Overview

Miniature circuit breakers are used to protect systems and installations in buildings and for industrial applications.

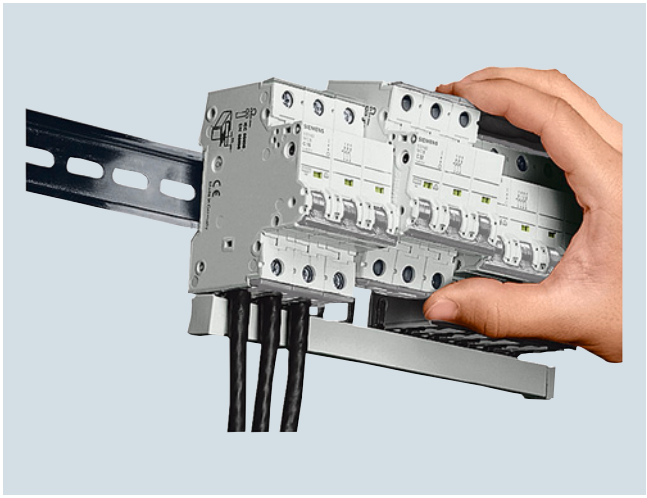
Used in industrial applications and plant engineering, miniature circuit breakers can be supplemented with additional components, such as auxiliary switches, fault signal contacts, shunt trips, undervoltage releases, remote controlled mechanisms, RC units, and arc fault detection devices.

The devices are approved for worldwide use according to IEC standards for power supply systems up to 250/440 V AC. 72 V DC per pole is permitted in DC systems.

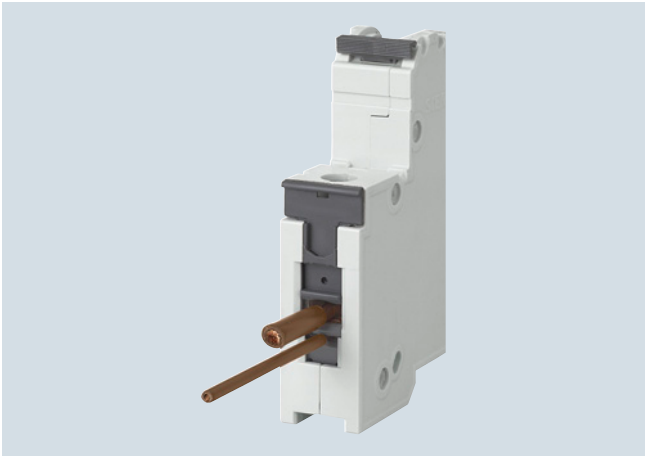
For North America, there is an additional approval according to UL 1077 for use as "supplementary protectors" in systems up to 480/277 V AC. For use in ship building, the devices also have numerous certifications according to shipping classifications BV, DNV, GL and LRS. For information on this, see chapter "Appendix" in "Standards and Approvals".

Benefits

- Optional top or bottom infeed as the terminals are identical
- Clear and visible conductor connection in front of the rear busbar facilitates controls
- The conductor is easily inserted into the terminal thanks to the large and easily accessible wiring space



- Quick and easy manual removal of miniature circuit breakers from the busbar assembly, for example if connections need to be changed
- Time-saving replacement of parts as busbars no longer need to be freed from adjacent devices



- Double terminal chambers permit accommodation of 2 wires of different cross-sections.

- The 5SY miniature circuit breakers are ideal for the quick and easy mounting of auxiliary switches and fault signal contacts. Captive metal brackets on the additional components ensure the quick and easy mounting of devices on the miniature circuit breakers without the need for tools.

Technical specifications

			5SY6	5SY4	5SY5	5SY7	5SY8	5SP4
Standards			EN 60898-1	EN 60898-1	EN 60898-2	EN 60898-1	EN 60947-2	EN 60898-1
Approvals			see chapter "Appendix"					
Rated voltage U_n		V AC V DC	230/400 --	230/400 --	230/400 220/440/ 880[5]	230/400 --	230/400 --	230/400 --
Operational voltage								
	Min.	V AC/DC/pole	24	24	24	24	24	24
Acc. to EN 60898-1/-2 and EN 60947-2	Max. Max.	V DC/pole V AC	72[4] 250/440	72[4] 250/440	250 250/440	72[4] 250/440	72[4] 250/440	72 250/440
Acc. to UL 1077 and CSA C22.2 No.235	Max.	V AC	480/277	480/277	--	480/277	480/277	480/277
	Max.	V DC	60	60[6]	--	60[6]	60[6]	60
Breaking capacity[1]								
• I_{cn} acc. to IEC/EN 60898-1		kA AC	6	10	10	15	--	10
• I_{cn} acc. to IEC/EN 60898-2		kA DC	10	10	10	15	--	10
• I_{cu} acc. to IEC/EN 60947-2		kA AC kA DC	30 ... 10[1] 15	35 ... 10[1] 15	35 ... 10[1] 15	50 ... 15[1] 15	70 ... 20[1] 15	10 15
• Acc. to UL1077 and CSA C22.2 No.235		kA AC	5	5	--	5	5	5
Insulation coordination								
• Rated insulation voltage		V AC V DC/pole	250/440 --	--	250	--	--	--
• Rated impulse withstand voltage U_{imp}		kV AC	4					
Pollution degree for overvoltage category			3/III[3]					
Rated frequency		Hz	50/60					
Touch protection	Acc. to EN 50274		Yes					
Handle end position, sealable			Yes					
Degree of protection	Acc. to EN 60529		IP20 with connected conductors, IP40 in the area of the handle with distribution cover					
CFC and silicone-free			Yes					
Mounting								
• Snap-on fixing system			Yes					--
• Standard mounting rail and screw fixing			--					Yes
Terminals	± screw (Pozidriv)		2					
• Tunnel terminals at both ends			--					Yes
• Combined terminals at both ends			Yes					--
• Terminal tightening torque		Nm lb-in	2.5 ... 3.5 max. 22 ... 26					2.5 ... 3.5 22 ... 31
Conductor cross-sections								
• Solid and stranded		mm^2	0.75 ... 35					4 ... 50
• Finely stranded, with end sleeve		mm^2	0.75 ... 25					1.5 ... 35
• AWG conductors (Cu 60/75 °C $I_n \leq 40$ A; 60 °C $I_n > 40$ A)		AWG	14 ... 4					14 ... 2
Mains connection								
• AC			Any					
• DC			Any		[2]	Any		
Mounting position			Any					
Service life On average, with rated load		Actuations Actuations	20000 10000, for 5SY5 at 40 A, 50 A and 63 A					
Ambient temperature		°C	-25 ... +55, max. 95% humidity					
Storage temperature		°C	-40 ... +75					
Resistance to climate	Acc. to IEC 60068-2-30		6 cycles					
Shock	Acc. to IEC 60068-2-27	m/s^2	150 at 11 ms half-sine					
Resistance to vibrations	Acc. to IEC 60068-2-6	m/s^2	50 at 25 ... 150 Hz and 60 at 35 Hz (4 s)					

1) For detailed information, see Configuration Manual "Miniature Circuit Breakers" (www.siemens.com/lowvoltage/manuals).

2) Ensure compliance with the specified polarity when connecting DC.

3) 5SY54.. 4-pole, degree of pollution 2 for overvoltage category II.

4) Exempt: C/D 0.3 A ... 0.5 A

5) 5SY54.. 4-pole 880 V is not a standardized voltage acc. to EN 60898-1, suitable for max. 1000 V DC if the four poles are connected in series.

6) Valid for 1-pole switching devices only.

Minimum order quantity (PS) or a multiple thereof can be ordered.

10000 / 3		I_n	Mounting width	SD	Characteristic C Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	Characteristic D Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		A	MW[1]	d						d					
Miniature circuit breakers 10000 A															
	**1P, 230/400 V AC**														
		0.3	1		**5SY4114-7**		1	1 unit	1AC		**5SY4114-8**		1	1 unit	1AA
		0.5			**5SY4105-7**		1	1 unit	1AC		**5SY4105-8**		1	1 unit	1AA
		1			**5SY4101-7**		1	1 unit	1AC		**5SY4101-8**		1	1 unit	1AA
		1.6			**5SY4115-7**		1	1 unit	1AC		**5SY4115-8**		1	1 unit	1AA
		2		▶	**5SY4102-7**		1	1 unit	1AC		**5SY4102-8**		1	1 unit	1AA
		3			**5SY4103-7**		1	1 unit	1AC		**5SY4103-8**		1	1 unit	1AA
		4		▶	**5SY4104-7**		1	1 unit	1AC		**5SY4104-8**		1	1 unit	1AA
		5			**5SY4111-7**		1	1 unit	1AC		--				
		6		▶	**5SY4106-7**		1	1 unit	1AC		**5SY4106-8**		1	1 unit	1AA
		8			**5SY4108-7**		1	1 unit	1AC		**5SY4108-8**		1	1 unit	1AA
		10		▶	**5SY4110-7**		1	1 unit	1AC		**5SY4110-8**		1	1 unit	1AA
		13			**5SY4113-7**		1	1 unit	1AC		**5SY4113-8**		1	1 unit	1AA
		15			**5SY4118-7**		1	1 unit	1AC		--				
		16		▶	**5SY4116-7**		1	1 unit	1AC		**5SY4116-8**		1	1 unit	1AA
		20			**5SY4120-7**		1	1 unit	1AC		**5SY4120-8**		1	1 unit	1AA
		25			**5SY4125-7**		1	1 unit	1AC		**5SY4125-8**		1	1 unit	1AA
		30			**5SY4130-7**		1	1 unit	1AC		--				
		32			**5SY4132-7**		1	1 unit	1AC		**5SY4132-8**		1	1 unit	1AA
		35			**5SY4135-7**		1	1 unit	1AC		--				
		40			**5SY4140-7**		1	1 unit	1AC		**5SY4140-8**		1	1 unit	1AA
		45			**5SY4145-7**		1	1 unit	1AC		--				
		50			**5SY4150-7**		1	1 unit	1AC		**5SY4150-8**		1	1 unit	1AA
		60			**5SY4160-7**		1	1 unit	1AC		--				
		63			**5SY4163-7**		1	1 unit	1AC		**5SY4163-8**		1	1 unit	1AA
		80			**5SY4180-7**		1	1 unit	1AC		--				
	**1P+N, 230 V AC**														
		0.3	2		**5SY4514-7**		1	1 unit	1AC		**5SY4514-8**		1	1 unit	1AA
		0.5			**5SY4505-7**		1	1 unit	1AC		**5SY4505-8**		1	1 unit	1AA
		1			**5SY4501-7**		1	1 unit	1AC		**5SY4501-8**		1	1 unit	1AA
		1.6			**5SY4515-7**		1	1 unit	1AC		**5SY4515-8**		1	1 unit	1AA
		2			**5SY4502-7**		1	1 unit	1AC		**5SY4502-8**		1	1 unit	1AA
		3			**5SY4503-7**		1	1 unit	1AC		**5SY4503-8**		1	1 unit	1AA
		4			**5SY4504-7**		1	1 unit	1AC		**5SY4504-8**		1	1 unit	1AA
		6			**5SY4506-7**		1	1 unit	1AC		**5SY4506-8**		1	1 unit	1AA
		8			**5SY4508-7**		1	1 unit	1AC		**5SY4508-8**		1	1 unit	1AA
		10			**5SY4510-7**		1	1 unit	1AC		**5SY4510-8**		1	1 unit	1AA
		13			**5SY4513-7**		1	1 unit	1AC		**5SY4513-8**		1	1 unit	1AA
		16			**5SY4516-7**		1	1 unit	1AC		**5SY4516-8**		1	1 unit	1AA
		20			**5SY4520-7**		1	1 unit	1AC		**5SY4520-8**		1	1 unit	1AA
		25			**5SY4525-7**		1	1 unit	1AC		**5SY4525-8**		1	1 unit	1AA
		32			**5SY4532-7**		1	1 unit	1AC		**5SY4532-8**		1	1 unit	1AA
		40			**5SY4540-7**		1	1 unit	1AC		**5SY4540-8**		1	1 unit	1AA
		50			**5SY4550-7**		1	1 unit	1AC		**5SY4550-8**		1	1 unit	1AA
		63			**5SY4563-7**		1	1 unit	1AC		**5SY4563-8**		1	1 unit	1AA
		80			**5SY4580-7**		1	1 unit	1AC		--				
	**2P, 400 V AC**														
		0.3	2		**5SY4214-7**		1	1 unit	1AC		**5SY4214-8**		1	1 unit	1AA
		0.5			**5SY4205-7**		1	1 unit	1AC		**5SY4205-8**		1	1 unit	1AA
		1			**5SY4201-7**		1	1 unit	1AC		**5SY4201-8**		1	1 unit	1AA
		1.6			**5SY4215-7**		1	1 unit	1AC		**5SY4215-8**		1	1 unit	1AA
		2		▶	**5SY4202-7**		1	1 unit	1AC		**5SY4202-8**		1	1 unit	1AA
		3			**5SY4203-7**		1	1 unit	1AC		**5SY4203-8**		1	1 unit	1AA
		4			**5SY4204-7**		1	1 unit	1AC		**5SY4204-8**		1	1 unit	1AA
		5			**5SY4211-7**		1	1 unit	1AC		--				
		6		▶	**5SY4206-7**		1	1 unit	1AC		**5SY4206-8**		1	1 unit	1AA
		8			**5SY4208-7**		1	1 unit	1AC		**5SY4208-8**		1	1 unit	1AA
		10		▶	**5SY4210-7**		1	1 unit	1AC		**5SY4210-8**		1	1 unit	1AA
		13			**5SY4213-7**		1	1 unit	1AC		**5SY4213-8**		1	1 unit	1AA
		15			**5SY4218-7**		1	1 unit	1AC		--				
		16		▶	**5SY4216-7**		1	1 unit	1AC		**5SY4216-8**		1	1 unit	1AA
		20			**5SY4220-7**		1	1 unit	1AC		**5SY4220-8**		1	1 unit	1AA
		25			**5SY4225-7**		1	1 unit	1AC		**5SY4225-8**		1	1 unit	1AA
		30			**5SY4230-7**		1	1 unit	1AC		--				
		32			**5SY4232-7**		1	1 unit	1AC		**5SY4232-8**		1	1 unit	1AA
		35			**5SY4235-7**		1	1 unit	1AC		--				
		40			**5SY4240-7**		1	1 unit	1AC		**5SY4240-8**		1	1 unit	1AA
		45			**5SY4245-7**		1	1 unit	1AC		--				
		50			**5SY4250-7**		1	1 unit	1AC		**5SY4250-8**		1	1 unit	1AA
		60			**5SY4260-7**		1	1 unit	1AC		--				
		63			**5SY4263-7**		1	1 unit	1AC		**5SY4263-8**		1	1 unit	1AA
		80			**5SY4280-7**		1	1 unit	1AC		--				

Minimum order quantity (PS) or a multiple thereof can be ordered.

