

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: Patented Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition

Technical Data

SafeTec 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 μ s)	(L-N)/(N-PE) I_n	20kA/40kA	20kA/40kA	20kA/40kA	20kA/40kA
Maximum Discharge Current (8/20 μ 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	1650V/1500V	1750V/1500V
Follow Current Interrupt Rating	(N-PE) I_{fi}			100 A _{RMS}	
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	150V	255V	442V	529V
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	600V/1000V	700V/1000V	1200V/1000V	1200V/1000V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-G) I_n			20kA/20kA	
Short-Circuit Current Rating (AC)	(L-N) SCCR	85kA	200kA	150kA	200kA

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}	39.9 lbf-in [4.5Nm]			
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)			

Order Information

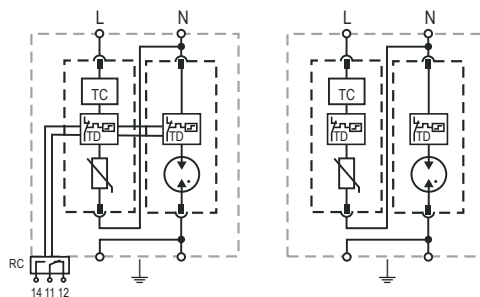
Order Code	75	150	300	350
SafeTec T2-xxx-1+1	59.0186	59.0188	59.0190	59.0192
SafeTec T2-xxx-1+1-R (with remote contacts)	59.0187	59.0189	59.0191	59.0193
SafeTec T2-xxx-P (plug L-N)	59.0125	59.0126	59.0127	59.0128
SafeTube T2-40-P (plug N-PE)	59.0274	59.0274	59.0274	59.0274

SafeTec T2 1+1

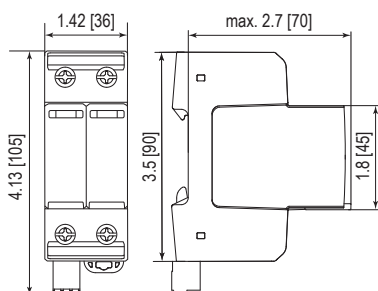
Internal Configuration

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

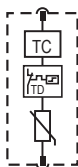


Complete Unit Dimensions & Packaging

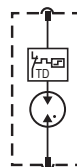
		75	150	300	350
SafeTec T2-xxx-1+1					
Weight	pounds	.532	.543	.549	.567
	grams	241	246	249	257
SafeTec T2-xxx-1+1-R					
Weight	pounds	.541	.552	.558	.576
	grams	245	250	253	261
DIN 43880 Dimension		2 TE / 1.42" [36]			
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]			
Standard Order Quantity		7 Units			

Plug Internal Configuration

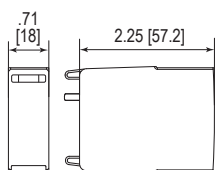
SafeTec T2-xxx-P



SafeTube T2-40-P



Spare Plug



Single Unit Dimensions & Packaging

		75	150	300	350
SafeTec T2-xxx-P					
Weight	pounds	.128	.139	.146	.163
	grams	58	63	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 115 x 305 mm]			
Standard Order Quantity		24 Units			

inches
[mm]

