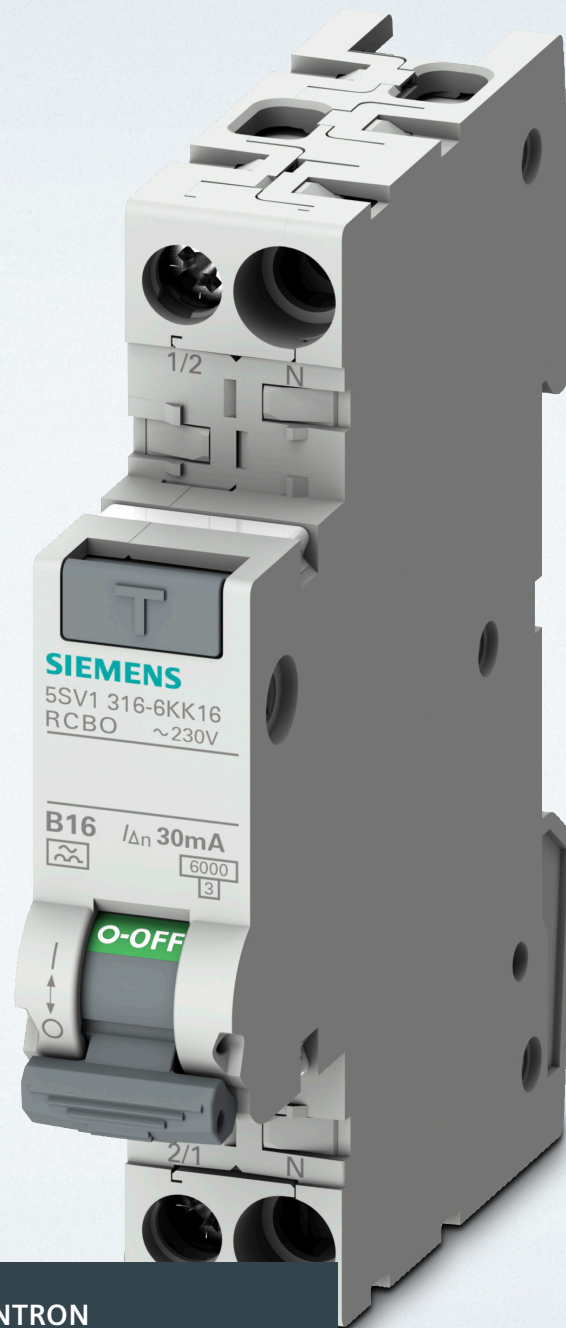


SIEMENS



SENTRON

## 5SV1 compact RCBOs

Catalog  
excerpt  
LV 10

Edition  
07/2018

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

## Overview

RCBOs are a combination of an RCCB and an MCB in a compact design for personnel, fire and line protection. For personnel protection and fire protection, the residual current part of the type AC trips in the event of sinusoidal AC residual currents, type A also trips in the event of pulsating DC residual currents.

RCBOs with a rated residual current of maximum 30 mA are used for personnel, material and fire protection, as well as for additional protection against direct contact.

The MCB part of the RCBO protects lines against overload and short circuits and is available in characteristics B and C.

Assignment to each individual branch circuit helps prevent the undesired tripping of fault-free circuits induced by the accumulation of operation-related leakage currents or by transient current pulses during switching operations.

RCBOs comprise one part for fault-current detection and one part for overcurrent detection. They are equipped with a delayed overload/time-dependent thermal release (thermal bimetal) for low overcurrents and with an instantaneous electromagnetic release for higher overload and short-circuit currents.

The special contact materials used guarantee a long service life and offer a high degree of protection against contact welding.

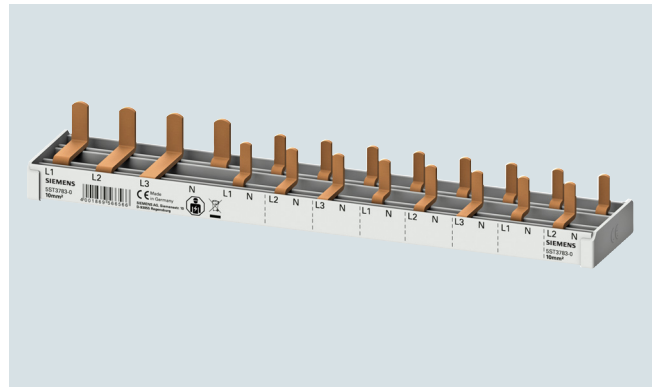
## Benefits



5SV1 RCBO in only 1 MW

The world's most compact electromechanical RCBO in only 1 MW:

- Thanks to the narrow design of only 18 mm width, the RCBO is ideally suited for new buildings as well as the retrofit market, e.g. in old buildings.
- In new buildings, the 50 % space saving compared to the 2 MW wide version allows implementation of more compact and thus often cheaper distribution boards.
- Especially in projects where many circuits have to be equipped with individual residual current protection, smaller distribution boards can be installed, which saves significant costs.
- In old buildings, it is very easy to replace the existing 1-pole MCBs with a 5SV1 RCBO in only 1 MW (without additional space requirement in the distribution board).
- Through this replacement, the protection level in electrical circuits is enhanced by additional personal safety.
- Thanks to the new compact 5ST pin busbars, the devices can be conveniently mounted and connected even in distribution boards that offer only narrow space.
- The new compact 5SV1 RCBOs feature an extensive range of accessories such as auxiliary switches, fault signal contacts, arc fault detection devices and pin busbars.
- If you connect the RCBO with a 5SM6 arc fault detection unit, you have a combination in 2 MW, consisting of protection from residual currents, from overload/short circuit and from arc faults. This combination offers optimum protection of persons and assets.



