

# Overvoltage Protection with Integrated Fuse

## ProTec T2F 1+1

**Class II • Class III • Type 2 • Type 3**



Location of Use: Sub-Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 IEC/EN Category: Class II+III / Type 2+3  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

### Technical Data

**ProTec T2F-xxx-1+1(-R)**

**300**

#### IEC Electrical

Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240V
Maximum Continuous Operating Voltage (AC)	(L-N) $U_c$	300V
	(N-PE) $U_c$	305V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20kA / 40kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{max}$	40kA / 65kA
Voltage Protection Level	(L-N)/(N-PE) $U_p$	1500V / 1500V
Open Circuit Voltage of Combination Wave Generator (1.2/50 $\mu$ s)	(L-N)/(N-PE) $U_{oc}$	6kV / 6kV
Short Circuit Current of Combination Wave Generator (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{cw}$	3kA / 3kA
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100A <sub>RMS</sub>
Response Time	(L-N)/(N-PE) $t_A$	< 25 ns / < 100 ns
Overcurrent Protection		Not Required
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$	50kA
TOV Withstand 5s	(L-N) $U_T$	337V
TOV 120min	(L-N) $U_T$	442V
	mode	Safe Fail
TOV Withstand 200ms	(N-PE) $U_T$	1200V
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	$M_{max}$	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

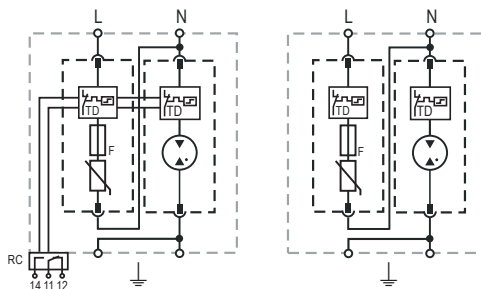
<b>Order Code</b>	<b>300</b>
ProTec T2F-xxx-1+1	59.A259
ProTec T2F-xxx-1+1-R (with remote contacts)	59.A260
ProTec T2F-xxx-P (plug L-N)	59.A258
ProTube T2F-40-P (plug N-PE)	59.A271

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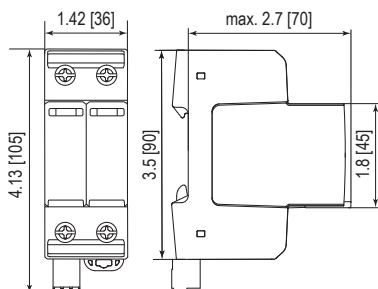
### Internal Configuration

#### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⏏ PE/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect
- F Integrated Surge Adapted Backup Fuse



### Complete Unit

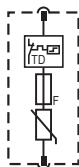


#### Complete Unit Dimensions & Packaging

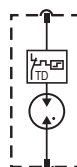
<b>ProTec T2F-xxx-1+1</b>		<b>300</b>
Weight	pounds	.565
	grams	256
<b>ProTec T2F-xxx-1+1-R</b>		
Weight	pounds	.586
	grams	266
DIN 43880 Dimension	2 TE / 1.42" [36]	
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity	7 Units	

### Plug Internal Configuration

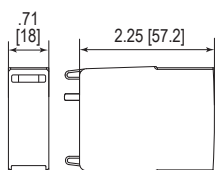
#### ProTec T2F-xxx-P



#### ProTube T2F-40-P



### Spare Plug



#### Single Unit Dimensions & Packaging

<b>ProTec T2F-xxx-P</b>		<b>300</b>
Weight	pounds	.152
	grams	69
<b>ProTube T2F-40-P</b>		<b>40</b>
Weight	pounds	.093
	grams	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]

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

