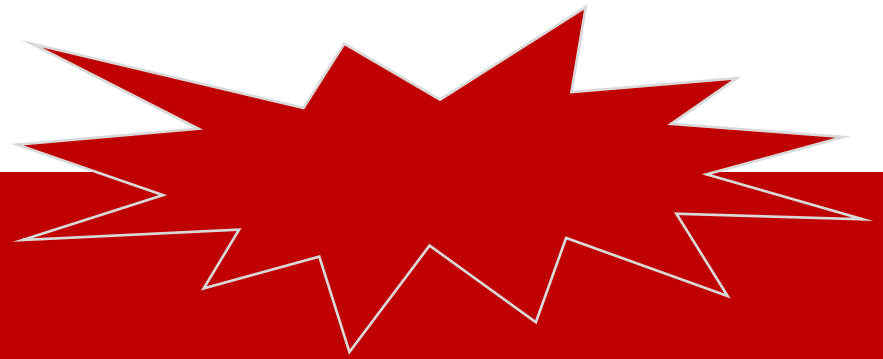
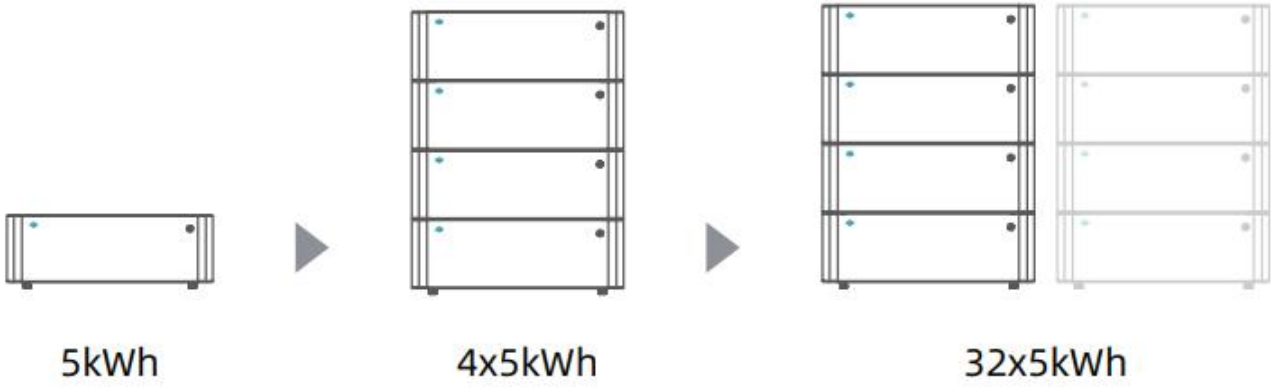


LV.5.0 Is Available

LV5.0

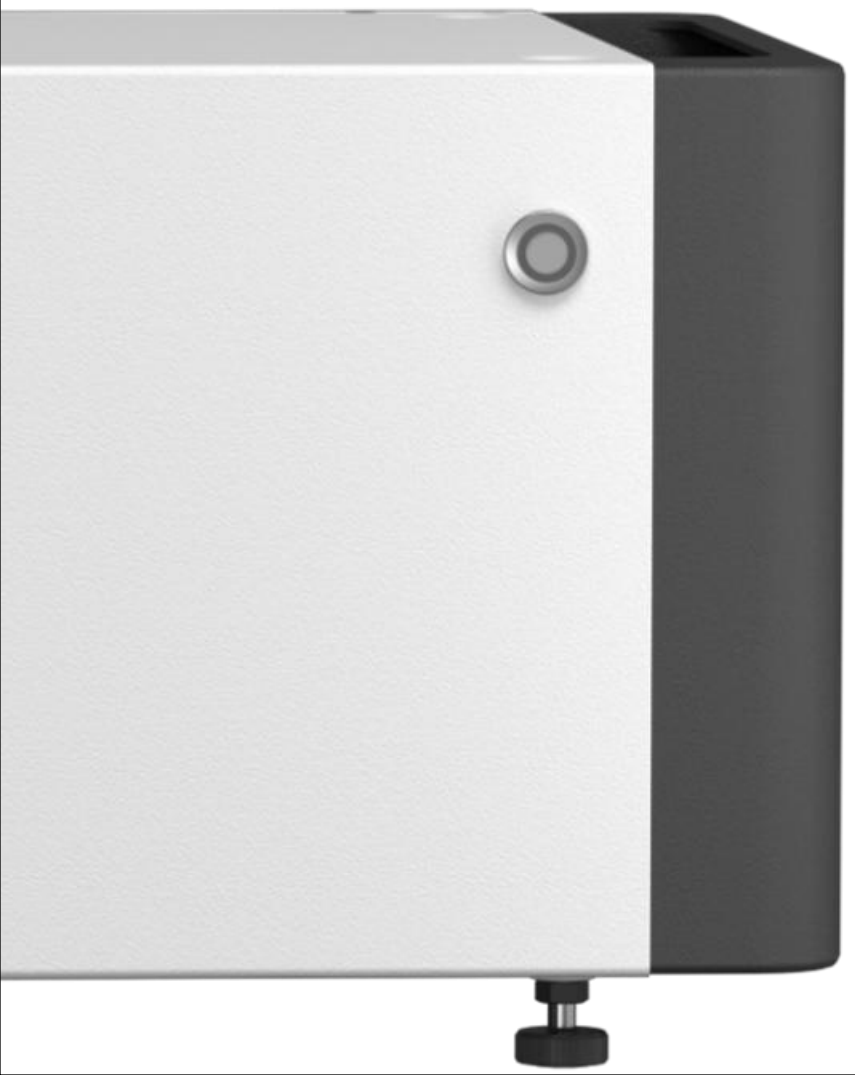
LV5.0

Compact | **Affordable** | Scalable



Battery Box

LV5.0



PERFORMANCE	LV5.0
Usable Energy [1]	5 kWh
Max.Charge and Discharge Current [2][3]	70A
Peak Charge and Discharge Current [3]	200 A,10s
Dimension(HW/D)	195 x 595 x 255 mm
Weight	42 kg
Nominal Voltage	51.2 V
Operating Voltage	40 - 57.6 V
Charge Cut-Off Voltage	57.6 V
Discharge Cut-Off Voltage	40 V
Scalability	Max. 32 in Parallel (160 kWh)
Installation Mode	Floor installation
Communication	CAN / RS485 / Bluetooth / Wi-Fi
Round-trip Efficiency	≥ 95%
Applications	On Grid / On Grid + Backup / Off Grid
Operating Temperature	Charge 0~50°C & Discharge -20-50°C
Protection Class	IP20
Storage Humidity	5%~95%
Altitude	< 4000 m
Certification	CE / IEC62619 / UN38.3 / RED
Compatible Inverter	victron energy, Deye, solis, SMA, Voltronic Power, phocos

LV5.0 Non-Scope of Delivery

DC Cable
(16mm²)

Anchor Bolt

Cat5 Shield
(Metal Shielded
RJ45 of Cat5 or higher)

PE withTerminal
(terminal,5mm;
cable≥10mm²)

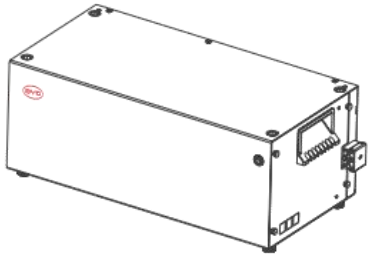
OT Terminal
(16mm²-M6)

Heat Shrink Tubing
(R6)

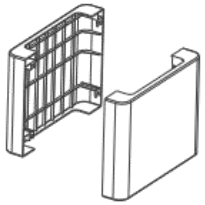
Busbar Box

Cable Tie
(4*250mm)