Pin busbars for 5SV1 / 5SV6 / 5S..0 compact devices

- Compact pin busbar for quick connection of compact devices 1P+N in 1 MW.
- Thanks to the compact design of the busbars, it is very easy to connect devices even in narrow distribution boards.
- The new innovative design enables the infeed at any point in the busbar even without the use of additional feeder terminals.
- The 5ST37 pin busbars can be cut to length and therefore allow flexible adaptation according to customers requirements.


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

## 5SV1 compact RCBOs

### Technical specifications

		5SV1	
<b>Standards</b>		IEC/DIN EN 61009-1 (VDE 0664-20); IEC/DIN EN 61009-2-1 (VDE 0664-21)	
<b>Residual current-detection principle</b>		Electromechanical (voltage-independent)	
<b>Rated voltages <math>U_n</math></b>	V AC	230	
<b>Rated currents <math>I_n</math></b>	A	2, 4, 6, 10, 13, 16	
<b>Rated residual currents <math>I_{\Delta n}</math></b>	mA	30	
<b>Rated switching capacity</b>	kA	4.5, 6	
<b>Energy limitation class</b>		3	
<b>Current withstand capability type A</b>			
• with current waveform 8/20 $\mu$ s	According to EN 60060-2 (VDE 0432-2)	kA	1
<b>Minimum voltage for operation of the test equipment</b>	V AC	195	
<b>Insulation coordination</b>			
• Overvoltage category		III	
<b>Pollution degree</b>		2	
<b>Terminal-conductor cross-section</b>			
• Solid and stranded	mm <sup>2</sup>	0.75 ... 16	
• Finely stranded with end sleeve	mm <sup>2</sup>	0.75 ... 10	
<b>Terminal tightening torque</b>	Nm	1.2 ... 2	
<b>Mains connection</b>		Either top or bottom	
<b>Mounting position (on a standard mounting rail)</b>		Any	
<b>Degree of protection</b>	According to EN 60529 (VDE 0470-1)	IP20	
<b>Touch protection</b>	According to EN 50274 (VDE 0660-514)	Finger and back-of-hand-safe	
<b>Service life</b>	Average number of switching cycles	> 10000	
<b>Storage temperature</b>	°C	-40 ... +75	
<b>Ambient temperature</b>	°C	-25 ... +45	
<b>Resistance to climate</b>	According to IEC 60068-2-30	28 cycles (55 °C; 95 % rel. humidity)	
<b>CFC and silicone-free</b>		Yes	


### Selection and ordering data

	Rated residual current $I_{\Delta n}$ mA	Rated current $I_n$ A	Mounting width MW	RL d	Tripping characteristic B				Tripping characteristic C			
					Article No.	Price € per PU	PU (UNIT, SET, M)	PS	PG	Article No.	Price € per PU	PU (UNIT, SET, M)

#### Compact RCBOs, type AC, instantaneous

**1P + N, 230 V AC, 50 Hz**

**6 000**  
**3**




N connection on the right												
30	2	1	--						5SV1316-1KK02	1	1 unit	1BB
	4	1	--						5SV1316-1KK04	1	1 unit	1BB
	6	1	5SV1316-0KK06	1	1 unit	1BB			5SV1316-1KK06	1	1 unit	1BB
	10	1	5SV1316-0KK10	1	1 unit	1BB			5SV1316-1KK10	1	1 unit	1BB
	13	1	5SV1316-0KK13	1	1 unit	1BB			5SV1316-1KK13	1	1 unit	1BB
	16	1	5SV1316-0KK16	1	1 unit	1BB			5SV1316-1KK16	1	1 unit	1BB

#### Compact RCBOs, type A, instantaneous

**1P + N, 230 V AC, 50 Hz**

**6 000**  
**3**



N connection on the right												
30	2	1	--						5SV1316-7KK02	1	1 unit	1BC
	4	1	--						5SV1316-7KK04	1	1 unit	1BC
	6	1	5SV1316-6KK06	1	1 unit	1BC			5SV1316-7KK06	1	1 unit	1BC
	10	1	5SV1316-6KK10	1	1 unit	1BC			5SV1316-7KK10	1	1 unit	1BC
	13	1	5SV1316-6KK13	1	1 unit	1BC			5SV1316-7KK13	1	1 unit	1BC
	16	1	5SV1316-6KK16	1	1 unit	1BC			5SV1316-7KK16	1	1 unit	1BC

Selection and ordering data

	Rated residual current	Rated current	Mounting width	RL	Tripping characteristic B			PU	PS	PG	Tripping characteristic C		
	$I_{\Delta n}$ mA	$I_n$ A	MW	d	Article No.	Price € per PU	(UNIT, SET, M)	Article No.	Price € per PU	(UNIT, SET, M)	PU	PS	PG

Compact RCBOs, type AC, instantaneous

1P + N, 230 V AC, 50 Hz



4 500  
3

N connection on the right

30	2	1	--
	4	1	--
	6	1	--
	10	1	--
	13	1	--
	16	1	--

5SV1313-1KK02	1	1 unit	1BB
5SV1313-1KK04	1	1 unit	1BB
5SV1313-1KK06	1	1 unit	1BB
5SV1313-1KK10	1	1 unit	1BB
5SV1313-1KK13	1	1 unit	1BB
5SV1313-1KK16	1	1 unit	1BB

