HYXiPOWER
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Three-Phase String Inverter Installation Guide

HYX-H(15-25)K-HT

- General

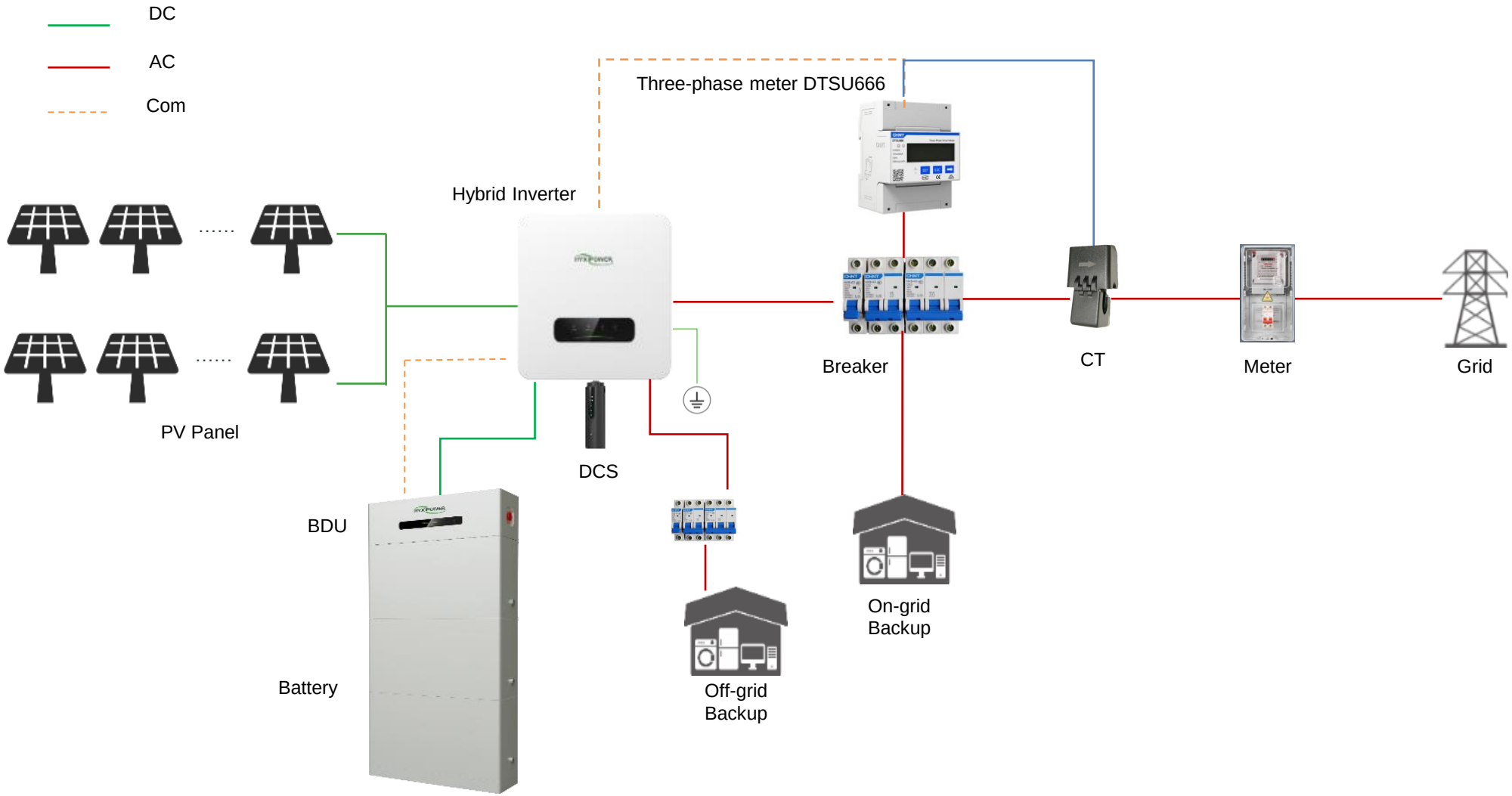
Delivery and Service Center

品质 创新 高效 共赢

V2.0 – 2025/06

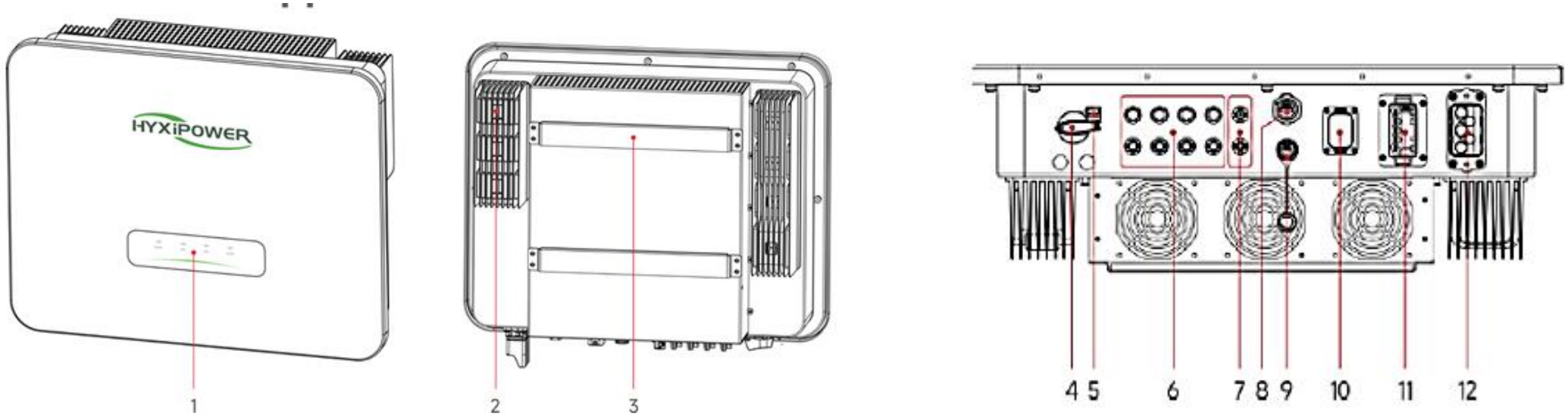
CONTENTS

Program Overview 1 – System Topology



Before installation, conduct a site survey and plan the equipment installation location and wiring solution in advance, referring to the above figure.

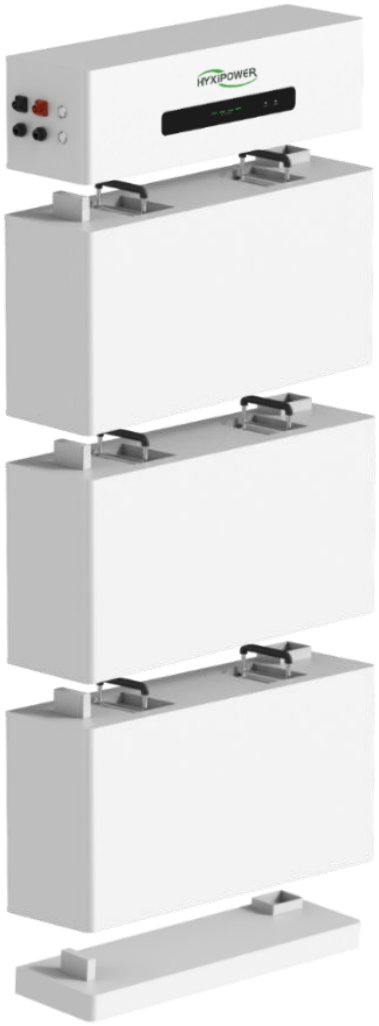
Program Overview 2 – Inverter Introduction



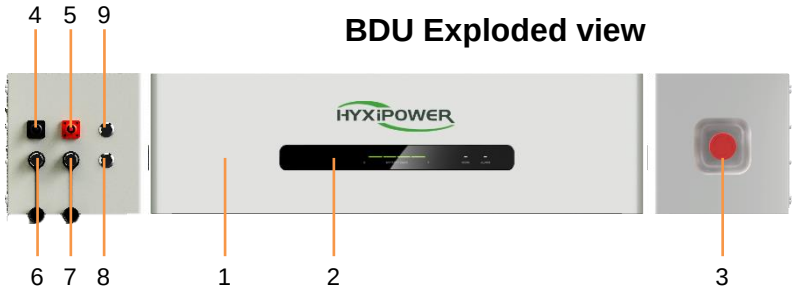
NO.	Name	Description
1	LED Panel	Displays the current operating status of the inverter.
2	Heat sink	Used for inverter ventilation and heat dissipation.
3	Installation Panel	Mount the inverter
4	DC Switch	PV panel DC power input switch
5	DC Switch Locking Hole	DC Lockout Port
6	DC Input Port	PV to Inverter DC Input Port
7	Battery Power Cable Port	Power Connection Port Between Inverter and Battery

NO.	Name	Description
8	DCS Port	DCS connection port
9	Battery Communication Port	Communication terminal between inverter and battery, standard RJ45 port
10	Communication Hub	Electric meter RS485 communication/Dry contact/ DRM(Australia)/Parallel communication/Other communications
11	Off-grid Backup	AC output port of off-grid load
12	AC Port	AC wiring port of inverter

Program Overview 3 – Battery Introduction



Battery Module Disassembly Diagram



BDU Exploded view

Overall view of the battery

NO.	Description
1	BDU
2	BDU LED Panel
3	BDU Emergency Stop Switch
4	High-Voltage Negative Terminal Socket
5	High-Voltage Positive Terminal Socket
6	Debug Port
7	Inverter Communication Port
8	High-Voltage Power Button
9	Low-Voltage Power Button

Note: To start the battery, first briefly press the "POWER" low-voltage power button, then press and hold the "ON/OFF" high-voltage power button for about 5 seconds. A relay "click" sound will indicate that the battery has been activated.

Program Overview 4 – DCS Introduction

1、USB Interface
Used for connecting to the inverter

2、RESET Button

3、PWR Indicator

4. NET Indicator

5. COM Indicator

RESET Button Operation Guide:

1. Double-click to restart the device;

2. Quadruple-click (press 4 times) to restore factory settings;

Note: Complete the above operations within 1 second.

NO.	Indicator	Status	Description
3	PWR Indicator	Solid	DCS Startup
		Off	DCS Power Off
4	NET Indicator	Green Solid	Connected to Cloud Platform
		Green Blink	Connecting to Cloud Platform
		Off	Disconnected to Cloud Platform
5	COM Indicator	Green Solid	Communication with inverter is normal
		Green Blink	Establishing communication with inverter
		Off	Communication with inverter failed

Program Overview 5-Meter Introduction

The DTSU666 three-phase energy meter

The DTSU666 three-phase energy meter is an advanced device integrating high-precision metering, remote communication, and intelligent management. Equipped with a high-performance metering chip, this meter ensures accurate POWER measurement and supports real-time energy monitoring, enabling users to track electricity consumption effectively. Additionally, the DTSU666 features an RS485 communication interface and wireless modules, facilitating remote data exchange and centralized monitoring, thereby significantly enhancing operational efficiency.

Current Transformer

The CT (Current Transformer), as a critical component of the DTSU666 energy meter, employs a non-contact measurement method, enhancing safety and reliability. It enables accurate high-current measurement and adapts to varying current and voltage levels, significantly expanding the meter's application scope.

Note: The CT arrow must face the grid direction. Never reverse the connection, as this may cause equipment malfunction.

CONTENTS

Installation Preparation-Preparation List

The following product list is NOT included in the pre-sales configuration and must be purchased separately.
Before system installation, ensure all devices and tools are fully prepared.

No.	Name	Explanation	Specifications
1	PV Cable	Cable for connecting photovoltaic panels to the inverter, compliant with outdoor multi-core copper cable standards (1000V, 18A).	4~10mm²
2	Communication Cable	485 communication cable for connecting the inverter and electricity meter.	RVVP two-core shielded cable, 0.5mm²
3	AC Output Cable	For AC-side wiring of the inverter, using a five-core outdoor copper cable.	4~10mm²
4	Backup Output Cable	For Backup-side wiring of the inverter, using a five-core outdoor copper cable.	4~10mm²
5	Ethernet Cable	For communication between the inverter and battery, a standard Ethernet cable is used. (Include one 2-meter-long Ethernet cable; if the length is insufficient, purchase separately.)	Standard
6	Ground Wire	For equipment grounding purposes.	4~10mm²
7	Battery POWER Cable	POWER cable for connecting the battery and inverter, must comply with 600V and 35A standards. (Optional battery POWER cable can be selected when placing future product orders.)	6mm²

Installation Preparation–Common Product List

The following product list is included in the pre-sales configuration.
Before system installation, ensure that all devices and tools are fully prepared.

