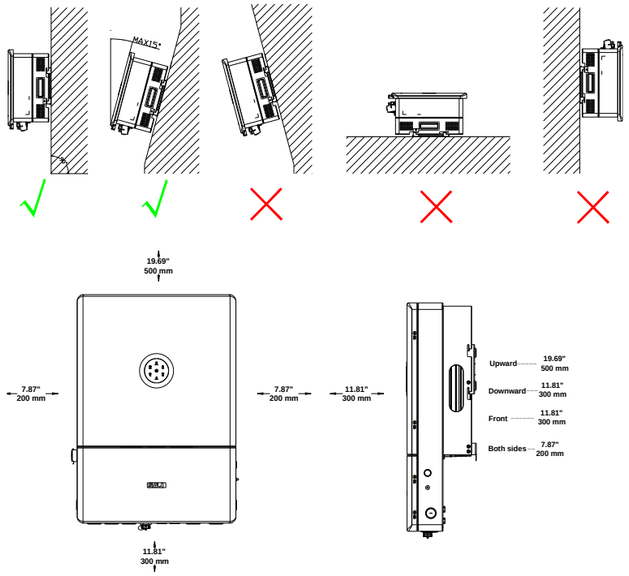
H2-(5K-12K)-S4-US Inverter Quick Installation Guide

For more information, refer to the inverter user manual.

☐1. Checking installation ways and gaps

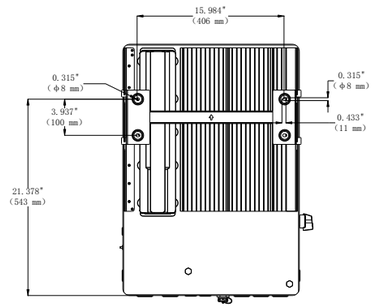


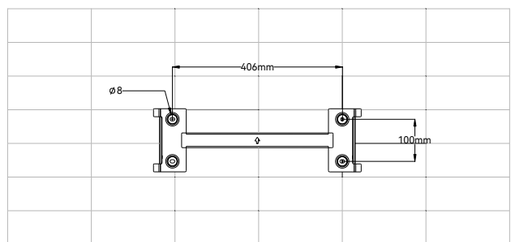
☐2. Installing the inverter

1. Determine the installation position and drill holes on the wall.

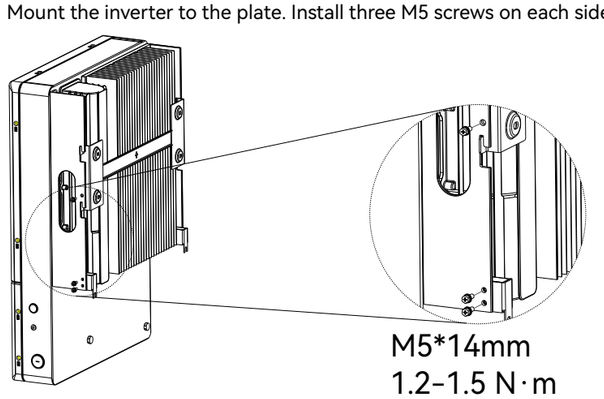
   Note: Reserve enough distance at the inverter bottom for installing the metal cable conduits.

2. Use four M6 expansion bolts to fix the mounting plate to the wall.





3. Mount the inverter to the plate. Install three M5 screws on each side of the inverter.



☐3. Installing the SBU

Install the SBU between the grid and the inverter. Connect cables to the grid and loads. For details, refer to the SBU user manual.

☐4. Installing the battery

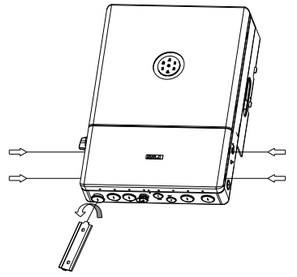
Install the battery. For details, refer to the battery user manual.

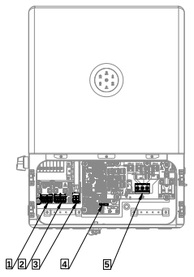
Warning: On one battery, do NOT connect its positive port (BAT+) to its negative port (BAT-). This will short-circuit this battery, causing serious battery damage.

