page 4/60](#)  
 AS+FC Auxiliary switch and fault signal contact [See page 4/61](#)

## Accessories

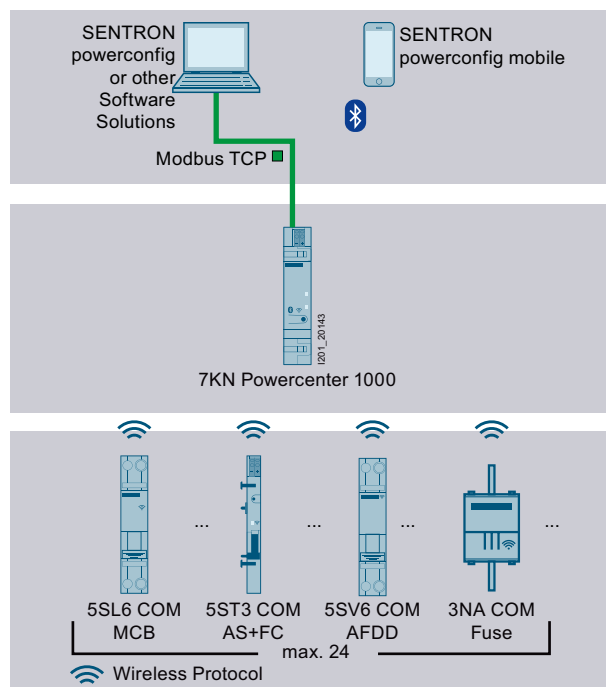
| Auxiliary switches (AS)                              |                            | Article No.   |
|------------------------------------------------------|----------------------------|---------------|
| 1 NO + 1 NC                                          | Standard                   | 5ST3010       |
|                                                      | For low power              | 5ST3013       |
|                                                      | For low power (with diode) | 5ST3013-0XX01 |
| 2 NO                                                 | Standard                   | 5ST3011       |
|                                                      | For low power              | 5ST3014       |
| 2 NC                                                 | Standard                   | 5ST3012       |
|                                                      | For low power              | 5ST3015       |
| 1 CO                                                 | Standard                   | 5ST3016       |
| Fault signal contacts (FC)                           |                            | Article No.   |
| 1 NO + 1 NC                                          |                            | 5ST3020       |
| 2 NO                                                 |                            | 5ST3021       |
| 2 NC                                                 |                            | 5ST3022       |
| Auxiliary switches and fault signal contacts (AS+FC) |                            | Article No.   |
| 1 CO (AS) + 1 CO (FC)                                |                            | 5ST3062       |
| 5ST3 COM (AS+FC)                                     |                            | 5ST3062-0MC   |

See suitable busbars, from page 4/75 onwards

See suitable terminals and end caps, from page 4/72 onwards



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000

Article No.

7KN1110-0MC00

See page 10/20

You will find further information at  
[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

Installation Manual – Circuit protection devices with communication and measuring function (109791805)



System Manual – Circuit protection devices with communication and measuring function (109791806)



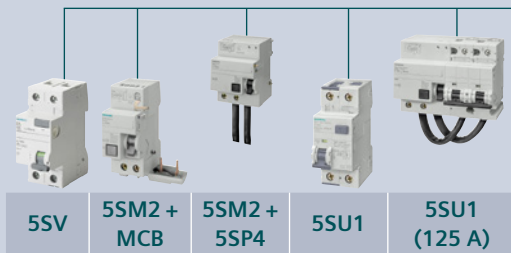
## Monitoring functions with limit monitoring

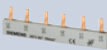
- Switching state with trip monitoring: short-circuit, overload, arc fault
- Counters incl. limit monitoring for:
  - Operating hours
  - Operating hours with load current
  - Operating cycles (ON/OFF)
  - Tripping operations
  - Short circuits
- Limit values for:
  - Overcurrent alarm 1 and alarm 2
  - Undercurrent alarm 1 and alarm 2
  - Overvoltage alarm 1 and alarm 2
  - Undervoltage alarm 1 and alarm 2
  - Lower voltage threshold for AFDD tripping
  - Temperature

| Measured values          | Unit | Memory                                                                                          |
|--------------------------|------|-------------------------------------------------------------------------------------------------|
| Temperature              | °C   | 1 hour in 1-minute intervals; 7 days in 15-minute intervals                                     |
| Average temperature      | °C   | –                                                                                               |
| Current                  | A    | Min. and max. values over 10 days; 1 hour in 10-second intervals; 7 days in 15-minute intervals |
| Average current          | A    | –                                                                                               |
| Maximum current          | A    | –                                                                                               |
| Voltage                  | V    | Min. and max. values over 10 days                                                               |
| Line frequency           | Hz   | Min. and max. values over 10 days                                                               |
| Active power             | W    | Min. and max. values over 10 days                                                               |
| Apparent power           | VA   | Min. and max. values over 10 days                                                               |
| Reactive power           | Var  | –                                                                                               |
| Power factor             | –    | –                                                                                               |
| Active energy imported   | Wh   | 7 days in 15-minute intervals; 30 days in 1-day intervals                                       |
| Active energy exported   | Wh   | –                                                                                               |
| Reactive energy imported | Varh | –                                                                                               |
| Reactive energy exported | Varh | –                                                                                               |

# Overview of the modular system

## Residual current protective devices



| 5SM6 arc fault detection units                                                      |                                     |                                           | 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 + 1 NC                         | Standard                                  | 5ST3010       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     |                                     | For low power                             | 5ST3013       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     |                                     | For low power (with diode)                | 5ST3013-0XX01 | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 2 NO                                | Standard                                  | 5ST3011       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     |                                     | For low power                             | 5ST3014       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 2 NC                                | Standard                                  | 5ST3012       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     |                                     | For low power                             | 5ST3015       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 1 CO                                | Standard                                  | 5ST3016       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     |                                     |                                           | 5ST1010-0FP   | – | – | – | – | – |
| 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       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 5ST3 COM (AS+FC)                    | With communication and measuring function | 5ST3062-OMC   | ■ | ■ | ■ | ■ | ■ |
| Shunt trips (ST)                                                                    |                                     |                                           | Article No.   |   |   |   |   |   |
|  | 110 ... 415 V AC, 110 ... 220 V DC  |                                           | 5ST3030       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 24 ... 48 V AC / DC                 |                                           | 5ST3031       | ■ | ■ | ■ | ■ | ■ |
|                                                                                     | 12 V DC                             |                                           | 5ST3031-0XX01 | ■ | ■ | ■ | ■ | ■ |
| 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 control mechanisms (RC mech.)                                                |                                     |                                           | Article No.   |   |   |   |   |   |
|  | Basic                               | 12 ... 30 V AC, 12 ... 48 V DC            | 5ST3053       | – | – | – | ■ | – |
|                                                                                     |                                     | 177 ... 270 V AC                          | 5ST3054       | – | – | – | ■ | – |
|                                                                                     | Power                               | 12 ... 30 V AC, 12 ... 48 V DC            | 5ST3055       | ■ | ■ | – | ■ | – |
|                                                                                     |                                     | 177 ... 270 V AC                          | 5ST3056       | ■ | ■ | – | ■ | – |
|                                                                                     | Power with ARD                      | 12 ... 30 V AC, 12 ... 48 V DC            | 5ST3057       | ■ | ■ | – | ■ | – |
|                                                                                     |                                     | 177 ... 270 V AC                          | 5ST3058       | ■ | ■ | – | ■ | – |
|                                                                                     | Power with extended function        | 12 ... 30 V AC, 12 ... 48 V DC            | 5ST3070       | ■ | ■ | – | ■ | – |
|                                                                                     |                                     | 170 ... 277 V AC, 77 ... 286 V DC         | 5ST3071       | ■ | – | – | ■ | – |
| 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

