

Single Phase String Inverter Installation Guide HYX-S3K/3K6/4K/4K6/5K/6K/7K5-S -General

Delivery and Service Center

品质

创新

高效

共赢

CONTENTS

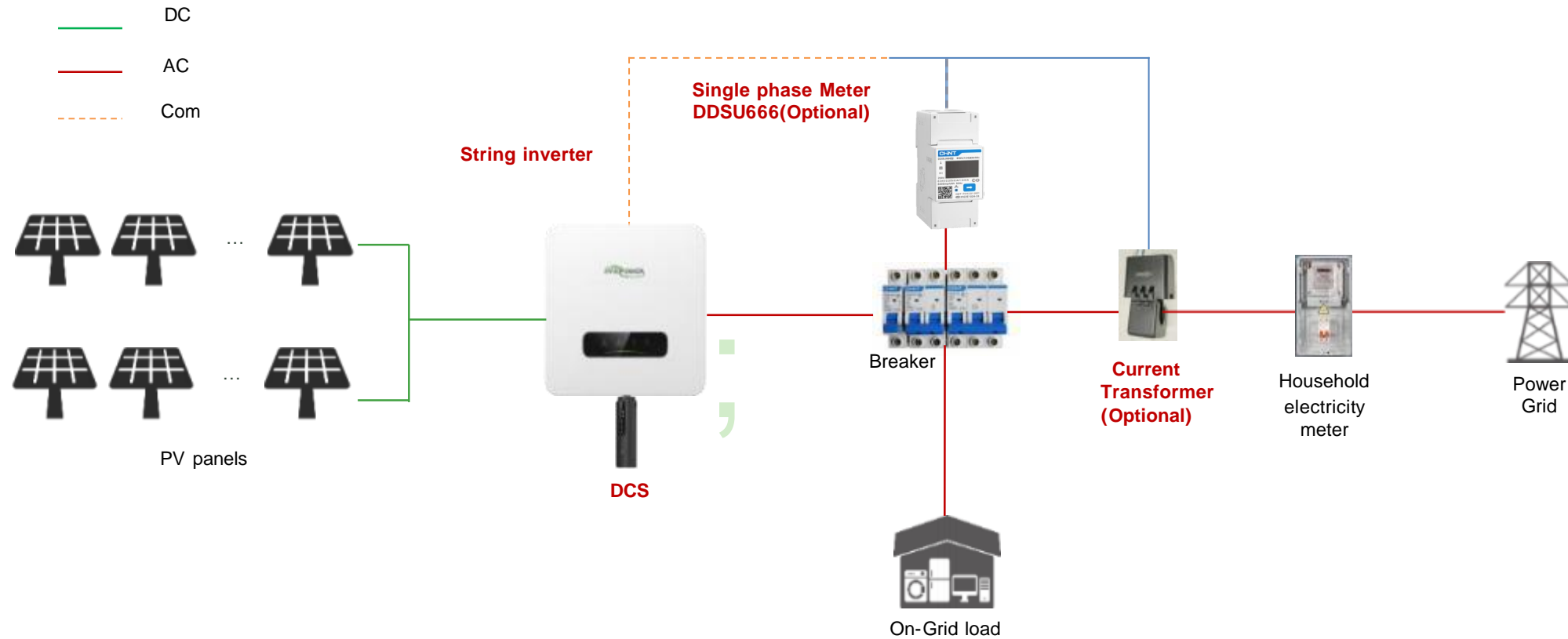
01 Program Overview

02 Installation Preparation

03 Device Installation

04 App Configuration

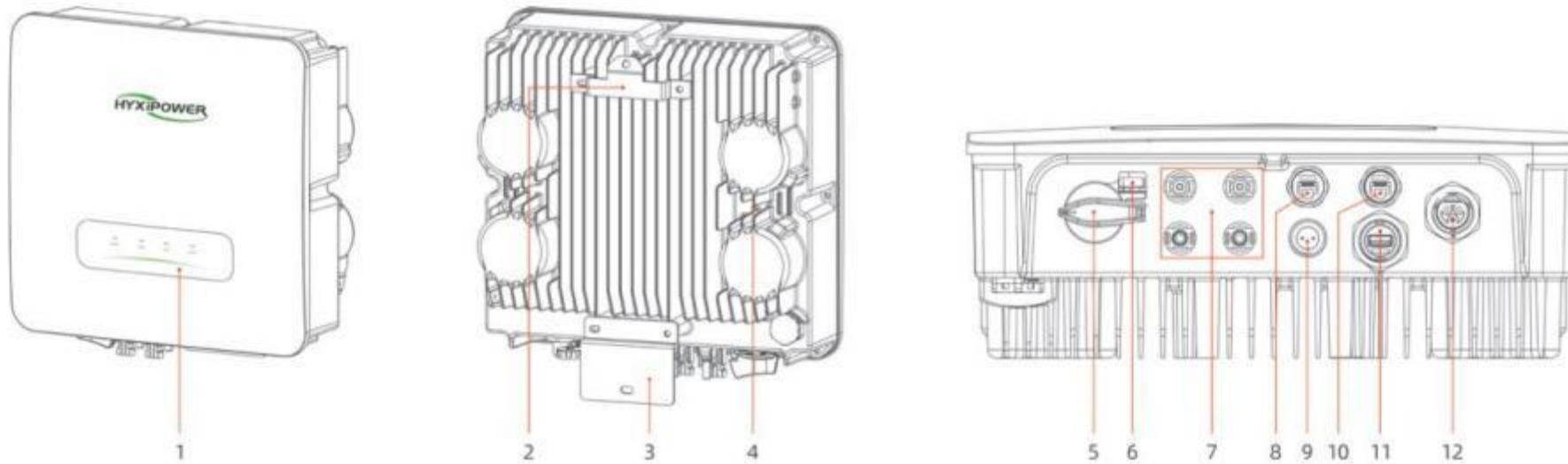
Program Overview-Solution Overview



Before installation, the on-site environment should be surveyed.

Refer to the picture above to plan the equipment installation location and wiring scheme in advance.

Program Overview- Inverter Introduction



	Name	Description		Name	Description
1	LED Indicator Panel	Indicates the current operating status of inverter	7	DC Input Terminal (PV+/PV-)	Inverter-PV
2	Mounting Pegboard	Fixed inverter top	8	COM.1	RS485 communication
3	Mounting Bracket	Fixed inverter bottom	9	METER Port	Smart Meter
4	Fin Heat Sink	Heat dissipation and ventilation	10	DRM port	DRM function Reserved(Australia)
5	DC switch	On/Off DC input	11	DCS	Monitoring Port
6	DC switch lock	DC lock hole Reserved(Australia)	12	AC Output Terminal	AC output to GRID/UTILITY

Program Overview-DCS Introduction



RESET button:

1. Press 2 times to restart
2. Press 3 times to enable local configuration (AP mode);
3. Press 4 times to restore factory settings
(Within 1 second between pressing)

Indicator	Status	Description
Power	On	Power ON
	OFF	Power OFF
NET.	Solid Green	Connected to server
	Flashing	Connecting to server
	OFF	Disconnected from server
COM.	Solid Green	Normal communication with inverter
	Flashing	Communicating with inverter
	OFF	Communication with inverter failed

Program Overview-Meter Introduction



The DTSU666 single-phase energy meter

The DTSU666 single-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.

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Installation Preparation-Materials and Tools Preparation



Conduct a survey of the site environment before installation and make plans in advance

1. Plan the location of equipment in advance: the mounting location of the inverter and the placement of the battery (outdoor cement pouring needs to be considered to raise the ground)
2. Understand the on-site PV access situation, whether there are photovoltaic panels, and whether the current and voltage of the photovoltaic panels meet the specifications of the inverter. If it exceeds the specifications, the customer needs to be informed in advance to reduce the number of photovoltaic panels to avoid equipment damage
3. Check the location of the inverter and home air conditioner
4. According to the pre-installation conditions of the on-site environment, measure the required length of each cable, and purchase the cables required for installation in advance, as shown in the table on the right





Important! ! The following cable products are not provided and need to be purchased separately.

