

# Single Phase Hybrid Inverter

Model:RHS-3.68/4/5/6K-H



**RCT**  
power


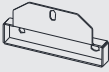












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**Quick  
Installation Guide**

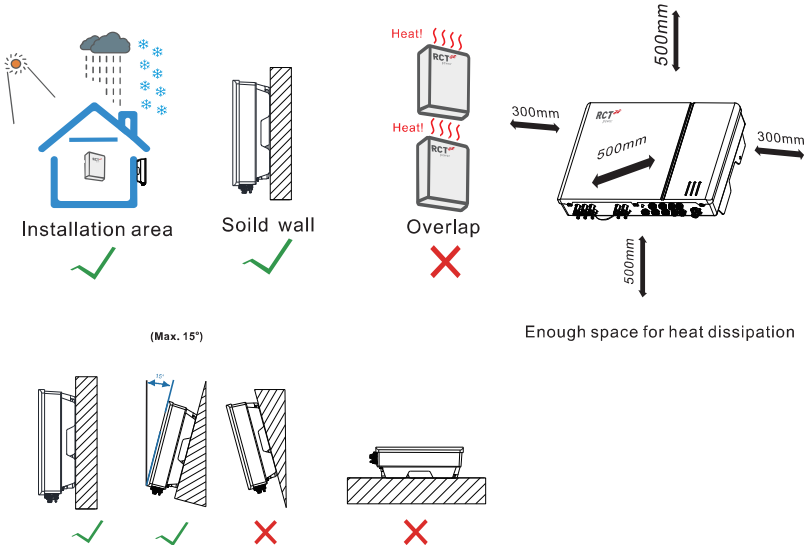
# I. Scope of Delivery

• Inverter

				
Inverter x1	Wall mounting bracket x1	Documentation x1	PV (3 sets) DC Connector	(contains 3 Terminals) AC Connector
				
WiFi Antenna x1	Screw Accessory x1	COM Cable Gland (7 sets) For AUS (5 sets) (4 sets) For EU	Locating Guide X1	
				
PE OT Terminal X1	optional LAN TO USB cable X1	COM cable X1	POWER SENSOR X1	CTX1

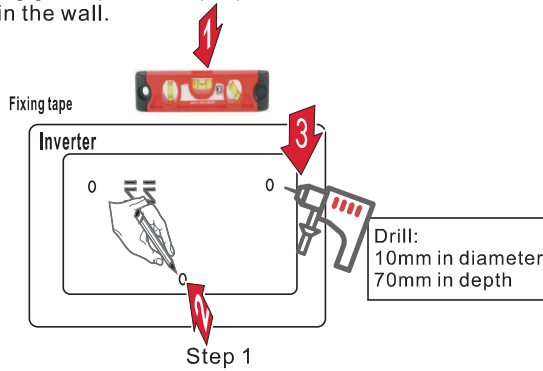
# II. Mounting environment

The location of the Inverter must be free of obstructions.  
Do not install in an area where there is a risk of explosion. Keep away from flammable materials. The following requirements also need to be observed.

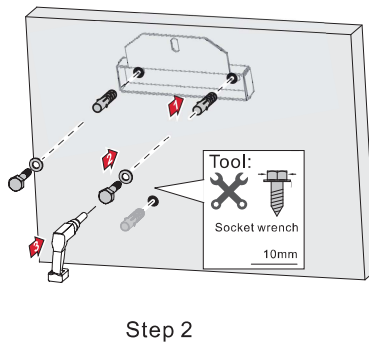


### III. Wall mounting

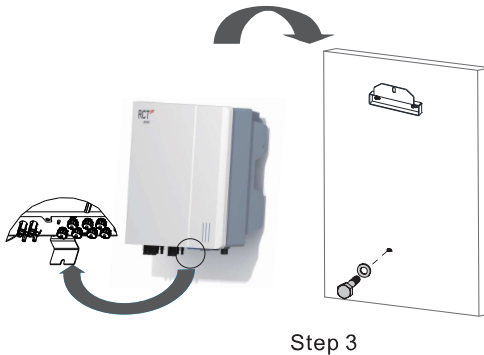
1. Place the locating guide plate to a proper on the wall. Mark the hole position, then drill holes in the wall.



2. Use expansion bolts in accessory bag to fix the wall-mounted bracket onto the wall tightly.

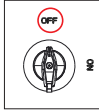


3. Carry the Inverter by holding the handle on two sides and place it on the wall-mounted bracket. Use screw sets to lock bottom side.

