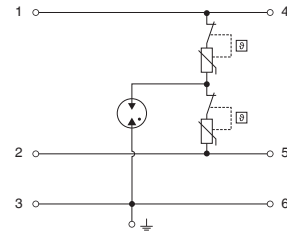


DATA SHEET

SPD for DC Power Systems RayDat NPS-2 Series C1 • C2 • C3



IEC/EN Category: C1/C2/C3
 Voltages: 24, 48 V DC
 Frequency Range: up to 800 kHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

NPS-2 Series	24	48*
Electrical		
Lines Protected	1 (2 Conductors)	
Nominal Operating Voltage (DC)	U_n 24V	48V
Maximum Continuous Operating Voltage (DC)	U_c 38V	63V
Maximum Continuous Operating Voltage (AC)	U_c 38V	50V
Rated Load Current at 40 °C	I_L 12A	
Rated Load Current at 70 °C	I_L 10A	
C2 Nominal Discharge Current (8/20 μs)	(Line-Line) I_n 4 kV/2 kA	
	(Line-Ground) 4 kV/2 kA	
C2 Total Nominal Discharge Current (8/20 μs)	I_n 8 kV/4 kA	
C2 Voltage Protection Level (4 kV/2 kA)	(Line-Line) U_p 250V	400V
	(Line-Ground) 650V	680V
C3 Voltage Protection Level (1 kV/μs)	(Line-Line) U_p 200V	350V
	(Line-Ground) 700V	750V
Rated Spark Overvoltage	(Line-Line) 84V - 106V	138V - 170V
	(Line-Ground) 72V - 160V	80V - 193V
Response Time Overvoltage Protection	t_A <25 ns	
Thermal Protection	Yes	
Insulation Resistance of the Protection	(Line-Line) R_{iso} > 10 MΩ	
Serial Resistance per Path	R 0.1 Ω	
Capacitance	(Line-Line) C typ. 5 nF	typ. 2.5 nF
	(Line-Ground) typ. 10 pF	
Maximum Frequency	f_G 550 kHz	800 kHz
Mechanical		
Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]	
Conductor Cross Section (max.)	12 AWG / 4 mm ² (solid)	
	14 AWG / 2.5 mm ² (flexible)	
Degree of Protection IEC/EN 60529	IP 20 (built-in)	
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0	
Mounting IEC/EN 60715	35 mm DIN Rail	
Operating State / Fault Indication	Green Flag / Red Flag	
Order Information		
Order Code	24	48*
NPS-2-xx	7088.21	7088.58
NPS-2-xxM (module)	7088.22	7088.59

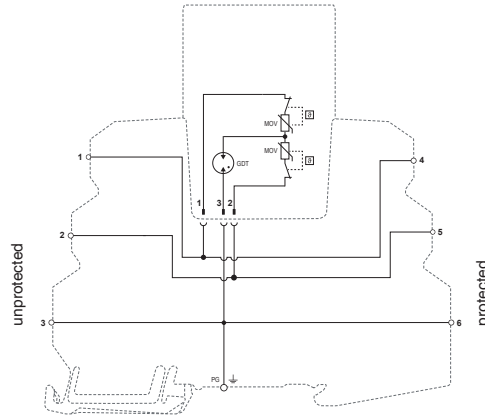
*No UL Certification.

RayDat NPS-2 Series

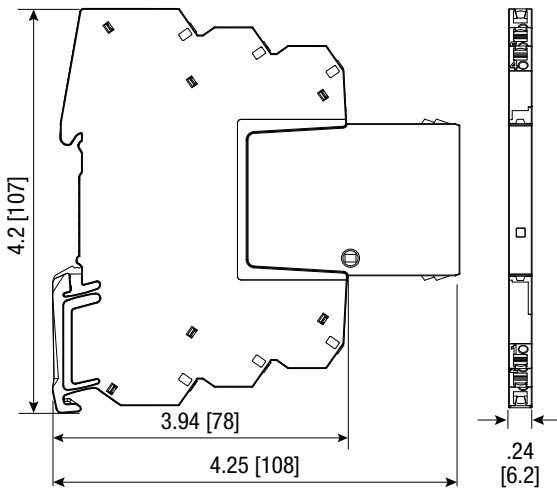
Configuration

Legend

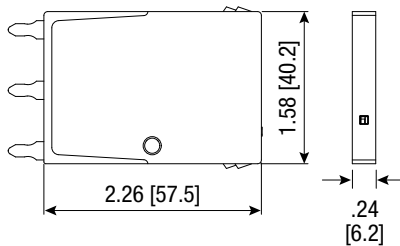
- GDT Gas Discharge Tube
- PG Protective Grounding
- MOV Metal Oxide Varistor



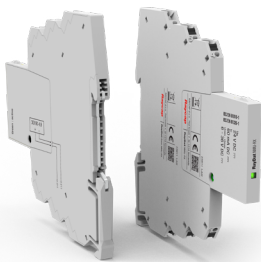
Dimensions & Packaging



NPS-2 Series	24	48*
Dimensions		
Weight per Unit	2.05 oz [58g]	
Dimensions DIN 43880	.24" [6.2mm]	
Packaging Dimensions (Single Unit)	4.72×4.33×0.39" [120×110×10mm]	
Minimum Package Quantity	15 pieces	



NPS-2-xxxM Series	24	48*
Dimensions		
Weight per Unit	0.56 oz [16g]	
Packaging Dimensions (Single Unit)	4.72×4.33×0.39" [120×110×10mm]	
Minimum Package Quantity	15 pieces	



Monitoring Unit
Transmitter
& Receiver
available for all
product variants.

inches
[mm]

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