Compact RCBOs, type A, instantaneous

1P + N, 230 V AC, 50 Hz



4 500  
3

N connection on the right

30	2	1	--
	4	1	--
	6	1	5SV1313-6KK06
	10	1	5SV1313-6KK10
	13	1	5SV1313-6KK13
	16	1	5SV1313-6KK16

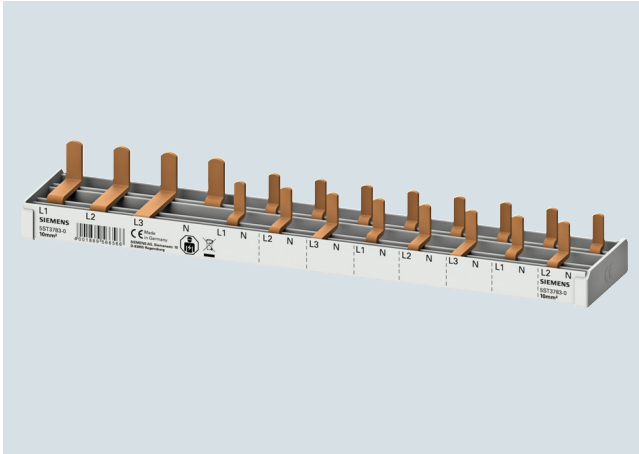
1	1 unit	1BC
1	1 unit	1BC
1	1 unit	1BC
1	1 unit	1BC
1	1 unit	1BC

5SV1313-7KK02	1	1 unit	1BC
5SV1313-7KK04	1	1 unit	1BC
5SV1313-7KK06	1	1 unit	1BC
5SV1313-7KK10	1	1 unit	1BC
5SV1313-7KK13	1	1 unit	1BC
5SV1313-7KK16	1	1 unit	1BC

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

## Pin busbars for 5SV1 / 5SV6 / 5S..0 compact units

### Overview



Busbars for mounting 2-/4-pole 5SV3/4 RCCBs and compact units 1P+N in 1 MW.

With these compact pin busbars, devices such as 5SV1, 5SV6 and compact miniature circuit breakers 1+N in 1 MW two-phase or four-phase can be easily and safely connect.

- The compact busbars are also available for device combinations with attached 5SM6 arc fault detection unit.
- Wiring of RCCBs with Neutral pole on the left side can be performed with the 5ST37...-0KL busbars, this enhances variability in wiring.
- Infeed to busbars occurs by means of a conductor directly through the compact busbar.
- The compact busbars are also available with additional space for auxiliary components. The wiring will be done through or from below the busbar.
- Busbars are available in 10 mm<sup>2</sup> version.

### Benefits

#### Compact busbars:

- Compact busbars for infeed via RCCB can now be adjusted in size even in 12 MW
- Also available for infeed via RCCBs with N on the left
- The end caps are reusable after cutting the busbar to length
- Simple wiring of all phases/conductors with one bar
- Auxiliary switch that can also be installed with bar mounted
- Feed-in possible through mounted busbar
- Feed-in possible without additional connecting terminal (up to 16 mm<sup>2</sup> rigid / 10 mm<sup>2</sup> flexible with end sleeve)

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

## Pin busbars for 5SV1 / 5SV6 / 5S..0 compact units

### Selection and ordering data

Version	Busbar length/MW mm/MW	RL d	Article No. <a href="http://www.siemens.com/product?Article No.">www.siemens.com/ product?Article No.</a>	Price € per PU	PU (UNIT, SET, M)	PS	PG
<b>5ST3 busbars for feed-in via RCCB:</b>							
for 1 x RCCB 1P+N and 5 x compact units with installed 5SM6 arc fault detection device							
• 2-phase, 10 mm <sup>2</sup>	12 MW		<b>5ST3685-0</b>		1	1 unit	1AD
for 1 x RCCB 3P+N and 8 x compact units							
• 4-phase, 10 mm <sup>2</sup> , can be cut to length	12 MW		<b>5ST3783-0</b>		1	1 unit	1AD
• 4-phase, 10 mm <sup>2</sup> (only RCCB N-left), can be cut to length	12 MW		<b>5ST3783-OKL</b>		1	1 unit	1AD
for 1 x RCCB 1P+N and 10 x compact units							
• 2-phase, 10 mm <sup>2</sup> , can be cut to length	12 MW		<b>5ST3784-0</b>		1	1 unit	1AD
• 2-phase, 10 mm <sup>2</sup> (only RCCB N-left), can be cut to length	12 MW		<b>5ST3784-OKL</b>		1	1 unit	1AD
<b>5ST3 busbars:</b>							
for 12 compact units							
• 4-phase, 10 mm <sup>2</sup>	12 MW		<b>5ST3673-0</b>		1	1 unit	1AD
for compact units							
• 4-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3773-0</b>		1	1 unit	1AD
for 12 compact units							
• 2-phase, 10 mm <sup>2</sup>	12 MW		<b>5ST3674-0</b>		1	1 unit	1AD
for compact units							
• 2-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3774-0</b>		1	1 unit	1AD
for 6 compact units each with 5SM6 arc fault detection devices installed							
• 4-phase, 10 mm <sup>2</sup>	12 MW		<b>5ST3675-0</b>		1	1 unit	1AD
for compact units each with 5SM6 arc fault detection devices installed							
• 4-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3775-0</b>		1	1 unit	1AD
for 6 compact units each with 5SM6 arc fault detection devices installed							
• 2-phase, 10 mm <sup>2</sup>	12 MW		<b>5ST3676-0</b>		1	1 unit	1AD
for compact units each with 5SM6 arc fault detection devices installed							
• 2-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3776-0</b>		1	1 unit	1AD
for compact units with installed auxiliary switch							
• 4-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3777-0</b>		1	1 unit	1AD
for compact units with installed auxiliary switch							
• 2-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3778-0</b>		1	1 unit	1AD
for compact units each with attached 5SM6 arc fault detection devices and auxiliary switch							
• 2-phase, 10 mm <sup>2</sup> , can be cut to length	1000 mm		<b>5ST3780-0</b>		1	1 unit	1AD
<b>End caps for 5ST37</b>							
• for 2-phase and 4-phase busbars			<b>5ST3788-0</b>		1	1 unit	1AD

