

# Overvoltage Protection

## SafeTec T2 3+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  
 Safety: Patented Current Limiting Technology  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012  
 UL 1449 4<sup>th</sup> Edition

## Technical Data

### SafeTec T2-xxx-3+1(-R)

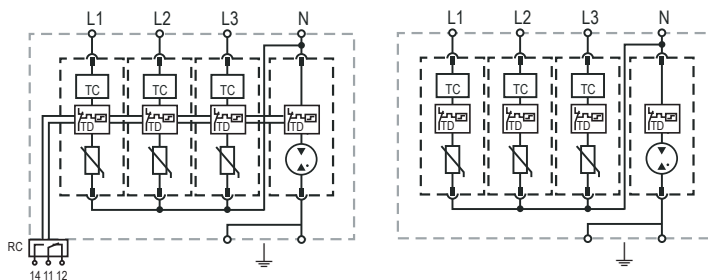
		300	350
<b>IEC Electrical</b>			
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240V	277V
Maximum Continuous Operating Voltage (AC)	(L-N) $U_c$	300V	350V
	(N-PE) $U_c$	305V	305V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20 kA/40 kA	20 kA/40 kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{max}$	50 kA/65 kA	50 kA/65 kA
Voltage Protection Level	(L-N)/(N-PE) $U_p$	1650V/1500V	1750V/1500V
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100 A <sub>RMS</sub>	
Response Time	(L-N)/(N-PE) $t_A$	< 25 ns / < 100 ns	
Overcurrent Protection (max)		315 A/250 A gG	
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$	25 kA/50 kA	
TOV Withstand 120min	(L-N) $U_T$	442V	529V
TOV Withstand 200ms	(N-PE) $U_T$	1200V	
Number of Ports		1	
<b>UL Electrical</b>			
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-PE) MCOV	300V/305V	350V/305V
Voltage Protection Rating	(L-N)/(N-PE) VPR	1200V/1000V	1200V/1000V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20 kA/20 kA	
Short-Circuit Current Rating (AC)	(L-N) SCCR	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 (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		300	350
SafeTec T2-xxx-3+1		59.0198	59.0200
SafeTec T2-xxx-3+1-R (with remote contacts)		59.0199	59.0201
SafeTec T2-xxx-P (plug L-N)		59.0127	59.0128
SafeTube T2-40-P (plug N-PE)		59.0274	59.0274

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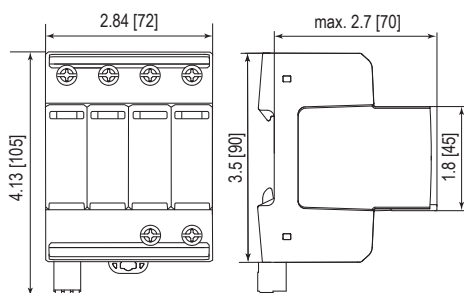
### Internal Configuration

#### Legend

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



### Complete Unit

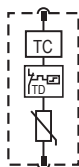


#### Complete Unit Dimensions & Packaging

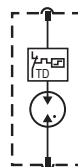
		300	350
Weight	pounds	1.046	1.099
	grams	474	498
<b>SafeTec T2-xxx-3+1-R</b>			
Weight	pounds	1.057	1.110
	grams	479	503
DIN 43880 Dimension	4 TE / 2.84" [72]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity	4 Units		

### Plug Internal Configuration

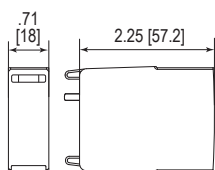
#### SafeTec T2-xxx-P



#### SafeTube T2-40-P



### Spare Plug



#### Single Unit Dimensions & Packaging

		300	350
Weight	pounds	.146	.163
	grams	66	74
<b>SafeTube 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 115 x 305 mm]		
Standard Order Quantity	24 Units		

inches  
[mm]

