

# Overvoltage Protection

## ProTec T2H 1+0

Class II • Type 2 • Type 1 • Type 2 • Type 1CA



**Location of Use:** Sub-Distribution Boards  
**Network Systems:** TN-S, TN-C, TT (only L-N)  
**Mode of Protection:** L-PE, N-PE (only TN-S), L-PEN, L-N  
**IEC/EN/UL Category:** Class II / Type 2 / Type 1CA  
**Technology:** Hybrid  
**Leakage Current Free:** Yes  
**Housing:** Pluggable Design  
**Compliance:** IEC 61643-11:2011  
 EN 61643-11:2012  
 UL 1449 4th Edition

### Technical Data

ProTec T2H-xxx-1+0(-R)

300

#### 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 $\mu$ s)  | $I_n$      | 20 kA            |
| Maximum Discharge Current (8/20 $\mu$ s)  | $I_{max}$  | 50 kA            |
| Voltage Protection Level                  | $U_p$      | 1500 V           |
| Response Time                             | $t_A$      | < 25 ns          |
| Overcurrent Protection (max)              |            | 315 A / 250 A gG |
| Short-Circuit Current Rating (AC)         | $I_{SCCR}$ | 25 kA / 50 kA    |
| TOV Withstand 120min                      | $U_T$      | 442 V            |
| Number of Ports                           |            | 1                |

#### UL Electrical

|   |       |        |
|---|-------|--------|
| Maximum Continuous Operating Voltage (AC) | MCOV  | 300 V  |
| Voltage Protection Rating                 | VPR   | 1200 V |
| Nominal Discharge Current (8/20 $\mu$ s)  | $I_n$ | 20 kA  |
| Short-Circuit Current Rating (AC)         | SCCR  | 200 kA |

#### 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 [4000 m]  |
| Terminal Screw Torque              | $M_{max}$ | 39.9 lbf-in [4.5 Nm]   |
| Conductor Cross Section (max)      |           | 2 AWG (Solid, Stranded) / 4 AWG (Flexible)<br>35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (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 <sup>2</sup> (Solid)   |

#### Order Information

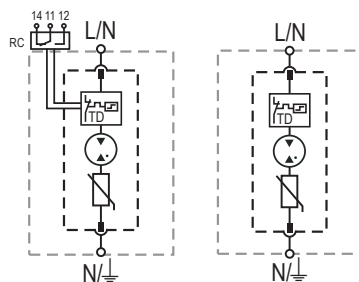
|   |         |
|---|---------|
| Order Code                                  | 300     |
| ProTec T2H-xxx-1+0                          | 59.0324 |
| ProTec T2H-xxx-1+0-R (with remote contacts) | 59.0325 |
| ProTec T2H-xxx-P (plug)                     | 59.0322 |

## ProTec T2H 1+0

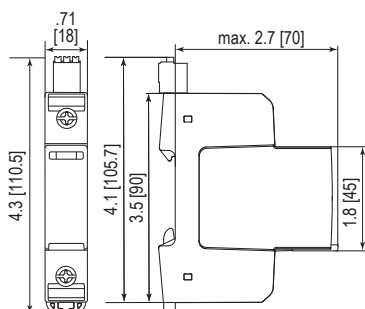
### Internal Configuration

#### Legend

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



### Complete Unit



#### Complete Unit Dimensions & Packaging

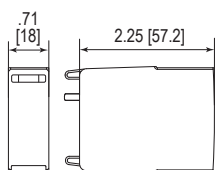
|                              |  |
|------------------------------|--|
| <b>ProTec T2H-xxx-1+0</b>    | <b>300</b>                             |
| Weight                       | pounds [grams] .264 [120]              |
| <b>ProTec T2H-xxx-1+0-R</b>  |  |
| Weight                       | pounds [grams] .279 [127]              |
| DIN 43880 Dimension          | 1 TE / .71" [18]                       |
| Packaging Dimensions (HxWxL) | 4.3 x 4.5 x 13.8" [109 x 115 x 352 mm] |
| Standard Order Quantity      | 12 Units                               |

### Plug Internal Configuration

#### ProTec T2H-xxx-P



### Spare Plug



#### Single Unit Dimensions & Packaging

|                              |                                     |
|------------------------------|-------------------------------------|
| <b>ProTec T2H-xxx-P</b>      | <b>300</b>                          |
| Weight                       | pounds [grams] .112 [51]            |
| DIN 43880 Dimension          | 1 TE / .71" [18]                    |
| Packaging Dimensions (HxWxL) | 3.2 x 4.5 x 12" [83 x 115 x 305 mm] |
| Standard Order Quantity      | 24 Units                            |

inches  
[mm]