Quick Installation Guide

Model:

CQ6 CQ6 (w) CQ7-80 CQ7-80 (w)

1. Tools Required

The following tools will be required to install CQ-M (Main module) and CQ-S (Sub module), including batteries with and without warm up function.

- 6mm Magnetic Phillips Screwdriver
- Crimpers
- Safety Shoes
- Multimeter
- Safety Gloves
- Safety Glasses
- Plier
- Ribbon
- Hammer Drill @ϕ8mm
- Spirit Level
- Tape
- Marker
- Wire Cutter

2. Packing List

For CQ-S :

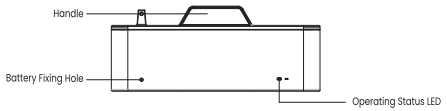
- A Mounting screw pack

For CQ-M :

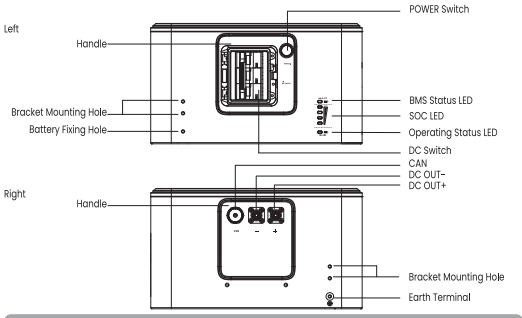
- B Mounting screw pack
- C Fixing bracket*3
- D Footstand
- E Communication cable (BMS-inverter)
- F Grounding cable (Wire gauge 10 AWG)
- G DC output cable (Wire gauge 25mm²)
- H Installation guide
- I Expansion tube*2 & Expansion screw*2
- J Waterproof cover
- K PV connector removal tool
- L Protective cover
- M Terminal PV*2

3. Terminals

For CQ-S :



For CQ-M :

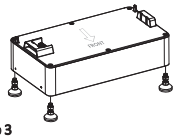


4. Installation Steps

Note: All installation procedures must fully comply with all applicable regional and industry standards, covering cable selection, wiring, protective devices, and overall installation practices.

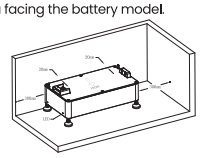
Step 1

Install a CQ-S with four footstand (Item D) and place it on the ground and adjust it to the level. After installing the footstand, use a track level bar to confirm the level.



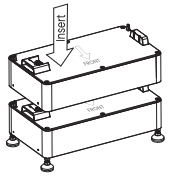
Step 2

Place the battery 20mm against the wall. Note: Please make sure the Operating Status LED is on your left handside when you facing the battery model.



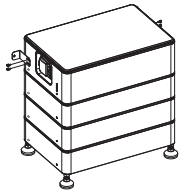
Step 3

Stack the batteries one by one.



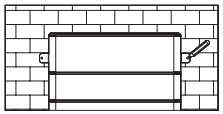
Step 4

Place the two fixing brackets (Item C) close to the wall and install them on both sides of the battery.



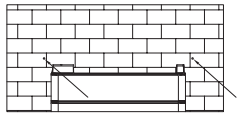
Step 5

Mark the wall through the bracket hole.



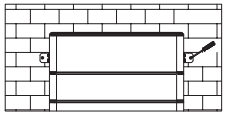
Step 6

Punch after removing the CQ-M. Drill holes with electric drill, make sure the holes are at least 50mm deep, and then tighten the expansion tubes (Item I).



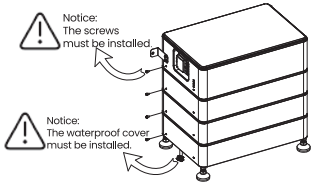
Step 7

After stacking CQ-M again, fix the battery on the wall.



Step 8

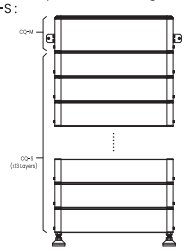
Fix the mounting screw packs on both sides of the battery. Insert the waterproof cover (Item J) into the bottom of the battery and lock it in place with the clip.



Note:

To disassemble the battery system, first shut down the battery system. Then remove the waterproof cover, and remove the CQ-M and CQ-S modules in sequence as specified in the user manual.

Note: Please make sure each system is including one CQ-M and at least one and at most thirteen CQ-S :



Note: Installation location instructions for fixing brackets (Item C):
L : number of layers in the battery system. Counting layers from the bottom up.
When L ≤ 6, a pair of Item C is installed on CQ-M;
When 7 ≤ L ≤10, a pair of Item C is installed on CQ-M, and install an additional pair of Item C on 5th layer CQ-S;
When 11 ≤ L ≤14, a pair of Item C is installed on CQ-M, and install 2 additional pairs of Item C on 5th layer and 10th layer CQ-S.

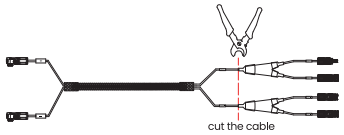
Note: When used with an inverter, the battery system voltage must meet the inverter battery port voltage range.

5. Wiring Steps

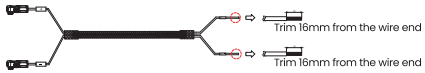
A. Connect the power cables with different models of the inverters, please follow below illustrations for the wiring.

a) Matching inverters H3 Plus/P3 Plus

Use wire cutters to cut the cable along the dotted line, leaving the left cable for use.