■ Suitable for all versions

□ Suitable for some versions



# Electrical accessories

## Auxiliary switches (AS)



- Signals the contact position of the mounted device
- Version for the switching of small currents and voltages according to EN 61131-2 for control of programmable control systems (PLCs)
- Test button enables the testing of control circuits without the need to switch the mounted device

| For combining with basic units                  |                                      |                           |                              |                                   |                    | Contacts    | Version                       | Mounting width<br>(1 MW = 18 mm) | Article No.   |
|-------------------------------------------------|--------------------------------------|---------------------------|------------------------------|-----------------------------------|--------------------|-------------|-------------------------------|----------------------------------|---------------|
| Miniature<br>circuit<br>breakers                | Circuit<br>breakers for<br>equipment | RCCBs                     | RCBOs                        | Arc fault<br>detection<br>devices | ON/OFF<br>switches |             |                               |                                  |               |
| <b>Auxiliary switches (AS)</b>                  |                                      |                           |                              |                                   |                    |             |                               |                                  |               |
| –                                               | –                                    | 5SM3 (3P+N,<br>100/125 A) | –                            | –                                 | –                  | 1 NO + 1 NC | Standard                      | 0.5 MW                           | 5SW3330       |
| 5SL, 5SY,<br>5SP4, 5SP5                         | 5SY17                                | 5SV                       | 5SU1 <sup>1)</sup> ,<br>5SV1 | 5SV6                              | 5TL1, 5TE8         | 1 NO + 1 NC | Standard                      | 0.5 MW                           | 5ST3010       |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3013       |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power<br>(with diode) | 0.5 MW                           | 5ST3013-0XX01 |
|                                                 |                                      |                           |                              |                                   |                    | 2 NO        | Standard                      | 0.5 MW                           | 5ST3011       |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3014       |
|                                                 |                                      |                           |                              |                                   |                    | 2 NC        | Standard                      | 0.5 MW                           | 5ST3012       |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3015       |
|                                                 |                                      |                           |                              |                                   |                    | 1 CO        | Standard                      | 0.5 MW                           | 5ST3016       |
| –                                               | –                                    | –                         | 5SU1...<br>FP/FR             | –                                 | –                  | 1 CO        | Standard                      | 0.5 MW                           | 5ST1010-0FP   |
| <b>Auxiliary switches (AS) with TEST button</b> |                                      |                           |                              |                                   |                    |             |                               |                                  |               |
| 5SL, 5SY,<br>5SP4, 5SP5                         | 5SY17                                | 5SV                       | 5SU1 <sup>1)</sup> ,<br>5SV1 | 5SV6                              | 5TL1, 5TE8         | 1 NO + 1 NC | Standard                      | 0.5 MW                           | 5ST3010-2     |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3013-2     |
|                                                 |                                      |                           |                              |                                   |                    | 2 NO        | Standard                      | 0.5 MW                           | 5ST3011-2     |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3014-2     |
|                                                 |                                      |                           |                              |                                   |                    | 2 NC        | Standard                      | 0.5 MW                           | 5ST3012-2     |
|                                                 |                                      |                           |                              |                                   |                    |             | For low power                 | 0.5 MW                           | 5ST3015-2     |

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

| Further technical specifications                          |                        | 5ST3010,<br>5ST3011,<br>5ST3012,<br>5ST3016          | 5ST3010-2,<br>5ST3011-2,<br>5ST3012-2 | 5ST3013,<br>5ST3014,<br>5ST3015,<br>5ST3013-0XX01 <sup>1)</sup> | 5ST3013-2,<br>5ST3014-2,<br>5ST3015-2 | 5SW3330                    | 5ST1010-0FP    |                  |
|-----------------------------------------------------------|------------------------|------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------|---------------------------------------|----------------------------|----------------|------------------|
| Standards                                                 |                        |                                                      |                                       |                                                                 |                                       |                            |                |                  |
| Standards                                                 |                        | IEC/EN                                               | IEC/EN 62019, IEC/EN 60947-5-1        |                                                                 |                                       | IEC/EN 62019               |                |                  |
|                                                           |                        | UL, CSA                                              | UL 1077,<br>CSA C22.2<br>No. 235      | –                                                               | UL 1077,<br>CSA C22.2 No. 235         | –                          |                |                  |
| Contacts                                                  |                        |                                                      |                                       |                                                                 |                                       |                            |                |                  |
| Minimum contact load                                      |                        |                                                      | 50 mA,<br>24 V                        |                                                                 | 1 mA,<br>5 V DC                       | 5 mA,<br>5 V DC            | 50 mA,<br>24 V | 5 mA,<br>24 V DC |
| Maximum contact load                                      |                        |                                                      | –                                     |                                                                 | 100 mA,<br>30 V DC                    | 50 mA,<br>30 V DC          | –              |                  |
| Contact load acc. to IEC/EN 62019 and<br>IEC/EN 60947-5-1 | 230 V AC, AC-12        | –                                                    |                                       |                                                                 |                                       | 5/–                        | 6 A/–          |                  |
|                                                           | 230 V AC, AC-13        | 6 A/6 A                                              |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 400 V AC, AC-13        | 2 A/2 A                                              |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 230 V AC, AC-14        | 6 A/6 A                                              |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 400 V AC, AC-14        | 2 A/2 A                                              |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 24 V DC, DC-13         | 6 A/3 A                                              |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 30 V DC, DC-14         | –                                                    |                                       | 0.1 A                                                           | –                                     |                            |                |                  |
|                                                           | 60 V DC, DC-13         | 3 A/1.5 A                                            |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 110 V DC, DC-13        | 1 A/0.75 A                                           |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 220 V DC, DC-12        | –                                                    |                                       |                                                                 |                                       | 0.5/–                      | 1 A/–          |                  |
| Contact load acc. to UL                                   | 220 V DC, DC-13        | 1 A/0.5 A                                            |                                       | –                                                               |                                       |                            |                |                  |
|                                                           | 120 V AC               | –                                                    |                                       |                                                                 |                                       |                            |                |                  |
|                                                           | 125 V AC               | 3 A                                                  | –                                     |                                                                 |                                       |                            |                |                  |
|                                                           | 240 V AC               | 4 A                                                  | –                                     |                                                                 |                                       |                            |                |                  |
|                                                           | 277 V AC               | –                                                    |                                       |                                                                 |                                       |                            |                |                  |
|                                                           | 480 V AC               | –                                                    |                                       |                                                                 |                                       |                            |                |                  |
|                                                           | 60 V DC                | –                                                    |                                       |                                                                 |                                       |                            |                |                  |
|                                                           | 125 V DC               | 1.1 A                                                | –                                     |                                                                 |                                       |                            |                |                  |
| 250 V DC                                                  | 0.55 A                 | –                                                    |                                       |                                                                 |                                       |                            |                |                  |
| Service life, on average, with rated load                 | Actuations             | 20000                                                |                                       |                                                                 |                                       | –                          | 8000           |                  |
| Safety                                                    |                        |                                                      |                                       |                                                                 |                                       |                            |                |                  |
| Short-circuit protection                                  |                        | Miniature circuit breakers 5SY... 6 A or gG 6 A fuse |                                       |                                                                 |                                       | B6 or C6 or gL/gG 6 A fuse |                |                  |
| Connections                                               |                        |                                                      |                                       |                                                                 |                                       |                            |                |                  |
| Conductor cross-sections                                  |                        | 0.5 ... 2.5 mm² (AWG 22 ... 14)                      |                                       |                                                                 |                                       | 0.75 ... 2.5 mm²           |                |                  |
| Terminals                                                 | Max. tightening torque | 0.5 Nm (4.5 lb-in)                                   |                                       |                                                                 |                                       | –                          | 0.6 Nm         |                  |
| Ambient conditions                                        |                        |                                                      |                                       |                                                                 |                                       |                            |                |                  |
| Permissible ambient temperature                           |                        | –40 ... +70 °C                                       |                                       |                                                                 |                                       | –25 ... +60 °C             |                |                  |
| Permissible storage temperature                           |                        | –40 ... +75 °C                                       |                                       |                                                                 |                                       | –40 ... +70 °C             |                |                  |
| Resistance to climate                                     | Acc. to IEC 60068-2-30 | 28 cycles                                            |                                       |                                                                 |                                       |                            |                |                  |
| Mounting position                                         |                        | Any                                                  |                                       |                                                                 |                                       |                            |                |                  |
| Shock at 11 ms half-sine                                  | Acc. to IEC 60068-2-27 | 150 m/s²                                             |                                       |                                                                 |                                       | –                          |                |                  |
| Resistance to vibrations at 10 ... 150 Hz                 | Acc. to IEC 60068-2-6  | 50 m/s²                                              |                                       |                                                                 |                                       | –                          |                |                  |

