2026-09-09 / V1.5 / EN

# High Voltage Battery System

Battery-Box HVE 6.4, 8.5, 10.7, 12.8-1, 12.8-2, 15.0, 17.1-1, 19.2,17.1-2, 19.3, 21.4, 23.5



## Quick Start Guide

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## *Disclaimer*

### 1. Target Group

Instructions in this document may only be performed by qualified personnel with the following skills:
- Understand how batteries work and operate.
- Understand the working principle and operation method of the inverter.
- Know and comply with locally applicable connection requirements, standards and directives.
- Understand and follow this document and related system documentation, including all safety instructions.
- Training to handle hazards associated with the installation and operation of electrical equipment and batteries.
- Training on installation and commissioning of electrical equipment.
- For personnel engaged in special scenarios such as working at height or operating special equipment, they must be qualified by the local country or region.
- When installing ≥ 3 modules, tools (lifting devices or ladders) must be used for installation.

### 2. Firefighting measures

#### 2.1 Extinguishing media

- **Small fire** Sand, carbon dioxide ($CO_2$), Foam extinguisher
- **Large fire** Foam extinguisher

#### 2.2 Fire precautions and protective measures

| | |
|---|---|
| **Flammable properties** | Lithium ion batteries contain flammable liquid electrolyte that may vent,ignite and produce sparks when subjected to high temperature ( > 150℃),when damaged or abused (e.g.,mechanical damage or electrical overcharge). Burning cells can ignite other batteries in close proximity. |
| **Explosion data** | Extreme mechanical abuse will result in rupture of the batteries. Throw into the fire will result in burning. |
| **Special protective equipment for firefighters** | In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. |
| **NFPA** | Health:0 Flammability:1 Instability:0 |

## Configure the Battery System

Through the APP, you can realize intelligent battery management, including remote data monitoring, firmware upgrade and troubleshooting.

- **Android users:** Search for "BYD Energy" on Google Play or scan Android QR code to download and install.
- **iPhone users:** Search for "BYD Energy" in the App Store or scan iOS QR code to download and install.

Android

iOS

Before configuring the battery system, please confirm that the BCU firmware is the latest version. If not, perform the firmware update on BYD Energy App first.

Configuration steps:

Download → Login/Register → Add Device → Bluetooth Connection /Networking → Enjoy

For detailed configuration steps, please refer to the user manual and APP instructions, Website: www.bydenergy.com.

## Requirements for Installation

### 1. Tools & Additional Accessories (*not included in the scope of delivery*)



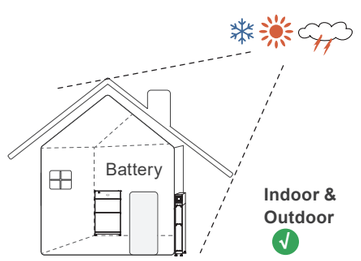

DC Cable 10AWG / 6mm² Ø:5.2-6mm | RJ45 Connector | Data Cable CAT5E Ø:5-6mm | OT Terminal 6mm²-M5 | PE 10AWG / 6mm² | Heat shrink tube Ø:6-8mm

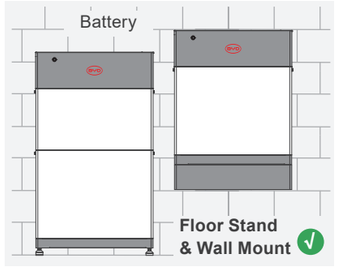
### 2. Safety Gear & Required Personnel



Insulated gloves | Goggles | Safety shoes | 2~3 qualified installers

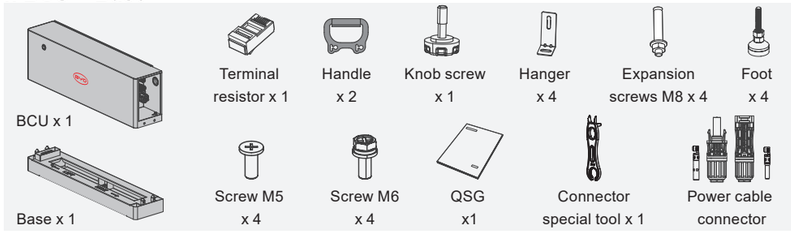
### 3. Installation Scene & Installation Mode



