

HEC2 SINGLE PHASE RESS Quick Installation Manual



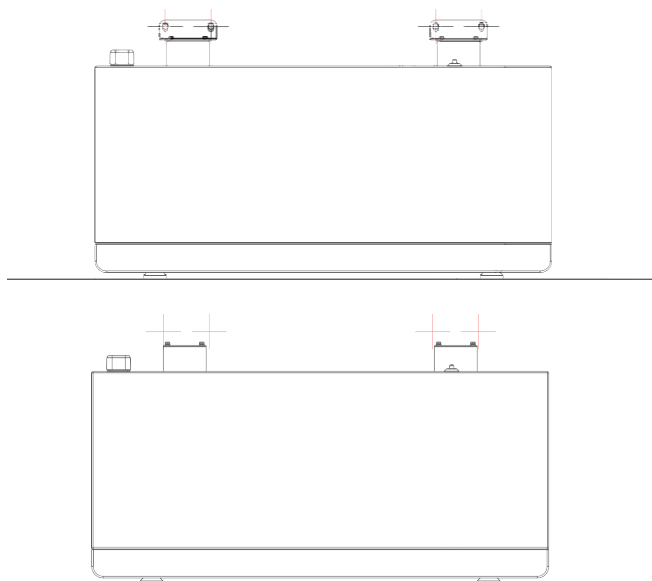
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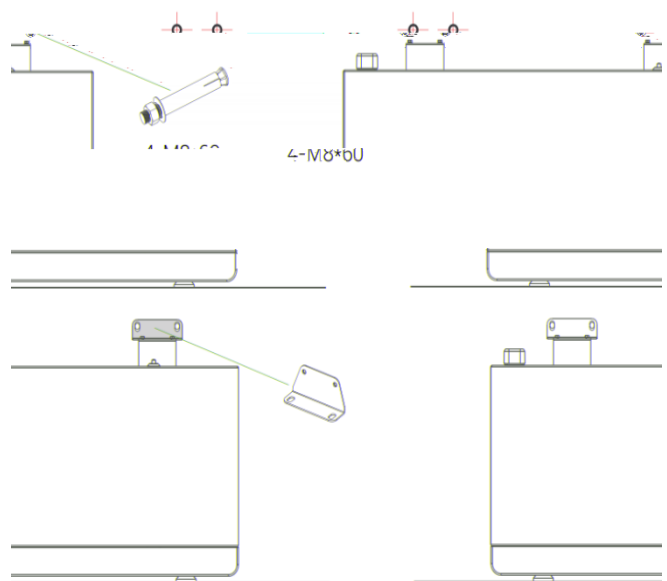
1 Notes on this Manual

1.1 Scope of Validity

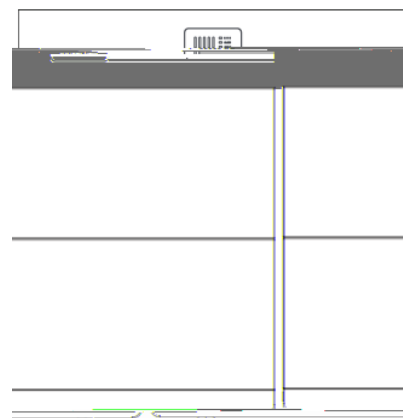
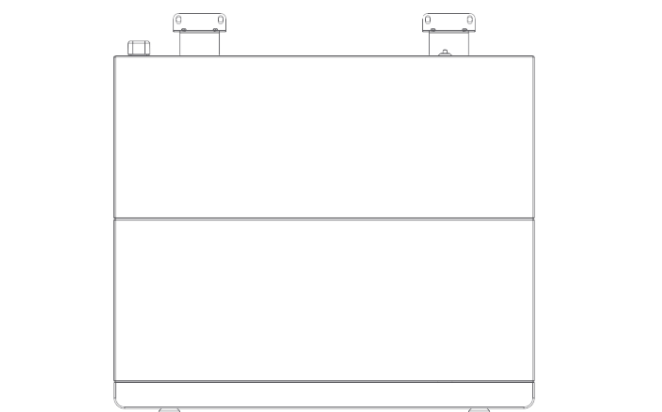
This manual is an integral



Step 6: Repeat steps 2 to 5 to install the other battery modules required. Please align the lower battery with the front of the upper battery during installation.