LV5.0 Scope of Delivery

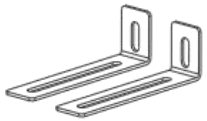


Battery Module x 1

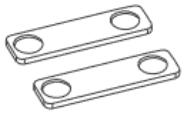


Protective Cover x 2

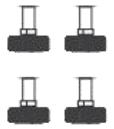
Terminal Resistor X 1



Hanger x 2



PE Link x 2

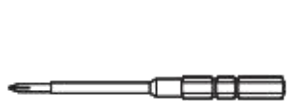


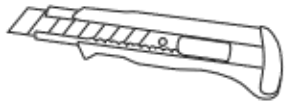
Foot x 4

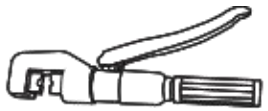
Screw M5 x 6

Documents x 3
(UM x 1 / QSG x 1 / MSDS x 1)

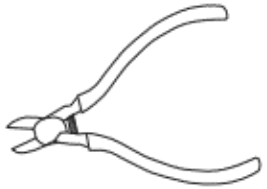
LV5.0 Tools Needed


Screwdriver


Knife


Hydraulic Clamp


Gradienter


Diagonal Pliers


Pen


Wrench


Heat Gun


Electric Drill

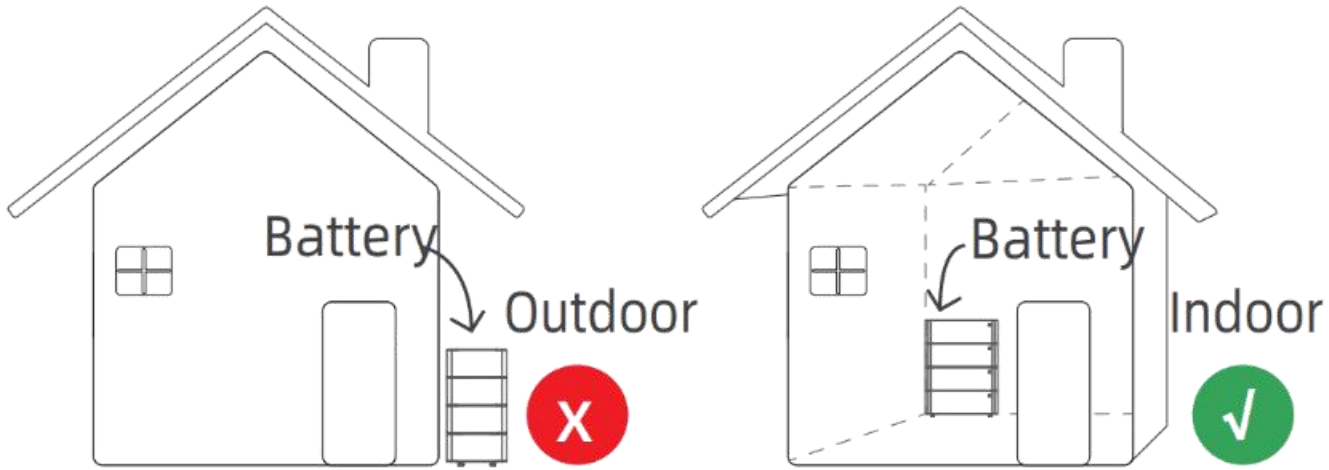

Insulated gloves


Safety shoes

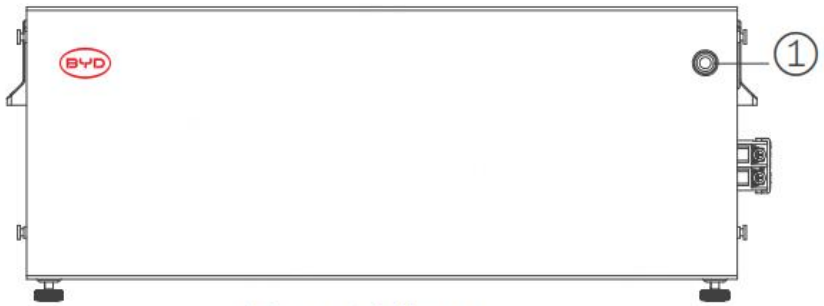

Goggles


2 qualified people

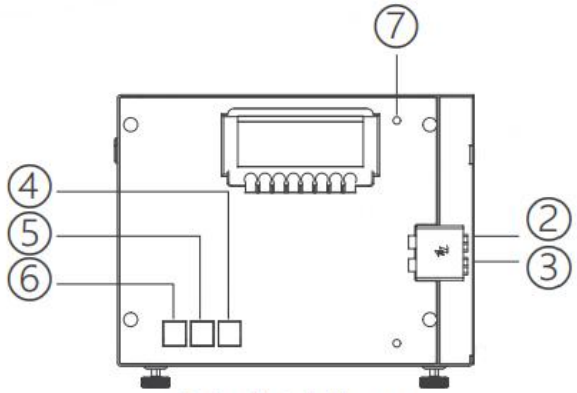
Installation Environment



Non-Scope of Delivery



Front View

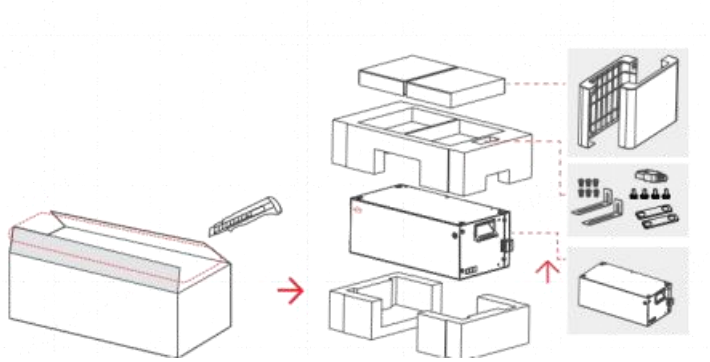


Right View

No.	Description	Explanation
①	ON/OFF	Power on/power off.
②	P-	Connect to negative terminal of external device.
③	P+	Connect to positive terminal of external device.
④	COM-OUT	Port for data cable out.
⑤	COM-IN	Port for data cable in.
⑥	INV	Port for data cable in, Connect to inverter.
⑦	Grounding	Grounding connection.

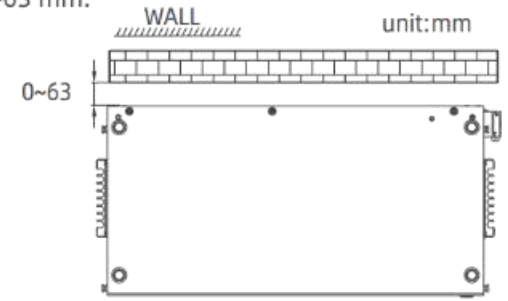
LV5.0: Single Module

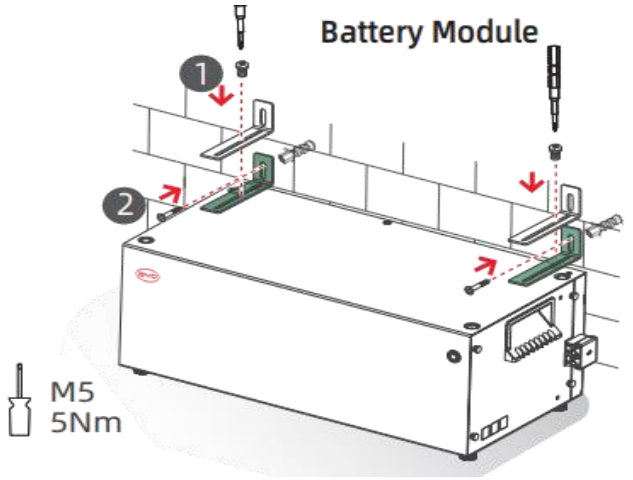
1. Open the box, take out battery module and accessories.



2.Install the feet to the battery module. When stacking 2 or more modules, only the bottom one installs the foot.

