

## 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  $\mu\text{s}$ )  
 $I_n = 20 \text{ kA}$  (8/20  $\mu\text{s}$ )

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**

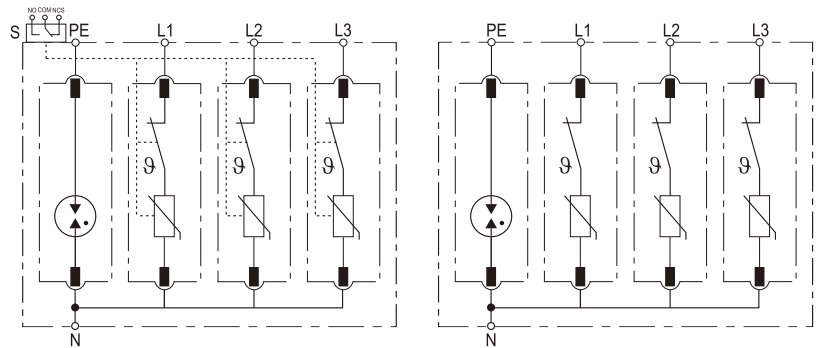
IEC Electrical			150	275	320
Nominal AC Voltage (50/60Hz)			120V	230V	230V
Maximum Continuous Operating Voltage	(L-N)	$U_c$	150V	275V	320V
	(N-PE)	$U_c$	255V	255V	255V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	(L-N)/(N-PE)	$I_n$		20kA/50kA	
Maximum Discharge Current (8/20 $\mu\text{s}$ )	(L-N)/(N-PE)	$I_{max}$		50kA/100kA	
Impulse Discharge Current (10/350 $\mu\text{s}$ )	(L-N)/(N-PE)	$I_{imp}$		12.5kA/50kA	
Specific Energy	(L-N)/(N-PE)	W/R		39kJ/ $\Omega$ /625kJ/ $\Omega$	
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 <sub>RMS</sub>	
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
		Mode	Safe Fail	Safe Fail	Safe Fail
TOV Withstand 200s	(N-PE)	$U_T$		1200V	
Number of Ports				1	
UL Electrical					
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 $\mu\text{s}$ )	(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					
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 <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (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 <sup>2</sup> (Solid)		

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

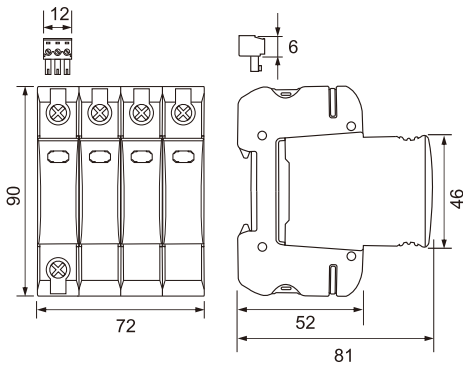
## Internal Configuration

### Legend

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



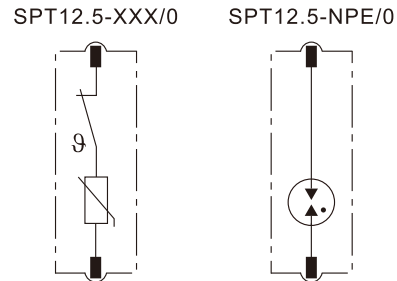
## Dimensions & Packaging



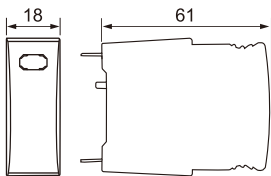
### Dimensions & Packaging

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

