

Combined Lightning Current and Surge Arrester

ProTec ZPS T1H 3+1(-R)

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



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

Network Systems: TN-S, TT

Mode of Protection: L-N, N-PE

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+1(-R)

IEC Electrical

| | | |
|--|------------------------|------------------------------------|
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 240 V |
| Maximum Continuous Operating Voltage (AC) | (L-N) U_c | 300 V |
| | (N-PE) U_c | 305 V |
| Nominal Discharge Current (8/20 μ s) | (L-N)/(N-PE) I_n | 20 kA / 80 kA |
| Maximum Discharge Current (8/20 μ s) | (L-N)/(N-PE) I_{max} | 50 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 | 6.25As / 25As |
| Open Circuit Voltage of Combination Wave Generator | U_{oc} | 6 kV |
| Voltage Protection Level | (L-N)/(N-PE) U_p | 1500V / 1500V |
| Follow Current Interrupt Rating | (N-PE) I_{fi} | 100A _{RMS} |
| Response Time | (L-N)/(N-PE) t_A | < 100ns / < 100ns |
| Overcurrent Protection (max) | | 315 A gG |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA |
| TOV Withstand 120min | (L-N) U_T | 442 V |
| TOV Withstand 200ms | (N-PE) U_T | 1200 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) | | 35mm ² (Solid, Stranded) / 25mm 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) |

Order Information

| | |
|---|---------|
| Order Code | |
| ProTec ZPS T1H-300-3+1 | 59.0908 |
| ProTec ZPS T1H-300-3+1-R (with remote contacts) | 59.0909 |

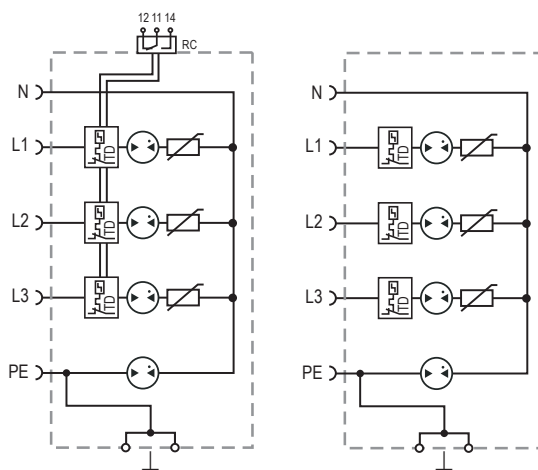
*IP 40 (in combination with cover)

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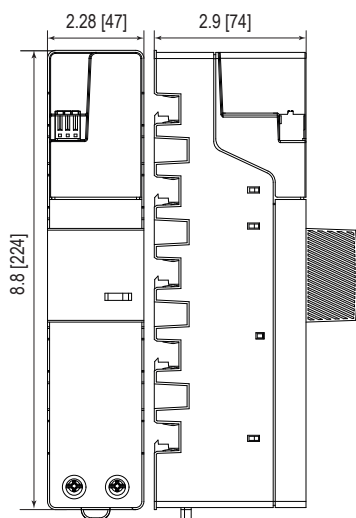
Internal Configuration

Legend

- L Line Busbar Terminal
- N Neutral Busbar Terminal
- PE PE 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+1 | 300 |
| Weight | pounds [grams] 1.640 [744] |
| 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+1-R | 300 |
| Weight | pounds [grams] 1.658 [752] |
| Packaging Dimensions (HxWxL) | 12.5 x 13.4 x 9.5" [320 x 340 x 240 mm] |
| Standard Order Quantity | 18 Units |