

Overvoltage Protection with Integrated Fuse

ProTec T2F 3+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+A11:2018



Technical Data

ProTec T2F-xxx-3+1(-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 / 40 kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	40 kA / 65 kA
Voltage Protection Level	(L-N)/(N-PE) U_p	1500 V / 1500 V
Open Circuit Voltage of Combination Wave Generator (1.2/50 μ s)	(L-N)/(N-PE) U_{oc}	6 kV / 6 kV
Short Circuit Current of Combination Wave Generator (8/20 μ s)	(L-N)/(N-PE) I_{cw}	3 kA / 3 kA
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns
Overvoltage Category		III
Overcurrent Protection		Not Required
Short-Circuit Current Rating (AC)	(L-N) I_{SCCR}	100 kA
TOV Withstand 5s	(L-N) U_T	337 V
TOV 120min	(L-N) U_T	442 V
	mode	Safe Fail
TOV Withstand 200ms	(N-PE) U_T	1200V
Number of Ports		1

Additional Electrical Parameters - Standard (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	1150V
Overcurrent Protection (min)		Not Required

Additional Electrical Parameters - Extended (Additionally tested by VDE)

Short-Circuit Current Rating (AC)	I_{SCCR}	100 kA
-----------------------------------	------------	--------

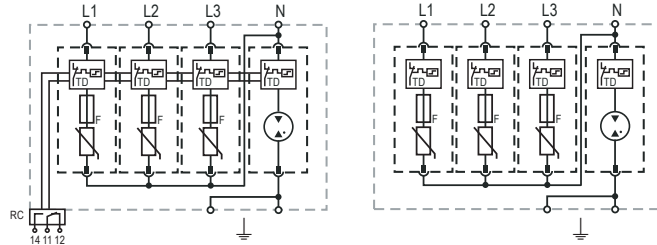
Mechanical & Environmental

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 [4.5Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)
		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)
Mounting		35mm 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) / 1.5mm ² (Solid)
Overvoltage Category		III

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



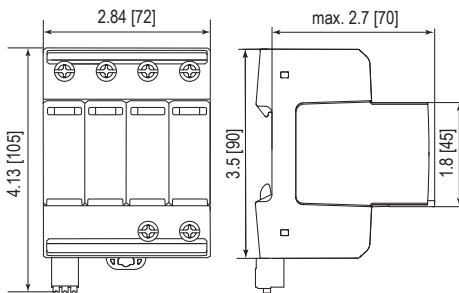
ProTec T2F-xxx-3+1(-R)

Order Information

Order Code	300
ProTec T2F-xxx-3+1	59.A261
ProTec T2F-xxx-3+1-R (with remote contacts)	59.A262
ProTec T2F-xxx-P (plug L-N)	59.A258
ProTube T2F-40-P (plug N-PE)	59.A271

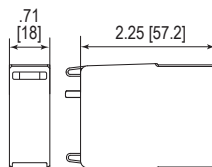
Dimensions & Packaging

inches [mm]



Complete Unit		300
ProTec T2F-xxx-3+1		300
Weight	pounds	1.032
	grams	468
ProTec T2F-xxx-3+1-R		
Weight	pounds	1.054
	grams	478
DIN 43880 Dimension	4 TE / 2.84" [72mm]	
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352mm]	
Standard Order Quantity	4 Units	

Spare Plug



Single Unit Dimensions & Packaging		300
ProTec T2F-xxx-P		300
Weight	pounds	.152
	grams	69
ProTube T2F-40-P		40
Weight	pounds	.093
	grams	42
DIN 43880 Dimension	1 TE / .71" [18mm]	
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305mm]	
Standard Order Quantity	24 Units	