

H2-(5K-10K)-S3-(A) Inverter Quick Guide

This quick guide provides installation instructions. For safety precautions and detailed product information, please refer to the user manual on SAJ website www.saj-electric.com. You can also scan the QR code to access all the product documentation.



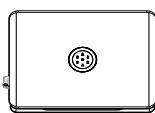
1. Check the outer packing

- Check the outer packing package for any damage, such as holes and cracks.
- Check the equipment model.

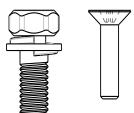
Note: If any damage is found or the model is not what you requested, do not unpack the product, contact your dealer as soon as possible.

2. Check the product packages

Place the connectors separately after unpacking to avoid confusion for connection of cables.



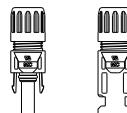
H2 Inverter *1



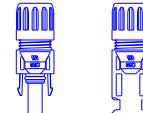
M5*12 screw *1
M4*10 screw *12



M6*50 screw suite *4



PV terminals 2*3



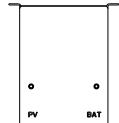
Battery terminal 2*1



AC terminal lug*6



Communication terminal cover *1



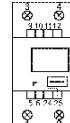
PV and BAT cover *1



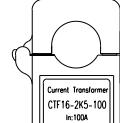
AC cover *1



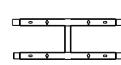
eSolar AIO3 module *1



Smart meter *1



Current transformer *1



Mounting bracket *1



120Ω resistor *1



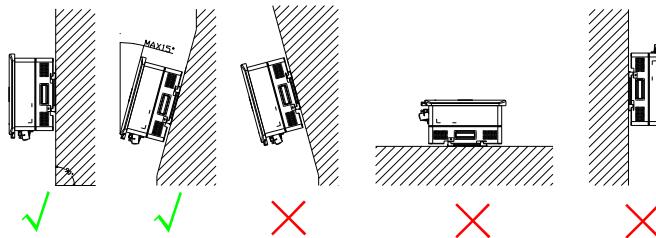
Meter communication cable *1 (1000 mm)



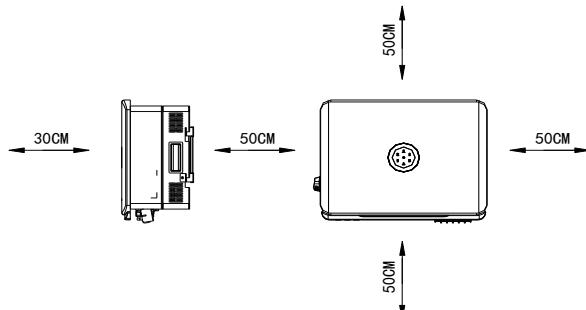
Documents

3. Check installation method and gaps

- The inverter uses natural convection cooling and can be installed indoors or outdoors.
- Do not expose the inverter to direct sunlight because overheating might cause power derating.
- Mount vertically with tilting angle no greater than 15°. Never install the inverter horizontally or upside down.

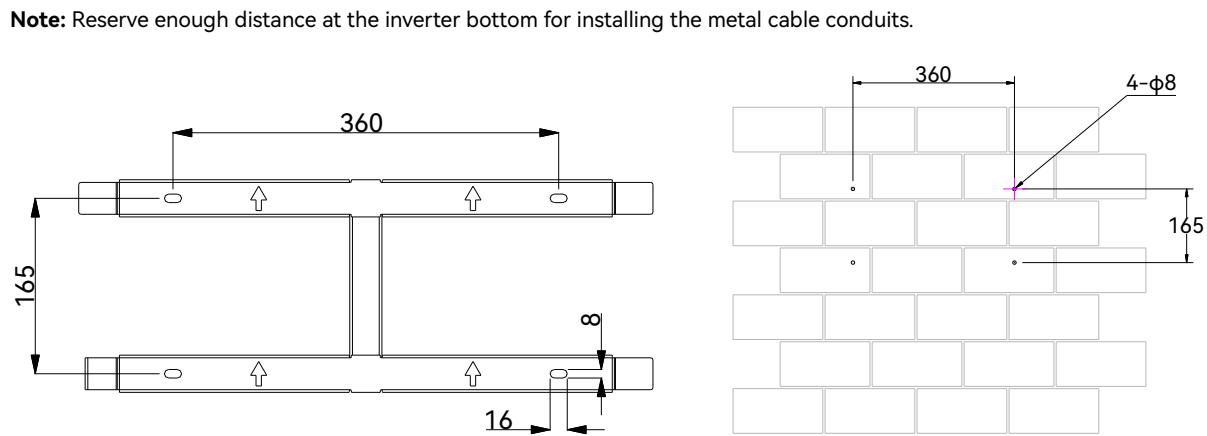


- The minimum clearance requirement for inverter installation is shown below.