<sup>1)</sup> No approvals

# Electrical accessories

## Fault signal contacts (FC)



- Signals automatic tripping of the circuit protection 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 mounted circuit protection device is tripped manually
- Version with TEST and RESET buttons enables the testing of control circuits without operation of the circuit protection device
- Red RESET button in the operating handle indicates automatic tripping of the mounted circuit protection device

| For combining with basic units                         |                                |       |                           |                             | Contacts    | Mounting width<br>(1 MW = 18 mm) | Article No. |
|--------------------------------------------------------|--------------------------------|-------|---------------------------|-----------------------------|-------------|----------------------------------|-------------|
| Miniature circuit breakers                             | Circuit breakers for equipment | RCCBs | RCBOs                     | Arc fault detection devices |             |                                  |             |
| Fault signal contacts (FC)                             |                                |       |                           |                             |             |                                  |             |
| 5SL, 5SY, 5SP4, 5SP5                                   | 5SY17                          | 5SV   | 5SU1 <sup>1)</sup> , 5SV1 | 5SV6                        | 1 NO + 1 NC | 0.5 MW                           | 5ST3020     |
|                                                        |                                |       |                           |                             | 2 NO        | 0.5 MW                           | 5ST3021     |
|                                                        |                                |       |                           |                             | 2 NC        | 0.5 MW                           | 5ST3022     |
| Fault signal contacts (FC) with TEST and RESET buttons |                                |       |                           |                             |             |                                  |             |
| 5SL, 5SY, 5SP4, 5SP5                                   | 5SY17                          | 5SV   | 5SU1 <sup>1)</sup> , 5SV1 | 5SV6                        | 1 NO + 1 NC | 0.5 MW                           | 5ST3020-2   |
|                                                        |                                |       |                           |                             | 2 NO        | 0.5 MW                           | 5ST3021-2   |
|                                                        |                                |       |                           |                             | 2 NC        | 0.5 MW                           | 5ST3022-2   |

<sup>1)</sup> 5ST3805-1 handle coupler required

## Further technical specifications

| 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 acc. to IEC/EN 62019/IEC/EN 60947-5-1 | 230 V AC, AC-13        | 6 A/6 A                                     |   |
|                                                    | 400 V AC, AC-13        | 6 A/6 A                                     |   |
|                                                    | 230 V AC, AC-14        | 2 A/2A                                      |   |
|                                                    | 400 V AC, AC-14        | 2 A/2A                                      |   |
|                                                    | 24 V DC, DC-13         | 6 A/3 A                                     |   |
|                                                    | 60 V DC, DC-13         | 3 A/1.5 A                                   |   |
|                                                    | 110 V DC, DC-13        | 1 A/0.75 A                                  |   |
|                                                    | 220 V DC, DC-13        | 1 A/0.5 A                                   |   |
| Contact load acc. to UL                            | 120 V AC               | –                                           |   |
|                                                    | 125 V AC               | 3 A                                         | – |
|                                                    | 240 V AC               | 4 A                                         | – |
|                                                    | 277 V AC               | –                                           |   |
|                                                    | 480 V AC               | 1.5 A                                       | – |
|                                                    | 60 V DC                | –                                           |   |
|                                                    | 125 V DC               | 1.1 A                                       | – |
|                                                    | 250 V DC               | 0.55 A                                      | – |
| Service life, on average, with rated load          | Actuations             | 20000                                       |   |
| Safety                                             |                        |                                             |   |
| Short-circuit protection                           |                        | Miniature circuit breaker or gG 6 A fuse    |   |
| Connections                                        |                        |                                             |   |
| Conductor cross-sections                           |                        | 0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14) |   |
| Terminals                                          | Max. tightening torque | 0.5 Nm (4.5 lb-in)                          |   |
| Ambient conditions                                 |                        |                                             |   |
| Permissible ambient temperature                    |                        | –25 ... +55 °C                              |   |
| Permissible storage temperature                    |                        | –40 ... +75 °C                              |   |
| Resistance to climate                              | Acc. to IEC 60068-2-30 | 28 cycles                                   |   |
| Mounting position                                  |                        | Any                                         |   |
| Shock at 11 ms half-sine                           | Acc. to IEC 60068-2-27 | 150 m/s <sup>2</sup>                        |   |
| Resistance to vibration at 10 ... 150 Hz           | Acc. to IEC 60068-2-6  | 50 m/s <sup>2</sup>                         |   |



## Auxiliary switches and fault signal contacts (AS+FC)

- Combines the function of both switches in a width of only 0.5 MW (9 mm)
- Signals the contact position of the mounted circuit protection device
- Signals automatic tripping of the circuit protection 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 mounted circuit protection device is tripped manually

| For combining with basic units                       |                                |       |                           |                             | Contacts              | Mounting width<br>(1 MW = 18 mm) | Article No. |
|------------------------------------------------------|--------------------------------|-------|---------------------------|-----------------------------|-----------------------|----------------------------------|-------------|
| Miniature circuit breakers                           | Circuit breakers for equipment | RCCBs | RCBOs                     | Arc fault detection devices |                       |                                  |             |
| Auxiliary switches and fault signal contacts (AS+FC) |                                |       |                           |                             |                       |                                  |             |
| 5SL, 5SY, 5SP4, 5SP5                                 | 5SY17                          | 5SV   | 5SU1 <sup>1)</sup> , 5SV1 | 5SV6                        | 1 CO (AS) + 1 CO (FC) | 0.5 MW                           | 5ST3062     |

<sup>1)</sup> 5ST3805-1 handle coupler required

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### Further technical specifications

5ST3062

| Standards                                                   |                        |                                                              |
|-------------------------------------------------------------|------------------------|--------------------------------------------------------------|
| Standards                                                   | IEC/EN<br>UL, CSA      | IEC/EN 62019, IEC/EN 60947-5-1<br>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/<br>IEC/EN 60947-5-1 | 230 V AC, AC-13        | 6 A/6 A                                                      |
|                                                             | 400 V AC, AC-14        | 2 A/2 A                                                      |
| Contact load according to IEC/EN 62019/<br>IEC/EN 60947-5-1 | 24 V DC, DC-13         | 3 A/3 A                                                      |
|                                                             | 60 V DC, DC-13         | 3 A/1 A                                                      |
|                                                             | 110 V DC, DC-13        | 0.5 A/0.5 A                                                  |
|                                                             | 220 V DC, DC-13        | 0.5 A/0.3 A                                                  |
| Contact load acc. to UL                                     | 125 V AC               | 2 A                                                          |
|                                                             | 240 V AC               | 1.5 A                                                        |
|                                                             | 480 V AC               | 0.75 A                                                       |
|                                                             | 125 V DC               | 0.5 A                                                        |
|                                                             | 250 V DC               | 0.3 A                                                        |
| Service life, on average, with rated load                   | Actuations             | 20000                                                        |
| Safety                                                      |                        |                                                              |
| Short-circuit protection                                    |                        | Miniature circuit breaker or gG 6 A fuse                     |
| Connections                                                 |                        |                                                              |
| Conductor cross-sections                                    |                        | 0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)                  |
| Terminals                                                   | Max. tightening torque | 0.5 Nm (4.5 lb-in)                                           |
| Ambient conditions                                          |                        |                                                              |
| Permissible ambient temperature                             |                        | –25 ... +55 °C                                               |
| Permissible storage temperature                             |                        | –40 ... +75 °C                                               |
| Resistance to climate                                       | Acc. to IEC 60068-2-30 | 28 cycles                                                    |
| Mounting position                                           |                        | Any                                                          |
| Shock at 11 ms half-sine                                    | Acc. to IEC 60068-2-27 | 150 m/s <sup>2</sup>                                         |
| Resistance to vibrations at 10 ... 150 Hz                   | Acc. to IEC 60068-2-6  | 50 m/s <sup>2</sup>                                          |

# Electrical accessories



## 5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function

- Reports the switching state of the mounted standard circuit protection device (ON, tripped, manual OFF, tripped with locked handle)
- Measures the temperature of the device and counts operating cycles, trips and operating hours
- Communication via radio to 7KN Powercenter 1000 data transceiver
- Plug-in terminals for 24 V DC power supply incl. daisy chain function
- Low space requirements of 0.5 MW (9 mm)

| For combining with basic units                                                                          | Miniature circuit breakers | Circuit breakers for equipment | RCCBs | RCBOs                     | Arc fault detection devices | Communication                      | Mounting width (1 MW = 18 mm) | Article No. |
|---------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------|-------|---------------------------|-----------------------------|------------------------------------|-------------------------------|-------------|
| 5ST3 COM auxiliary switches and fault signal contacts (AS+FC) with communication and measuring function |                            |                                |       |                           |                             |                                    |                               |             |
|                                                                                                         | 5SL, 5SY, 5SP4, 5SP5       | 5SY17                          | 5SV   | 5SU1 <sup>1)</sup> , 5SV1 | 5SV6                        | Radio link to 7KN Powercenter 1000 | 0.5 MW                        | 5ST3062-0MC |

