

SIEMENS



SENTRON

5TL1 ON/OFF switches

Reliable switching and user-friendly design

Reliable switching

The new 5TL1 ON/OFF switches are used for the switching of lighting, motors and other electrical devices. Rated currents range between 32 A and 125 A. The new design of the 5TL1 ON/OFF switches allows for perfect integration into the RCCB and MCB series.

Easy operation and installation

The 5TL1 ON/OFF switches come equipped with slide/manual actuation and can therefore be removed quickly from the busbar assembly without the use of tools. Auxiliary switches from the accessory range for MCBs and RCCBs can also be retrofitted without tools. This enables additional functions to be implemented. The switch position indicator integrated in the handle provides an additional benefit, as it enables the current switch status of the switch to be clearly displayed.

Highlights

- Reliable switching in the range 32 A to 125 A
- New design permits easy operation and installation
- Additional functions thanks to tool-free auxiliary switch retrofitting

Answers for infrastructure and cities.

Switching Devices

5TL1 ON/OFF switches

Overview

The devices are used for the switching of lighting, motors and other electrical devices.

The ON/OFF switches of the rated currents between 32 A and 125 A can be used as switch disconnectors according to IEC/EN 60947-3.

In addition, the 5TL1 device versions can be used as switch disconnectors according to EN 60947-1 and serve as main control switches for the disconnection or isolation of plants according to EN 60204-1.

Technical specifications

				5TL1132 5TL1232 5TL1332 5TL1432 5TL1632	5TL1140 5TL1240 5TL1340 5TL1440 5TL1640	5TL1163 5TL1263 5TL1363 5TL1463 5TL1663	5TL1180 5TL1280 5TL1380 5TL1480 5TL1680	5TL1191 5TL1291 5TL1391 5TL1491 5TL1691	5TL1192 5TL1292 5TL1392 5TL1492 5TL1692
Standards				IEC/EN 60947-3 (VDE 0660-107)					
Approvals				-- IEC/EN 60669-1 (VDE 0632-1)					--
				EN 60669-1					
Rated operational current I_e	Per conduct. path	A		32	40	63	80	100	125
Rated operational voltage U_e	1-pole	V AC		250					
	Multi-pole	V AC		440					
Rated power dissipation P_v	Per pole, max.	VA		0.7	0.9	2.2	3.5	5.5	8.6
Rated thermal current I_{th}		A		32	40	63	80	100	125
Rated breaking capacity AC-22A	At p.f. = 0.65	A		96	120	196	240	300	375
Rated making capacity AC-22A	At p.f. = 0.65	A		96	120	196	240	300	375
Rated short-circuit making capacity I_{cm} In conjunction with fuse of the same rated operational current	EN 60269 gL/gG	kA		10					
Rated impulse withstand voltage U_{imp}		kV		>5					
Clearances	Open contacts	mm		>7					
	Between the poles	mm		>7					
Creepage distances		mm		>7					
Mechanical service life		Switching cycles		20000					
Electrical service life		Switching cycles		10000		5000	1000		
Minimum contact load		V; mA		24; 300					
Rated power Switching of resistive loads including moderate overload AC-21	1-pole	kW		5	6.5	10	13	16	16
	2-pole	kW		9	11	18	22	28	28
	3-/4-pole	kW		15	15	30	39	48	48
Rated short-time withstand current I_{cw} Per conducting path at p.f. = 0.7 (The corresponding rated surge current can be established by multiplying by factor 1.5.)	up to 0.2 s	A		760	950	1500	2700	3400	3400
	up to 0.5 s	A		500	630	1000	1650	2100	2100
	up to 1 s	A		400	500	800	1350	1700	1700
	up to 3 s	A		280	350	560	800	1000	1000
Terminals Max. tightening torque	±screw (Pozidriv)			2					
		Nm		3.5					
Conductor cross-sections	Rigid	mm ²		1 ... 35			2.5 ... 50		
	Flexible, with end sleeve	mm ²		1 ... 35			2.5 ... 50		
Permissible ambient temperature		°C		-5 ... +40					
Resistance to climate At 95 % relative humidity	Acc. to DIN 50015	°C		45					

