

Pluggable Multi-Pole SPD
ProTec T1 3+0
Class I • Class II • Type 1 • Type 2 • Type 1CA



Location of Use: Main Distribution Boards
 Network Systems: TN-C
 Mode of Protection: L-PEN
 Surge Ratings: I_{imp} = up to 12.5kA (10/350 μ s)
 I_n = up to 12.5kA (8/20 μ s)
 IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA
 Protective Elements: High Energy MOV
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition

Technical Data

ProTec T1-xxx-3+0(-R)		150	300	350	480	750
IEC Electrical						
Nominal AC Voltage (50/60Hz)	U_o/U_n	120V	240V	277V	400V	600V
Maximum Continuous Operating Voltage (AC)	U_c	150V	300V	350V	480V	750V
Nominal Discharge Current (8/20 μ s)	I_n	12.5 kA	12.5 kA	12.5 kA	10 kA	5 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA	35 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	12.5 kA	12.5 kA	12.5 kA	10 kA	5 kA
Specific Energy	W/R	39 kJ/ Ω	39 kJ/ Ω	39 kJ/ Ω	25 kJ/ Ω	6.25 kJ/ Ω
Charge	Q	6.25 As	6.25 As	6.25 As	5 As	2.5 As
Voltage Protection Level	U_p	1000V	1400V	1500V	2000V	2700V
Response Time	t_A	< 25 ns				
Back-Up Fuse (max)		315 A / 250 A gG				250 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 kA				50 kA
TOV Withstand 5s	U_T	175V	337V	403V	581V	871V
TOV 120min	U_T	229V	442V	529V	762V	1143V
	mode	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1				

UL Electrical						
Maximum Continuous Operating Voltage (AC)	MCOV	150V	300V	350V	480V	750V
Voltage Protection Rating	VPR	600V	900V	1200V	1500V	2500V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	200 kA	150 kA	150 kA	200 kA	150 kA

Mechanical & Environmental						
Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]				
Permissible Operating Humidity	RH	5%...95%				
Altitude		13123 ft [4000m]				
Terminal Screw Torque	M_{max}	39.9 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		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) / 1.5mm ² (Solid)				

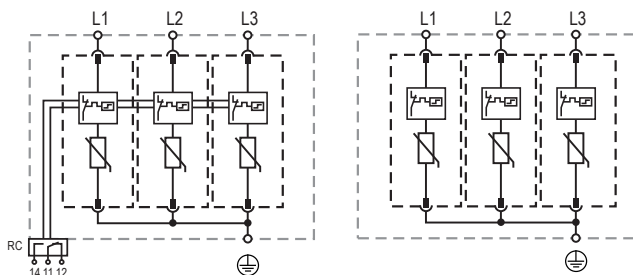
Order Information						
Order Code		150	300	350	480	750
ProTec T1-xxx-3+0		59.0029	59.0031	59.0033	59.0035	59.0037
ProTec T1-xxx-3+0-R (with remote contacts)		59.0030	59.0032	59.0034	59.0036	59.0038
ProTec T1-xxx-P		59.0002	59.0003	59.0004	59.0005	59.0006

ProTec T1 3+0

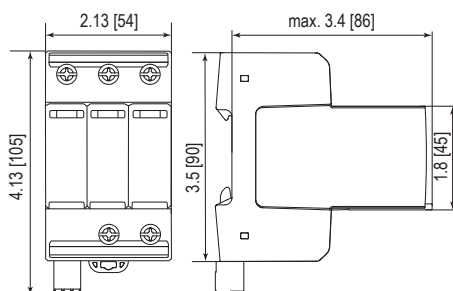
Internal Configuration

Legend

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



Dimensions & Packaging

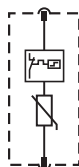


Dimensions & Packaging

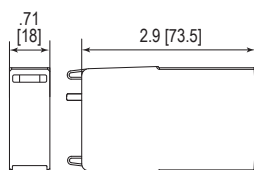
		150	300	350	480	750
Single Unit Weight	pounds	1.021	1.114	1.220	1.246	1.266
	grams	463	505	553	565	574
Single Unit Weight	pounds	1.041	1.133	1.239	1.266	1.286
	grams	472	514	562	574	583
Single Unit DIN 43880 Dimension		3 TE				
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]				
Minimum Order Quantity		5 Units				

Plug Internal Configuration

ProTec T1-xxx-P



Dimensions & Packaging



Dimensions & Packaging

		150	300	350	480	750
Single Unit Weight	pounds	.206	.236	.272	.280	.287
	grams	93	107	123	127	130
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.