<sup>1)</sup> 5ST3805-1 handle coupler required

### Note:

Please note the country-specific radio licenses of the products at [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates) (109801197)

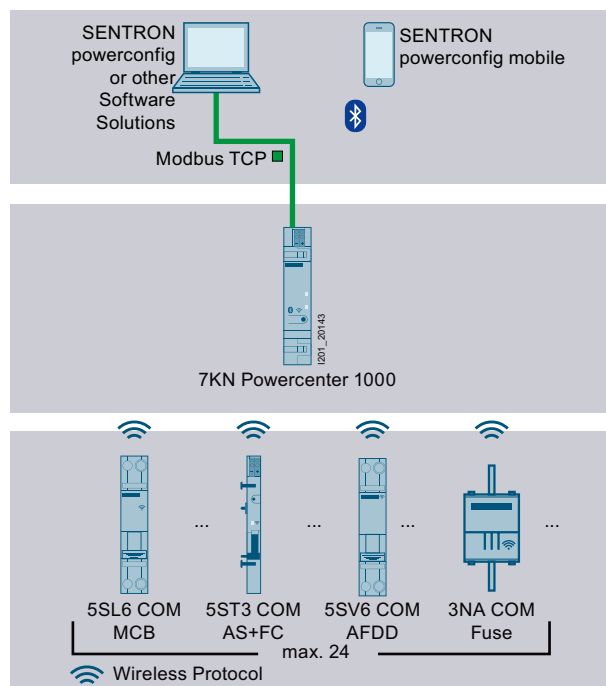
### Further technical specifications

#### 5ST3062-0MC

|                                              |                        |                                                                                                                                 |
|----------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Standards</b>                             |                        |                                                                                                                                 |
| Standards                                    | IEC/EN; UL, CSA        | 60669-2-5                                                                                                                       |
|                                              | RED                    | 2014/53/EU                                                                                                                      |
| <b>Power supply</b>                          |                        |                                                                                                                                 |
| Power supply                                 |                        | 24 V DC ±20%, SELV                                                                                                              |
| Conductor cross-sections                     |                        | 0.2 ... 1.5 mm <sup>2</sup>                                                                                                     |
| Connection type                              |                        | Plug-in terminal                                                                                                                |
| <b>Safety</b>                                |                        |                                                                                                                                 |
| Degree of pollution for overvoltage category |                        | 2/II                                                                                                                            |
| Degree of protection                         |                        | IP40, with front cover                                                                                                          |
| <b>Ambient conditions</b>                    |                        |                                                                                                                                 |
| Permissible ambient temperature              |                        | –25 ... +60 °C                                                                                                                  |
| Permissible storage temperature              |                        | –40 ... +85 °C                                                                                                                  |
| Humidity                                     |                        | 93% at 40 °C                                                                                                                    |
| Resistance to climate                        | Acc. to IEC 60068-2-30 | 28 cycles                                                                                                                       |
| Mounting position                            |                        | Any                                                                                                                             |
| Shock                                        |                        | 150 m/s <sup>2</sup>                                                                                                            |
| Resistance to vibrations at 10 ... 150 Hz    | Acc. to IEC 60068-2-6  | 50 m/s <sup>2</sup>                                                                                                             |
| Service life/endurance                       |                        | 10000                                                                                                                           |
| <b>Communication</b>                         |                        |                                                                                                                                 |
| Interface                                    | 7KN Powercenter 1000   | Radio link                                                                                                                      |
| Temperature                                  |                        | Measuring accuracy of 2 °C with limit monitoring incl. storage (1 hour in 1-minute intervals and 7 days in 15-minute intervals) |
| Operating cycles counters                    |                        | Mechanical operation with limit monitoring                                                                                      |
| Trip counter                                 |                        | Trip of the mounted circuit protection device with limit monitoring                                                             |
| Operating hours counter                      |                        | Operating hours with limit monitoring                                                                                           |



## 7KN Powercenter 1000 data transceiver



- Wireless radio transmission of measured values and data to the 7KN Powercenter 1000 data transceiver
- Commissioning, parameter assignment, firmware updates and further processing of the data via the 7KN Powercenter 1000 data transceiver



7KN Powercenter 1000

Article No.

7KN1110-0MC00

See page 10/20

You will find further information at  
[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

Installation Manual – Circuit protection devices with communication and measuring function (109791805)



System Manual – Circuit protection devices with communication and measuring function (109791806)



# Electrical accessories

## Shunt trips (ST)



- For remote-controlled tripping of the mounted device

| For combining with basic units |       |                    | Rated operational voltage $U_e$    | Mounting width (1 MW = 18 mm) | Article No.   |
|--------------------------------|-------|--------------------|------------------------------------|-------------------------------|---------------|
| Miniature circuit breakers     | RCCBs | RCBOs              |                                    |                               |               |
| Shunt trips (ST)               |       |                    |                                    |                               |               |
| 5SL4, 5SY, 5SP4, 5SP5          | 5SV   | 5SU1 <sup>1)</sup> | 110 ... 415 V AC, 110 ... 220 V DC | 1 MW                          | 5ST3030       |
|                                |       |                    | 24 ... 48 V AC/DC                  | 1 MW                          | 5ST3031       |
|                                |       |                    | 12 V DC                            | 1 MW                          | 5ST3031-0XX01 |

<sup>1)</sup> 5ST3805-1 handle coupler required

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### Further technical specifications

| Further technical specifications          |                        | 5ST3030                                          | 5ST3031 | 5ST3031-0XX01  |
|-------------------------------------------|------------------------|--------------------------------------------------|---------|----------------|
| Standards                                 |                        |                                                  |         |                |
| Standards                                 | IEC/EN                 | EN 60947-1                                       |         |                |
| Supply                                    |                        |                                                  |         |                |
| Primary operating range                   |                        | 0.7 ... 1.1 × U <sub>n</sub>                     |         |                |
| Rated frequency f <sub>n</sub>            |                        | 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 breaker B/C 6 A or fuse gG 6 A |         |                |
| Connections                               |                        |                                                  |         |                |
| Conductor cross-sections                  |                        | 0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)      |         |                |
| Terminals                                 | Max. tightening torque | 0.8 Nm (6.8 lb-in)                               |         |                |
| Ambient 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 | 150 m/s <sup>2</sup>                             |         |                |
| Resistance to vibrations at 10 ... 150 Hz | Acc. to IEC 60068-2-6  | 50 m/s <sup>2</sup>                              |         |                |



## Undervoltage releases (UR)

- Are integrated (e.g. in EMERGENCY-OFF loops), thus ensuring that the MCB trips in the event of an emergency. EMERGENCY-OFF is a function provided to disconnect the electricity supply to all or some parts of the installation in case of emergency, when there is a risk of electric shock or any other hazard caused by electrical power
- In addition, an undervoltage release also trips if the voltage is interrupted or too low, or prevents the MCB from closing
- Combination with 5SV RCCB not suitable for implementation of EMERGENCY-OFF/ EMERGENCY-STOP circuits

| For combining with basic units      |       |                    | Rated operational voltage $U_e$ | Mounting width (1 MW = 18 mm) | Article No. |
|-------------------------------------|-------|--------------------|---------------------------------|-------------------------------|-------------|
| Miniature circuit breakers          | RCCBs | RCBOs              |                                 |                               |             |
| With integrated auxiliary switch    |       |                    |                                 |                               |             |
| 5SL4, 5SY, 5SP4, 5SP5               | 5SV   | 5SU1 <sup>1)</sup> | 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, 5SP5               | 5SV   | 5SU1 <sup>1)</sup> | 230 V AC                        | 1 MW                          | 5ST3043     |
|                                     |       |                    | 110 V DC                        | 1 MW                          | 5ST3044     |
|                                     |       |                    | 24 V DC                         | 1 MW                          | 5ST3045     |

<sup>1)</sup> 5ST3805-1 handle coupler required

### Further technical specifications

5ST304.