5SY4, 10000 A

10000 / 3	I_n	Mounting width	SD	Characteristic C Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	Characteristic D Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	MW[1]	d						d					
Miniature circuit breakers 10000 A														
	**3P, 400 V AC**													
	0.3	3		**5SY4314-7**		1	1 unit	1AC		**5SY4314-8**		1	1 unit	1AA
	0.5			**5SY4305-7**		1	1 unit	1AC		**5SY4305-8**		1	1 unit	1AA
	1			**5SY4301-7**		1	1 unit	1AC		**5SY4301-8**		1	1 unit	1AA
	1.6			**5SY4315-7**		1	1 unit	1AC		**5SY4315-8**		1	1 unit	1AA
	2			**5SY4302-7**		1	1 unit	1AC		**5SY4302-8**		1	1 unit	1AA
	3			**5SY4303-7**		1	1 unit	1AC		**5SY4303-8**		1	1 unit	1AA
	4			**5SY4304-7**		1	1 unit	1AC		**5SY4304-8**		1	1 unit	1AA
	5			**5SY4311-7**		1	1 unit	1AC		--				
	6			**5SY4306-7**		1	1 unit	1AC		**5SY4306-8**		1	1 unit	1AA
	8			**5SY4308-7**		1	1 unit	1AC		**5SY4308-8**		1	1 unit	1AA
	10		▶	**5SY4310-7**		1	1 unit	1AC		**5SY4310-8**		1	1 unit	1AA
	13			**5SY4313-7**		1	1 unit	1AC		**5SY4313-8**		1	1 unit	1AA
	15			**5SY4318-7**		1	1 unit	1AC		--				
	16		▶	**5SY4316-7**		1	1 unit	1AC		**5SY4316-8**		1	1 unit	1AA
	20			**5SY4320-7**		1	1 unit	1AC		**5SY4320-8**		1	1 unit	1AA
	25			**5SY4325-7**		1	1 unit	1AC		**5SY4325-8**		1	1 unit	1AA
	30			**5SY4330-7**		1	1 unit	1AC		--				
	32		▶	**5SY4332-7**		1	1 unit	1AC		**5SY4332-8**		1	1 unit	1AA
	35			**5SY4335-7**		1	1 unit	1AC		--				
	40			**5SY4340-7**		1	1 unit	1AC		**5SY4340-8**		1	1 unit	1AA
	45			**5SY4345-7**		1	1 unit	1AC		--				
	50			**5SY4350-7**		1	1 unit	1AC		**5SY4350-8**		1	1 unit	1AA
	60			**5SY4360-7**		1	1 unit	1AC		--				
	63			**5SY4363-7**		1	1 unit	1AC		**5SY4363-8**		1	1 unit	1AA
	80			**5SY4380-7**		1	1 unit	1AC		--				
	**3P+N, 400 V AC**													
	0.3	4		**5SY4614-7**		1	1 unit	1AC		**5SY4614-8**		1	1 unit	1AA
	0.5			**5SY4605-7**		1	1 unit	1AC		**5SY4605-8**		1	1 unit	1AA
	1			**5SY4601-7**		1	1 unit	1AC		**5SY4601-8**		1	1 unit	1AA
	1.6			**5SY4615-7**		1	1 unit	1AC		**5SY4615-8**		1	1 unit	1AA
	2			**5SY4602-7**		1	1 unit	1AC		**5SY4602-8**		1	1 unit	1AA
	3			**5SY4603-7**		1	1 unit	1AC		**5SY4603-8**		1	1 unit	1AA
	4			**5SY4604-7**		1	1 unit	1AC		**5SY4604-8**		1	1 unit	1AA
	6			**5SY4606-7**		1	1 unit	1AC		**5SY4606-8**		1	1 unit	1AA
	8			**5SY4608-7**		1	1 unit	1AC		**5SY4608-8**		1	1 unit	1AA
	10			**5SY4610-7**		1	1 unit	1AC		**5SY4610-8**		1	1 unit	1AA
	13			**5SY4613-7**		1	1 unit	1AC		**5SY4613-8**		1	1 unit	1AA
	16			**5SY4616-7**		1	1 unit	1AC		**5SY4616-8**		1	1 unit	1AA
	20			**5SY4620-7**		1	1 unit	1AC		**5SY4620-8**		1	1 unit	1AA
	25			**5SY4625-7**		1	1 unit	1AC		**5SY4625-8**		1	1 unit	1AA
	32			**5SY4632-7**		1	1 unit	1AC		**5SY4632-8**		1	1 unit	1AA
	40			**5SY4640-7**		1	1 unit	1AC		**5SY4640-8**		1	1 unit	1AA
	50			**5SY4650-7**		1	1 unit	1AC		**5SY4650-8**		1	1 unit	1AA
	63			**5SY4663-7**		1	1 unit	1AC		**5SY4663-8**		1	1 unit	1AA
	80			**5SY4680-7**		1	1 unit	1AC		--				
	**4P, 400 V AC**													
	0.3	4		**5SY4414-7**		1	1 unit	1AC		**5SY4414-8**		1	1 unit	1AA
	0.5			**5SY4405-7**		1	1 unit	1AC		**5SY4405-8**		1	1 unit	1AA
	1			**5SY4401-7**		1	1 unit	1AC		**5SY4401-8**		1	1 unit	1AA
	1.6			**5SY4415-7**		1	1 unit	1AC		**5SY4415-8**		1	1 unit	1AA
	2			**5SY4402-7**		1	1 unit	1AC		**5SY4402-8**		1	1 unit	1AA
	3			**5SY4403-7**		1	1 unit	1AC		**5SY4403-8**		1	1 unit	1AA
	4			**5SY4404-7**		1	1 unit	1AC		**5SY4404-8**		1	1 unit	1AA
	6			**5SY4406-7**		1	1 unit	1AC		**5SY4406-8**		1	1 unit	1AA
	8			**5SY4408-7**		1	1 unit	1AC		**5SY4408-8**		1	1 unit	1AA
	10			**5SY4410-7**		1	1 unit	1AC		**5SY4410-8**		1	1 unit	1AA
	13			**5SY4413-7**		1	1 unit	1AC		**5SY4413-8**		1	1 unit	1AA
	16			**5SY4416-7**		1	1 unit	1AC		**5SY4416-8**		1	1 unit	1AA
	20			**5SY4420-7**		1	1 unit	1AC		**5SY4420-8**		1	1 unit	1AA
	25			**5SY4425-7**		1	1 unit	1AC		**5SY4425-8**		1	1 unit	1AA
	32			**5SY4432-7**		1	1 unit	1AC		**5SY4432-8**		1	1 unit	1AA
	40			**5SY4440-7**		1	1 unit	1AC		**5SY4440-8**		1	1 unit	1AA
	50			**5SY4450-7**		1	1 unit	1AC		**5SY4450-8**		1	1 unit	1AA
	63			**5SY4463-7**		1	1 unit	1AC		**5SY4463-8**		1	1 unit	1AA
	80			**5SY4480-7**		1	1 unit	1AC		--				

[1] 1 MW (modular width) = 18 mm.

Minimum order quantity (PS) or a multiple thereof can be ordered.

3

Overview

The Siemens mounting concept supports the combination of all 5ST3 additional components with 5SY and 5SP miniature circuit breakers and with 5SU1 RCBOs.

5SL and 5SY60. . miniature circuit breakers are suitable for mounting auxiliary switches and fault signal contacts. Auxiliary switches can also be mounted on 5TE8 flush-mounting circuit breakers and 5SG71 MINIZED switch disconnectors.

Auxiliary switches (AS)

The auxiliary switch (AS) always signals the contact position of the miniature circuit breaker, regardless of whether the miniature 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) according to EN 61131-2. The auxiliary switch with test button enables the testing of control circuits without the need to switch the miniature circuit breaker.

Fault signal contacts (FC)

The fault signal contact (FC) signals the automatic tripping of the miniature circuit breaker 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 miniature circuit breaker is tripped manually. Fault signal contacts with TEST and RESET buttons enable the testing of control circuits without the need to trip the miniature circuit breaker. The red RESET button integrated in the handle also indicates the automatic tripping of the MCB. The signal can be acknowledged manually using the RESET button.

Shunt trips (ST)

Shunt trips are used for remote tripping of miniature circuit breakers.

Undervoltage releases (UR)

Undervoltage releases are integrated (e.g. in EMERGENCY-STOP loops), thus ensuring that the miniature circuit breaker trips in the event of an emergency, which, in turn, ensures disconnection of the control circuit according to EN 60204. In the event that the voltage is interrupted or too low, it also trips, i.e. prevents activation of the miniature circuit breaker.

RC units

RC units can be combined with miniature circuit breakers of characteristics A, B, C and D. They then form a combination of RCCB and miniature circuit breakers for personnel, fire and line protection. The combinations can be tailored to meet individual requirements.

For information on RC units, see chapter "Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)"

Remote controlled mechanisms (RC) NEW

Remote controlled mechanisms are used for the remote ON/OFF switching of miniature circuit breakers with or without RC unit, residual current operated circuit breakers, RCBOs or isolators and also enable local manual switching of these devices. A tripped combination must be acknowledged prior to switching back on.

The device combination with the auto reclose device (ARD) types tries up to three times to switch on again in the event of a fault. If a fault continues to exist, the combination remains switched off. The remote controlled mechanism Power has a mode selector switch with the functions: "Locked", "Manual" and "Remote Switching".

Selector switch position:
OFF (for the 177 - 270 V devices): The remote 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 operation are possible (except for in the case of the basic 12 - 48 V devices).

In the event that a device is tripped by a fault, the handle of the basic device and remote controlled mechanism switches to the OFF position. If, depending on the device version, the combination has switched off, an attempt can be made either via ARD or remotely to switch on again. If a fault continues to exist, the combination is switched off and can only be switched on again locally manually.

Matching adapters have to be ordered additionally to enable the remote controlled mechanisms to be combined with the residual current operated circuit breakers, miniature circuit breakers, RCBOs and ON/OFF switches.

Minimum order quantity (PS) or a multiple thereof can be ordered.

Benefits

Can be universally retrofitted with all additional components

- The 5SL, 5SY and 5SP miniature circuit breakers are ideal for the quick and easy mounting of auxiliary switches and fault signal contacts.
  Captive metal brackets on the additional components ensure the quick and easy mounting of devices on the miniature circuit breakers 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 miniature circuit breakers.

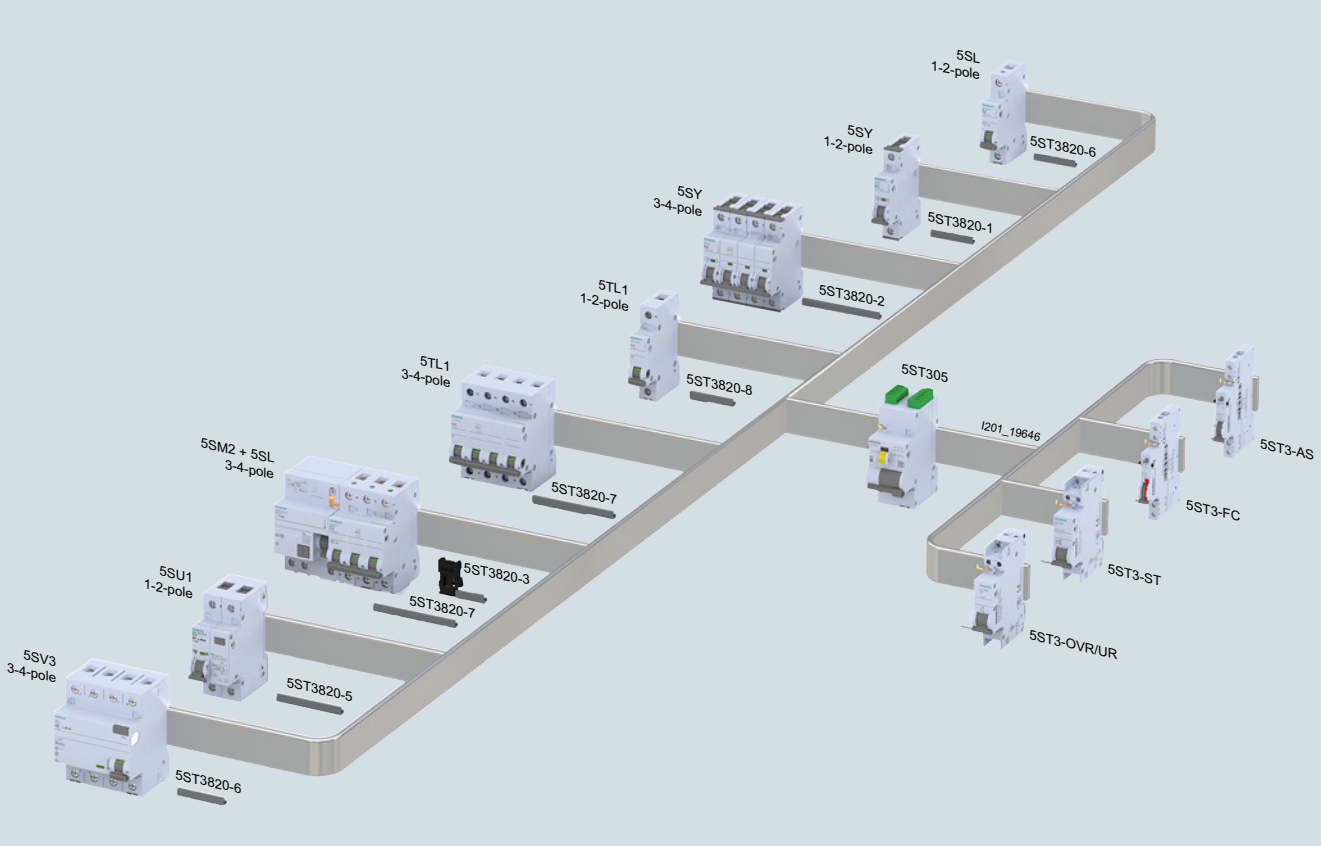
- The auxiliary switches with TEST button enable the simple manual testing of control circuits during operation of the entire installation, without the need to switch the miniature circuit breakers.

Remote controlled mechanisms NEW

- Remote controlled mechanisms with ARD and Power have integrated auxiliary switches and fault signal contacts.
- More 5ST3... additional 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.
- The remote controlled mechanisms with ARD and Power have an LED display on the front of the device to show the switching state and for diagnostics.

3

Portfolio overview



Minimum order quantity (PS) or a multiple thereof can be ordered.