Note: For regulation compliance, you can install a battery isolator ≥70A near the inverter, except that you are using the SAJ B2 battery model which has a built-in DC isolator in its high-voltage box unit: B2-7.3-HV5, B2-14.6-HV5, or B2-21.9-HV5

☐5. Opening the wiring compartment of the inverter

1. Use the Allen Wrench to press down four locks on both sides of the inverter. Then, remove the cover.
2. Use a flathead screwdriver to remove the cable hole fillers. (Inserting into the hole and anti-clock rotation)

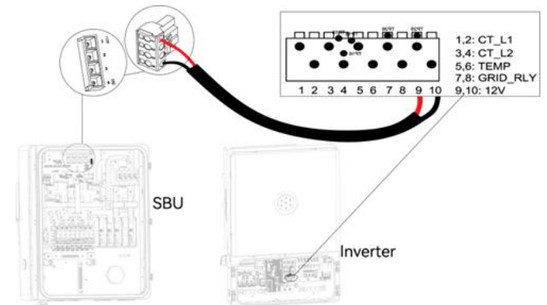




Callout	Description
1	PV1-2
2	PV3-4
3	BAT
4	4G/WI-FI; COM2; COM1
5	GRID

☐6. Assembling the SBU power connection

1. Insert the 12 V power cables through cable hole D at the bottom of the SBU. For the cable hole location, see section “Cable holes” in the SBU user manual.
2. Loosen screws in the high-voltage terminal on the inverter. Connect the 12 V power cables from the SBU to the inverter, as shown below. Then, tighten the screws.



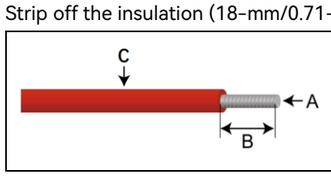
Cable color	Red	Black
From (SBU)	Position 1	Position 4
To (inverter)	Position 9	Position 10

☐7. Assembling the AC-side electrical connection

1. Depending on your inverter, prepare cables according to the below table.

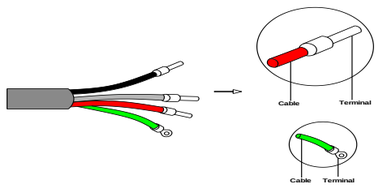
Inverter model	AC breaker	Cable size	Inverter model	AC breaker	Cable size
H2-5K-S3-US	30 A	10 AWG	H2-7.6K-S3-US	40 A	8 AWG
H2-8.6K-S4-US	45 A	8 AWG	H2-10K-S4-US	55 A	8 AWG
H2-12K-S4-US	70 A	6 AWG			

2. Strip off the insulation (18-mm/0.71-inch length) of the cable ends.



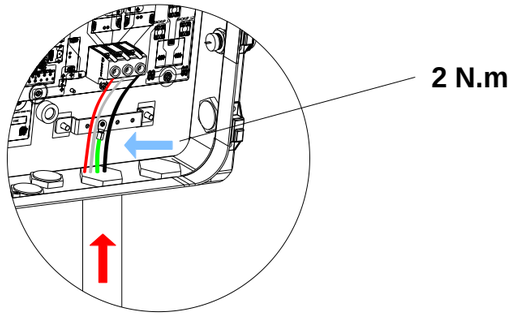
Grade	Description	Value
A	Conductor core section	6 AWG
B	Conductor core length	18 mm (0.71 inch)
C	Outside diameter	Max. 7.4 mm (0.29 inch)

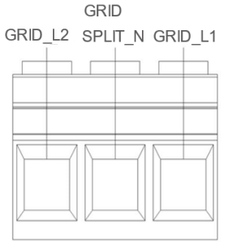
If needed, you can put a terminal on the cable end, as shown below.