|                                           |                        |                                                  |
|-------------------------------------------|------------------------|--------------------------------------------------|
| <b>Standards</b>                          |                        |                                                  |
| Standards                                 | IEC/EN                 | EN 60947-1                                       |
| <b>Supply</b>                             |                        |                                                  |
| Primary operating range                   |                        | 0.85 ... 1.1 × $U_n$                             |
| Rated frequency $f_n$                     |                        | 50/60 Hz                                         |
| <b>Contacts</b>                           |                        |                                                  |
| Minimum contact load                      |                        | 50 mA, 24 V                                      |
| Tripping operations                       |                        | Max. 2000                                        |
| Service life, on average, with rated load | Actuations             | 20000                                            |
| <b>Safety</b>                             |                        |                                                  |
| Short-circuit protection                  |                        | Miniature circuit breaker B/C 6 A or fuse gG 6 A |
| <b>Connections</b>                        |                        |                                                  |
| Conductor cross-sections                  |                        | 0.5 ... 2.5 mm <sup>2</sup> (AWG 22 ... 14)      |
| Terminals                                 | Max. tightening torque | 0.8 Nm (6.8 lb-in)                               |
| <b>Ambient conditions</b>                 |                        |                                                  |
| Permissible ambient temperature           |                        | −25 ... +55 °C                                   |
| Permissible storage temperature           |                        | −40 ... +75 °C                                   |
| Resistance to climate                     | Acc. to IEC 60068-2-30 | 28 cycles                                        |
| Mounting position                         |                        | Any                                              |
| Shock at 11 ms half-sine                  | Acc. to IEC 60068-2-27 | 150 m/s <sup>2</sup>                             |
| Resistance to vibrations at 10 ... 150 Hz | Acc. to IEC 60068-2-6  | 50 m/s <sup>2</sup>                              |

# Electrical accessories



## 5ST3 remote control 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 control mechanism | Display | Ambient temperature | Vibration and shock requirements   | Rated operational voltage $U_e$   | Mounting width (1 MW = 18 mm) | Article No. |
|----------------------------------|---------|---------------------|------------------------------------|-----------------------------------|-------------------------------|-------------|
| Basic                            | –       | –25 °C ... +45 °C   | –                                  | 12 ... 30 V AC, 12 ... 48 V DC    | 1.5 MW                        | 5ST3053     |
|                                  |         |                     |                                    | 177 ... 270 V AC                  | 2 MW                          | 5ST3054     |
| Power                            | LED     | –25 °C ... +45 °C   | –                                  | 12 ... 30 V AC, 12 ... 48 V DC    | 2 MW                          | 5ST3055     |
|                                  |         |                     |                                    | 177 ... 270 V AC                  | 2 MW                          | 5ST3056     |
| Power with ARD                   | LED     | –25 °C ... +45 °C   | –                                  | 12 ... 30 V AC, 12 ... 48 V DC    | 2 MW                          | 5ST3057     |
|                                  |         |                     |                                    | 177 ... 270 V AC                  | 2 MW                          | 5ST3058     |
| Power with extended function     | LED     | –40 °C ... +70 °C   | Acc. to EN 61373/<br>EN 50155 "1B" | 12 ... 30 V AC, 12 ... 48 V DC    | 2 MW                          | 5ST3070     |
|                                  |         |                     |                                    | 170 ... 277 V AC, 77 ... 286 V DC | 2 MW                          | 5ST3071     |

### Further technical specifications

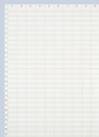
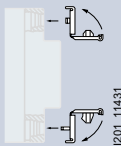
| Further technical specifications                 |  | 5ST3053                         | 5ST3054 | 5ST3055         | 5ST3056 | 5ST3057 | 5ST3058 | 5ST3070        | 5ST3071                     |
|--------------------------------------------------|--|---------------------------------|---------|-----------------|---------|---------|---------|----------------|-----------------------------|
| 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                         |         |                 |         |         |         |                | ≤1500 m (DC)<br>≤200 m (AC) |
| Sliding selector with locking device             |  | –                               | ■       |                 |         |         |         |                |                             |
| Integrated auxiliary switches                    |  | –                               |         | 1CO; 2 A; 250 V |         |         |         |                |                             |
| Integrated fault signal contacts                 |  | –                               |         | 1CO; 2 A; 250 V |         |         |         |                |                             |
| 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                            |         |                 |         |         |         |                |                             |
| Degree of pollution for overvoltage category     |  | 3/II                            |         |                 |         |         |         |                |                             |

### Suitable adapters for combination with basic units



| Basic units   | Mounting width |      |      |      |        |        |        | Article No.           |
|---------------|----------------|------|------|------|--------|--------|--------|-----------------------|
|               | 1 MW           | 2 MW | 3 MW | 4 MW | 2-pole | 3-pole | 4-pole |                       |
| 5SU1          | –              | ■    | ■    | –    | –      | –      | –      | 5ST3820-5             |
| 5SV1          | ■              | –    | –    | –    | –      | –      | –      | 5ST3820-6             |
| 5SV3          | –              | ■    | –    | ■    | –      | –      | –      | 5ST3820-6             |
| 5SM2 with 5SY | –              | –    | –    | –    | ■      | –      | –      | 5ST3820-3 + 5ST3820-1 |
|               | –              | –    | –    | –    | –      | ■      | ■      | 5ST3820-3 + 5ST3820-2 |
| 5SM2 with 5SL | –              | –    | –    | –    | ■      | –      | –      | 5ST3820-3 + 5ST3820-6 |
|               | –              | –    | –    | –    | –      | ■      | ■      | 5ST3820-3 + 5ST3820-7 |

# Mechanical accessories

| Handle couplers for additional components                                                                                                                              |                                                                                                                                                                                                                                 |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|                                                                                       | <ul style="list-style-type: none"> <li>Necessary for mounting the additional components auxiliary switches, fault signal contacts, shunt trips and undervoltage releases onto the 5SU1 RCBO</li> <li>1 set = 5 units</li> </ul> |                          |
|                                                                                                                                                                        |                                                                                                                                                                                                                                 | Article No.<br>5ST3805-1 |
| Handle locking devices                                                                                                                                                 |                                                                                                                                                                                                                                 |                          |
| <br> | <ul style="list-style-type: none"> <li>To prevent undesired mechanical ON/OFF switching</li> <li>Sealable and lockable</li> <li>For padlock with 3 ... 6 mm shackle</li> </ul>                                                  |                          |
|                                                                                                                                                                        | Version                                                                                                                                                                                                                         | Article No.              |
|                                                                                                                                                                        | For 5SV RCCBs, 5SV1 RCBOs, 5SV6 AFDD/MCB                                                                                                                                                                                        | 5ST3806                  |
|                                                                                                                                                                        | For 5SU1 RCBOs                                                                                                                                                                                                                  | 5ST3801-1                |
| Locking device                                                                                                                                                         |                                                                                                                                                                                                                                 |                          |
|                                                                                                                                                                        | <ul style="list-style-type: none"> <li>For 5SV RCCBs, 5SV1 RCBOs, 5SV6 AFDD/MCB</li> </ul>                                                                                                                                      |                          |
|                                                                                                                                                                        | Comprising                                                                                                                                                                                                                      | Article No.              |
|                                                                                                                                                                        | 5ST3806 handle locking device and 5ST3802 padlock                                                                                                                                                                               | 5ST3807                  |
| Padlock                                                                                                                                                                |                                                                                                                                                                                                                                 |                          |
|                                                                                     | <ul style="list-style-type: none"> <li>For 5ST3801-1 and 5ST3806 handle locking devices and 5ST3054 ... 58, 5ST3070 remote control mechanisms</li> </ul>                                                                        |                          |
|                                                                                                                                                                        |                                                                                                                                                                                                                                 | Article No.<br>5ST3802   |
| Device labels                                                                                                                                                          |                                                                                                                                                                                                                                 |                          |
|                                                                                     | <ul style="list-style-type: none"> <li>For adhesive attachment</li> <li>For modular installation devices, e.g. 5SY, 5SL, 5TL1</li> </ul>                                                                                        |                          |
|                                                                                                                                                                        | Types                                                                                                                                                                                                                           | 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                                                                                                                                        |                                                                                                                                                                                                                                 |                          |
|                                                                                     | <ul style="list-style-type: none"> <li>For 5SV3 and 5SV4 residual current operated circuit breakers, sealable (2 units in plastic bag)</li> </ul>                                                                               |                          |
|                                                                                                                                                                        | Mounting width                                                                                                                                                                                                                  | Article No.              |
|                                                                                                                                                                        | 2 MW                                                                                                                                                                                                                            | 5SW3010                  |
|                                                                                                                                                                        | 4 MW                                                                                                                                                                                                                            | 5SW3008                  |
| Terminal covers, gray                                                                                                                                                  |                                                                                                                                                                                                                                 |                          |
|                                                                                     | <ul style="list-style-type: none"> <li>For surface mounting, degree of protection IP40</li> <li>Sealable</li> <li>Can be used with 35 mm DIN rail</li> </ul>                                                                    |                          |
|                                                                                                                                                                        | For width up to                                                                                                                                                                                                                 | Article No.              |
|                                                                                                                                                                        | 2.5 MW                                                                                                                                                                                                                          | 5SW3004                  |
|                                                                                                                                                                        | 4.5 MW                                                                                                                                                                                                                          | 5SW3005                  |
| Wall enclosures, gray                                                                                                                                                  |                                                                                                                                                                                                                                 |                          |
|                                                                                     | <ul style="list-style-type: none"> <li>For flush mounting, degree of protection IP40</li> <li>Can be used with 35 mm DIN rail</li> </ul>                                                                                        |                          |
|                                                                                                                                                                        | For width up to                                                                                                                                                                                                                 | Article No.              |
|                                                                                                                                                                        | 2.5 MW                                                                                                                                                                                                                          | 5SW3006                  |
|                                                                                                                                                                        | 4.5 MW                                                                                                                                                                                                                          | 5SW3007                  |

