

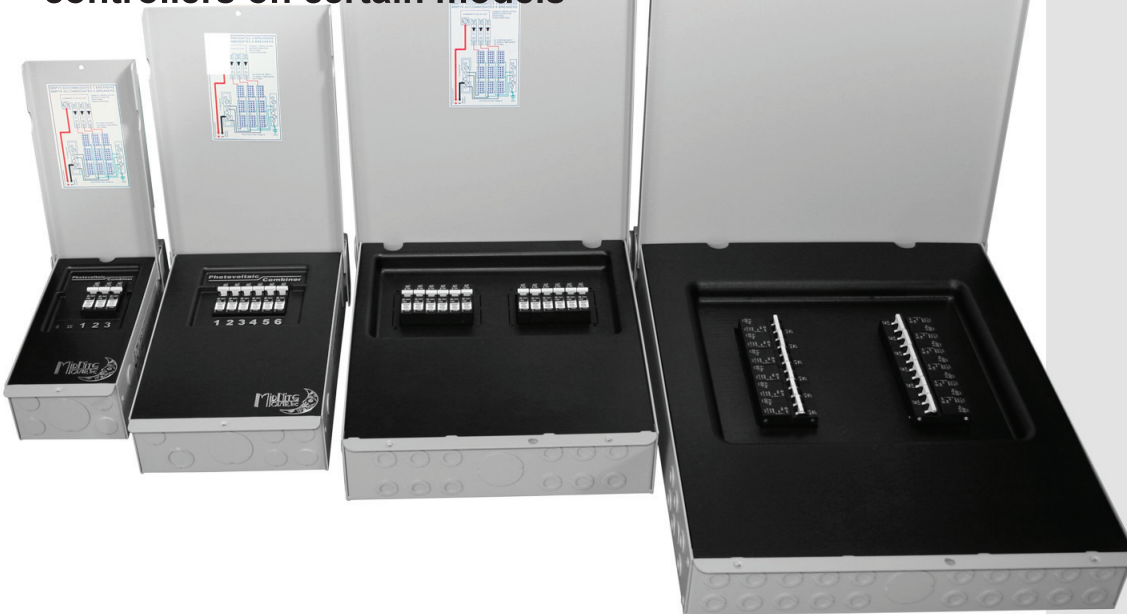
MIDNITE SOLAR INC.

PV COMBINERS

MidNite Solar offers a range of PV Transition Boxes and Combiners from our MNPV3 to the MNPV10 1000 volt to the MNPV8-MC4 Pre-Wired Combiner!

This range of combiners accommodates PV systems as small as a two string off grid cabin up to 12 strings for a 50KW commercial grid tie inverter. The MNPV series of combiners are the result of 20 years of design and manufacturing experience in the renewable energy industry. Each unit has the same quality features such as:


- Aluminum rainproof type 3R enclosure
- Internal plastic injection molded dead front covers
- Knock outs that accept waterproof strain reliefs, conduit or panel mount MC type connectors
- Knock outs for lightning arrestors
- Uses 150VDC & 300VDC breakers or 1000VDC fuses depending on model number
- ETL listed to UL1741 for use in the US and Canada
- Adaptable for two separate inverters or charge controllers on certain models

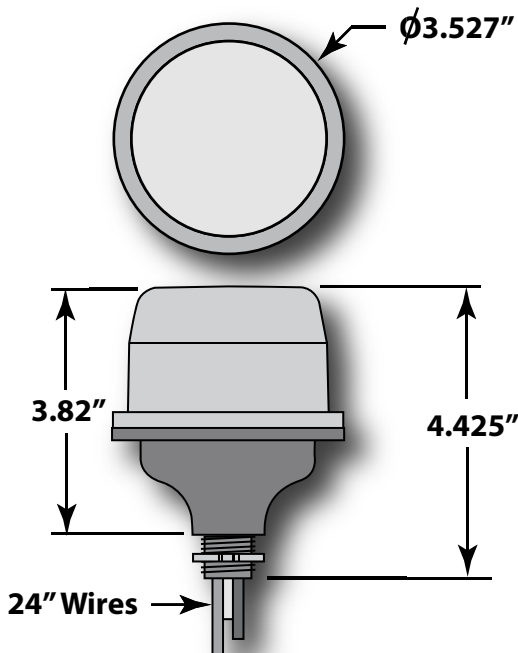


www.midnitesolar.com
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MidNite Surge Protection Devices

PART NUMBER	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 480 VAC 0 to 600 VDC
MCOV	180V	470V	470V	780V
VPR Line to Ground	600V	1200V	1200V	1800V
Suggested Placement	Up to 90VAC circuits, 12V, 24V, 48VDC 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
Type	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1
Diagnostic Blue LED	MNSPD-300-AC LED indicates when voltage is present between L1 + ground and L2 + ground MNSPD-115, MNSPD-300-DC and MNSPD-600: LED indicates when voltage is present between L1 + L2 (PV+ PV-)			
Thermal Disconnect	Internal Fuse			
Response Time	<1 micro sec.			



Performance

Surge Current Rating per Phase	80kA
Short Circuit Current Rating	10kA

Fusing	Individually fused MOVs
Thermal Fusing	Yes
Over current Fusing	Yes
Operating Frequency	0 to 500 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-Forth 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
MNSPD-115	100VAC/150VDC	80kA	1 ϕ , 3-wire (2 Legs)	180V L-N	10kA	600V
MNSPD-300-AC	300VAC	80kA	1 ϕ , 3-wire (2 Legs)	470V L-N	10kA	1200V
MNSPD-300-DC	385VDC	80kA	1 ϕ , 3-wire (2 Legs)	470V L-N	10kA	1200V
MNSPD-600	480VAC/600VDC	80kA	1 ϕ , 3-wire (2 Legs)	780V L-N	10kA	1800V