

Overvoltage Protection

ProTec T2 4+0

Class II • Type 2 • Type 1CA



Location of Use: Sub-distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

ProTec T2-xxx-4+0(-R)

		150	300	350	480
IEC Electrical					
Nominal AC Voltage (50/60Hz)	U_o / U_n	120V	240V	277V	400V
Maximum Continuous Operating Voltage (AC)	U_c	150V	300V	350V	480V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA
Voltage Protection Level	U_p	1250V	1500V	1750V	2300V
Response Time	t_A	< 25 ns			
Overvoltage Category		III			
Overcurrent Protection (max)		315 A / 250 A gG			
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 kA			
TOV Withstand 5s	U_T	229V	337V	403V	581V
TOV 120min	U_T	229V	442V	529V	762V
	mode	Withstand	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1			

UL Electrical

Maximum Continuous Operating Voltage (AC)	MCOV	150V	300V	350V	480V
Voltage Protection Rating	VPR	600V	900V	1000V	1500V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	200 kA	150 kA	200 kA	200 kA

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

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	750V	1000V	1300V	1500V
Minimum Backup fuse, if required		80 A gG			

Additional Electrical Parameters - Extended (Additionally tested by VDE)

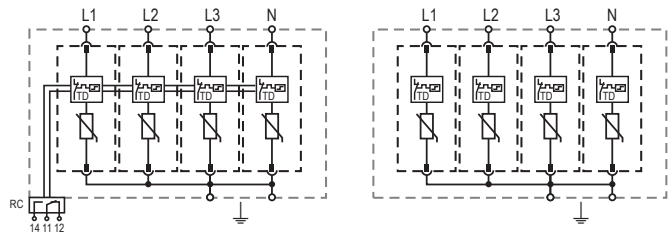
Short-Circuit Current Rating (AC)	I_{SCCR}	100 kA			
Overcurrent Protection (max)		250 A gG			

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

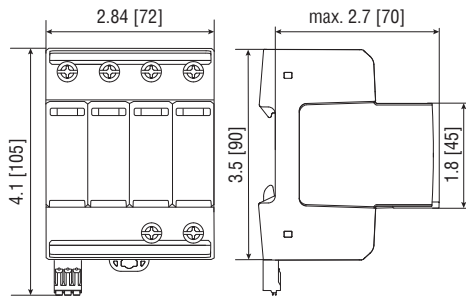


Order Information

Order Code	150	300	350	480
ProTec T2-xxx-4+0	59.0101	59.0103	59.0300	59.0105
ProTec T2-xxx-4+0-R (with remote contacts)	59.0102	59.0104	59.0301	59.0106
ProTec T2-xxx-P (plug)	59.0064	59.0065	59.0066	59.0067

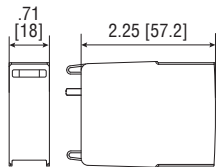
Dimensions & Packaging

inches [mm]



Complete Unit				
ProTec T2-xxx-4+0	150	300	350	480
Weight	pounds	1.009	1.035	1.079
	grams	457	469	489
ProTec T2-xxx-4+0-R	150	300	350	480
Weight	pounds	1.028	1.055	1.099
	grams	466	478	498
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				
ProTec T2-xxx-P	150	300	350	480
Weight	pounds	.123	.130	.141
	grams	56	59	64
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			