



BDH-800

User Manual



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2. Safety



Caution!

1) Danger of burn injuries due to hot enclosure parts!

During operation, the upper lid of the enclosure and the body may become hot. Only touch the lower enclosure lid during operation.

2) Comply with the local requirements for grounding the PV modules.

3) Do not stay closer than 20 cm to the inverter for any length of time.

4) All operations regarding transport, installation and start-up.

Including maintenance must be operated by qualified, trained personnel and in compliance with all prevailing codes and regulations.



Warning!

1) Ensure input DC voltage/current \leq Max. DC voltage/current

Over voltage/current may/cause permanent damage to inverter or other losses, which will not be included in warranty!

2) Do not operate the inverter when the device is running

3) High leakage current!

Earth connection essential before connecting supply

4) Prior to installation, inspect the unit to ensure absence of any transport or handling damage, which could affect insulation integrity or safety clearances; failure to do so could result in safety Hazards

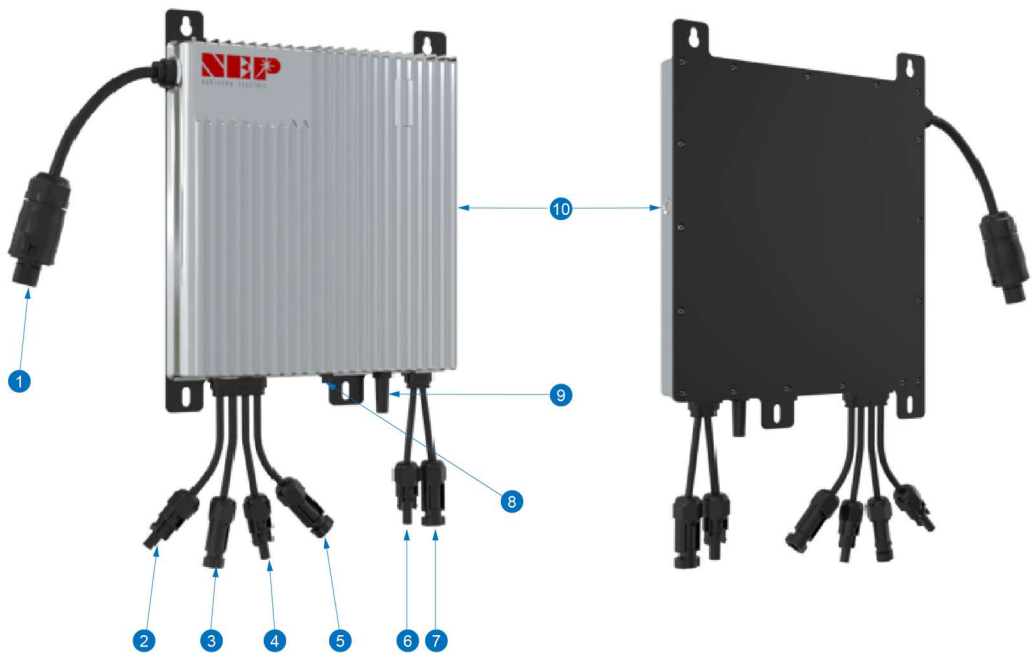
3. System introduction

The BDH800 micro-hybrid inverter is a powerful and efficient way to power your home. It is also incredibly reliable, with robust construction and advanced safety features. It can be installed on the balcony of apartments, making it a convenient and space-saving solution for power needs.

It can be used in conjunction with a battery to store excess energy generated during the day. This energy can then be released to power home loads for later use, helping you to save money on your energy bills.