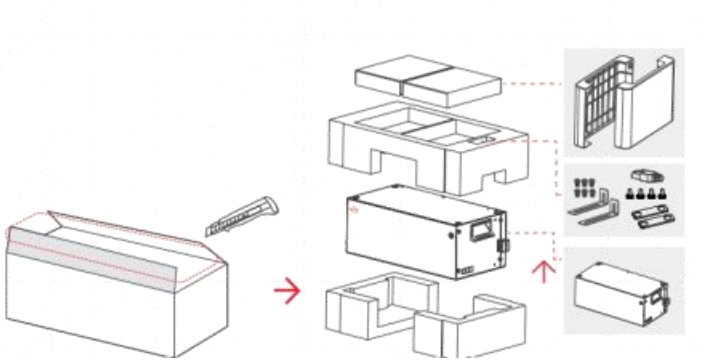
4.Put the battery module along the wall, and keep a distance of 0~63 mm.





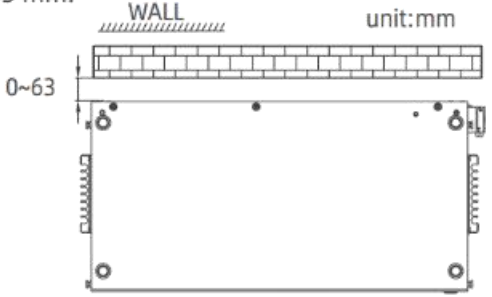
LV5.0: Multiple Module

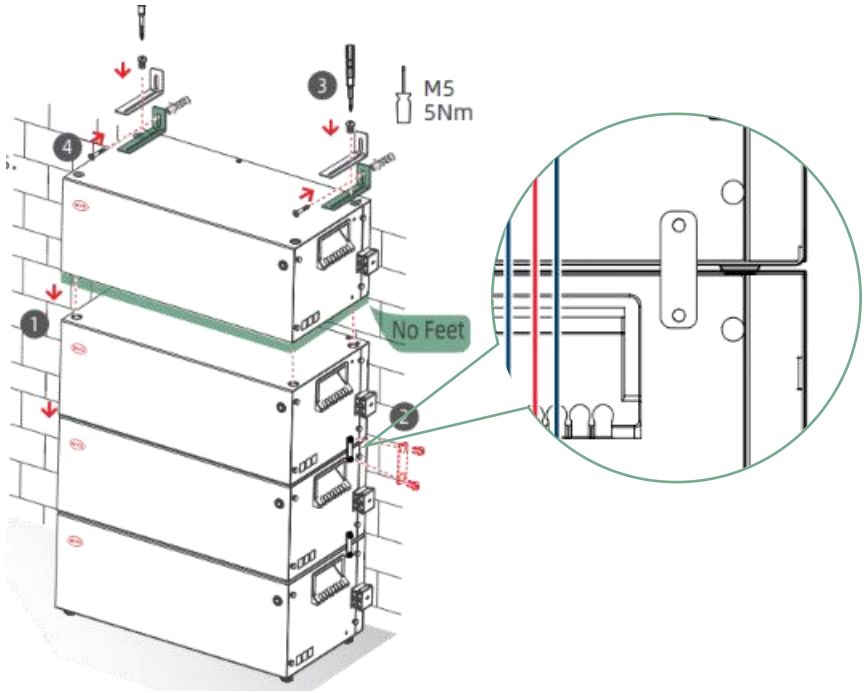
1. Open the box, take out battery module and accessories.



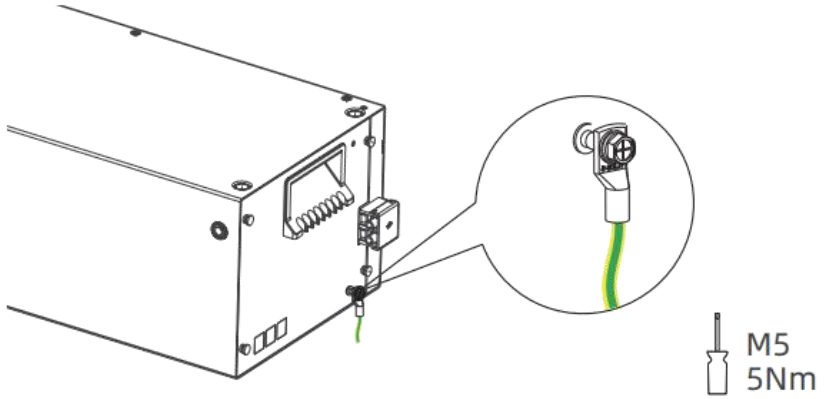
2.Install the feet to the battery module. When stacking 2 or more modules, only the bottom one installs the foot.

4.Put the battery module along the wall, and keep a distance of 0~63 mm.





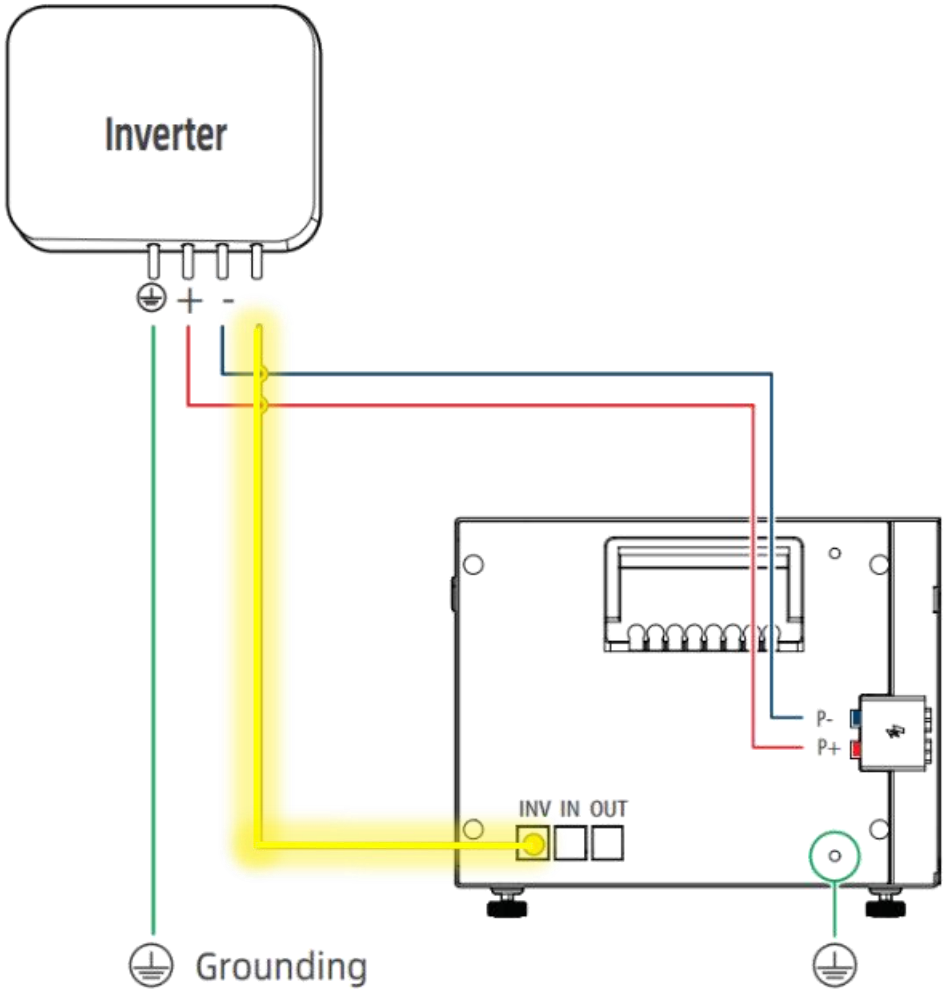
LV5.0: PE Cable Connection



PE Requirement:

1. PE cross-section ≥ 10 m²
2. PE Material: Copper wire

LV5.0: Data Cable Connection



Data cable requirements:

1. Category: Cat5, Cat5e or higher
2. Plug type: Metal Shielded RJ45
3. UV-resistant for outdoor
4. Maximum cable length: 10 m.