No.	Product	Picture	Explanation
1	Hybrid inverter		Include one inverter and related inverter accessories.
2	Battery		Include a Battery Distribution Unit (BDU) and battery modules for electrical energy storage.
3	Three-Phase Meter		Measure circuit voltage, current, POWER, etc.
4	Current Transformer		Used to measure the grid-side AC current, enabling the inverter to control POWER output and prevent backflow. Note: During installation, the arrow must point toward the grid.
5	DCS		After registering the device to the cloud server, it can be centrally managed via the cloud platform.
6	Ethernet Cable		The device comes with a 2-meter-long Ethernet cable. If the length is insufficient, you will need to procure one separately.
7	Wall-mounted bracket		Wall-mounted bracket for securing the inverter.

Installation Preparation–Tool Installation

Installation Tool


Electric Drill


Heat Gun


Hex Key


Wire Stripper


Hydraulic Pliers


Crimping Tool


Screwdriver


Marker Pen

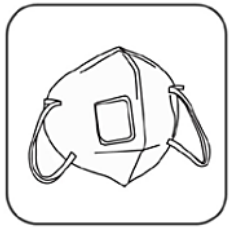

Utility Knife


Multimeter


Tape Measure


Hammer

Protect Tool


Protective Mask


Safety Glasses


Insulated Safety Shoes


Insulating Gloves

CONTENTS

Device Installation-Unpacking Inspection

Inverter Unpacking Inspection:

- Check if the device hardware and ports are intact.
- Check if the device accessories are intact

NO.	Name
1	Inverter
2	Bracket
3	Communication Terminal Connector
4	AC Terminal Connector
5	Backup Terminal Connector
6	Battery Terminal (Female)
7	Battery Terminal (Male)
8	Mounting Bracket Screw
9	Waterproof RJ45 Terminal
10	PV Insulation Terminal

Device Installation–Environment Requirements

1. Suitable for both indoor and outdoor installation.

2. -30°C to +60°C, 0~100% relative humidity (RH).

3. Select a shaded location to avoid direct sunlight and protect against rain/snow.

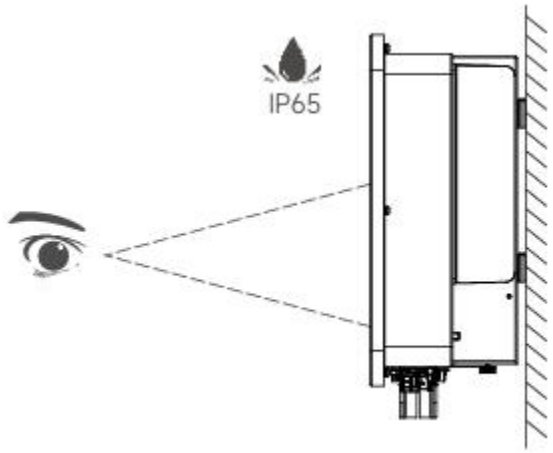
4. Ensure proper ventilation for heat dissipation.

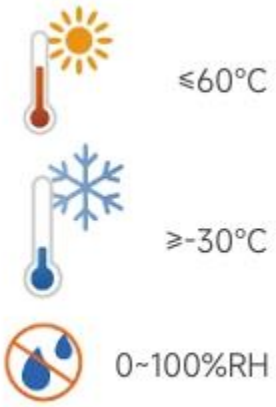
5. The mounting structure must support at least 4 times the inverter's weight.,

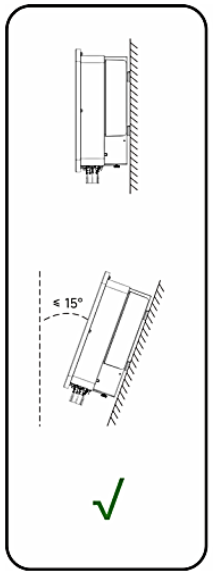
6. Mount vertically or tilted backward ≤15° to optimize thermal performance.

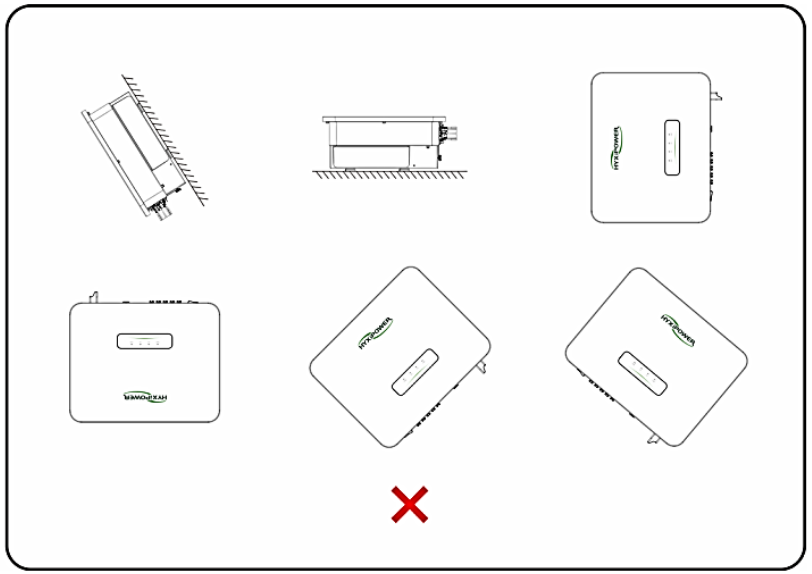
7. Do NOT install forward-facing, backward-facing, upside-down, horizontally, or sideways.

8. For multi-unit installations, maintain ≥300mm clearance between inverters.



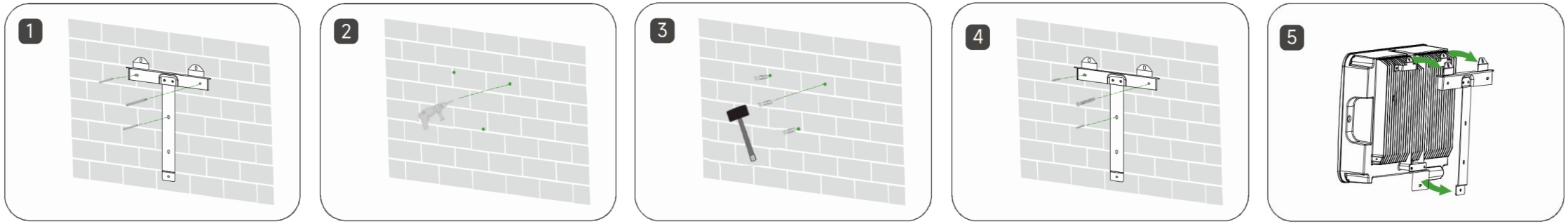




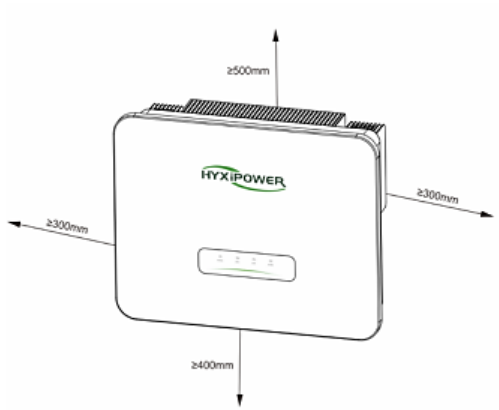


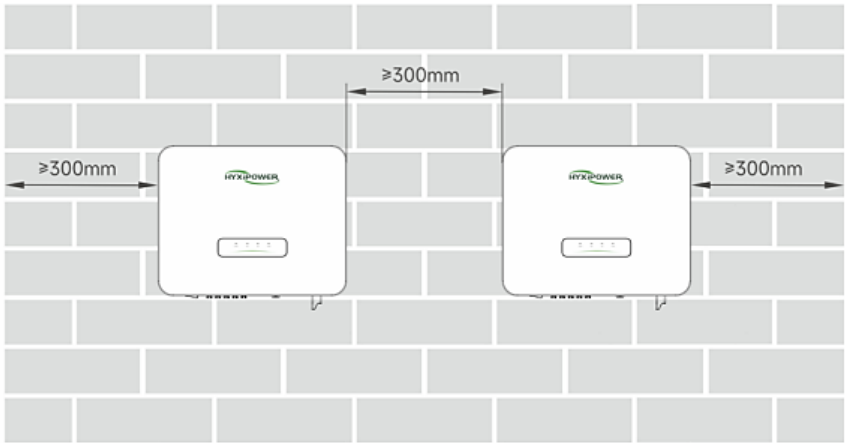
Device Installation-Physical Installation

Fix the mounting bracket and inverter as follows:

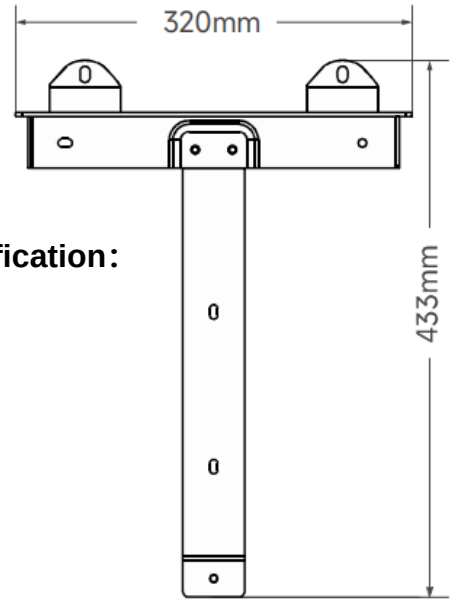


When installing multiple inverters, the distance between two inverters should be > 300mm.



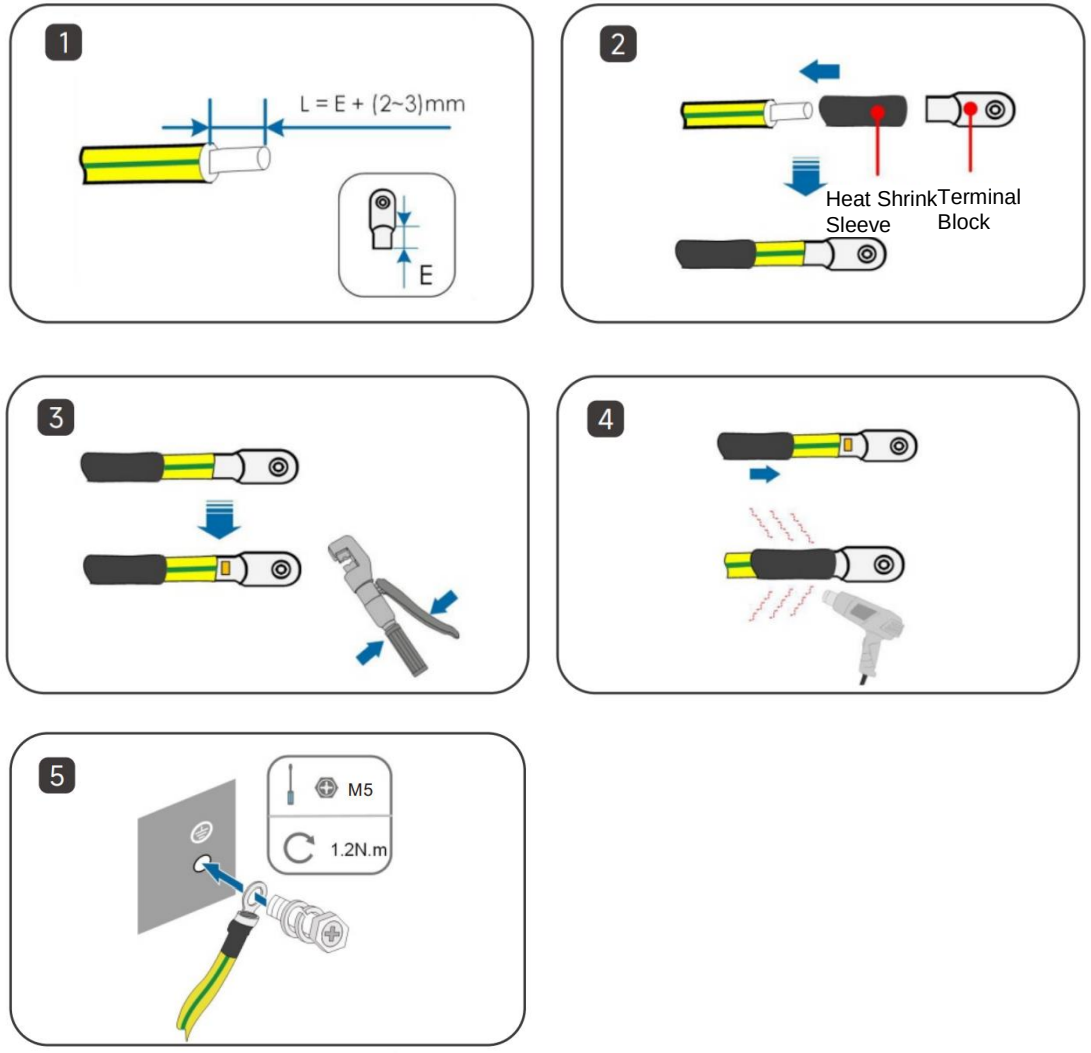


Bracket Specification:



Note: Before installing the equipment, please ensure the photovoltaic panels have been installed and the cables have been laid in place;

Device Installation-Grounding Cable Connection



Step 1: Strip a certain length of the insulation layer of the POWER cable as shown in the figure, the length is L=E+(2-3)mm as shown in the figure.