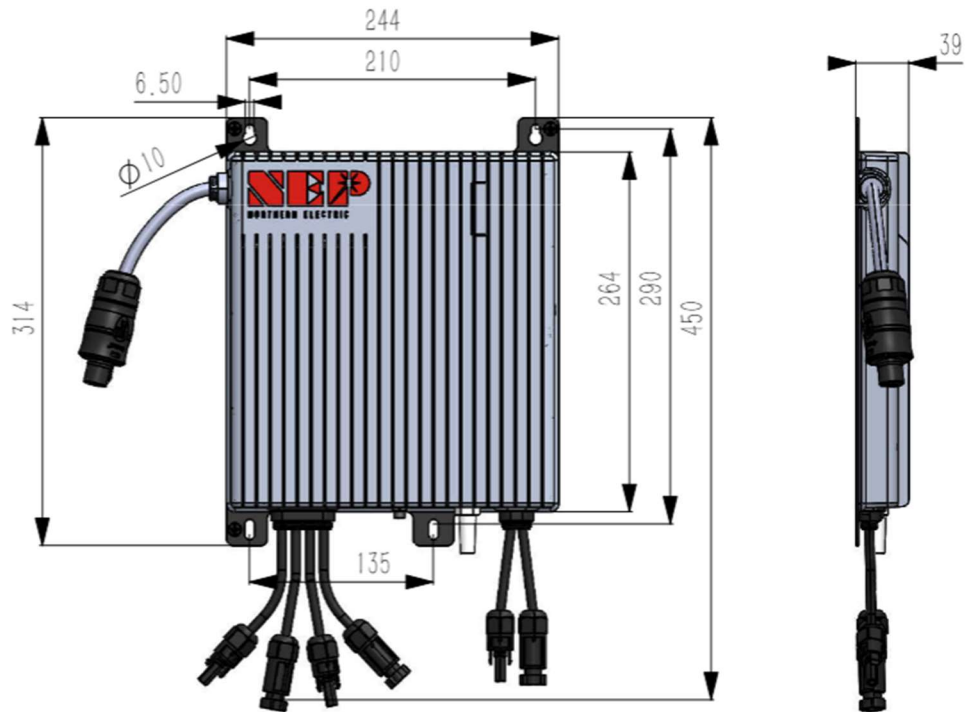


3.1. Product description

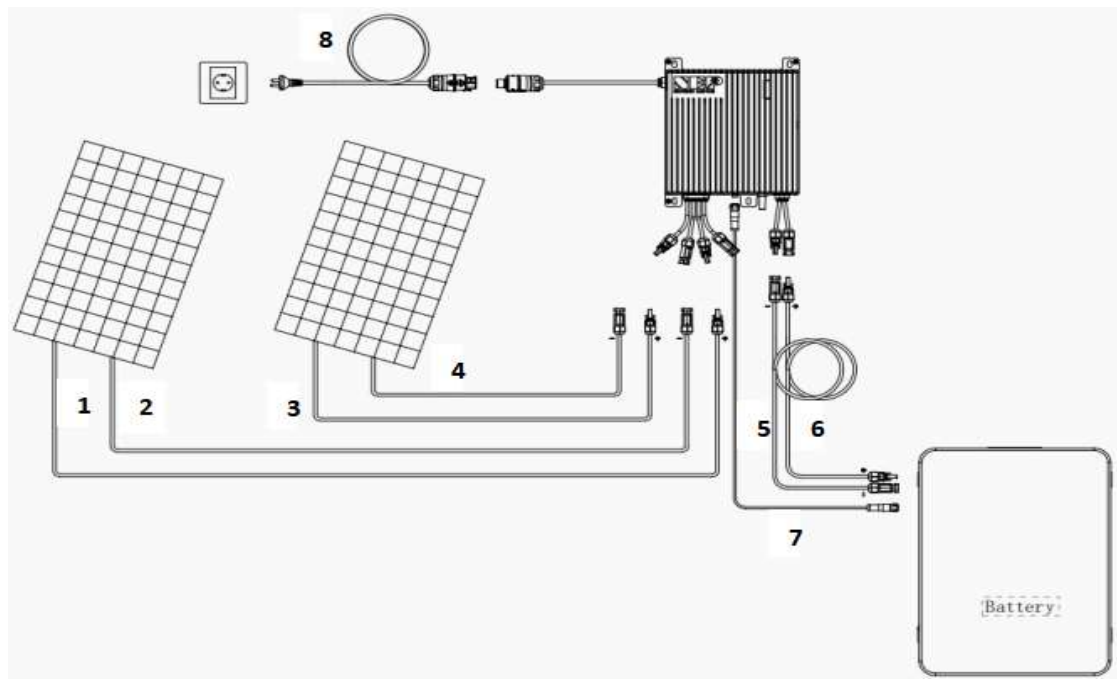


1	AC pigtail cable
2	PV 1(-)
3	PV 1(+)
4	PV 2(-)
5	PV 2(+)
6	Battery (-)
7	Battery (+)
8	CAN communication port
9	WIFI bar
10	Indicator

