

Pluggable Multi-pole SPD

ProTec DMDR 20 Series

Class III • Type 3 • DC SPD Type 4CA



Location of Use: Sub-distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE, L-N
 IEC/EN/UL Category: Class III/Type 3/DC SPD Type 4CA
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

ProTec DMDR 20 Series

IEC Electrical

		48	60	120
Nominal AC/DC Voltage	U_o	34V/48V	43V/60V	85V/120V
Maximum Continuous Operating Voltage (AC/DC)	U_c	48V/60V	60V/75V	120V/150V
Open Circuit Voltage of the Combination Wave Generator (1.2/50 μ s)	U_{oc}	2.4 kV	6 kV	6 kV
Short Circuit Current of the Combination Wave Generator (8/20 μ s)	I_{cw}	1.2 kA	3 kA	3 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	2 kA	4 kA	4 kA
Voltage Protection Level	(L-N) U_p	< 500V	< 600V	< 1100V
	(L-PE)/(N-PE)	< 800V	< 850V	< 1200V
Response Time of Overvoltage Protection	(L-N) t_A		< 25 ns	
	(L-PE)/(N-PE)		< 100 ns	
Maximum Backup fuse, if required			32 A gG	
Short-Circuit Current Rating (AC)	I_{SCCR}		2 kA	
TOV Withstand 5s (AC)	U_T	148V	163V	225V
Number of Ports			1	

Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)

Minimum Backup fuse, if required	8 A gG	16 A gG	16 A gG
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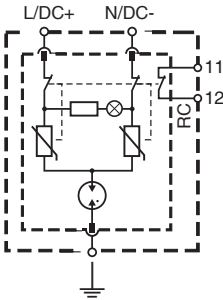
Mechanical & Environmental

Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Humidity	RH	5%...95%
Pollution Degree		2
Terminal Screw Torque	M_{max}	4.5 lbf-in [0.5 Nm]
Conductor Cross Section (max.)		10 AWG (Solid, Stranded) / 12 AWG (Flexible) 6 mm ² (Solid, Stranded) / 4 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 Status Indication		Green LED

Internal Configuration

Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- PE/G Conductor Terminal
- RC Remote Contacts Terminal



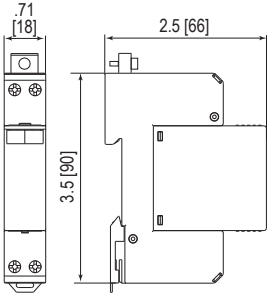
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Order Information

Order Code	48	60	120
ProTec DMDR 20/xxx	510 833	510 834	510 835
ProTec DMDR 20/xxxM (module)	510 836	510 837	510 838

Dimensions & Packaging

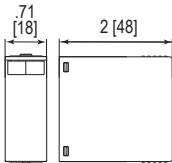
inches [mm]



Complete Unit

ProTec DMDR 20/xxx	48	60	120
Weight	pounds [grams]	.211 [96]	
DIN 43880 Dimension	1 TE / .71" [18 mm]		
Packaging Dimensions (H x W x L)	3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]		
Standard Order Quantity	12 Units		

Spare Plug



Single Unit

Plug ProTec DMDR 20/xxx	48	60	120
Weight	pounds [grams]	.070 [32]	
DIN 43880 Dimension	1 TE / .71" [18 mm]		
Packaging Dimensions (H x W x L)	3.8 x 3 x 4.3" [98 x 77 x 110 mm]		
Standard Order Quantity	12 Units		