

BYD Battery-Box LV5.0 Battery Module Quick Start Guide

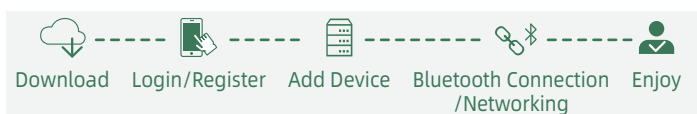
EN-QSG May-2024 Version01

Configure the Battery System

LV5.0 is equipped with Bluetooth and WIFI function. Through the mobile APP, you can realize intelligent battery management, including remote data monitoring, firmware upgrade and troubleshooting.

Download the APP "BYD Energy"

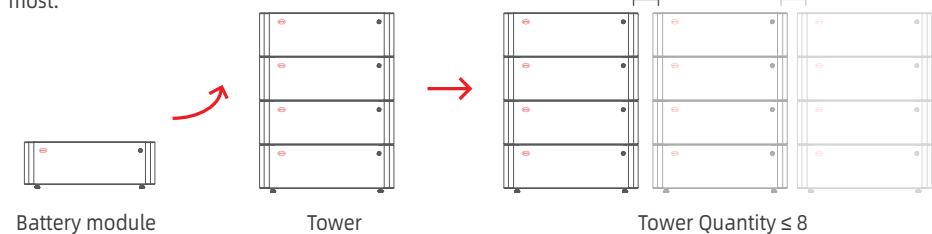
Configuration steps:



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

Scalability

One tower could be made up by 1 to 4 battery modules, and 8 towers could be connected in parallel at most.



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Safety

IMPORTANT SAFETY INSTRUCTIONS

The battery module has been designed and tested in accordance with international safety requirements. However, in order to prevent personal injury and property damage and ensure long-term operation of the battery module, please read this section carefully and observe all safety information at all times.

Battery Module Leakage

If the battery modules leak electrolytes, contacting with the leaking liquid or gas should be avoided. The electrolyte is corrosive, and the contact may cause skin irritation and chemical burns. If one is exposed to the leaked substance, follow these steps:

Accidental inhalation: Evacuate the contaminated area, and seek medical help immediately.

Eye exposure: Rinse eyes with flowing water for 15 minutes and seek medical help immediately.

Skin contact: Wash the affected area thoroughly with soap and water and seek medical help immediately.

Accidental ingestion: Induce vomiting and seek medical help immediately.

Fire fighting Measures

The battery modules may catch fire when it is put into the fire. In case of fire, please make sure that an ABC or carbon dioxide extinguisher is nearby. Water cannot be used to extinguish the fire.

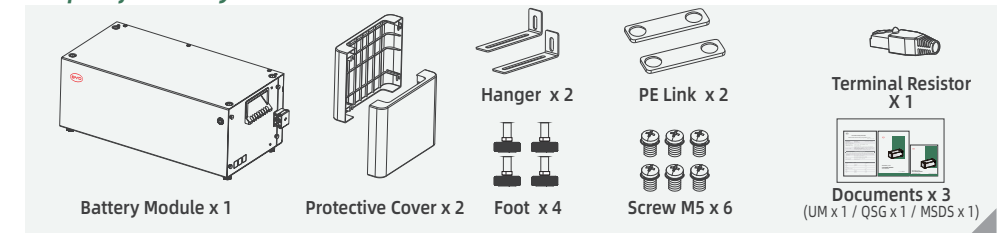
Full protective clothing and self-contained breathing apparatus are required for the firefighters to extinguish the fire.

