

DATA SHEET

Pluggable Multi-pole SPD ProTec T2-CM-3+0-L-E(-R) Class II • Class III • Type 2 • Type 3



Location of Use: Sub-distribution Boards
 Network Systems: TN-C, IT* (only 440)
 Mode of Protection: L-PEN
 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+0-L-E(-R)

275

440

Electrical

		275	440
Nominal AC Voltage (50/60 Hz)	U_o	230V	230V
Maximum Continuous Operating Voltage (AC)	U_c	275V	440V
Nominal Discharge Current (8/20 μ s)	I_n		10 kA
Maximum Discharge Current (8/20 μ s)	I_{max}		20 kA
Voltage Protection Level for Type 2+3	U_p	1200V	1700V
Voltage Protection Level for Type 3 only	U_p	1000V	1400V
Open Circuit Voltage of Combination Wave Generator (1.2/50 μ s)	U_{oc}		6 kV
Short Circuit Current of Combination Wave Generator (8/20 μ s)	I_{cw}		3 kA
Response Time	t_A		< 25 ns
Overcurrent Protection (max)			100 A gG
Short-Circuit Current Rating	I_{SCCR}		25 kA
TOV Withstand 5s	U_T	335V	440V
TOV 120min	$U_T / mode$	440V / Safe Fail	440V / Withstand
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	1500V
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 [2000 m]	
Terminal Screw Torque	(L) M_{max}	10 lbf-in [1.2 Nm]	
	(PEN) M_{max}	17 lbf-in [2.0 Nm]	
Conductor Cross Section (max)	(L)	8 AWG (Solid, Stranded) / 10 AWG (Flexible)	
		10 mm ² (Solid, Stranded) / 6 mm ² (Flexible)	
	(PEN)	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)	
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 [1.5 mm ²]	
RC Terminal Screw Torque	M_{max}	3.5 lbf-in [0.4 Nm]	

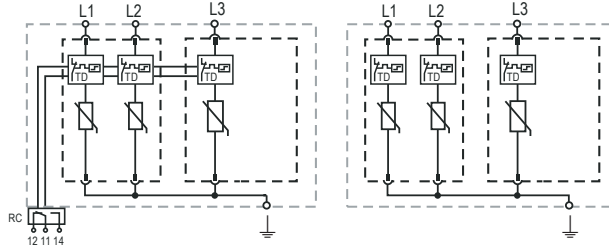
*Only applicable for SPD with U_c 440V to IT power systems where the earth on the distribution transformer is interconnected with the earth on the consumer side (RE=RA in Figure 44.A1 of IEC 60364-4-44:2018).



Internal Configuration

Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⏏ PEN Conductor Terminal
- RC Remote Contacts Terminal
- TD Thermal Disconnect

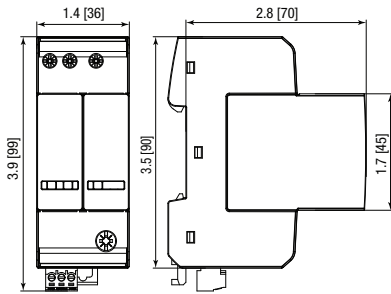


ProTec T2-CM-xxx-3+0-L-E(R)

Order Information

Order Code	275	440
ProTec T2-CM-xxx-3+0-L-E	515 700	515 703
ProTec T2-CM-xxx-3+0-L-E-R (with remote contact)	515 701	515 704
ProTec T2-CM-xxx-L-E-P (plug)	515 667	515 668
ProTec T2-CM-xxx-L-E-01-P (L3-PEN plug)	515 702	515 705

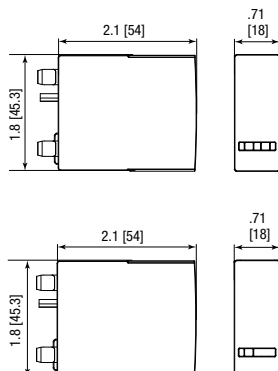
Dimensions & Packaging



Complete Unit

ProTec T2-CM-xxx-3+0-L-E		275
Weight	pounds [grams]	.535 [242]
ProTec T2-CM-xxx-3+0-L-E-R		275
Weight	pounds [grams]	.549 [249]
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
Weight	pounds [grams]	.173 [78.5]
ProTec T2-CM-xxx-L-E-01-P		275
Weight	pounds [grams]	.095 [43]
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