



# Battery-Box Premium LV BMU - IP55 Instruction Manual

V1.1

## VALIDITY

This document is valid for the Battery-Box Premium LV BMU - IP55 (Battery Management Unit) ("BMU") from firmware version 1.11.

## INTENDED USE

BMU is applicable for the BYD Battery-Box Premium LV system(s) (LVS 4.0, LVS 8.0, LVS 12.0, LVS 16.0, LVS 20.0, LVS 24.0 and LVL 15.4) ("**Battery-Box**"), and works as a control unit for the system(s).

## PRODUCT DESCRIPTION

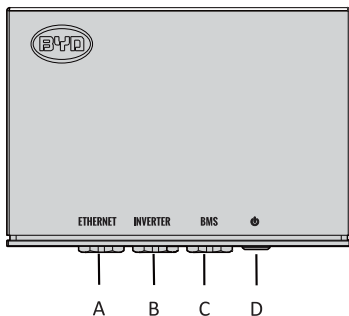
BMU is equipped with a WLAN interface as a standard. The APP Be Connect could communicate with BMU through the WLAN.



Be Connect



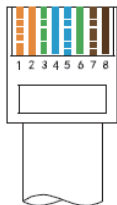
The WLAN name and code are on the label of BMU.



- A: Ethernet port
- B: RJ45 port for connection with an inverter
- C: RJ45 port for connection with Battery-Box
- D: Stop button and status LED



## Assignment of Port B



| No. | Assignment |
|-----|------------|
| 1   | 485-A      |
| 2   | 485-B      |
| 3   | Unused     |
| 4   | CAN H      |
| 5   | CAN L      |
| 6   | Unused     |
| 7   | Unused     |
| 8   | Unused     |

## SCOPE OF DELIVERY

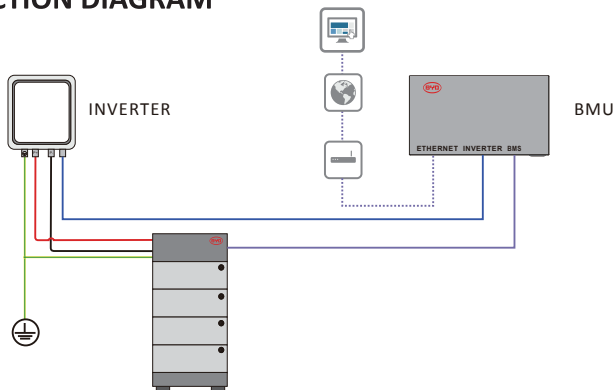
- 1×BMU
- 1×Instruction Manual
- 3×Connectors
- 1×Hanger

## TECHNICAL DATA

|                                                     |                     |
|-----------------------------------------------------|---------------------|
| Communication                                       | Ethernet/CAN/RS 485 |
| Input voltage*                                      | 40-60 V             |
| Input current                                       | 200 mA              |
| Weight                                              | 2 kg                |
| Dimensions (L×W×H)                                  | 222 mm×154 mm×59 mm |
| Ambient temperature in operation                    | -10°C to 50°C       |
| Relative humidity (non-condensing)                  | 5% to 95%           |
| Degree of protection (in accordance with IEC 60529) | IP55                |

\*BMU is powered by Battery-Box through the network cable. No other power supply is needed.