Battery Modules Handling and Storage Guide

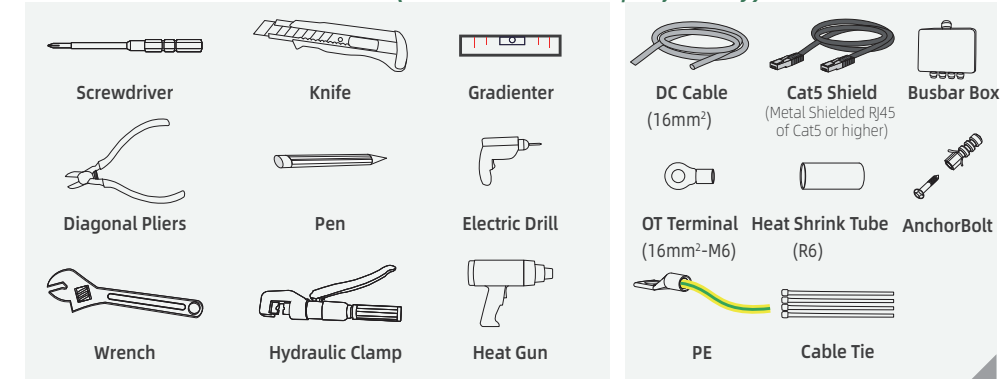
- The battery module and its components should be protected from damage when transporting and handling.
- Do not impact, pull, drag, or step on the battery module.
- Do not insert unrelated objects into any part of the battery module.
- Do not throw the battery module into a fire.
- Do not soak the battery module in water or seawater.
- Do not expose to strong oxidizers.
- Do not short circuit the battery module.
- The battery module cannot be stored at high temperatures ($\geq 50^{\circ}\text{C}$).
- The battery module cannot be stored directly under the sun.
- The battery module cannot be stored in a high humidity environment.
- Do not use the battery module if it is defective, or appears cracked, broken or other wise damaged, or fails to operate.
- Do not attempt to open, disassemble, repair, tamper with, or modify the battery modules. The battery modules are not user-serviceable.
- Do not use cleaning solvents to clean the battery module.

Requirements for Installation

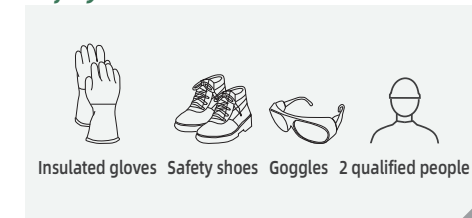
Scope of Delivery



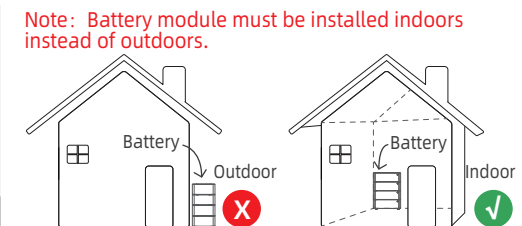
Tools & Additional Accessories (not included in the scope of delivery)