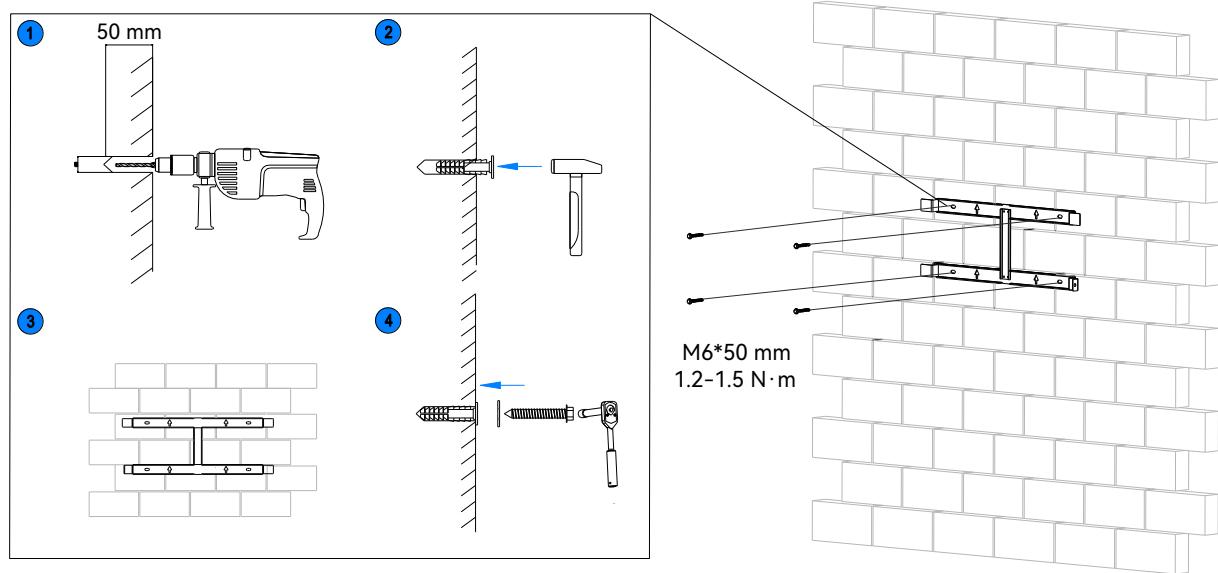


4. Install the inverter onto the wall

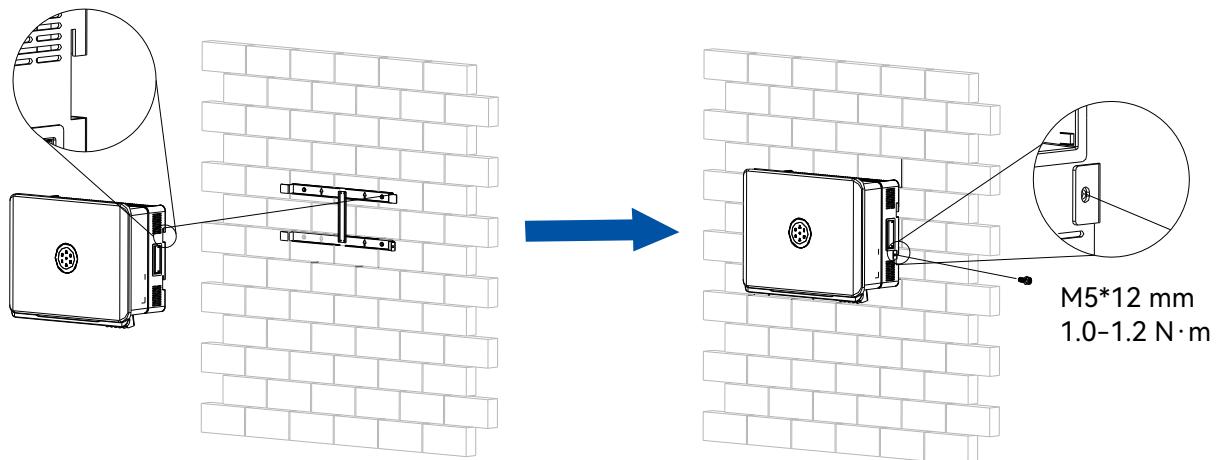
- Determine the installation position and mark holes.