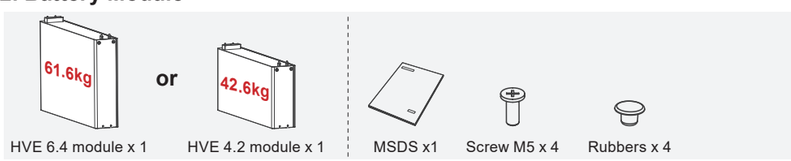

## Scope of Delivery

### 1. BCU + Base



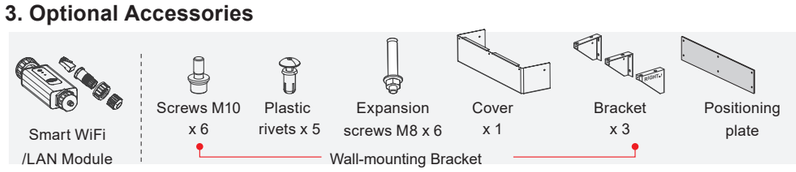
BCU x 1 | Base x 1 | Terminal resistor x 1 | Handle x 2 | Knob screw x 1 | Hanger x 4 | Expansion screws M8 x 4 | Foot x 4 | Screw M5 x 4 | Screw M6 x 4 | QSG x1 | Connector special tool x 1 | Power cable connector

### 2. Battery Module




HVE 6.4 module x 1 | HVE 4.2 module x 1 | MSDS x1 | Screw M5 x 4 | Rubbers x 4

### 3. Optional Accessories



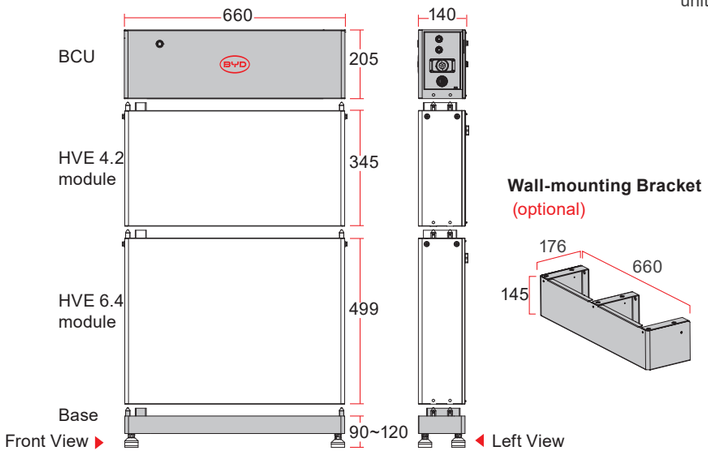
Smart WiFi /LAN Module | Screws M10 x 6 | Plastic rivets x 5 | Expansion screws M8 x 6 | Cover x 1 | Bracket x 3 | Positioning plate

Wall-mounting Bracket

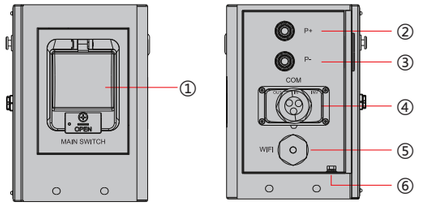
## Battery System Overview

### 1. Structure Dimension Drawing

unit:mm

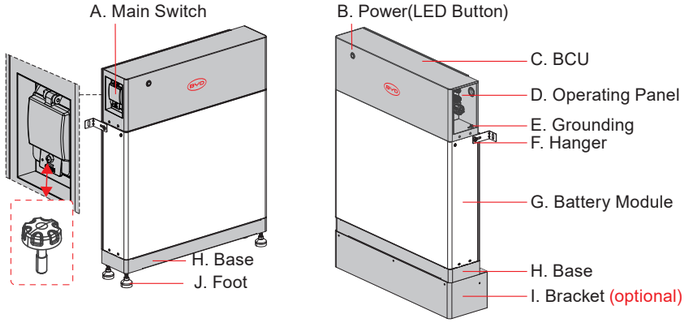



### 2. Functional Area Overview

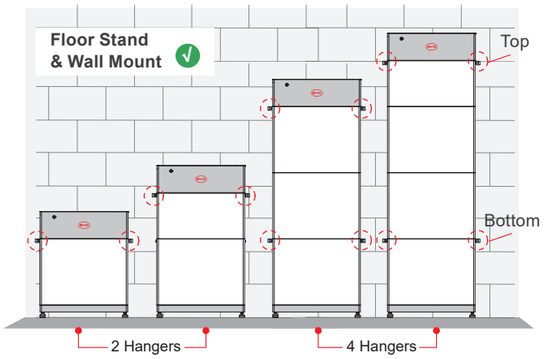



| No. | Description |
|---|---|
| ① | MAIN Switch |
| ② | P+ |
| ③ | P- |
| ④ | COM(INV / OUT / IN) |
| ⑤ | WIFI |
| ⑥ | Grounding |