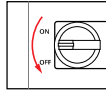


## IV. Electrical Connection

Ensure that the DC break switch of the inverter is set to "OFF".  
 The battery ON/OFF switch needs to be switched to "OFF".  
 AC on the inverter is disconnected by the main switch.

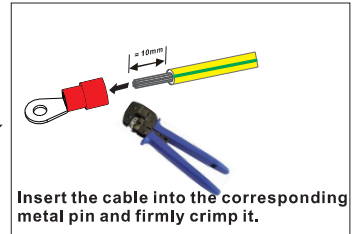


Inverter



Power Battery Master

### 4.1 Grounding



Insert the cable into the corresponding metal pin and firmly crimp it.

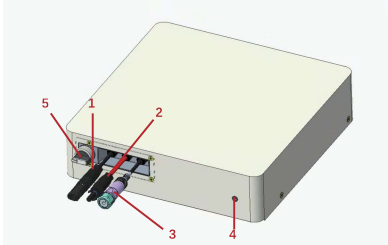
**PE Cable: 6mm<sup>2</sup>**  
**Torque : 1.2Nm**

### 4.2 Battery wiring to Inverter



## 4.2.1 Battery connection

Insert cable ①&② into corresponding bat port on the Inverter.



Battery port

Connect the DC cable “+” of the Power Battery Master to the “BAT +” Port on the Inverter side.  
Connect the DC cable “-” of the Power Battery Master to the “BAT -” Port on the Inverter side.

- ① DC cable (-) to the Power Storage
- ② DC cable (+) to the Power Storage

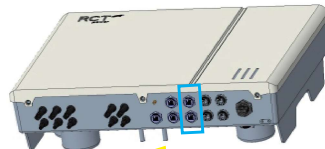
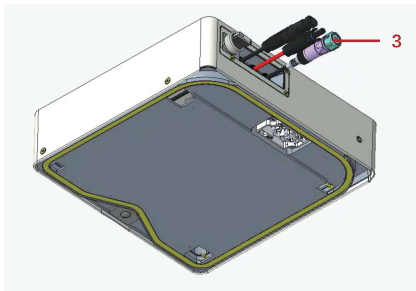


Please refer to Power Battery's "User Manual" for more information on Power Battery Master and Power Battery Stack.

## 4.2.2 Communication connection

Thread the Cat 5 network cable through com cable gland.  
Then plug the cable into the RJ45 connector for BMS1, BMS2 (CAN).

Cat 5 cable for CAN connection from Power Battery Master to Power Storage Inverter



BMS1 / BMS2 port



Please refer to Power Battery's "User Manual" for more information on Power Battery Master and Power Battery Stack.

## 4.2.3 Increase battery capacity by adding additional battery modules

Please review sections 4.2.2 above for the wiring steps.

Also, see the website link below for instructions on specific configurations.

