

DATA SHEET

Combined Lightning Current and Surge Arrester

ProTec ZPS T1H 3+0 E(-R)(-F)-L

Class I • Class II • Class III • Type 1 • Type 2 • Type 3



Location of Use: Main Distribution Boards,
40mm Busbar Systems

Network Systems: TN-C
Mode of Protection: L-PEN
IEC/EN: Class I+II+III / Type 1+2+3
Technology: Hybrid
Leakage Current Free: Yes
Line Follow Current: No
Housing: Compact design
Compliance: IEC 61643-11:2011
EN 61643-11:2012

Technical Data**ProTec ZPS T1H-xxx-3+0-E(-R)(-F)L****IEC Electrical**

Nominal AC Voltage (50/60Hz)	U_o/U_n	240 V
Maximum Continuous Operating Voltage (AC)	U_c	300 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	7.5 kA
Specific Energy	W/R	14 kJ/ Ω
Charge	Q	3.75 As
Open Circuit Voltage of Combination Wave Generator	U_{oc}	6 kV
Voltage Protection Level	U_p	1500V
Response Time	t_A	< 100ns
Overcurrent Protection (max)		315 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA
TOV Withstand 120min	U_T	442 V
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 (max)		13123 ft [4000m]
Terminal Screw Torque	M_{max}	PH2 / 39.9 lbf-in [4.5Nm]
Conductor Cross Section (max)		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) 2 AWG (Solid, Stranded) / 4 AWG (Flexible)
Mounting		40mm Busbar Systems
Degree Of Protection		IP 20*
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
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)		1.5mm ² (Solid) / 16 AWG (Solid)

Protected Load Terminal (L1') for ProTec ZPS T1H-xxx-3+0-E(-R)-L

Rated Load Current	I_L	20A
Load Side Overcurrent Protection		20A gG
Wire Connection Method		Push In
Conductor Cross Section		10 AWG / 4 mm ² (Solid, Stranded, Flexible)

Order Information

Order Code		
ProTec ZPS T1H-300-3+0-E-L (with protected load terminal)		59.0906
ProTec ZPS T1H-300-3+0-E-R-L (with remote contacts and protected load terminal)		59.0907

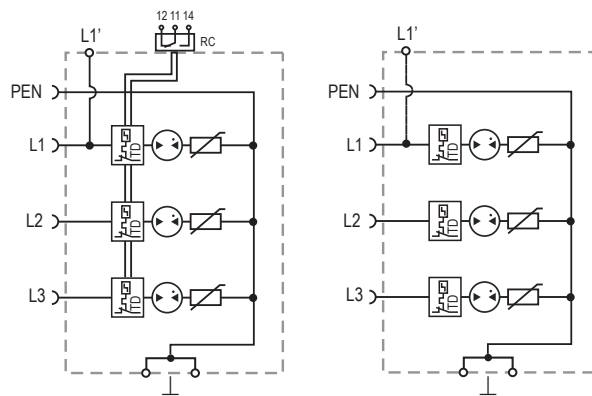
*IP 40 (in combination with cover)

ProTec ZPS T1H 3+0 E(-R)(-F)-L

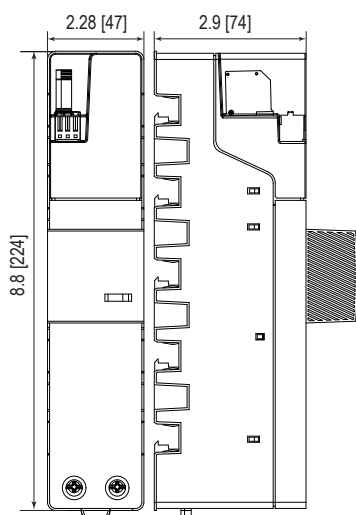
Internal Configuration

Legend

- L Line Busbar Terminal
- L1' Protected Load Terminal
- PEN PEN Busbar Terminal
- ⏏ Terminal for Main Earthing Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnecter



Complete Unit



Complete Unit Dimensions & Packaging

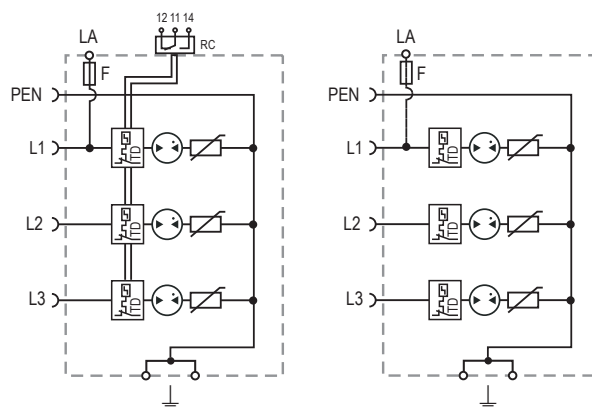
ProTec ZPS T1H-xxx-3+0-E(-F)-L	300
Weight	pounds [grams] 1.565 [710]
Packaging Dimensions (HxWxL)	12.5 x 13.4 x 9.5" [320 x 340 x 240 mm]
Standard Order Quantity	18 Units
ProTec ZPS T1H-xxx-3+0-E-R(-F)-L	300
Weight	pounds [grams] 1.583 [718]
Packaging Dimensions (HxWxL)	12.5 x 13.4 x 9.5" [320 x 340 x 240 mm]
Standard Order Quantity	18 Units

The weight for products with integrated fuse on L1' terminal is .020 pounds [9 grams] more.

Auxiliary Terminal with Integrated Fuse

Legend

- F Integrated Fuse Link
- LA Auxiliary Terminal
- L Line Busbar Terminal
- N Neutral Busbar Terminal
- PEN PEN Busbar Terminal
- ⏏ Terminal for Main Earthing Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnecter



Auxiliary Terminal (LA) for ProTec ZPS T1H-xxx-3+0-E(-R)(-F)-L

Rated Current Integrated Fuse	I_n	6.3A
Fuse Link		SIBA GZ 5 x 20 mm FF (7000740.6,3)
Wire Connection Method		Push In
Conductor Cross Section		10 AWG / 4 mm ² (Solid, Stranded, Flexible)

Order Information

Order Code	
ProTec ZPS T1H-300-3+0-E-F-L (with auxiliary terminal)	59.A246
ProTec ZPS T1H-300-3+0-E-R-F-L (with remote contacts and auxiliary terminal)	59.A247