

Combined Lightning Current and Surge Arrester

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

Class I • Class II • Type 1 • Type 2



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

Network Systems: TN-C

Mode of Protection: L-PEN

IEC/EN: Class I+II / Type 1+2

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)-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 |
| 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} | PZ2 / 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) |

Load Terminal (L1')

| | | |
|---|-------|--|
| Rated Current | I_L | 20 A |
| Load Side Overcurrent Protective Device | | 20 A gG |
| Wire Connection Method | | Push In |
| Conductor Cross Section | | 10 AWG / 4 mm ² (Solid, Stranded, Flexible) |
| Stripping Length | | 16 mm |

Order Information

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

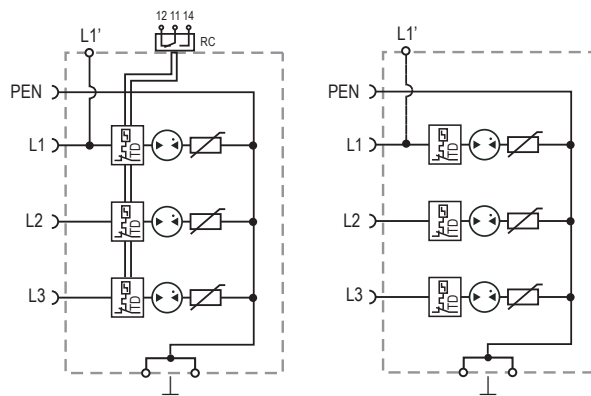
*IP 40 (in combination with cover)

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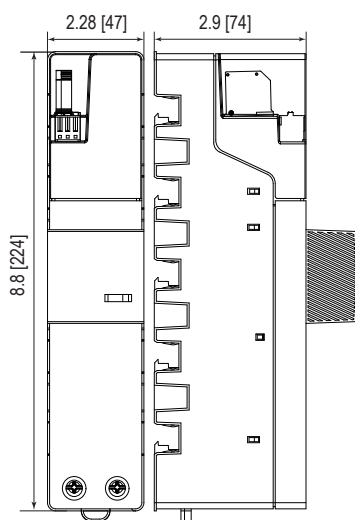
Internal Configuration

Legend

- L Line Busbar Terminal
- L1' 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-L | 300 |
| Weight | pounds [grams] 1.565 [710] |
| Packaging Dimensions (HxWxL) | 12.5 × 13.4 × 9.5" [320 × 340 × 240 mm] |
| Standard Order Quantity | 18 Units |
| ProTec ZPS T1H-xxx-3+0-E-R-L | 300 |
| Weight | pounds [grams] 1.583 [718] |
| Packaging Dimensions (HxWxL) | 12.5 × 13.4 × 9.5" [320 × 340 × 240 mm] |
| Standard Order Quantity | 18 Units |

inches
[mm]