

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



Technical Data

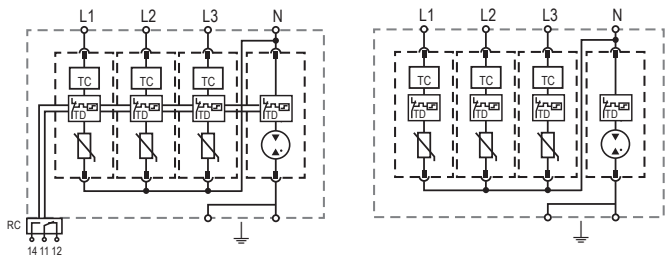
SafeTec T2-xxx-3+1(-R)

SafeTec T2-xxx-3+1(-R)			300	350
IEC Electrical				
Nominal AC Voltage (50/60Hz)		U_o/U_n	240 V	277 V
Maximum Continuous Operating Voltage (AC)	(L - N)	U_c	300 V	350 V
	(N - PE)	U_c	305 V	305 V
Nominal Discharge Current (8/20μs)	(L - N)/(N - PE)	I_n	20 kA/40 kA	20 kA/40 kA
Maximum Discharge Current (8/20μs)	(L - N)/(N - PE)	I_{max}	50 kA/65kA	50 kA/65kA
Voltage Protection Level	(L - N)/(N - PE)	U_p	1650 V/1500 V	1750 V/1500 V
Follow Current Interrupt Rating	(N - PE)	I_{fi}	100 A	
Response Time	(L - N)/(N - PE)	t_A	< 25 ns/ < 100 ns	
Overvoltage Category	III			
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	442 V	529 V
TOV Withstand 200ms	(N - PE)	U_T	1200 V	
Number of Ports	1			
UL Electrical				
Maximum Continuous Operating Voltage (AC)	(L - N)/(N - PE)	MCOV	300 V/305 V	350 V/305 V
Voltage Protection Rating	(L - N)/(N - PE)	VPR	1200 V/1000 V	1200 V/1000 V
Nominal Discharge Current (8/20μs)	(L - N)/(N - PE)	I_n	20 kA/20 kA	
Short-Circuit Current Rating (AC)	(L - N)	SCCR	150 kA	150 kA
Additional Electrical Parameters <i>(Tests performed within Raycap testing laboratory only)</i>				
Residual Voltage at 5 kA (8/20 μs)	(L - N)/(N - PE)	U_{res}	1000 V/305 V	1300 V/305 V
Minimum Backup fuse, if required	80 A gG			
Mechanical & Environmental				
Operating Temperature Range		T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Operating Humidity		RH	5%...95%	
Pollution Degree	2			
Altitude (max)	13123 ft [4000 m]			
Terminal Screw Torque		M_{max}	40 lbf-in [4.5 Nm]	
Conductor Cross Section (max)	2 AWG (Solid, Stranded) / 4 AWG (Flexible)			
	35 mm² (Solid, Stranded) / 25 mm² (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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A			
RC Conductor Cross Section (max)	16 AWG (Solid) / 1.5 mm² (Solid)			
Overvoltage Category	III			

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

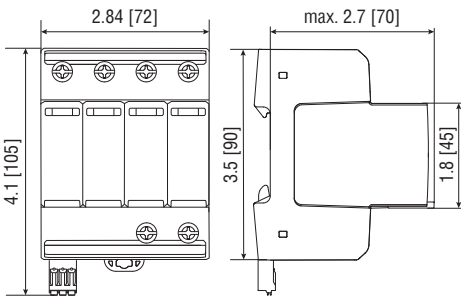


Order Information

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

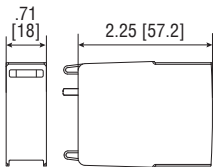
inches [mm]



Complete Unit

SafeTec T2-xxx-3+1		300	350
Weight	pounds [grams]	1.066 [483]	1.119 [507]
SafeTec T2-xxx-3+1-R			
Weight	pounds [grams]	1.077 [488]	1.130 [512]
DIN 43880 Dimension		4 TE / 2.84" [72 mm]	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity		4 Units	

Spare Plug



Single Unit

SafeTec T2-xxx-P		300	350
Weight	pounds [grams]	.146 [66]	.163 [74]
SafeTube T2-40-P		40	
Weight	pounds [grams]	.093 [42]	
DIN 43880 Dimension		1 TE / .71" [18 mm]	
Packaging Dimensions (HxWxL)		3.2 x 4.5 x 12" [83 x 116 x 305 mm]	
Standard Order Quantity		24 Units	