Combination options remote controlled mechanism – adapter – mount-on device

		5SL6/4 1-2-pole	5SL6/4 3-4-pole	5SY4/5/6/7/8 1-2-pole	5SY4/5/6/7/8 3-4-pole	5SY60	5SU1	5SM2 + 5SL 1-2-pole
								
	**RC mech. Basic (1.5 MW) – 5ST3053** 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 up to 3 MW Adapter 5ST3820-5	not compatible
	**RC mech. Basic (2 MW) – 5ST3054** 230 V AC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 up to 3 MW Adapter 5ST3820-5	not compatible
	**RC mech. Power (2 MW) – 5ST3055** 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 Adapter 5ST3820-5	 Adapter 5ST3820-3 add. 5ST3820-6
	**RC mech. Power (2 MW) – 5ST3056** 230 V AC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 Adapter 5ST3820-5	 Adapter 5ST3820-3 add. 5ST3820-6
	**RC mech. ARD* (2 MW) – 5ST3057** 12 V - 30 V AC 12 V - 48 V DC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 Adapter 5ST3820-5	 Adapter 5ST3820-3 add. 5ST3820-6
	RC mech. ARD* (2 MW) – 5ST3058 230 V AC	 Adapter 5ST3820-6	 Adapter 5ST3820-7	 Adapter 5ST3820-1	 Adapter 5ST3820-2	 Adapter 5ST3820-1	 Adapter 5ST3820-5	 Adapter 5ST3820-3 add. 5ST3820-6

* ARD = Auto Reclose Device

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Electrical components

3

Combination options remote controlled mechanism – adapter – mount-on device

5SM2 + 5SL 3-4-pole	5SM2 + 5SY 1-2-pole	5SM2 + 5SY 3-4-pole	5SM9 + LS 5SY..CC 1-2-pole	5SM9 + LS 5SY..CC 3-4-pole	5SV3	5TL1 1-2-pole	5TL1 3-4-pole
							
not compatible	not compatible	not compatible	not compatible	not compatible	not compatible	Adapter 5ST3820-8	Adapter 5ST3821-1
not compatible	not compatible	not compatible	not compatible	not compatible	not compatible	Adapter 5ST3820-8	Adapter 5ST3821-1
Adapter 5ST3820-3 add. 5ST3820-7	Adapter 5ST3820-3 add. 5ST3820-1	Adapter 5ST3820-3 add. 5ST3820-2	Adapter 5ST3820-4 add. 5ST3820-6	Adapter 5ST3820-4 add. 5ST3820-7	Adapter 5ST3820-6	Adapter 5ST3820-8	Adapter 5ST3821-1
Adapter 5ST3820-3 add. 5ST3820-7	Adapter 5ST3820-3 add'l 5ST3820-1	Adapter 5ST3820-3 add. 5ST3820-2	Adapter 5ST3820-4 add. 5ST3820-6	Adapter 5ST3820-4 add. 5ST3820-7	Adapter 5ST3820-6	Adapter 5ST3820-8	Adapter 5ST3821-1
Adapter 5ST3820-3 add. 5ST3820-7	Adapter 5ST3820-3 add'l 5ST3820-1	Adapter 5ST3820-3 add. 5ST3820-2	Adapter 5ST3820-4 add. 5ST3820-6	Adapter 5ST3820-4 add. 5ST3820-7	Adapter 5ST3820-6	Adapter 5ST3820-8	Adapter 5ST3821-1
Adapter 5ST3820-3 add. 5ST3820-7	Adapter 5ST3820-3 add'l 5ST3820-1	Adapter 5ST3820-3 add. 5ST3820-2	Adapter 5ST3820-4 add. 5ST3820-6	Adapter 5ST3820-4 add. 5ST3820-7	Adapter 5ST3820-6	Adapter 5ST3820-8	Adapter 5ST3821-1

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Minimum order quantity (PS) or a multiple thereof can be ordered.

Technical specifications

		Remote controlled mechanisms NEW					
		Remote controlled mechanisms Basic		Remote controlled mechanisms Power		Remote controlled mechanism ARD (with automatic reclosing)	
							
		5ST3053	**5ST3054**	**5ST3055**	**5ST3056**	**5ST3057**	**5ST3058**
Standards		EN 50557 (VDE 0640-20)					
Rated voltages U_n	V AC	12 ... 30	177 ... 270	12 ... 30	177 ... 270	12 ... 30	177 ... 270
	V DC	12 ... 48		12 ... 48		12 ... 48	
• Rated frequency f_n	Hz	50 ... 60					
Rated power dissipation	VA	≤ 1 in standby					
Module width	mm	27 (1.5 MW)	36 (2 MW)				
Ambient temperature	°C	-25 ... +45					
Storage temperature	°C	-40 ... +55					
Degree of protection		IP20					
Service life, on average, with rated load		20 000 actuations					
Conductor cross-sections	mm^2 AWG	0.5 … 1.5 14 … 30					
Terminal tightening torque	Nm lb-in	0.2 ... 0.25 2.0					
Cable length in the control circuit	m	≤ 1500					
Number of remote switching operations/min.		2					
Number of automatic reclose attempts		--				3	
Sliding selector with locking device		--	✓	✓	✓	✓	✓
Integrated auxiliary switches		--		1 NO + 1 NC, 2 A, 250 V			
Integrated fault signal contact		--		1 NO + 1 NC, 2 A, 250 V			
Possible device combinations		MCBs up to 4 MW, RCBOs up to 3 MW		MCBs, RCCBs up to 4P, RCBOs up to 3 MW, RC unit + MCB, ON/OFF switches: 5TL1, 5TE2			

Minimum order quantity (PS) or a multiple thereof can be ordered.

Selection and ordering data

		Rated voltage U_n V	Mounting width MW[1]	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	**Remote controlled mechanisms (RC mech.)** NEW								
	• Remote controlled mechanisms Basic	12 ... 30 V AC 12 ... 48 V DC	1.5		**5ST3053**		1	1 unit	1AD
		177 ... 270 V AC	2		**5ST3054**		1	1 unit	1AD
	• Remote controlled mechanisms Power	12 ... 30 V AC 12 ... 48 V DC	2		**5ST3055**		1	1 unit	1AD
		177 ... 270 V AC			**5ST3056**		1	1 unit	1AD
	• Remote controlled mechanisms Power with automatic reclose function	12 ... 30 V AC 12 ... 48 V DC	2		**5ST3057**		1	1 unit	1AD
		177 ... 270 V AC			**5ST3058**		1	1 unit	1AD
	• Remote controlled mechanisms with extended function NEW	12 ... 30 V AC 12 ... 48 V DC	2		**5ST3070**		1	1 unit	1AD
	Note Matching adapters must be ordered separately.								
	**Accessories for remote controlled mechanisms** NEW								
	• Adapters for 5SY MCBs 1-2-pole				**5ST3820-1**		1	1 unit	1AD
	• Adapters for 5SY MCBs 3-4-pole				**5ST3820-2**		1	1 unit	1AD
	• Adapters for 5SM2 RC units				**5ST3820-3**		1	1 unit	1AD
	• Adapters for 5SU1 RCBOs				**5ST3820-5**		1	1 unit	1AD
	• Adapters for 5SL MCBs 1-2-pole, 5SV3 residual current switches				**5ST3820-6**		1	1 unit	1AD
	• Adapters for 5SL MCBs, 3-4-pole				**5ST3820-7**		1	1 unit	1AD
	• Adapters for 5TL1 ON/OFF switches 1-2-pole				**5ST3820-8**		1	1 unit	1AD
	• Adapters for 5TL1 ON/OFF switches 3-4-pole				**5ST3821-1**		1	1 unit	1AD

[1] 1 MW (modular width) = 18 mm.

Minimum order quantity (PS) or a multiple thereof can be ordered.

Technical specifications

			Auxiliary switches (AS)		Fault signal contacts (FC)
			5ST3010, 5ST3010-2 5ST3011, 5ST3011-2 5ST3012, 5ST3012-2	5ST3013[1], 5ST3013-2[2] 5ST3014[1], 5ST3014-2[2] 5ST3015[1], 5ST3015-2[2]	5ST3020, 5ST3020-2 5ST3021, 5ST3021-2 5ST3022, 5ST3022-2
Standards			IEC/EN 62019; IEC/EN 60947-5-1; UL 1077; CSA C22.2 No. 235		
Approvals			see chapter "Appendix"		
Short-circuit protection			• < 500 A: 5SL B6/C6 miniature circuit breakers • Up to 1 kA: 5SY B6/C6 miniature circuit breakers or fuse gG 6 A		
Contact load					
• Min.			50 mA, 24 V	1 mA/5 V DC	50 mA, 24 V
• Max.			--	[1] = 100 mA/30 V DC [2] = 50 mA/30 V DC	--
• Acc. 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 (acc. 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)
Service life, on average, with rated load			20000 actuations	20000 actuations	20000 actuations
Conductor cross-sections		mm^2 AWG	0.5 ... 2.5 22 ... 14	0.5 ... 2.5 22 ... 14	0.5 ... 2.5 22 ... 14
Terminals					
• Terminal tightening torque		Nm lb-in	0.5 4.5	0.5 4.5	0.5 4.5
Rated frequency		Hz	50/60		
Mounting position			Any	Any	Any
Ambient temperature		°C	-25 ... +55	-25 ... +55	-25 ... +55
Storage temperature		°C	-40 ... +75	-40 ... +75	-40 ... +75
Resistance to climate	Acc. to IEC 60068-2-30	Cycles	28		
Shock	Acc. to IEC 60068-2-27	m/s	50 at 11 ms half-sine		
Resistance to vibrations	Acc. to IEC 60068-2-6	m/s^2	50 at 10 ... 150 Hz		

			Undervoltage releases (UR)	Shunt trips (ST)	
			5ST304.	5ST3030	5ST3031
Standards			EN 60947-1		
Rated voltages U_n		V AC	230	110 ... 415	24 ... 48
		V DC	24, 110	110	24 ... 48
• Operating range U_n			0.85 ... 1.1 x U_n	0.7 ... 1.1 x U_n	
• Rated frequency f_n		Hz	--	50 ... 60	
Response limits: Tripping			< 0.35 ... 0.7 × U_n	--	
Short-circuit protection			Miniature circuit breakers B/C 6 A or fuse gG 6 A		
Minimum contact load			50 mA, 24 V	50 mA, 24 V	
Tripping operations			max. 2000	max. 2000	
Service life, on average, with rated load			20000 actuations	20000 actuations	
Conductor cross-sections		mm^2 AWG	0.5 ... 2.5 22 ... 14	0.5 ... 2.5 22 ... 14	
Terminals					
• Terminal tightening torque		Nm lb-in	0.8 6.8	0.8 6.8	
Mounting position			Any	Any	
Ambient temperature		°C	-25 ... +55	-25 ... +55	
Storage temperature		°C	-40 ... +75	-40 ... +75	
Resistance to climate	Acc. to IEC 60068-2-30	Cycles	28		
Shock	Acc. to IEC 60068-2-27	m/s	50 at 11 ms half-sine		
Resistance to vibrations	Acc. to IEC 60068-2-6	m/s^2	50 at 10 ... 150 Hz		
Switching frequency			--		
Switching duration		s	--		
Minimum command duration		s	--		
Rated power dissipation		VA	--		
Rated frequency		Hz	50/60		
Behavior in the event of control voltage failure			--		

For technical specifications of RC units, see chapter "Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)".

Minimum order quantity (PS) or a multiple thereof can be ordered.

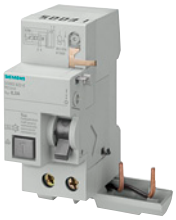
3

Selection and ordering data

	Rated voltage U_n V	Mounting width MW[1]	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	**Auxiliary switches (AS)**							
	For 5SL, 5SY, 5SP and 5TL1 miniature circuit breakers, 5SU1 RCBOs, for 5SV residual current protective devices and 5TE8 switches							
	1 NO + 1 NC	0.5	▶	**5ST3010**		1	1 unit	1AD
	For low power		▶	**5ST3013**		1	1 unit	1AD
	2 NO			**5ST3011**		1	1 unit	1AD
	For low power			**5ST3014**		1	1 unit	1AD
	2 NC			**5ST3012**		1	1 unit	1AD
	For low power			**5ST3015**		1	1 unit	1AD
	**Auxiliary switches (AS) with TEST button**							
	For 5SL, 5SY, 5SP and 5TL1 miniature circuit breakers, 5SU1, 5TL1 RCBOs, for 5SV residual current protective devices and 5TE8 switches							
	1 NO + 1 NC	0.5		**5ST3010-2**		1	1 unit	1AD
	For low power			**5ST3013-2**		1	1 unit	1AD
	2 NO			**5ST3011-2**		1	1 unit	1AD
	For low power			**5ST3014-2**		1	1 unit	1AD
	2 NC			**5ST3012-2**		1	1 unit	1AD
	For low power			**5ST3015-2**		1	1 unit	1AD
	**Fault signal contacts (FC)**							
	For 5SL, 5SY, 5SP miniature circuit breakers, 5SU1 RCBOs, for 5SV residual current protective devices							
	1 NO + 1 NC	0.5	▶	**5ST3020**		1	1 unit	1AD
	2 NO			**5ST3021**		1	1 unit	1AD
	2 NC			**5ST3022**		1	1 unit	1AD
	**Fault signal contacts (FC) with TEST and ACKNOWLEDGE button**							
	For 5SL, 5SY, 5SP miniature circuit breakers, 5SU1 RCBOs, for 5SV residual current protective devices							
	1 NO + 1 NC	0.5	▶	**5ST3020-2**		1	1 unit	1AD
	2 NO			**5ST3021-2**		1	1 unit	1AD
	2 NC			**5ST3022-2**		1	1 unit	1AD
	**Undervoltage releases (UR)**							
	For 5SL4, 5SY, 5SP miniature circuit breakers, 5SU1 RCBOs, for 5SV residual current protective devices, but not for 5SY60.. and 5SL6 miniature circuit breakers							
	With integrated auxiliary switch							
	230 AC	1	▶	**5ST3040**		1	1 unit	1AD
	110 DC			**5ST3041**		1	1 unit	1AD
	24 DC			**5ST3042**		1	1 unit	1AD
	Without integrated auxiliary switch							
	230 AC	1	▶	**5ST3043**		1	1 unit	1AD
	110 DC			**5ST3044**		1	1 unit	1AD
	24 DC			**5ST3045**		1	1 unit	1AD
	**Shunt trips (ST)**							
	For 5SL4, 5SY, 5SP miniature circuit breakers, 5SU1 RCBOs, for 5SV residual current protective devices, but not for 5SY60.. and 5SL6 miniature circuit breakers							
	110 ... 415 V AC	1	▶	**5ST3030**		1	1 unit	1AD
	24 ... 48 V AC/DC	1	▶	**5ST3031**		1	1 unit	1AD

[1] 1 MW (modular width) = 18 mm.

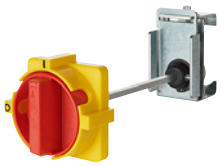
Minimum order quantity (PS) or a multiple thereof can be ordered.

	Rated residual current	Rated current	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	$I_{\Delta n}$	I_n							
	mA	A	MW[1]	d					
RC units									
	**For further information on RC units,** see chapter "Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)".								

[1] 1 MW (modular width) = 18 mm.

3

Selection and ordering data

	Version	Mounting width MW[1]	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	**Mechanical rotary operating mechanism complete with handle** • For 5SY, but not for 5SYx0 1+N in 1 MW • For 5SP4, 5SL, 5TL1, 5TE2, 5TE8, 5SU1							
	Versions							
	• Handle black			**5ST3060**		1	1 unit	1AD
	• Handle red/yellow			**5ST3061**		1	1 unit	1AD
	**Terminal covers** For miniature circuit breakers, but not for 5SY60.. For additional covering of the screw openings per pole, sealable. In the case of 5SY, also prevents removal of device from the standard mounting rail.		►	**5ST3800**		1	10 units	1AD
	**Handle locking devices** Sealable to prevent undesired mechanical ON/OFF switching For 5SP and 5SY miniature circuit breakers For padlock with max. 3 mm shackle			**5ST3801**		1	1 unit	1AD
	For 5SL, 5SV, 5TL1 miniature circuit breakers For padlock with 3 ... 6 mm shackle			**5ST3806**		1	5 units	1AD
	**Padlocks** Padlocks for 5ST3801 and 5ST3806 locking devices, 5ST305. remote controlled mechanisms			**5ST3802**		1	1 unit	1AD
	Locking devices For 5SP and 5SY miniature circuit breakers comprising 5ST3801 handle locking device and 5ST3802 padlock			**5ST3803**		1	1 set	1AD
	Locking devices For 5SL, 5SV, 5TL1 miniature circuit breakers, comprising 5ST3806 handle locking device and 5ST3802 padlock			**5ST3807**		1	1 set	1AD
	**Spacers** Can be placed on either side of the standard mounting rail. Two spacers allow for convenient cable routing	0.5		**5TG8240**		1	2 units	1BK
	**Fixing parts** Made of plastic, for use on a mounting plate			**5ST2201**		1	1 unit	1AD
	**Device labels** Adhesive, for modular installation devices, e.g. 5SY, 5SL, 5TL1, etc.							
	Versions							
	• 15 mm x 6 mm, white (WIN 098)			**8WH8210-0AA35**		100	3740 units	1BT
	• 15 mm x 6 mm, yellow (WIN 099)			**8WH8210-0AA36**		100	3740 units	1BT

[1] 1 MW (modular width) = 18 mm.