3.2. Product dimension(mm)

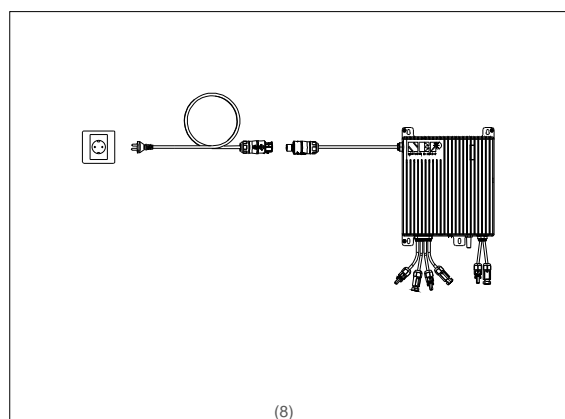
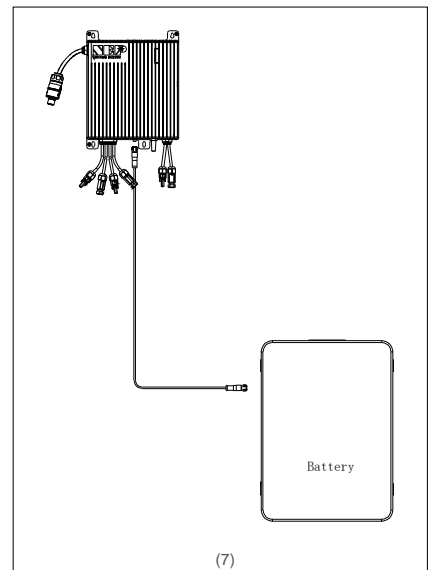
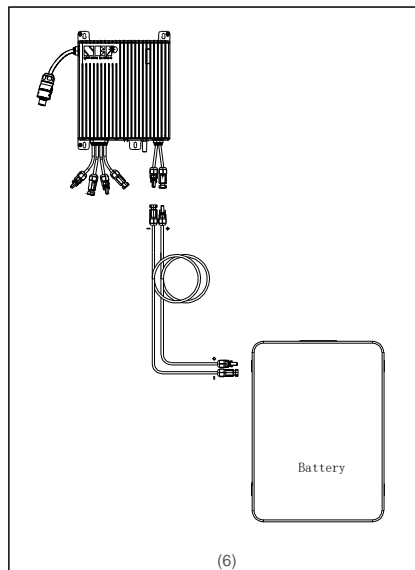
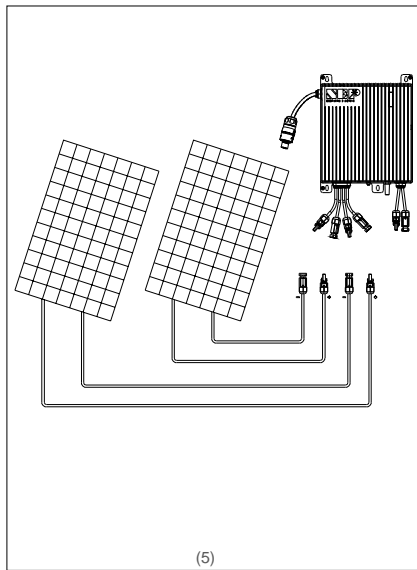
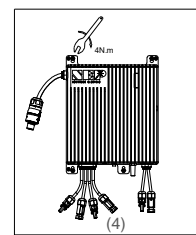
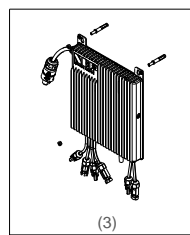
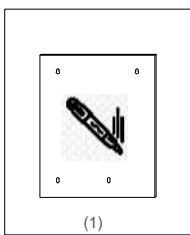


