

EN-QSG Sept.-2025 Version1.4

# **High Voltage Battery System**

HVB 5.9, 8.9, 11.8, 14.8, 17.8, 20.7, 23.7, 26.7, 29.6 HVM+ 8.3, 11.0, 13.8, 16.6, 19.3, 22.1

HVS+ 5.1, 7.7, 10.2, 12.8

#### 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
- · 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.

#### 2. Firefighting measures

#### 2.1 Extinguishing media

• DRY POWDER, SAND, CARBON DIOXIDE (CO2)

#### 2.2 Fire precautions and protective measures

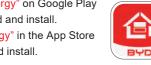
Flammable properties	Lithium ion batteries contain flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C), when damaged or abused (e.g.,mechanical damage or electrical overcharge). Burning cells can ignite other batteries in close proximity.	
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









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





# 2. Safety Gear & Required Personnel

Current input > 30A

Current input ≤ 30A

! ≥750V 10AWG / 6mm² Ø:5.2-6mm

8AWG / 10mm<sup>2</sup> Ø:6.5-7.5mm

Requirements for Installation

(OM10, M8)

Wrench



DC Cable

(Ø:10mm, D:55mm)

Drill





Data Cable

Cat.5e Ø:5-6mm

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

(YQK-70)

Hydraulic crimping plier

Gradienter Tape measure Rubber mallet Heat gun Network wire clamp Wire stripper Pen

OT Terminal



Heat Shrink Tubing

Ø:8-10mm

unit-mm

For HVS+ / HVM+ only

(♠M5 ♠M3) (♠M2.5) (♠M5-T25)

PF Cable

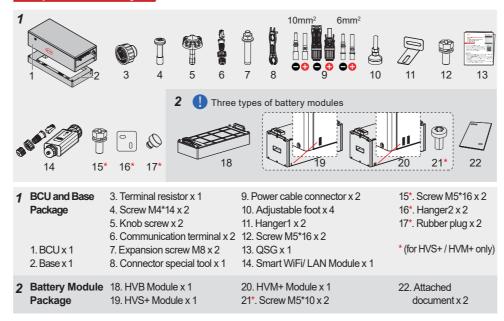
10mm<sup>2</sup>-M5 8AWG / 10mm<sup>2</sup>

