

Overvoltage Protection
SafeTec 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
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition

Technical Data

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

300

350

IEC Electrical

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 μ s)	(L-N)/(N-PE) I_n	20kA/40kA	20kA/40kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	50kA/65kA	50kA/65kA
Voltage Protection Level	(L-N)/(N-PE) U_p	1650V/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 120min	(L-N) U_T	442V	529V
TOV Withstand 200ms	(N-PE) U_T		1200V
Number of Ports			1

UL Electrical

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 μ s)	(L-N)/(N-PE) I_n		20kA/20kA
Short-Circuit Current Rating (AC)	(L-N) SCCR	150kA	200kA

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

Residual Voltage at 5 kA (8/20 μ s)	(L-N)/(N-PE) U_{res}	1000V/305V	1300V/305V
Overcurrent Protection (min)			80A gG

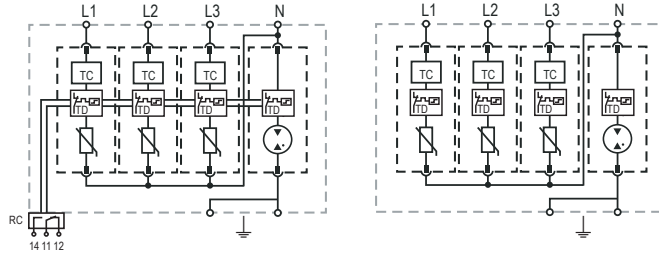
Mechanical & Environmental

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 [4.5 Nm]	
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)	
		35 mm ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)	

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



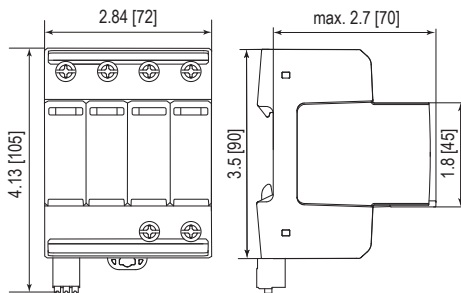
SafeTec T2-xxx-3+1(-R)

Order Information

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

Dimensions & Packaging

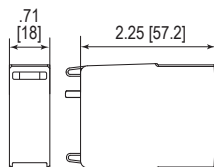
inches [mm]



Complete Unit

SafeTec T2-xxx-3+1		300	350
Weight	pounds	1.066	1.119
	grams	483	507
SafeTec T2-xxx-3+1-R			
Weight	pounds	1.077	1.130
	grams	488	512
DIN 43880 Dimension	4 TE / 2.84" [72]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 116 x 352 mm]		
Standard Order Quantity	4 Units		

Spare Plug



Single Unit

SafeTec T2-xxx-P		300	350
Weight	pounds	.146	.163
	grams	66	74
SafeTube T2-40-P		40	
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		