Minimum order quantity (PS) or a multiple thereof can be ordered.

	Version	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
	Labeling system						
	Available from:		Murrplastik Systemtechnik GmbH Postfach 1143 71570 Oppenweiler, Germany Telephone: +49 7191-482-0 Email: info@murrplastik.de				
	**Terminal covers, gray** For surface mounting, degree of protection IP40, sealable, with 35 mm standard mounting rail						
	• Up to 2.5 MW		**5SW3004**		1	1 unit	1BE
	• Up to 4.5 MW		**5SW3005**		1	1 unit	1BE
	**Wall enclosures, gray** For flush mounting, degree of protection IP40, with 35 mm standard mounting rail						
	• Up to 2.5 MW		**5SW3006**		1	1 unit	1BE
	• Up to 4.5 MW		**5SW3007**		1	1 unit	1BE
	**Molded-plastic enclosures, gray** For surface mounting, degree of protection IP54, with 35 mm standard mounting rail, sealable, with transparent hinged lid						
	For 4.5 MW		**5SW1200**		1	1 unit	1BE
	**Covers** Can be assembled as mini distribution board, suitable for all devices, cover parts prepared for rail mounting of conventional label caps, comprising:						
	• End plates (for snapping onto standard mounting rail)	▶	**5ST2134**		1	10 units	1AD
	• Angled profile (approx. 1 m long)		**5ST2135**		1	5 units	1AD
	• Alternative flat profiles (as a cover between the rows of devices, length approx. 1 m)		**5ST2136**		1	5 units	1AD
	**Holders for front panel installation** Universal use for devices from 1 to 6 MW Cutout dimensions: Height $45^{+0.5}$ mm Width 23, 41, 59, 77, 95 or 113 mm		**7LF9006**		1	1 unit	1BK
	**Intermediate frames for 70 mm devices in 55 mm ALPHA SIMBOX small distribution boards** Versions						
	• 1-tier		**8GB4561**		1	1 unit	1BO
	• 2-tier		**8GB4562**		1	1 unit	1BO
	• 3-tier		**8GB4563**		1	1 unit	1BO
	• 4-tier		**8GB4564**		1	1 unit	1BO

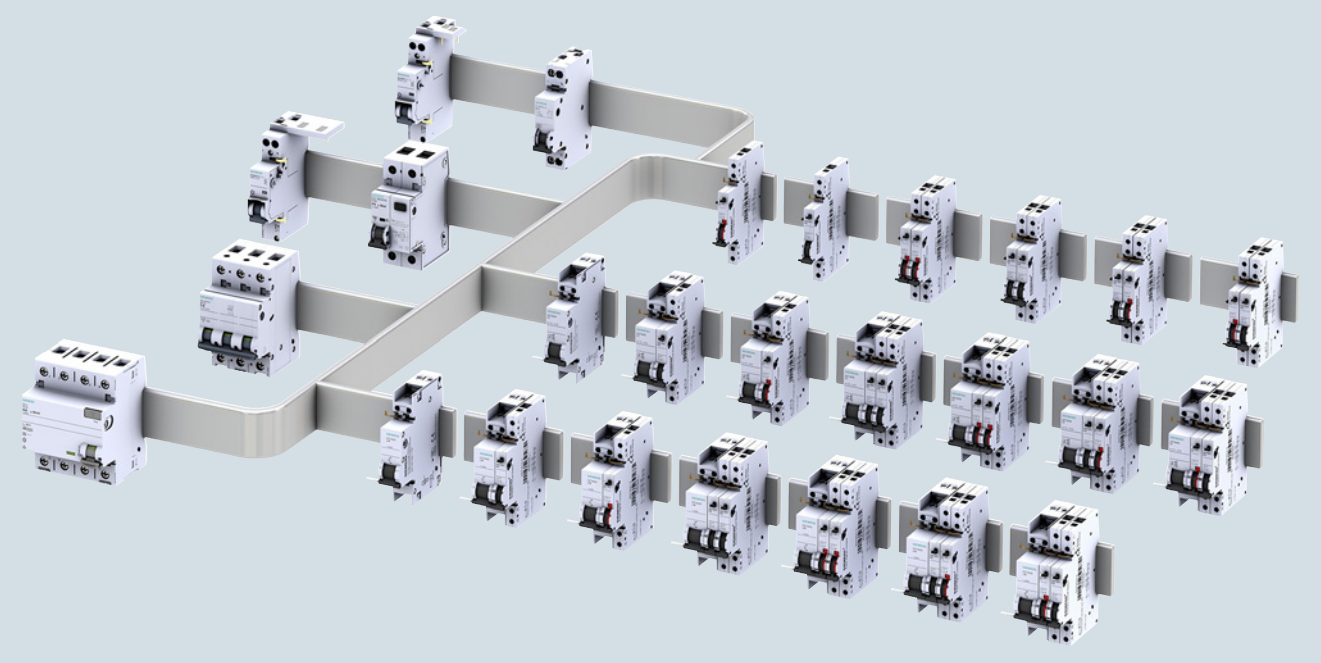
For further information on ALPHA distribution boards, ALPHA SIMBOX small distribution boards and intermediate frames, see chapter "Power Distribution Boards / Distribution Boards"

3

More information

The Siemens mounting concept supports the combination of all 5ST3 additional components with miniature circuit breakers of the 5SY and 5SP series and RCBOs of the 5SU1 series.

5SL and 5SY60.. miniature circuit breakers are suitable for mounting auxiliary switches and fault signal contacts. Auxiliary switches can also be mounted on 5TE8 flush-mounting circuit breakers and 5SG71 MINIZED switch disconnectors. In the case of the 5SY6 miniature circuit breaker and in the case of the RCBO, the arc fault detection device can be mounted on the left-hand side.



For further information on the mounting concept for RCBOs, see chapter "Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)".

Overview

The busbar system with pin-type connections can be used for all 5SL6, 5SJ6 ...-.KS and 5SY miniature circuit breakers with or without mounted auxiliary switch (AS) or fault signal contact (FC).

Busbars in 10 mm^2 and 16 mm^2 versions are available.

With bars that can be cut to length, the 5ST37 busbar system can be tailored to any requirements.

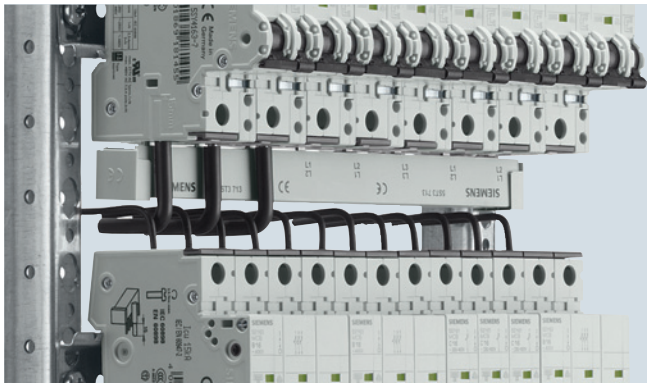
The extremely flexible 5ST36 busbar system with fixed lengths also enables installation in any length as the busbars can be overlapped.

There is no further need for time-consuming tasks, such as cutting, cutting to length, deburring, cleaning of cut surfaces and mounting of end caps.

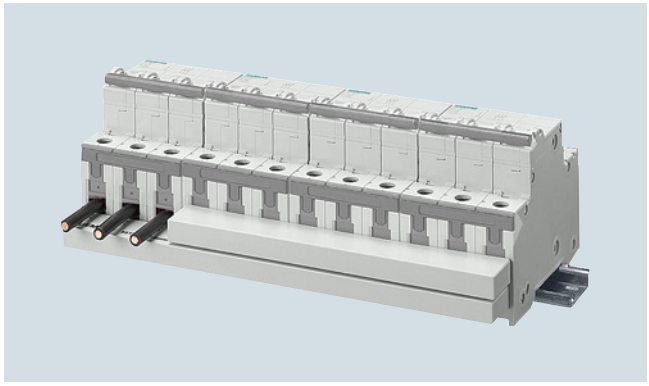
Any free pins on the busbars can be made safe by covering with touch protection.

For further information on the bus-mounting of miniature circuit breakers with residual current operated circuit breakers, see chapter "Residual Current Protective Devices / Arc Fault Detection Devices (AFDDs)".

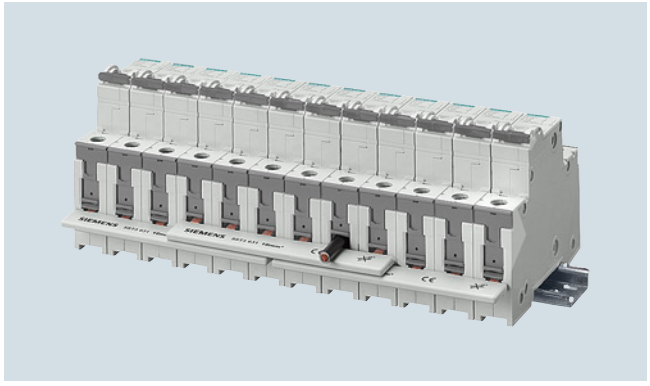
Benefits



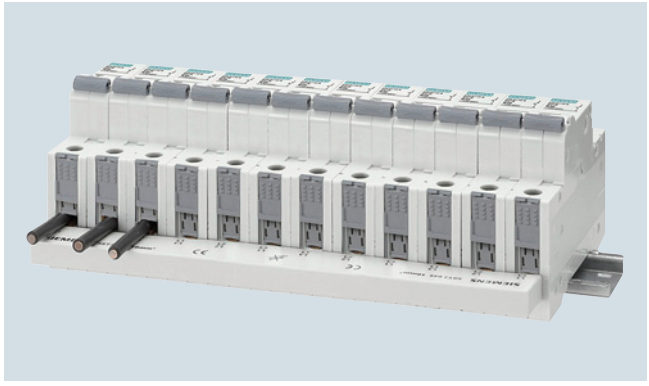
- Between the rows of devices, the busbar, which is located at the bottom and behind the conductor, provides an optimum wiring space with easy view of the inserted conductor. This enables easy control of connections.



- The ability to overlap when mounting the busbars enables a cross-section enlargement of up to 32 mm^2 using the respective components, 10 mm^2 and 16 mm^2.



- By overlapping the busbars with fixed lengths, it is possible to achieve device combinations with any number of devices.



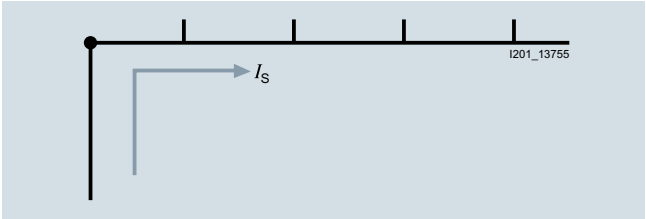
- The fact that the connection of the conductor is always clearly visible facilitates cable entry of all pole types and considerably reduces mounting times.

3

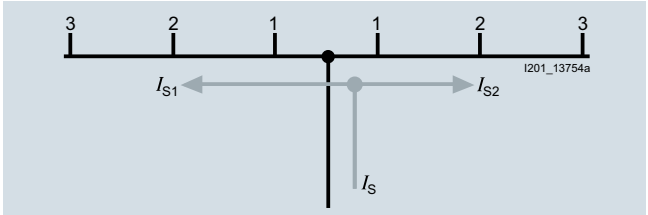
Technical specifications

			5ST3
Standards			EN 60439-1 (VDE 0660-500): 2005-01
Busbar material			SF-Cu F 24
Partition material			Plastic, Cycoloy 3600 heat-resistant over 90 °C flame-retardant and self-extinguishing, dioxin and halogen-free
Rated operational voltage U_c		V AC	400
Rated current I_n			
• Cross-section 10 mm^2		A	63
• Cross-section 16 mm^2		A	80
Rated impulse withstand voltage U_{imp}		kV	4
Test pulse voltage (1.2/50)		kV	6.2
Rated conditional short-circuit current I_{cc}		kA	25
Resistance to climate			
• Constant atmosphere	Acc. to DIN 50015		23/83; 40/92; 55/20
• Humid heat	Acc. to IEC 60068-2-30		28 cycles
Insulation coordination			
• Overvoltage category			III
• Pollution degree			2
Maximum busbar current I_S per phase			
• Infeed at the start of the busbar			
- Cross-section 10 mm^2		A	63
- Cross-section 16 mm^2		A	80
• Infeed at the center of the busbar			
- Cross-section 10 mm^2		A	100
- Cross-section 16 mm^2		A	130

Infeed at the start or end of the busbar



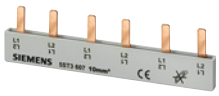
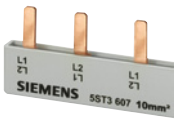
Infeed along the busbar or midpoint infeed



The sum of the outgoing current per branch (1, 2, 3 ... n) must not be greater than the max. busbar current I_S/phase.

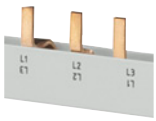
Minimum order quantity (PS) or a multiple thereof can be ordered.