Grounding

DC Cable

p-

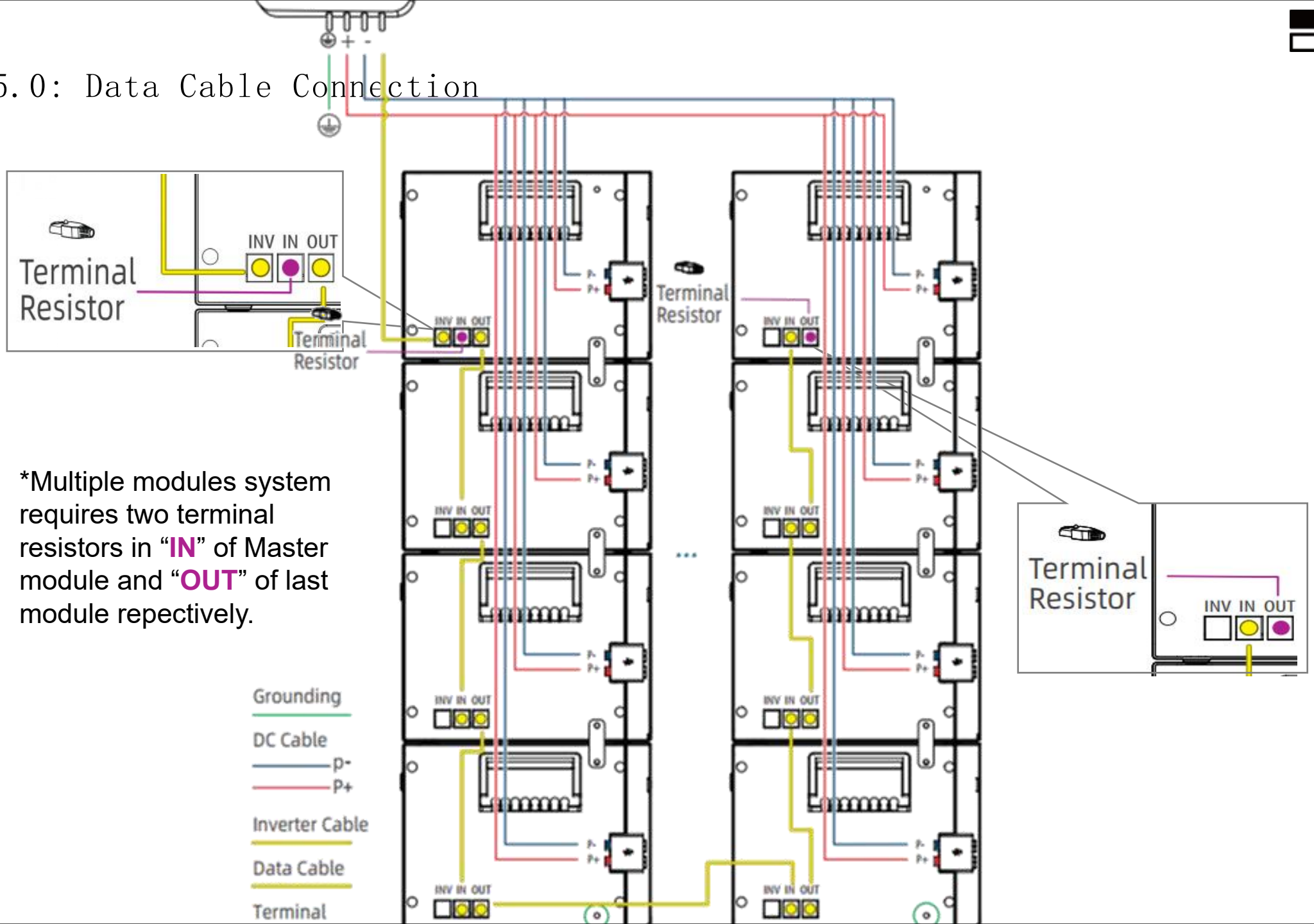
P+

Inverter Cable

Data Cable

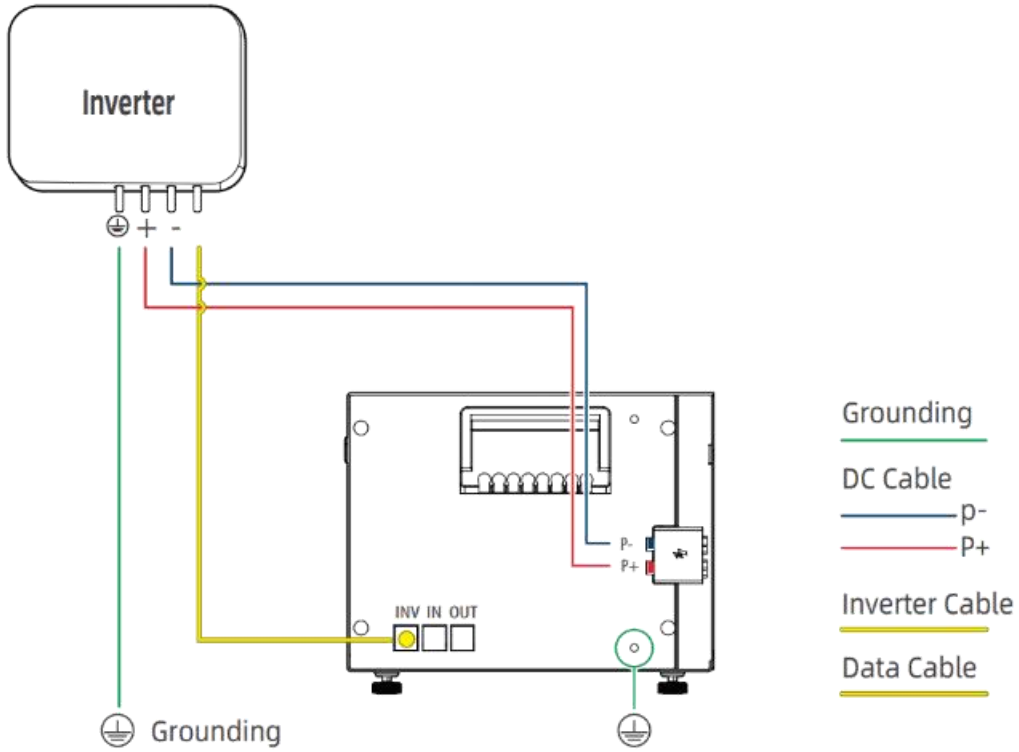
*One module system does not require terminal resistors.

LV5.0: Data Cable Connection



*Multiple modules system requires two terminal resistors in “**IN**” of Master module and “**OUT**” of last module repectively.