# RCCB protective socket outlets

Acc. to VDE 0664

## Covers



- Can be assembled as mini-distribution board
- Suitable for all devices
- Cover parts prepared for rail mounting of conventional label caps

### Comprising

| 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
- Degree of protection IP54

| Rated residual current $I_{\Delta n}$ | Rated current $I_n$ | Article No. |
|---------------------------------------|---------------------|-------------|
| 10 mA                                 | 16 A                | 5SZ9206     |
| 30 mA                                 | 16 A                | 5SZ9216     |



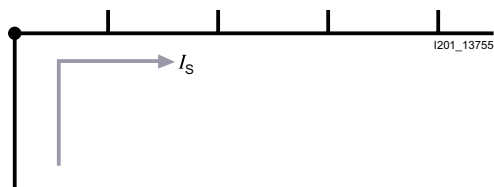
# Standard busbars

## General information



### Infeed

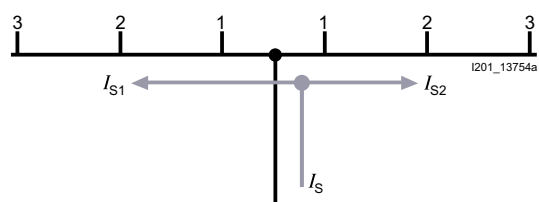
#### At the start or end of the busbar



Maximum busbar current  $I_s$ /phase

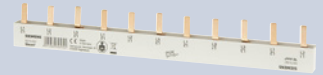
- Cross-section 10 mm<sup>2</sup>: 63 A
- Cross-section 16 mm<sup>2</sup>: 80 A

#### Along the busbar or midpoint infeed

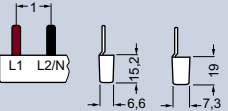
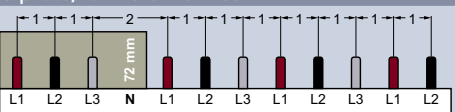
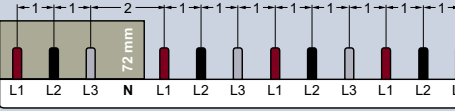
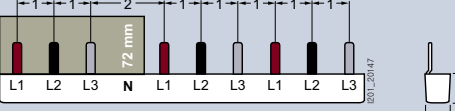
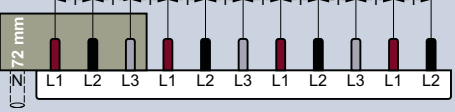
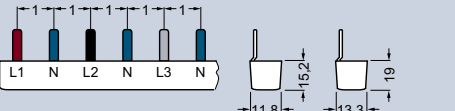
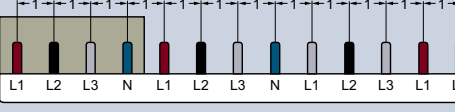
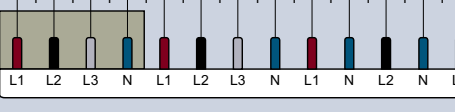
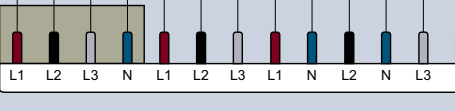
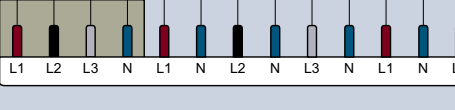


Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 100 A
- Cross-section 16 mm<sup>2</sup>: 130 A

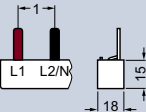
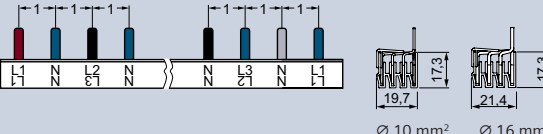
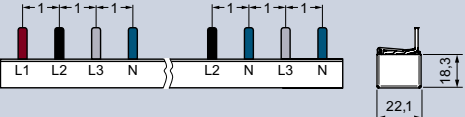


Fixed lengths, cannot be cut

| Pin spacing in MW<br>(1 MW = 18 mm)                                                                                                                                               | Application                                                                | No. of MW | Length | Conductor cross-section<br>10 mm <sup>2</sup> | 16 mm <sup>2</sup> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------|--------|-----------------------------------------------|--------------------|
| 2-phase/1-phase + N                                                                                                                                                               |                                                                            |           |        | Article No.                                   | Article No.        |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                  | For 6 × 2 MW devices (2P)                                                  | 12 MW     | 210 mm | 5ST3608                                       | 5ST3638            |
| <b>3-phase, for MCBs with RCCB</b>  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>               | For 8 MCBs 1P with 1 RCCB 3P+N, N right                                    | 12 MW     | 210 mm | 5ST3624                                       | 5ST3654            |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                  | For 10 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCB 3P and 7 MCBs 1P | 14 MW     | 249 mm | 5ST3624-4                                     | —                  |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                 | For 6 MCBs 1P with 1 RCCB 3P+N or for 1 RCCB 3P+N, 1 MCB 3P and 3 MCBs 1P  | 10 MW     | 176 mm | 5ST3624-1                                     | —                  |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                | For 8 MCBs 1P with 1 RCCB 3P+N, N left                                     | 11 MW     | 192 mm | 5ST3667                                       | 5ST3668            |
| <b>4-phase/3-phase + N</b>  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                     | For 6 × 2MW devices (1P+N)                                                 | 12 MW     | 215 mm | 5ST3623                                       | 5ST3653            |
| <b>4-phase/3-phase + N, for MCBs with RCCB</b>  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p> | For 1 RCCB 3P+N, 1 MCB 3P+N and 6 MCBs 1P                                  | 14 MW     | 248 mm | 5ST3724-4                                     | —                  |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                | For 1 RCCB 3P+N, 1 MCB 3P+N and 3 MCBs 1P+N                                | 14 MW     | 248 mm | 5ST3725-4                                     | —                  |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                | For 1 RCCB 3P+N, 1 MCB 3P and 3 MCBs 1P+N                                  | 13 MW     | 230 mm | 5ST3725-3                                     | —                  |
|  <p>Ø 10 mm<sup>2</sup> Ø 16 mm<sup>2</sup></p>                                                | For 1 RCCB 3P+N and 5 MCBs 1P+N                                            | 14 MW     | 248 mm | 5ST3625-4                                     | —                  |

# Standard busbars

Can be cut

| Pin spacing in MW<br>(1 MW = 18 mm)                                               | Application                                           | No. of MW | Length  | End caps<br>included | Conductor cross-section |             |
|-----------------------------------------------------------------------------------|-------------------------------------------------------|-----------|---------|----------------------|-------------------------|-------------|
|                                                                                   |                                                       |           |         |                      | 10 mm²                  | 16 mm²      |
| 2-phase/1-phase + N                                                               |                                                       |           |         |                      | Article No.             | Article No. |
|  | For 2 MW units<br>(2P/1+N)                            | 12 MW     | 214 mm  | ■                    | 5ST3734                 | 5ST3704     |
|                                                                                   |                                                       | 56 MW     | 1016 mm | –                    | 5ST3735                 | 5ST3705     |
| 4-phase/3-phase + N, for MCBs with RCCB                                           |                                                       |           |         |                      | Article No.             | Article No. |
|  | For RCBOs or<br>MCBs 1P+N                             | 56 MW     | 1000 mm | –                    | 5ST3770-2               | 5ST3770-3   |
|                                                                                   |                                                       |           |         |                      |                         |             |
|  | For 6 MCBs<br>1P+N<br>with 1 RCCB<br>3P+N,<br>N right | 16 MW     | 292 mm  | ■                    | 5ST3770-4               | 5ST3770-5   |
|                                                                                   |                                                       |           |         |                      |                         |             |

