

Pluggable Multi-Pole SPD

SPT12.5-XXX/1(S)+1

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

- Location of Use: Main Distribution Boards
- Network Systems: TT, TN-S
- Mode of Protection: L-N, N-PE
- Surge Ratings: $I_{imp} = 12.5 \text{ kA}$ (10/350 μs)
 $I_n = 20 \text{ kA}$ (8/20 μs)
- IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA
- Protective Elements: High Energy MOV and GDT
- Housing: Pluggable Design
- Compliance: IEC 61643-11:2011
EN 61643-11:2012
UL 1449 4th Edition



Technical Data

SPT12.5-XXX/1(S)+1

		75	150	275	320
IEC Electrical					
Nominal AC Voltage (50/60Hz)		60V	120V	230V	230V
Maximum Continuous Operating Voltage	(L-N) U_c	75V	150V	275V	320V
	(N-PE) U_c	255V	255V	255V	255V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n		20kA/ 25kA		
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}		50kA/50kA		
Impulse Discharge Current (10/350 μs)	(L-N)/(N-PE) I_{imp}		12.5 kA/25 kA		
Specific Energy	(L-N)/(N-PE) W/R		39kJ/ Ω /156kJ/ Ω		
Charge	(L-N)/(N-PE) Q		6.25As/12.5As		
Voltage Protection Level	(L-N)/(N-PE) U_p	700V/1500V	1000V/1500V	1500V/1500V	1600V/1500V
Follow Current Interrupt Rating	(N-PE) I_{fi}		100A _{RMS}		
Response Time	(L-N)/(N-PE) t_A		<25ns/<100ns		
Back-Up Fuse (max)			315A/250AgG		
Short-Circuit Current Rating (AC)	(L-N) I_{SCCR}		25kA/ 50kA		
TOV Withstand 5s	(L-N) U_T	114V	180V	335V	335V
TOV 120min	(L-N) U_T	114V	230V	440V	440V
	Mode	Withstand	Safe Fail	Safe Fail	Safe Fail
TOV Withstand 200ms	(N-PE) U_T		1200V		
Number of Ports			1		
UL Electrical					
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-PE) MCOV	75V/255V	150V/255V	275V/255V	320V/255V
Voltage Protection Rating	(L-N)/(N-PE) VPR	330V/1200V	600V/1200V	900V/1200V	1200V/1200V
Nominal Discharge Current (8/20 μs)	(L-N)/(-PE) I_n	20kA/20kA	20kA/20kA	20kA/20kA	20kA/20kA
Short-Circuit Current Rating (AC)	(L-N) SCCR	100kA	200kA	150kA	150kA
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)+1

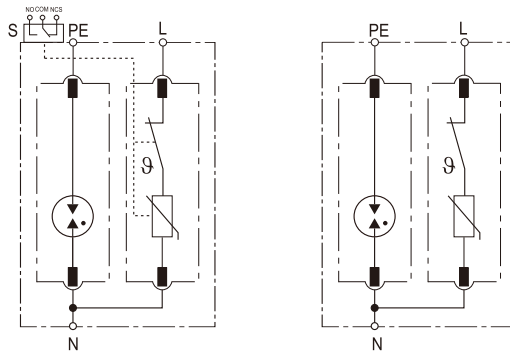


Order Information				
Order Code	75	150	275	320
SPT12.5-XXX/1+1	1207513	1215013	1227513	1232013
SPT12.5-XXX/1S+1 (with remote contacts)	1207514	1215014	1227514	1232014
SPT12.5-XXX/0 (spare modules)	1207501	1215001	1227501	1232001
SPT12.5-NPE/0 (spare modules)	1225501	1225501	1225501	1225501

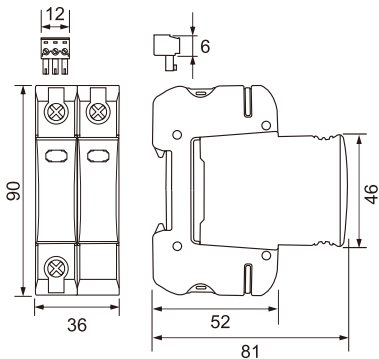
Internal Configuration

Legend

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



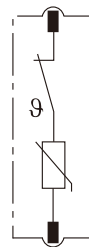
Dimensions & Packaging



Dimensions & Packaging

SPT12.5-XXX/1(S)+1	75	150	275	320
Single Unit DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[200 x 230 x 330 mm]			
Minimum Order Quantity	32 Units			

SPT12.5-XXX/0

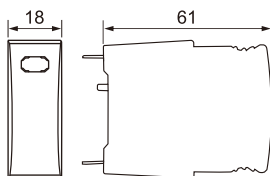


SPT12.5-NPE/0



Plug Internal Configuration

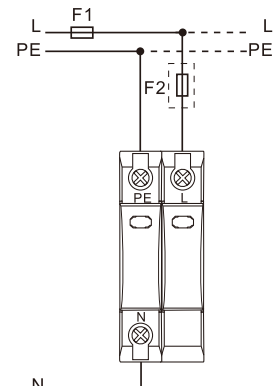
Dimensions & Packaging



Dimensions & Packaging

SPT12.5-XXX/0	75	150	275	320
SPT12.5-NPE/0	25			
Single Unit DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[200 x 230 x 330 mm]			
Minimum Order Quantity	64 Units			

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



Connection Diagram