

**Overvoltage Protection**  
**ProTec T2 1+1**  
**Class II • Type 2 • Type 1CA**



Location of Use: Sub-Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012+A11:2018  
 UL 1449 5th Edition

**Technical Data**

**ProTec T2-xxx-1+1(-R)**

**75                      150                      300                      350**

**IEC Electrical**

Nominal AC Voltage (50/60Hz)	$U_o/U_n$	60V	120V	240V	277V
Maximum Continuous Operating Voltage (AC)	(L-N) $U_c$	75V	150V	300V	350V
	(N-PE) $U_c$	305V	305V	305V	305V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20kA / 40kA	20kA / 40kA	20kA / 40kA	20kA / 40kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{max}$	50kA / 65kA	50kA / 65kA	50kA / 65kA	50kA / 65kA
Voltage Protection Level	(L-N)/(N-PE) $U_p$	800V / 1500V	1250V / 1500V	1500V / 1500V	1750V / 1500V
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100A			
Response Time	(L-N)/(N-PE) $t_A$	< 25 ns / < 100 ns			
Overcurrent Protection (max)		315A / 250A gG			
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$	25kA / 50kA			
TOV Withstand 5s	(L-N) $U_T$	114V	229V	337V	403V
TOV 120min	(L-N) $U_T$	114V	229V	442V	529V
		mode	Withstand	Withstand	Safe Fail
TOV Withstand 200ms	(N-PE) $U_T$	1200V			
Number of Ports		1			

**UL Electrical**

Maximum Continuous Operating Voltage (AC)	(L-N)/(N-G) MCOV	75V / 305V	150V / 305V	300V / 305V	350V / 305V
Voltage Protection Rating	(L-N)/(N-G) VPR	330V / 1000V	600V / 1000V	900V / 1000V	1000V / 1000V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-G) $I_n$	20kA / 20kA			
Short-Circuit Current Rating (AC)	(L-N) SCCR	100kA	200kA	150kA	200kA

**Additional Electrical Parameters - Standard** (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	400V / 305V	750V / 305V	1000V / 305V	1300V / 305V
Overcurrent Protection (min)		80A gG			

**Additional Electrical Parameters - Extended** (Additionally tested by VDE)

Short-Circuit Current Rating (AC)	$I_{SCCR}$	100kA			
Overcurrent Protection (max)		250A gG			

**Mechanical & Environmental**

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	$M_{max}$	40 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)			

Connection Configurations can be found in QR Code link on intro page.



[www.raycap.com](http://www.raycap.com)

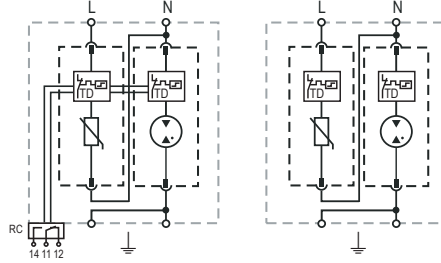


Information contained in this document is subject to change at any time without notice.

## Internal Configuration

### Legend

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



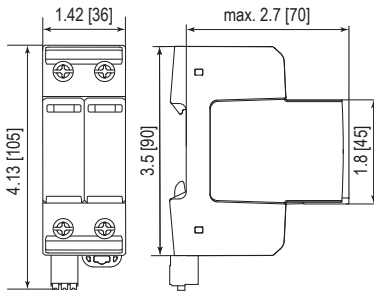
### ProTec T2-xxx-1+1(-R)

#### Order Information

Order Code	75	150	300	350
ProTec T2-xxx-1+1	59.0109	59.0111	59.0113	59.0115
ProTec T2-xxx-1+1-R (with remote contacts)	59.0110	59.0112	59.0114	59.0116
ProTec T2-xxx-P (plug L-N)	59.0063	59.0064	59.0065	59.0066
ProTube T2-40-P (plug N-PE)	59.0273	59.0273	59.0273	59.0273

## Dimensions & Packaging

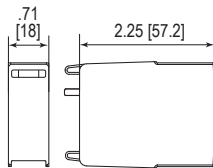
inches [mm]



#### Complete Unit

ProTec T2-xxx-1+1	75	150	300	350	
Weight	pounds	.532	.547	.554	.565
	grams	241	248	251	256
<b>ProTec T2-xxx-1+1-R</b>					
Weight	pounds	.541	.556	.563	.574
	grams	245	253	255	260
DIN 43880 Dimension	2 TE / 1.42" [36]				
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]				
Standard Order Quantity	7 Units				

## Spare Plug



#### Single Unit

ProTec T2-xxx-P	75	150	300	350	
Weight	pounds	.108	.123	.130	.141
	grams	49	56	59	64
<b>ProTube T2-40-P</b>					
Weight	pounds	.093			
	grams	42			
DIN 43880 Dimension	1 TE / .71" [18]				
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]				
Standard Order Quantity	24 Units				