<https://www.rct-power.com>

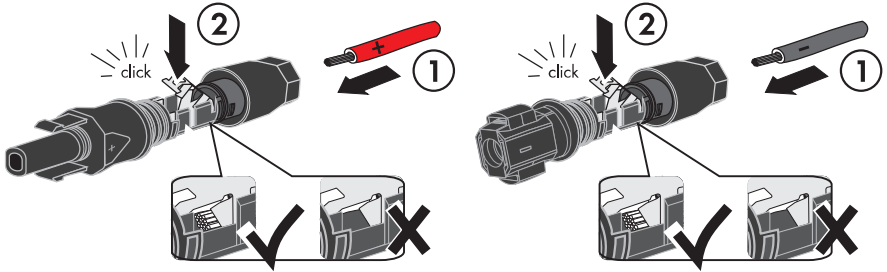


### 4.3 PV cable connection

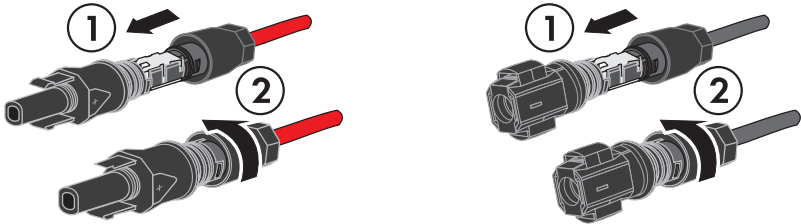
**1. Preparing the cable:**



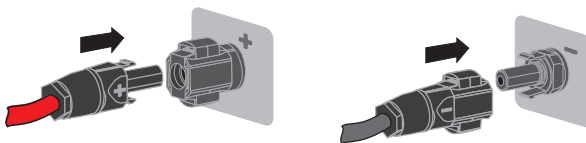
**2. Connect the PV stick**



**3. Push the tail nut up to the thread and tighten it. Torque: 2.0Nm**



**4. Insert the PV connector plug into the corresponding PV input port on the inverter.**



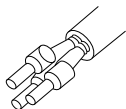
## 4.4 AC wiring to Inverter

### 4.4.1 AC cable connection

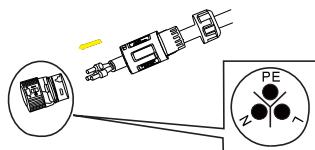
#### 1. Preparing the cable:



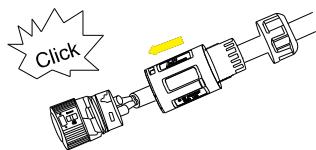
#### 2. Installation procedure:



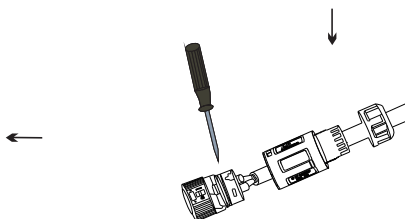
a) Crimp terminals



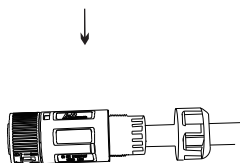
b) Insert the wire into the corresponding terminal



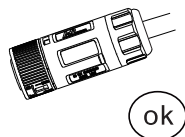
d) Insert the main body into the corresponding buckle and hear "click"



c) Use a hex screwdriver to crimp the wire and turn the torque  $1.2 \pm 0.1 \text{ Nm}$

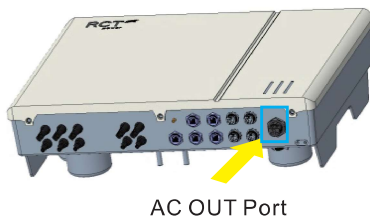
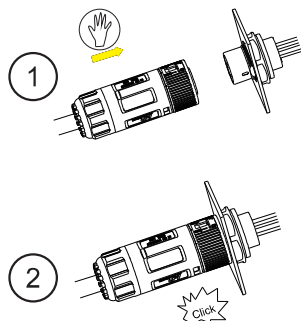


e) Screw the lock wire nut into the body, torque  $2.5 \pm 0.5 \text{ Nm}$



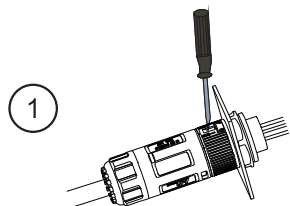
f) Installation complete

**3. Insert the AC connector plug into the corresponding AC out port on the inverter.**

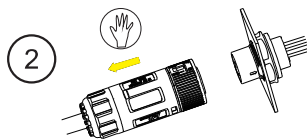


AC OUT Port

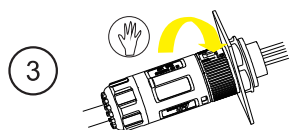
**4. Unlock instructions**



Use the flat-head screwdriver installation icon to flip the unlock lock(skip this step if you use a tool to unlock the lock)



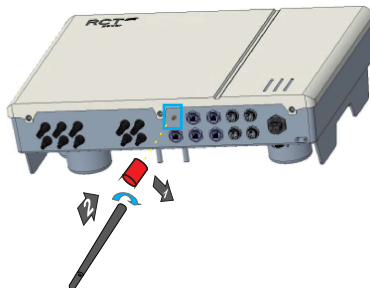
Rotate the latch as shown



Remove the female end of the cable to unlock the account

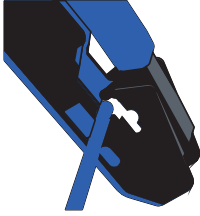
**4.5 Procedure for WIFI**

1. Remove the protective cap.
2. Tighten the Antenna.

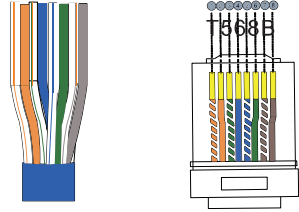


## 4.6 COM Cable to Inverter

### 4.6.1 Making network cables procedure:



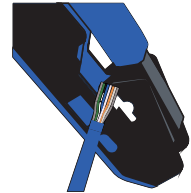
a) Use network cable pliers to peel off the cover of the network cable. The recommended length of the cover is 1.5 to 2cm



b) Separate the eight core wires of the peeled network cable in different colors and sort them from left to right according to the international standard connection T568B.