Selection and ordering data

	Pin spacing	Length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	MW[1]	mm	d					
5ST36 busbar systems, 10 mm², for miniature circuit breakers, fixed lengths, cannot be cut, fully insulated								
 **Single-phase**								
For 2 MCBs 1P	1	33		**5ST3600**		1	10 units	1AD
For 6 MCBs 1P		105		**5ST3601**		1	10 units	1AD
For 12 MCBs 1P		210		**5ST3602**		1	10 units	1AD
Single-phase, for MCBs with AS or FC								
For 2 MCBs 1P	1.5	40		**5ST3603**		1	10 units	1AD
For 6 MCBs 1P		156.5		**5ST3604**		1	10 units	1AD
For 9 MCBs 1P		237		**5ST3605**		1	10 units	1AD
 **Two-phase**								
For 2 MCBs 2P	1	75.5		**5ST3606**		1	10 units	1AD
For 3 MCBs 2P		105		**5ST3607**		1	10 units	1AD
For 6 MCBs 2P		210		**5ST3608**		1	10 units	1AD
Three-phase								
For 2 MCBs 3P	1	102		**5ST3613**		1	10 units	1AD
For 3 MCBs 3P		157.5		**5ST3614**		1	10 units	1AD
For 4 MCBs 3P		210	▶	**5ST3615**		1	10 units	1AD
Three-phase, for MCBs with AS or FC								
For 2 MCBs 3P	1+1+1.5	115		**5ST3616**		1	10 units	1AD
For 4 MCBs 3P		237		**5ST3617**		1	10 units	1AD
For 6 MCBs 1P	1.5	125		**5ST3618**		1	10 units	1AD
For 9 MCBs 1P		229		**5ST3620**		1	10 units	1AD
Three-phase								
For 1 RCCB 4P N right and 8 MCBs 1P	1	210		**5ST3624**		1	10 units	1AD
For 1 RCCB 4P N left and 8 MCBs 1P	1	192		**5ST3667**		1	10 units	1AD
Four-phase								
For 2 MCBs 4P or 3P+N	1	145		**5ST3621**		1	10 units	1AD
For 3 MCBs 4P or 3P+N		215		**5ST3622**		1	10 units	1AD
For 6 MCBs 2P or 1P+N		215		**5ST3623**		1	10 units	1AD
5ST36 busbars, 16 mm², for miniature circuit breakers, fixed lengths, cannot be cut, fully insulated								
 **Single-phase**								
For 2 MCBs 1P	1	33		**5ST3630**		1	10 units	1AD
For 6 MCBs 1P		105		**5ST3631**		1	10 units	1AD
For 12 MCBs 1P		210		**5ST3632**		1	10 units	1AD
Single-phase, for MCBs with AS or FC								
For 2 MCBs 1P	1.5	40		**5ST3633**		1	10 units	1AD
For 6 MCBs 1P		156.5		**5ST3634**		1	10 units	1AD
For 9 MCBs 1P		237		**5ST3635**		1	10 units	1AD
 **Two-phase**								
For 2 MCBs 2P	1	75.5		**5ST3636**		1	10 units	1AD
For 3 MCBs 2P		105		**5ST3637**		1	10 units	1AD
For 6 MCBs 2P		210		**5ST3638**		1	10 units	1AD
Two-phase, for MCBs with AS or FC								
For 2 MCBs 2P	1 + 1.5	75.5		**5ST3640**		1	10 units	1AD
For 3 MCBs 2P		120.5		**5ST3641**		1	10 units	1AD
For 5 MCBs 2P		210		**5ST3642**		1	10 units	1AD

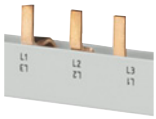
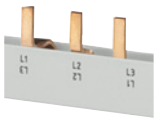
[1] 1 MW (modular width) = 18 mm.

5ST standard busbars

	Pin spacing	Length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	MW[1]	mm	d					
5ST36 busbars, 16 mm², for miniature circuit breakers, fixed lengths, cannot be cut, fully insulated								
Three-phase								
For 2 MCBs 3P	1	102.5		**5ST3643**		1	10 units	1AD
For 3 MCBs 3P		157.5		**5ST3644**		1	10 units	1AD
For 4 MCBs 3P		210	▶	**5ST3645**		1	10 units	1AD
Three-phase, for MCBs with AS or FC								
For 2 MCBs 3P	1+1+1.5	115		**5ST3646**		1	10 units	1AD
For 4 MCBs 3P		237		**5ST3647**		1	10 units	1AD
For 6 MCBs 1P	1.5	156		**5ST3648**		1	10 units	1AD
For 9 MCBs 1P		245		**5ST3650**		1	10 units	1AD
Three-phase								
For 1 RCCB 4P N right and 8 MCBs 1P	1	210		**5ST3654**		1	10 units	1AD
For 1 RCCB 4P N left and 8 MCBs 1P	1	210		**5ST3668**		1	10 units	1AD
Four-phase								
For 2 MCBs 4P or 3P+N	1			**5ST3651**		1	10 units	1AD
For 3 MCBs 4P or 3P+N				**5ST3652**		1	10 units	1AD
For 6 MCBs 2P or 1P+N				**5ST3653**		1	10 units	1AD
Touch protection								
For free connections, yellow (RAL 1004) 5 x 1 pin			▶	**5ST3655**		1	10 units	1AD
 **10 mm²**								
20 × 5ST3613 + 10 × 5ST3614 + 50 × 5ST3615 + 50 × 5ST3655				**5ST3656**		1	1 set	1AD
16 mm²								
20 × 5ST3643 + 10 × 5ST3644 + 50 × 5ST3645 + 50 × 5ST3655				**5ST3657**		1	1 set	1AD
5ST37 busbar system, 10 mm², 12 MW for miniature circuit breakers, can be cut, with end caps								
 **Single-phase, angled**								
For 12 MCBs 1P	1	214		**5ST3730**		1	1 unit	1AD
For 9 MCBs 1P with AS or FC	1.5			**5ST3732**		1	1 unit	1AD
Two-phase								
For 6 MCBs 2P	1			**5ST3734**		1	1 unit	1AD
For 4 MCBs 2P with AS or FC	1+1.5			**5ST3736**		1	1 unit	1AD
Three-phase								
For 4 MCBs 3P	1		▶	**5ST3738**		1	1 unit	1AD
For 3 MCBs 3P with AS or FC	1+1+1.5			**5ST3741**		1	1 unit	1AD
For 3 MCBs 1P with AS or FC	1.5			**5ST3743**		1	1 unit	1AD
Four-phase								
For 3 MCBs 4P or 3P+N	1			**5ST3745**		1	1 unit	1AD
5ST37 busbar system, 10 mm², 56 MW for miniature circuit breakers, can be cut, without end caps								
 **Single-phase, angled**								
For MCBs 1P	1	1016		**5ST3731**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5			**5ST3733**		1	1 unit	1AD
Two-phase								
For MCBs 1P and UR or AR	2			**5ST3735-2**		1	1 unit	1AD
For MCBs 2P	1			**5ST3735**		1	1 unit	1AD
For MCBs 2P with AS or FC	1+1.5			**5ST3737**		1	1 unit	1AD
Three-phase								
For MCBs 3P	1		▶	**5ST3740**		1	1 unit	1AD
For MCBs 3P with AS or FC	1+1+1.5			**5ST3742**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5			**5ST3744**		1	1 unit	1AD
Four-phase								
For MCBs 4P or 3P+N	1			**5ST3746**		1	1 unit	1AD
For MCBs 2P with AS or FC and RCBOs 1P+N with AS or FC	1+1.5			**5ST3746-2**		1	1 unit	1AD

[1] 1 MW (modular width) = 18 mm.

Minimum order quantity (PS) or a multiple thereof can be ordered.

	Pin spacing	Length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	MW[1]	mm	d					
5ST37 busbar system, 16 mm², 12 MW for miniature circuit breakers, can be cut, with end caps								
 **Single-phase, angled**								
For MCBs 1P	1	214	▶	**5ST3700**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5			**5ST3702**		1	1 unit	1AD
Two-phase								
For MCBs 2P	1		▶	**5ST3704**		1	1 unit	1AD
For MCBs 2P with AS or FC	1+1.5			**5ST3706**		1	1 unit	1AD
Three-phase								
For MCBs 3P	1		▶	**5ST3708**		1	1 unit	1AD
For MCBs 3P with AS or FC	1+1+1.5			**5ST3711**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5			**5ST3713**		1	1 unit	1AD
Four-phase								
For MCBs 4P or 3P+N	1			**5ST3715**		1	1 unit	1AD
5ST37 busbar system, 16 mm², 56 MW for miniature circuit breakers, can be cut, without end caps								
Single-phase, angled								
For MCBs 1P	1	1016	▶	**5ST3701**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5		▶	**5ST3703**		1	1 unit	1AD
 **Two-phase**								
For MCBs 2P	1		▶	**5ST3705**		1	1 unit	1AD
For MCBs 2P with AS or FC	1+1.5			**5ST3707**		1	1 unit	1AD
Three-phase								
For MCBs 3P	1		▶	**5ST3710**		1	1 unit	1AD
For MCBs 3P with AS or FC	1+1+1.5		▶	**5ST3712**		1	1 unit	1AD
For MCBs 1P with AS or FC	1.5			**5ST3714**		1	1 unit	1AD
Four-phase								
For MCBs 4P or 3P+N	1			**5ST3716**		1	1 unit	1AD
5ST37 busbar system, 10 mm², 56 MW can be cut, without end caps, with touch protection								
Four-phase								
For MCBs 2P and RCBOs 1P+N	1	1000		**5ST3770-2**		1	10 units	1AD
5ST37 busbar system, 16 mm², 56 MW can be cut, without end caps, with touch protection								
Four-phase								
For MCBs 2P and RCBOs 1P+N	1	1000		**5ST3770-3**		1	10 units	1AD
5ST37 busbar system, 10 mm², 16 MW can be cut, with end caps, with touch protection								
Four-phase								
For RCCBs 4P, N right and 6 MCBs 1P+N	1	292		**5ST3770-4**		1	10 units	1AD
5ST37 busbar system, 16 mm², 16 MW can be cut, with end caps, with touch protection								
Four-phase								
For RCCBs 4P, N right and 6 MCBs 1P+N	1	292		**5ST3770-5**		1	10 units	1AD
End caps for 5ST37, can be cut								
 For single-phase busbars			▶	**5ST3748**		1	10 units	1AD
For two-phase and three-phase busbars			▶	**5ST3750**		1	10 units	1AD
For four-phase busbars			▶	**5ST3718**		1	10 units	1AD
Terminals for 5ST36 and 5ST37 busbars *NEW*								
 **Terminals for conductors up to 25 mm²**								
• With cable entry in the center				**5ST3768-3**		1	10 units	1AD
• With cable entry on the left				**5ST3768-4**		1	10 units	1AD
• With cable entry on the right				**5ST3768-5**		1	10 units	1AD
Terminals for conductors up to 50 mm²								
• With cable entry in the center				**5ST3760-3**		1	10 units	1AD
• With cable entry on the left				**5ST3760-4**		1	10 units	1AD
• With cable entry on the right				**5ST3760-5**		1	10 units	1AD
Note								
The terminals are not suitable for 5ST376.								

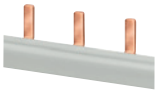
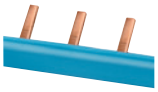
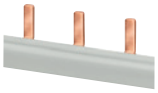
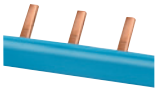
[1] 1 MW (modular width) = 18 mm.

Minimum order quantity (PS) or a multiple thereof can be ordered.

5ST standard busbars

		Length of cable	Number of phases	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		mm		d					
Series connectors, 10 mm² NEW									
	• N-conductor blue	125	1		**5ST3781-0**		1	5 units	1AD
	• Cable black				**5ST3791-0**		1	5 units	1AD
	• Cable black		3		**5ST3793-0**		1	3 units	1AD
	• N-conductor blue	150	1		**5ST3781-1**		1	5 units	1AD
	• Cable black				**5ST3791-1**		1	5 units	1AD
	• Cable black		3		**5ST3793-1**		1	3 units	1AD
Series connectors, 16 mm² NEW									
	• N-conductor blue	125	1		**5ST3782-0**		1	5 units	1AD
	• Cable black				**5ST3792-0**		1	5 units	1AD
	• Cable black		3		**5ST3794-0**		1	3 units	1AD
	• N-conductor blue	150	1		**5ST3782-1**		1	5 units	1AD
	• Cable black				**5ST3792-1**		1	5 units	1AD
	• Cable black		3		**5ST3794-1**		1	3 units	1AD
	• N-conductor blue	200	1		**5ST3781-2**		1	10 units	1AD
	• Cable black				**5ST3791-2**		1	10 units	1AD
	• Cable black		3		**5ST3793-2**		1	3 units	1AD
	• Cables: - 3 x black - 1 x blue		3+N		**5ST3793-3**		1	3 units	1AD

Minimum order quantity (PS) or a multiple thereof can be ordered.

		Pin spacing	Length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		MW[1]	mm	d					
5ST37 busbar system, 10 mm², 12 MW for 1+N miniature circuit breakers in 1 MW of the compact range, can be cut, with end caps									
	**Single-phase**								
	For 12 MCBs 1+N, gray	1	216		**5ST3762**		1	10 units	1AD
	For 12 MCBs 1+N, blue	1			**5ST3763**		1	10 units	1AD
5ST37 busbar system, 10 mm², 56 MW for 1+N miniature circuit breakers in 1 MW of the compact range, can be cut, without end caps									
	**Single-phase**								
	For MCBs 1+N, gray	1	1016		**5ST3764**		1	10 units	1AD
	For MCBs 1+N, blue	1			**5ST3765**		1	10 units	1AD
End caps for 5ST376									
	1 set comprises a right and a left cap								
	Gray				**5ST3766**		1	10 sets	1AD
	Blue				**5ST3767**		1	10 sets	1AD
Terminals NEW									
	**Terminals, short** • For conductors up to 25 mm² • Infeed on side • Specially for single-phase busbars and for 5ST3615-1 three-phase busbars			►	**5ST3768**		1	25 units	1AD
	Terminals, short, IP20 • For conductors up to 25 mm² • Infeed on side • Specially for single-phase busbars and for 5ST3615-1 three-phase busbars				**5ST3771-2**		1	10 units	1AD

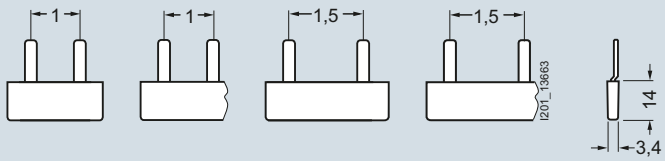
[1] 1 MW (modular width) = 18 mm.

3

Dimensional drawings

5ST36
Pin spacing in MW (modular width; 1 MW = 18 mm)

Dimensions of side view in mm (approx.)