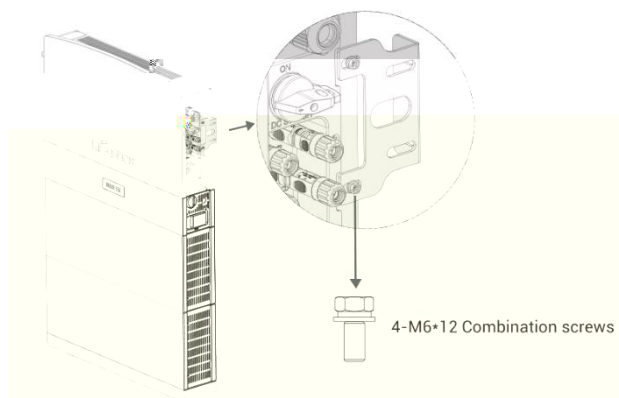
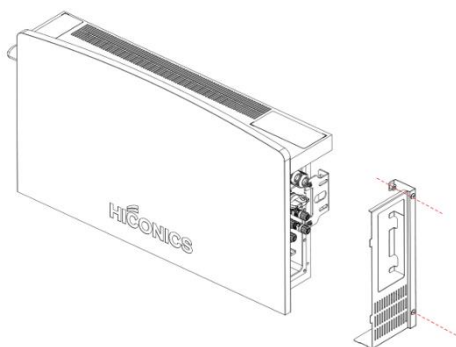
Step 7: After installing the battery module, place the BMS control box on top of the battery box. Please align the BMS control box with the front of the lower battery during installation.



3.2 Inverter Installation

Step 1: Open the inverter hood covers on both sides and place the inverter vertically on the BMS control box. It will build the connection between the inverter and BMS of the control box via PACK and inverter connection cable

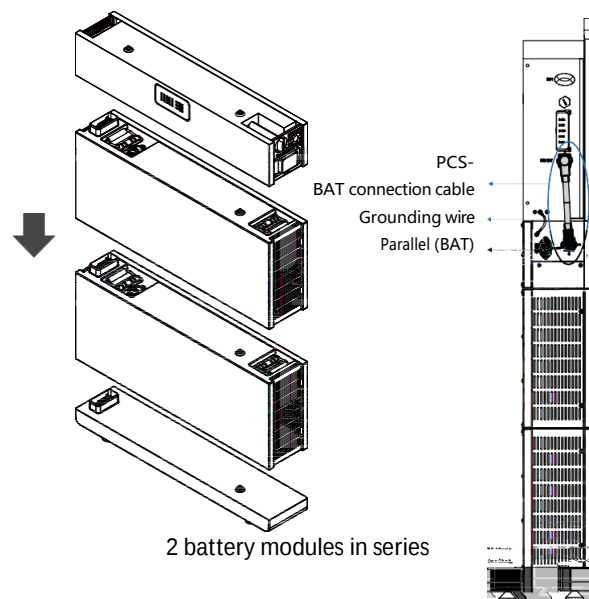
Step 2: Place the inverter on the BMS main box, x the inverter on the mounting bracket, adjust the whole system, and ensure that the battery and inverter are rmly hung on the panel and bracket



4 Electrical Connection

4.1 Battery System Cable Connection

The HEC2-BHP system (without inverter) is cableless installation design which includes pre-installed internal connections. The modular stack installation directly plug-in and completes the series connection between battery modules. The connection between the con rm from R&D about the BMS box model number system (from BMS main box) and the inverter requires a cable connection using PCS-BAT connector which includes power connection, communication and grounding. Also, there's a separate grounding connection between BMS main box and inverter.



4.2 PV Connection

Before connecting to PV modules, please install a separately DC circuit breaker between inverter and PV modules.

