

Switch Disconnectors

Fuseless Switch Disconnectors

5TE1 Switch Disconnectors up to 200 A

Introduction

Overview

The 5TE1 switch disconnectors are available from 100 A to 200 A in 3 and 4-pole versions and can be used as main control switches, repair switches, outgoing feeder switches and emergency mains switching off device.

The series corresponds to the requirements of IEC/EN 60947-3 and its key features are its compact and robust design, high short-circuit strength, high DC breaking capacity and comprehensive accessories.

Its small footprint means it is easy to install in all types of enclosures, distribution boards and control cabinets.

The devices are approved to UL 508 and KEMA certified.

Benefits

- Transparent enclosures ensure that the contact position is always visible
- Contacts with double breaks ensure reliable insulation characteristics
- Can be locked in the OFF position to allow for maintenance work
- With a red knob and yellow cap, it can also be used as an emergency switching off device.

Technical specifications

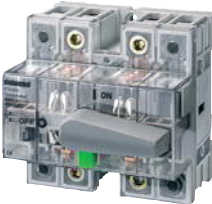
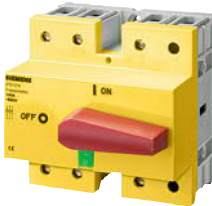
				5TE1.1	5TE1.2	5TE1.3	5TE1.4
Standards				IEC/EN 60947-3, UL 508			
Approvals				UL 508 for the following types: 5TE1320, 5TE1330, 5TE1340, 5TE1420, 5TE1430 and 5TE1440. UL File No. E302554			
Rated operational current I_e With utilization category AC-21A	Per conduct. path	At $U_e =$ 400 V	A	100	125	160	200
		415 V	A	100	125	160	200
		500 V	A	100	125	160	200
		690 V	A	100	125	160	200
Rated operational current I_e With utilization category AC-22A	Per conduct. path	At $U_e =$ 400 V	A	100	125	160	200
		415 V	A	100	125	160	200
		500 V	A	100	100	160	200
		690 V	A	63	63	160	200
Rated operational current I_e With utilization category AC-23A	Per conduct. path	At $U_e =$ 400 V	A	80		125	160
		415 V	A	80		125	160
		500 V	A	50		125	125
		690 V	A	40		63	80
Rated operational current I_e With utilization category DC-23A	2 poles in series	110 V	A	100		160	
	2 poles in series	220 V	A	--		100	
	4 poles in series	220 V	A	100		160	
Rated operational voltage U_e		V AC		According to UL: 480, acc. to IEC: 690			
Rated insulation voltage U_i		V AC		690			
Rated impulse withstand voltage U_{imp}	2000 m	kV		8			
Impulse test voltage	At sea level	kV		12.3			
Max. rated operational power With utilization category AC-23A	At $U_e =$	400 V	kW	44		69	88
		415 V	kW	46		72	92
		500 V	kW	35		86	86
		690 V	kW	36		60	76
Thermal rated current I_{th}	At 40 °C, 50 °C and 60 °C	A		100	125	160	200
Rated making capacity	At 415 V AC-23A	A		1875		3200	4000
Rated breaking capacity	At 415 V AC-23A	A		1000		1920	2400
Rated ultimate short-circuit making capacity I_{cm}	Per conduct. path	At $U_e =$ 400 V	kA	10			
		415 V	kA	10			
		500 V	kA	6.7			
		690 V	kA	6.7			
Rated short-time withstand current I_{cw} (peak value)	Per conduct. path	0.25 s	kA	5		6	
		1 s	kA	2.5		3	
Rated conditional short-circuit current With back-up protection with back-up fuse with identical rated current	At $U_e =$	400 V	kA	50			
		415 V	kA	50			
		500 V	kA	50			
		690 V	kA	33	33	20	18
Capacitive load	At 400 V	kVar		50	60	77	97
Number of poles				2/3/4			
Rated power dissipation P_v	Per pole	VA		2.9	4.5	6.5	10
Frequency		Hz		50/60			
Conductor cross-sections							
• Solid and stranded			mm ²	6 ... 50		--	
• AWG cables			mm ²	10 ... 1/0		8	
• Copper busbars			mm ²	--		max. 20 × 6	
Service life	Electrical	Switching cycles		1500		1000	
	Mechanical			20000		10000	
Acc. to UL 508 UL 508 General Use 480 V UL 508 Manual Motor Controller 230 V UL 508 Manual Motor Controller 480 V UL 508 Short-circuit at 480 V	I_n	A	--	80	100	125	
	FLA (full load amperes)	A	--	28	34	40	
	Power	hp	--	10	25	30	
	Power	hp	--	20	15	15	
	With Class H or K5 fuses	kA	--	10			
	With J fuses	kA	--	50			