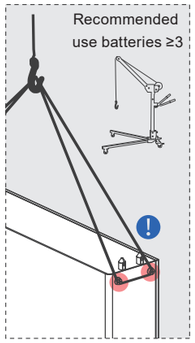
### 3. Battery System Description




### 4. Quantity and location of hanger



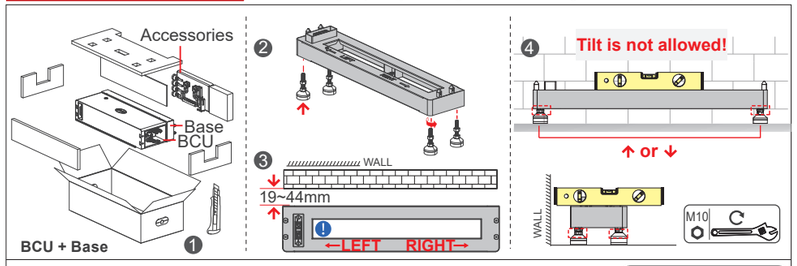

**Lifting Device Illustration**

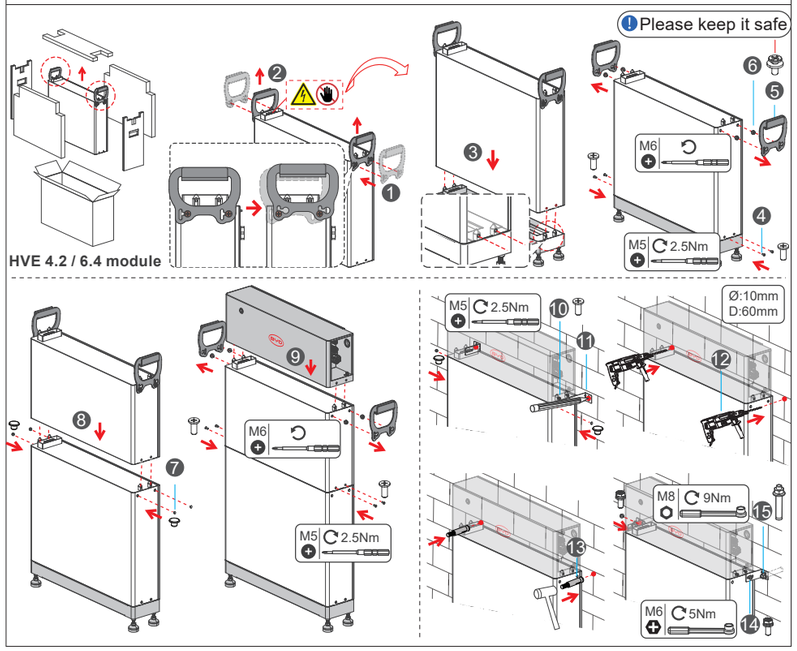



Please install on top and/or bottom battery!
When ≥ 3 modules are installed, 4 hangers must be used!

