

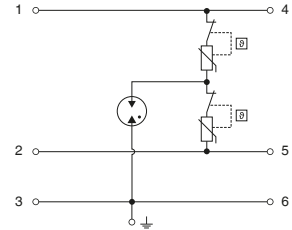
DATA SHEET

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
UL 497B 4th Edition

Configuration:



Technical Data

NPS-2 Series

24

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	24V
Maximum Continuous Operating Voltage (DC)	U_c	38V
Maximum Continuous Operating Voltage (AC)	U_c	38V
Rated Load Current at 40 °C	I_L	12A
Rated Load Current at 70 °C	I_L	10A
C2 Nominal Discharge Current (8/20 μ s)	(Line-Line) I_n	4 kV/2 kA
	(Line-Ground)	4 kV/2 kA
C2 Total Nominal Discharge Current (8/20 μ s)	I_n	8 kV/4 kA
C2 Voltage Protection Level (4 kV/2 kA)	(Line-Line) U_p	250V
	(Line-Ground)	650V
C3 Voltage Protection Level (1 kV/ μ s)	(Line-Line) U_p	200V
	(Line-Ground)	700V
Rated Spark Overvoltage	(Line-Line)	84 V - 106V
	(Line-Ground)	72 V - 160V
Response Time Overvoltage Protection	t_A	<25 ns
Thermal Protection		Yes
Insulation Resistance of the Protection	(Line-Line) R_{iso}	> 10 M Ω
Serial Resistance per Path	R	0.1 Ω
Capacitance	(Line-Line) C	typ. 5 nF
	(Line-Ground)	typ. 10 pF
Maximum Frequency	f_G	550 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

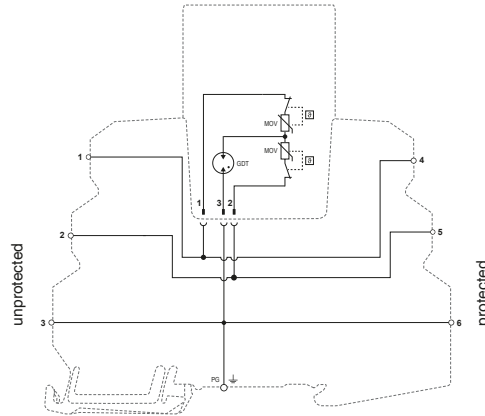
Order Code	24
NPS-2-xx	7088.21
NPS-2-xxM (module)	7088.22

RayDat NPS-2 Series

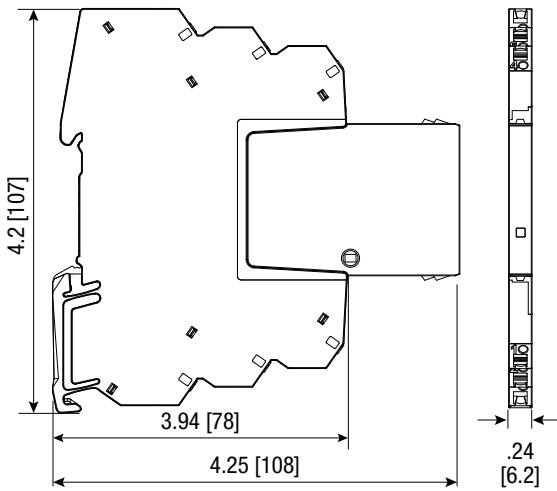
Configuration

Legend

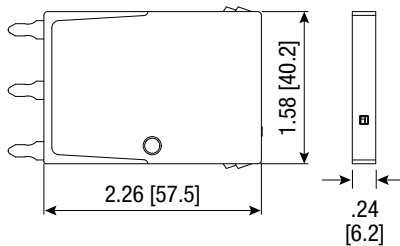
- GDT Gas Discharge Tube
- PG Protective Grounding
- MOV Metal Oxide Varistor



Dimensions & Packaging



NPS-2 Series	24
Dimensions	
Weight per Unit	2.05 oz [58g]
Dimensions DIN 43880	.24" [6.2 mm]
Packaging Dimensions (Single Unit)	4.45×4.37×0.43" [113×111×11 mm]
Minimum Package Quantity	15 pieces



NPS-2-xxxM Series	24
Dimensions	
Weight per Unit	0.56 oz [16g]
Packaging Dimensions (Single Unit)	4.45×4.37×0.43" [113×111×11 mm]
Minimum Package Quantity	15 pieces



Monitoring Unit
Transmitter
& Receiver
available for all
product variants.

inches
[mm]

