

# 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

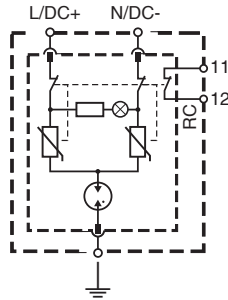
### Technical Data

ProTec DMDR 20 Series		24*	48	60	120
<b>IEC Electrical</b>					
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 $\mu$ s)	$U_{oc}$	2.4 kV	2.4 kV	6 kV	6 kV
Short Circuit Current of the Combination Wave Generator (8/20 $\mu$ s)	$I_{cw}$	1.2 kA	1.2 kA	3 kA	3 kA
Maximum Discharge Current (8/20 $\mu$ 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		
Overcurrent Protection (max)			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		
<b>UL Electrical</b>					
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 $\mu$ s)	$I_n$	1 kA	-	-	-
<b>Additional Electrical Parameters</b> (Tests performed within Raycap testing laboratory only)					
Overcurrent Protection (min)		8 A gG	8 A gG	16 A gG	16 A gG
<b>Mechanical</b>					
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 <sup>2</sup> (Solid, Stranded) / 4 mm <sup>2</sup> (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



### ProTec DMDR 20 Series

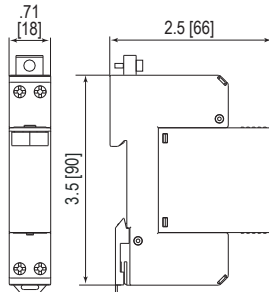
#### Order Information

Order Code	24*	48	60	120
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.

## Dimensions & Packaging

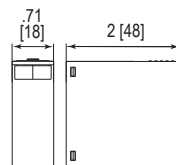
inches [mm]



#### Complete Unit

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 298mm]			
Standard Order Quantity	12 Units			

## Spare Plug



#### Single Unit

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 110mm]			
Standard Order Quantity	12 Units			