- Drill holes and install the mounting bracket onto the wall.



- Mount the inverter to the bracket and secure the inverter.

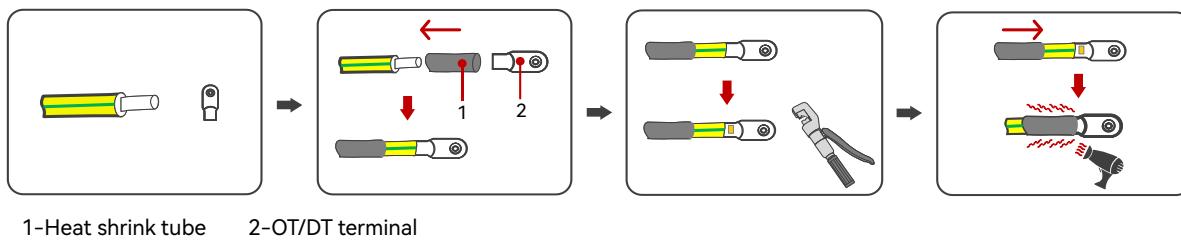


5. Install the battery

For details, refer to the compatible battery user manual.

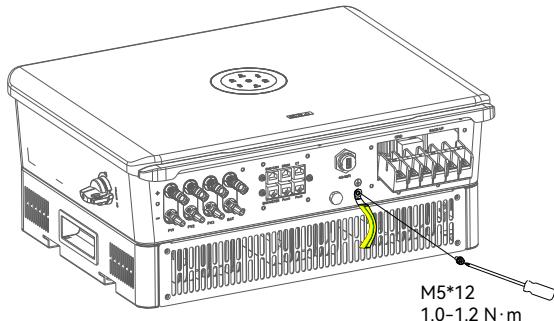
6. Connect the grounding cable

1. Prepare a cable with a conductor cross-sectional area of 6 mm².
2. Assemble the cable and OT/DT terminal.



1-Heat shrink tube 2-OT/DT terminal

3. Remove the screw on the ground terminal and secure the cable.



7. Install a 100A circuit breaker and an RCD (if required) and connect the smart meter

For details, refer to *External AC Circuit Breaker and Residual Current Device* in the user manual.

8. Assemble the AC-side electrical connection

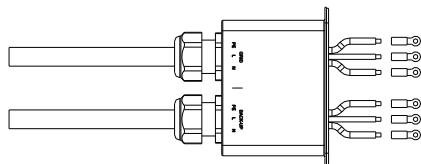
⚠ WARNING

Risk of high voltage and electric shock

- Before carrying out any wiring operations, ensure that the device is powered off.
- Before applying power to the inverter, ensure that all connections are made correctly, in accordance with the instructions in this manual, and with local wiring codes and regulations. Improper wiring of AC conductors can result in electrical failure or equipment damage.

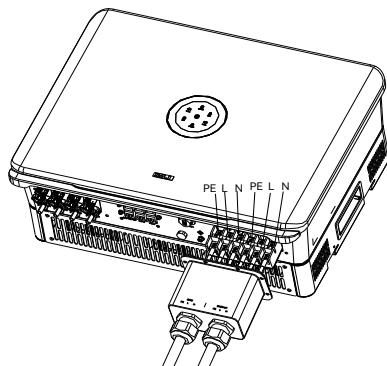
1. Prepare AC cables with a conductor cross-sectional area of 16 mm² (range: 13–21 mm²).
2. Loosen the nut from the cable gland on the waterproof cover. Insert the AC cable through the nut and then the cable gland.

Assemble the OT terminals to the cable ends.



3. Connect the cables to the conductors L, N, and PE and secure them tightly.

Secure the waterproof cover to the inverter. Tighten the nut back to the cable gland.



9. Assemble the communication connection

- **Connect communication cables to RJ45 ports**

1. Prepare cables according to pin definition in the following table.

Note: For the smart meter connection, use pin 1 **RS485-A+** and pin 2 **RS485-B-**.