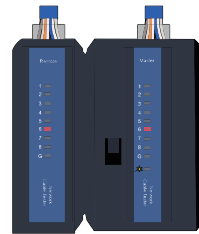
d) Insert the cut core wire slowly along the eight cable slots in the RJ45 connector until it is at the top of the cable slots.



c) Sort and straighten the network cable, place the network cable into the cutting port, and cut the length of the network cable, reserving about 1.4cm.



e) After the core wires are connected and the cable sequence is correct, insert the RJ45 connector into the corresponding pliers and crimp the connector. Then make the other end of the network cable by following the same steps. Note that the cable sequence of this end is T568B.

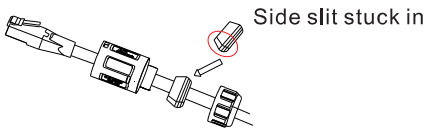


f) Finally, the made network cable is inserted into the tester, and the lights from 1 to 8 are on successively indicating normal, and the network cable is successfully made.

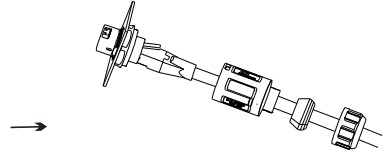
The final effect of the network cable is shown on the left.



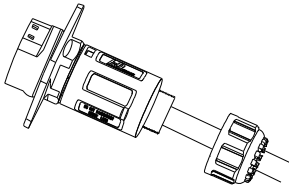
#### 4.6.2 Installation procedure:



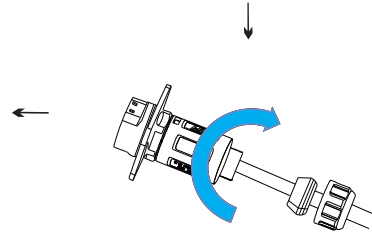
a) Route the network cable through the lock nut, sealing plug, and body, and insert the sealing plug into the side slit.



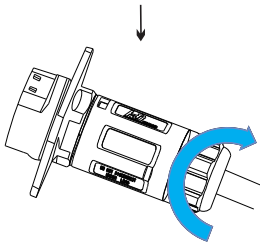
b) Insert the cable plug into the RJ45 connector.



d) Insert the sealing plug into the main body.



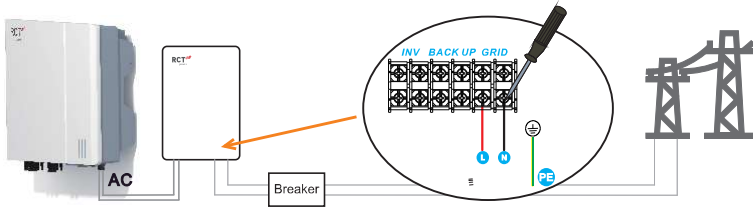
c) Use an open wrench to lock the main body on the RJ45 plate and connector; Torque:  $2.0 \pm 0.5 \text{ Nm}$



e) Use an open wrench to lock the wire nut into the body; Torque:  $2.0 \pm 0.5 \text{ Nm}$

