

BDM-500 MACROINVERTER

Features



• High continuous output power up to 500Wac, recommended for max 750W solar panel



• High efficiency with 95.5% CEC



• Globally certified, UL1741, SAA, TUV, VDE-AR-N 4105, VDE 0126, G83/2, CEI 021, IEC61727, EN50438, ABNT NBR 16149/16150



• Integrated grounding and AC cable for easy installation



• NEMA-6/IP-66/IP-67 enclosure rating



• MC4 and TS4 DC input connector options



• Can connect with BDM-300, BDM-250 and BDM-300X2



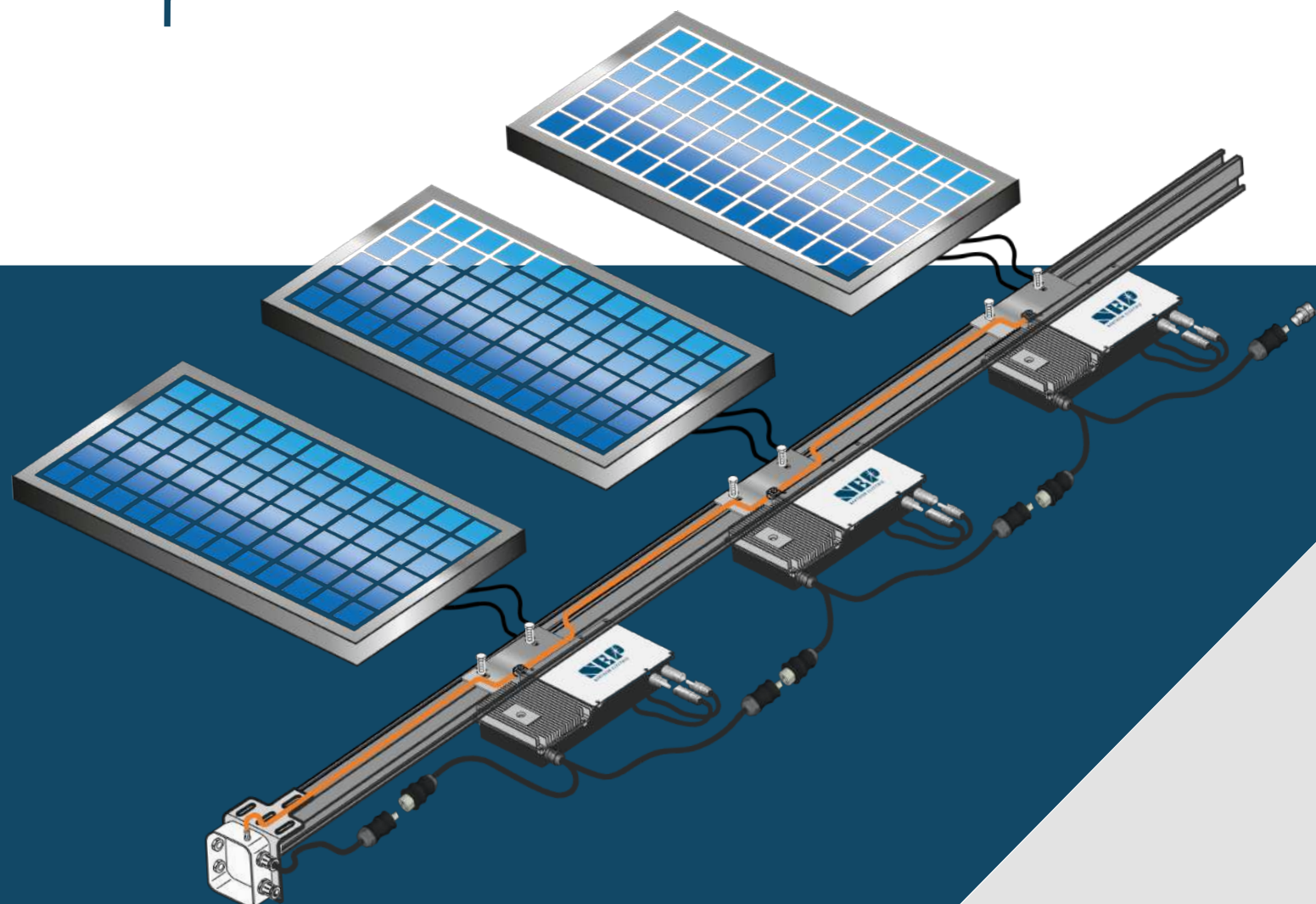
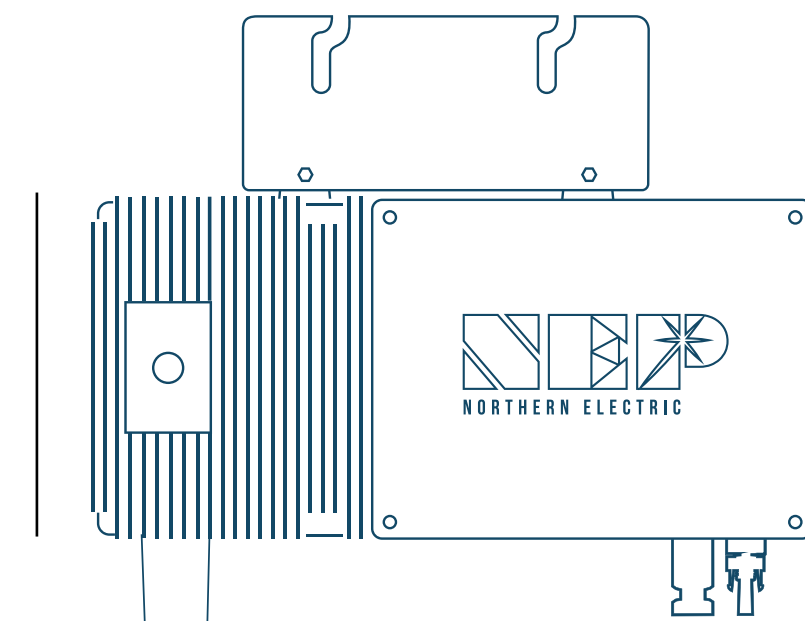
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10.91"