Safety Gear

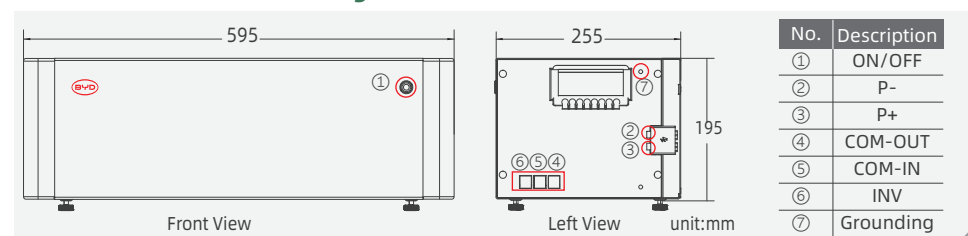


Installation Scene

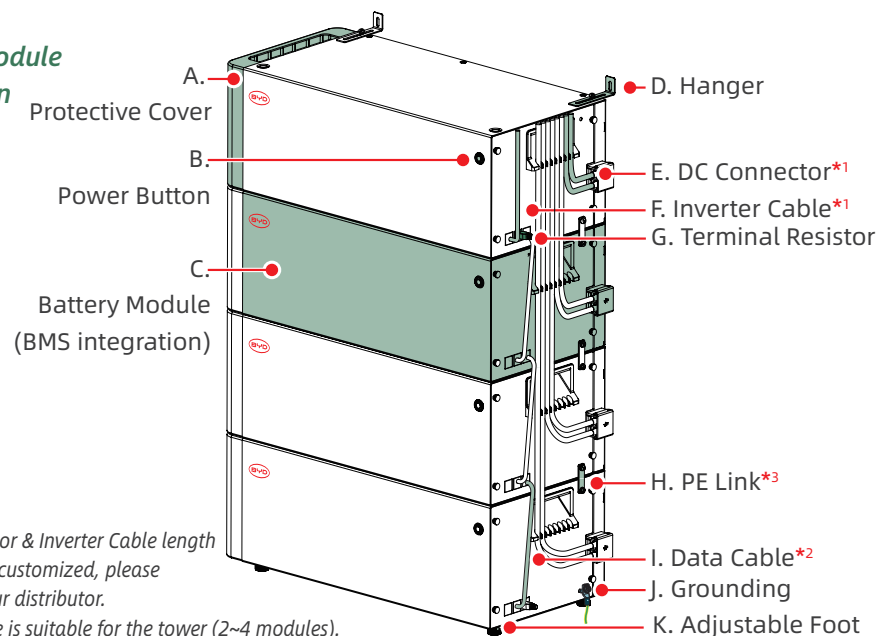


Battery Module Overview

Structure Dimension Drawing



Battery Module Description

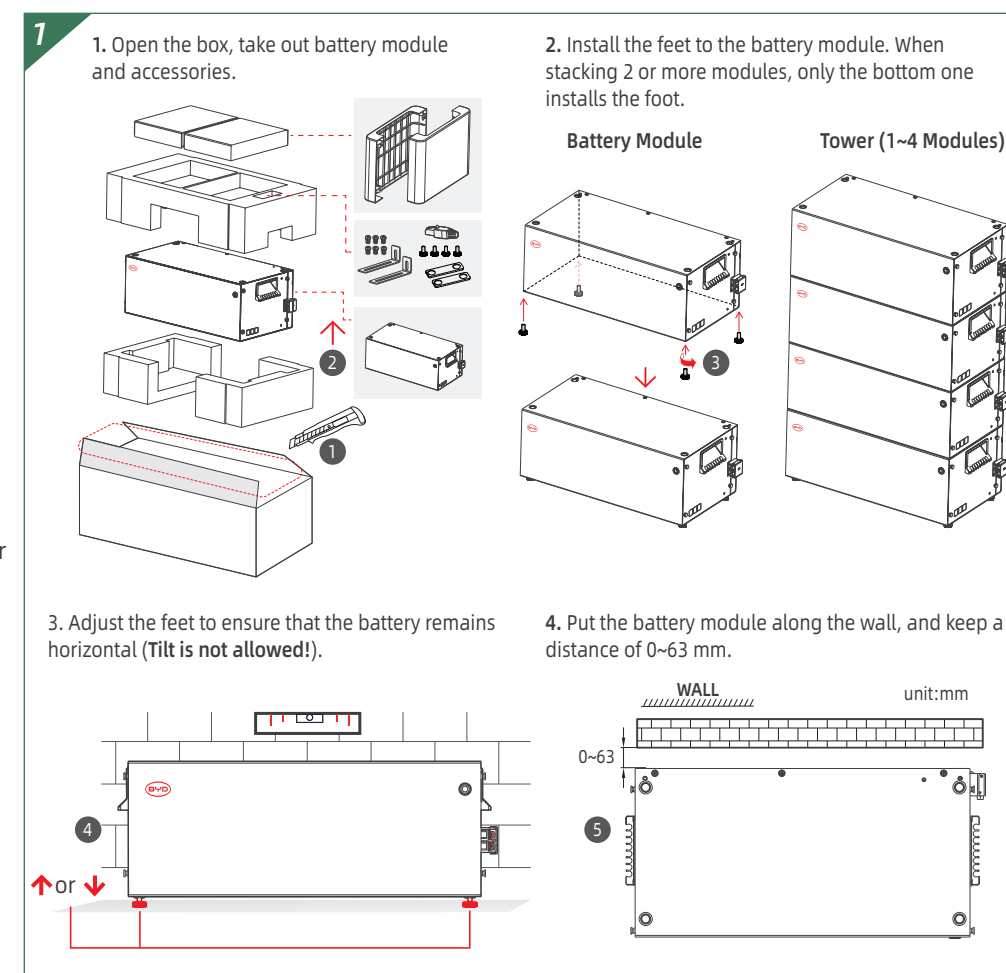


*1. DC Connector & Inverter Cable length need to be customized, please contact your distributor.