## Accessories for busbars 5ST36 and 5ST37

| End caps for 5ST37                                                                  |                            |             |
|-------------------------------------------------------------------------------------|----------------------------|-------------|
|  | Version                    | Article No. |
|                                                                                     | For 2- and 3-phase busbars | 5ST3750     |
|                                                                                     | For 4-phase busbars        | 5ST3718     |



## 5ST36 and 5ST37

Fixed lengths, cannot be cut, for devices with add-on 5SM6 arc fault detection units

| Pin spacing in MW<br>(1 MW = 18 mm) | Application | No. of MW | Length | End caps included | Color | Conductor cross-section<br>10 mm <sup>2</sup> | Article No. |
|-------------------------------------|-------------|-----------|--------|-------------------|-------|-----------------------------------------------|-------------|
| <b>3-phase</b><br>                  | For 5SM601. | 12 MW     | 210 mm | –                 | Gray  |                                               | 5ST3615-1   |

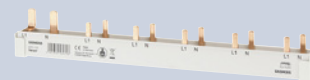
4

Can be cut, for devices with add-on 5SM6 arc fault detection units

| Pin spacing in MW<br>(1 MW = 18 mm) | Application        | No. of MW | Length  | End caps included | Color        | Conductor cross-section<br>10 mm <sup>2</sup> | Article No.            |
|-------------------------------------|--------------------|-----------|---------|-------------------|--------------|-----------------------------------------------|------------------------|
| <b>1-phase, straight</b><br>        | For 5SM601.        | 56 MW     | 1000 mm | –                 | Gray<br>Blue |                                               | 5ST3764-1<br>5ST3765-2 |
| <b>1-phase, angled 45°</b><br>      | For 5SM601.        | 56 MW     | 1000 mm | –                 | Blue         |                                               | 5ST3765-1              |
| <b>2-phase/1-phase + N</b><br>      | For 5SM602. (1P+N) | 56 MW     | 1000 mm | –                 | Gray         |                                               | 5ST3735-1              |
| <b>3-phase</b><br>                  | For 5SM601.        | 60 MW     | 1050 mm | –                 | Gray         |                                               | 5ST3740-1              |
| <b>4-phase/3-phase + N</b><br>      | For 5SM602.        | 52 MW     | 950 mm  | –                 | Gray         |                                               | 5ST3746-1              |

# Standard busbars

## 5ST36 and 5ST37



Can be cut, for devices with add-on 5SM6 arc fault detection units and infeed via RCCB

| Pin spacing in MW<br>(1 MW = 18 mm) | Application                                               | No. of MW | Length | End caps included | Color | Conductor cross-section<br>16 mm <sup>2</sup> |
|-------------------------------------|-----------------------------------------------------------|-----------|--------|-------------------|-------|-----------------------------------------------|
| 2-phase/1-phase + N                 |                                                           |           |        |                   |       | 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<br>6 ... 25 mm <sup>2</sup>       | Short       | 5ST3768     |
|                                                  | Short, IP20 | 5ST3771-2   |
|                                                  | Long        | 5ST3771-1   |
| End caps                                         |             | Article No. |
| For 1-phase busbars                              | Gray        | 5ST3766     |
|                                                  | Blue        | 5ST3767     |
| For 2 and 3-phase busbars                        |             | 5ST3750     |
| For 4-phase busbars                              |             | 5ST3718     |
| Touch protection                                 |             | Article No. |
| For free connections, yellow (RAL 1004) 5× 1 pin |             | 5ST3655     |

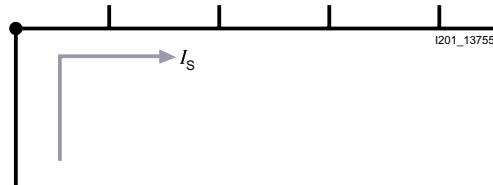
# Compact busbars

## General information



### Infeed

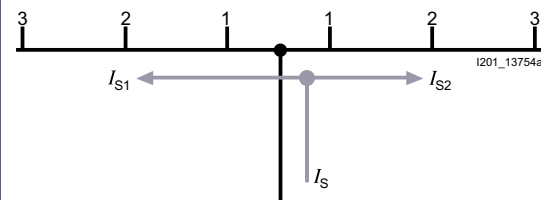
#### At the start or end of the busbar



Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 63 A
- Cross-section 16 mm<sup>2</sup>: 80 A

#### Along the busbar or midpoint infeed

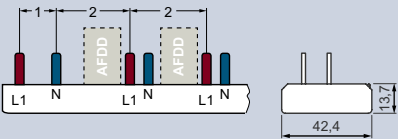
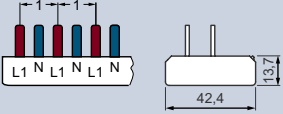
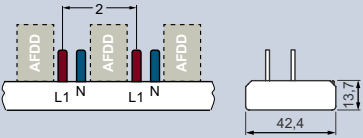
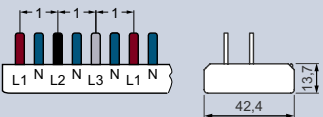
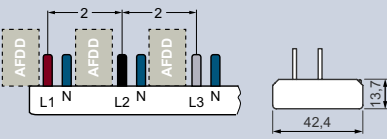


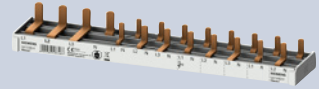
Maximum busbar current  $I_s$ /phase

- Cross-section 10 mm<sup>2</sup>: 100 A
- Cross-section 16 mm<sup>2</sup>: 130 A

# Compact busbars

## 5ST36, fixed lengths, cannot be cut

| Pin spacing in MW<br>(1 MW = 18 mm)                                                 | Application                                                                           | No. of MW | Length | End caps<br>included | Conductor<br>cross-section<br>10 mm <sup>2</sup> |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|--------|----------------------|--------------------------------------------------|
| <b>2-phase/1-phase + N, for infeed via RCCB</b>                                     |                                                                                       |           |        |                      |                                                  |
|    | For 1 x RCCB 1P+N and 5 x compact devices equipped with 5SM6 arc fault detection unit | 12 MW     | 216 mm | ■                    | Article No.<br>5ST3685-0                         |
| <b>2-phase/1-phase + N</b>                                                          |                                                                                       |           |        |                      |                                                  |
|    | For compact devices                                                                   | 6 MW      | 113 mm | ■                    | Article No.<br>5ST3674-6                         |
|                                                                                     |                                                                                       | 9 MW      | 166 mm | ■                    | 5ST3674-7                                        |
|                                                                                     |                                                                                       | 12 MW     | 218 mm | ■                    | 5ST3674-0                                        |
|    | For 6 x compact devices equipped with 5SM6 arc fault detection unit                   | 12 MW     | 200 mm | ■                    | 5ST3676-0                                        |
| <b>4-phase/3-phase + N</b>                                                          |                                                                                       |           |        |                      |                                                  |
|   | For compact devices                                                                   | 6 MW      | 113 mm | ■                    | Article No.<br>5ST3673-6                         |
|                                                                                     |                                                                                       | 9 MW      | 166 mm | ■                    | 5ST3673-7                                        |
|                                                                                     |                                                                                       | 12 MW     | 218 mm | ■                    | 5ST3673-0                                        |
|                                                                                     |                                                                                       | 14 MW     | 254 mm | ■                    | 5ST3673-4                                        |
|  | For 6 x compact devices equipped with 5SM6 arc fault detection unit                   | 11 MW     | 200 mm | ■                    | 5ST3675-0                                        |

