

**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:  $I_{imp} = 12.5 \text{ kA (10/350}\mu\text{s)}$   
 $I_n = 12.5 \text{ kA (8/20}\mu\text{s)}$   
 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
<b>IEC Electrical</b>					
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 $\mu\text{s}$ )	$I_n$	12.5 kA	12.5 kA	12.5 kA	10 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA	12.5 kA	12.5 kA	10 kA
Specific Energy	W/R	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	25 kJ/ $\Omega$
Charge	Q	6.25 As	6.25 As	6.25 As	5 As
Voltage Protection Level	$U_p$	1000V	1400V	1500V	2000V
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			

<b>UL Electrical</b>					
Maximum Continuous Operating Voltage (AC)	MCOV	150V	300V	350V	480V
Voltage Protection Rating	VPR	600V	900V	1200V	1500V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	200 kA	150 kA	150 kA	200 kA

<b>Mechanical &amp; Environmental</b>					
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 <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (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 <sup>2</sup> (Solid)			

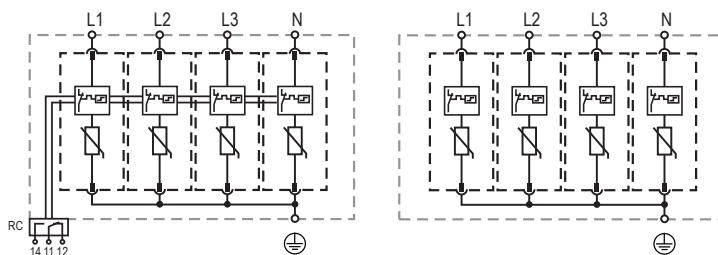
<b>Order Information</b>					
Order Code		150	300	350	480
ProTec T1-xxx-4+0		59.0039	59.0041	59.0351	59.0043
ProTec T1-xxx-4+0-R (with remote contacts)		59.0040	59.0042	59.0352	59.0044
ProTec T1-xxx-P		59.0002	59.0003	59.0004	59.0005

## ProTec T1 4+0

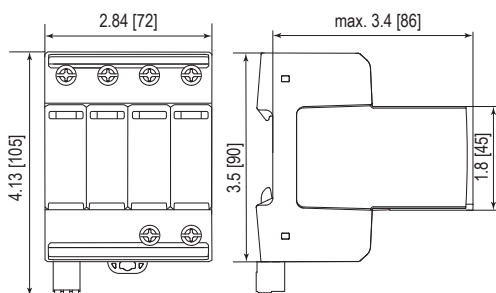
### Internal Configuration

#### Legend

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



### Dimensions & Packaging



#### Dimensions & Packaging

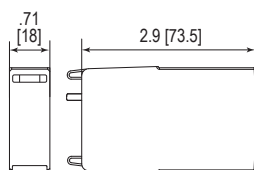
		150	300	350	480
Single Unit Weight	pounds	1.376	1.500	1.641	1.676
	grams	624	680	744	760
Single Unit Weight	pounds	1.396	1.519	1.661	1.696
	grams	633	689	753	769
Single Unit DIN 43880 Dimension	4 TE				
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]				
Minimum Order Quantity	4 Units				

### Plug Internal Configuration

#### ProTec T1-xxx-P



### 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.