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General data

Selection and ordering data

Version	I_e	U_e	Mounting width	SD	Article No. www.siemens.com/ product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG			
	A AC	V AC	MW	d								
 Switch disconnectors, lockable, with gray knob and transparent enclosure, mounting depth 92 mm												
2 NO	100	690	5	5TE1210						1	1 unit	1BK
	125		5TE1220	1						1 unit	1BK	
	160		8	5TE1230						1	1 unit	1BK
	200			5TE1240						1	1 unit	1BK
3 NO	100	690	5	5TE1310						1	1 unit	1BK
	125		5TE1320	1						1 unit	1BK	
	160		8	5TE1330						1	1 unit	1BK
	200			5TE1340						1	1 unit	1BK
4 NO	100	690	5	5TE1410						1	1 unit	1BK
	125		5TE1420	1						1 unit	1BK	
	160		8	5TE1430						1	1 unit	1BK
	200			5TE1440						1	1 unit	1BK
3 NO with N conductor through-type terminal	100	690	5	5TE1610						1	1 unit	1BK
	125		5TE1620	1						1 unit	1BK	
	160		8	5TE1630						1	1 unit	1BK
	200			5TE1640	1	1 unit	1BK					
 Switch disconnectors with red knob and yellow cap, can be used as emergency mains switching off device acc. to IEC 60204-1, EN 60204-1 (VDE 0113-1) if switch is easily accessible, mounting depth 92 mm												
3 NO	100	690	5	5TE1315						1	1 unit	1BK
	125		5TE1325	1						1 unit	1BK	
	160		8	5TE1335						1	1 unit	1BK
	200			5TE1345						1	1 unit	1BK
4 NO	100	690	5	5TE1415						1	1 unit	1BK
	125		5TE1425	1						1 unit	1BK	
	160		8	5TE1435						1	1 unit	1BK
	200			5TE1445						1	1 unit	1BK

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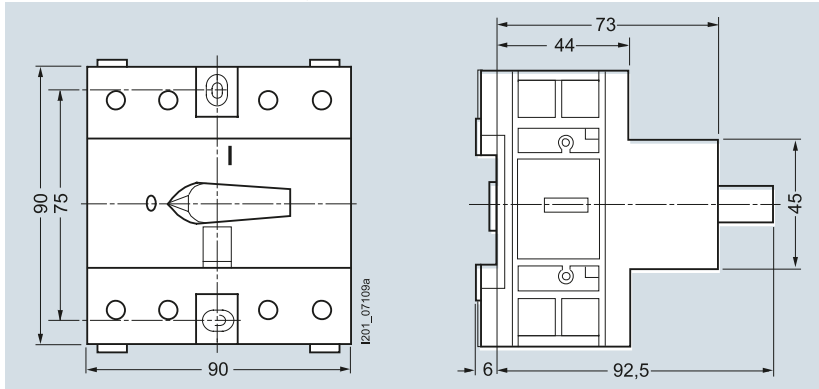
General data