*2. Data Cable is suitable for the tower (2~4 modules).

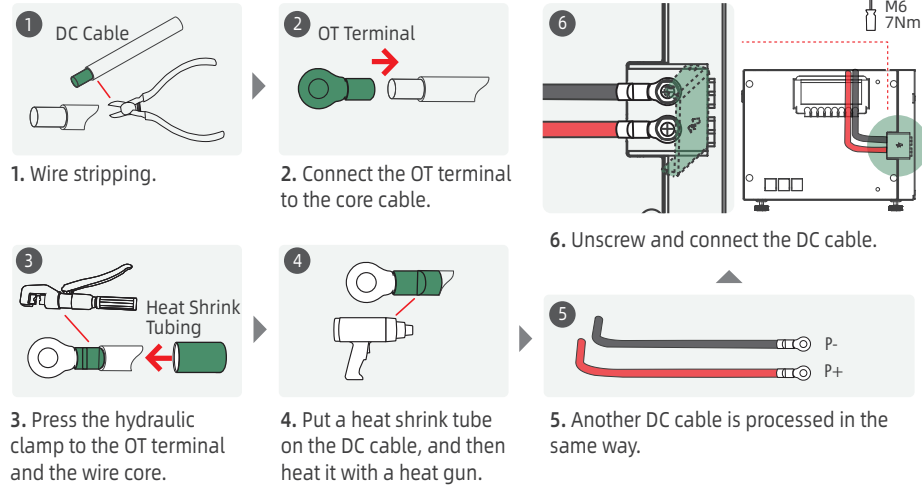
*3. PE Link must be used for more than one battery module.

Floor Installation



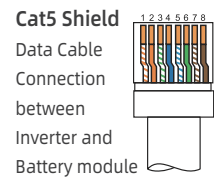
Preparation for Wiring

2 DC Connection (DC cable 16mm² / OT 16mm²-M6 / Heat Shrink Tubing R6)



Data Cable Connection

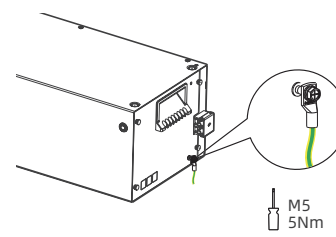
1. Connect the Battery Module and Inverter with Inverter cable into INV port.
2. Data cable is connected between the battery modules in the tower.



Connect Inverter		Connect Module/Tower	
No.	Assignment	No.	Assignment
1	485-A	1	Unused
2	485-B	2	Unused
3	Unused	3	CAN_H
4	CAN_H	4	Unused
5	CAN_L	5	Unused
6	Unused	6	CAN_L
7	Unused	7	CAN_L
8	Unused	8	CAN_H