LV5.0: Diagram



Grounding

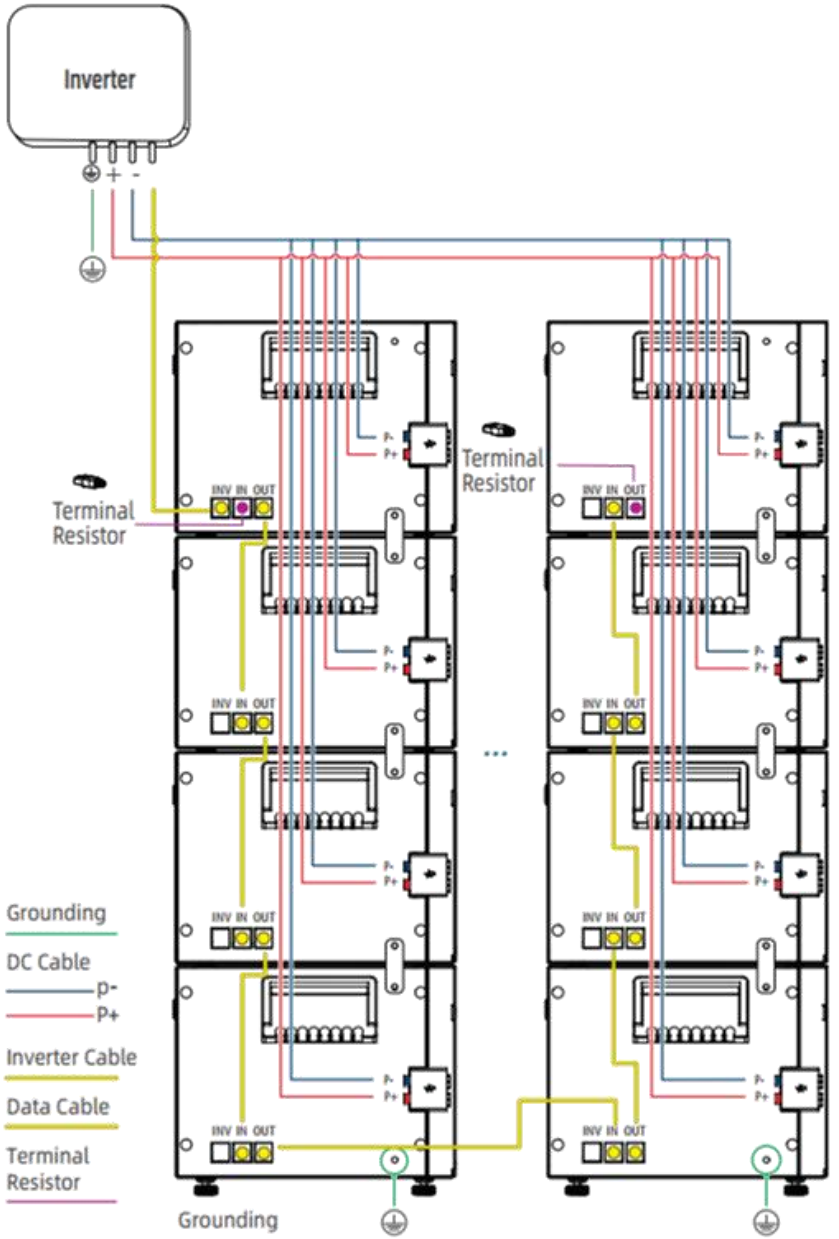
DC Cable

p-

P+

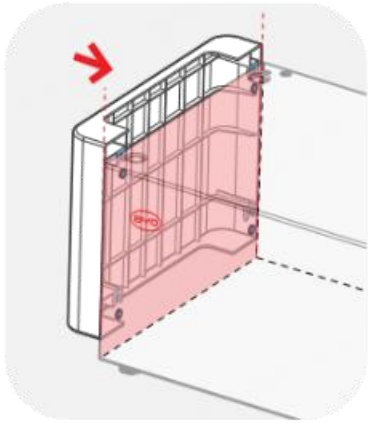
Inverter Cable

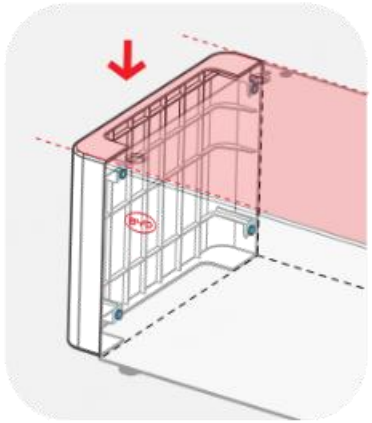
Data Cable

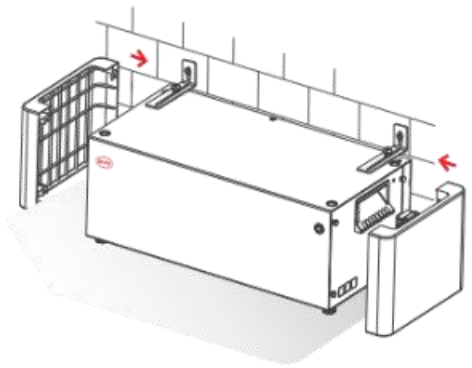


Battery Box

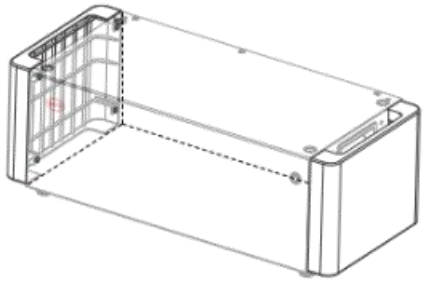
LV5.0: Cover



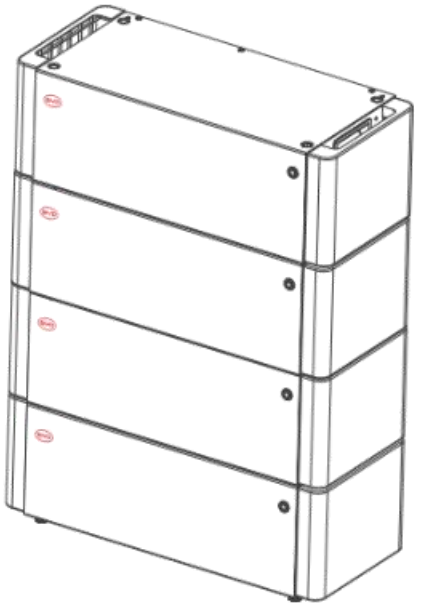




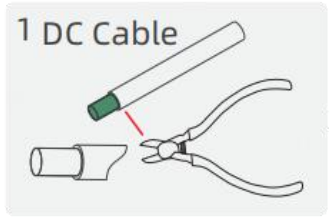
Battery Module



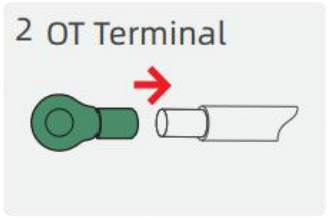
Tower(1~4 modules)



