



Short Circuit Protection

Protection Co-ordination, Type 1 vs. Type 2:

Type 1 protection implies that after a short circuit, the device under test will no longer be in a functioning state. In type 2 co-ordination, the device under test will still be functional after the short circuit. In both cases, however, the short circuit has to be interrupted. The fuse between enclosure and supply shall not open. The door or cover of the enclosure shall not be blown open. There shall be no damage to conductors of terminals and the conductors shall not separate from terminals. There shall be no breakage or cracking of insulating bases to the extent that the integrity of the mounting of live parts is impaired. Discharge of parts or any risk of fire shall not occur.

The product variants listed in the table hereunder are suitable for use on a circuit capable of delivering not more than 65,000A rms Symmetrical Amperes, 600Volts maximum when protected by fuses. Tests at 65,000A were performed with Class J, fast acting: please refer to the table below for maximum allowed ampere rating of the fuse. Use fuses only.

Co-ordination Type 1 (UL508)

Part No.	Prospective short circuit current (kArms)	Max. fuse size (A)	Class	Voltage (Vac)
STHCxx25	65	30	J / CC	600
STHCxx50	65	30	J	600
		20	HSJ20 (Mersen*)	600
STHCxx75	65	100	J	600
STHCxx100	65	80	J	600
		60	HSJ60 (Mersen*)	600
STHCxx125	65	125	J	600
		60	HSJ60 (Mersen*)	600

Co-ordination Type 2 (IEC/EN60947-4-3)

Part No.	Prospective short circuit current (kArms)	Max. fuse size (A)	Brand	Model	Size
STHC23x25	10	25	Mersen*	6.9gRB 10-25	10.3 x 38
STHC60x25	10	20	Mersen*	6.9gRB 10-20	10.3 x 38
STHC23x50	10	50	Mersen*	6.9zz CP gRC 14x51/50	14 x 51
STHC60x50	10	50	Mersen*	6.9zz CP gRC 22x58/50	22 x 58
STHC23x75 & STHC60x75	10	63	Mersen*	6.9zz CP gRC 22x58/63	22 x 58
STHC23x100	10	100	Mersen*	6.9zz CP gRC 22x58/100	22 x 58
STHC60x100	10	80	Mersen*	6.9zz CP gRC 22x58/80	22 x 58
STHC23x125 & STHC60x125	10	125	Mersen*	6.921 CP URGD 27x60/125	27 x 60

zz = 00, without fuse trip indication

zz = 21, with fuse trip indication

* Formerly Ferraz Shawmut



Type 2 Protection with Miniature Circuit Breakers (M.C.B.s)

Solid State Relay type	ABB Model no. for Z - type M. C. B. (rated current)	ABB Model no. for B - type M. C. B. (rated current)	Wire cross sectional area [mm ²]	Minimum length of Cu wire conductor [m]*
STHCxx25	1-pole			
	S201-Z4 (4A)	S201-B2 (2A)	1.0	21.0
	S201-Z6 UC (6A)	S201-B2 (2A)	1.0	21.0
			1.5	31.5
STHCxx50	1-pole			
	S201-Z10 (10A)	S201-B4 (4A)	1.0	7.6
			1.5	11.4
			2.5	19.0
	S201-Z16 (16A)	S201-B6 (6A)	1.0	5.2
			1.5	7.8
			2.5	13.0
			4.0	20.8
	S201-Z20 (20A)	S201-B10 (10A)	1.5	12.6
			2.5	21.0
	S201-Z25 (25A)	S201-B13 (13A)	2.5	25.0
			4.0	40.0
	2-poles			
	S202-Z25 (25A)	S202-B13 (13A)	2.5	19.0
			4.0	30.4
STHC..75.. STHC..100..	1-pole			
	S201-Z20 (20A)	S201-B10 (10A)	1.5	4.2
			2.5	7.0
			4.0	11.2
	S201-Z32 (32A)	S201-B16 (16A)	2.5	13.0
			4.0	20.8
			6.0	31.2
	2-poles			
	S202-Z20 (20A)	S202-B10 (10A)	1.5	1.8
			2.5	3.0
			4.0	4.8
	S202-Z32 (32A)	S202-B16 (16A)	2.5	5.0
			4.0	8.0
			6.0	12.0
			10.0	20.0
	S202-Z50 (50A)	S202-B25 (25A)	4.0	14.8
			6.0	22.2
			10.0	37.0
STHC..125..	1-pole			
	S201-Z50 (50A)	S201-B25 (25A)	4.0	4.8
			6.0	7.2
			10.0	12.0
			16.0	19.2
	S201-Z63 (63A)	S201-B32 (32A)	6.0	7.2
			10.0	12.0
16.0			19.2	

* Between MCB and Load (including return path which goes back to the mains).

Note: A prospective current of 6kA and a 230/400V power supply system is assumed for the above suggested specifications. For cables with different cross section than those mentioned above please consult Teledyne Relays' Technical Support Group.



Environmental Information

The declaration in this section is prepared in compliance with People’s Republic of China Electronic Industry Standard SJ/T11364-2014: Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products.

Part Name	Toxic or Harardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Power Unit Assembly	x	O	O	O	O	O

O: Indicates that said hazardous substance contained in homogeneous materials for this part are below the limit requirement of GB/T 26572.

X: Indicates that said hazardous substance contained in one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

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