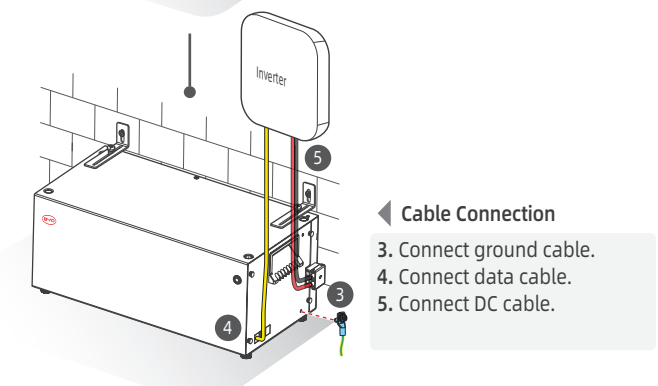
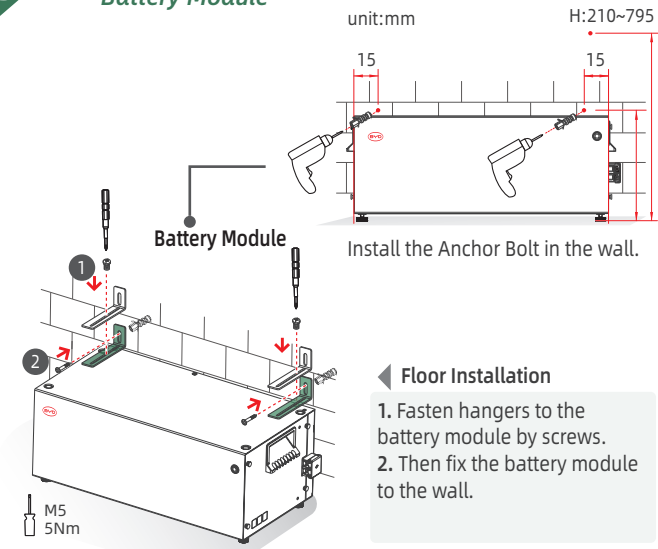
Connecting the PE

Battery module & tower require only one grounding wire.

