

DATA SHEET

Pluggable Multi-pole SPD ProTec T2-CM-3+1-L-E(-R) Class II • Class III • Type 2 • Type 3



Location of Use: Sub-distribution Boards
 Network Systems: TT, TN-S
 Mode of Protection: L-N, N-PE
 IEC/EN Category: Class II+III / Type 2+3
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018


Technical Data

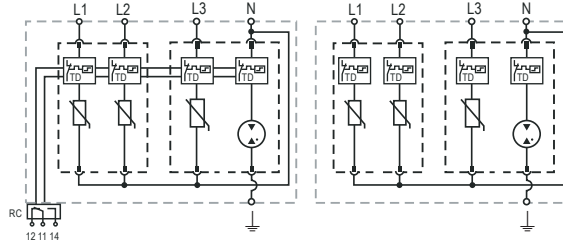
ProTec T2-CM-xxx-3+1-L-E(-R)		275	440
Electrical			
Nominal AC Voltage (50/60Hz)	U_o	230V	230V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	275V	440V
	(N-PE) U_c	255V	255V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_n	10kA/20kA	
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	20kA/40kA	
Voltage Protection Level for Type 2+3	(L-N) U_p	1200V	1700V
	(N-PE) U_p	1500V	1500V
Voltage Protection Level for Type 3 only	(L-N) U_p	1000V	1400V
	(N-PE) U_p	1000V	1000V
Open Circuit Voltage of Combination Wave Generator (1.2/50 μ s)	(L-N)/(N-PE) U_{oc}	6kV/6kV	
Short Circuit Current of Combination Wave Generator (8/20 μ s)	(L-N)/(N-PE) I_{cw}	3kA/3kA	
Follow Current Interrupt Rating	(N-PE) I_{fi}	100A	
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns	
Overcurrent Protection (max)		100 A gG	
Short-Circuit Current Rating	I_{SCCR}	25 kA	
TOV Withstand 5s	(L-N) U_T	335V	440V
TOV 120min	(L-N) $U_T / mode$	440V / Safe Fail	440V / Withstand
TOV Withstand 200ms	(N-PE) U_T	1200V / 300A	
Number of Ports		1	
Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)			
Residual Voltage at 5 kA (8/20 μ s)	U_{res}	1000V / 255V	1500V / 255V
Overcurrent Protection (min)		40 A gG	
Mechanical & Environmental			
Temperature Range	T_a	-40 °C to +85 °C	
Permissible Humidity	RH	5%...95%	
Altitude (max)		6562 ft [2000m]	
Terminal Screw Torque	(L, N) M_{max}	10 lbf-in [1.2Nm]	
	(PE) M_{max}	17 lbf-in [2.0Nm]	
Conductor Cross Section (max)	(L, N)	8 AWG (Solid, Stranded) / 10 AWG (Flexible)	
		10mm ² (Solid, Stranded) / 6mm ² (Flexible)	
	(PE)	2 AWG (Solid, Stranded) / 4 AWG (Flexible)	
		35mm ² (Solid, Stranded) / 25mm ² (Flexible)	
Mounting		35mm DIN Rail, EN 60715	
Degree of Protection		IP 20 (built-in)	
Thermal Protection		Yes	
Fault Indication		Red Flag	
Remote Contacts (RC)		Optional	
RC Switching Capacity		AC: 250/0.5A; DC: 60V/0.1A	
RC Terminal Cross Section (max)		13 AWG [1.5mm ²]	
RC Terminal Screw Torque	M_{max}	3.5 lbf-in [0.4Nm]	



Internal Configuration

Legend

- L* Line Conductor Terminal
- N* Neutral Conductor Terminal
-  PE Conductor Terminal
- RC* Remote Contacts Terminal
- TD* Thermal Disconnect

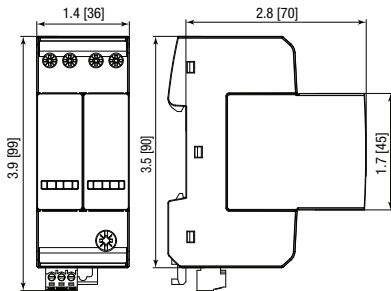


ProTec T2-CM-xxx-3+1-L-E(-R)

Order Information

Order Code	275	440
ProTec T2-CM-xxx-3+1-L-E	515 663	515 665
ProTec T2-CM-xxx-3+1-L-E-R (with remote contact)	515 664	515 666
ProTec T2-CM-xxx-L-E-P (plug L-N)	515 667	515 668
ProTec T2-CM-xxx-L-G-E-P (plug N-PE)	515 598	515 607

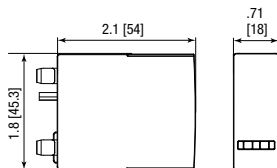
Dimensions & Packaging



Complete Unit

ProTec T2-CM-xxx-3+1-L-E	275	440	
Weight	pounds [grams]	.577 [262]	.604 [274]
ProTec T2-CM-xxx-3+1-L-E-R			
Weight	pounds [grams]	.590 [268]	.617 [280]
DIN 43880 Dimension	2 TE / 1.42" [36 mm]		
Packaging Dimensions (H x W x L)	3.2 x 1.7 x 4.6" [83.5 x 44 x 117 mm]		
Standard Order Quantity	8 Units		

Spare plug



Single Unit

ProTec T2-CM-xxx-L-E-P	275	440	
Weight	pounds [grams]	.173 [78.5]	.190 [86.5]
ProTec T2-CM-xxx-L-G-E-P			
Weight	pounds [grams]	.144 [65.5]	.151 [68.5]
DIN 43880 Dimension	1 TE / .70" [18 mm]		
Packaging Dimensions (H x W x L)	2.5 x 1.8 x 8.7" [64 x 45 x 220 mm]		
Standard Order Quantity	24 Units		