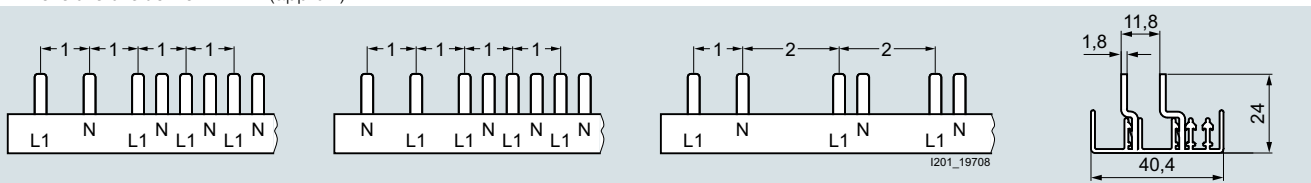
# Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)

## Pin busbars for 5SV1 / 5SV6 / 5S..0 compact units

### 5ST36 / 5ST37

Pin spacing in MW (modular width; 1 MW = 18 mm)

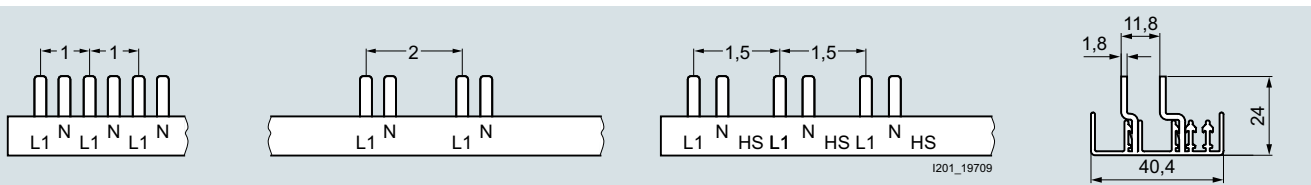
Dimensions of side view in mm (approx.)



5ST3784-0

5ST3784-OKL

5ST3685-0



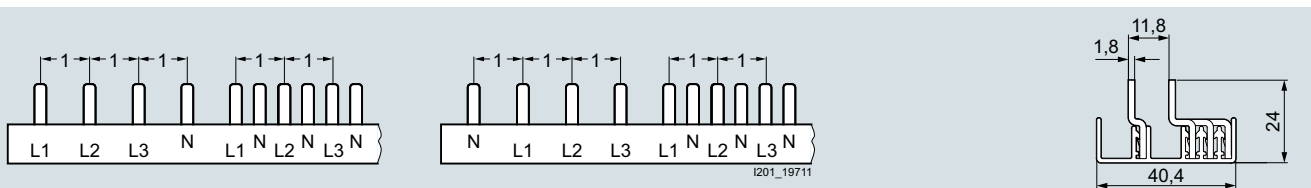
5ST3674-0

5ST3676-0

5ST3778-0

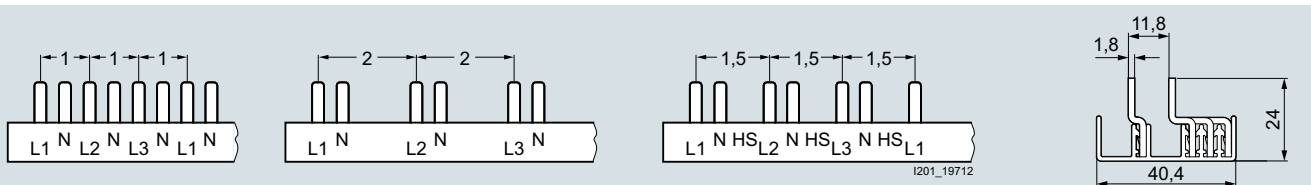
5ST3774-0

5ST3776-0



5ST3783-0

5ST3783-OKL



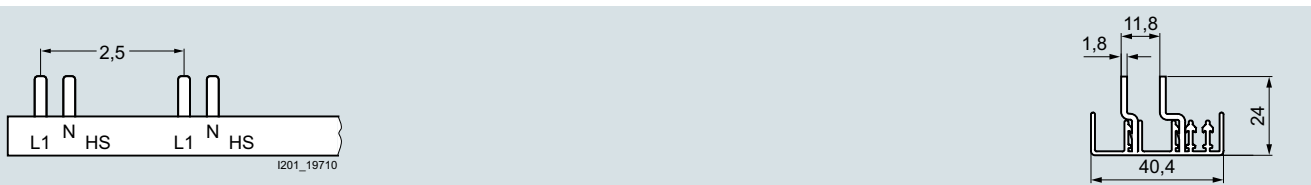
5ST3673-0

5ST3675-0

5ST3777-0

5ST3773-0

5ST3775-0



5ST3780-0

## Overview

### Auxiliary switch (AS)

The auxiliary switch (AS) signals the contact position of the miniature circuit breaker, regardless of whether the residual current operated circuit breaker was tripped manually or as the result of a fault. An additional version is also available for the switching of small currents and voltages for the control of programmable control systems (PLCs) in acc. with EN 61131-2. The auxiliary switch with test button allows the testing of control circuits without the need for switching the residual current operated circuit breaker.

