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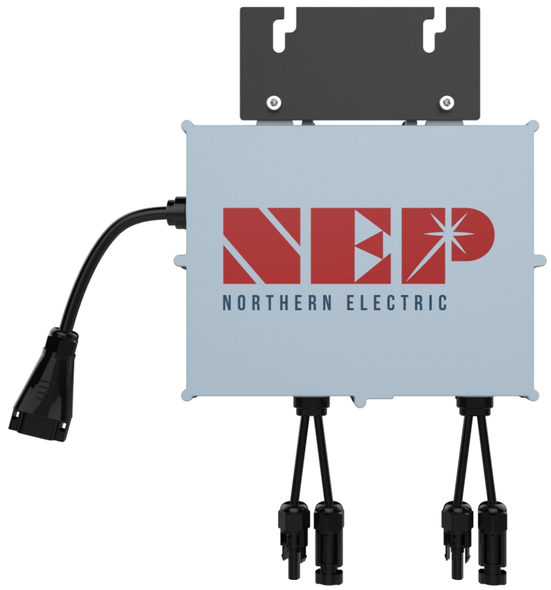
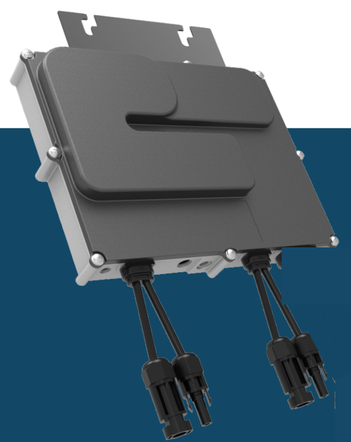
NORTHERN ELECTRIC

BDM-650 MICROINVERTER



Features

- US.California Rule 21 Certified
- Low cost $/watt micro inverter
- High continuous output power up to 639 Wac, recommended for dual max 500W solar panel
- High efficiency with 96.5% CEC
- Globally certified for UL1741, SAA, TUV, VDE-AR-N 4105, VDE 0126, G83/2, CEL 021, IEC61727, EN50438, TOR Erzeuger Typ A
- Integrated grounding for easy installation
- NEMA-6/IP-66/IP-67 enclosure rating
- Integrated monitoring and power line communication with BDG-256 gateway
- Can connect with BDM-1600,DM-1000, BDM-600 (aka BDM-300X2), BDM300 and BDM-250



RECOGNIZED COMPONENT
Intertek
5001133

SAA
152167

Important product information

- NEP is committed to developing Clean, Affordable, Reliable and Efficient (CARE) products for our customers worldwide.
- NEP microinverters have an isolation transformer and basic isolation between the DC input and the AC output network.

Ver: 2021-04

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BDM-650
MICROINVERTER

INPUT(DC)	Recommended Max PV Power (Wp)	500 * 2	
	Max DC Open Circuit Voltage (Vdc)	60	
	Max DC Input Current (Adc)	15.2	
	MPPT Tracking Accuracy	>99.5%	
	MPPT Tracking Range (Vdc)	22-55	
	Isc PV (absolute maximum) (Adc)	20*2	
	Maximum Inverter Backfeed Current to the Array (Adc)	0	
OUTPUT (AC)	Peak AC Output Power (Wp)	650	
	Rated AC Output Power (Wp)	639	639
	Nominal Power Grid Voltage (Vac)	240	208
	Allowable Power Grid Voltage (Vac)	211 - 264*	183-228*
	Allowable Power Grid Frequency (Hz)	59.3-60.5*	
	THD	>3% (at rated power)	
	Power Factor (cos phi, fixed)	-0.99>0.9 (adjustable)	
	Rated Output Current (Aac)	2.66	3.07
	Current (inrush)(Peak and Duration)	9.4A, 15us	
	Nominal Frequency (Hz)	60	
	Maximum Output Fault Current (Aac)	9.6A peak	
	Maximum Output Overcurrent Protection (Aac)	20	
	Maximum Number of Units Per Branch (20A) (All NEC adjustment factors have been considered)	6	5
SYSTEM EFFICIENCY	Weighted Averaged Efficiency (CEC)	96.5 %	
PROTECTION FUNCTIONS	Night Time Tare Loss (Wp)	.11	
	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	
	Comunications	Power Line	
	Dimension (W-H-D)	8.8"x8.2"x1.38" (268x250x42 mm)	
	Weight	6.4 lbs. (2.9 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	IEC/EN 62109-1 IEC/EN 62109-2
	Grid Code Compliance* (Refer to the label for the detailed grid code compliance)	IEEE 1547	VDE-AR-N 4105* VDE V 0126-1-1/A1 G83/2, CEI 021 AS 4777.2 & AS 4777.3,EN50438 ABNT NBR 16149/16150

* 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 2020 Section 690.11 DC Arc-Fault Circuit Protection
*NEC 2020 Section 690.12 Rapid Shutdown of PV Systems on Buildings
*NEC 2020 Section 705.12 Point of Connection (AC Arc-Fault Protection)
***Rule-21 Certified**
***HECO Certified**
***UL1741 SB**