

Pluggable Single and Multi-Pole SPD

ProTec T1H 3+1

Class I • Class II • Type 1 • Type 2



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

Technical Data

ProTec T1H-xxx-3+1(-R)

300

IEC Electrical

Nominal AC Voltage (50/60Hz)	U_o/U_n	240V
Maximum Continuous Operating Voltage (AC)	(L-N) / (N-PE) U_c	300V / 305V
Nominal Discharge Current (8/20 μ s)	(L-N) / (N-PE) I_n	20 kA / 50 kA
Maximum Discharge Current (8/20 μ s)	(L-N) / (N-PE) I_{max}	65 kA / 100 kA
Impulse Discharge Current (10/350 μ s)	(L-N) / (N-PE) I_{imp}	12.5 kA / 50 kA
Specific Energy	(L-N) / (N-PE) W/R	39 kJ/ Ω / 625 kJ/ Ω
Charge	(L-N) / (N-PE) Q	6.25 As / 25 As
Voltage Protection Level	(L-N) / (N-PE) U_p	1500V / 1500V
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
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A _{RMS}
TOV Withstand 120min	(L-N) U_T	442V
TOV Withstand 200ms	(N-PE) U_T	1200V
Number of Ports		1

Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Altitude		13123 ft [4000m]
Terminal Screw Torque	M_{max}	39.9 lbf-in [4.5Nm]
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 Flag / Not Green Flag
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/1A, 125V/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)

Order Information

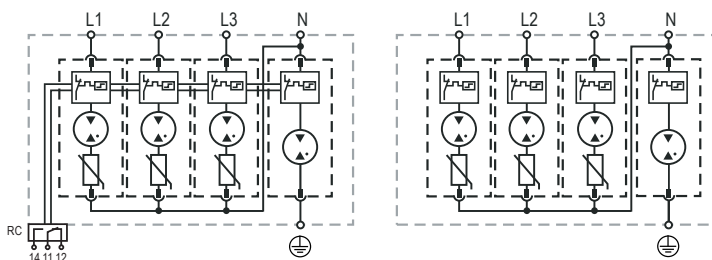
Order Code	300
ProTec T1H-xxx-3+1	59.0320
ProTec T1H-xxx-3+1-R (with remote contacts)	59.0321
ProTec T1H-xxx-P	59.0308
ProTube T1H-50-P	59.0309

ProTec T1H 3+1

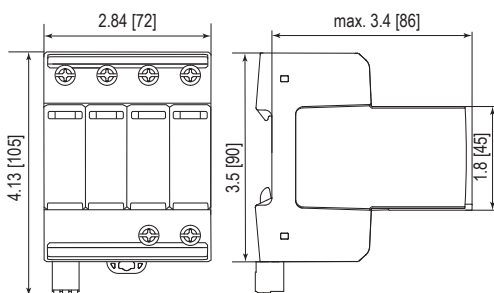
Internal Configuration

Legend

- L Line
- N Neutral
- ⊕ Protective Earth
- RC Remote Contacts Optional



Dimensions & Packaging



Dimensions & Packaging

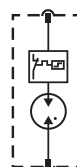
ProTec T1H-xxx-3+1		300
Single Unit Weight	pounds [grams]	1.657 [752]
ProTec T1H-xxx-3+1-R		300
Single Unit Weight	pounds [grams]	1.642 [745]
Single Unit DIN 43880 Dimension		4 TE
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
Minimum Order Quantity		4 Units

Plug Internal Configuration

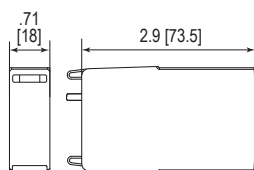
ProTec T1H-xxx-P



ProTube T1H-50-P



Dimensions & Packaging



Dimensions & Packaging

ProTec T1H-xxx-P		300
Single Unit Weight	pounds [grams]	.286 [130]
ProTube T1H-50-P		50
Single Unit Weight	pounds [grams]	.208 [94]
Single Unit DIN 43880 Dimension		1 TE
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
Minimum Order Quantity		28 Units