## Floor Installation

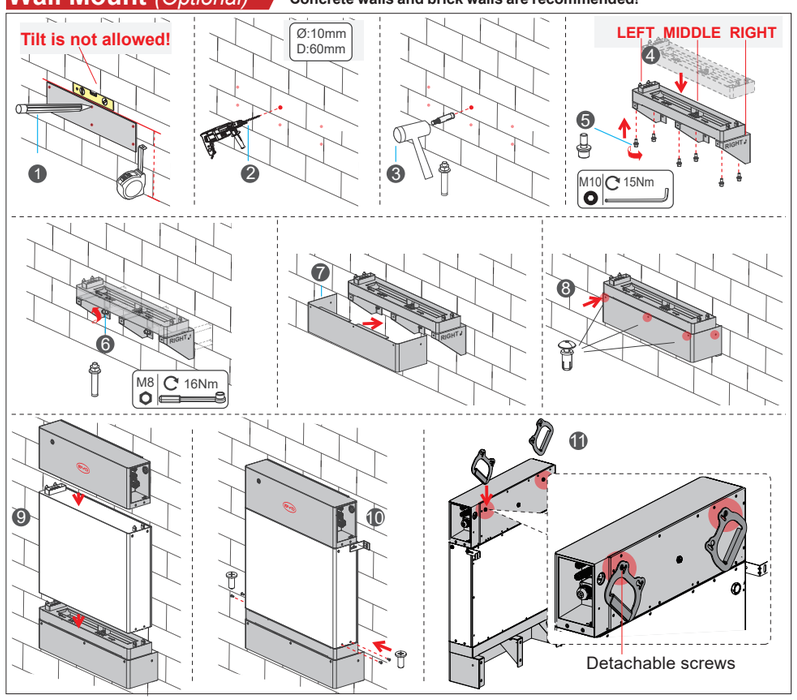
**The bearing capacity of the ground must be greater than or equal to 800kg/m²**



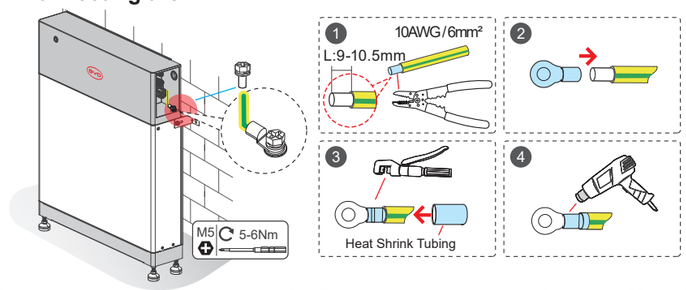

## Wall Mount *(Optional)*

**Concrete walls and brick walls are recommended!**



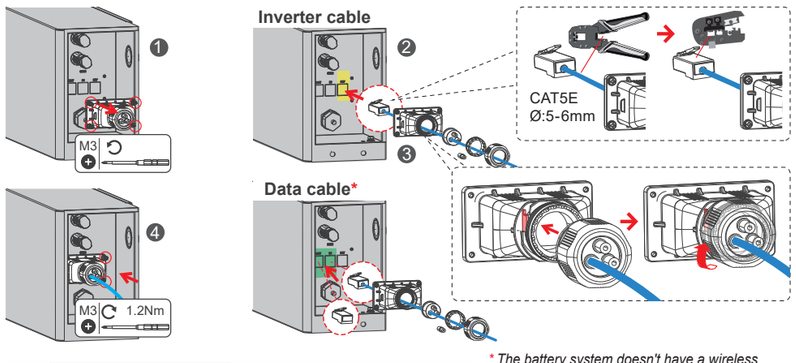

## Electrical Connection

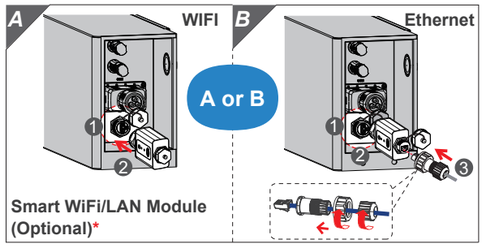
### 1. Connecting the PE




### 2. Connecting the Inverter cable, Data cable* and Smart Wifi/LAN Module*(Optional)

| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| INV | RS485A | RS485B | IGND | CAN_H | CAN_L | NC | PCS_EN+ | PCS_EN- |
| IN/OUT | Unused | Unused | Unused | Unused | Unused | Unused | CAN_L | CAN_H |