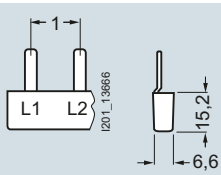


5ST3600
5ST3630

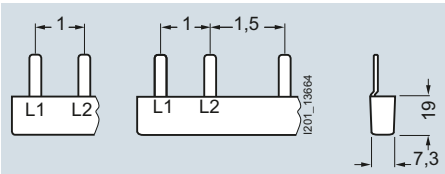
5ST3601
5ST3602
5ST3631
5ST3632

5ST3603
5ST3633

5ST3604
5ST3605
5ST3634
5ST3635

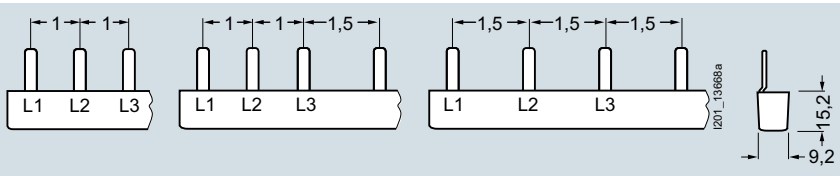


5ST3606
5ST3607
5ST3608



5ST3636
5ST3637
5ST3638

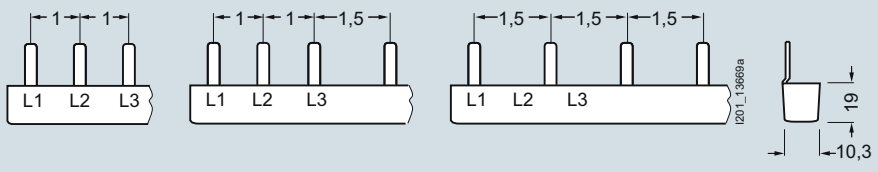
5ST3640
5ST3641
5ST3642



5ST3613
5ST3614
5ST3615
5ST3667

5ST3616
5ST3617

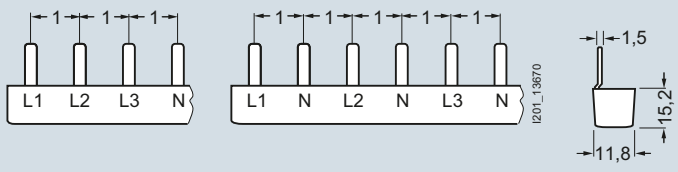
5ST3618
5ST3620



5ST3643
5ST3644
5ST3645
5ST3668

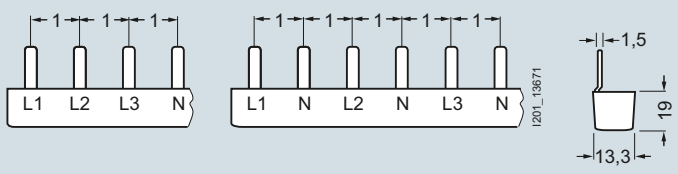
5ST3646
5ST3647

5ST3648
5ST3650



5ST3621
5ST3622

5ST3623



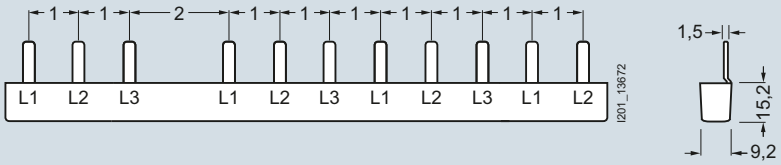
5ST3651
5ST3652

5ST3653

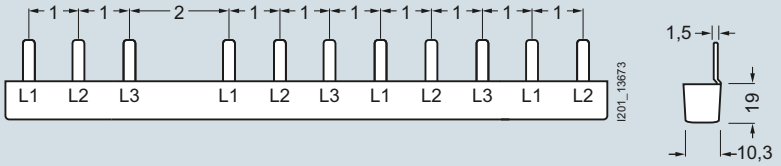
Minimum order quantity (PS) or a multiple thereof can be ordered.

5ST36
Pin spacing in MW (modular width; 1 MW = 18 mm)

Dimensions of side view in mm (approx.)



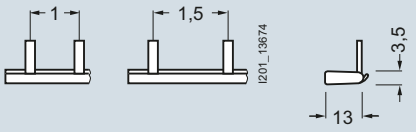
5ST3624



5ST3654

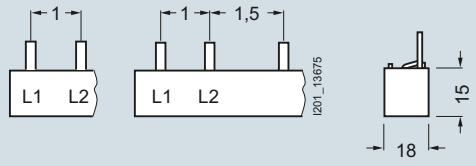
5ST37
Pin spacing in MW (modular width; 1 MW = 18 mm)

Dimensions of side view in mm (approx.)



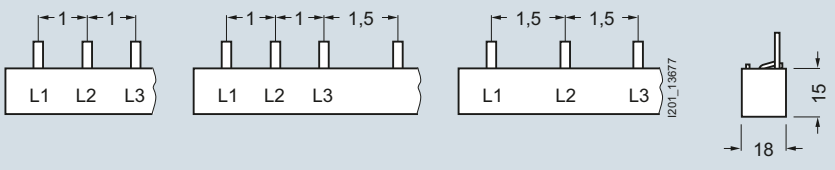
5ST3700
5ST3701
5ST3730
5ST3731
Single-phase

5ST3702
5ST3703
5ST3732
5ST3733
Single-phase



5ST3704
5ST3705
5ST3734
5ST3735
Two-phase

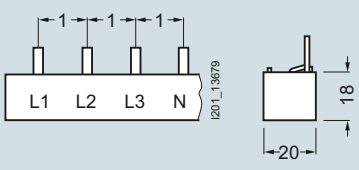
5ST3706
5ST3707
5ST3736
5ST3737
Two-phase



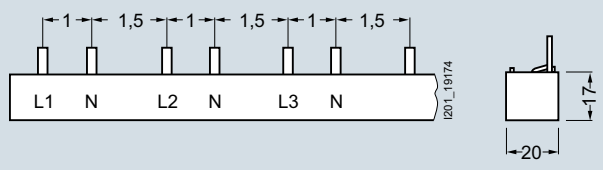
5ST3708
5ST3710
5ST3738
5ST3740

5ST3711
5ST3712
5ST3741
5ST3742

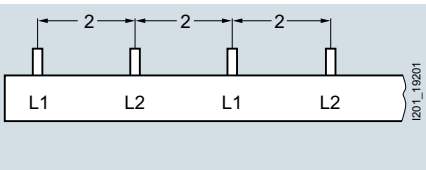
5ST3713
5ST3714
5ST3743
5ST3744



5ST3715
5ST3716
5ST3745
5ST3746



5ST3746-2

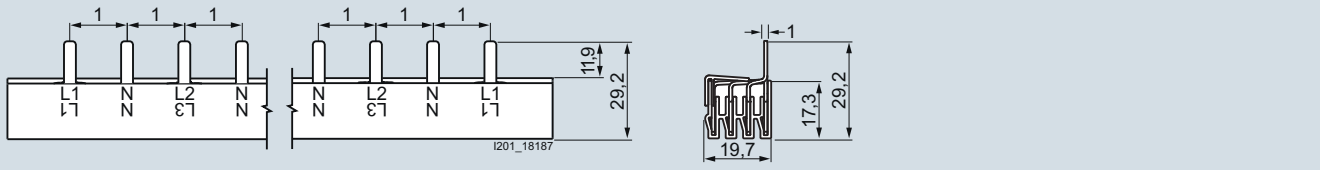


5ST3735-2

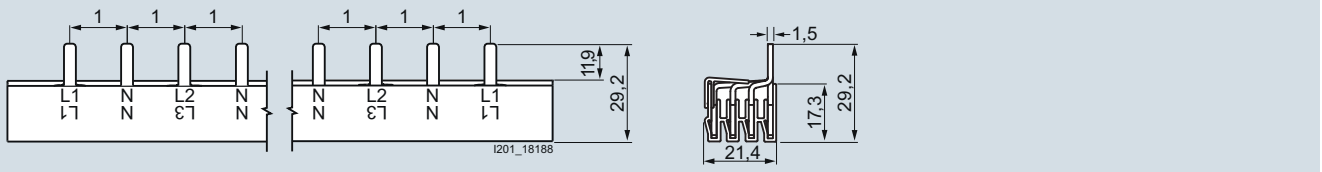
5ST standard busbars

5ST37
Pin spacing in MW (modular width; 1 MW = 18 mm)

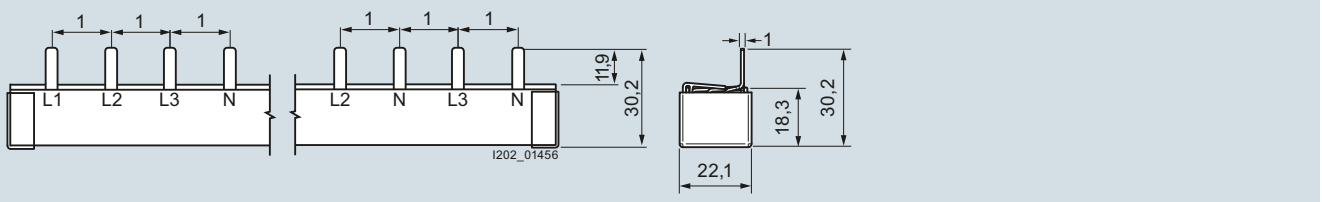
Dimensions of side view in mm (approx.)



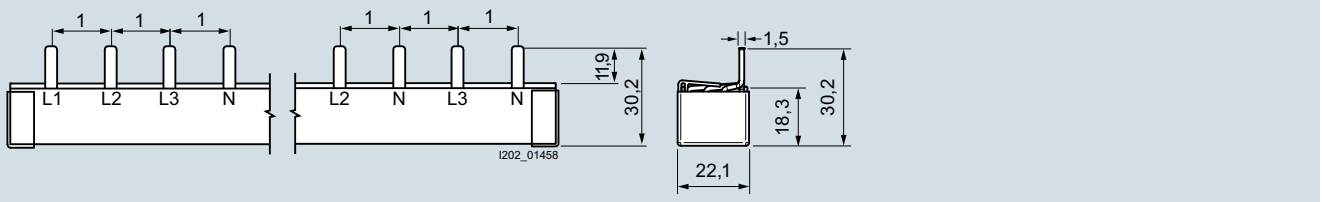
5ST3770-2



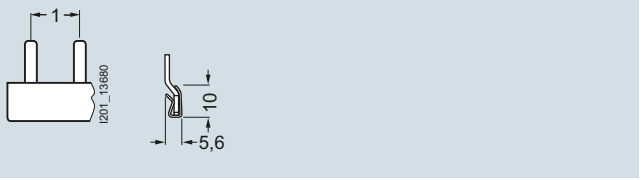
5ST3770-3



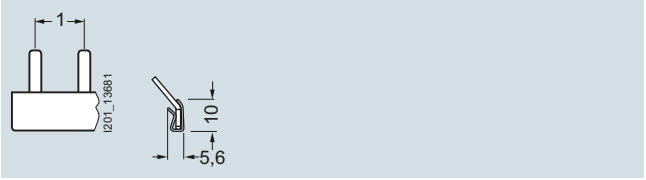
5ST3770-4



5ST3770-5



5ST3762
5ST3764



5ST3763
5ST3765

Minimum order quantity (PS) or a multiple thereof can be ordered.

Overview

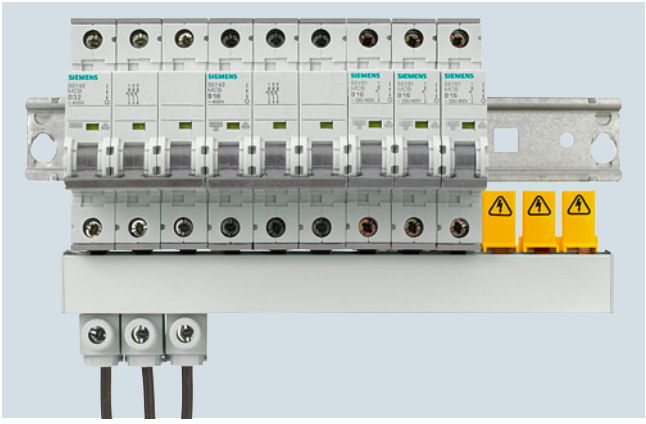
Products according to UL standards are used in North America, but also in several other countries. This is important in particular for exporting machines or electrical switchboard assemblies and equipment to the USA. Acceptance and delivery are possible only if the relevant UL standards are satisfied.

The 5ST37 busbar system according to UL 508 and CSA is suitable for both universal use worldwide with all 5SY and 5SP miniature circuit breakers for "Supplementary Protection" certified according to UL 1077 and for 3NW and 3NC fuse holders certified according to UL 512. Not approved for use in feeder circuits.

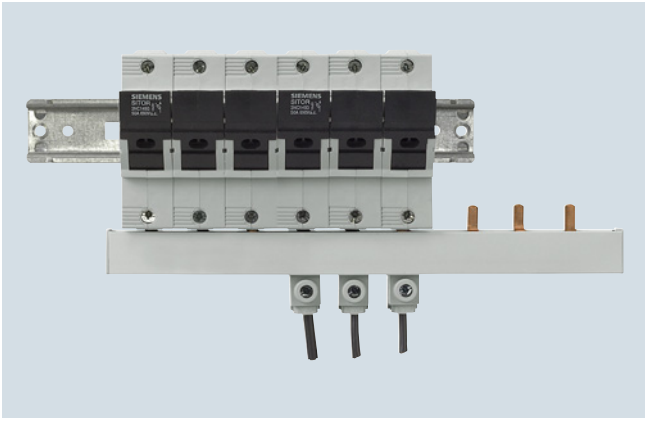
The busbars are available in single-, two- and three-phase versions with different pin spacings and with two cross-sections, 18 mm^2 and 25 mm^2. Infeed can be directly into the terminals of the miniature circuit breaker or through connection terminals.

The connection terminals are available in two versions – for direct infeed at the busbar or for infeed directly at the miniature circuit breaker/fuse holder. Pins that are not required can be covered with touch protection covers.

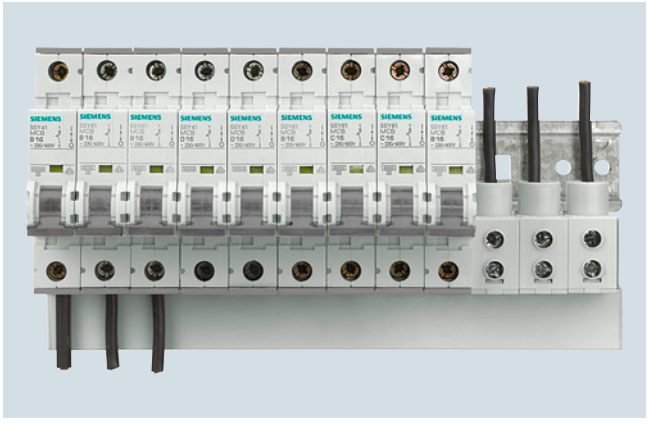
Benefits



- Busbar with infeed through a connection terminal directly on the miniature circuit breaker up to a conductor cross-section of 35 mm^2.



- Bus mounting with infeed at the fuse holder for conductor cross-sections up to 35 mm^2.



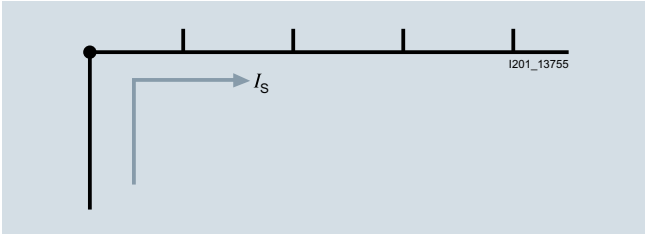
- Infeed directly on the miniature circuit breaker up to a conductor cross-section of 35 mm^2 and connection terminal for connection directly on the busbar up to a conductor cross-section of 50 mm^2
- Suitable for universal use according to both IEC and UL standards
- Can be used for 5SY, 5SP miniature circuit breakers and for Class CC, SITOR cylindrical and semiconductor fuse holders
- UL-tested combination – device and busbar
- Different cross-sections 18 mm^2 and 25 mm^2.