	Name	Description	Specification
1	PV cable	Cables used from photovoltaic panels to inverters comply with outdoor multi-core copper cable 1000V and 18A standards;	4~10mm ²
2	Communication cable	485 communication cable	RVVP double-core shielded wire, 0.5mm ²
3	AC output cable	AC side wiring of the inverter , use three-core outdoor copper core cables	4~10mm ²
4	Ground wire	For equipment grounding use	4~10mm ²

Installation Preparation-Materials and Tools Preparation



Product existing equipment list

No.	Name	picture	Description
1	Single phase String inverter		Includes an inverter host and a batch of inverter related accessories
2	Single phase electricity meter		Measure circuit voltage, current, power, etc.
3	Current Transformer		Induced current size, used with electric meter
4	DCS communication stick		After registering the device to the cloud server, it can be managed uniformly through the cloud platform.

Installation Preparation–Tool Installation



Installation Tool



Electric Drill



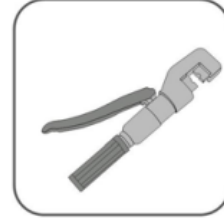
Heat Gun



Hex Key



Wire Stripper



Hydraulic Pliers



Crimping Tool



Screwdriver



Marker Pen



Utility Knife



Multimeter

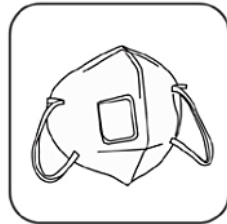


Tape Measure



Hammer

Protect Tool



Protective Mask



Safety Glasses



Insulated Safety Shoes



Insulating Gloves

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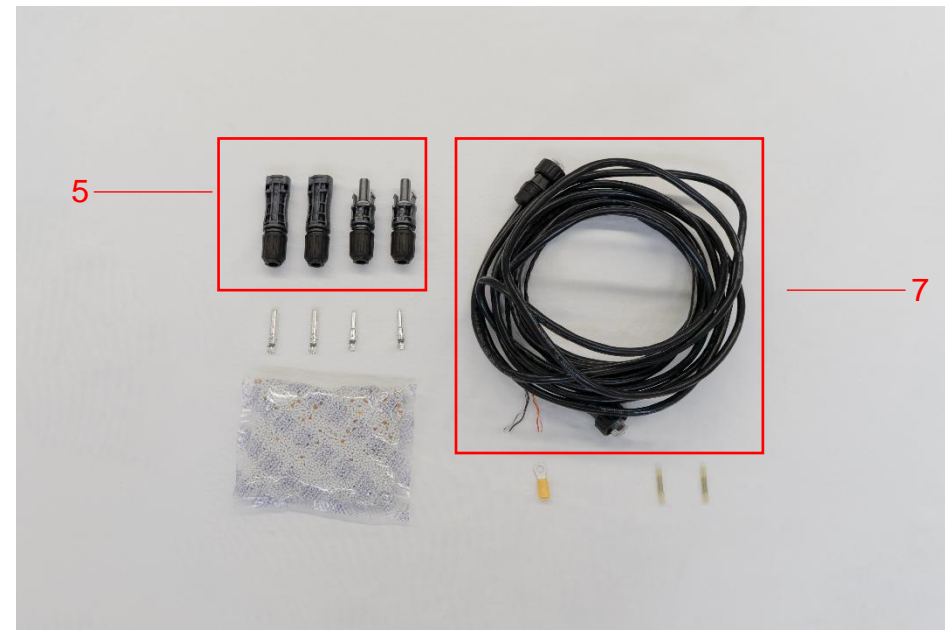
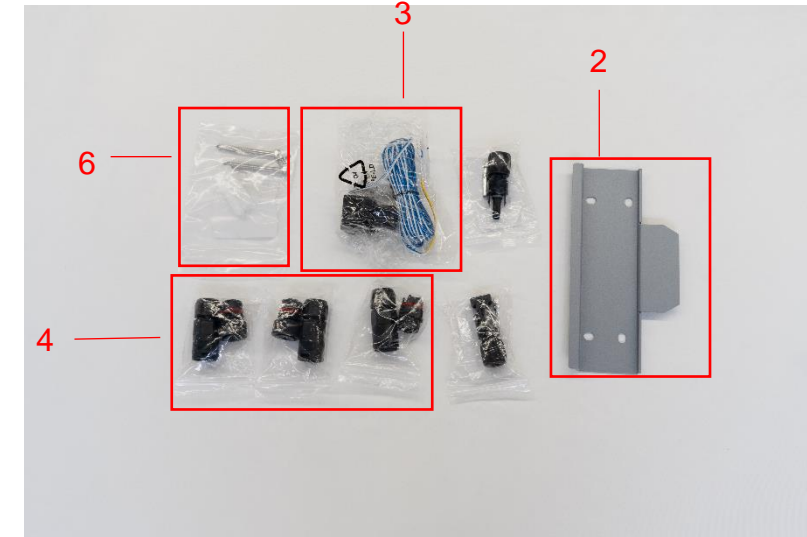
Device Installation- Product Unboxing Inspection