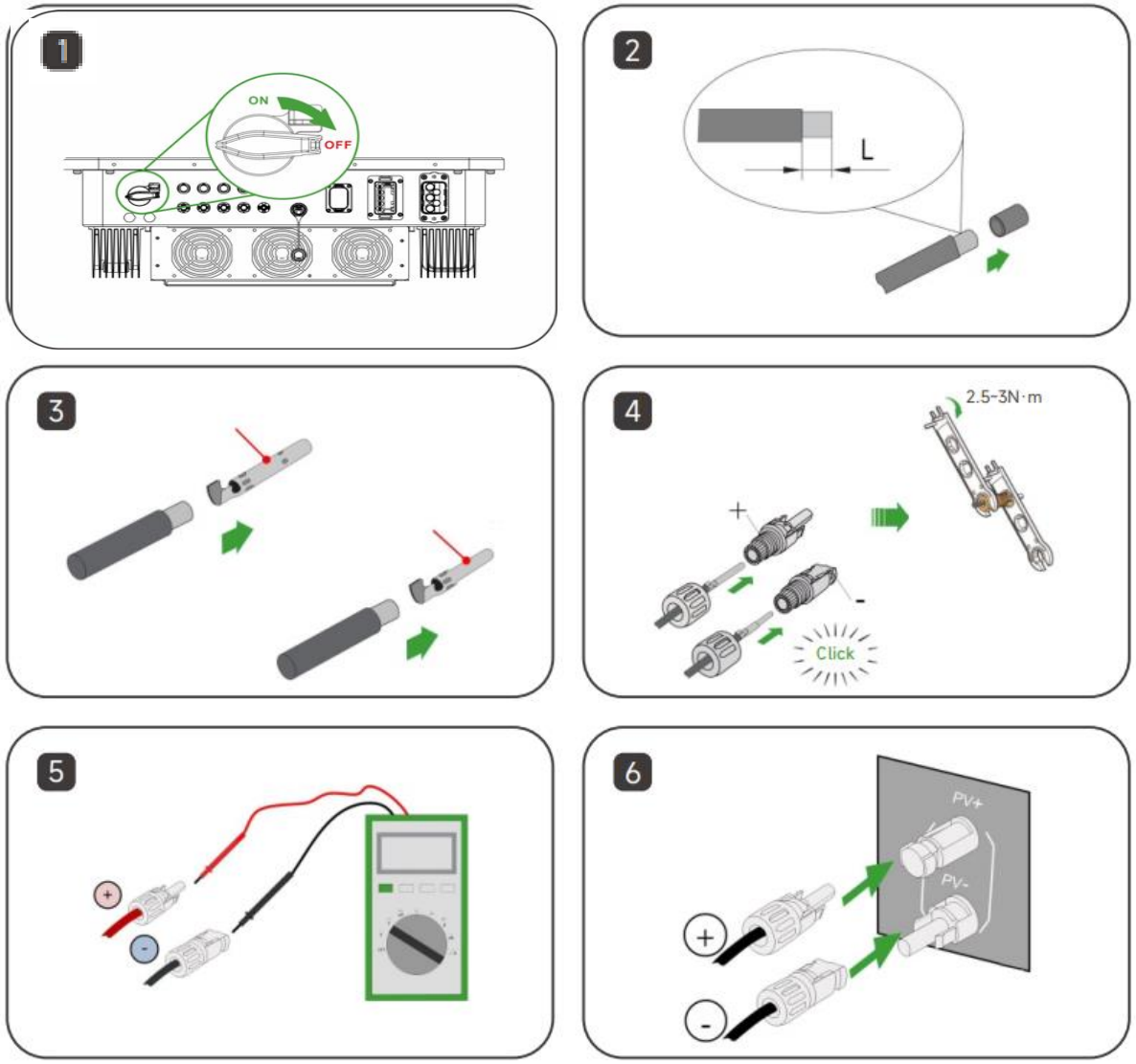
Step 2: Pass the cable through the hot melt sleeve and insert it into the terminal.

Step 3: Use a crimping pliers to press the terminal and the cable tightly together.

Step 4: Adjust the hot melt sleeve to cover the end of the terminal and the POWER cable, and use a hot air gun to blow the hot melt sleeve to wrap the POWER cable and the end of the terminal.

Step 5: Use a screwdriver to fix the ground wire to the grounding position of the inverter.

Device Installation-DC Connectors



Step 1: Keep the switch on the inverter in the off state.

Step 2: Strip about 7 mm of insulation layer of all DC cables.

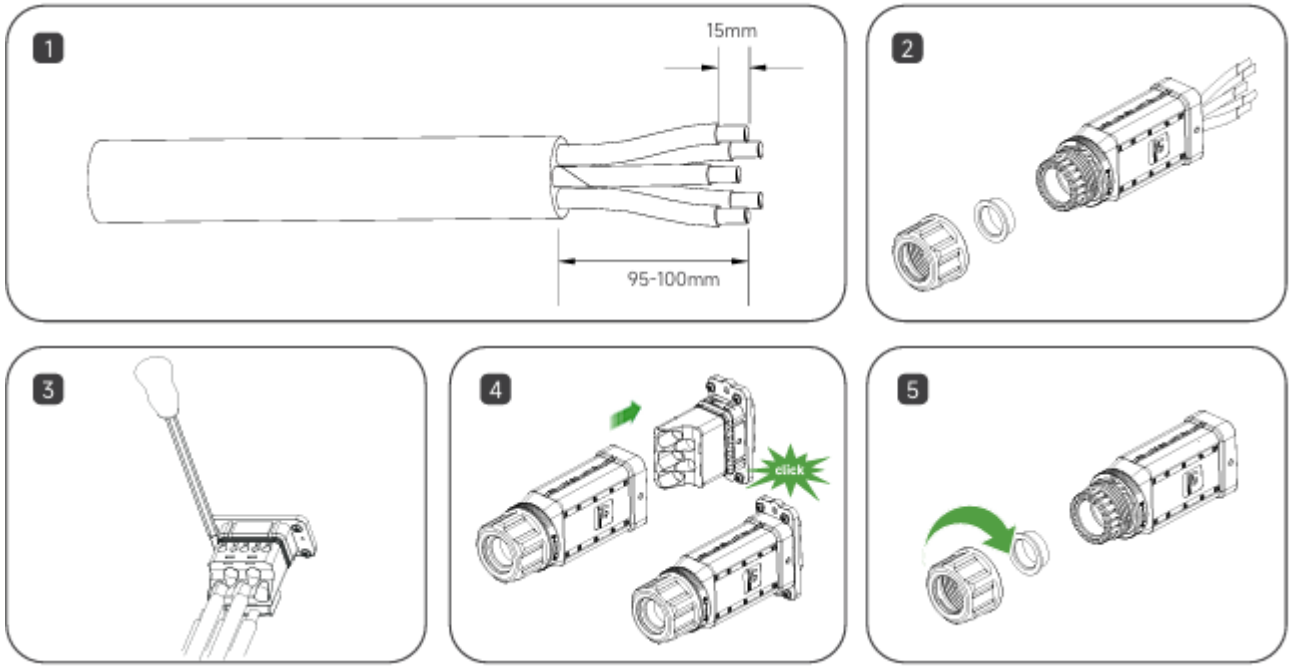
Step 3: Use crimping pliers to press the cold-pressed terminal to the cable. Note that the terminals of the positive and negative poles are different, and the positive cold-pressed terminal is slightly longer than the negative cold-pressed terminal.

Step 4: Pass the cable through the cable gland, insert the insulating sleeve and tighten it, and gently pull the cable to ensure a tight connection. Tighten the gland and insulating sleeve with a force of 2.5~3N·m, and insert the assembled terminal interface into the photovoltaic connector until you hear a "click".

Step 5: Use a multimeter to check whether the polarity of the photovoltaic string connection cable is correct.

Step 6: Connect the PV connector to the corresponding terminal on the inverter until you hear a "click".

Device Installation-AC Connector



• **Step 1**: Wire insulation stripped 95-100mm, L1 \ L2 \ L3 \ N \ PE five wire stripping length of 15mm.

• **Step 2**: Thread the stripped wire into the locking nut, sealing ring and main body in order.

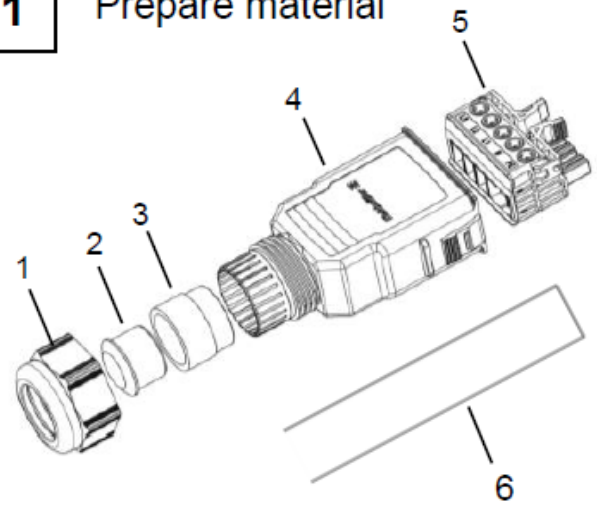
• **Step 3**: Cable inserted into the rubber core according to the line sequence, observe the perspective hole cable in place, crimp screw torque 4 ± 0.1N-m.

• **Step 4**: Insert the body into the terminal and a clicking sound is heard.

• **Step 5**: Tighten the nut, accompanied by a "click, click" sound means installation complete.

Device Installation-Backup Connector 1

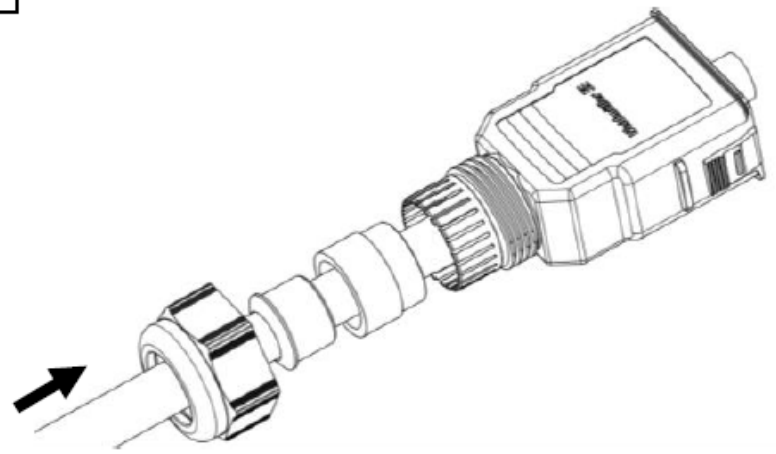
1 Prepare material



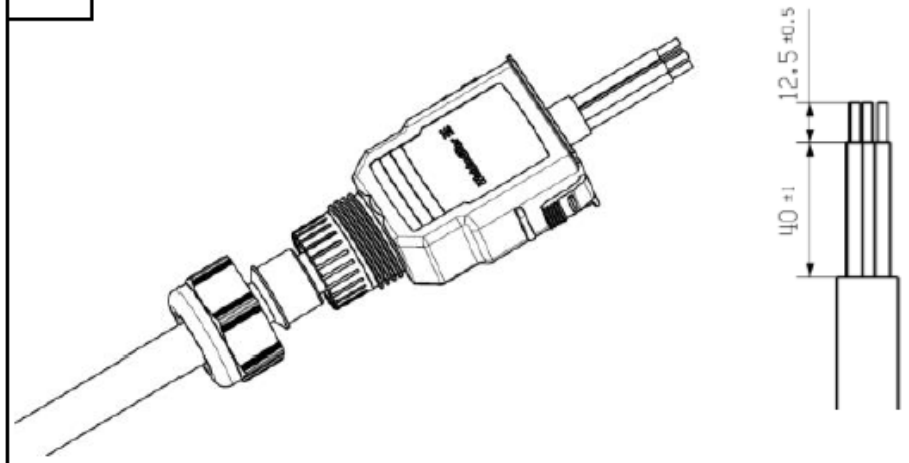
1-Seal gland
2-Seal 1
3-Seal 2
4-Cable housing
5-Plug
6-Cable

Notes:
1. Cable diameter:11-19mm
Mounting with sealing 1 & 2
2. Cable diameter 19-26mm
Mounting without sealing 1

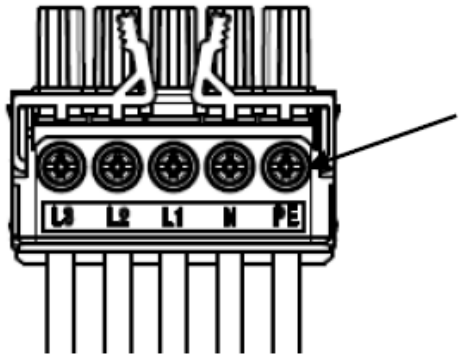
2 Pass cable through gland, sealing and cable shell



3 Cable Stripping



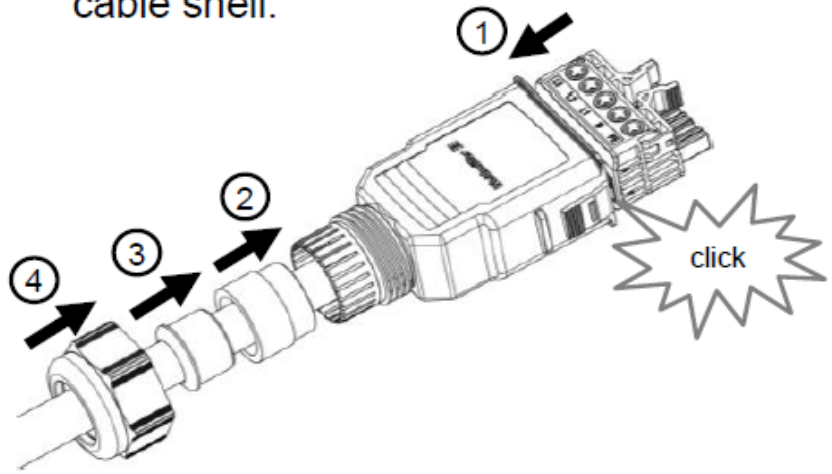
4 Insert the stripped wire into the corresponding pole. Tighten the screws when the wires are in place.