3

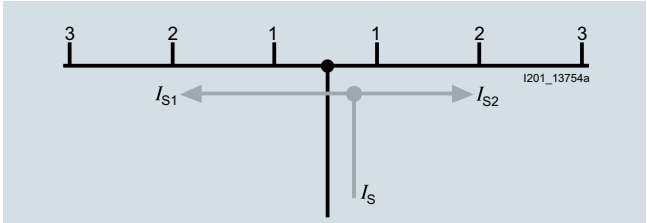
Technical specifications

			5ST37..-0HG	5ST37..-2HG	5ST3770-0HG	5ST3770-1HG
Standards			UL 508, CSA C22.2 No. 14-M 95 / IEC 60999			
Approvals			UL 508 File No. E328403 CSA			
Operational voltage						
• Acc. to IEC		V AC	690			
• Acc. to UL 508		V AC	600			
Rated conditional short-circuit current		kA	10			
• Dielectric strength		kV/mm	25			
• Surge strength		kV	> 9.5			
Max. current	UL	A	--	--	115	
	IEC	A	--	--	160	
Maximum busbar current I_S per phase						
• Infeed at the start of the busbar		A	80	100	--	--
• Infeed at the center of the busbar		A	160	200	--	--
Insulation coordination						
• Overvoltage category			III			
• Pollution degree			2			
Short-circuit current load capability			10000 A RMS sym. 600 V for three circuits			
	18 mm^2		100000 A RMS sym. for protection with Class J 175 A			
	25 mm^2		100000 A RMS sym. for protection with Class J 200 A			
Busbar cross-section		mm^2 Cu	18	25	--	--
Infeed			Any			
Conductor cross-sections	Solid	AWG	--	--	10 ... 1/0	10 ... 1
		mm^2	--	--	6 ... 35 (Cu 60 °C)	6 ... 50 (Cu 75 °C)
	Stranded	AWG	--	--	10 ... 2	
		mm^2	--	--	6 ... 35	
Terminals	± screw (Pozidriv)		--	--	2	2
• Terminal tightening torque		Nm	--	--	5	3.5
		lb-in	--	--	50	35

Infeed at the start or end of the busbar



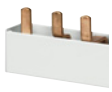
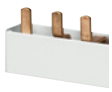
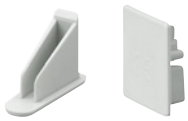
Infeed along the busbar or midpoint infeed



The sum of the outgoing current per branch (1, 2, 3 ... n) must not be greater than the max. busbar current I_S/phase.

Minimum order quantity (PS) or a multiple thereof can be ordered.

Selection and ordering data

		Pin spacing	Length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		MW[1]	mm	d					
5ST37..-.HG busbars acc. to UL 508, 18 mm², can be cut, without end caps									
	**Single-phase**								
	• For MCBs 1P (5SY) or fuse holders 10 x 38 mm/class CC (3NC1091, 3NW7513-0HG)	1	1000		**5ST3701-0HG**		1	1 unit	1AE
	• For MCBs 1P (5SY, 5SP) with AS or FC or fuse holders 14 x 51 mm (3NC1491, 3NW7111)	1.5	1000		**5ST3703-0HG**		1	1 unit	1AE
	**Two-phase**								
	• For MCBs 2P (5SY) or fuse holders 10 x 38 mm/class CC (3NC1092, 3NW7523-0HG)	1	1000		**5ST3705-0HG**		1	1 unit	1AE
	• For MCBs 2P (5SY) with AS or FC	1+1.5	1000		**5ST3707-0HG**		1	1 unit	1AE
	**Three-phase**								
	• For MCBs 3P (5SY) or fuse holders 10 x 38 mm/class CC (3NC1093, 3NW7533-0HG)	1	1000		**5ST3710-0HG**		1	1 unit	1AE
	• For MCBs 3P (5SY) with AS or FC	1+1+1.5	1000		**5ST3712-0HG**		1	1 unit	1AE
	• For MCBs 1P (5SY, 5SP) with AS or FC or fuse holders 14 x 51 mm (3NC1493, 3NW7131)	1.5	1000		**5ST3714-0HG**		1	1 unit	1AE
5ST37..-.HG busbars acc. to UL 508, 25 mm², can be cut, without end caps									
	**Single-phase**								
	For MCBs 1P (5SP) or fuse holders 14 x 51 mm (3NC1491, 3NW7111)	1.5	1000		**5ST3701-2HG**		1	1 unit	1AE
	**Two-phase**								
	For MCBs 2P (5SP) or fuse holders 14 x 51 mm (3NC1492, 3NW7121)	1.5	1000		**5ST3705-2HG**		1	1 unit	1AE
	**Three-phase**								
	For MCBs 3P (5SP) or fuse holders 14 x 51 mm (3NC1493, 3NW7131)	1.5	1000		**5ST3710-2HG**		1	1 unit	1AE
End caps for 5ST37..-.HG									
	• For single-phase busbars				**5ST3748-0HG**		1	10 units	1AE
	• For two- and three-phase busbars				**5ST3750-0HG**		1	10 units	1AE
Terminals according to UL 508									
	**Infeed to device**								
	35 mm²				**5ST3770-0HG**		1	10 units	1AE
	**Infeed to busbar**								
	50 mm²				**5ST3770-1HG**		1	10 units	1AE
Touch protection cover for busbars according to UL 508									
	5 x 1 pin				**5ST3655-0HG**		1	10 units	1AE

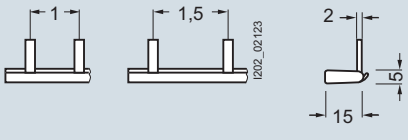
[1] 1 MW (modular width) = 18 mm.

5ST3 busbars acc. to UL 508

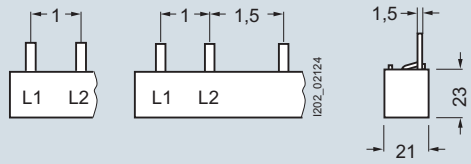
Dimensional drawings

5ST37 busbars
Pin spacing in MW (modular width; 1 MW = 18 mm)

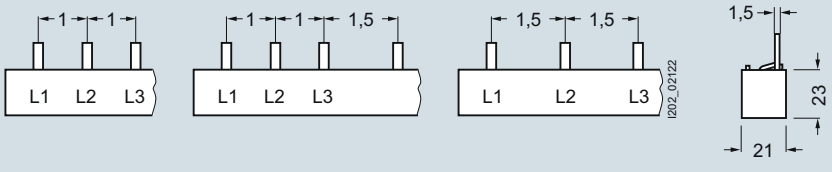
Dimensions of side view in mm (approx.)



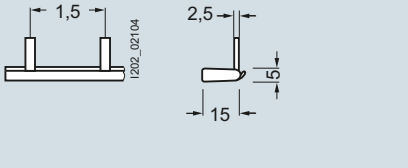
5ST3701-0HG 5ST3703-0HG



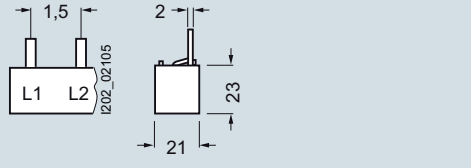
5ST3705-0HG 5ST3707-0HG



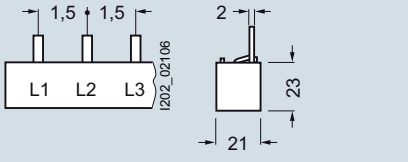
5ST3710-0HG 5ST3712-0HG 5ST3714-0HG



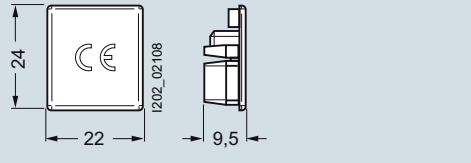
5ST3701-2HG



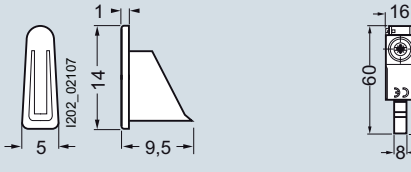
5ST3705-2HG



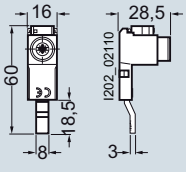
5ST3710-2HG



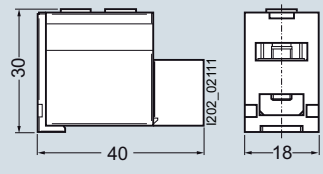
5ST3750-0HG



5ST3748-0HG



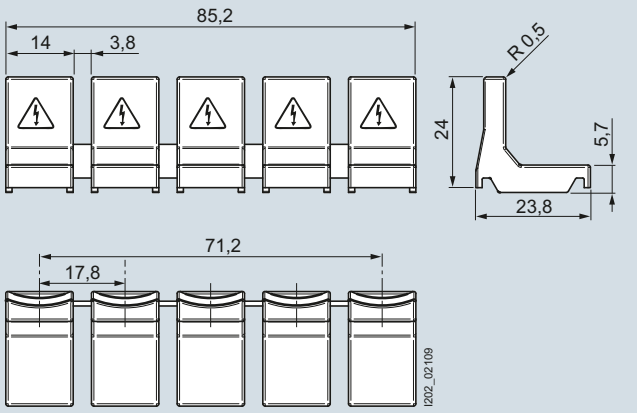
5ST3770-0HG



5ST3770-1HG

5ST36 touch protection covers
Pin spacing in MW (modular width; 1 MW = 18 mm)

Dimensions of side view in mm (approx.)



5ST3655-0HG

Minimum order quantity (PS) or a multiple thereof can be ordered.

Overview

Distribution blocks for standard rail mounting

Using distribution blocks it is possible to implement one-, two-, three- and four-phase systems with a rated current of up to 400 A. This allows supply terminals to be divided into several load circuits with different cable cross-sections.

The distribution blocks are made of thermoplastic with electrical and mechanical components, which enables their use under high thermal and mechanical load acc. to IEC 60947-7-1.

Technical specifications

				5ST2501	5ST2502	5ST2503
Standards, certifications				IEC 60947-7-1		
Degree of protection				IP20		
Poles				4		
Approved cable				Copper		
Conductor cross-section						
• Inputs per pole						
- Solid/stranded conductor acc. to IEC			mm²	1 x 2.5 … 16	1 x 6 … 35	1 x 10 … 50
	Neutral conductor		mm²	1 x 1.5 … 16	1 x 6 … 35	--
- Finely stranded with end sleeve			mm²	1 x 1.5 … 10	1 x 6 … 25	1 x 10 … 35
	Neutral conductor		mm²	--	1 x 6 … 25	--
• Outputs per pole						
- Solid/stranded conductor acc. to IEC		Large	mm²	8 x 1.5 … 10	2 x 4 … 16	3 x 10 … 35
		Small	mm²	--	5 x 1.5 … 6	8 x 2.5 … 16
	Neutral conductor	Large	mm²	--	6 x 4 … 16	--
		Small	mm²	--	4 x 1.5 … 10	--
- Finely stranded with end sleeve		Large	mm²	8 x 1.5 … 10	2 x 4 … 10	3 x 10 … 25
		Small	mm²	--	5 x 1.5 ... 6	8 x 1.5 … 16
	Neutral conductor	Large	mm²	--	6 x 4 … 10	--
		Small	mm²	--	4 x 1.5 ... 6	--
Tightening torque						
• Inputs			lb-in	13.5	13.5	3.5 ... 5
			Nm	1.5	1.5	2
	Plug-in connection			PZ2	PZ2	PZ2
• Outputs	Large		lb-in	13.5	13.5	13.5
			Nm	1.5	1.5	1.5
	Plug-in connection			PZ1	PZ2	PZ2
	Small		lb-in	--	7.2	13.5
			Nm	--	0.8	1.5
	Plug-in connection			--	PZ1	PZ2
Operational voltage						
• IEC, max.			V	690	690	690
Overcurrent protection						
• Max. rated current			A	80	125	160
• Rated peak withstand current (I_{pk})			kA	21.6	24	20
• Rated short-time withstand current	(I_{cw} 1 s)		kA	3	4.2	6.2
Block dimensions (D x H x W)			mm	88 x 49 x 85	75 x 45 x 98	102 x 47 x 87

Minimum order quantity (PS) or a multiple thereof can be ordered.

5ST2 distribution blocks

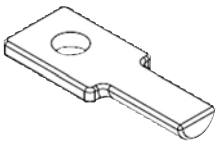
UL types

			5ST2504	5ST2505	5ST2507	5ST2508	5ST2511
Standards, certifications			UL 1059 / UL 486E / IEC 60947-7-1 UL File No. E80027 / XCFR2 C22.2 No. 158 -1987 / XCFR8				
Degree of protection			IP20				
Poles			1				
Approved cable			Copper				
Wiring type **• Front/back**			Factory and field wiring Pressure wire connector				
Conductor cross-section							
• Inputs							
- Solid and stranded conductor acc. to UL	Large	AWG	3 x 14 … 4	1 x 8 … 2	1 x 8 … 2 / 0	1 x 2 … 4 / 0	1 x 3 / 0 … 350 MCM
- Solid and stranded acc. to IEC		mm^2	3 x 2.5 … 25	10 … 35	10 … 70	35 … 120	95 … 185
- Solid and stranded conductor acc. to UL	Small	AWG	--	1 x 14 … 6	--		
- Solid and stranded acc. to IEC		mm^2	--	2.5 … 25	--		
- Finely stranded with end sleeve acc. to UL	Large	AWG	3 x 14 … 6	1 x 8 … 2	1 x 8 … 1	1 x 2 … 3 / 0	3 / 0 … 300 MCM
- Finely stranded with end sleeve acc. to IEC		mm^2	3 x 2.5 … 16	10 … 35	10 … 50	35 … 95	95 … 150
- Finely stranded with end sleeve acc. to UL	Small	AWG	--	1 x 14 … 6	--		
- Finely stranded with end sleeve acc. to IEC		mm^2	--	2.5 … 25	--		
• Outputs							
- Solid and stranded conductor acc. to UL	Top	AWG	4 x 14 … 10	6 x 14 … 4	6 x 14 … 4	4 x 16 … 8	2 x 14 … 2
- Solid and stranded acc. to IEC		mm^2	2.5 … 6	2.5 … 16	2.5 … 16	2.5 … 10	2 x 2.5 … 35
- Solid and stranded conductor acc. to UL	Center	AWG	--			5 x 14 … 6	
- Solid and stranded acc. to IEC		mm^2	--			2.5 … 16	5 x 2.5 … 16
- Solid and stranded conductor acc. to UL	Bottom	AWG	4 x 14 … 10	--		2 x 14 … 2	4 x 14 … 8
- Solid and stranded acc. to IEC		mm^2	2.5 … 6	--		2 x 2.5 … 35	4 x 2.5 … 10
- Finely stranded with end sleeve acc. to UL	Top	AWG	4 x 14 … 10	6 x 14 … 6	6 x 14 … 6	2 x 14 … 4	
- Finely stranded with end sleeve acc. to IEC		mm^2	2.5 … 6	2.5 … 16	2.5 … 16	2 x 2.5 … 25	
- Finely stranded with end sleeve acc. to UL	Bottom	AWG	4 x 14 … 10	--		2 x 14 … 4	5 x 14 … 4
- Finely stranded with end sleeve acc. to IEC		mm^2	2.5 … 6	--		2 x 2.5 … 25	4 x 2.5 … 25
Tightening torque							
• Inputs		lb-in	13.2 … 26.5	31 … 44	44 … 53	170 … 186	222
		Nm	1.5 … 3	3.5 … 5	5 … 6	19 … 21	25
	Plug-in connection			Allen key (4 mm)	Allen key (5 mm)	Allen key (6 mm)	Allen key (8 mm)
• Outputs	Large	lb-in	13.2 … 26.5	17.7 … 26.5	13.2 … 26.5	31 … 62	
		Nm	1.5 … 3	2 … 3	1.5 … 3	3.5 … 7	
	Plug-in connection		PZ2			Standard screwdriver	
	Small	lb-in	7 … 13.2	--		18 … 27	
		Nm	0.8 … 1.5	--		2 … 3	
	Plug-in connection		PZ1	--		Standard screwdriver	
Amperes per pole, max. (UL/IEC)		A	80/80	115/125	160/160	230/250	310/400
Operational voltage							
• UL, max. (AC)		V	600				
• IEC, max. (AC/DC)		V	1000/1500				
Overcurrent protection							
• Required class			J				
• Max. rated current (UL/IEC)		A	80/80	115/125	160/160	230/250	310/400
• SCCR RMS Sym A		kA	100				
• Rated peak withstand current (I_{pk})		kA	2.7	30		51	
• Rated short-time withstand current	(I_{cw} 1 s)	kA	1.9	4.2	11	21	
Clearance							
• Air		inches (mm)	3 / 8 (9.5)				
• Creepage distance		inches (mm)	1 / 2 (12.7)				
Ambient temperature		°C	-25 … +75				
Fire class			UL 94V-0				
Block dimensions (D x H x W)		mm	66 x 47 x 27	74 x 47 x 27	92 x 49 x 35	96 x 49 x 45	96 x 49 x 45
Connections			With cable up to 16 mm^2	With connector or cable up to 16 mm^2 [1]	Lateral incoming feeder for parallel connection with copper bar (max. 16 x 5 mm)	--	--

[1] Copper jumper is tested for a rated current of 100 A

Minimum order quantity (PS) or a multiple thereof can be ordered.