Inverter Unboxing Inspection:

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

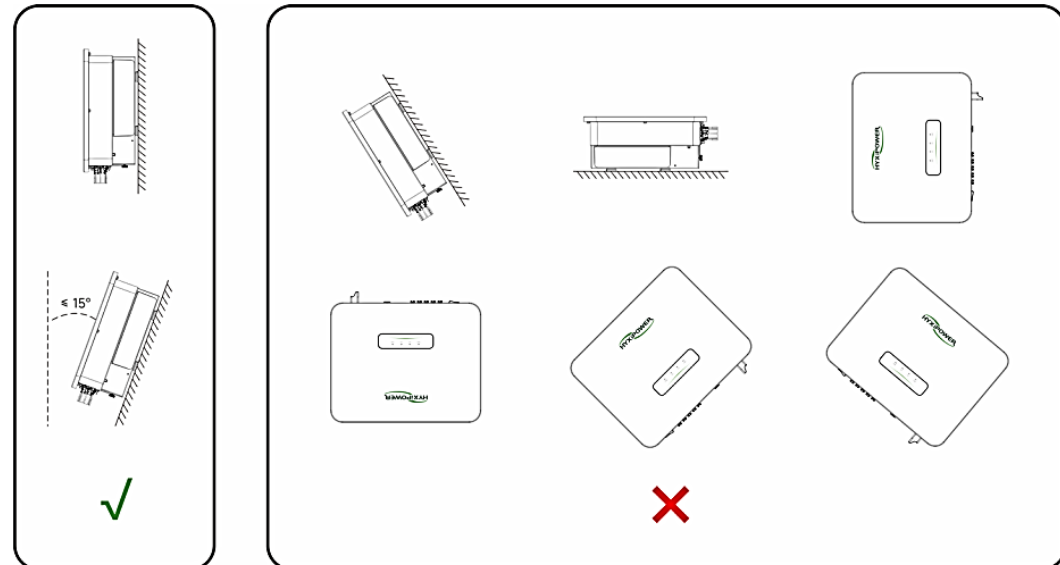
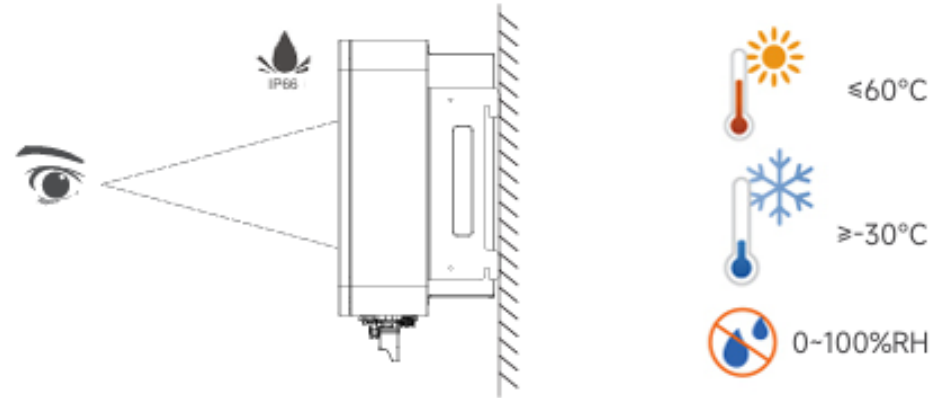
No.	Name
1	Inverter
2	Mounting Bracket
3	CT
4	AC Connector
5	DC Connector
6	Screws
7	RS485 Line



