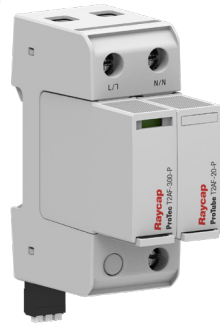


Overvoltage Protection with Integrated Fuse

ProTec T2AF 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, L-PE (combined)
 IEC/EN Category: Class II+III/Type 2+3
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2025
 EN IEC 61643-11:2025



Technical Data

ProTec T2AF-xxx-1+1(-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 (8/20µs)	I_n	20 kA
Maximum Discharge Current (8/20µs)	I_{max}	40 kA
Voltage Protection Level	(L - N)/(N - PE)(L - PE) U_p	1500 V / 1500 V / 1600 V
Open Circuit Voltage of Combination Wave Generator (1.2/50µs)	U_{oc}	6 kV
Short Circuit Current of Combination Wave Generator (8/20µs)	I_{cw}	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 (max)		Not Required
Short-Circuit Current Rating (AC)	(L - N) I_{SCCR}	25 kA
TOV Withstand 5s	(L - N) U_T	337 V
TOV Safe Fail 120min	(L - N) U_T	442 V
TOV Withstand 200ms	(N - PE) U_T	1200 V
Number of Ports		1

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

Residual Voltage at 5 kA (8/20 µs)	(L - N)/(N - PE) U_{res}	1150 V / 300 V
Minimum Overcurrent Protection, if required		Not Required

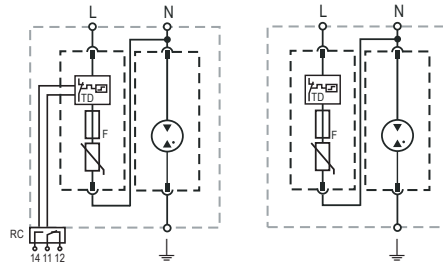
Mechanical & Environmental

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
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 PE Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect
- F Integrated Surge Adapted Overcurrent Protection



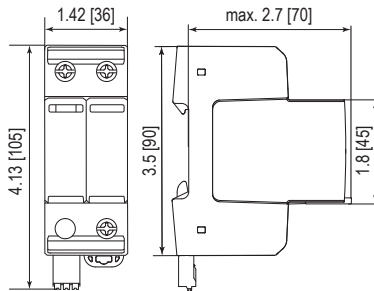
Two PE terminals available per request.

Order Information

Order Code	300
ProTec T2AF-xxx-1+1	59.E109
ProTec T2AF-xxx-1+1-R (with remote contacts)	59.E110
ProTec T2AF-xxx-P (plug L-N)	59.E117
ProTube T2AF-20-P (plug N-PE)	59.E118

Dimensions & Packaging

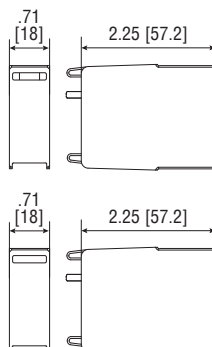
inches [mm]



Complete Unit

ProTec T2AF-xxx-1+1	300
Weight	pounds [grams] .49 [220]
ProTec T2AF-xxx-1+1-R	
Weight	pounds [grams] .49 [223]
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

Spare Plug



Single Unit

ProTec T2AF-xxx-P	300
Weight	pounds [grams] .13 [57]
ProTube T2AF-xx-P	20
Weight	pounds [grams] .07 [31]
DIN 43880 Dimension	1 TE / .71" [18]
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]
Standard Order Quantity	24 Units