3. Connect the cables from SBU to the inverter. Use a standard torque (2N.m) to tighten the screws.

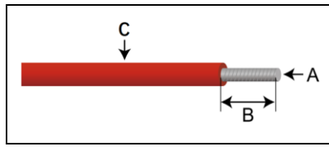
Cable (color)	L1 (black)	L2 (red)	N (white)	PE (green)
From (SBU)	L1 terminal	L2 terminal	N terminal	PE terminal
To (inverter)	L1 terminal	L2 terminal	N terminal	PE terminal





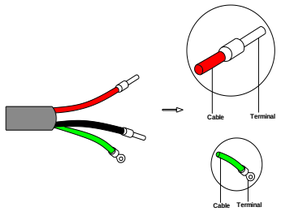
☐8. Connecting the battery to the inverter

1. Stripe off the insulation (18-mm/0.71-inch length) of the battery cable ends.

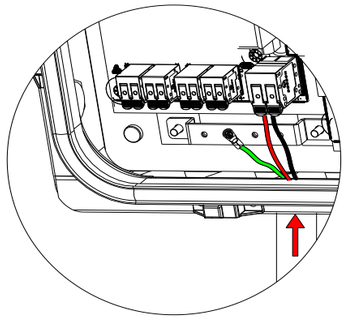


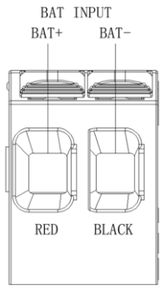
Grade	Description	Value
A	Conductor core section	6 AWG
B	Conductor core length	18 mm (0.71 inch)
C	Outside diameter	Max. 7.4 mm (0.29 inch)

If needed, you can put a terminal on the cable end, as shown below.



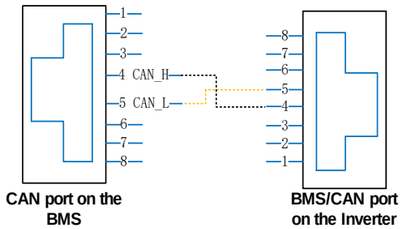
2. Insert the cables through the conduit and connect it to the battery terminals in the wiring compartment.





☐9. Assembling the communication connection

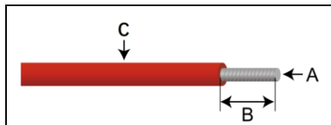
1. Insert the prepared communication cables through the conduit and connect to the corresponding communication ports.
   a. Connect the CAN port on the BMS to the BMS/CAN port on the inverter.



   b. Connect the H2-CAN port on the SBU to the GATEWAY_CAN port on the inverter.
2. Toggle the DIP switch SW2 down.

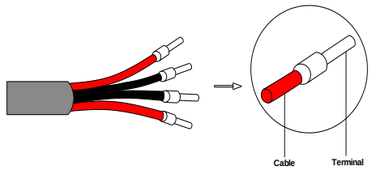
☐10. Assembling the PV-side electrical connection

1. Strip off the insulation (18-mm/0.71-inch length) of the PV cable ends. User cable ferrules if the cable is of multi-strand type.

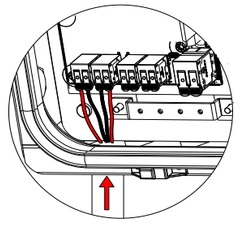


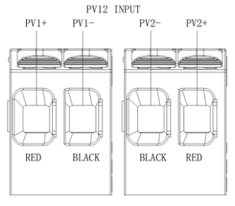
Grade	Description	Value
A	Conductor core section	12 AWG
B	Conductor core length	18 mm (0.71 inch)
C	Outside diameter	Max. 5.6 mm (0.22 inch)

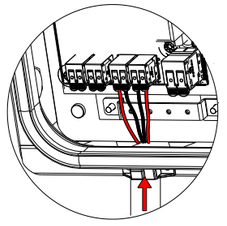
If needed, you can put a terminal on the cable end, as shown below.

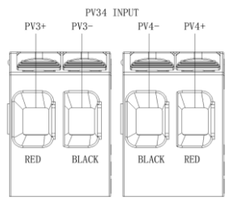


2. Ensure the DC switch on the left side of the inverter is turned off.
3. Insert the PV cables through the conduits and connect them to the PV terminals in the wiring compartment.
   For PV1-2, refer to the left two figures; for PV3-4, refer to the right two figures.









4. Close the cover of the wiring compartment.

☐11. Performing subsequent operations

1. Turn on the DC switch on the PV side.
2. Open the battery switch.
3. Ensure the SBU is connected properly. Open the breaker on the grid side.
4. Perform system commissioning on the eSAJ Home APP. For details, see the *Configuration Instructions*.

Installer: _____