### Fault signal contact (FC)

Fault signal contacts (FC) signal the automatic disconnection in the event of a fault. If the fault signal contact is activated, the contact position will not change when the residual current operated circuit breaker is actuated manually. Fault signal contacts with TEST and RESET buttons enable the testing of control circuits without the need to trip the residual current operated circuit breaker. The red RESET button integrated in the handle also indicates the automatic tripping of the residual current operated circuit breaker. The signal can be acknowledged manually using the RESET button.

### Remotely controlled mechanism (RC)

Remote controlled mechanisms are used for remote ON/OFF switching of miniature circuit breakers with or without RC unit, RCCBs, RCBOs or distribution board mounting switches, and also allow local manual switching of these devices. A tripped combination must be acknowledged prior to switching back on.

In the event of a fault, the device combination of the type auto reclose device (ARD) attempts to switch on again up to three times. If the fault is still present, the combination remains disconnected. The remote controlled mechanism has an operating mode selector switch with the functions: "Locked", "Manual" and "Remote Switching".

#### Selector switch position:

OFF (for units with 177 - 270 V): Power to the remotely controlled mechanism is switched off, blocked mechanically and can be sealed and/or locked.

RC OFF: Only manual operation is possible.

RC ON: Both manual and remote actuation (except for the Basic 12 - 48 V devices) is possible.

In the event that a device is tripped by a fault, the handle of the basic unit and remotely controlled mechanism switch to the OFF position. If, depending on the device version, the combination has been switched off, an attempt can be made to switch it on again via ARD or remotely. If the fault persists, the device combination is switched off and can only be switched on again manually on site.

Suitable adapters must be ordered so that the remote controlled mechanisms can be combined with the residual current circuit breakers, miniature circuit breakers, RCBOs and on/off switches.



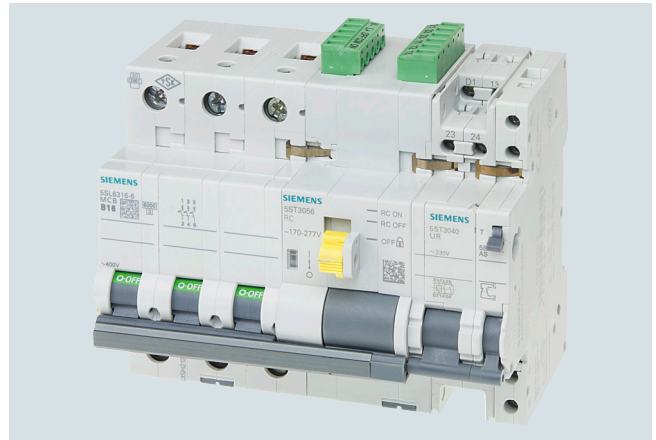
## Additional components

### Benefits

#### **Can be universally mounted with all additional components**

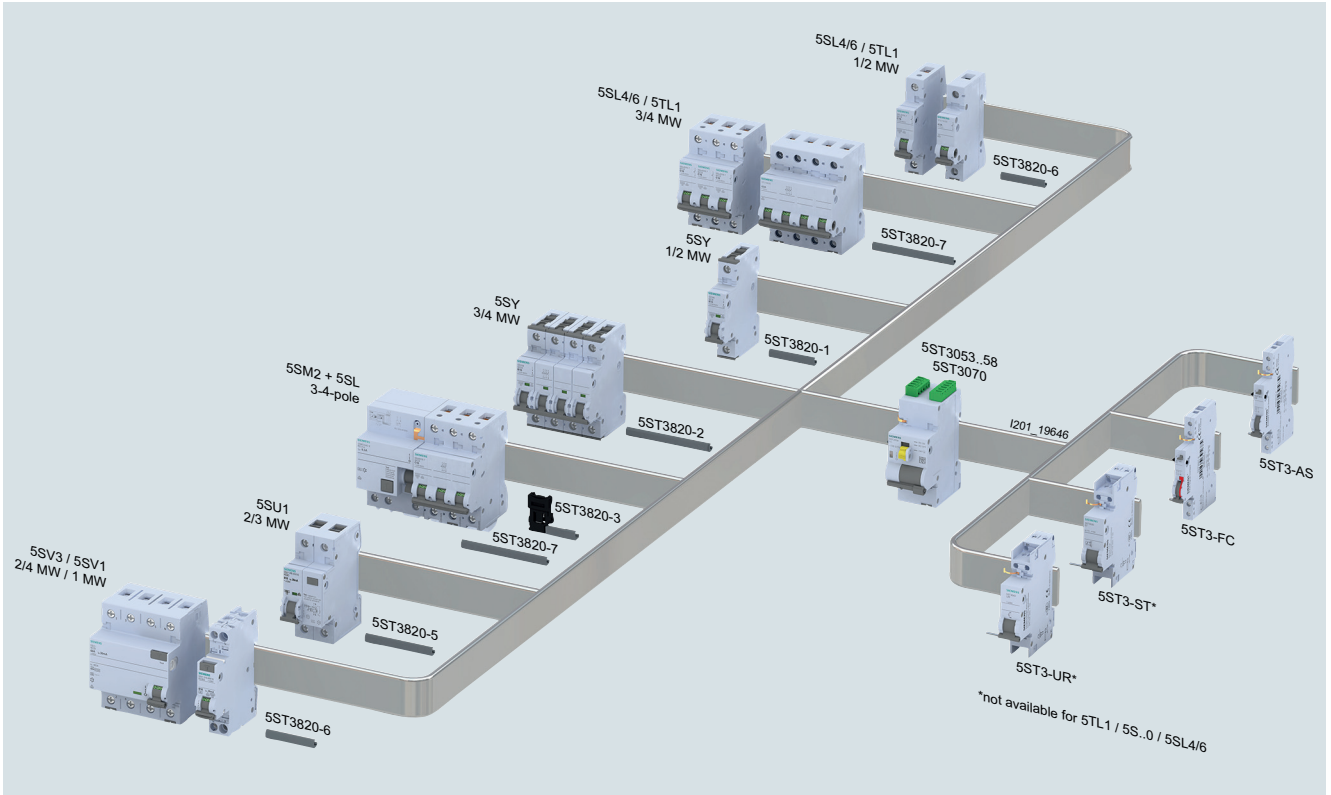
- Captive metal brackets on the additional components ensure the quick and easy mounting of devices without the need for tools.
- Fault signal contacts with TEST and RESET button enable the simple testing of auxiliary circuits and, in the event of a fault, acknowledgement of the fault over the RESET button, without the need to switch the residual current operated circuit breaker.
- The auxiliary switches with TEST button enable the simple manual testing of control circuits during operation of the entire installation without the need to interrupt the power supply of the circuit.
- Bus systems, such as *instabus* KNX, AS-Interface bus or PROFIBUS, can be integrated in the communication over binary inputs.