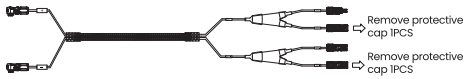


Cable Stripping Instructions



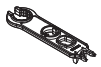
b) Matching inverters H3 Pro/P3 Pro

Use the special disassembly tool included in the accessory kit to remove the 2PCS protective caps from the cables.

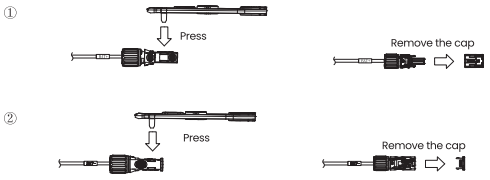


Protective cap disassembly procedure

1. The following tool is required.



2. Align the jaws of the PV connector removal tool (Item L) with the holes where the connector connects to the protective cap and press down to remove the cap.



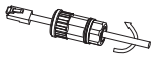
c) Matching inverter H1-G2/KH/H3/H3 Smart/H3-M/P3-S for direct use.

B. Wiring and Installation Steps

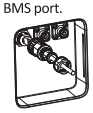
Step 1: Communication Cable (Item E) installation procedure.

Note: Please use the side labeled BAT to connect to the battery and the side labeled INV to connect to the inverter.

a. Open the tail lock wire nut.



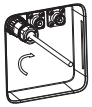
b. Plug communication cable RJ45 into the battery BMS port.



c. Use an open-end spanner to lock the body onto the RJ45 board end connector. torque: 1.2±0.2N·m

d. Install the sealing plug into the main body.

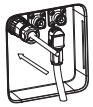
e. Use an open-end spanner to lock the thread locking nut onto the main body.



Step 2: Power cable installation and fixing procedure.

Note: Please use the side labeled with "+" and "-" cable, i.e. right angle terminal to connect to the battery, and the side labeled with "BAT+" and "BAT-" cable to connect to the inverter.

a. DC- output cable Installation.

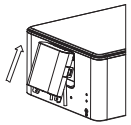


b. DC+ output cable Installation.

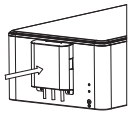
c. DC output cable installation complete.

Step 3: Protective cover (Item L) installation procedure.

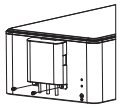
a. Put the communication cable and DC output cable into the wire slot of the protective cover and, at the same time, tilt the protective cover at a certain angle so that the clip on the top is clicking into the housing slot.



b. Press down on the protective cover so that the tabs on both sides snap into the slots.

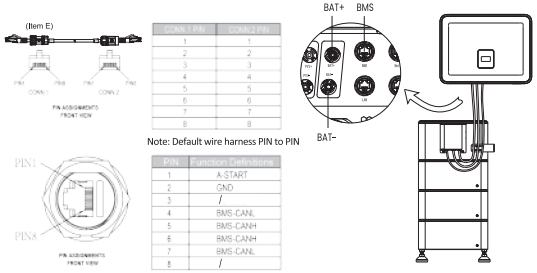


c. Secure the protective cover with screws.



Step 4: Insert the connector at the other end of the cable into the BMS port at the base of the inverter and tighten securely.

Note: Inverter wiring refer to the inverter user manual.



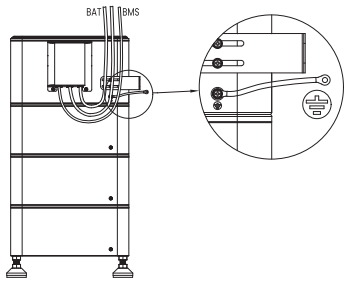
CONN 1 PIN	CONN 2 PIN
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8

Note: Default wire harness PIN to PIN

PIN	Function Definition
1	A-START
2	GND
3	/
4	BMS-CANL
5	BMS-CANH
6	BMS-CANH
7	BMS-CANL
8	/

Note: If using a new RJ45 cable, the waterproof union nut can be removed from the communication cable (Item E) and placed into the new cable to ensure proper sealing.

Step 5: Connect the grounding cable. The figure is shown in below.



6. System Operation

System Start Up:

When the inverter is connected to the PV and the grid and both are operating normally, turn on the battery DC Switch. Press the POWER Switch and hold it for 3 seconds, then release. The Status LED is blinking green and indicates that the system is working normally.

System Shut Down:

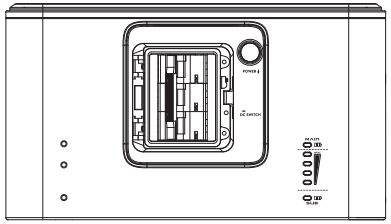
Press and hold the POWER switch for at least 5 seconds until all of the main battery LEDs (BMS Status LED and SOC LED) begin blinking. Once they start blinking, release the switch. The lights will automatically turn off after 5 seconds. Then, turn off the DC Switch.

System Black Start:

Under special circumstances when both PV and Grid power are out of order, the battery can be activated through the "Black Start" function. This means that our energy storage inverter and battery can continue to operate. The startup steps for black start are as follows:

- Turn on the DC Switch, press and hold the power button for 3 seconds, then release.
- Press the "POWER Switch" button three times in succession within 4 seconds (Complete within 30 seconds after the battery system starts up).
- The Status LED remains solid green, indicating successful activation of Black Start mode.

Note: Ensure correct battery-inverter connection prior to Black Start. No wiring modifications during Black Start.



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