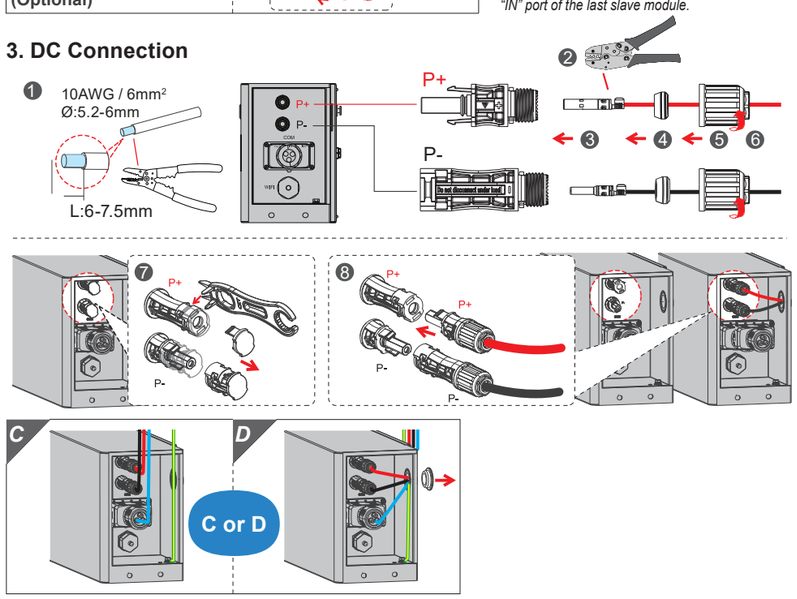




** The battery system doesn't have a wireless communication function. Through the USB, the battery system supports the expansion of connection with the Smart WiFi/LAN Module to implement the wireless function, and the Smart WiFi/ LAN Module had obtained individual cyber security certification in accordance with EN 18031 series.*

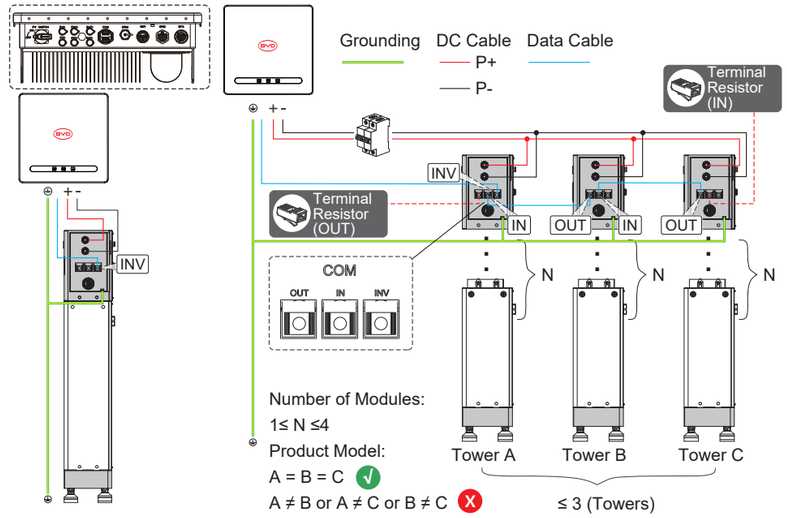
** Data Cable & terminal resistor are used for parallel connection.*

** Connect terminal resistor, Plug the terminal resistor into the "OUT" port of the master module and the "IN" port of the last slave module.*

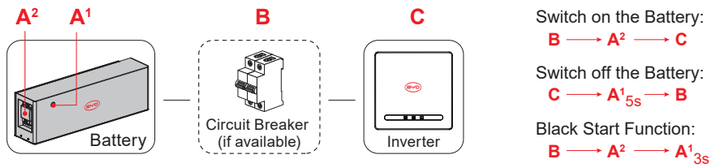
### 3. DC Connection




## Systems Connection




## Operation




**Please power on the system in the correct sequence; otherwise, it may cause circuit damage!**

## LED Signals

The specific logic of LED lights can be found in the Service Guideline and Checklist.
The LED light will turn off without any operation during the 12 hour normal operation.

| Indicator | Status | Description |
|---|---|---|
| Flashing white and blue alternatively | White ON/OFF 0.5s; Blue ON/OFF 0.5s | The battery system is initiating |
| Flashing white slowly | White ON/OFF 2s; Blue ON/OFF | The battery system is charging |
| White light flashing | White ON/OFF 1s; Blue ON/OFF | The battery system is discharging |
| Constant white | White ON/OFF; Blue ON/OFF | Idle (the battery system is neither charging nor discharging). |
| Constant blue | White ON/OFF; Blue ON/OFF | BCU failure |
| Blue light flashes a certain number of times | White ON/OFF; Blue ON/OFF N 2.5s 0.5s | Counting from top to bottom, flashing N times, represents the Nth battery module failure, N represents 1-4 battery modules |

## Connection Options with Inverters

**Connection with BYD**