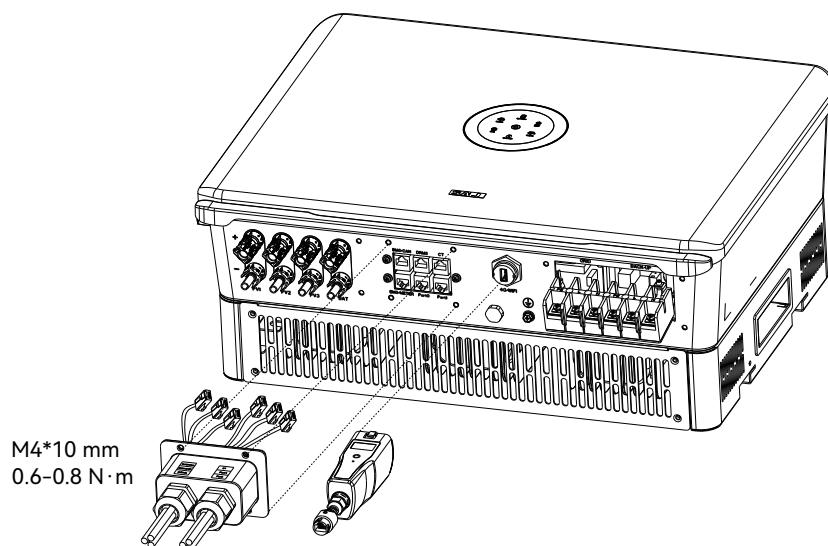
BMS/CAN		DRMS		CT	
1	NC	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
2	NC				
3	NC				
4	CANH				
5	CANL				
6	NC				
7	NC				
8	NC				

EMS/METER		PORT0		PORT1	
1	RS485-A+	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
2	RS485-B-				
3	NC				
4	NC				
5	NC				
6	NC				
7	RS485-A+				
8	RS485-B-				

2. Loosen the waterproof cover from the inverter. Loosen the nut from the cable gland on the cover.
3. Insert the communication cables through the nut, then through the cable gland.
4. Insert the cables into the corresponding communication ports.
5. Secure the waterproof cover to the inverter by tightening the screws.
6. Tighten the nut back to the cable gland.

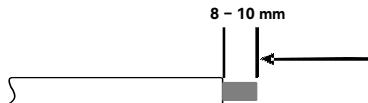
- **Connect communication module**

1. Remove the cover on the 4G/WIFI port.
2. Insert the communication module into the 4G/WIFI port and secure the module by rotating the nut.

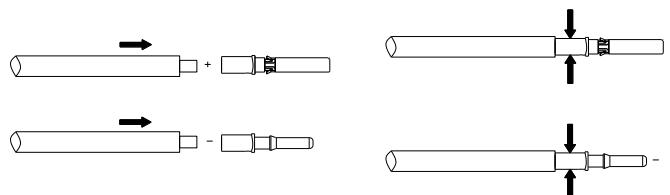


10. Connect the battery to the inverter

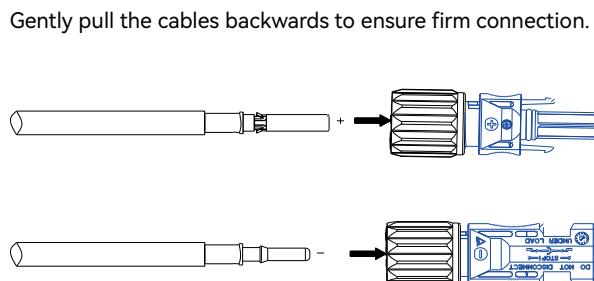
1. Prepare battery cables with a conductor cross-sectional area of 8 mm^2 (range: $8-10 \text{ mm}^2$).
2. Get the waterproof cover from the accessory bag and cut holes in the rubber plug.
Insert the positive and negative cables through the hole.
Strip the insulation (8 – 10 mm length) on the cable end.



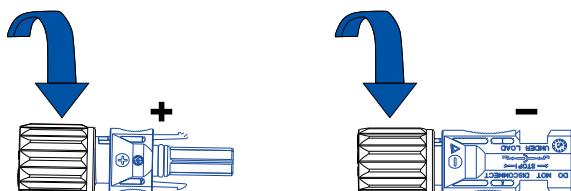
3. Assemble the positive and negative cables with the crimping pliers.