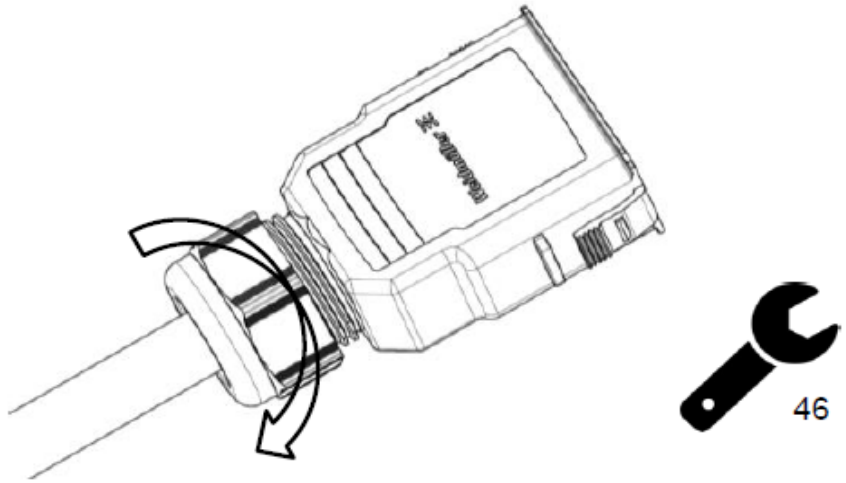
Mounting torque:
1.2 ~1.5 N.m

Device Installation-Backup Connector 2

5 Install plug adapter, sealing parts, gland on cable shell.

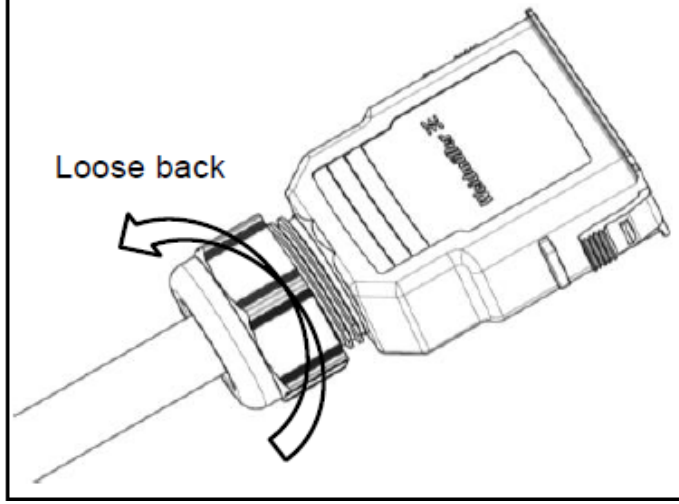


6 Tighten the torque 7 ~ 7.5 N.m

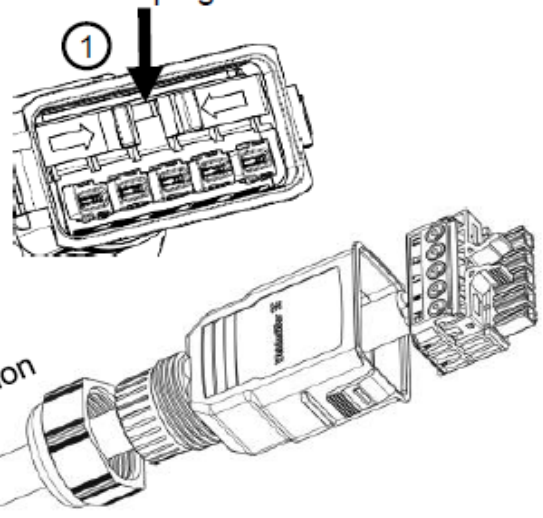


Disassembly instructions

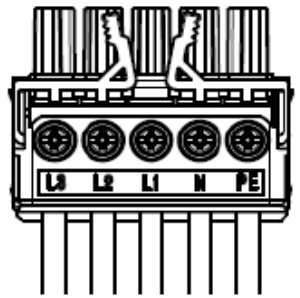
Loose back



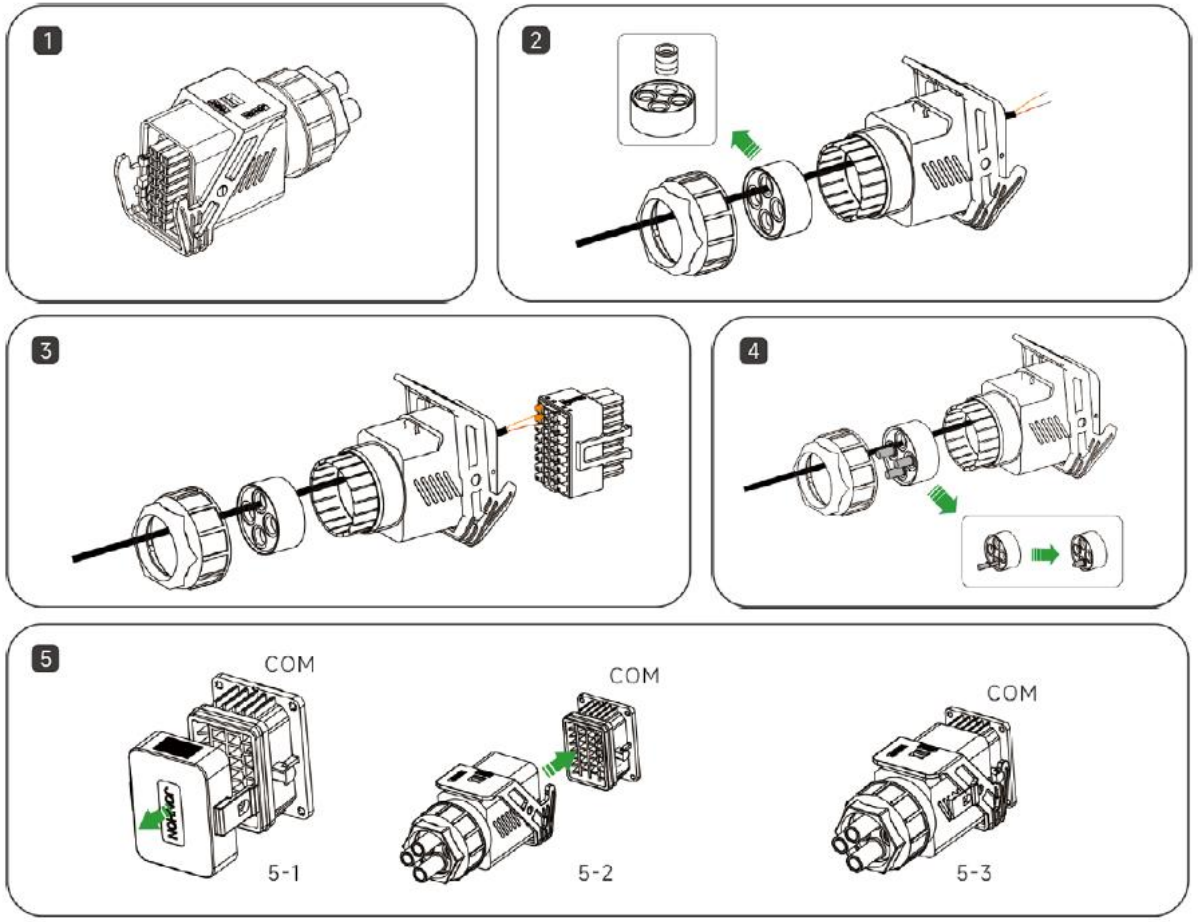
Pinch and unplug



③ Loosen the screws and pull out the wires.



Device Installation - Meter Installation



Step 1: Pull the crimping component out of the communication terminal.

Step 2: Insert the 2-pin RS485 wire of the meter into the communication terminal as follows, then strip the wire.

Step 3: Clamp the stripped 2-pin RS485 wire of the meter onto the crimping component (press the button on the yellow part).

Step 4: Plug the waterproof rubber plug into the unused hole.

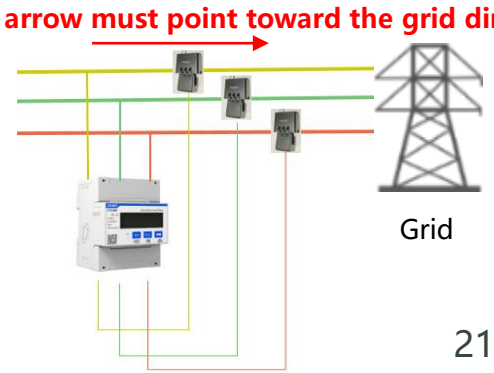
Step 5: Remove the cover of the inverter's COM port, insert the communication terminal, and lock the pull tab.

Step 6: Connect the electricity meter to the power grid in parallel.

Step 7: Pass the magnetic rings of the three current transformers through the three-phase live wires from the air switch to the power grid respectively. Note that the arrow must face the direction of the power grid (as shown in the figure below).

Note:

The instrument models specified by HYXiPOWER must be used.



Device Installation - Meter Installation

COM Communication Port (Close-up View)

Note: On the COM port connector, Pin 2 corresponds to RS485 Communication A on the meter, and Pin 4 corresponds to RS485 Communication B. (Twisted-pair cable is recommended for connection.)

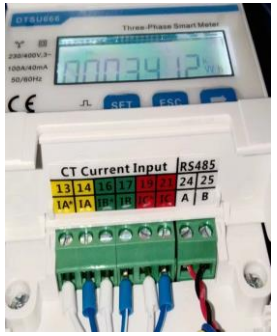
Device Installation-Meter Connection

U： Line Wire R
V： Line Wire S
W: Line Wire T
N： Neutral Wire

Wiring Diagram (Top Side of Electricity Meter)

Wiring Diagram (Top Side of Electricity Meter):

- Connect the three-phase live wires and neutral wire between the grid and the inverter as shown in the diagram. The phase sequence of the upper terminals L1, L2, L3 must correspond one-to-one with the lower CT terminals IA (13,14), IB (16,17), IC (19,21). Ensure all CT arrows point toward the grid side.

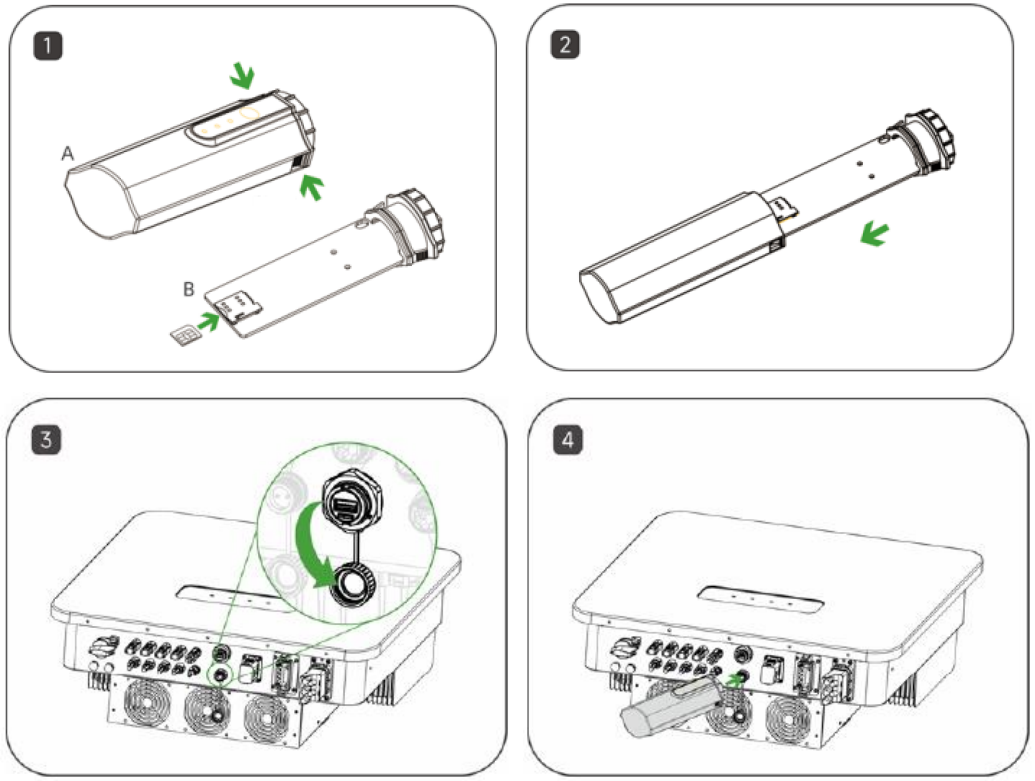


Wiring Diagram (Bottom Side of Electricity Meter)

Wiring Diagram (Bottom Side of Electricity Meter):

- For the current transformer (CT) communication wires connected to the three-phase live lines: the white wire corresponds to I*, and the blue wire corresponds to I.
- The inverter communicates with the meter via PIN 2 (A) and PIN 4 (B) of the COM port.