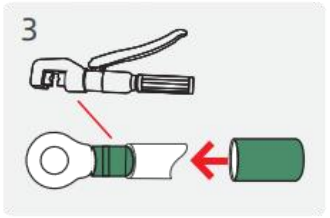
LV5.0: DC Cable Connection



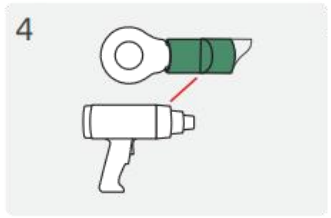
Wire stripping



Connect the OT terminal to the core cable

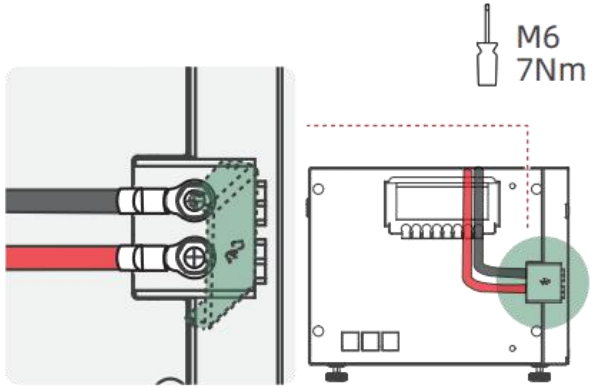


Press the hydraulic clamp to the OT terminal and the wire core



Put a heat shrink tube on the DC cable, and then heat it with a heat gun

Another DC cable is processed in the same way

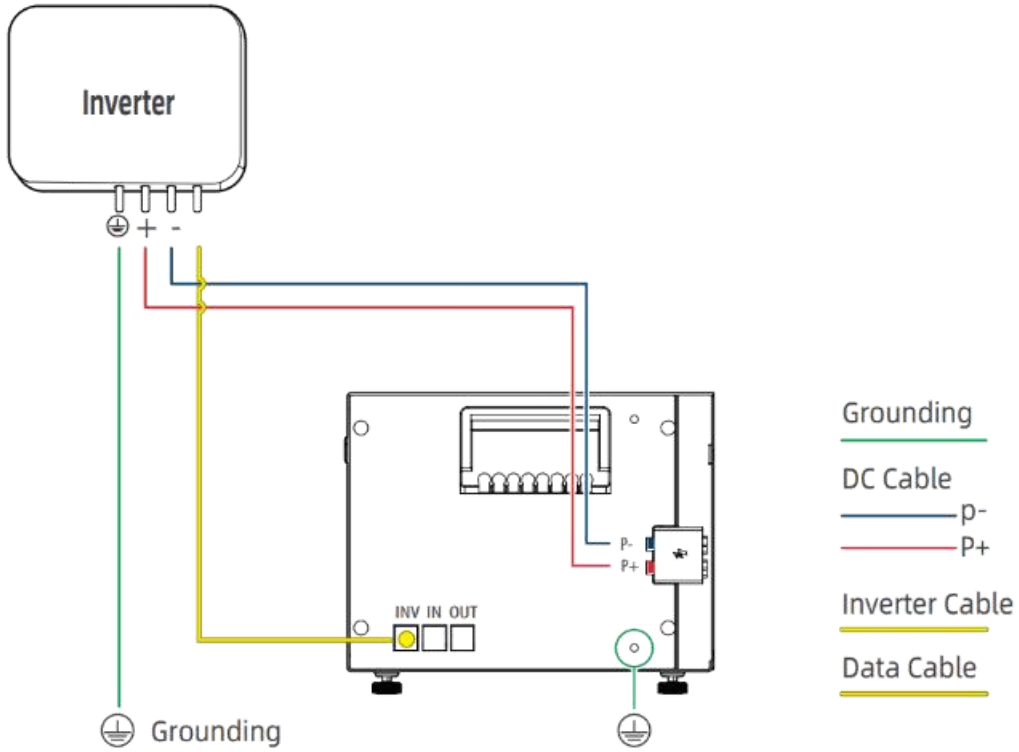


Unscrew and connect the DC cable

DC Cable requirements:

1. Conductor cross-section:≥ 16m²
2. Maximum cable length: 10 m

LV5.0: Diagram



Grounding

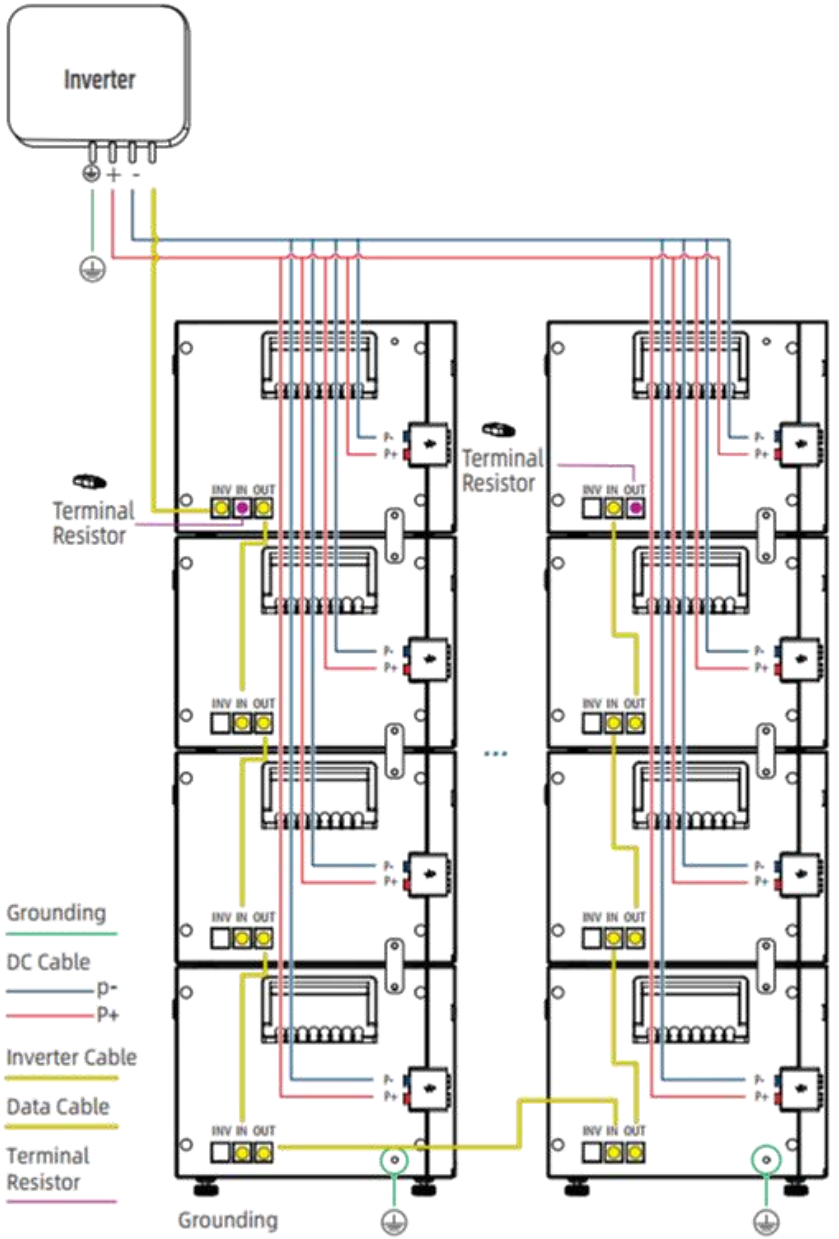
DC Cable

p-

P+

Inverter Cable

Data Cable



Battery Box

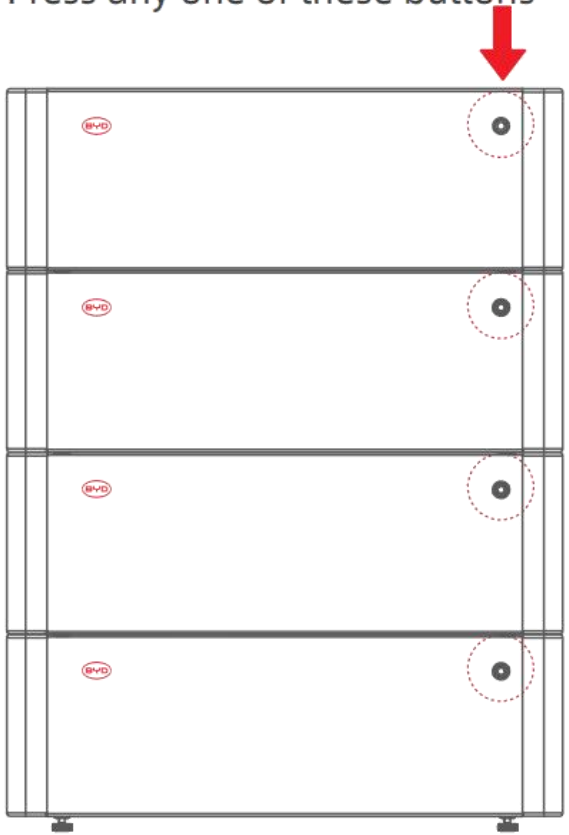
LV5.0: Commisioning

Switch On

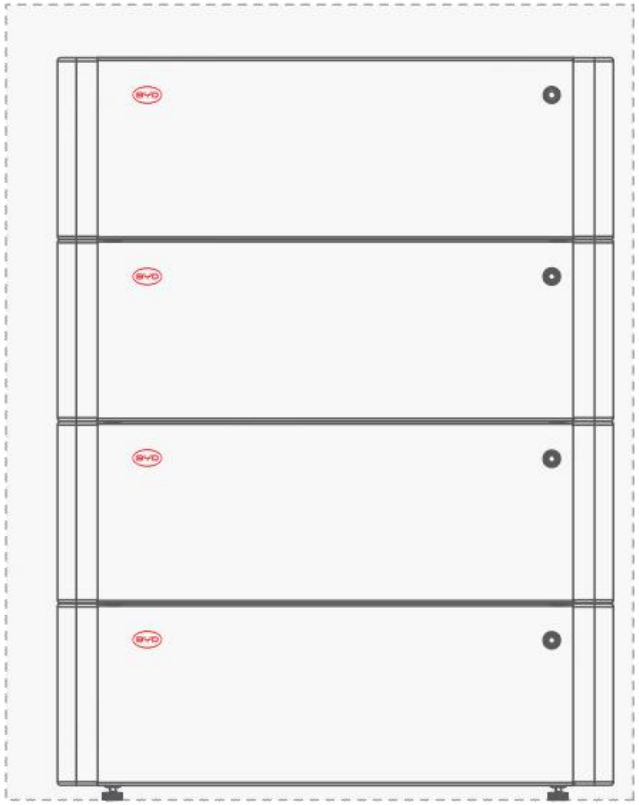
Battery → Switch → Inverter

Tower(1~4 Modules)

