

Pluggable Multi-Pole SPD

ProTec T1 3+1

Class I • Class II • Type 1 • Type 2 • Type 1CA



Location of Use: Main Distribution Boards

Network Systems: TT, TN-S

Mode of Protection: L-N, N-PE

Surge Ratings: $I_{imp} = 12.5 \text{ kA}$ (10/350 μs) $I_n = 12.5 \text{ kA}$ (8/20 μs)

IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA

Protective Elements: High Energy MOV and GDT

Housing: Pluggable Design

Compliance: IEC 61643-11:2011

EN 61643-11:2012

UL 1449, 4th edition

Technical Data**ProTec T1-xxx-3+1(-R)****300****350****IEC Electrical**

Nominal AC Voltage (50/60Hz)	U_o/U_n	240 V	277 V
Maximum Continuous Operating Voltage	(L-N) U_c	300 V	350 V
	(N-PE) U_c	305 V	305 V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n	12.5 kA / 50 kA	
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}	50 kA / 100 kA	
Impulse Discharge Current (10/350 μs)	(L-N)/(N-PE) I_{imp}	12.5 kA / 50 kA	
Specific Energy	(L-N)/(N-PE) W/R	39 kJ/ Ω / 625 kJ/ Ω	
Charge	(L-N)/(N-PE) Q	6.25 As / 25 As	
Voltage Protection Level	(L-N)/(N-PE) U_p	1400 V / 1500 V	1500 V / 1500 V
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A _{RMS}	
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns	
Back-Up Fuse (max)		315 A / 250 A gG	
Short-Circuit Current Rating (AC)	(L-N) I_{SCCR}	25 kA / 50 kA	
TOV Withstand 5s	(L-N) U_T	337 V	403 V
TOV 120min	(L-N) U_T / mode	442 V / safe fail	529 V / safe fail
TOV Withstand 200ms	(N-PE) U_T	1200 V	
Number of Ports		1	

UL Electrical

Maximum Continuous Operating Voltage (AC)	(L-N)/(N-PE) MCOV	300 V / 305 V	350 V / 305 V
Voltage Protection Rating	(L-N)/(N-PE) VPR	900 V / 1200 V	1200 V / 1200 V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n	20 kA / 20 kA	20 kA / 20 kA
Short-Circuit Current Rating (AC)	(L-N) SCCR	150 kA	150 kA

Mechanical

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Operating Humidity	RH	5%...95%	
Altitude		13123 ft [4000 m]	
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 ² (Solid, Stranded) / 25 mm ² (Flexible)	
Mounting		35 mm DIN Rail, EN 60715	
Degree of Protection		IP 20	
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)	

Order Information

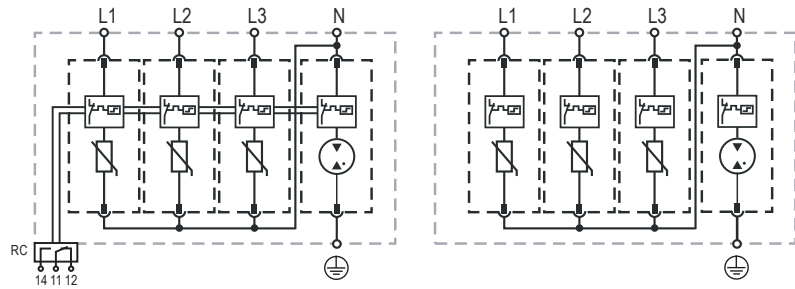
Order Code	300	350
ProTec T1-xxx-3+1	59.0059	59.0061
ProTec T1-xxx-3+1-R (with remote contacts)	59.0060	59.0062
ProTec T1-xxx-P	59.0003	59.0004
ProTube T1-50-P	59.0269	59.0269

ProTec T1 3+1

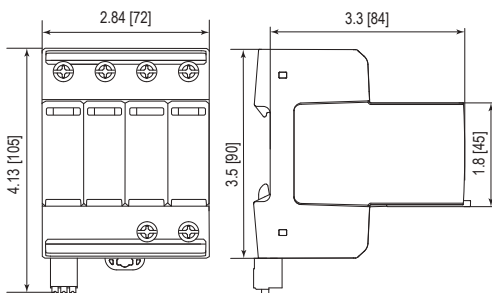
Internal Configuration

Legend

- L Line
- N Neutral
- ⊕ Protective Earth
- RC Remote Contacts Optional



Dimensions & Packaging

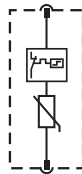


Dimensions & Packaging

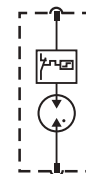
		300	350
ProTec T1-xxx-3+1			
Single Unit Weight	pounds [grams]	1.471 [667]	1.577 [715]
ProTec T1-xxx-3+1-R			
Single Unit Weight	pounds [grams]	1.491 [676]	1.597 [724]
Single Unit DIN 43880 Dimension		4 TE	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Minimum Order Quantity		4 Units	

Plug Internal Configuration

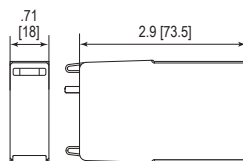
ProTec T1-xxx-P



ProTube T1-50-P



Dimensions & Packaging



Dimensions & Packaging

		300	350
ProTec T1-xxx-P			
Single Unit Weight	pounds [grams]	.236 [107]	.272 [123]
ProTube T1-50-P			
Single Unit Weight	pounds [grams]	.208 [94]	
Single Unit DIN 43880 Dimension		1 TE	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Minimum Order Quantity		28 Units	

inches
[mm]

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



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