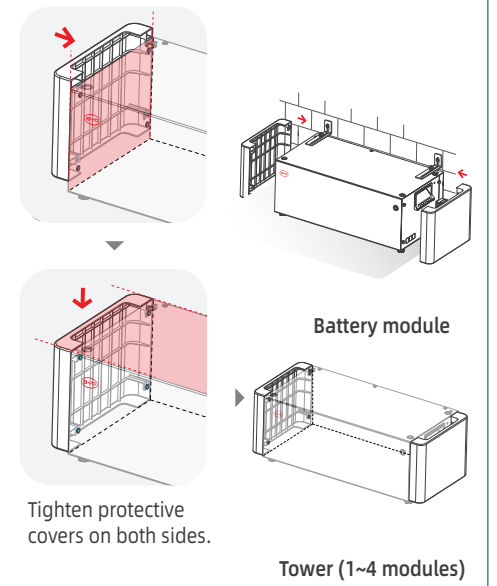


Floor Installation

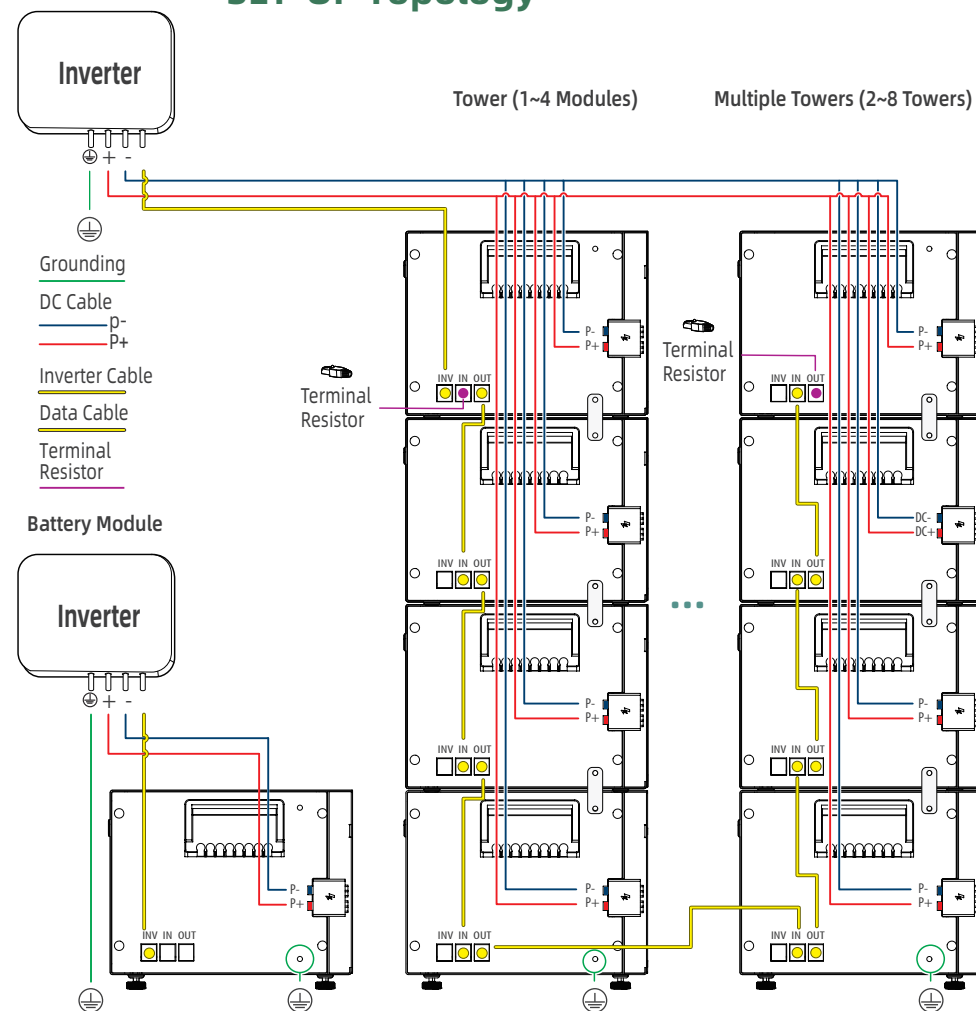
3 Battery Module



Protective Cover Installation



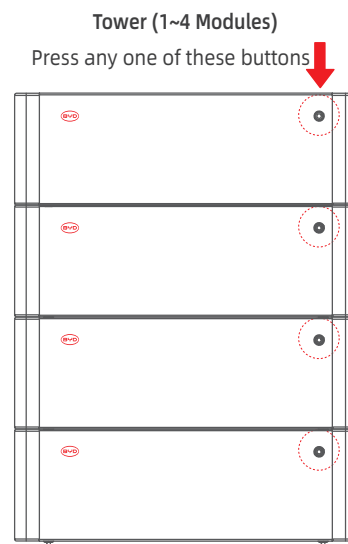
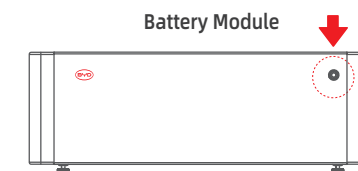
SET-UP Topology



Operation

Requirements:

1. After the battery and inverter are installed, the equipment starts up in this order: **Battery → Switch* → Inverter**.
* Turn on the air switch between battery and inverter if there is any.
Press the button, after 1s, the battery module or tower will be activated. Then they will match automatically. The green LED light indicates that the battery runs normally.
2. Press the button for around 2~3s to shut down the equipment, the equipment shuts down in this order: **Inverter → Battery → Switch***.
* Turn off the air switch between battery and inverter if there is any.



LED Signals

Normal		
Module	Indicator Status	Status Description
Any Module	Constant green	Idle / BMS firmware updating
	Flashing green slowly	Charging
	Flashing green quickly	Discharging
	Orange light flashes 6 times and then turns green	Power on after pressing any battery switch button for 1s
	Orange light flashes slowly and then goes out	Shutdown after pressing any battery switch button for 2~3s
Abnormal		
Module	Indicator Status	Status Description
Master	Orange light flashes continuously	Battery-inverter communication timeout Battery to battery communication timeout
	Constant red	Battery failure, shutdown after a period of time Slave shutdown due to failure, system shutdown delayed for 7 days Note: Please Contact with BYD local after-sales service as soon as possible
	Red light flashing	Battery protection, shutdown in a short-time
	The light goes out directly	Failure causes system shutdown
Slave	Orange light flashes continuously	Battery to battery communication timeout
	Constant red	Battery failure, shutdown after a period of time
	Red light flashing	Battery protection, shutdown in a short-time
	The light goes out directly	Failure causes battery shutdown