Press any one of these buttons



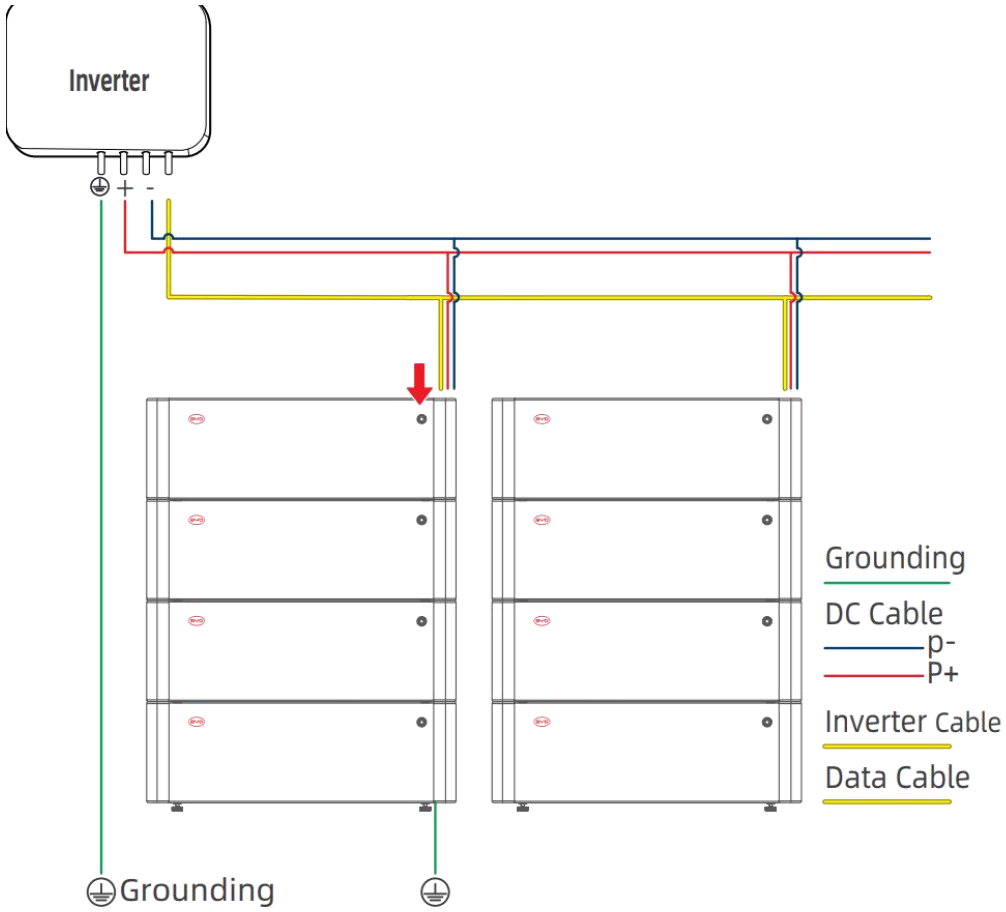
Multiple Towers(2~8 Towers)



Switch Off

Inverter → Battery → Switch

LV5.0: Configuration



Configurate Automatically

LED Signal Code

LV5.0: APP_BYD Energy

1. Download the APP “**BYD Energy**”. Ensure that your device (cell phone) can access the Internet
2. A welcome page will appear and then jump to the login screen, you need to register a new account for the first time to login the APP.
3. Scan the SN code of module to add the module.
4. Connect master module, then you can read the battery information of the master and slave, detect the battery firmware version information and update firmware version to the latest.
5. After adding the device successfully, the device is offine. Follow the prompts to connect the battery to the Internet

BYD Battery-Box LV5.0 TECHNICAL INFORMATION

minimum configuration list

Battery Box

EN-TECHNICAL INFORMATION Oct-2024 Version1.5

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
		On Grid	On Grid with Backup	Off Grid Inrush Use	On Grid	On Grid with Backup	Off Grid Inrush Use
solis	S6-EH1P3K-L-EU	≥1	≥1	≥1	-	-	-
	S6-EH1P3.6K-L-EU	≥1	≥2	≥2	-	-	-
	S6-EH1P4.6K-L-EU	≥1	≥2	≥2	-	-	-
	S6-EH1P5K-L-EU	≥1	≥2	≥2	-	-	-
	S6-EH1P6K-L-EU	≥1	≥2	≥2	-	-	-
	S6-EH1P3K-L-PRO	≥1	≥1	≥1	-	-	-
	S6-EH1P3.6K-L-PRO	≥1	≥1	≥1	-	-	-
	S6-EH1P5K-L-PRO	≥1	≥2	≥2	-	-	-
	S6-EH1P6K-L-PRO	≥1	≥2	≥2	-	-	-
	S6-EH1P8K-L-PRO	≥1	≥3	≥3	-	-	-
	S6-EH1P3K-L-PLUS	≥1	≥1	≥1	-	-	-
	S6-EH1P3.6K-L-PLUS	≥1	≥1	≥1	-	-	-
	S6-EH1P5K-L-PLUS	≥1	≥2	≥2	-	-	-
	S6-EH1P6K-L-PLUS	≥1	≥2	≥2	-	-	-
	S6-EH1P8K-L-PLUS	≥1	≥3	≥3	-	-	-
	S6-EH1P12K-L	≥1	≥4	≥4	-	-	-
	S6-EH1P14K-L	≥1	≥4	≥4	-	-	-
	S6-EH1P16K-L	≥1	≥5	≥5	-	-	-
	S6-EH3P8K-L	-	-	-	≥1	≥3	≥3
	S6-EH3P10K-L	-	-	-	≥1	≥4	≥4
	S6-EH3P12K-L	-	-	-	≥1	≥4	≥4
	S6-EH3P15K-L	-	-	-	≥1	≥5	≥5
	S5-EA1P3K-L	≥1	≥1	≥1	-	-	-
	S6-EA1P3.6K-L	≥1	≥1	≥1	-	-	-
	S6-EA1P4.6K-L	≥1	≥2	≥2	-	-	-
	S6-EA1P5K-L	≥1	≥2	≥2	-	-	-
	S6-EA1P6K-L	≥1	≥2	≥2	-	-	-
	S5-EO1P4K-48	-	-	≥2	-	-	-
	S5-EO1P4K-48-P	-	-	≥2	-	-	-

BYD

Battery Box

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
		On Grid	On Grid with Backup	Off Grid Inrush Use	On Grid	On Grid with Backup	Off Grid Inrush Use
solis	S5-EO1P5K-48	-	-	≥2	-	-	-
	S5-EO1P5K-48-P	-	-	≥2	-	-	-
	S6-EO1P4K-48	-	-	≥2	-	-	-
	S6-EO1P5K-48	-	-	≥2	-	-	-
	Battery firmware: BMS ≥V1.88; Inverter firmware ≥V06-10						
Deye	SUN-5KSG04LP3-EU	-	-	-	≥1	≥2	≥2
	SUN-6KSG04LP3-EU	-	-	-	≥1	≥2	≥2
	SUN-8KSG04LP3-EU	-	-	-	≥1	≥3	≥3
	SUN-10KSG04LP3-EU	-	-	-	≥1	≥4	≥4
	SUN-12KSG04LP3-EU	-	-	-	≥1	≥4	≥4
	SUN-7.6K-SG01LP1-EU	≥1	≥3	≥3	-	-	-
	SUN-8K-SG01LP1-EU	≥1	≥3	≥3	-	-	-
	SUN-12K-SG01LP1-EU	≥1	≥4	≥4	-	-	-
	SUN-14K-SG01LP1-EU	≥1	≥4	≥4	-	-	-
	SUN-16K-SG01LP1-EU	≥1	≥5	≥5	-	-	-
	SUN-3.6K-SG03LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-5K-SG03LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-6K-SG03LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-3K-SG04LP1-EU	≥1	≥1	≥1	-	-	-
	SUN-3.6K-SG04LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-5K-SG04LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-6K-SG04LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-3.6K-SG05LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-5K-SG05LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-6K-SG05LP1-EU	≥1	≥2	≥2	-	-	-
	SUN-7K-SG05LP1-EU	≥1	≥3	≥3	-	-	-
	SUN-7.6K-SG05LP1-EU	≥1	≥3	≥3	-	-	-
	SUN-8K-SG05LP1-EU	≥1	≥3	≥3	-	-	-
	Battery firmware: BMS ≥V1.88; Inverter firmware ≥1001-C040. Note: Please open the function: "BMS Stop" .						