Accessories

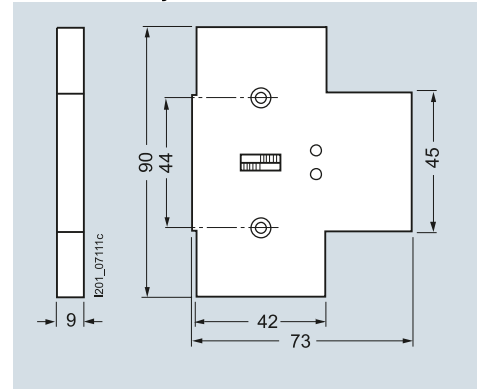
	Version	I_e	U_e	SD	Article No. www.siemens.com/ product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		A AC	V AC	d					
 5TE9000  5TE9001	Terminal covers Sealable For 100 A and 125 A switch disconnectors For 160 A and 200 A switch disconnectors				5TE9000 5TE9001		1	1 unit	1BK
							1	1 unit	1BK
	Cage terminals For 160 A and 200 A switch disconnectors, 14.5 mm terminal diameter for 35 mm ² cables, hexagonal socket head screw 5 mm 1 set = 3 units 1 set = 4 units				5TE9003 5TE9004		1	1 set	1BK
							1	1 set	1BK
	Auxiliary switches Can be mounted optionally left or right or both sides (2 units); minimum contact load 24 V, 50 mA 1 CO 2 CO	6 6	230 230		5TE9005 5TE9006		1	1 unit	1BK
							1	1 unit	1BK
	Locking units For up to three padlocks with max. Ø 8 mm				5TE9014		1	1 unit	1BK
	Conversion kits, 4-pole, for 100 A and 125 A for the connection of busbars or cables with cable lugs For busbars max. 15 mm wide including terminal cover				5TE9015		1	1 set	1BK
 5TE9010	Rotary operating mechanisms with extension shafts for mounting on hinged doors or enclosure lids, lockable, IP65 Black knob Shaft length 200 mm Shaft length 400 mm Red knob Shaft length 200 mm Shaft length 400 mm				5TE9010 5TE9011		1	1 unit	1BK
							1	1 unit	1BK
					5TE9012 5TE9013		1	1 unit	1BK
							1	1 unit	1BK

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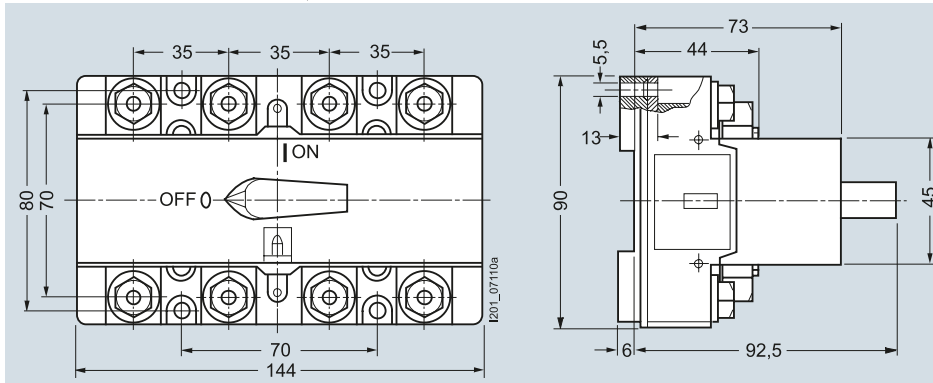
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General data**Dimensional drawings****5TE1 switch disconnectors, 100 A and 125 A**

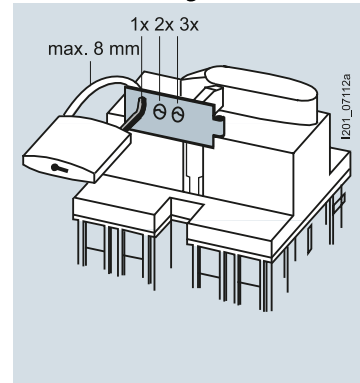
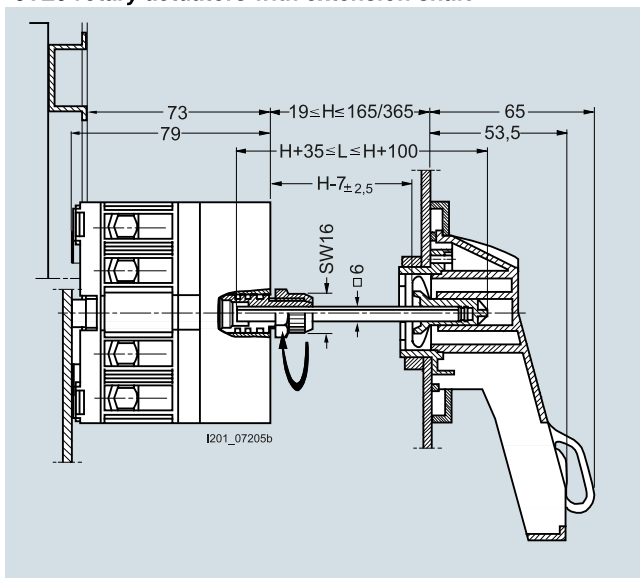
5TE1210	5TE1310	5TE1410	5TE1610
5TE1220	5TE1315	5TE1415	5TE1620
	5TE1320	5TE1420	
	5TE1325	5TE1425	