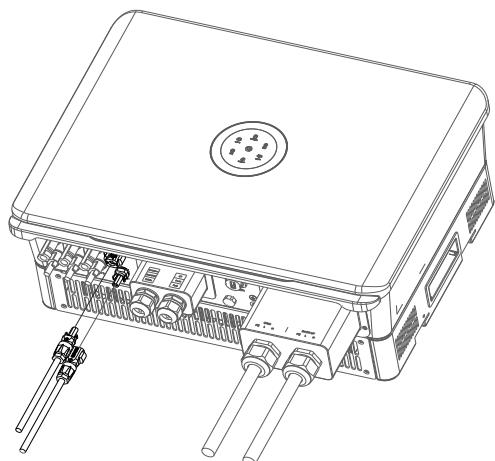
4. Insert the positive and negative cables into the positive and negative connectors.



5. Tighten the lock screws on the positive and negative connectors.

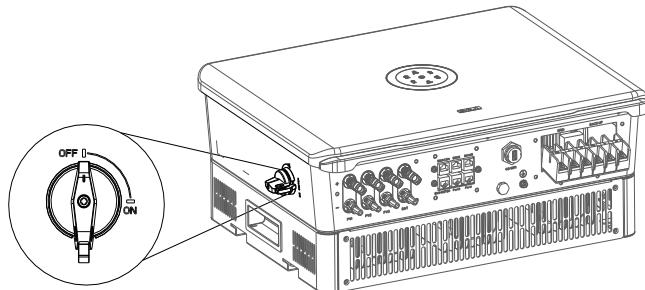


6. Connect the cables from the BMS to the BAT+ and BAT- ports on the inverter.

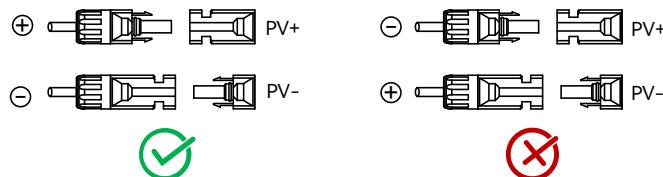


11. Assemble the PV-side electrical connection

1. Prepare battery cables with a conductor cross-sectional area of 4 mm² (range: 4-6 mm²).
The conductor shall be an outdoor-rated multi-core copper cable complying with 600 V DC standards.
2. Assemble the cables by referring to similar operations in steps 2 to 5 in **Section 10**.
3. Ensure that the DC switch is in the OFF position and locked.
For further safety consideration, use a reliable tool (such as a lock with a key) to lock the switch, so that others cannot unlock it easily.
Depending on your model configuration, the switch might look different.

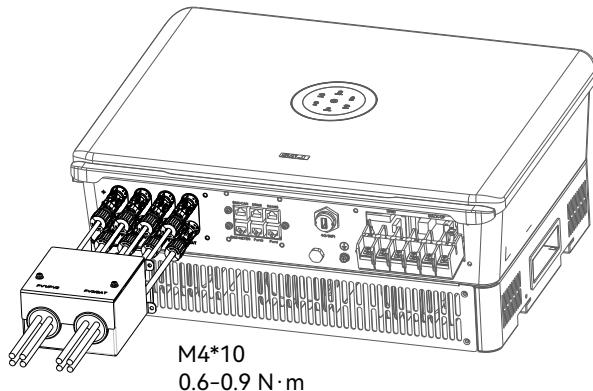


4. Connect the positive and negative connectors into the positive and negative PV input ports of the inverter. After a “click” sound is heard, the contact cable assembly is seated correctly.



12. Install the waterproof cover for PV and battery cables

Tighten three screws to secure the waterproof cover.



13. Start up the system

1. Turn on the AC breaker on the grid side to connect to the grid.
2. Turn on the DC switch on the inverter to connect to the PV array.
3. Turn on the battery switch to connect to the battery.
4. Check the LED indicator status on the inverter panel to ensure that the inverter is running properly.
5. Configure the system on the elekeeper App. For details, refer to **Commission on the elekeeper App** in the user manual.
6. If any error occurs, check the alarm message and error code displayed on the App. For detailed error messages, refer to **Troubleshooting** in the user manual.

Installer: _____