MIDNITE SOLAR INC.

Surge Protection

Surge Protection You Can Count On!

MidNite Solar Surge Protection Devices are Type 2 devices (NEC 2011 Article 285), designed for indoor and outdoor applications. Engineered for both AC and DC electrical systems, they provide protection to service panels, load centers or electronic devices that are directly connected to a MidNite Surge Protection Device (SPD).

MidNite's SPDs are offered in four models to protect a variety of different voltage ranges. They achieve this protection by clamping surge voltage to a level that your system can sustain without damaging the components of the system.

Compare our SPDs against other surge protection devices. You will see there is no comparison in both our price and features. All our SPDs are made in the USA and have a 5 year warranty.

With lightning you only get one chance, so get the best!

MNSPD300ACFM (Cut-in box)
(MNSPD-300-AC included)

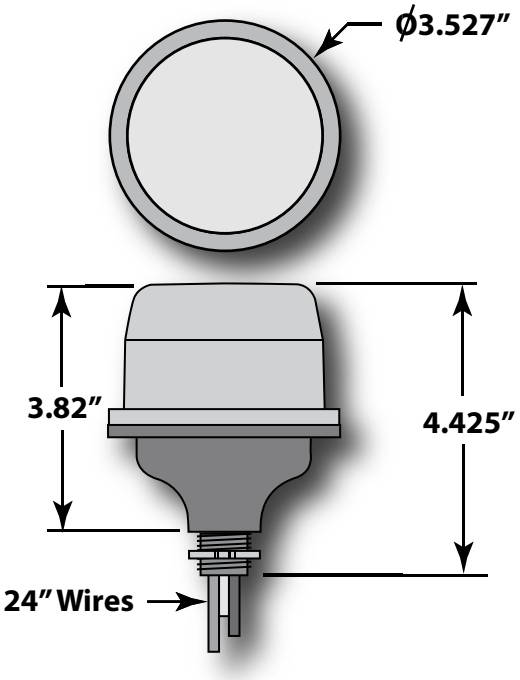
Four Models:

MNSPD-115
MNSPD-300-AC
MNSPD-300-DC
MNSPD-600

www.midnitesolar.com/spd
17722 67th Ave. NE., Arlington, WA. 360-403-7207 FAX: 360-691-6862

MidNite Surge Protection Devices

PART NO.	MNSPD-115	MNSPD-300-AC	MNSPD-300-DC	MNSPD-600
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)	470V (423-517)	780V (702-858)
Clamp Voltage @ 100A Current 8/20 µs	295V	775V	775V	1290V
Energy Absorption In Joules	1120 J (Full Device) 560 J (Each Section)	3130 J (Full Device) 1560 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	Off-grid 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	MNSPD-115, MNSPD-300-AC and MNSPD-300-DC LED indicates when voltage is present between L1+Ground and L2+Ground MNSPD-600 LED indicates when voltage is present between L1+L2 (PV + PV-)			
Thermal Disconnector - Internal Fuse				
Response time	<1 micro sec.			



Performance	
Surge Current Rating per Phase	57kA
Short Circuit Current Rating	115kA
T-MOVs	8
Fusing	Individually fused MOVs
Thermal Fusing	Yes
Over current Fusing	Yes
Operating Frequency	0 to 60 Hz
Mechanical Description	
Enclosure	Polycarbonate UL94V-0
Environmental Rating	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 Electromangetic Interference (EMI) Filters, Fourth Edition	

Model No.	Max Operating Voltage	Surge Current per Phase	Configuration	MCOV	SCCR	VPR 600V/3kA L_G
MNSPD-115	90VAC/115VDC	57kA	1Ø, 3-wire (2 Legs)	180V L-N	115kA	330V
MNSPD-300-AC	250VAC	57kA	1Ø, 3-wire (2 Legs)	470V L-N	115kA	880V
MNSPD-300-DC	300VDC	57kA	1Ø, 3-wire (2 Legs)	470V L-N	115kA	880V
MNSPD-600	485VAC/600VDC	57kA	1Ø, 3-wire (2 Legs)	780V L-N	115kA	1500V

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