

Pluggable Single-Pole SPD

SPT12.5-XXX/1(S)

Class I • Class II • Type 1 • Type 2 • Type 1CA

Location of Use: Main Distribution Boards

Network Systems: TN-S, TN-C, TT (only L-N)

Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N

Surge Ratings: I_{imp} = up to 12.5 kA (10/350 μ s)
 I_n = up to 20 kA (8/20 μ s)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
EN 61643-11:2012
UL 1449 4th Edition



Technical Data

SPT12.5-XXX/1(S)

		75	150	275	320	385	440
IEC Electrical							
Nominal AC Voltage (50/60Hz)	U_o/U_n	60V	120V	230V	230V	230V	400V
Maximum Continuous Operating Voltage (AC)	U_c	75V	150V	275V	320V	385V	440V
Nominal Discharge Current (8/20 μ s)	I_n	20kA	20kA	20kA	20kA	10kA	10kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50kA	50kA	50kA	50kA	50kA	50kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	12.5kA	12.5kA	12.5kA	12.5kA	10kA	10kA
Specific Energy	W/R	39kJ/ Ω	39kJ/ Ω	39kJ/ Ω	39kJ/ Ω	25 kJ/ Ω	25kJ/ Ω
Charge	Q	6.25 As	6.25As	6.25As	6.25As	5As	5As
Voltage Protection Level	U_p	700V	1000V	1500V	1600V	1800V	2000 V
Response Time	t_a	<25 ns					
Back-Up Fuse (max)		315 A / 250 A gG					
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 kA					
TOV Withstand 5s	U_T	114V	180	335V	335V	335V	580V
TOV 120min	U_T	180V	230V	440V	440V	440V	765V
	Mode	Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1					
UL Electrical							
Maximum Continuous Operating Voltage (AC)	MCOV	75V	150V	275V	320V	385V	440V
Voltage Protection Rating	VPR	330V	600V	900V	1200V	1350V	1500V
Nominal Discharge Current (8/20 μ s)	I_n	20kA	20kA	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	100kA	200kA	150kA	150kA	150kA	200kA
Mechanical & Environmental							
Operating Temperature Range	T_a	-40 °F to +158 °F [-40 °C to +70 °C]					
Permissible Operating Humidity	RH	5%...95%					
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 2000 m					
Terminal Screw Torque	M_{max}	39.9 lbf·in [4.5 Nm]					
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)					
		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)					
Mounting		35 mm DIN Rail, EN 60715					
Degree of Protection		IP 20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
Remote Contacts (RC)		Optional					
RC Switching Capacity		AC: 250V / 0.5 A; DC: 250V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A					
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)					

SPT12.5-XXX/1(S)

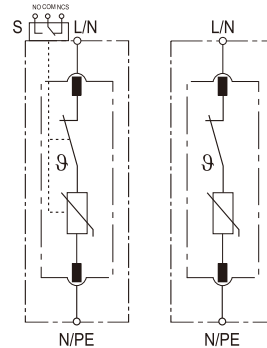


Order Information						
Order Code	75	150	275	320	385	440
SPT12.5-XXX/1	1207511	1215011	1227511	1232011	1238511	1244011
SPT12.5-XXX/1S(with remote contacts)	1207512	1215012	1227512	1232012	1238512	1244012
SPT12.5-XXX/0(spare modules)	1207501	1215001	1227501	1232001	1238501	1244001

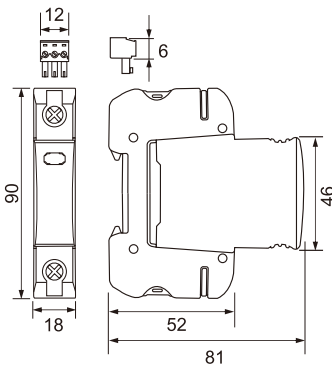
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- S Signalling Contacts Optional



Dimensions & Packaging

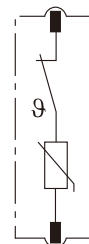


Dimensions & Packaging

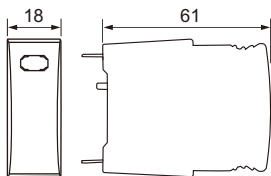
SPT12.5-XXX/1(S)	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[200 × 230 × 330 mm]					
Minimum Order Quantity	64 Units					

Plug Internal Configuration

SPT12.5-XXX/0



Dimensions & Packaging



Dimensions & Packaging

SPT12.5-XXX/0	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[200 × 230 × 330 mm]					
Minimum Order Quantity	64 Units					

Connection Diagram

TN-S, TN-C, TT (Single-phase, 1+0)

