

DATA SHEET

Pluggable Multi-Pole SPD
ProTec T1 4+0
 Class I • Class II • Type 1 • Type 2 • Type 1CA



Location of Use: Main Distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE
 Surge Ratings: $I_{imp} = 12.5 \text{ kA (10/350}\mu\text{s)}$
 $I_n = 20 \text{ kA (8/20}\mu\text{s)}$
 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-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 μs)	I_n	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μs)	I_{max}	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 μs)	I_{imp}	12.5 kA	12.5 kA	12.5 kA	10 kA
Specific Energy	W/R	39 kJ/ Ω	39 kJ/ Ω	39 kJ/ Ω	25 kJ/ Ω
Charge	Q	6.25 As	6.25 As	6.25 As	5 As
Voltage Protection Level	U_p	1000V	1500V	1750V	2100V
Response Time	t_A	< 25 ns			
Back-Up Fuse (max)		315 A / 250 A gG			
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 kA			
TOV Withstand 5s	U_T	175V	337V	403V	581V
TOV 120min	U_T	229V	442V	529V	762V
	mode	Safe Fail	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	1200V	1500V
Nominal Discharge Current (8/20 μs)	I_n	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	200 kA	150 kA	150 kA	200 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 [4.5 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)			

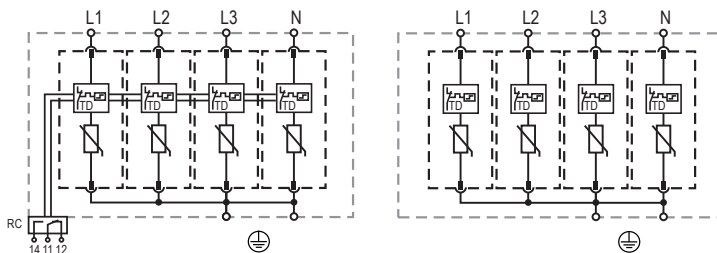
Order Information					
Order Code		150	300	350	480
ProTec T1-xxx-4+0		59.0039	59.0041	59.0351	59.0043
ProTec T1-xxx-4+0-R (with remote contacts)		59.0040	59.0042	59.0352	59.0044
ProTec T1-xxx-P		59.0002	59.0003	59.0004	59.0005

ProTec T1 4+0

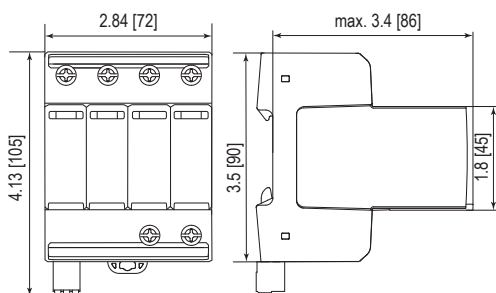
Internal Configuration

Legend

- L Terminal for Line Conductor
- N Terminal for Neutral Conductor
- ⊕ Terminal for PE/G Conductor
- RC Terminal for Remote Contacts (Optional)
- TD Thermal Disconnect



Dimensions & Packaging



Dimensions & Packaging

		150	300	350	480
Single Unit Weight	pounds	1.376	1.500	1.641	1.676
	grams	624	680	744	760
Single Unit Weight	pounds	1.396	1.519	1.661	1.696
	grams	633	689	753	769
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

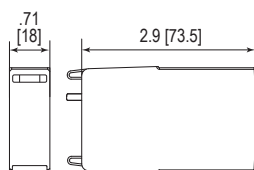
ProTec T1-xxx-P



Legend

- TD Thermal Disconnect

Dimensions & Packaging



Dimensions & Packaging

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