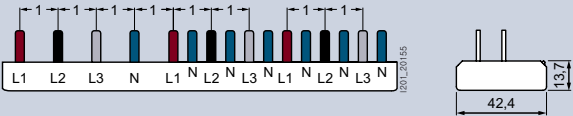
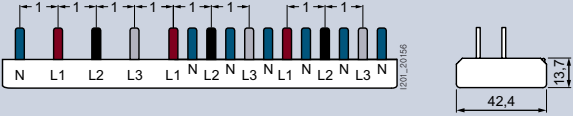
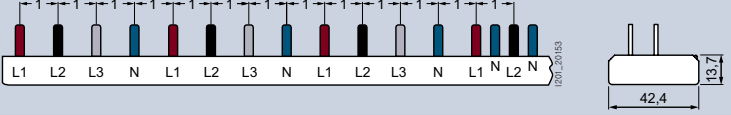
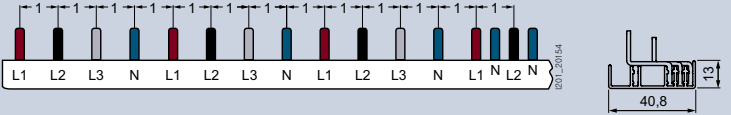
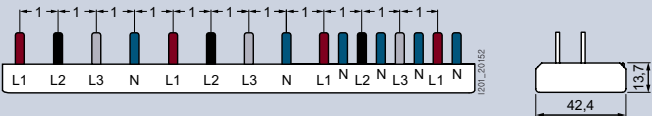
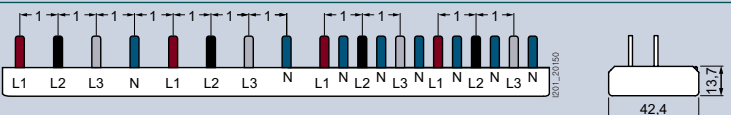


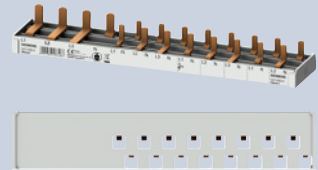
## 5ST37, can be cut

| Pin spacing in MW<br>(1 MW = 18 mm)             | Application                                                                                    | No. of<br>MW | Length  | End caps<br>included | Conductor<br>cross-section<br>10 mm <sup>2</sup> | Article No. |
|-------------------------------------------------|------------------------------------------------------------------------------------------------|--------------|---------|----------------------|--------------------------------------------------|-------------|
| <b>2-phase/1-phase + N, for infeed via RCCB</b> |                                                                                                |              |         |                      |                                                  |             |
|                                                 | For 1× RCCB 1P+N and 10× compact devices                                                       | 12 MW        | 215 mm  | ■                    |                                                  | 5ST3784-0   |
|                                                 | For 1× RCCB 1P+N (RCCB N left only) and 10× compact devices                                    | 12 MW        | 215 mm  | ■                    |                                                  | 5ST3784-0KL |
| <b>2-phase/1-phase + N</b>                      |                                                                                                |              |         |                      |                                                  |             |
|                                                 | For compact devices                                                                            | 60 MW        | 1060 mm | –                    |                                                  | 5ST3774-0   |
|                                                 | For compact devices equipped with 5SM6 arc fault detection unit                                | 59 MW        | 1042 mm | –                    |                                                  | 5ST3776-0   |
|                                                 | For compact devices equipped with auxiliary switch                                             | 59.5 MW      | 1055 mm | –                    |                                                  | 5ST3778-0   |
|                                                 | For compact devices equipped with 5SM6 arc fault detection unit and auxiliary switch           | 58.5 MW      | 1036 mm | –                    |                                                  | 5ST3780-0   |
|                                                 | For 2 MW units (MCBs or RCBOs) with mounted 5SM6 arc fault detection unit and auxiliary switch | 54 MW        | 956 mm  | –                    |                                                  | 5ST3786-0   |

# Compact busbars

5ST37, can be cut

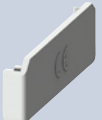
| Pin spacing in MW<br>(1 MW = 18 mm)                                                 | Application                                                | No. of<br>MW | Length  | End caps<br>included | Conductor<br>cross-section<br>10 mm <sup>2</sup> |
|-------------------------------------------------------------------------------------|------------------------------------------------------------|--------------|---------|----------------------|--------------------------------------------------|
| <b>4-phase/3-phase + N, for infeed via RCCB</b>                                     |                                                            |              |         |                      |                                                  |
|    | For 1× RCCB 3P+N and 6× compact devices                    | 10 MW        | 181 mm  | ■                    | Article No.<br>5ST3783-1                         |
|                                                                                     | For 1× RCCB 3P+N and 8× compact devices                    | 12 MW        | 216 mm  | ■                    | 5ST3783-0                                        |
|                                                                                     | For 1× RCCB 3P+N and 10× compact devices                   | 14 MW        | 251 mm  | ■                    | 5ST3783-4                                        |
|    | For 1× RCCB 3P+N (RCCB N left only) and 6× compact devices | 10 MW        | 181 mm  | ■                    | 5ST3783-1KL                                      |
|                                                                                     | For 1× RCCB 3P+N (RCCB N left only) and 8× compact devices | 12 MW        | 216 mm  | ■                    | 5ST3783-0KL                                      |
|    | For 1× RCCB 3P+N, 1× MCB 3P and 7× compact devices         | 14 MW        | 253 mm  | ■                    | 5ST3785-4                                        |
|   | For 1× RCCB 3P+N, 2× MCBs 3P+N and 12× compact devices     | 24 MW        | 430 mm  | ■                    | 5ST3790-1                                        |
|  | For 1× RCCB 3P+N, 2× MCBs 3P+N and 45× compact devices     | 57 MW        | 1009 mm | –                    | 5ST3790-2                                        |
|  | For 1× RCCB 3P+N, 1× MCB 3P+N and 4× compact devices       | 12 MW        | 217 mm  | ■                    | 5ST3795-0                                        |
|  | For 1× RCCB 3P+N, 1× MCB 3P+N and 6× compact devices       | 14 MW        | 253 mm  | ■                    | 5ST3795-4                                        |



| Pin spacing in MW<br>(1 MW = 18 mm) | Application                                                     | No. of<br>MW | Length  | End caps<br>included | Conductor<br>cross-section<br>10 mm <sup>2</sup><br>Article No. |
|-------------------------------------|-----------------------------------------------------------------|--------------|---------|----------------------|-----------------------------------------------------------------|
| <b>4-phase/3-phase + N</b><br>      | For compact devices                                             | 60 MW        | 1060 mm | –                    | 5ST3773-0                                                       |
|                                     | For compact devices equipped with 5SM6 arc fault detection unit | 59 MW        | 1042 mm | –                    | 5ST3775-0                                                       |
|                                     | For compact devices equipped with auxiliary switch              | 59.5 MW      | 1055 mm | –                    | 5ST3777-0                                                       |

4

## Accessories for 5ST3 compact busbars, versions that can and cannot be cut

| Touch protection for 5ST3                                                           |                                                        |                  |         |             |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|------------------|---------|-------------|
|  | Version                                                | Color            |         | Article No. |
|                                                                                     | For free connections, for pins L1, N                   | Yellow (RAL1004) |         | 5ST3655     |
|                                                                                     | For pins L2, L3                                        | Yellow (RAL1004) |         | 5ST3655-0HG |
| End caps for 5ST3                                                                   |                                                        |                  |         |             |
|  | Version                                                | Color            |         | Article No. |
|                                                                                     | For 2- and 4-phase busbars                             | Gray             |         | 5ST3788-0   |
| Terminals, short, IP20                                                              |                                                        |                  |         |             |
|  | Version                                                | For conductors   | Infeed  | Article No. |
|                                                                                     | Infeed terminal for connection of larger cross-section | Up to 25 mm²     | Lateral | 5ST3771-2   |



# Appendix



Conditions of sale and delivery \_\_\_\_\_ A/2

Link directory \_\_\_\_\_ A/4

# Conditions of sale and delivery

## 1. General Provisions

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- for consulting services the „Allgemeine Geschäftsbedingungen für Beratungsleistungen der Division DF – Deutschland“ (available only in German) and/or
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- for other services the „International Terms & Conditions for Services“<sup>1)</sup> supplemented by „Software Licensing Conditions“<sup>1)</sup> and/or
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## 2. Additional Terms and Conditions

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Illustrations are not binding.

Insofar as there are no remarks on the individual pages of this catalog – especially with regard to data, dimensions and weights given – these are subject to change without prior notice.

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### 3. Export Regulations

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# Link directory

## Catalog LV 10

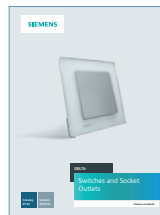
### General information

|                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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**LV 13**  
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