

Pluggable Multi-Pole SPD
ProTec T1HS 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: $I_{imp} = 25 \text{ kA} / 100 \text{ kA} (10/350 \mu\text{s})$
 $I_n = 25 \text{ kA} / 100 \text{ kA} (8/20 \mu\text{s})$
 IEC/EN Category: Class I+II, Type 1+2
 Protective Elements: GDT in series with High Energy MOV (L-N) and GDT (N-PE)
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

ProTec T1HS-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 μs)	(L-N) / (N-PE) I_n	25kA / 100kA
Maximum Discharge Current (8/20 μs)	(L-N) / (N-PE) I_{max}	65kA / 130kA
Impulse Discharge Current (10/350 μs)	(L-N) / (N-PE) I_{imp}	25kA / 100kA
Specific Energy	(L-N) / (N-PE) W/R	156.2kJ/ Ω / 2500 kJ/ Ω
Charge	(L-N) / (N-PE) Q	12.5As / 50As
Voltage Protection Level	(L-N) / (N-PE) U_p	1500V / 1500V
Rated Load Current	I_L	100A
Response Time	(L-N) / (N-PE) t_A	< 100ns / < 100ns
Back-Up Fuse (max)		315A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	50kA
Follow Current Interrupt Rating	(N-PE) I_{fi}	100A _{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/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)

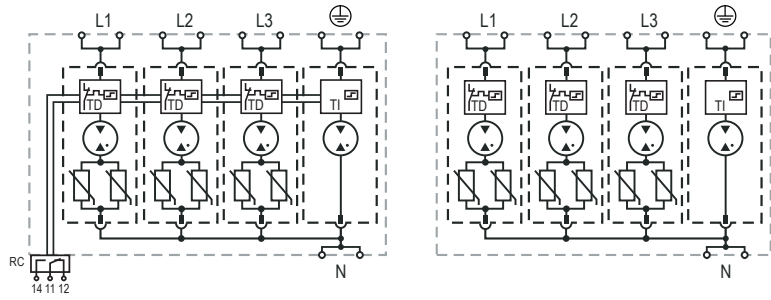
Order Information

Order Code	300
ProTec T1HS-xxx-3+1	59.0306
ProTec T1HS-xxx-3+1-R (with remote contacts)	59.0307
ProTec T1HS-xxx-P	59.0302
ProTube T1HS-100-P	59.0303

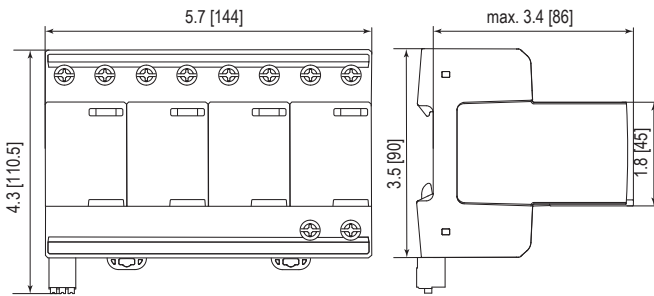
Internal Configuration

Legend

- L Terminal for Line Conductor
- N Terminal for Neutral Conductor
- ⊕ Terminal for PE/G Conductor
- RC Terminal for Remote Contacts
- TD Thermal Disconnect
- TI Thermal Indication



Dimensions & Packaging



Dimensions & Packaging	
ProTec T1HS-xxx-3+1	300
Single Unit Weight pounds [grams]	0.92 [420]
ProTec T1HS-xxx-3+1-R	300
Single Unit Weight pounds [grams]	0.94 [427]
Single Unit DIN 43880 Dimension	8 TE
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
Minimum Order Quantity	2 Units

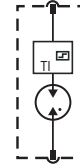
Plug Internal Configuration

ProTec T1HS-xxx-P

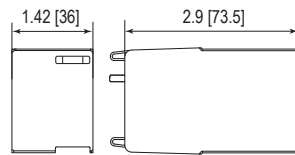
ProTube T1HS-100-P

Legend

- TD Thermal Disconnect
- TI Thermal Indication



Dimensions & Packaging



Dimensions & Packaging	
ProTec T1HS-xxx-P	300
Single Unit Weight pounds [grams]	0.34 [155]
ProTube T1HS-100-P	100
Single Unit Weight pounds [grams]	0.26 [120]
Single Unit DIN 43880 Dimension	2 TE
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
Minimum Order Quantity	14 Units

inches
[mm]

Information contained in this document is subject to change at any time without notice.

