

# Overvoltage Protection

## ProTec T2H 1+1

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



Location of Use: Sub-Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 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+1(-R)

300

#### IEC Electrical

Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240 V
Maximum Continuous Operating Voltage (AC)	(L-N) / (N-PE) $U_c$	300 V / 305 V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N) / (N-PE) $I_n$	20 kA / 40 kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N) / (N-PE) $I_{max}$	50 kA / 65 kA
Voltage Protection Level	(L-N) / (N-PE) $U_p$	1500 V / 1500 V
Response Time	(L-N) / (N-PE) $t_A$	<25 ns / <100 ns
Overcurrent Protection (max)		315 A / 250 A gG
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$	25 kA / 50 kA
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100 A <sub>RMS</sub>
TOV Withstand 120min	(L-N) $U_T$	442 V
TOV Withstand 200ms	(N-PE) $U_T$	1200 V
Number of Ports		1

#### UL Electrical

Maximum Continuous Operating Voltage (AC)	(L-N)/(N-G) MCOV	300 V / 305 V
Voltage Protection Rating	(L-N)/(N-G) VPR	1200 V / 1000 V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-G) $I_n$	20 kA / 20 kA
Short-Circuit Current Rating (AC)	(L-N) 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 [4000m]
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5 Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 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

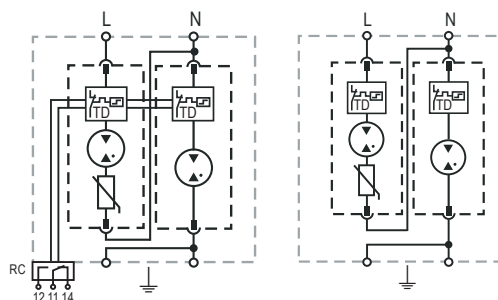
Order Code	300
ProTec T2H-xxx-1+1	59.0332
ProTec T2H-xxx-1+1-R (with remote contacts)	59.0333
ProTec T2H-xxx-P (plug L-N)	59.0322
ProTube T2H-40-P (plug N-PE)	59.0323

## ProTec T2H 1+1

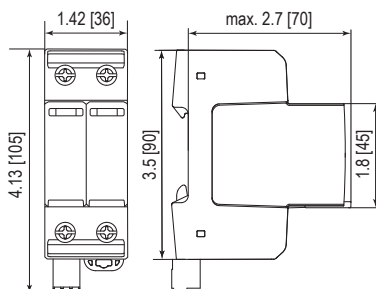
### Internal Configuration

#### 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

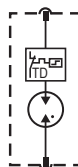
<b>ProTec T2H-xxx-1+1</b>	<b>300</b>
Weight	pounds [grams] .516 [234]
<b>ProTec T2H-xxx-1+1-R</b>	
Weight	pounds [grams] .525 [238]
DIN 43880 Dimension	2 TE / 1.42" [36]
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
Standard Order Quantity	7 Units

### Plug Internal Configuration

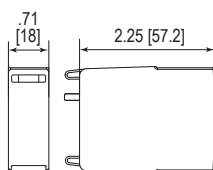
#### ProTec T2H-xxx-P



#### ProTube T2H-40-P



### Spare Plug



#### Single Unit Dimensions & Packaging

<b>ProTec T2H-xxx-P</b>	<b>300</b>
Weight	pounds [grams] .112 [51]
<b>ProTube T2H-40-P</b>	<b>40</b>
Weight	pounds [grams] .093 [42]
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]