Device Installation-DCS Installation



DCS communication stick installation (4G version)

Step 1: Remove the DCS protective cover and insert the SIM card;

Step 2: Install the DCS waterproof cover;

Step 3: Remove the waterproof cover at the inverter communication interface;

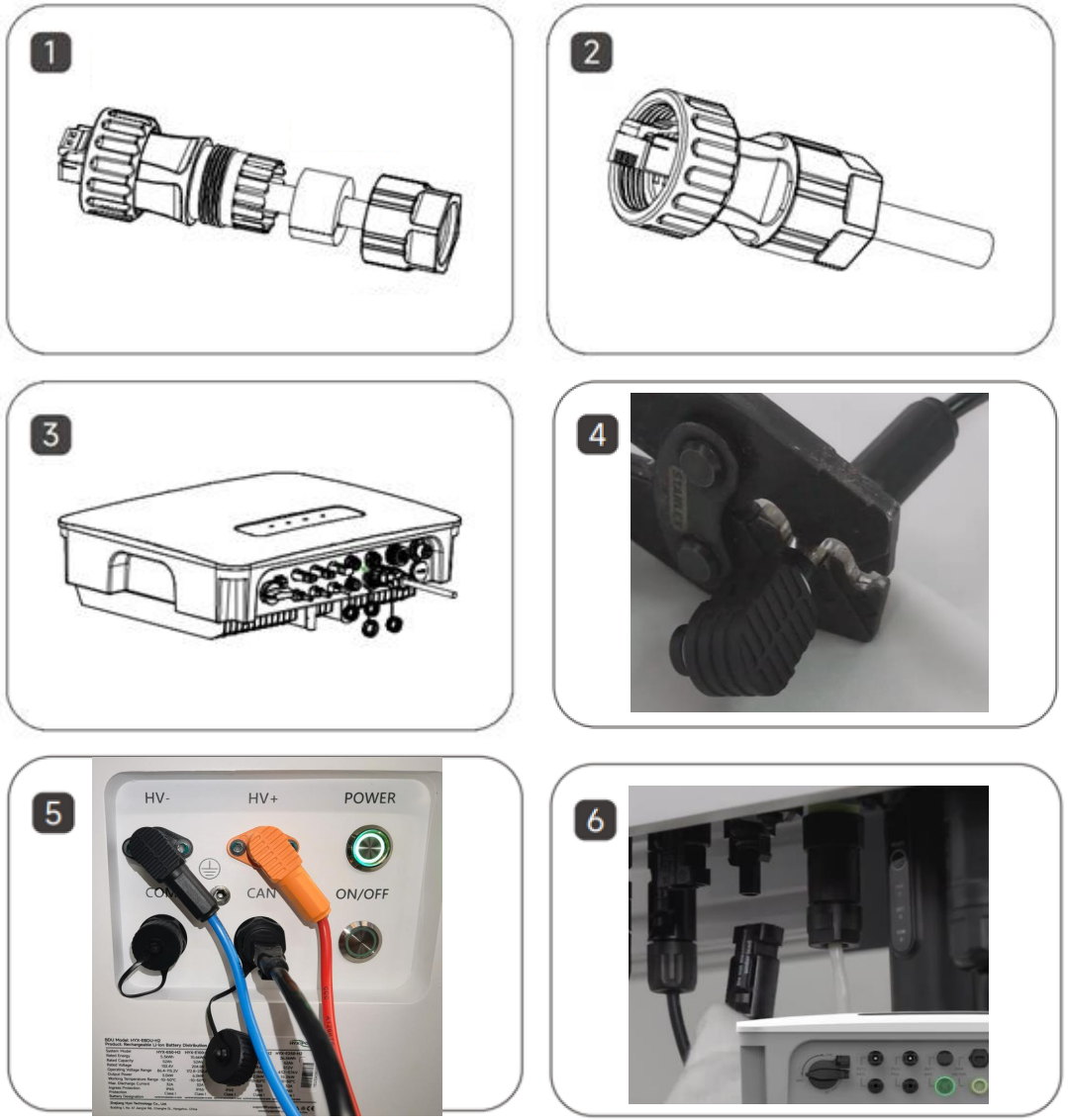
Step 4: Insert the DCS into the corresponding communication terminal at the bottom of the inverter and tighten it to ensure it is firm.

DCS communication stick installation (Wifi version)

Step 1: Remove the waterproof cover at the inverter communication interface;

Step 2: Insert the DCS into the corresponding communication terminal at the bottom of the inverter and tighten it to ensure it is firm.

Device Installation-Battery Installation



Step 1: Put the three accessories (socket, sealing ring, nut) of the two sets of waterproof terminals on the standard network cable.

Step 2: Assemble the connector.

Step 3: Plug the two ends of the network cable into the corresponding network ports of the inverter and battery BDU respectively, and tighten the nuts.

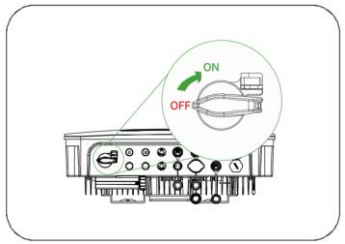
Step 4: Use a crimping pliers to press and connect the battery POWER line and the connector. Pay attention to distinguish the positive and negative poles, orange is positive, and black is negative.

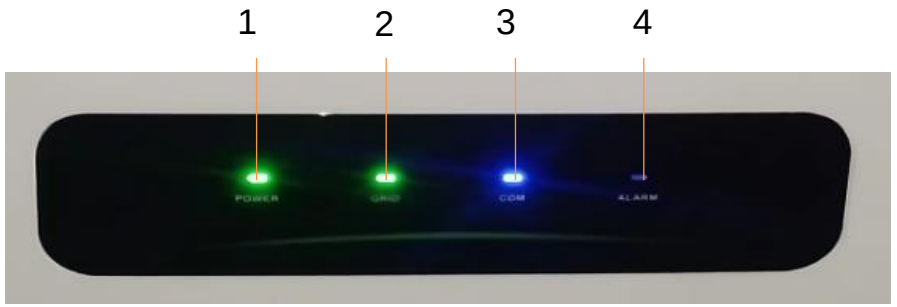
Step 5: Plug the battery POWER line terminal into the battery BDU until you hear a "click".

Step 6: Refer to the PV side connector production method to make the connector at the other end of the battery POWER line. After completion, insert it into the battery POWER input terminal of the inverter until you hear a "click".

Device Installation - Inverter Startup

1. Plug in the AC-side connector and turn on the circuit breaker. After closing, the meter will light up and the bulb will illuminate.
2. Turn on the DC switch on the inverter.
3. Connect the PV panel connectors on the DC side and insert the plug.
4. Verify the inverter's indicator light status. The light status shown below indicates normal operation.

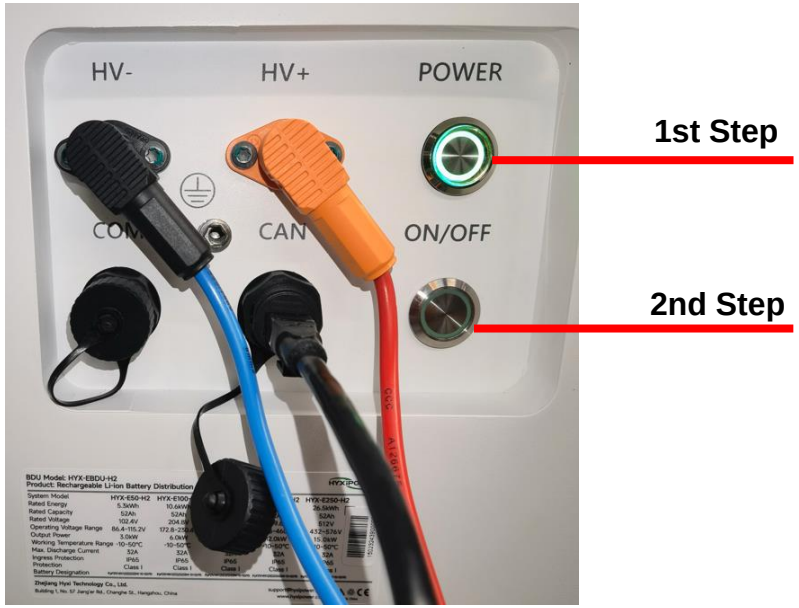


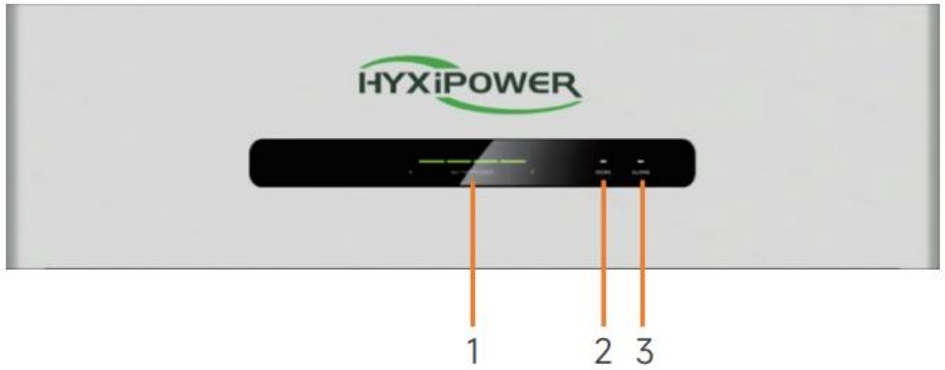


- Normal sign: Three lights on, one light off.
- Note: Before starting the inverter in the training room, ensure the switch is in the ON position.

NO.	Indicator	Status	Explanation
1	POWER	Solid	Inverter POWER on
		Off	Inverter POWER off
2	GRID	Solid	Grid Side normal
		Average blinking	Grid Side abnormal
		Double blinking	Not connected with grid
3	COM	Solid	Communication normal
		Average blinking	Communication failure between inverter and meter
		Double blinking	Communication failure between inverter and battery
		Off	Inverter communication failure with both meter and battery
4	ALARM	Off	No alarm from inverter
		Average blinking	Alarm from inverter
		Double blinking	Other alarms

Device Installation-System Startup



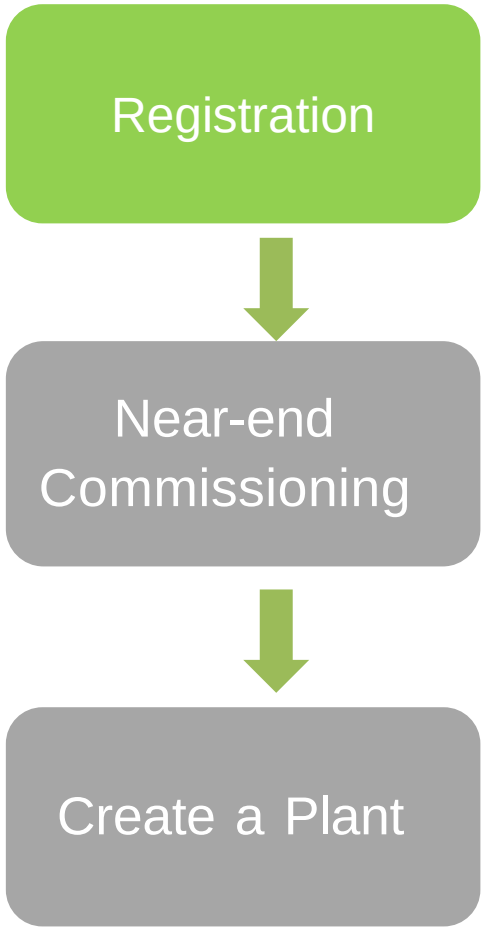


1. Press the POWER button briefly.
2. Press and hold the ON/OFF button for 5 seconds until you hear a relay's "click" sound.
3. Verify the battery indicator status: Power level displays normally, WORK light stays steadily lit.