Device Installation–Environment Requirements



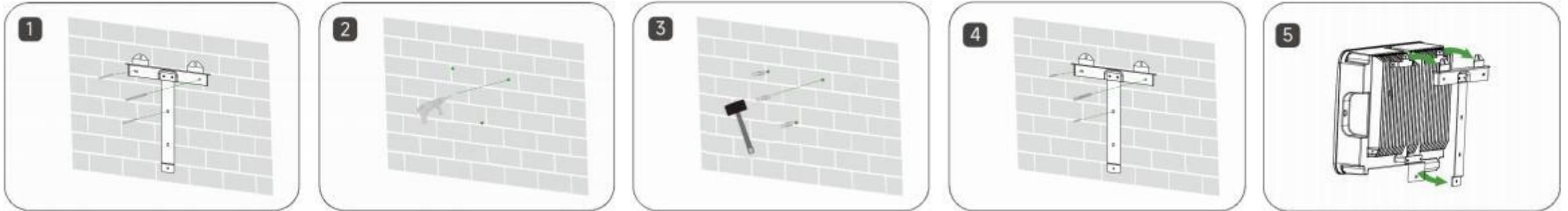
1. Suitable for both **indoor and outdoor** installation.
2. -30°C to +60°C, 0~100% relative humidity (RH).
3. **Select a shaded location** to avoid direct sunlight and protect against rain/snow.
4. **Ensure proper ventilation for heat dissipation.**
5. The mounting structure must support at least **4 times** the inverter's weight.,
6. Mount vertically or tilted backward $\leq 15^\circ$ to optimize thermal performance.
7. Do NOT install forward-facing, backward-facing, upside-down, horizontally, or sideways.
8. For multi-unit installations, maintain $\geq 300\text{mm}$ clearance between inverters.



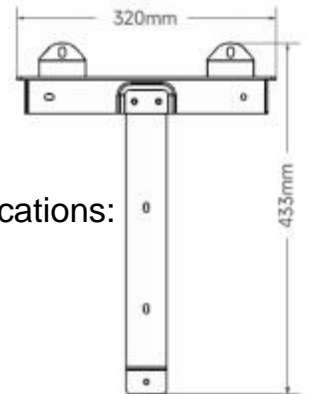
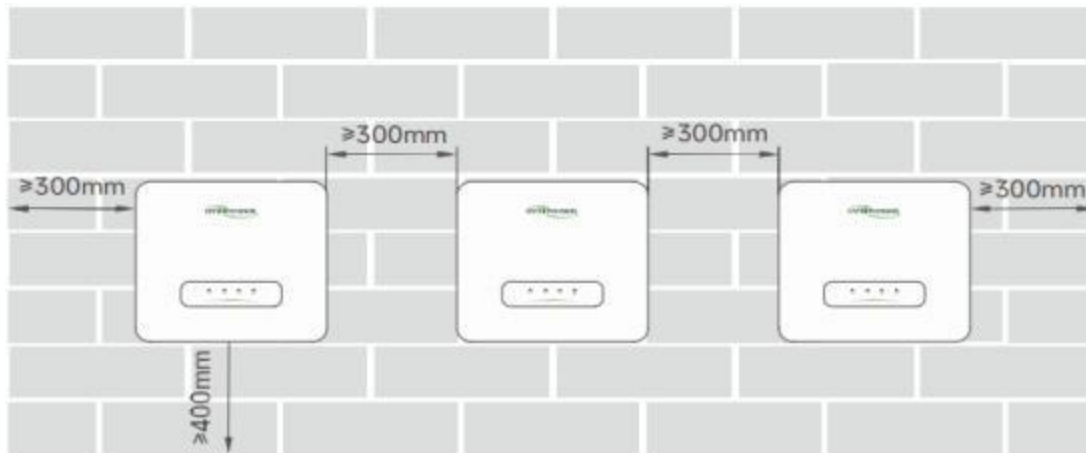
Device Installation-Inverter Installation



The mounting bracket and inverter can be fixed as follows:



