

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

24

IEC Electrical

Nominal AC/DC Voltage	U_o	17V/17V
Maximum Continuous Operating Voltage (AC/DC)	U_c	24V/34V
Open Circuit Voltage of the Combination Wave Generator (1.2/50 μ s)	U_{oc}	2.4 kV
Short Circuit Current of the Combination Wave Generator (8/20 μ s)	I_{cw}	1.2 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	2 kA
Voltage Protection Level	(L-N) U_p	< 250V
	(L-PE)/(N-PE)	< 700V
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	115V
Number of Ports		1

UL Electrical

Maximum Continuous Operating Voltage (AC)	MCOV	24V
Maximum Continuous Operating Voltage (DC)	(+)-(-) V_{dcmcov}	34V
	(+/-)-(G)	17V
Measured Limiting Voltage	(L-N)/(+)-(-) MLV	190V/230V
	(L/N-G)/(+/-)-(G)	580V/540V
Nominal Discharge Current (8/20 μ s)	I_n	1 kA

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

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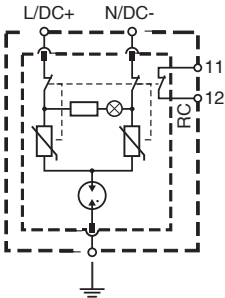
Mechanical & Environmental

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



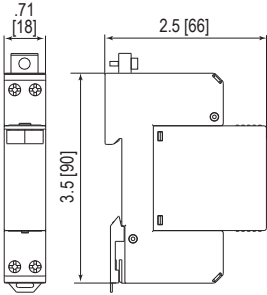
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Order Information

Order Code	24
ProTec DMDR 20/xxx	510 783
ProTec DMDR 20/xxxM (module)	510 784

Dimensions & Packaging

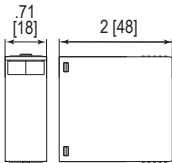
inches [mm]



Complete Unit

ProTec DMDR 20/xxx	24
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	24
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