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 (50/60 Hz)		U_o	230 V	230 V
Maximum Continuous Operating Voltage (AC)	(L-N)	U_c	275 V	440 V
	(N-PE)	U_c	255 V	255 V
Nominal Discharge Current (8/20 µs)	(L-N)/(N-PE)	I_n	10 kA / 20 kA	
Maximum Discharge Current (8/20 µs)	(L-N)/(N-PE)	I_{max}	20 kA / 40 kA	
Voltage Protection Level for Type 2+3	(L-N)	U_p	1200 V	1700 V
	(N-PE)	U_p	1500 V	1500 V
Voltage Protection Level for Type 3 only	(L-N)	U_p	1000 V	1400 V
	(N-PE)	U_p	1000 V	1000 V
Open Circuit Voltage of Combination Wawe Generator (1.2/50 µs)	(L-N)/(N-PE)	U_{oc}	6 kV / 6 kV	
Short Circuit Current of Combination Wawe Generator (8/20 µs)	(L-N)/(N-PE)	I_{cw}	3 kA / 3 kA	
Follow Current Interrupt Rating	(N-PE)	I_{fi}	100 A	
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 5 s	(L-N)	U_T	335 V	440 V
TOV 120 min	(L-N)	U_T/mode	440 V / Safe Fail	440 V / Withstand
TOV Withstand 200 ms	(N-PE)	U_T	1200 V / 300 A	
Number of Ports			1	
Additional Electrical Parameters *(Tests performed within Raycap testing laboratory only)*				
Residual Voltage at 5 kA (8/20 µs)		U_{res}	1000 V / 255 V	1500 V / 255 V
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, N)	M_{max}	10 lbf·in [1.2 Nm]	
	(PE)	M_{max}	17 lbf·in [2.0 Nm]	
Conductor Cross Section (max)	(L, N)		8 AWG (Solid, Stranded) / 10 AWG (Flexible)	
			10 mm² (Solid, Stranded) / 6 mm² (Flexible)	
	(PE)		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)	
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 mm²]	
RC Terminal Screw Torque		M_{max}	3.5 lbf·in [0.4 Nm]	

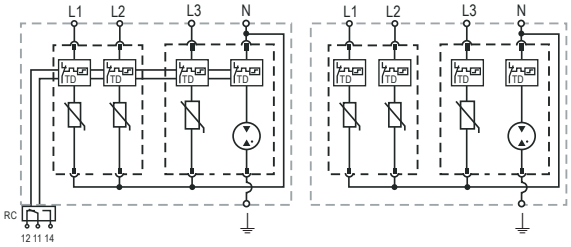
RoHS COMPLIANT CE

Information contained in this document is subject to change at any time without notice.

Internal Configuration

Legend

L	*Line Conductor Terminal*
N	*Neutral Conductor Terminal*
⏚	*PE Conductor Terminal*
RC	*Remote Contacts Terminal*
TD	*Thermal Disconnector*

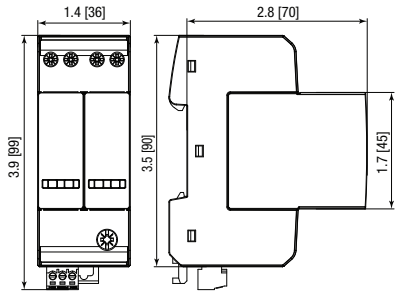


ProTec T2-CM-xxx-3+1-L-E(-R)

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

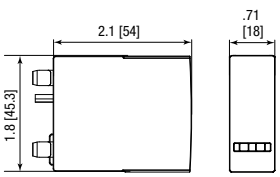
Dimensions & Packaging



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 × W × L)		3.2 × 1.7 × 4.6" [83.5 × 44 × 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		**275**	**440**
Weight	pounds [grams]	.144 [65.5]	.151 [68.5]
DIN 43880 Dimension		1 TE / .70" [18 mm]	
Packaging Dimensions (H × W × L)		2.5 × 1.8 × 8.7" [64 × 45 × 220 mm]	
Standard Order Quantity		24 Units	

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