System Status	1 Battery indicator	2 Work Status Light	3 Alarm Status Light
	● ● ● ●	●	●
Switch Off	off	off	off
Idle	Display according to actual power	on for 0.5s, off for 1.5s	off
Normal	Display according to actual power	on	off
Level 1 Alarm	Display according to actual power	on	on for 0.5s, off for 0.5s
Level 2 Alarm	Display according to actual power	off	on for 0.5s, off for 1.5s
Level 3 Alarm	Display according to actual power	off	on

CONTENTS

APP Configuration-Registration



1、Download HYXiPOWERAPP

2、 Register the account of the person in charge of the organization

Register the DCS communication stick to the cloud server through local debugging.

All HYXiPOWER equipment is managed using the cloud platform. After the equipment is registered to the cloud server, it can be managed uniformly through the cloud platform.

Create a POWER station for users

You can manage the equipment through the POWER station and check the equipment status, system POWER generation and usage, etc.

APP Configuration-Registration

The entire process requires 2 email accounts: Organization and Owner.

Step 2: Download the APP and **register**

Step 3 : According to the country or region, select server, select organization , fill in the relevant information and register**.**

Method 1

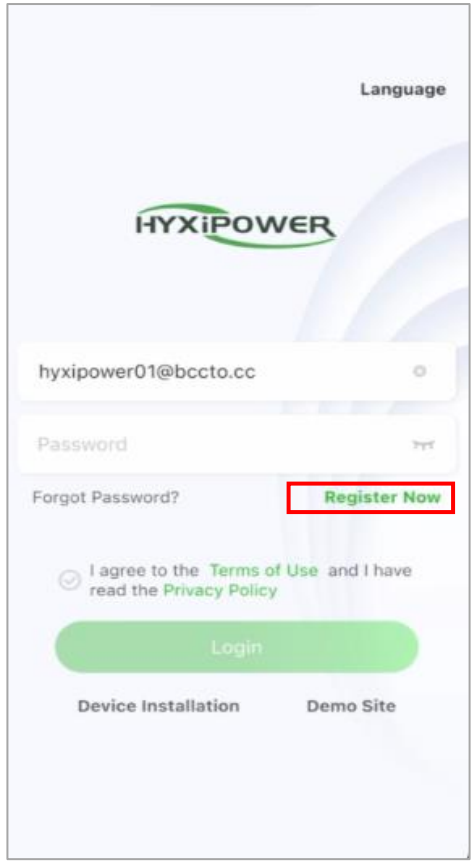
Search “HYXiPOWER " in the Application Store

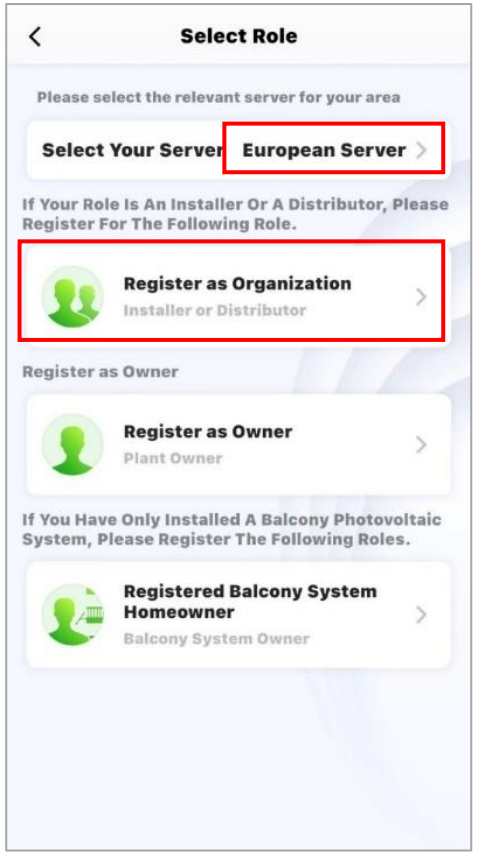
· APP store (IOS)

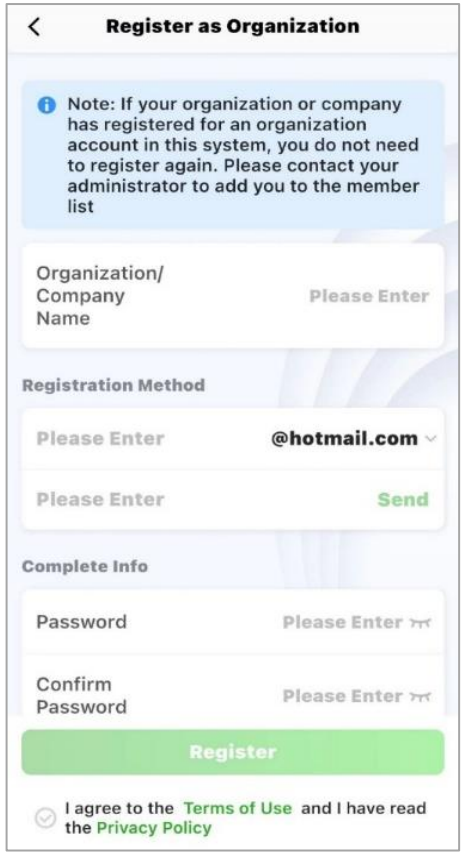
· Google play

Method 2

Scan the QR code download the APP







APP Configuration-Near-end Commissioning

Registration

1. Download HYXiPOWER APP .

2. Register the account of the person in charge of the organization.

Near-end Commissioning

Register the DCS communication stick to the cloud server through local debugging.

All HYXiPOWER equipment is managed using the cloud platform. After the equipment is registered to the cloud server, it can be managed uniformly through the cloud platform.

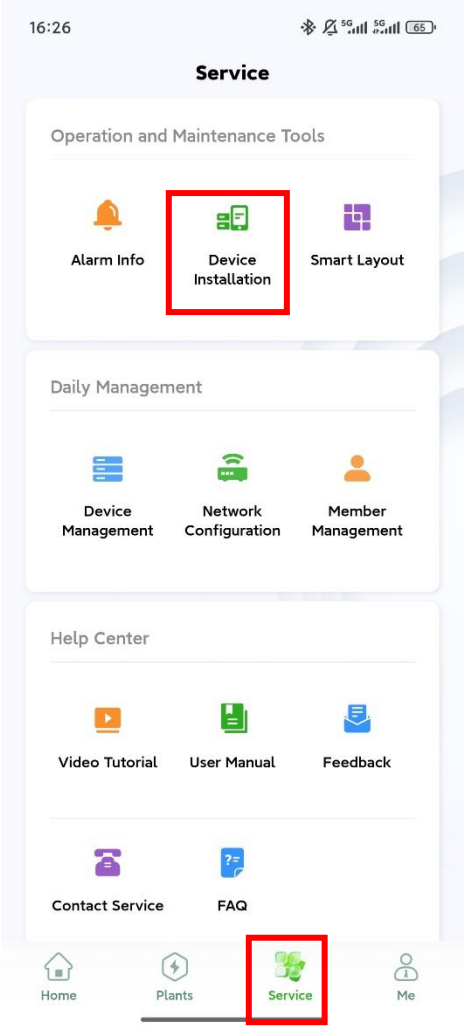
Create a Plant

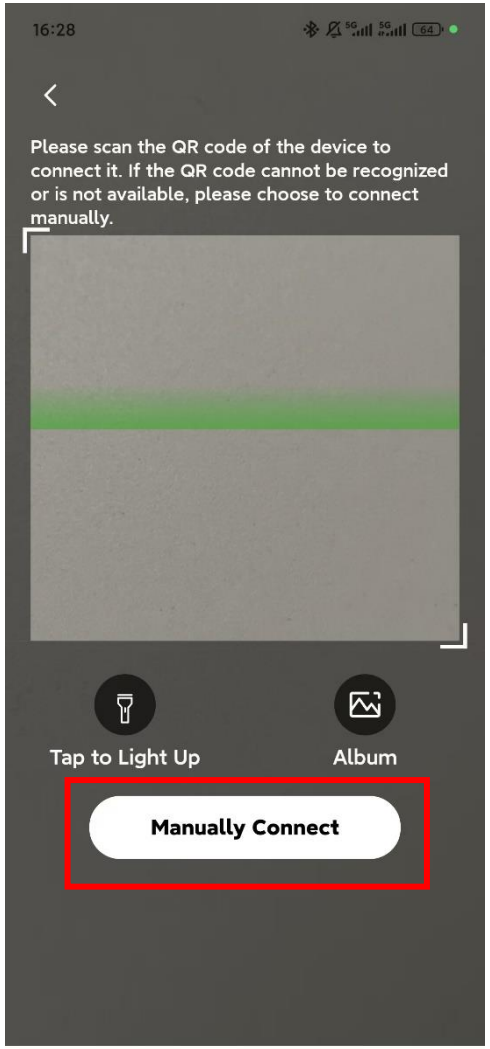
Create a POWER station for users

You can manage the equipment through the Plant and check the equipment status, system POWER generation and usage, etc.

APP Configuration-Near-end Commissioning

Step1: Click **Device Installation** in **Service** interface.
Then scan the QR code of the Data Communication Stick. If failed ,click the Manually Connect.

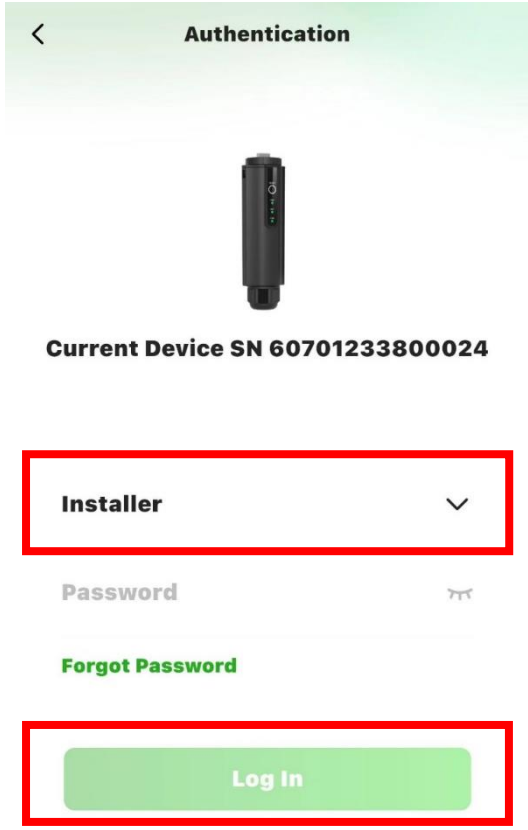




APP Configuration-Near-end Commissioning

Step2： Device login, initial password: hyxi0607. Log in and change the password, then save it.

If you forgot the password, quickly press the RESET button on the DCS four times to restore factory settings

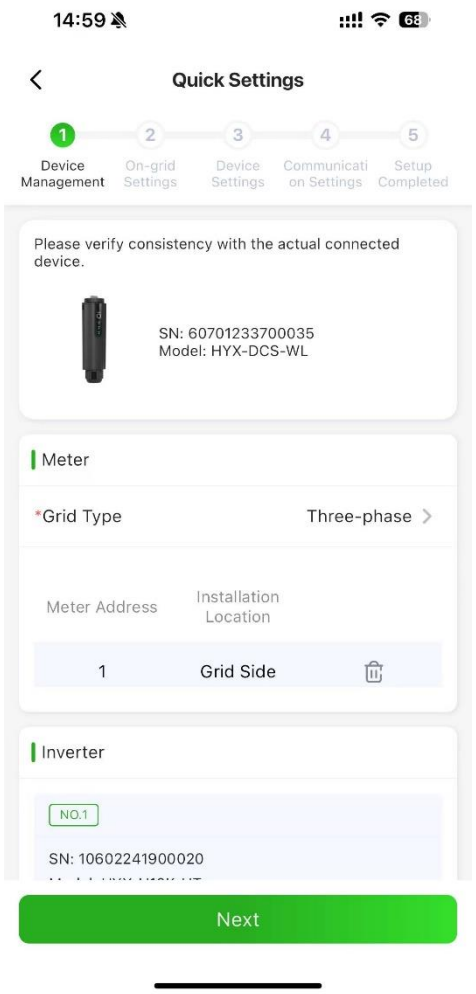


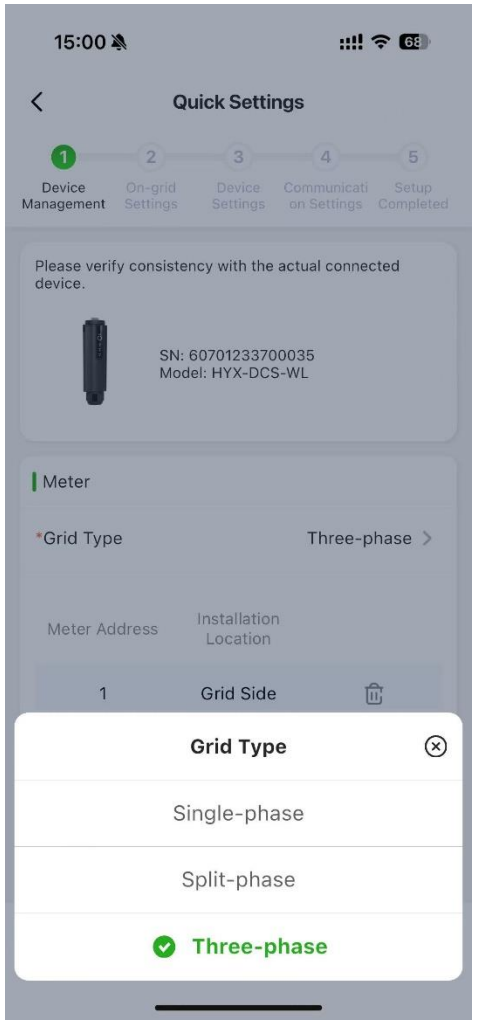
APP Configuration-Near-end Commissioning

Step3: Quick Settings

① Device Management: The DCS automatically reads the inverter's SN and model number.

