

Overvoltage Protection with Integrated Fuse

**ProTec T2F 4+0**

Class II • Class III • Type 2 • Type 3



Location of Use: Sub-Distribution Boards  
 Network Systems: TN-S, IT\*(only 440V)  
 Mode of Protection: L-PE, N-PE  
 IEC/EN Category: Class II+III / Type 2+3  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012+A11:2018



**Technical Data**

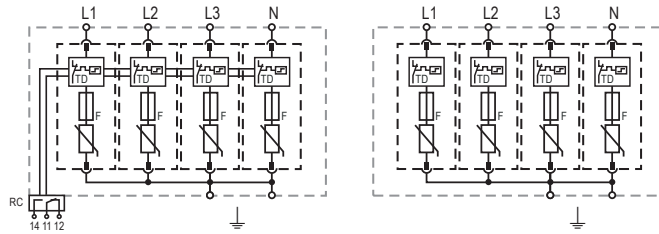
ProTec T2F-xxx-4+0(-R)		300	440
<b>IEC Electrical</b>			
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240V	240V
Maximum Continuous Operating Voltage (AC)	$U_c$	300V	440V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	15 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	40 kA	30 kA
Open Circuit Voltage of Combination Wave Generator (1.2/50 $\mu$ s)	$U_{oc}$	6 kV	6 kV
Short Circuit Current of Combination Wave Generator (8/20 $\mu$ s)	$I_{cw}$	3 kA	3 kA
Voltage Protection Level	$U_p$	1500V	2000V
Response Time	$t_A$	< 25ns	< 25ns
Overvoltage Category		III	III
Overcurrent Protection		Not Required	Not Required
Short-Circuit Current Rating (AC)	$I_{SCCR}$	100 kA	100 kA
TOV Withstand 5s	$U_T$	337V	580V
TOV 120min	$U_T$	442V	630V
	mode	Safe Fail	Safe Fail
Number of Ports			1
<b>Additional Electrical Parameters - Standard</b> (Tests performed within Raycap testing laboratory only)			
Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	1150V	1500V
Overcurrent Protection (min)		Not Required	Not Required
<b>Additional Electrical Parameters - Extended</b> (Additionally tested by VDE)			
Short-Circuit Current Rating (AC)	$I_{SCCR}$	100 kA	100 kA
<b>Mechanical &amp; Environmental</b>			
Operating Temperature Range	$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Operating Humidity	RH	5%...95%	
Pollution Degree		2	
Altitude (max)		13123 ft [4000m]	
Terminal Screw Torque	$M_{max}$	40 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)	
Overvoltage Category		III	

\*Only applicable to IT power systems where the earth on the distribution transformer is interconnected with the earth on the consumer side (RE=RA in Figure 44.A1 of IEC 60364-4-44:2018).

## 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



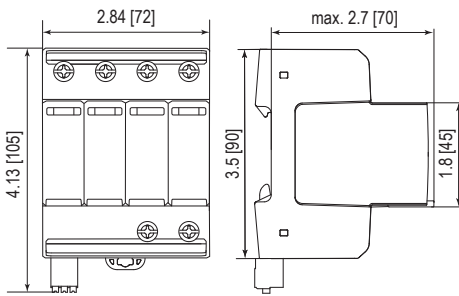
### ProTec T2F-xxx-4+0(-R)

#### Order Information

Order Code	300	440
ProTec T2F-xxx-4+0	59.A256	59.A948
ProTec T2F-xxx-4+0-R (with remote contacts)	59.A257	59.A949
ProTec T2F-xxx-P (plug)	59.A258	59.A950

## Dimensions & Packaging

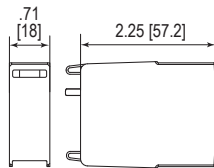
inches [mm]



#### Complete Unit

ProTec T2F-xxx-4+0		300	440
Weight	pounds	1.056	1.071
	grams	479	486
ProTec T2F-xxx-4+0-R			
Weight	pounds	1.078	1.093
	grams	489	496
DIN 43880 Dimension	4 TE / 2.84" [72 mm]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity	4 Units		

## Spare Plug



#### Single Unit Dimensions & Packaging

ProTec T2F-xxx-P		300	440
Weight	pounds	.152	.167
	grams	69	76
DIN 43880 Dimension	1 TE / .71" [18 mm]		
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]		
Standard Order Quantity	24 Units		