

Pluggable Multi-pole SPD
ProTec DMDR 20 Series
 Class III • Type 3 • 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/Type 4CA
 Housing: Modular Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition

Technical Data

ProTec DMDR 20 Series		24*	48	60	120
IEC Electrical					
Nominal AC/DC Voltage	U_o	17V/17V	34V/48V	43V/60V	85V/120V
Maximum Continuous Operating Voltage (AC/DC)	U_c	24V/34V	48V/60V	60V/75V	120V/150V
Open Circuit Voltage of the Combination Wave Generator (1.2/50 μ s)	U_{oc}	2.4 kV	2.4 kV	6 kV	6 kV
Short Circuit Current of the Combination Wave Generator (8/20 μ s)	I_{cw}	1.2 kA	1.2 kA	3 kA	3 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	2 kA	2 kA	4 kA	4 kA
Voltage Protection Level	(L-N) U_p	< 250V	< 500V	< 600V	< 1100V
	(L-PE)/(N-PE)	< 700V	< 800V	< 850V	< 1200V
Response Time of Overvoltage Protection	(L-N) t_A		< 25 ns		
	(L-PE)/(N-PE)		< 100 ns		
Back-Up Fuse (if mains > 32A)			32 A gG		
Short-Circuit Current Rating (AC)	I_{sccr}		2 kA		
TOV Withstand 5s (AC)	U_T	115V	148V	163V	225V
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	-	-	-

Mechanical					
Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]			
Permissible Humidity	RH	5%...95%			
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			

Order Information		24*	48	60	120
Order Code					
ProTec DMDR 20/xxx		510 783	510 833	510 834	510 835
ProTec DMDR 20/xxxM (module)		510 784	510 836	510 837	510 838

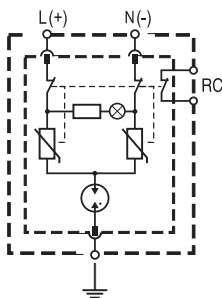
*UL Certification.

ProTec DMDR 20 Series

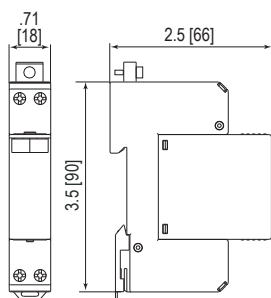
Internal Configuration

Legend

- L Line Conductor Terminal
- ⏚ PE/G Conductor Terminal
- RC Remote Contacts Terminal



Complete Unit

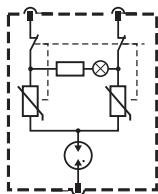


Complete Unit Dimensions & Packaging

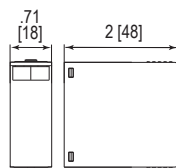
ProTec DMDR 20/xxx	24	48	60	120
Weight	pounds [grams]		.211 [96]	
DIN 43880 Dimension			1 TE / .71" [18]	
Packaging Dimensions (H x W x L)			3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]	
Standard Order Quantity			12 Units	

Plug Internal Configuration

Plug ProTec DMDR 20/xxx



Spare Plug



Single Unit Dimensions & Packaging

Plug ProTec DMDR 20/xxx	24	48	60	120
Weight	pounds [grams]		.070 [32]	
DIN 43880 Dimension			1 TE / .71" [18]	
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	

inches
[mm]

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

