

**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 $\mu$ s)  
 $I_n =$  20kA (8/20 $\mu$ 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
<b>IEC Electrical</b>						
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 $\mu$ s)	$I_n$	20kA	20kA	20kA	20kA	20kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50kA	50kA	50kA	50kA	35kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	12.5kA	12.5kA	12.5kA	10kA	5kA
Specific Energy	W/R	39kJ/ $\Omega$	39kJ/ $\Omega$	39kJ/ $\Omega$	25kJ/ $\Omega$	6.25kJ/ $\Omega$
Charge	Q	6.25As	6.25As	6.25As	5As	2.5As
Voltage Protection Level	$U_p$	1000V	1500V	1750V	2100V	3200V
Response Time	$t_A$	< 25ns				
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				

<b>UL Electrical</b>						
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 $\mu$ s)	$I_n$	20kA	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	200kA	150kA	150kA	200kA	150kA

<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 [4.5Nm]				
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) / 1.5mm <sup>2</sup> (Solid)				

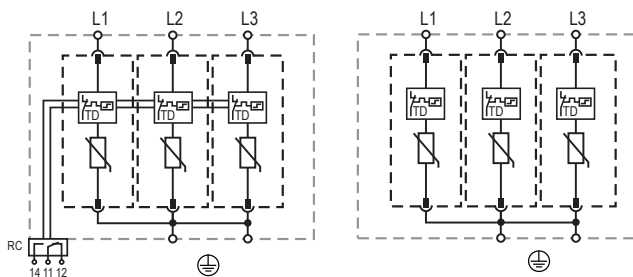
<b>Order Information</b>						
Order Code		150	300	350	480	750
ProTec T1-xxx-3+0		59.0029	59.0031	59.0033	59.0035	59.0037
ProTec T1-xxx-3+0-R (with remote contacts)		59.0030	59.0032	59.0034	59.0036	59.0038
ProTec T1-xxx-P		59.0002	59.0003	59.0004	59.0005	59.0006

## ProTec T1 3+0

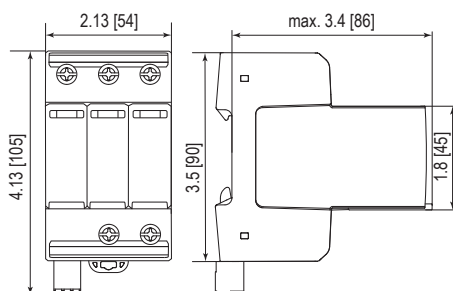
### Internal Configuration

#### Legend

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



### Dimensions & Packaging

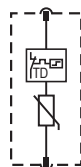


#### Dimensions & Packaging

		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
		<b>150</b>	<b>300</b>	<b>350</b>	<b>480</b>	<b>750</b>
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

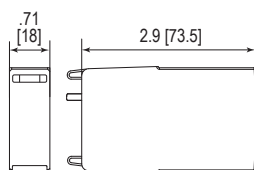
#### ProTec T1-xxx-P



#### Legend

- TD Thermal Disconnect

### 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.