It is very important for system safety and efficient operation to use appropriate cable for PV module connection. To reduce risk of injury, please use the proper recommended cable size.

Wire Size	Cable (mm²)
12 AWG	4

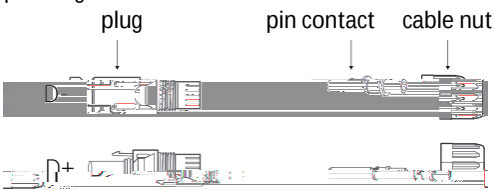
When select PV array, make sure the open circuit voltage should be greater than the minimum operating voltage and should be less than maximum voltage limit.

Model	HEC2-S3.68Hr2	HEC2-S3.68Hr2	HEC2-S3.68Hr2	HEC2-S3.68Hr2
Max. DC Voltage (V)	600	600	600	600
MPPT Voltage Range (V)	100-540	100-540	100-540	100-540

Step 1: Checking PV module.

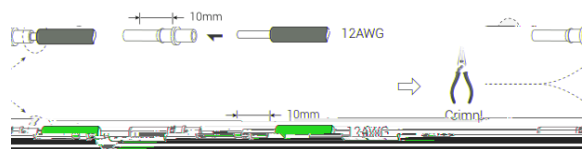
- Use voltmeter to measure module array voltage.
- Check the PV+ and PV- from the PV string combiner box correctly.
- Please make sure the impedance between the positive pole and

Step 2: Separating the DC connector.



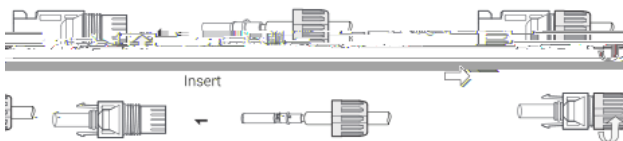
Step 3: Wiring

- Choose the 4 mm² wire to connect with the cold-pressed terminal.
- Remove 10mm of insulation from the end of wire.
- Insert the insulation into pin contact and clamp it.



Step 4:

Insert pin contact through the cable nut to assemble into back of the male or female plug. When you feel or heard a “click” sound the pin contact assembly is seated correctly.



Step 5: Plug the PV connector into the corresponding PV connector on inverter

4.3 AC Input/Output Connection

Installation tools



open-end wrench



wire stripper



2.0 Allen driver



6-side Rivet pliers

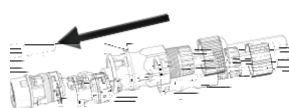
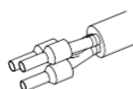
Installation Steps

1. Use professional tools to peel off the cables according to the requirements

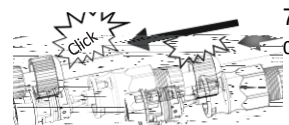
2. Insert the conductor into the suitable ferrule acc. to DIN 46228-4 and crimp the contact

3. Unscrew the swivel nut from the threaded sleeve and thread the swivel nut and threaded sleeve over the AC cable

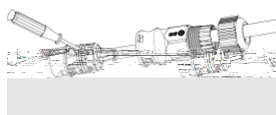
4. Crimp the terminals with crimping pliers



5. Set the parts on the cable, Insert the terminal holes in sequence

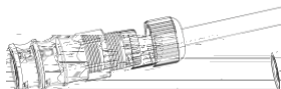


7. Insert the main body into the rubber core and hear the "click" sound



6. Crimp the wire with a hexagonal screwdriver and turn the screw.

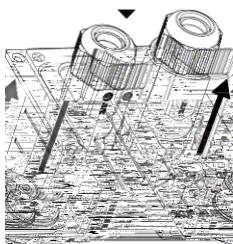
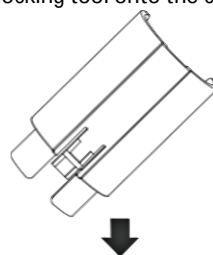
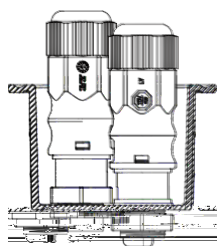
Note: wire according to the L, N, and PE labeling of the plug-in