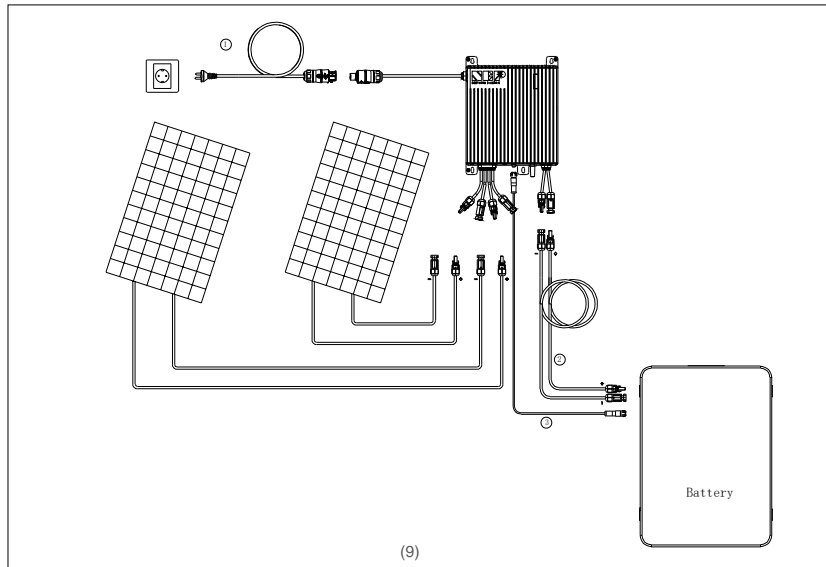
3.3. Wiring



NO.	Wiring
1	PV1 DC+
2	PV1 DC-
3	PV2 DC+
4	PV2 DC-
5	Battery DC-
6	Battery DC+
7	Battery Communication: CAN bus
8	AC Extension Cable

3.4. Installation





4. Running status

The Hybrid micro inverter is powered on when sufficient DC voltage from the module is applied. The status LED will start flashing after sufficient DC power is applied as an indication that the micro inverter is live.

LED	Status	Meaning
Green Light Flashing every two seconds	Standby	OK
Red Light Flashing every two seconds	Standby	Error
Orange Light Flashing every two seconds	Standby	no communication
Green Light Flashing every one second	Producing	Standby
Red Light Solid	Producing	Grounding Fault
Orange Light Flashing every one second	Producing	no communication

5. Troubleshooting an inoperable BDH micro inverter

To troubleshoot an inoperable micro inverter, follow the steps in the order shown:

- 1) Check the connection to the utility grid. Verify that the utility voltage and frequency are within allowable ranges shown in the label of micro inverter.
- 2) Verify utility power is present at the inverter in question by removing AC, then DC power. Never disconnect the DC wires while the micro inverter is producing power. Re-connect the DC module connectors, and then watch for the LED blinks.
- 3) Check the AC branch circuit interconnection harness between all the micro inverter. Verify that each inverter is energized by the utility grid as described in the previous step.

- 4) Make sure that any AC disconnects are functioning properly and are closed.
- 5) Verify the PV module DC voltage is within the allowable range shown in the label of micro inverter.
- 6) Check the DC connections between the micro inverter and the PV module.
- 7) Check the DC connections between the micro inverter and the Battery.
- 8) Check the communication cable between the micro inverter and the Battery.
- 9) If the problem persists, please call customer support at NEP.

6. Specification

PV Input PV		
Recommended. PV Module	W	600 * 2
MPPT Voltage Range	V	22-55
Startup Voltage	V	24
Max. Input Voltage	V	60
Max. DC Short Circuit Current	A	20 * 2
PV Overvoltage Protection Category		II
AC Output (On grid)		
Max. Continuous AC Output Power	VA	800
Rated AC Output Voltage	V	230
Max. Continuous Output Current	A	3.48
Nominal Frequency	Hz	50 / 60
Power Factor @ full load		>0.99 (at full load)
THD @ rated power		<3%(at rated power)
AC Overvoltage Protection Category		III
Max. efficiency	%	97.30%
DC Output (Battery)		
Battery Type		LFP
Battery Voltage	Vdc	40 ~ 60
Max Charge / Discharge current	A	30 / 20
Max Charge / Discharge power	W	1000 / 1000
Others		
Operating Ambient Temperature Range	°C	-40 ~+65
Relative Humidity Range		0-100%
Communications		WIFI
Protection Class		IP65
Cooling		Natural convection
Dimension	D-W-H mm	315*244*39