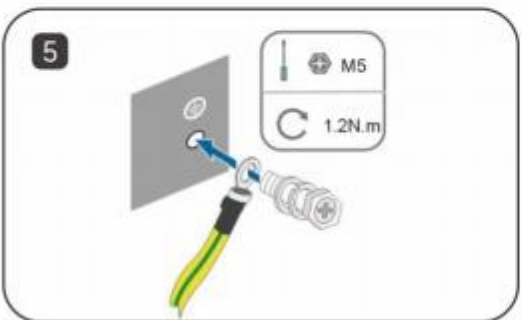
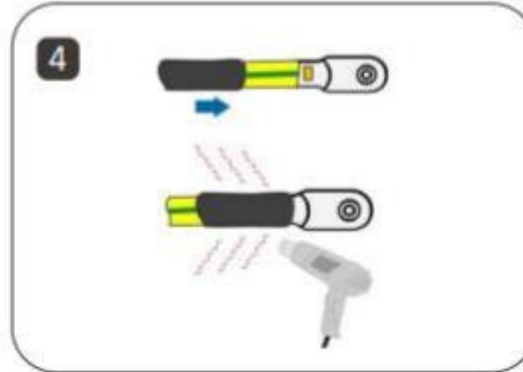
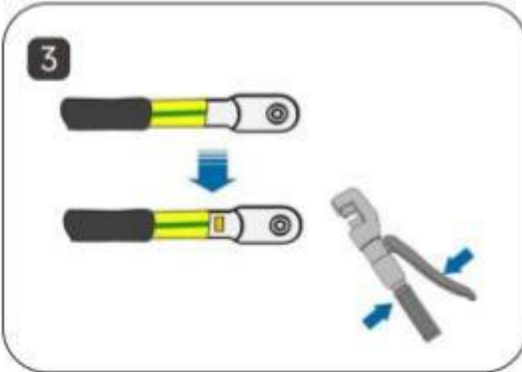
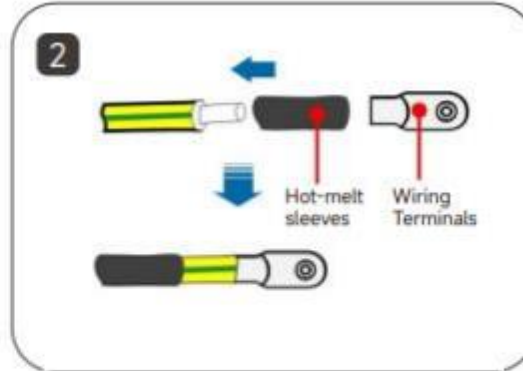
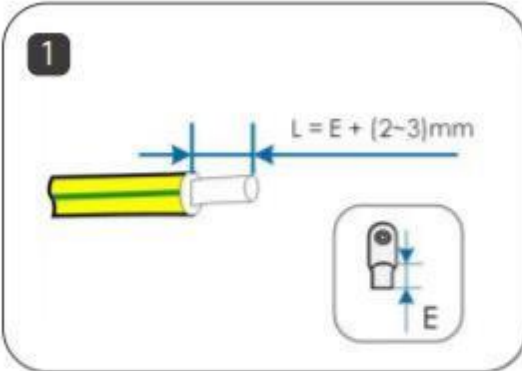
When installing multiple inverters, a distance of more than 300mm should be maintained between the two inverters.



Bracket specifications:

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

Device Installation-Inverter grounding installation



Step 1 : Strip off a certain length of insulation

$L = E + (2-3)mm$.