Meter settings**:** 1. Grid type—Three-phase; 2. Configure meter—default address 1, install on grid side.

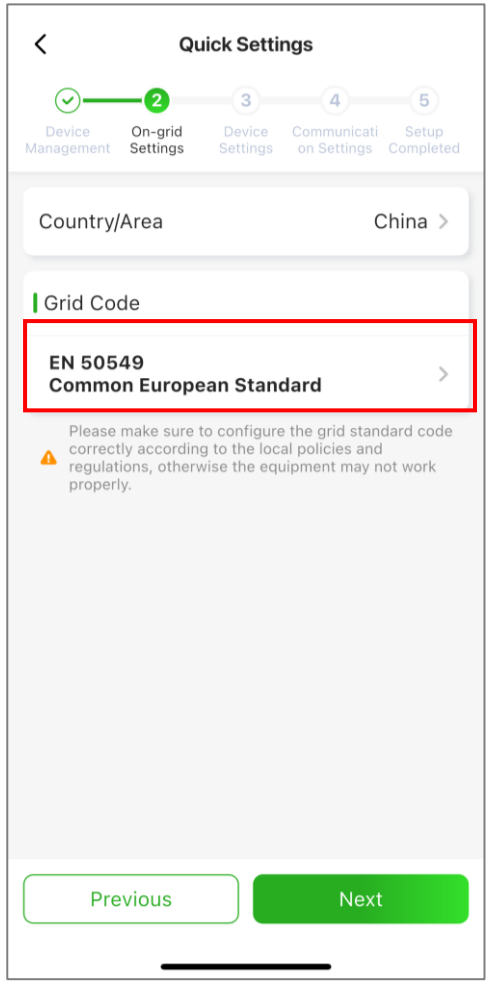


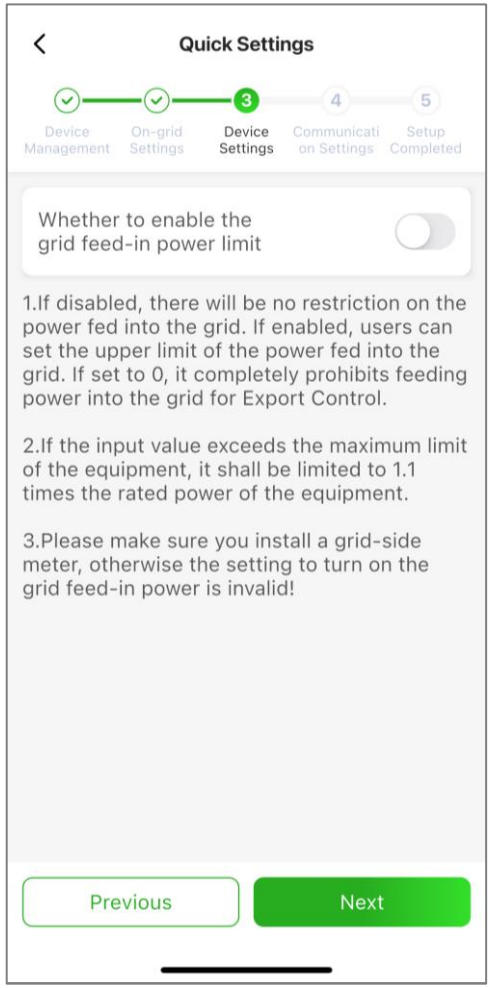


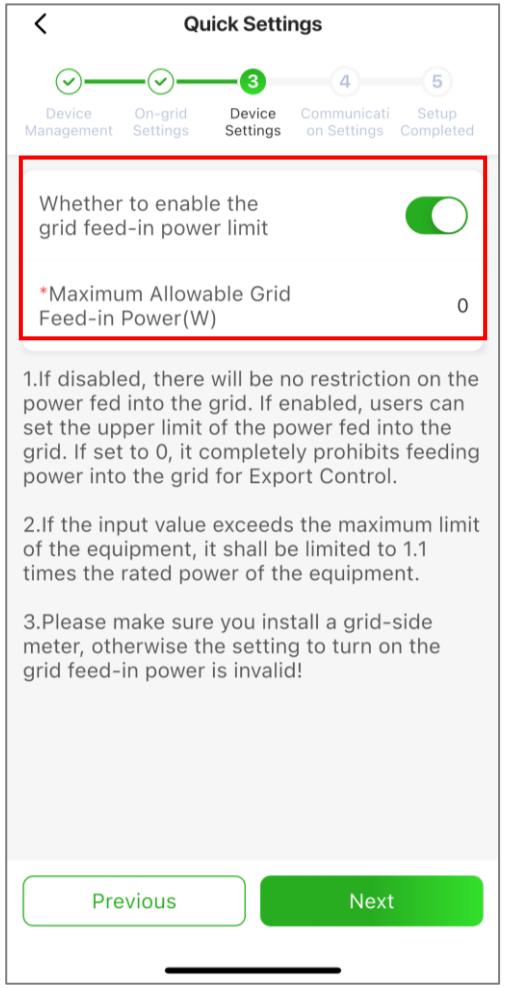
APP Configuration-Near-end Commissioning

Step4： ② On-grid Settings: Select the corresponding country's grid-code, then click Next.

Step 5： ③ Device Settings - Set feed-in POWER limit (enable and set to 0 to stop feeding grid).







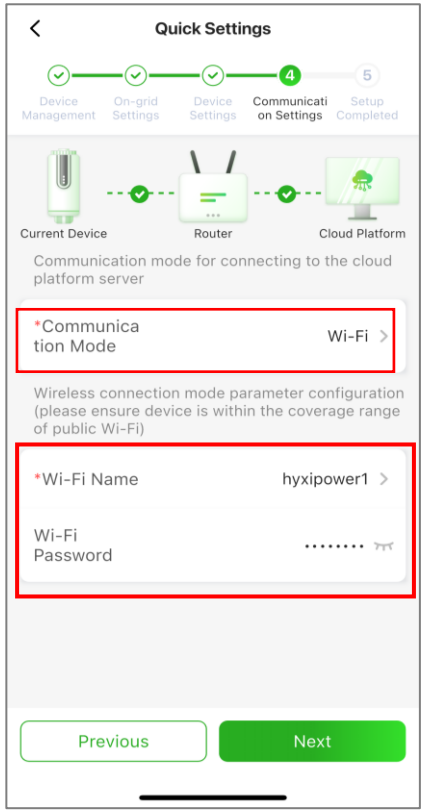
APP Configuration-Near-end Commissioning

Step6： ④ Communication Settings： Wi-Fi Mode: Enter Wi-Fi name and password.

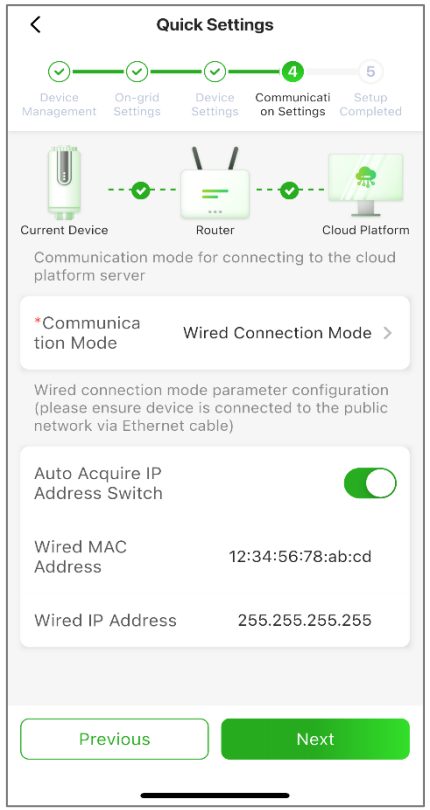
Wired Mode: Ensure automatic IP acquisition is enabled.

4G Mode: The APN, username and password will be recognized automatically, and proceed to next step after setup.

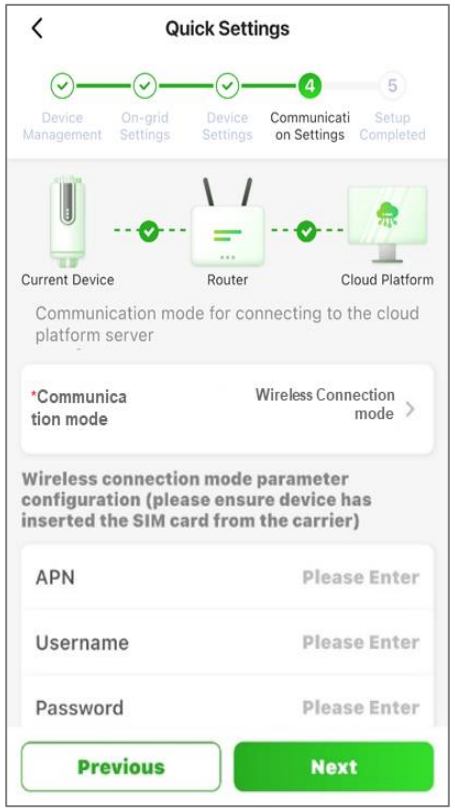
Wi-Fi

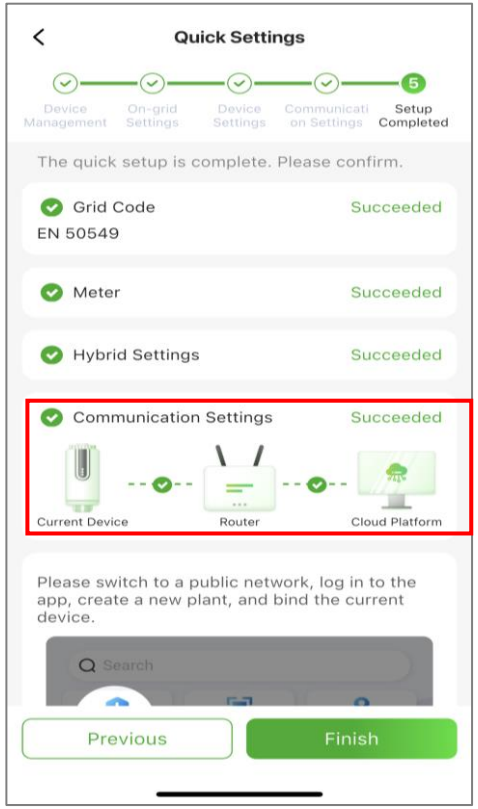


Wired



4G





- Completion sign: Green checkmarks show between Device - Router - Cloud platform DCS shows three steady LED lights

4.3 APP Configuration-Create a Plant

Registration

1. **Download HYXiPOWER APP .**
2. **Register the account of the person in charge of the organization.**

Near-end Commissioning

Register the DCS communication stick to the cloud server through local debugging.

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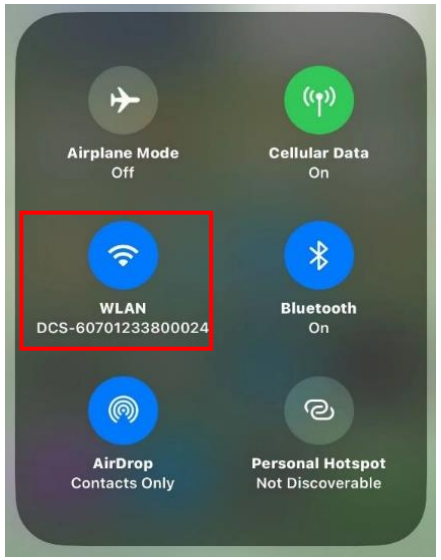
Create a Plant

Create a POWER station for users

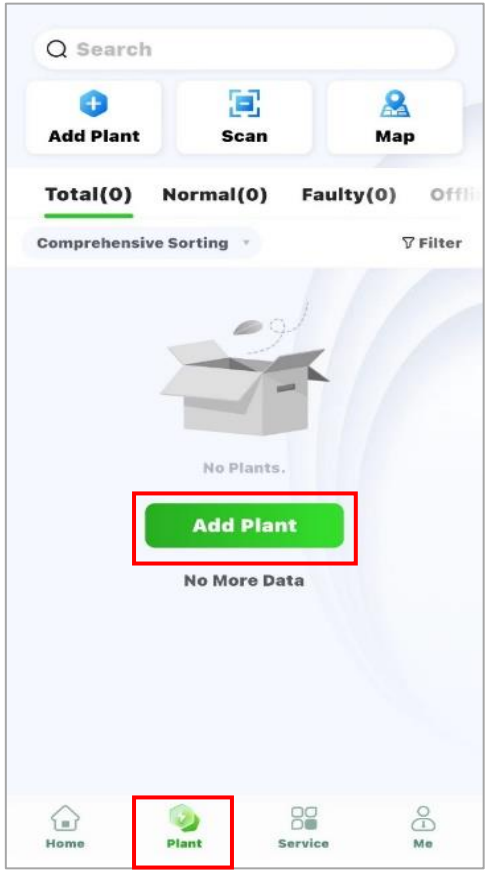
You can manage the equipment through the Plant and check the equipment status, system POWER generation and usage, etc.