#### **Remote controlled mechanism**



- Remote controlled mechanisms ARD and Power have integrated auxiliary switches and fault signal contacts.
- More additional 5ST3 ... components, such as AS, FC, ST and UR, can be added to the right-hand side of the remote controlled mechanism in line with the Siemens mounting concept.
- Remote-controlled mechanisms ARD and Power have an LED display on the front of the device for indicating the switching state and for diagnostics.
- The 5ST3070 remote controlled mechanism has an extended temperature range from -40 °C to +70 °C.
- For vibration and shock resistance the 5ST3070 fulfills the requirements in accordance with DIN EN 61373 and DIN EN 50155 "1B" .

Portfolio overview



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

## Additional components

**Combination options remote controlled mechanism – adapter – add-on device**

4

		5SL4/6	5TL1	5SV1	5SL4/6	5TL1	5SY4/5/6/7/8	5SY60	5SY4/5/6/7/8
		1-2 MW			3-4 MW		1-2 MW		3-4 MW
<b>add-on device</b>									
<b>RC mech.</b>									
	<b>Basic (1.5 MW) – 5ST3053</b> 12 V - 30 V AC 12 V - 48 V DC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>Basic (2 MW) – 5ST3054</b> 230 V AC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>Power (2 MW) – 5ST3055</b> 12 V - 30 V AC 12 V - 48 V DC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>Power (2 MW) – 5ST3056</b> 230 V AC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>ARD* (2 MW) – 5ST3057</b> 12 V - 30 V AC 12 V - 48 V DC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>ARD* (2 MW) – 5ST3058</b> 230 V AC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2
	<b>Power enhanced functionality (2 MW) – 5ST3070</b> 12 - 30 V AC 12 - 48 V DC								
		Adapter 5ST3820-6			Adapter 5ST3820-7		Adapter 5ST3820-1		Adapter 5ST3820-2

\* ARD = Auto Reclose Device

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

## Additional components

### Combination options remote controlled mechanism – adapter – add-on device (continued)

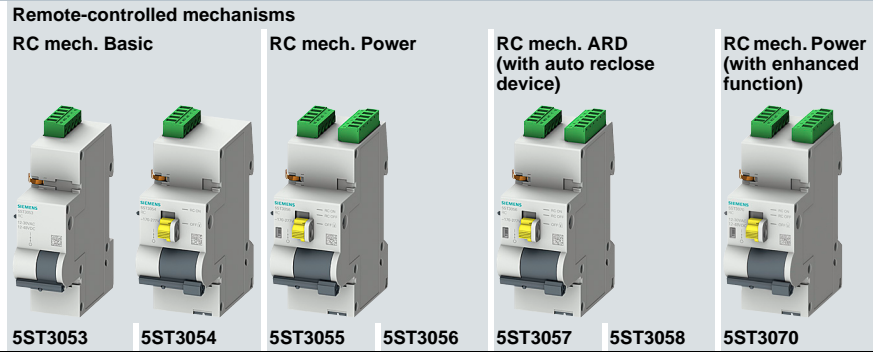
	5SU1 2 MW, 3 MW	5SV3	5SM2 + 5SL 2-pole	5SM2 + 5SL 3-4-pole	5SM2 + 5SY 2-pole	5SM2 + 5SY 3-4-pole
<b>add-on device</b>						
<b>RC mech.</b>						
<b>Basic (1.5 MW) – 5ST3053</b> 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-5	not combinable	not combinable	not combinable	not combinable	not combinable
<b>Basic (2 MW) – 5ST3054</b> 230 V AC	 Adapter 5ST3820-5	not combinable	not combinable	not combinable	not combinable	not combinable
<b>Power (2 MW) – 5ST3055</b> 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-5	 Adapter 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-7	 Adapter 5ST3820-3 additional 5ST3820-1	 Adapter 5ST3820-3 additional 5ST3820-2
<b>Power (2 MW) – 5ST3056</b> 230 V AC	 Adapter 5ST3820-5	 Adapter 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-7	 Adapter 5ST3820-3 additional 5ST3820-1	 Adapter 5ST3820-3 additional 5ST3820-2
<b>ARD* (2 MW) – 5ST3057</b> 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-5	 Adapter 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-7	 Adapter 5ST3820-3 additional 5ST3820-1	 Adapter 5ST3820-3 additional 5ST3820-2
<b>ARD* (2 MW) – 5ST3058</b> 230 V AC	 Adapter 5ST3820-5	 Adapter 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-7	 Adapter 5ST3820-3 additional 5ST3820-1	 Adapter 5ST3820-3 additional 5ST3820-2
<b>Power enhanced functionality (2 MW) – 5ST3070</b> 12 - 30 V AC 12 - 48 V DC	 Adapter 5ST3820-5	 Adapter 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-6	 Adapter 5ST3820-3 additional 5ST3820-7	 Adapter 5ST3820-3 additional 5ST3820-1	 Adapter 5ST3820-3 additional 5ST3820-2