5TL1 ON/OFF switches

Selection and ordering data

Version	I_e	U_e	Conductor cross-sections	Mounting width	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*/P. unit	PG	Weight per PU approx.
		V AC	up to mm ²	MW							kg
	ON/OFF switches (32 A to 125 A) can be used as switch disconnectors according to EN 60947-1										
	With sealable switch position, separate handle locking device can be retrofitted, auxiliary switch can be retrofitted										
	1 NO, red handle	63	230	35	1	5TL1163-1		1	1 unit	029	0.115
		100		50		5TL1191-1		1	1 unit	029	0.125
	1 NO, gray handle	32		35		5TL1132-0		1	1 unit	029	0.115
		40				5TL1140-0		1	1 unit	029	0.115
		63				5TL1163-0		1	1 unit	029	0.115
		80		50		5TL1180-0		1	1 unit	029	0.115
		100				5TL1191-0		1	1 unit	029	0.125
		125				5TL1192-0		1	1 unit	029	0.125
	2 NO, red handle	63	400	35	2	5TL1263-1		1	1 unit	029	0.220
		100		50		5TL1291-1		1	1 unit	029	0.240
	2 NO, gray handle	32		35		5TL1232-0		1	1 unit	029	0.220
		40				5TL1240-0		1	1 unit	029	0.220
		63				5TL1263-0		1	1 unit	029	0.220
		80		50		5TL1280-0		1	1 unit	029	0.220
		100				5TL1291-0		1	1 unit	029	0.240
		125				5TL1292-0		1	1 unit	029	0.240
	3 NO, red handle	63	400	35	3	5TL1363-1		1	1 unit	029	0.330
		100		50		5TL1391-1		1	1 unit	029	0.360
	3 NO, gray handle	32		35		5TL1332-0		1	1 unit	029	0.330
		40				5TL1340-0		1	1 unit	029	0.330
		63				5TL1363-0		1	1 unit	029	0.330
		80		50		5TL1380-0		1	1 unit	029	0.330
		100				5TL1391-0		1	1 unit	029	0.360
		125				5TL1392-0		1	1 unit	029	0.360
	3 NO+ N, red handle	63	400	35	4	5TL1663-1		1	1 unit	029	0.435
		100		50		5TL1691-1		1	1 unit	029	0.475
	3 NO+ N, gray handle	32		35		5TL1632-0		1	1 unit	029	0.435
		40				5TL1640-0		1	1 unit	029	0.435
		63				5TL1663-0		1	1 unit	029	0.435
		80		50		5TL1680-0		1	1 unit	029	0.435
		100				5TL1691-0		1	1 unit	029	0.475
		125				5TL1692-0		1	1 unit	029	0.475
	4 NO, gray handle	32		35	4	5TL1432-0		1	1 unit	029	0.435
		40				5TL1440-0		1	1 unit	029	0.435
		63				5TL1463-0		1	1 unit	029	0.435
		80		50		5TL1480-0		1	1 unit	029	0.435
		100				5TL1491-0		1	1 unit	029	0.475
		125				5TL1492-0		1	1 unit	029	0.475
	Auxiliary switches (AS)										
	For all 5TL1 switches; for right-hand-side retrofitting with factory-fitted brackets; see Catalog LV10, chapter "Miniature Circuit Breakers" for additional data										
	1 NO + 1 NC			0.5	▶	5ST3010		1	1 unit	020	0.056
	2 NO			0.5		5ST3011		1	1 unit	020	0.062
	2 NC			0.5		5ST3012		1	1 unit	020	0.056
	Auxiliary switches for low powers										
	1 NO + 1 NC			0.5	▶	5ST3013		1	1 unit	020	0.066
	2 NO			0.5		5ST3014		1	1 unit	020	0.054
	2 NC			0.5		5ST3015		1	1 unit	020	0.064

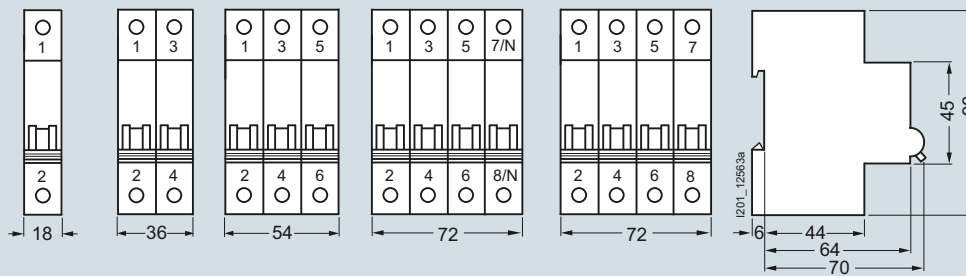
Switching Devices

5TL1 ON/OFF switches

	Version	I_e	U_e	Conductor cross-sections	Mounting width	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*/P. unit	PG	Weight per PU approx. kg
	A		V AC	up to mm ²	MW							
	Handle locking devices For all 5TL1 switches, can be sealed against undesired/inadvertent mechanical ON/OFF switching, for padlock with max. 3 mm shackle						5ST3806		1	5 units	020	0.003
	Terminal covers For all 5TL1 switches, in 1 MW per pole version, for covering screw openings, sealable					►	5ST3800		1	10 units	020	0.002
	Spacers Contour for modular devices with a mounting depth of 70 mm; can be snapped onto either side of the busbar, so that two spacers allow for convenient cable routing					0.5	5TG8240		1	2 units	026	0.010
	Phase connectors For easier wiring in various wiring versions and bus mountings or as a support terminal for conductors from 2.5 mm ² to 50 mm ²											
	1P	125	230	50	1		5TL1192-4		1	1 unit	029	0.105
	N conductor connectors For easier wiring in various circuit versions and bus mountings or as a support terminal for N conductors from 2.5 mm ² to 50 mm ² with blue color marking											
	1P	125	230	50	1		5TL1192-3		1	1 unit	029	0.105

