

(Surge Protective Device)

# SURGE PROTECTION

The MidNite Solar Surge Protective Device (MNSPD) is a Type 1 device, designed for indoor and outdoor applications. Engineered for both AC and DC electric systems, it provides protection to service panels, load centers or where the SPD is directly connected to the electronic device requiring protection.

The SPD is offered in three different voltages to maximize the protection level. Protection is achieved by reducing the clamping voltage to a safe level that your system can sustain without damaging any electronics in the system.

Compare our SPD's against other surge protection devices. You will see there is no comparison in both our price and features. All our SPD's have a 5 year warranty.

# Lightning Arrester

MidNite Solar

**Surge protection you can count on!**



Your source to purchase from:

**Three models to choose from!**  
**MNSPD115**  
**MNSPD300**  
**MNSPD600**

[www.midnitesolar.com](http://www.midnitesolar.com)

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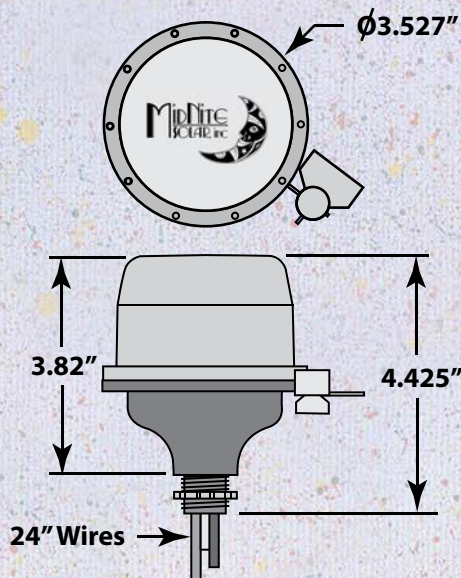
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# MIDNITE SOLAR SURGE PROTECTION DEVICE

Part No.	MNSPD115	MNSPD300	MNSPD600
Nominal Voltage	0 to 90 VAC 0 to 115 VDC	0 to 250 VAC 0 to 300 VDC	0 to 485 VAC 0 to 600 VDC
MCOV	180V (162-198)	470V (423-517)	780V (702-858)
Clamp Voltage @ 100A Current 8/20 $\mu$ s	295V	775V	1290V
Energy Absorption In Joules	1120 J (Full Device) 560 J (Each Section)	3130 J (Full Device) 1560 J (Each Section)	4320 J (Full Device) 2160 J (Each Section)
Suggested Placement	Up to 90 VAC circuits, 12V, 24V, 48V DC battery circuits	120/240 VAC circuits Offgrid PV combiners Charge controller inputs up to 300VDC	316V/480 VAC circuits Grid tie PV combiners Grid tie inverter input Non-Isolated Inverters
Diagnostic Blue LED	SPD115+300 LED indicators when voltage is present between L1+Ground and L2+Ground SPD600 LED Indicators when voltage is present between L1+L2		
Thermal Disconnecter - Internal Fuse			
Response time	<1micro sec.		



## Performance

Surge Current Rating per Phase	57kA
Short Circuit Current Rating	115kA
T-MOVs	8
Fusing	Individually fused MOVs
Thermal Fusing	Yes
Overcurrent Fusing	Yes
Operating Frequency	0 to 60 Hz

## Mechanical Description

Enclosure	Polycarbonate UL94V-0
NEMA Rating	NEMA Type 4X
Connection Method	#12 AWG
Weight	1 lb.
Mounting Method	1/2" Conduit Knockout
Operating Altitude	Sea Level - 12,000' (3,658 Meters)
Storage Temp	-40° F to +185° F (-40° C to +85° C)
Operating Temp	-40° F to +185° F (-40° C to +85° C)

## Diagnostics

Blue status LED, one per leg

## Listings and Performance

UL Standard for Safety, UL 1449 Surge Protective Devices-Third Edition  
CSA C22.2 No. 8-M1986 Electromagnetic Interference (EMI) Filters, Fourth Edition

Model No.	Max Operating Voltage	Surge Current per Phase	Configuration	MCOV	SCCR	VPR 600V/3kA
						L-G
MNSPD115	90VAC/115VDC	57kA	1 $\emptyset$ , 3-wire (2 Legs)	180V L-N	115kA	330V
MNSPD300	250VAC/300VDC	57kA	1 $\emptyset$ , 3-wire (2 Legs)	470V L-N	115kA	800V
MNSPD600	485VAC/600VDC	57kA	1 $\emptyset$ , 3-wire (2 Legs)	780V L-N	115kA	1500V