\* ARD = Auto Reclose Device

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


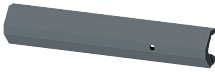
## Additional components

### Technical specifications



<b>Standards</b>		EN 50557 (VDE 0640-20)						
<b>Rated voltages <math>U_n</math></b>	V AC	12 ... 30	177 ...270	12 ... 30	177 ...270	12 ... 30	177 ...270	12 ... 30
	V DC	12 ...48		12 ...48		12 ...48		12 ...48
• Rated frequency $f_n$	Hz	50 ... 60						
<b>Rated power dissipation</b>	VA	≤ 1 in standby						
<b>Module width</b>	mm	27 (1.5 MW)	36 (2 MW)					
<b>Ambient temperature</b>	°C	-25 ... +45						-40 ... +70
<b>Storage temperature</b>	°C	-40 ... +55						-40 ... +70
<b>Degree of protection</b>		IP20						
<b>Service life, on average, with rated load</b>		10 000 actuations						
<b>Conductor cross-sections</b>	mm <sup>2</sup>	0.5... 1.5						
	AWG	14 ... 30						
<b>Terminal tightening torque</b>	Nm	0.2 ... 0.25						
	lb-in	2.0						
<b>Cable length in control circuit</b>	m	≤ 1500						
<b>Number of remote switching/min.</b>		2						
<b>Number of auto reclose attempts</b>		--				3		--
<b>Sliding selector with locking device</b>		--	✓	✓	✓	✓	✓	✓
<b>Integrated auxiliary switches</b>		--		1W (1CO); 2 A; 250 V				
<b>Integrated fault signal contacts</b>		--		1W (1CO); 2 A; 250 V				
<b>Possible unit combinations</b>		Miniature circuit breakers up to 4 MW, RCBO up to 3 MW		MCB, RCCB up to 4P; RCBOs up to 3 MW, RC unit + MCB, ON/OFF switches: 5TL1, 5TE2				
<b>Resistance to vibrations and shock</b>	According to DIN EN 61373 / DIN EN 50155 " 1B"	--						✓

### Selection and ordering data

	Rated voltage	Mounting width	RL	Article No. <a href="http://www.siemens.com/product?Article No.">www.siemens.com/ product?Article No.</a>	Price € per PU	PU (UNIT, SET, M)	PS	PG	
		MW	d						
	<b>Remote controlled mechanism (RC mech.)</b>								
	• Remote controlled mechanism Basic	12 ... 30 V AC 12 ... 48 V DC	1.5	3	<b>5ST3053</b>		1	1 unit	1AD
	• Remote controlled mechanism Power	177 ... 270 V AC	2	3	<b>5ST3054</b>		1	1 unit	1AD
		12 ... 30 V AC 12 ... 48 V DC	2	3	<b>5ST3055</b>		1	1 unit	1AD
	• Remote controlled mechanism ARD with auto reclose function	177 ... 270 V AC		3	<b>5ST3056</b>		1	1 unit	1AD
		12 ... 30 V AC 12 ... 48 V DC	2	3	<b>5ST3057</b>		1	1 unit	1AD
	• Remote controlled mechanism (with enhanced function)	177 ... 270 V AC		3	<b>5ST3058</b>		1	1 unit	1AD
		12 ... 30 V AC 12 ... 48 V DC	2	5	<b>5ST3070</b>		1	1 unit	1AD
<b>Note</b>									
Matching adapters are to be ordered separately.									
	<b>Accessories for remote controlled mechanisms</b>								
	• Adapter for 5SV1 RCBO, 1-pole 5SL4/6, 1-2 pole 5TL1, 1-2 pole 5SV3 RCCB, 2/4 pole			3	<b>5ST3820-6</b>		1	1 unit	1AD