# CONNECTION DIAGRAM

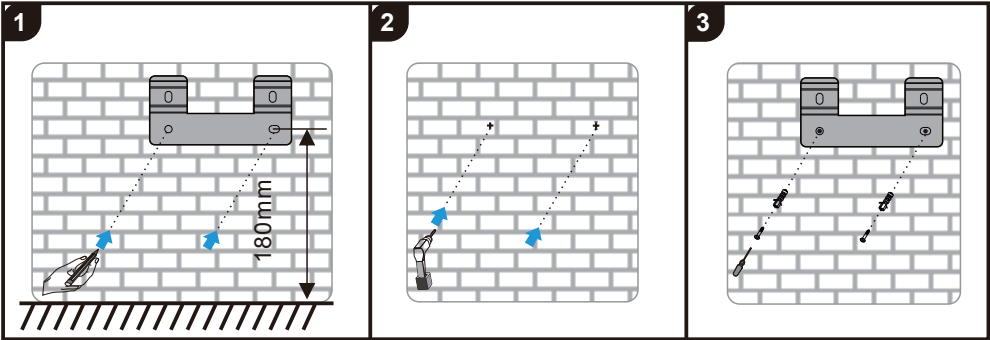


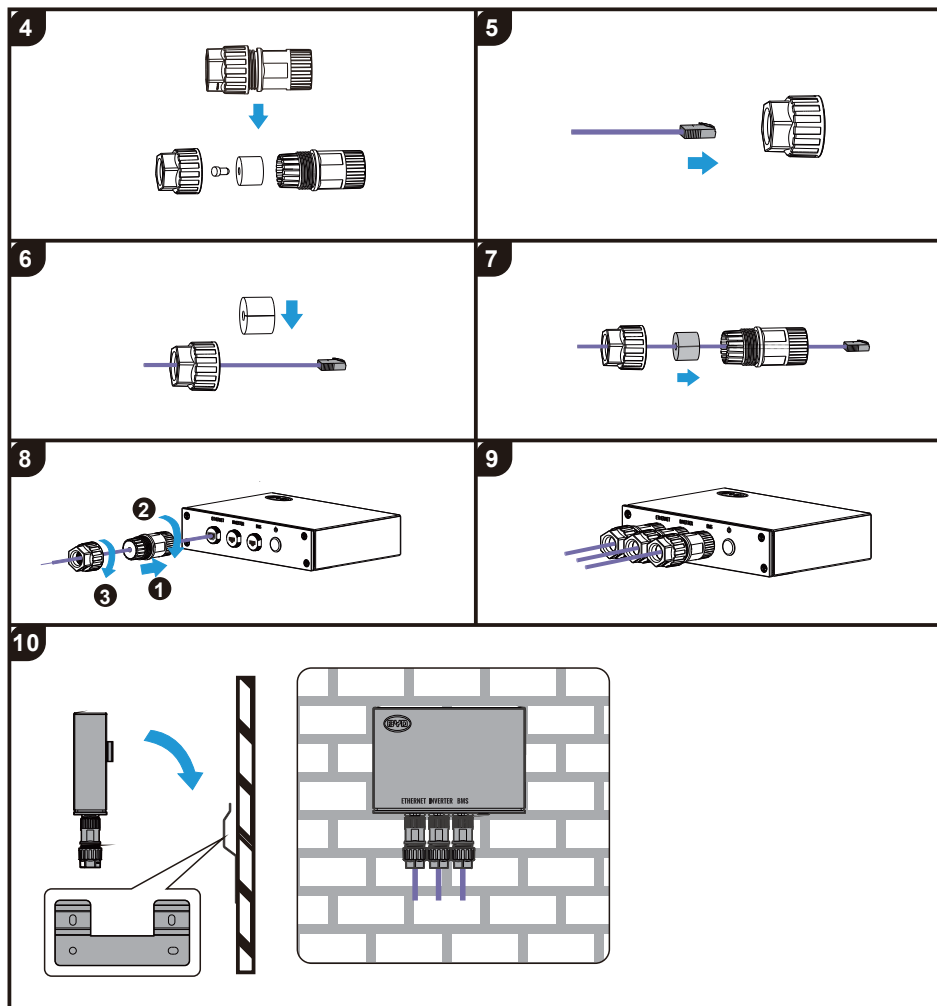
|       | BMU | SMA | STUDER | VICTRON | SELECTRONIC | SOLAREDGE | GOODWE | SUNGROW | SCHNEIDER | SOLIS |
|-------|-----|-----|--------|---------|-------------|-----------|--------|---------|-----------|-------|
| CAN H | 4   | 4   | 4      | 7       | 1           | 4         | 4      | 4       | 14        | 4     |
| CAN L | 5   | 5   | 5      | 8       | 2           | 5         | 5      | 5       | 12        | 5     |

1. Detailed connection instructions with inverters could be read in the Battery-Box LVL/LVS Quick Start Guide.
2. The communication cable between BMU and an inverter cannot be longer than 10 meters. And the cable should be CAT 5 shield or above.
3. Please make sure the correct pins are connected between BMU and an inverter.
4. The connection between BMU and Battery-Box should be the Straight-Through Wired Cable.
5. Connected to the Internet is highly recommended.

# MOUNTING AND CONNECTION

Install BMU on the wall or a rack. The recommended expansion screw size is M6×12. The minimum distance from the ground is 180 mm.





## COMMISSIONING

1. Make sure an inverter, Battery-Box, and BMU are correctly connected.
2. Press the Start Button on Battery-Box for 3 seconds.
3. Refer to Battery-Box Premium LVL/LVS Operating Manual for further steps.

## UPDATING FIRMWARE

The firmware of BMU could only be updated when it operates with Battery-Box. Please refer to Battery-Box Premium LVL/LVS Operating Manual for further information.



## LED STATUS

Flashing white and blue alternatively

White ☐ ON  
OFF

Blue ☒ ON  
OFF



The battery system is initiating.

Glowing white

White ☐ ON  
OFF

Blue ☒ ON  
OFF

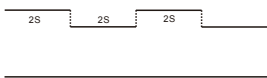


Idle (the battery system is neither charging nor discharging).

Flashing white slowly

White ☐ ON  
OFF

Blue ☒ ON  
OFF

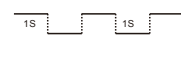


The battery system is charging.

Flashing white quickly

White ☐ ON  
OFF

Blue ☒ ON  
OFF



The battery system is discharging.

Flashing white and glowing blue

White ☐ ON  
OFF

Blue ☒ ON  
OFF

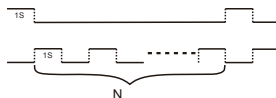


The battery system is discharging, and the SOC of Battery-Box is below 15%.

Flashing white and blue

White ☐ ON  
OFF

Blue ☒ ON  
OFF



An error has occurred. \*\*

\*\* The definition of the error codes could be found in Battery-Box Premium LVL/LVS Operating Manual.

## DISPOSAL

Dispose of BMU following the locally applicable disposal regulations for electronic waste.



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## CONTACT

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[https://twitter.com/BYD\\_BatteryBox](https://twitter.com/BYD_BatteryBox)

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