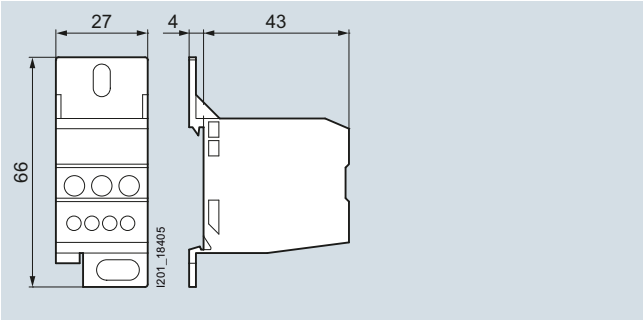
Selection and ordering data

	Version	Standard	*I*	*U*	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
			A	V	MW	d					
Distribution blocks											
 5ST2504	**1-pole**	UL 1059 / UL 486E / IEC 60947-7-1	80	600	1.5		**5ST2504**		1	1 unit	1AD
			125	600	1.5		**5ST2505**		1	1 unit	1AD
		UL File No. E80027 / XCFR2 C22.2 No. 158 -1987 / XCFR8	160	600	2	▶	**5ST2507**		1	1 unit	1AD
		UL 486E / IEC 60947-7-1	250	600	2.5	▶	**5ST2508**		1	1 unit	1AD
		UL File No. E80027 / XCFR2	350	600	2.5	▶	**5ST2511**		1	1 unit	1AD
 5ST2501	**4-pole**	IEC 60947-7-1	80	500	5		**5ST2501**		1	1 unit	1AD
 5ST2502		IEC 60947-7-1	125	690	5.5		**5ST2502**		1	1 unit	1AD
 5ST2503		IEC 60947-7-1	160	500	9		**5ST2503**		1	1 unit	1AD
Accessories											
 5ST2506	**Connector for 5ST2505 distribution board** • With touch protection • 20 mm² • Single-phase • 32 mm		--	--	--		**5ST2506**		1	10 units	1AD
	**Terminal lug ring terminal end for distribution block**										
	Versions										
	• For 5ST2508 distribution block						**5ST2510**		1	10 units	1AD
	• For 5ST2511 distribution block						**5ST2512**		1	10 units	1AD

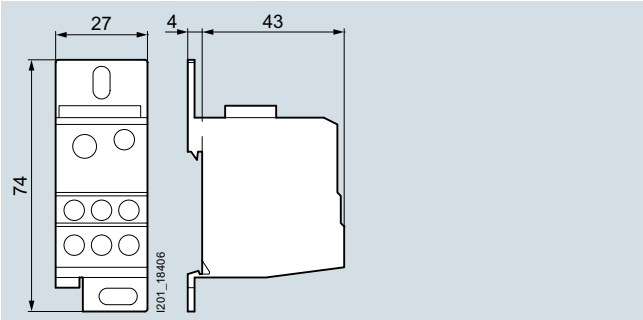
Minimum order quantity (PS) or a multiple thereof can be ordered.

3

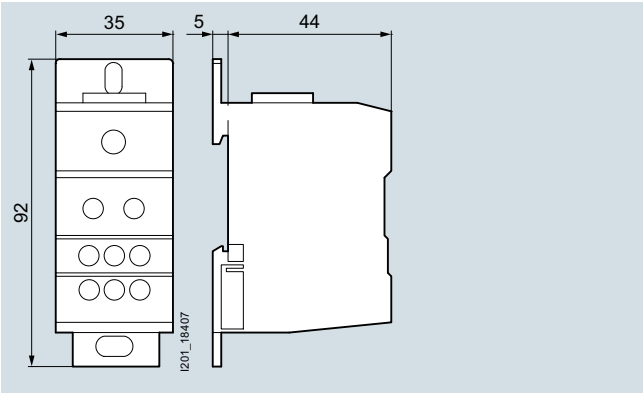
Dimensional drawings



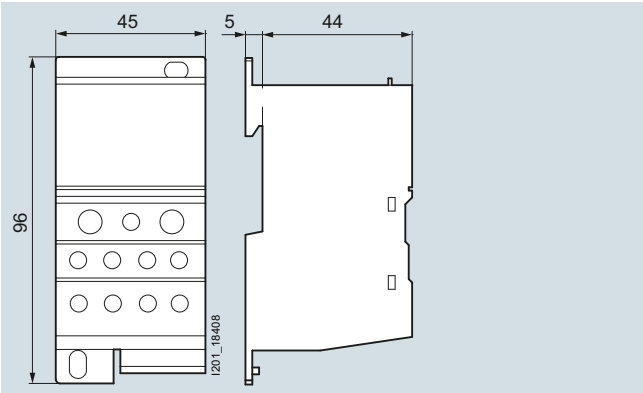
5ST2504



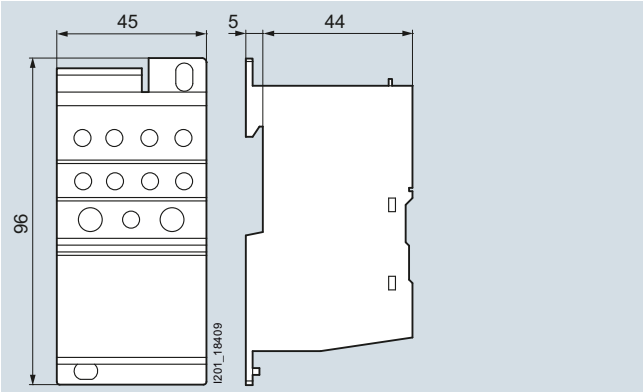
5ST2505



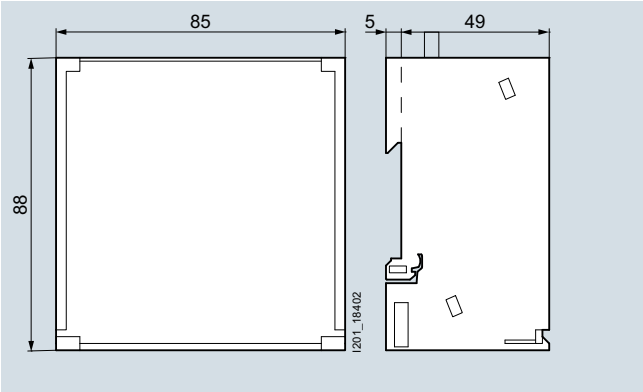
5ST2507



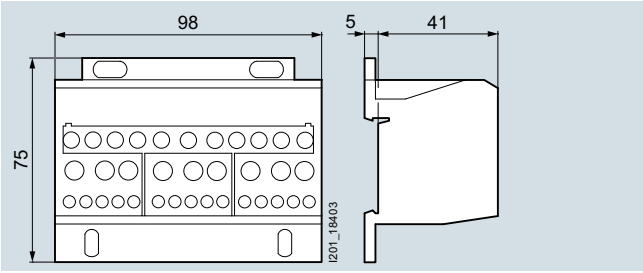
5ST2508



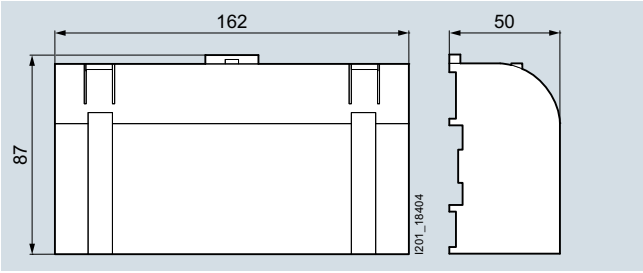
5ST2511



5ST2501



5ST2502



5ST2503

Minimum order quantity (PS) or a multiple thereof can be ordered.

Overview

SIKclip is a fast wiring system that simplifies the connection of control switches:

- For mounting directly on the rear vertical CU busbar system
- Mounting using brackets on the rear of the standard mounting rail.

The 4-pole busbar can handle loads of up to 250 A, each individual contact up to 63 A.

High degree of protection because each contact is locked individually.

SIKclip is made of thermoplastic acc. to IEC 60439-3 and is suitable for high thermal loads.

Technical specifications

		5ST25..
Test specifications		EN 60947-1, EN 61439-1
Degree of protection		IP20
Max. rated current I_n	A	250 at 40 °C ambient temperature
Max. rated output current I_n	A	63 at 40 °C ambient temperature
Rated operational voltage U_n	V AC	400
Rated insulation voltage	V AC	660
Test voltage	kV	2.5, 50 Hz
Connecting cables		40 A (6 mm^2), 63 A (10 mm^2)
Connecting cable type		H07VK
Ambient temperature	°C	-5 ... +60

Selection and ordering data

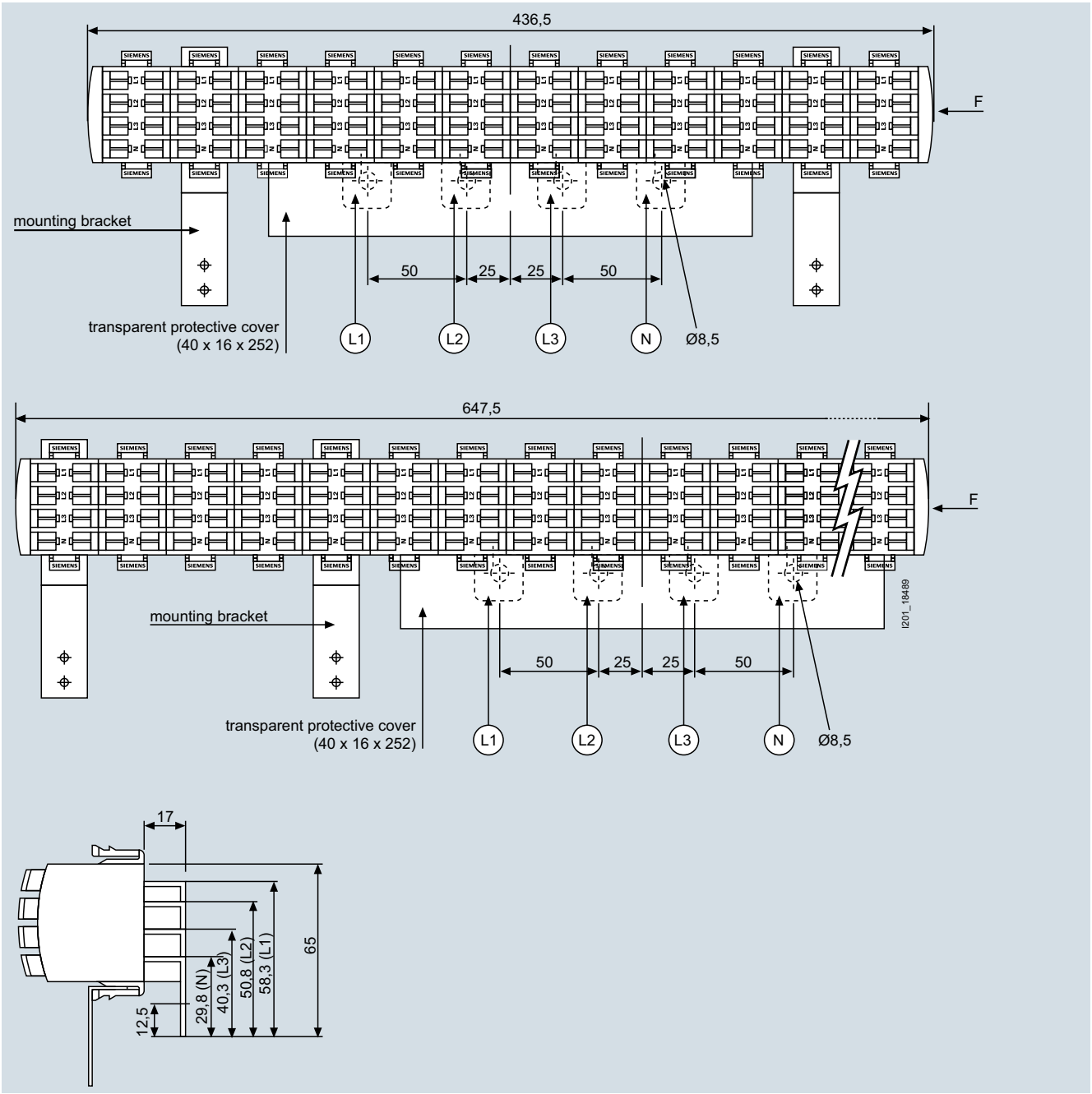
	Length	Conductor cross-section	Color of insulation	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	mm	mm^2		d					
	**SIKclip busbar**								
	12 MW				**5ST2520**		1	1 unit	1AD
	24 MW			▶	**5ST2521**		1	1 unit	1AD
	36 MW			▶	**5ST2522**		1	1 unit	1AD
	**Connecting cables with plug**								
	120	6	Black	▶	**5ST2523**		1	10 units	1AD
			Blue	▶	**5ST2524**		1	10 units	1AD
		10	Black		**5ST2525**		1	10 units	1AD
			Blue		**5ST2526**		1	10 units	1AD
	220	6	Black		**5ST2527**		1	10 units	1AD
			Blue		**5ST2528**		1	10 units	1AD
		10	Black		**5ST2530**		1	10 units	1AD
			Blue		**5ST2531**		1	10 units	1AD
	**Crimp connectors**				**5ST2532**		1	20 units	1AD
	For connection to cables 4/6 mm^2								
	**Fixing brackets**			▶	**5ST2533**		1	2 units	1AD
	For mounting on the rear of the standard mounting rail (pair)								

Note:

To install the SIKclip wiring system in the ALPHA AS, the busbars must be installed in a vertical rear position, but not recessed. If the busbars are in a recessed position the cables will not reach the circuit breakers.

3

Dimensional drawings



Minimum order quantity (PS) or a multiple thereof can be ordered.