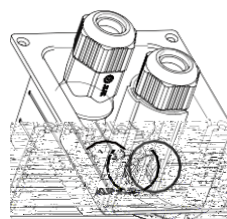
8. Tighten the nut with an open-ended wrench (torque $2.5 \pm 0.5 \text{ N}\cdot\text{m}$)

Port unlocking Instructions

Place the unlocking tool onto the corresponding product



Pull the product outwards to complete the split



Press the button on the unlocking tool with your finger or a flathead screwdriver

Note: The disassembling and assembling methods and procedure operation for the male plug-in is the same as that for the female plug-in

4.4 Communication



4.01e

4.01e blue

The installed cable prepared for this interface will be terminated at the other end of the cable. Remove the cable insulation at the other end of the cable.

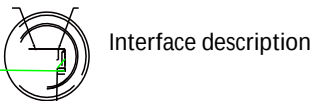
4.4.1 PM(M) to VCU Interface

Pin	Description
1	24VDC
2	24VDC
3	0VDC
4	0VDC
5	0VDC

4.4.2 COM/ECU Interface

This interface is a CAN bus interface. COM port uses a serial communication protocol, used for client to server communication.

Pin	Description	Pin	Description
1	DO2A	5	GND
2	DO2B	6	485B
3	485A	7	DO1A
4	VCC	8	DO1B



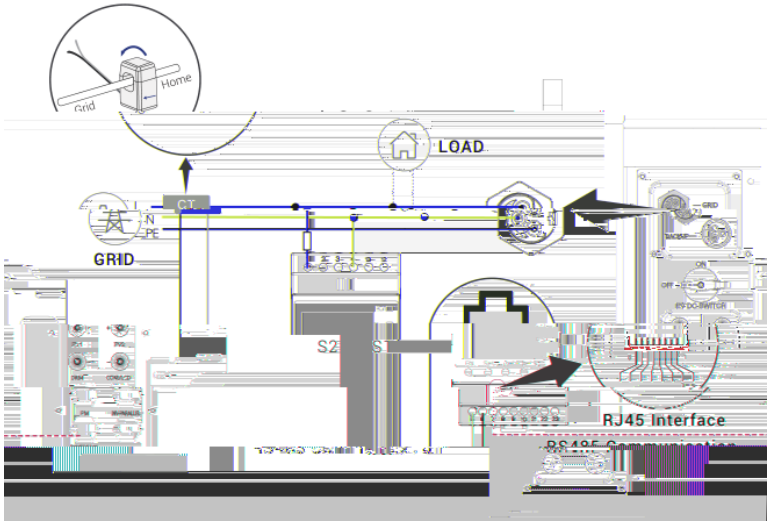
4.4.3 External Smart Meter (optional) Connection

You must connect external CTs or a smart grid meter between the inverter and the power grid. If you want to connect a smart meter, note that only one meter is necessary for each inverter. The meter must be mounted and connected at the grid transition point (feed-in point) so that it can measure the grid reference and feed-in power.

- Procedure**
- Step 1:** Prepare the communication wires, power cable, and tools for the meter connection

Step 3: Installation of CT. Refer to the introduction of CT installation for specific steps
- Step 2:** Selection of a suitable position location for fixing the DIN track, Mount the Meter on the DIN track

Step 4: Install the cables correctly as shown



Wiring of Smart Meter Connection (Example, ACRIORH-D10TE)

5 System Operation

- Switch On:

When turning on the system, it is very important to follow the steps below to prevent damage to the system.

WARNING: Please check the installation again before turning on the system.

Power-on process:

Step 1: Open the protective cover and close the BMS control box circuit breaker

Step 2: Press the BMS control box button and check the status of the light strip

Step 3: Turn on the photovoltaic isolation switch

Step 4: Turn on the grid-side circuit breaker

Switch Off:

Step 1: Turn off the grid-side circuit breaker

Step 2: Turn off the PV disconnect switch

Step 3: Open the protective cover and turn off the BMS control box circuit breaker