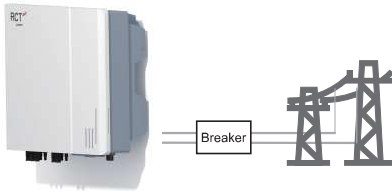
## V. Connect AC to utility Grid

- *With Power Switch*

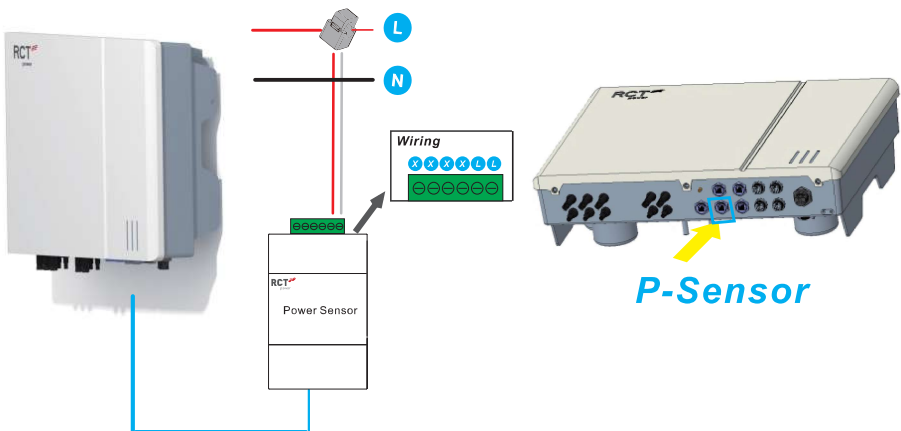


Note: Please refer to Power Switch's "User Manual" for more information about Power switch wiring to Inverter(5.2).

- *Without Power Switch*

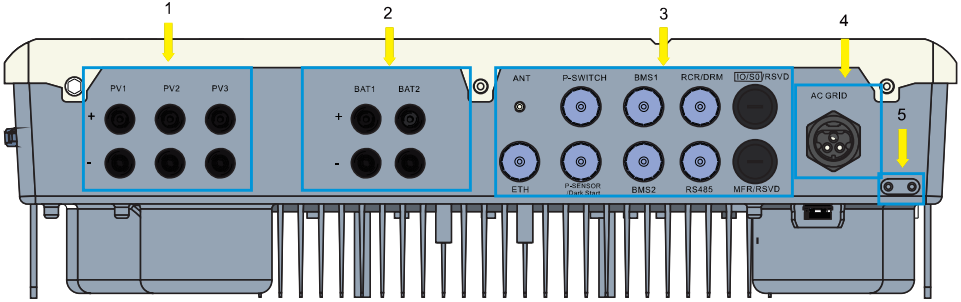


## VI. Connect Power Sensor



# VII. Terminal description and connection

All electrical terminals are located at the bottom of the inverter.



The image shown here is for reference only and the actual product received may differ.

Table 7-1 Inverter functions and installation procedures

No	Name	Function Description	Installation procedure	Customer
1	PV1-PV3	Terminals for PV input	See 4.3	All
2	BAT1-BAT2	Conectors for the battery power cables	See 4.2.1	
3	COM	ANT	See 4.5	All
		ETH	See 4.6	
		P-SWITCH		
		BMS1-BMS2		
		Rs485		All
		P-Sensor	All	
		RCR/DRM	Only European use RCR;Australian use DRM	
		IO/S0	Only European use	
MFR	Only European use			
4	AC GRID	Terminals to connect to the grid	See 4.4	All
5	GROUND	Additional grounding terminal	See 4.1	

Notice:the table is continually updated. If the inverter-related function is not in the table, please consult RCT if it is supported.

## VIII. Commissioning



- Check that the Inverter is properly grounded.
- Check that the ventilation condition surrounding the inverter is good.
- Check that the grid voltage the inverter's connecting point is within the authorized range.
- Check that the power and communication cables is firmly connected.
- Check that grid connection regulations and other parameter settings meet safety requirements.
- Check the PV voltage of the strings does not exceed the authorized limits and that the PV voltage has the correct polarity.
- Check the battery voltage at the inverter's connection point is within the authorized range and that the battery voltage has the correct polarity.

1. Switch on AC circuit breaker between the inverter and the grid.
2. Switch on DC switch.
3. Twist the switch button to "ON" position. Observe the LED indication on panel.
4. When there is sufficient DC power applied and the grid conditions are met, the inverter will start to operate automatically.

## IX. Contact

If you have any technical problems with our products, please contact our customer service. We require the following information in order to provide you with the necessary assistance.

- Inverter device type
- Inverter serial number
- Type and number of connected PV modules
- Error code
- Mounting location

FIND OUT MORE: [www.rct-power/de](http://www.rct-power/de)

FIND OUT MORE: [www.rct-power.us](http://www.rct-power.us)

**The document's content will be updated periodically due to product version upgrades or other reasons. Unless otherwise agreed, this document is only intended to serve as a guide, and all statements, information, or suggestions contained in it represent an express or implied guarantee.**

- For more information about Power Storage DC 6.0 SP, Please download the User Manual via the following website link:  
<https://www.rct-power.com>
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