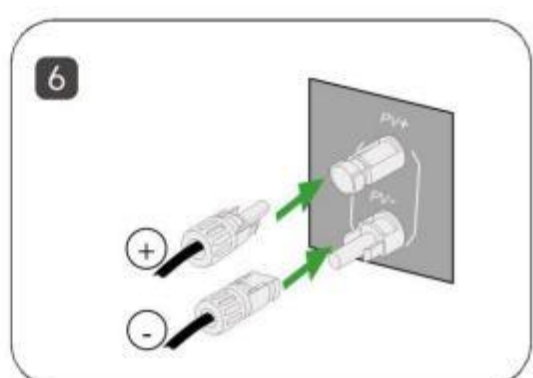
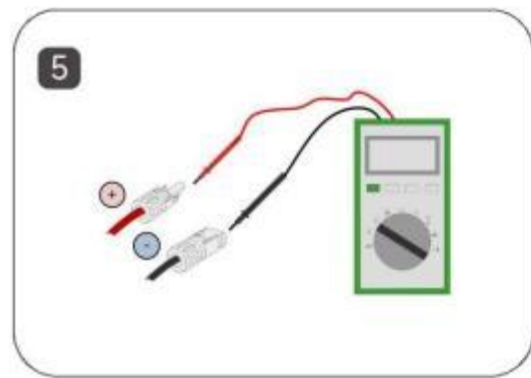
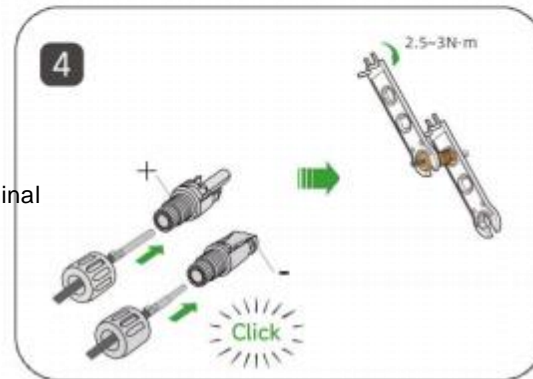
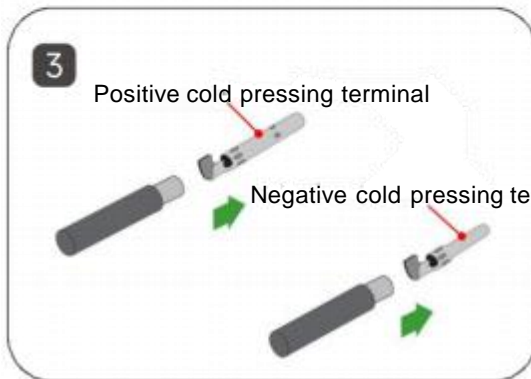
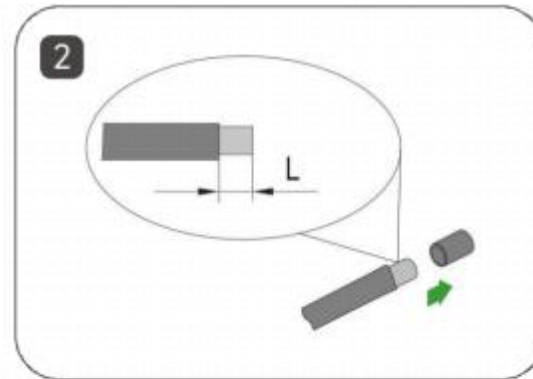
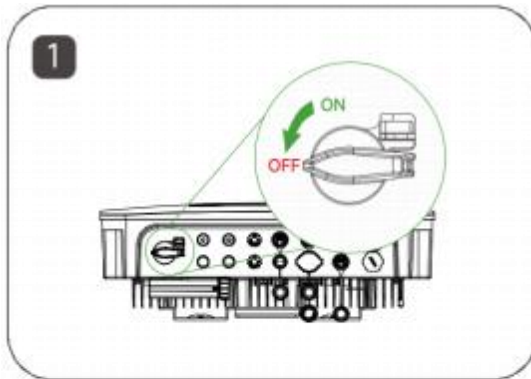
Step 2 : Pass the cable through the hot melt sleeve and insert it into the terminal block.

Step 3 : Use crimping pliers to tightly connect the terminal blocks and cables .

Step 4 : Adjust the hot melt sleeve to cover the end of the terminal block and the power cord, and use a hot air gun to blow the hot melt sleeve to cover the end of the power cord and terminal block.

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

Device Installation-PV-side connection



Step 1: Keep the switch on the inverter turned off.

Step 2: Strip all DC cables insulation by approximately 7 mm.

