

DATA SHEET

Combined Lightning Current and Surge Arrester
ProTec ZP T1H 3+1 E
Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards,
40mm Busbar Systems
 Network Systems: TN-S, TT
 Mode of Protection: L-N,N-PE
 Surge Ratings: $I_{imp} = 7.5\text{ kA} / 30\text{ kA (L-N / N-PE)}$
 $I_n = 20\text{ kA} / 80\text{ kA (L-N / N-PE)}$
 IEC/EN: Class I+II / Type 1+2
 Technology: Hybrid
 Leakage Current: No
 Line Follow Current: No
 Housing: Compact design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

ProTec ZP T1H-xxx-3+1-E-R

300

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} | 7.5 kA / 30 kA |
| Specific Energy | (L-N)/(N-PE) W/R | 14 kJ/ Ω / 225 kJ/ Ω |
| Charge | (L-N)/(N-PE) Q | 3.75 As / 15As |
| 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 |
| Back-Up Fuse (max) | | 160 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 | | 13123 ft [4000 m] |
| Terminal Screw Torque | M_{max} | PZ1 / 13.3 lbf-in [1.5Nm] |
| | | PZ2 / 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 | 300 |
| ProTec ZP T1H-xxx-3+1-E | 59.0636 |
| ProTec ZP T1H-xxx-3+1-E-R (with remote contacts) | 59.0363 |

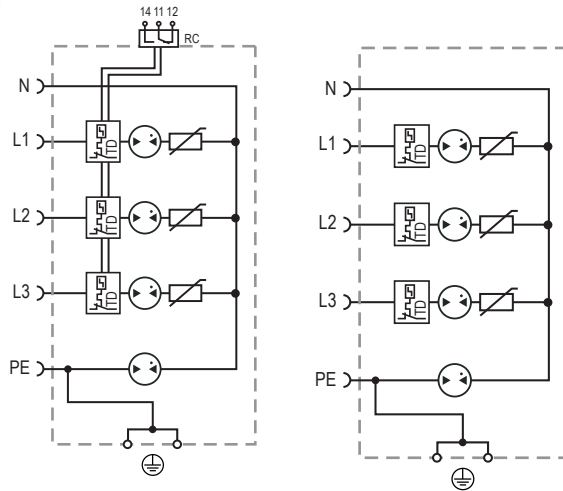
*IP 30 (in combination with cover)

ProTec ZP T1H 3+1 E

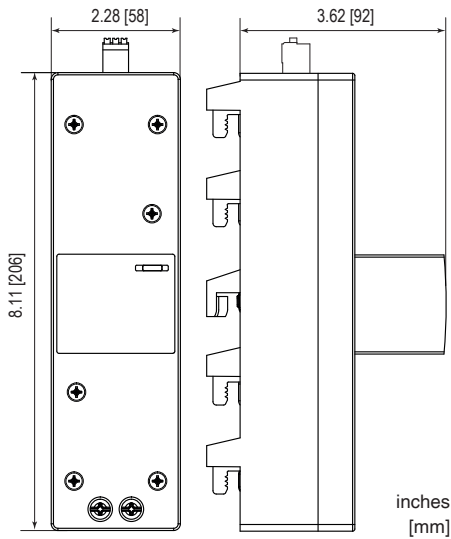
Internal Configuration

Legend

- L Terminal for Line Busbar
- N Terminal for Neutral Busbar
- ⊕ Terminal for PE/G Busbar/Conductor
- RC Terminal for Remote Contacts (Optional)
- TD Thermal Disconnect



Dimensions & Packaging



Dimensions & Packaging

| ProTec ZP T1H-xxx-3+1-E-R | | 300 |
|------------------------------|----------------|--------------------------------------|
| Single Unit Weight | pounds [grams] | 1.874 [850] |
| Packaging Dimensions (HxWxL) | | 2.9 x 4.5 x 8.6" [75 x 116 x 220 mm] |
| Standard Order Quantity | | 1 Unit |

inches
[mm]

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