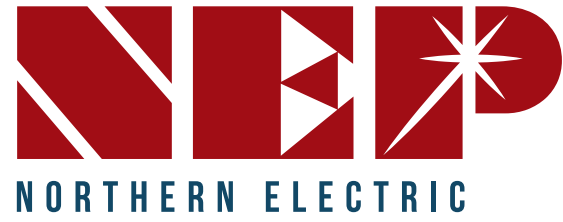
1.97"

5.20"



Important product information

- NEP is committed to developing Cooperative for Assistance and Relief Everywhere (CARE) products for our customers worldwide.
- NEP microinverters have an isolation transformer and basic isolation between the DC input and the AC output network.



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* Grid parameters are configurable through a BDG-256 or BDG-256P3 gateway
 * All NEC required adjustment factors have been considered for AC outputs. AC current outputs will not exceed stated values for Rated Output AC Current

COMPLIANCE

*NEC 2014 Section 690.11 DC Arc-Fault Circuit Protection
 *NEC 2017 Section 690.12 Rapid Shutdown of PV Systems on Buildings
 *NEC 2020 Section 705.12 Point of Connection (AC Arc-Fault Protection)

INPUT(DC)	Max Recommended PV Power (Wp)	750		
Max DC Open Circuit Voltage (Vdc)	60			
Max DC Input Current (Adc)	20			
MPPT Tracking Accuracy	>99.5%			
MPPT Tracking Range (Vdc)	22 - 55			
Isc PV (absolute maximum) (Adc)	25			
Maximum Inverter Backfeed Current to the Array (Adc)	0			
OUTPUT (AC)	Rated AC Output Power (Wp)	500		
Nominal Power Grid Voltage (Vac)	240	208	230	
Allowable Power Grid Voltage (Vac)	211-264*	183-229*	180-270*	
Allowable Power Grid Frequency (Hz)	59.3 a 60.5†			
THD	<3% (at rated power)			
Power Factor (cos phi, fixed)	>0.99 (at rated power)			
Rated Output Current (Aac)	2.08	2.40	2.17	
Current (inrush)(Peak and Duration)	24A, 15us			
Nominal Frequency (Hz)	60	50		
Maximum Output Fault Current (Aac)	4.4A peak			
Maximum Output Overcurrent Protection (Aac)	10			
Maximum Number of Units Per Branch (20A) (All NEC adjustment factors have been considered)	7	6	6	
SYSTEM EFFICIENCY	Weighted Averaged Efficiency (CEC)	95.50%		
Night Time Tare Loss (Wp)	0.11			
PROTECTION FUNCTIONS	Over/Under Voltage Protection	Yes		
	Over/Under Frequency Protection	Yes		
	Anti-Islanding Protection	Yes		
	Over Current Protection	Yes		
	Reverse DC Polarity Protection	Yes		
	Overload Protection	Yes		
	Protection Degree	NEMA-6 / IP-66 / IP-67		
	Ambient Temperature	-40°F to +149°F (-40°C to +65°C)		
	Operating Temperature	-40°F to +185°F (-40°C to +85°C)		
	Display	LED LIGHT		
	Communications	Power Line		
	Dimension (W-H-D)	10.91"x5.20"x1.97"(277x132x50 mm)		
	Weight (including AC cable)	8.8 lbs. (4.0 kg)		
	Environment Category	Indoor and outdoor		
	Wet Location	Suitable		
	Pollution Degree	PD 3		
	Overvoltage Category	II(PV), III (AC MAINS)		
Product Safety Compliance	UL 1741	CSA C22.2	No 107.1	
Grid Code Compliance* (Refer to the label for the detailed grid code compliance)	IEEE 1547			