Screwdriver

#### 3. Installation Scene & Installation Mode

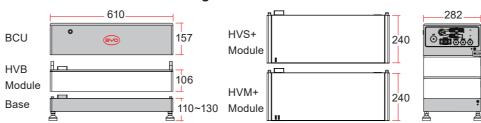


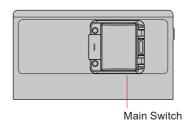
#### Scope of Delivery

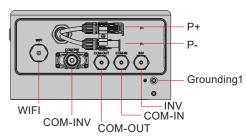


### Battery System Overview

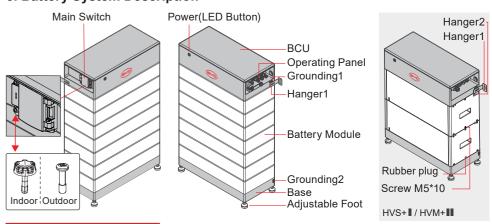
#### 1. Structure Dimension Drawing



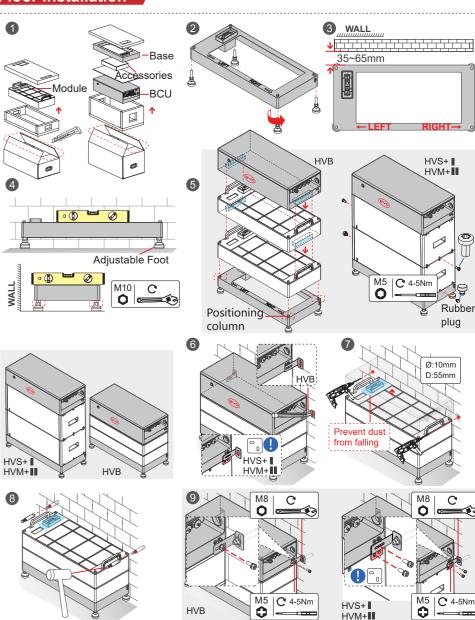




### 3. Battery System Description



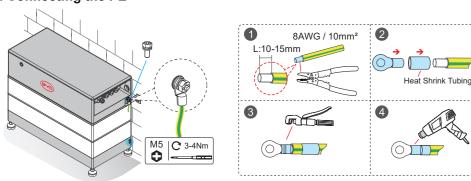
#### Floor Installation



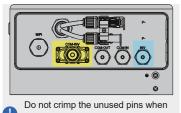


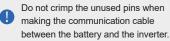
### **Electrical Connection**

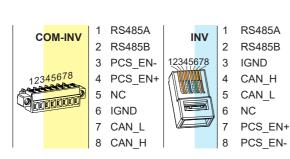
#### 1. Connecting the PE



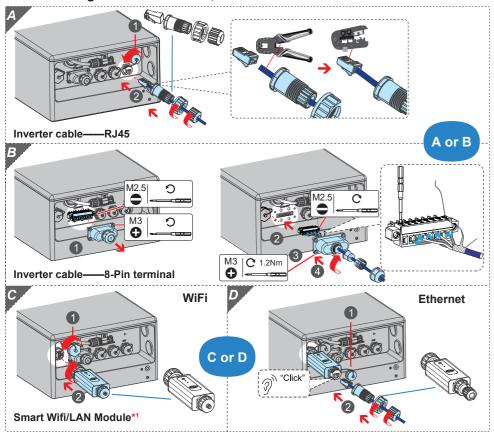
#### 2. Connection Diagram



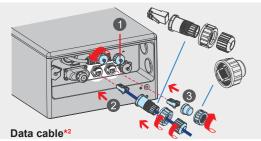




#### 3. Connecting the Inverter cable, Smart Wifi/LAN Module\*1 and Data cable\*2

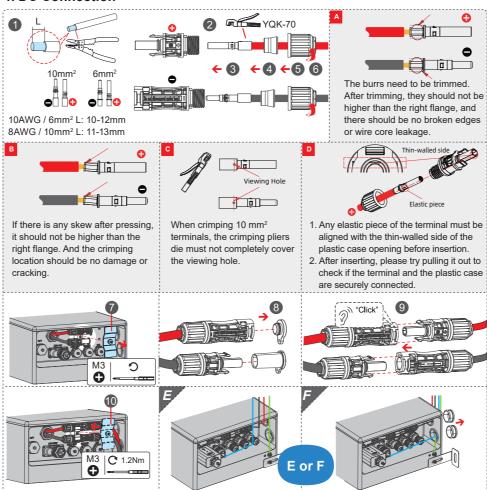


\*1 The battery system doesn't have a wireless communication function. Through the USB, the battery system supports the expansion of connection with the Smart WiFi/LAN Module to implement the wireless function, and the Smart WiFi/ LAN Module had obtained individual cyber security certification in accordance with EN 18031 series.

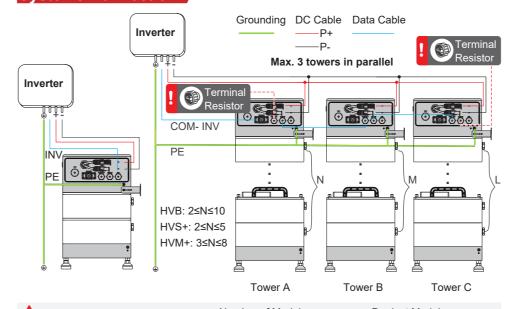


- \*2 Data Cable & terminal resistor are used for parallel connection.
- \*2 Connect terminal resistor, plug the terminal resistor into the "OUT" port of the master module and the "IN" port of the last slave module.

#### 4. DC Connection



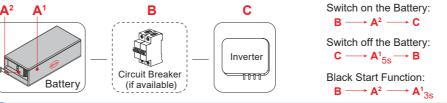
## Systems Connection



Only one type of battery module can be used in the same tower!

Number of Module: N = M = L $N \neq M$  or  $N \neq L$  or  $M \neq L$ 

# Operation



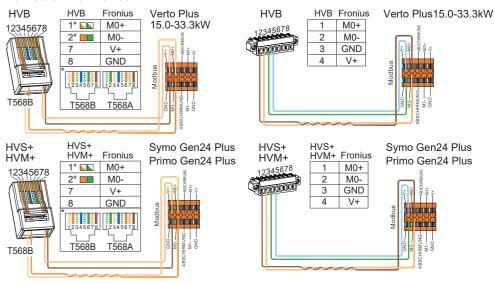
Max. short circuit current value: 3.6kA (HVB) / 2.56kA (HVM+) / 2.42kA (HVS+), Short circuit duration: < 8ms

# LED Signals

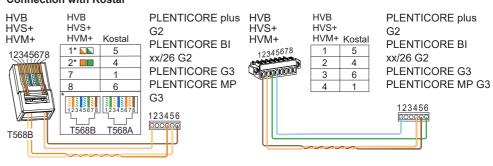
Indicator	Status	Description
Flashing white and blue alternatively	WhiteO ON OFF OFF	
	Blue OFF ON OFF	The battery system is initiating
Flashing white slowly	White ON 2s 2s	The battery system is charging
	Blue ON OFF	
White light flashing	WhiteO ON 1s	The battery system is discharging
	Blue ON OFF	gg
Constant white	WhiteO ON OFF	Idle (the battery system is neither
	Blue ON OFF	charging nor discharging).
Constant blue	WhiteO ON OFF	BCU failure
	Blue ON OFF	BCO failure
Constant blue and white light flashes a certain number of times	White ON JU 255 U	Counting from top to bottom, flashing N
	OFF 0.5s	times, represents the Nth battery module failure, N represents 1-10
	Blue ON OFF	battery modules

# Connection Options with Inverters

#### **Connection with Fronius**



#### Connection with Kostal



Blueplanet hybrid

Blueplanet hybrid

8.0-12.0 NH3 M3

6.0 NH3 M2

# Connection with Kaco