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


## Additional components

### Technical specifications

	Auxiliary switch (AS)		Fault signal contact (FC)
	5ST3010, 5ST3010-2 5ST3011, 5ST3011-2 5ST3012, 5ST3012-2	5ST3013 <sup>1)</sup> , 5ST3013-2 <sup>2)</sup> 5ST3014 <sup>1)</sup> , 5ST3014-2 <sup>2)</sup> 5ST3015 <sup>1)</sup> , 5ST3015-2 <sup>2)</sup>	5ST3020, 5ST3020-2 5ST3021, 5ST3021-2 5ST3022, 5ST3022-2
<b>Standards</b>	IEC/EN 62019; IEC/EN 60947-5-1; UL 1077; CSA C22.2 No. 235		
<b>Approvals</b>	siehe Kapitel "Anhang"		
<b>Short-circuit protection</b>	<ul style="list-style-type: none"> <li>&lt; 500 A: 5SL B6/C6 miniature circuit breaker</li> <li>Up to 1 kA: 5SY B6/C6 miniature circuit breaker or gG 6 A fuse</li> </ul>		
<b>Contact load</b>			
• Min.	50 mA, 24 V	1) = 1 mA/5 V DC 2) = 5 mA/5 V DC	50 mA, 24 V
• Max.	--	1) = 100 mA/30 V DC 2) = 30 mA/30 V DC	--
• according to IEC/EN 62019 and 60947-5-1:			
- 400 V AC, AC-14, NO	A 2	--	2
- 230 V AC, AC-14, NO	A 6	--	6
- 400 V AC, AC-13, NC	A 2	--	2
- 230 V AC, AC-13, NC	A 6	--	6
• acc. to IEC/EN 62019 (according to IEC/EN 60947-5-1):			
- 220 V DC, DC-13, NO + NC	A 1 (0.5)	--	1 (0.5)
- 110 V DC, DC-13, NO + NC	A 1 (0.75)	--	1 (0.75)
- 60 V DC, DC-13, NO + NC	A 3 (1.5)	--	3 (1.5)
- 24 V DC, DC-13, NO + NC	A 6 (3)	--	6 (3)
<b>Service life, on average, with rated load</b>	20000 actuations	20000 actuations	20000 actuations
<b>Conductor cross-sections</b>	mm <sup>2</sup> AWG	0.5 ... 2.5 22 ... 14	0.5 ... 2.5 22 ... 14
<b>Terminals</b>			
• Terminal tightening torque	Nm lb-in	0.5 4.5	0.5 4.5
<b>Mounting position</b>	Any	Any	Any
<b>Ambient temperature</b>	°C	-25 ... +55	-25 ... +55
<b>Storage temperature</b>	°C	-40 ... +75	-40 ... +75
<b>Resistance to climate</b>	According to IEC 60068-2-30 Cycles	28	
<b>Shock</b>	According to IEC 60068-2-27 m/s	50 at 11 ms half-sine	
<b>Resistance to vibrations</b>	According to IEC 60068-2-6 m/s <sup>2</sup>	50 at 10 ... 150 Hz	

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### Selection and ordering data

	Rated current $I_n$	Mount- ing width	RL	Article No. <a href="http://www.siemens.com/product?Article No.">www.siemens.com/ product?Article No.</a>	Price € per PU	PU (UNIT, SET, M)	PS	PG		
	A	MW	d							
	<b>Auxiliary switch (AS)</b> for 5SL, 5SY, 5SP miniature circuit breakers, 5SV1, 5SU1 RCBOs, 5SV RCCBs and 5TE8 circuit breakers (for 5SU1, the 5ST3805-1 handle coupler is required)									
	1 NO + 1 NC for low power	0.5	▶	<b>5ST3010</b>		1	1 unit	1AD		
			▶	<b>5ST3013</b>		1	1 unit	1AD		
	2 NO for low power	2		<b>5ST3011</b>		1	1 unit	1AD		
		2		<b>5ST3014</b>		1	1 unit	1AD		
2 NC for low power	2		<b>5ST3012</b>		1	1 unit	1AD			
		5		<b>5ST3015</b>		1	1 unit	1AD		
	<b>Auxiliary switch (AS) with test button</b> for 5SL, 5SY, 5SP miniature circuit breakers, 5SV1, 5SU1 RCBOs, 5SV RCCBs and 5TE8 circuit breakers (for 5SU1, the 5ST3805-1 handle coupler is required)									
	1 NO + 1 NC for low power	0.5	2	<b>5ST3010-2</b>		1	1 unit	1AD		
			10	<b>5ST3013-2</b>		1	1 unit	1AD		
	2 NO for low power	2	10	<b>5ST3011-2</b>		1	1 unit	1AD		
		2	10	<b>5ST3014-2</b>		1	1 unit	1AD		
2 NC for low power	2	10	<b>5ST3012-2</b>		1	1 unit	1AD			
		2	<b>5ST3015-2</b>		1	1 unit	1AD			
	<b>Fault signal contact (FC)</b> for 5SL, 5SY, 5SP miniature circuit breakers, 5SV1, 5SU1 RCBOs and 5SV RCCBs (for 5SU1, the 5ST3805-1 handle coupler is required)									
	1 NO + 1 NC	0.5	▶	<b>5ST3020</b>		1	1 unit	1AD		
	2 NO		2	<b>5ST3021</b>		1	1 unit	1AD		
	2 NC		2	<b>5ST3022</b>		1	1 unit	1AD		
	<b>Fault signal contacts (FC) with test and acknowledgment button</b> for 5SL, 5SY, 5SP miniature circuit breakers, 5SV1, 5SU1 RCBOs and 5SV RCCBs (for 5SU1, the 5ST3805-1 handle coupler is required)									
	1 NO + 1 NC	0.5	▶	<b>5ST3020-2</b>		1	1 unit	1AD		
	2 NO		2	<b>5ST3021-2</b>		1	1 unit	1AD		
	2 NC		10	<b>5ST3022-2</b>		1	1 unit	1AD		
	<b>Handle locking device</b> • for 5SV RCCBs, 5SV1 RCBOs, 5SL miniature circuit breakers • for padlock with 3 ... 6 mm bracket			2	<b>5ST3806</b>	1	5 units	1AD		
	<b>Padlock</b> for 5ST3806 locking device, 5ST3054..58 / 5ST3070 remote-controlled operating mechanisms			2	<b>5ST3802</b>	1	1 unit	1AD		
	<b>Arc Fault Detection unit (AFD Unit)</b> for 5SV1 RCBOs, 5SY60 (1MW) miniature circuit breakers 2-pole, 230 V AC / 50 Hz			Up to 16	1	2	<b>5SM6011-2</b>	1	1 unit	1BA



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- for other deliveries of hardware and software the " International Conditions for Products" <sup>1)</sup> supplemented by " Software Licensing Conditions" <sup>1)</sup>.

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## Appendix

### Conditions of sale and delivery

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