APP Configuration-Create a Plant

Step 1: Disconnect the phone from the DCS's WiFi. Make sure your phone has Internet access



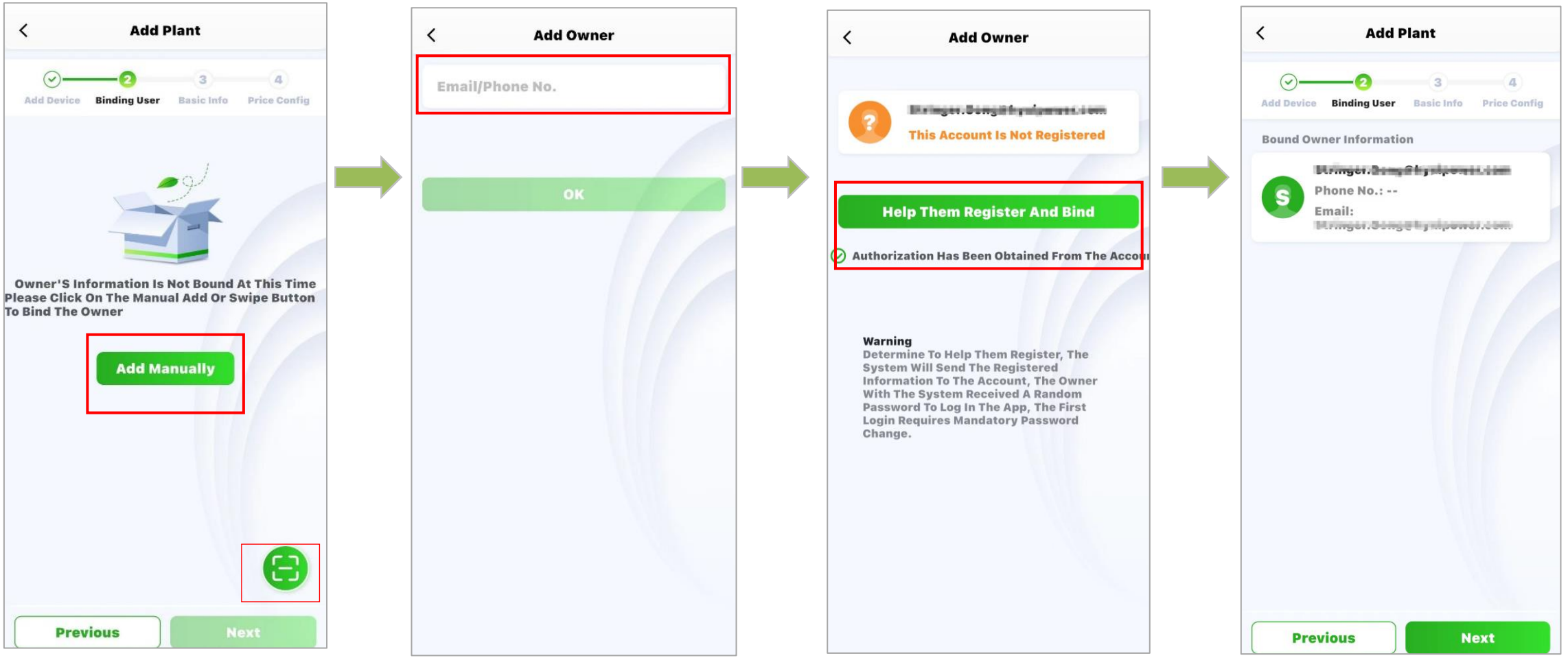
Step 2: Log in to the organization account, click "Add Plant"



Step 3: Scan the QR code of the DCS or add it through Recently Debugged Device

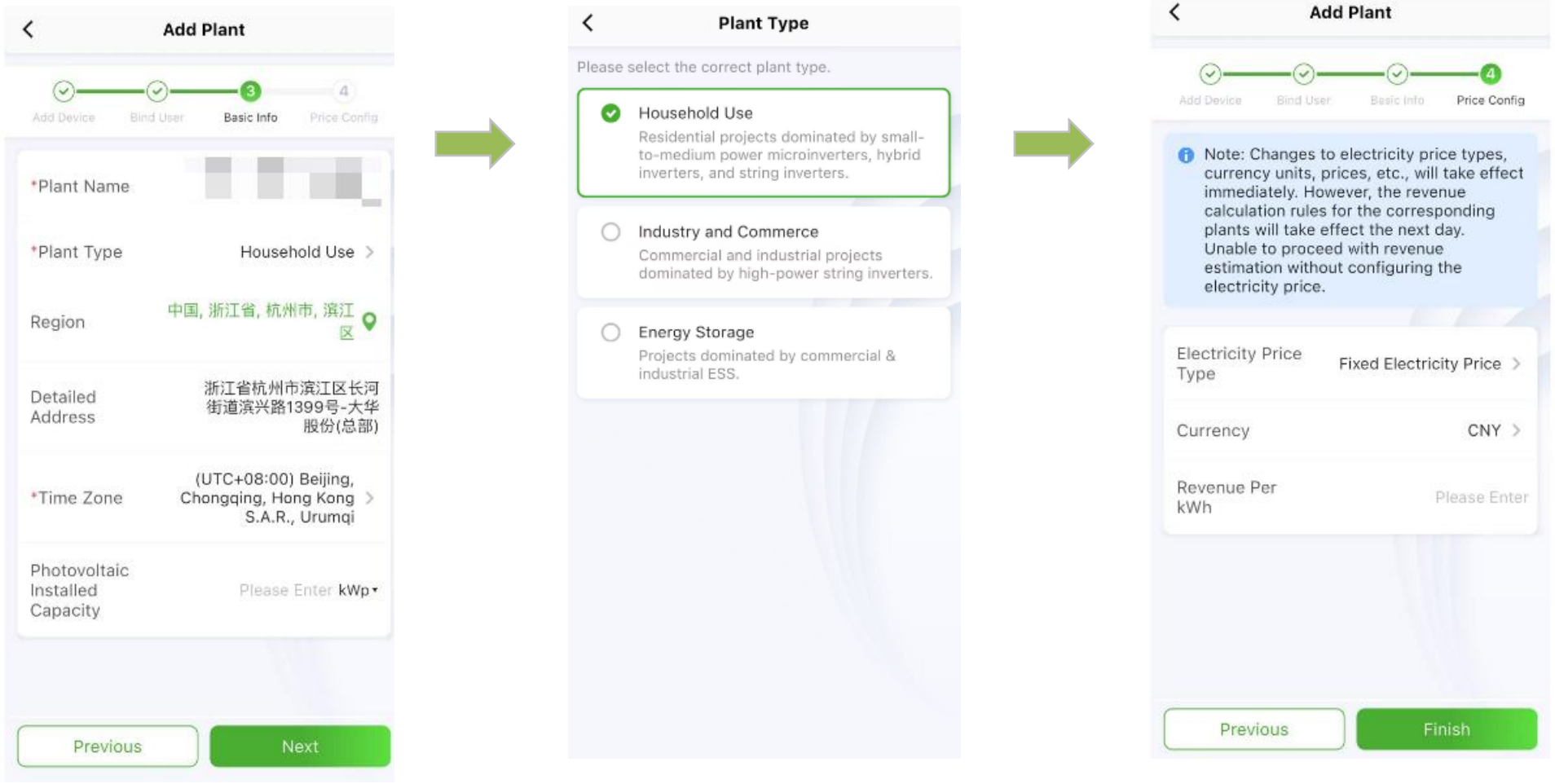
APP Configuration-Create a Plant

Step 4: Add owner - manually add or scan the owner's QR code to bind. Manually add - enter the email address or mobile phone number of the Plant owner. If the owner is not registered, click to help him register and bind. The system will generate a random password and send a text message or email to the registered account

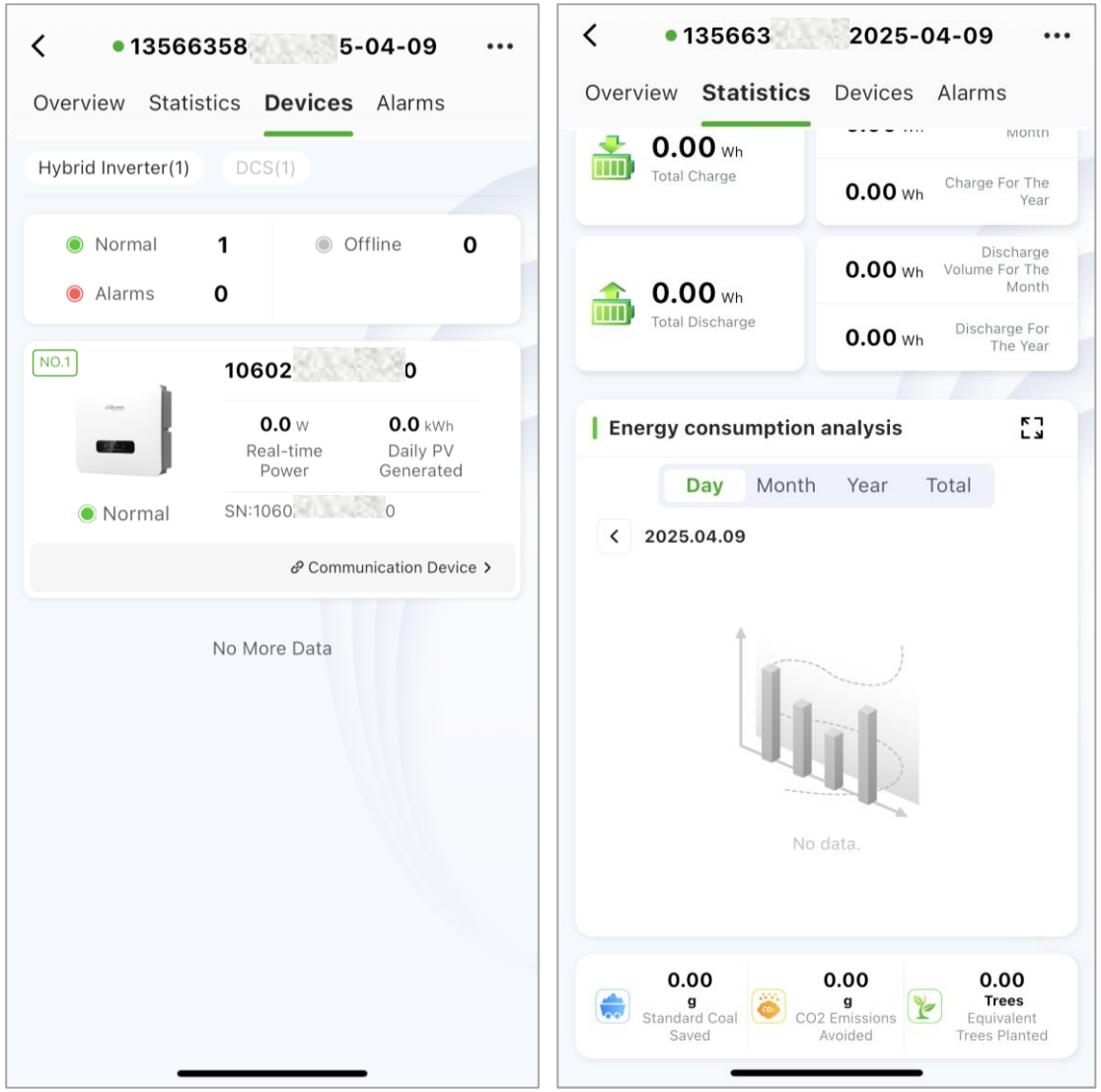


APP Configuration-Create a Plant

Step 5: Fill in basic information including Plant name, Plant type**(Household Use**), Region, Time Zone, and More information including Photovoltaic Installed Capacity, etc.



APP Configuration-Create a Plant



Step1: Select the plant, enter the user's plant interface, go to the device interface, and ensure the devices are online and functioning normally.

Step2: After installation, continuously monitor for at least 30 minutes. Select Statistics, go to the Energy consumption analysis interface, check the real-time POWER generation curve to confirm the plant has started normal electricity production.

After all the above checks are confirmed normal, it indicates successful installation and commissioning of the equipment!

HYXiPOWER
华 昱 欣

THANKS

Delivery and Service Center

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