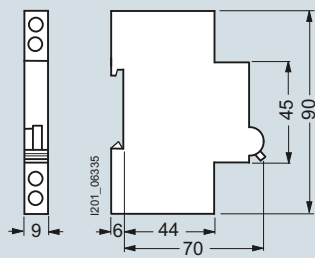
Dimensional drawings

5TL1 ON/OFF switches, 32 A to 125 A



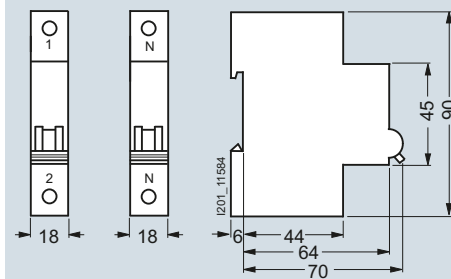
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5TL1191-1	5TL1291-1	5TL1391-1	5TL1691-1	5TL1440-0
5TL1132-0	5TL1232-0	5TL1332-0	5TL1632-0	5TL1463-0
5TL1140-0	5TL1240-0	5TL1340-0	5TL1640-0	5TL1480-0
5TL1163-0	5TL1263-0	5TL1363-0	5TL1663-0	5TL1491-0
5TL1180-0	5TL1280-0	5TL1380-0	5TL1680-0	5TL1492-0
5TL1191-0	5TL1291-0	5TL1391-0	5TL1691-0	
5TL1192-0	5TL1292-0	5TL1392-0	5TL1692-0	

5ST3 auxiliary switches



5ST3010
5ST3011
5ST3012
5ST3013
5ST3014
5ST3015

Phase connectors/N conductor connectors

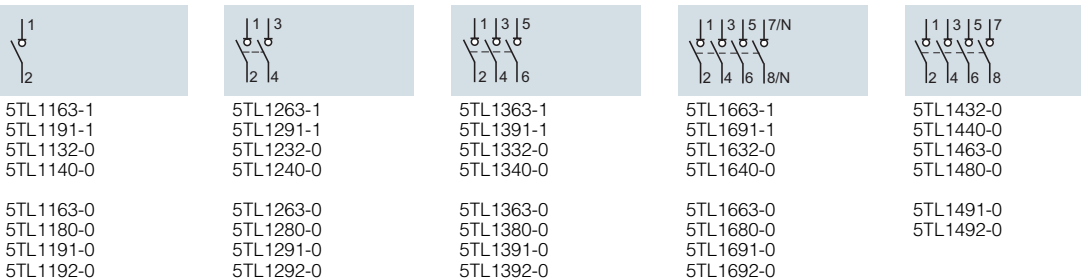


5TL1192-4 5TL1192-3

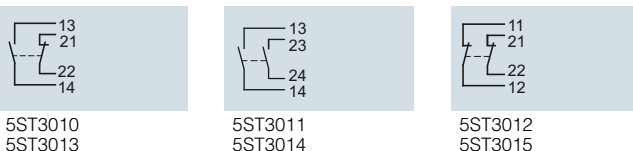
Circuit diagrams

Graphical symbols

5TL1 ON/OFF switches



5ST3 auxiliary switches



Article No. index incl. export markings

Overview

Article No.	Page	Export markings	
		ECCN	AL
5ST3			
5ST3010	3	N	N
5ST3011	3	N	N
5ST3012	3	N	N
5ST3013	3	EAR99H	N
5ST3014	3	EAR99H	N
5ST3015	3	EAR99H	N
5ST3800	4	N	N
5ST3806	4	N	N
5TE8			
5TE8533	3	N	N
5TG8			
5TG8240	4	N	N
5TL11			
5TL1132-0	3	N	N
5TL1140-0	3	N	N
5TL1163-0	3	N	N
5TL1163-1	3	N	N
5TL1180-0	3	N	N
5TL1191-0	3	N	N
5TL1191-1	3	N	N
5TL1192-0	3	N	N
5TL1192-3	4	N	N
5TL1192-4	4	N	N
5TL12			
5TL1232-0	3	N	N
5TL1240-0	3	N	N
5TL1263-0	3	N	N
5TL1263-1	3	N	N
5TL1280-0	3	N	N
5TL1291-0	3	N	N
5TL1291-1	3	N	N
5TL1292-0	3	N	N
5TL13			
5TL1332-0	3	N	N
5TL1340-0	3	N	N
5TL1363-0	3	N	N
5TL1363-1	3	N	N
5TL1380-0	3	N	N
5TL1391-0	3	N	N
5TL1391-1	3	N	N
5TL1392-0	3	N	N
5TL14			
5TL1432-0	3	N	N
5TL1440-0	3	N	N
5TL1463-0	3	N	N
5TL1480-0	3	N	N
5TL1491-0	3	N	N
5TL1492-0	3	N	N

Article No.	Page	Export markings	
		ECCN	AL
5TL16			
5TL1632-0	3	N	N
5TL1640-0	3	N	N
5TL1663-0	3	N	N
5TL1663-1	3	N	N
5TL1680-0	3	N	N
5TL1691-0	3	N	N
5TL1691-1	3	N	N
5TL1692-0	3	N	N

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