5TE9 auxiliary switches

5TE9005
5TE9006

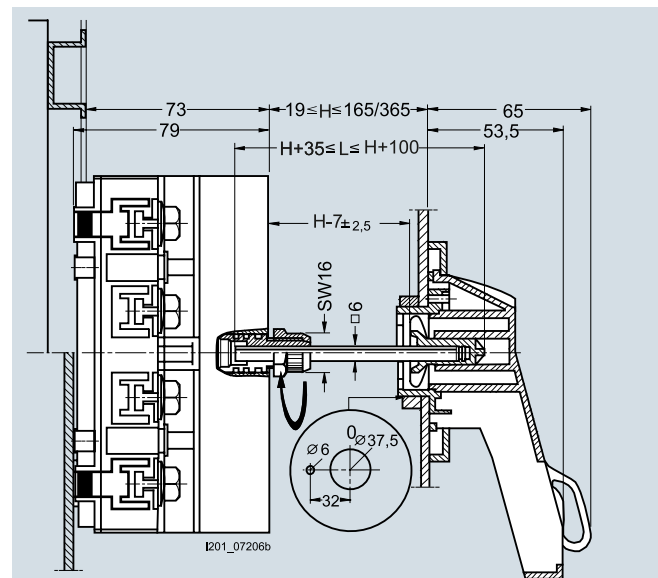
5TE1 switch disconnectors, 160 A and 200 A

5TE1230	5TE1330	5TE1430	5TE1630
5TE1240	5TE1335	5TE1435	5TE1640
	5TE1340	5TE1440	
	5TE1345	5TE1445	

5TE9014 locking units**5TE9 rotary actuators with extension shaft**

With switch disconnectors 100 A and 125 A
5TE9010, 5TE9011,
5TE9012, 5TE9013

It is possible to open the door in a disconnected state.



With switch disconnectors 160 A and 200 A
5TE9010, 5TE9011,
5TE9012, 5TE9013

It is possible to open the door in a disconnected state.

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General data

Circuit diagrams

Graphical symbols



5TE1210
5TE1220
5TE1230
5TE1240



5TE1310
5TE1320
5TE1330
5TE1340



5TE1410
5TE1420
5TE1430
5TE1440



5TE1610
5TE1620
5TE1630
5TE1640



5TE1315
5TE1325
5TE1335
5TE1345



5TE1415
5TE1425
5TE1435
5TE1445

5TE9 auxiliary switches



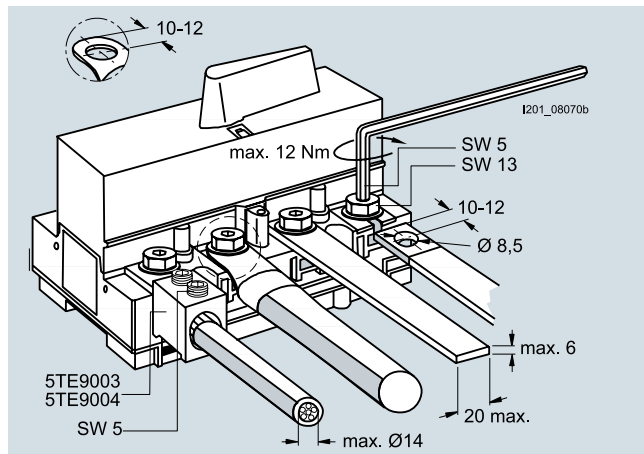
5TE9005



5TE9006

More information

Connection of 5TE1.3 and 5TE1.4 switches, 160 A and 200 A



Design

- From 160 A: Supplied with one terminal cover
- 160 A and 200 A: Version for connection with cable lug
- Screw fixing on base plate
- Installation on standard mounting rail to EN 60715, which is raised at least 5 mm from the base plate.