

Pluggable Multi-Pole SPD

SPT12.5-XXX/3(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: N-PE, L-N

 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/2(S)+1

150
275
320

IEC Electrical				150	275	320
Nominal AC Voltage (50/60Hz)				120V	230V	230V
Maximum Continuous Operating Voltage	(L-N)	U_c		150V	275V	320V
	(N-PE)	U_c		255V	255V	255V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE)	I_n			20kA/50kA	
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE)	I_{max}			50kA/100kA	
Impulse Discharge Current (10/350 μs)	(L-N)/(N-PE)	I_{imp}			12.5kA/50kA	
Specific Energy	(L-N)/(N-PE)	W/R			39kJ/ Ω /625kJ/ Ω	
Charge	(L-N)/(N-PE)	Q			6.25As/25As	
Voltage Protection Level	(L-N)/(N-PE)	U_p	1000V/1500V	1500V/1500V	1600V/1500V	
Follow Current Interrupt Rating	(N-PE)	I_{fi}		100A _{RMS}		
Response Time	(L-N)/(N-PE)	t_A		< 25 ns / < 100 ns		
Back-Up Fuse (max)				315 A / 250 A gG		
Short-Circuit Current Rating (AC)	(L-N)	I_{SCCR}		25 kA / 50 kA		
TOV Withstand 5s	(L-N)	U_T	180V	335V	335V	
		Mode	Safe Fail	Safe Fail	Safe Fail	
TOV 120min	(L-N)	U_T	230V	440V	440V	
		U_T	1200V			
TOV Withstand 200s	(N-PE)	U_T		1200V		
Number of Ports				1		
UL Electrical				150	275	320
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-PE)	MCOV	150V/255V	275V/255V	320V/255V	
Voltage Protection Rating	(L-N)/(N-PE)	VPR	600V/1200V	900V/1200V	1200V/1200V	
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE)	I_n	20kA/20kA	20kA/20kA	20kA/20kA	
Short-Circuit Current Rating (AC)	(L-N)	SCCR	200kA	150kA	150kA	
Mechanical & Environmental				150	275	320
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/3(S)+1

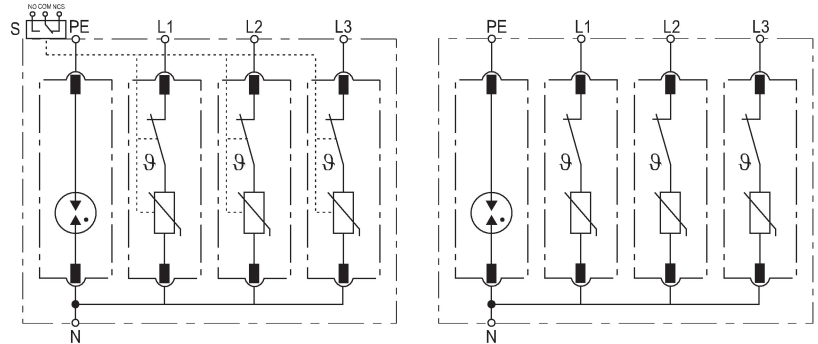


Order Information			
Order Code	150	275	320
SPT12.5-XXX/3+1	1215033	1227533	1232033
SPT12.5-XXX/3S+1 (with remote contacts)	1215034	1227534	1232034
SPT12.5-XXX/0 (spare modules)	121 5001	1227501	1232001
SPT12.5-NPE/0 (spare modules)	1225502	1225502	1225502

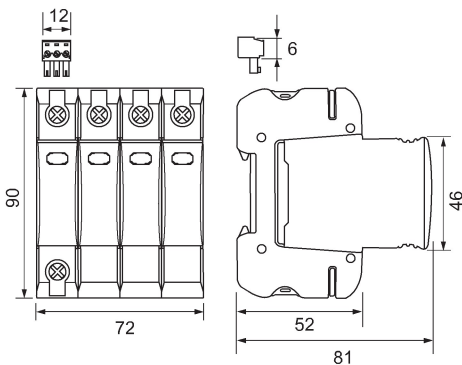
Internal Configuration

Legend

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



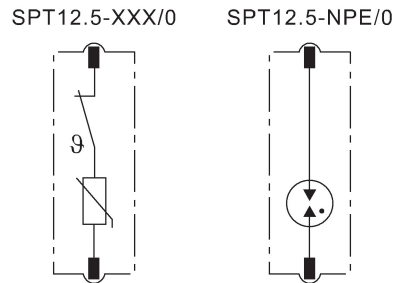
Dimensions & Packaging



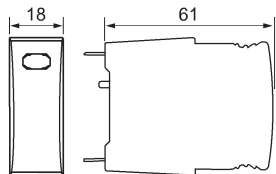
Dimensions & Packaging

SPT12.5-XXX/3(S)+1	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	16 Units		

Plug Internal Configuration



Plug Internal Configuration



Dimensions & Packaging

SPT12.5-XXX/0	150	275	320
SPT12.5-NPE/0	50		
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		

Connection Diagram

