

# Overvoltage Protection

## ProTec T2 1+0

### Class II • Type 2 • Type 1CA



Location of Use: Sub-Distribution Boards  
 Network Systems: TN-S, TN-C, TT (only L-N)  
 Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N  
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012  
 UL 1449 4th Edition

#### Technical Data

ProTec T2-xxx-1+0(-R)		75	150	300	350	480	550*	750
<b>IEC Electrical</b>								
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	60V	120V	240V	277V	400V	480V	600V
Maximum Continuous Operating Voltage (AC)	$U_c$	75V	150V	300V	350V	480V	550V	750V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50kA	50kA	50kA	50kA	50kA	50kA	35kA
Voltage Protection Level	$U_p$	800V	1250V	1500V	1750V	2300V	2500V	3400V
Response Time	$t_A$	< 25ns						
Overcurrent Protection (max)		315 A / 250 A gG						
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25 kA / 50 kA						
TOV Withstand 5s	$U_T$	114V	229V	337V	403V	581V	697V	871V
TOV 120min	$U_T$	114V	229V	442V	529V	762V	915V	1143V
	mode	Withstand	Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1						
<b>UL Electrical</b>								
Maximum Continuous Operating Voltage (AC)	MCOV	75V	150V	300V	350V	480V	550V	750V
Voltage Protection Rating	VPR	330V	600V	900V	1000V	1500V	2000V	2500V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	100kA	200kA	150kA	200kA	200kA	200kA	200kA
<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 (max)		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) / 1.5 mm <sup>2</sup> (Solid)						
<b>Order Information</b>								
Order Code		75	150	300	350	480	550*	750
ProTec T2-xxx-1+0		59.0069	59.0071	59.0073	59.0075	59.0077	59.0677	59.0079
ProTec T2-xxx-1+0-R (with remote contacts)		59.0070	59.0072	59.0074	59.0076	59.0078	59.0678	59.0080
ProTec T2-xxx-P (plug)		59.0063	59.0064	59.0065	59.0066	59.0067	59.0685	59.0068

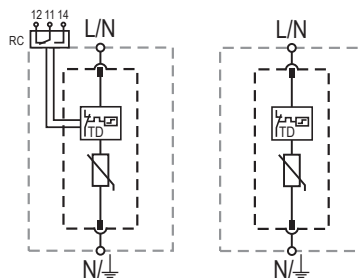
\*UL listed, no IEC/EN certification.

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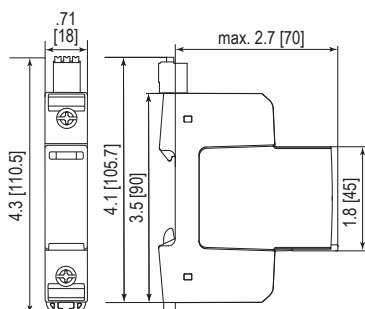
### Internal Configuration

#### Legend

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



### Complete Unit

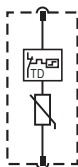


#### Complete Unit Dimensions & Packaging

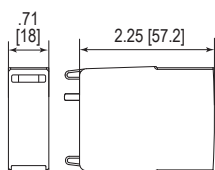
		75	150	300	350	480	550*	750
<b>ProTec T2-xxx-1+0</b>								
Weight	pounds	.259	.275	.281	.292	.306	.311	.336
	grams	118	125	128	133	139	141	153
<b>ProTec T2-xxx-1+0-R</b>								
Weight	pounds	.275	.290	.297	.308	.321	.326	.352
	grams	125	132	135	140	146	148	160
DIN 43880 Dimension		1 TE / .71" [18 mm]						
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]						
Standard Order Quantity		12 Units						

### Plug Internal Configuration

#### ProTec T2-xxx-P



### Spare Plug



#### Single Unit Dimensions & Packaging

		75	150	300	350	480	550*	750
<b>ProTec T2-xxx-P</b>								
Weight	pounds	.108	.123	.130	.141	.154	.163	.185
	grams	49	56	59	64	70	74	84
DIN 43880 Dimension		1 TE / .71" [18 mm]						
Packaging Dimensions (HxWxL)		3.2 x 4.5 x 12" [83 x 115 x 305 mm]						
Standard Order Quantity		24 Units						

inches  
[mm]