BYD

Battery Box

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
		On Grid	On Grid with Backup	Off Grid Inrush Use	On Grid	On Grid with Backup	Off Grid Inrush Use
MEGAREVO	R3KL1-G2	≥1	≥1	≥1	-	-	-
	R3K6L1-G2	≥1	≥2	≥2	-	-	-
	R4KL1-G2	≥1	≥2	≥2	-	-	-
	R4K6L1-G2	≥1	≥2	≥2	-	-	-
	R5KL1-G2	≥1	≥2	≥2	-	-	-
	R6KL1-G2	≥1	≥2	≥2	-	-	-
	R8KL1-G2	≥1	≥3	≥3	-	-	-
	R3KL1D-G2	≥1	≥1	≥1	-	-	-
	R3K6L1D-G2	≥1	≥2	≥2	-	-	-
	R4KL1D-G2	≥1	≥2	≥2	-	-	-
	R4K6L1D-G2	≥1	≥2	≥2	-	-	-
	R5KL1D-G2	≥1	≥2	≥2	-	-	-
	R6KL1D-G2	≥1	≥2	≥2	-	-	-
	R8KL1D-G2	≥1	≥3	≥3	-	-	-
	Battery firmware: BMS ≥V1.88; Inverter firmware ≥ARM V2.04.15，DSP V2.05.11						
victron energy	MultiPlus 48/3000/35	≥1	≥1	≥1	≥1	≥3	≥3
	MultiPlus 48/5000/70	≥1	≥2	≥2	≥1	≥5	≥5
	MultiPlus-II GX 48/3000/35-32	≥1	≥1	≥1	≥1	≥3	≥3
	MultiPlus-II GX 48/5000/70-50	≥1	≥2	≥2	≥1	≥5	≥5
	MultiPlus-II 230V 48/3000/35-32	≥1	≥1	≥1	≥1	≥3	≥3
	MultiPlus-II 230V 48/5000/70-50	≥1	≥2	≥2	≥1	≥5	≥5
	MultiPlus-II 230V 48/8000/110-100	≥1	≥3	≥3	≥1	≥7	≥7
	MultiPlus-II 230V 48/10000/140-100	≥1	≥3	≥3	≥1	≥9	≥9
	MultiPlus-II 230V48/15000/200-100	≥1	≥5	≥5	≥1	≥13	≥13
	Multi RS Solar 48/6000 Dual Tracker	≥1	≥2	≥2	≥1	≥5	≥5
	Quattro 48/5000/70-100/100	≥1	≥2	≥2	≥1	≥5	≥5
	Quattro 48/8000/110-100/100	≥1	≥3	≥3	≥1	≥7	≥7
	Quattro 48/10000/140-100/100	≥1	≥3	≥3	≥1	≥9	≥9
	Quattro 48/15000/200-100/100	≥1	≥5	≥5	≥1	≥13	≥13
	Quattro-II 48/5000/70-50	≥1	≥2	≥2	≥1	≥5	≥5
	Battery firmware: BMS ≥V1.88; Inverter firmware ≥V3.20						

Battery Box

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
		On Grid	On Grid with Backup	Off Grid Inrush Use	On Grid	On Grid with Backup	Off Grid Inrush Use
SMA	SI 4.4M	≥1	≥2	≥2	-	-	-
	SI 6.0H	≥2	≥3	≥3	-	-	-
	SI 8.0H	≥2	≥4	≥4	-	-	-
	Battery firmware: BMS ≥V1.88; Inverter firmware ≥3.30.12 R						
Voltronic Power	Axpert MAX 8000	-	-	≥3	-	-	-
	Axpert MAX E-11K	-	-	≥4	-	-	-
	Axpert MAX E 11K TWIN	-	-	≥4	-	-	-
	MAX II 8K Duplex	-	-	≥3	-	-	-
	MAX II 11K Duplex	-	-	≥4	-	-	-
	VM II Elite 6KW	-	-	≥2	-	-	-
	VM III 6000 TWIN	-	-	≥2	-	-	-
	VM IV 6K TWIN	-	-	≥2	-	-	-
	VM IV 5.6K	-	-	≥2	-	-	-
	AXPERT KING II 6K	-	-	≥2	-	-	-
	AXPERT MKS III 6K TWIN	-	-	≥2	-	-	-
	AXPERT ULTRA 8K	-	-	≥3	-	-	-
	AXPERT ULTRA 11K	-	-	≥4	-	-	-
	InfiniSolar WP TWIN HMI 12KW	-	-	-	≥1	≥4	≥4
	InfiniSolar WP TWIN HMI 15KW	-	-	-	≥1	≥5	≥5
	Infinisolar WP 10KW	-	-	-	≥1	≥4	≥4
	Infinisolar WP 12KW	-	-	-	≥1	≥4	≥4
	Infinisolar WP 15KW	-	-	-	≥1	≥5	≥5
	InfiniSolar WP TWIN 10KW	-	-	-	≥1	≥4	≥4
	InfiniSolar WP TWIN 12KW	-	-	-	≥1	≥4	≥4
	InfiniSolar WP TWIN 15KW	-	-	-	≥1	≥5	≥5
	InfiniSolar WP Elite 10KW	-	-	-	≥1	≥4	≥4
	InfiniSolar WP Elite 12KW	-	-	-	≥1	≥4	≥4
	Battery firmware: BMS ≥V1.88; Inverter firmware :InfiniSolar WP TWIN HMI 12kw/15kw>Master V3012; InfiniSolar WP 10KW/12KW/15KW>Master V223; InfiniSolar WP TWIN 10KW/12KW/15KW>Master V1012						

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
		On Grid	On Grid with Backup	Off Grid Inrush Use	On Grid	On Grid with Backup	Off Grid Inrush Use
GOODWE	GW3000-ES-20	≥1	≥1	≥1	-	-	-
	GW3600-ES-20	≥1	≥2	≥2	-	-	-
	GW5000-ES-20	≥1	≥2	≥2	-	-	-
	GW6000-ES-20	≥1	≥2	≥2			
	GW3600M-ES-20	≥1	≥1	≥1	-	-	-
	GW5000M-ES-20	≥1	≥1	≥1	-	-	-
	GW6000M-ES-20	≥1	≥1	≥1	-	-	-
	GW6000-SBP-20	≥1	≥2	≥2	-	-	-
	GW5000-SBP-20	≥1	≥2	≥2	-	-	-
	GW3600-SBP-20	≥1	≥2	≥2	-	-	-
	GW6000-ES-BR20	≥1	≥2	≥2	-	-	-
	GW3500L-ES-BR20	≥1	≥2	≥2	-	-	-
	GW3600-ES-BR20	≥1	≥2	≥2	-	-	-
	GW8000-ES-C10	≥1	≥3	≥3	-	-	-
	GW10K-ES-C10	≥1	≥4	≥4	-	-	-
	GW12K-ES-C10	≥1	≥4	≥4	-	-	-
	Battery firmware: BMS ≥V1.88; Inverter firmware :3~6K ARM≥09 version; 8~12K ARM≥08 version						

Note

1. Max.32 can be connected in parallel.
2. Inrush Power: Each Inverter has their Inrush power for off grid applications, please make sure to consult with inverter brands for the right value of correspondences.
3. In back-up and off-grid application scenarios, the number of battery packs we recommend is the minimum number to allow the inverter to operate at full load power.

FD-LV 5.0

Battery installation video

Battery Box

BATTERYBOX LV5.0

Battery Installation Video

Requirements for Installation | Preparation for Wiring | Battery Module | Tower (1~4 modules) | Operation

Q&A