

In-line SPD for Coaxial & RF Systems

RayDat CP N Series

C1 • C2 • C3



IEC/EN Category: C1/C2/C3
 Protection: Impedance Matched
 Maximum Operating Voltage: 70, 180, 280 V
 Maximum Peak Power: 40, 125, 300 W
 Frequency Range: DC–2.6 GHz
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA
 Impedance: 50 Ω
 Insertion Loss: < 0.4 dB
 Return Loss: > 20 dB
 Termination: N Type (F-F, M-F)
 Housing: In-line Installation, Shielded Enclosure
 Compliance: IEC/EN 61643-21

The RayDat CP N Series of coaxial surge protectors is intended to protect RF antenna systems and is suitable for frequencies from DC to 2.6 GHz.

It is designed as an in-line unit allowing ease of installation. The careful design, low capacitance gas discharge arresters and high quality N-type termination connectors, ensures a minimum of insertion loss throughout the frequency band.

Transfer power is 40 W to 300 W continuous, depending on the coaxial cable protector voltage.

The CP N coaxial cable protector is designed in accordance with IEC 61643-21: 2009 standards and regulations.

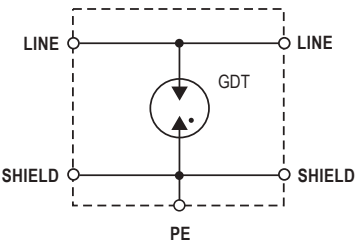
A grounding stud is provided which should be connected to the system ground or coaxial feed-through bulkhead, as directly as possible.

Technical Data

CP-N		70V	180V	280V
Electrical				
Maximum Continuous Operating Voltage	U _c	70V	180V	280V
Maximum Peak Power	P _{max}	40W	125W	300W
C2 Nominal Discharge Current (8/20 μs)	I _n		10 kA	
Maximum Discharge Current (8/20 μs)	I _{max}		20 kA	
Residual Voltage at (1 kV/μs)	U _{res}	< 600V	< 700V	< 900V
Impedance	Z		50 Ω	
Insertion Loss	I _L		< 0.4 dB	
Return Loss	R _L		> 20 dB	
Insulation Resistance of Protection	R _{iso}		> 10 GΩ	
Frequency Range	f _G		0–2.6 GHz	
Mechanical				
Temperature Range		-40 °C to +80 °C		
Connection		N Female/Female		N Male/Female
Degree of Protection IEC/EN 60529		IP20		
Housing Material		Metal		
Order Information				
Order Code		70V	180V	280V
CP N-FF-xxx		800 859	800 860	800 861
CP N-MF-xxx		800 862	800 863	800 864

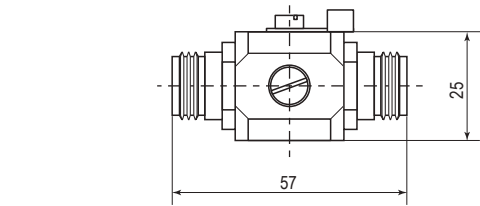
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Internal Configuration

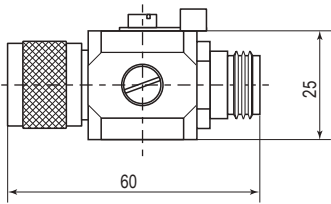


Legend
GDT Gas Discharge Tube

Dimensions & Packaging



CP N-FF



CP N-MF

CP N	CP N-FF-xxx			CP N-MF-xxx		
	70V	180V	280V	70V	180V	280V
Dimensions						
Weight per Unit	138 g			142 g		
Packaging Dimensions (Single Unit)				73 × 30 × 30 mm		
Minimum Package Quantity				100 pieces		