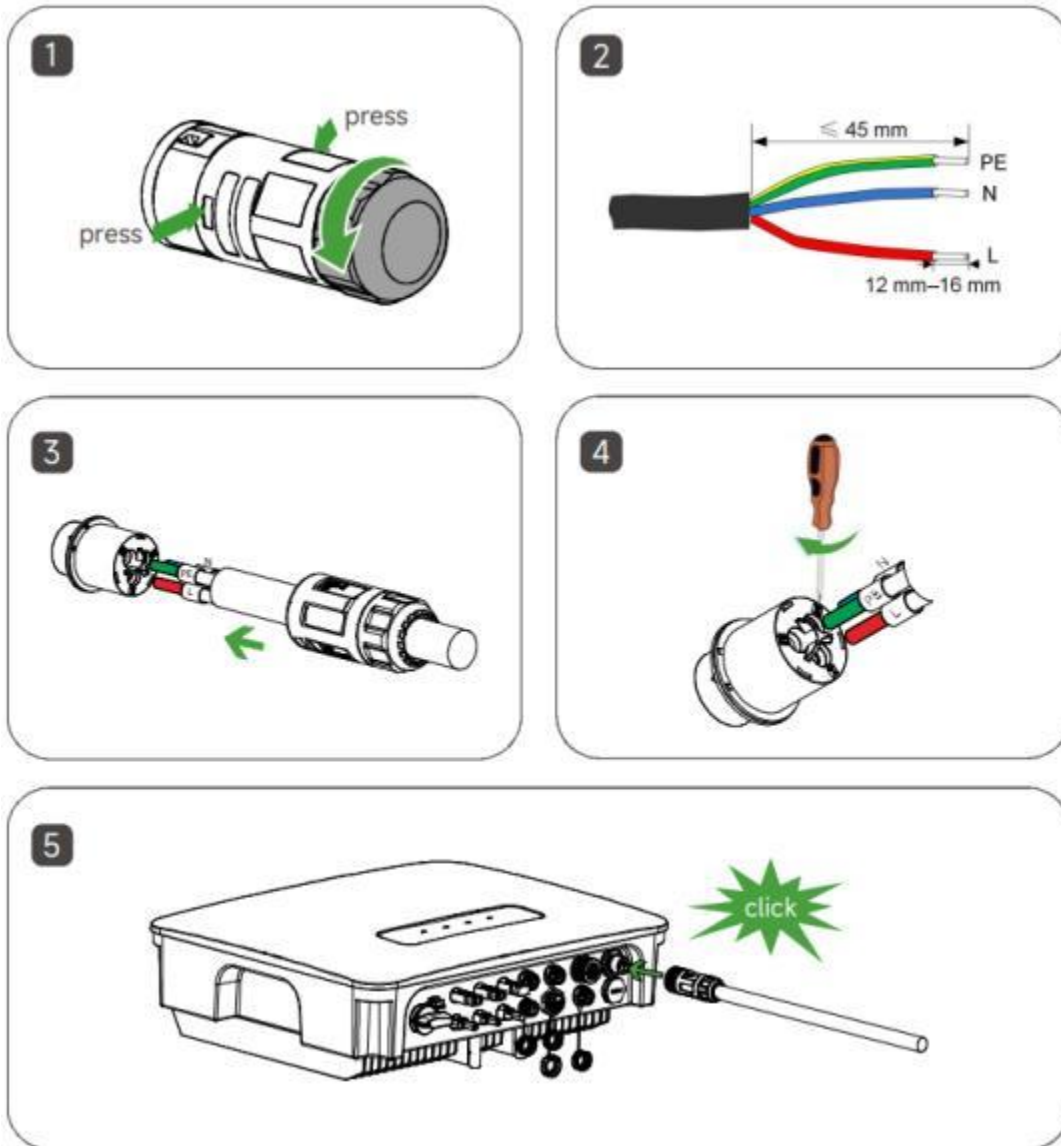
Step 3: Use crimping pliers to bundle the cold-pressed terminals to the cables. **Note that the positive and negative terminals are different** and need to be distinguished.

Step 4: Insert the cable through the cable sealing sleeve, insert it into the insulating sleeve and fasten it, and pull the cable gently to make sure it is tightly connected. Use 2.5 ~ 3N·m force to tighten the sealing sleeve and insulation sleeve.

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

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

Device Installation-AC-side connection



Step 1: Disassembling connector.

Step 2: Strip off a certain length of the protective layer and insulation as shown in the diagram.

Step 3: Adjust the 3 hexagonal screws loosely, do not unscrew the screws completely. Insert the 3 cores(of step 2) into the corresponding screw holes.

Step 4: Lock all 3 cores(of step 2) with 3 hexagonal screws.

Step 5: Assembling connector. Connect the AC connector to the appropriate terminal until a click is heard.

Note: ON-Grid side is a female connector and Back-Up side is a male connector.

Device Installation- Meter Connection

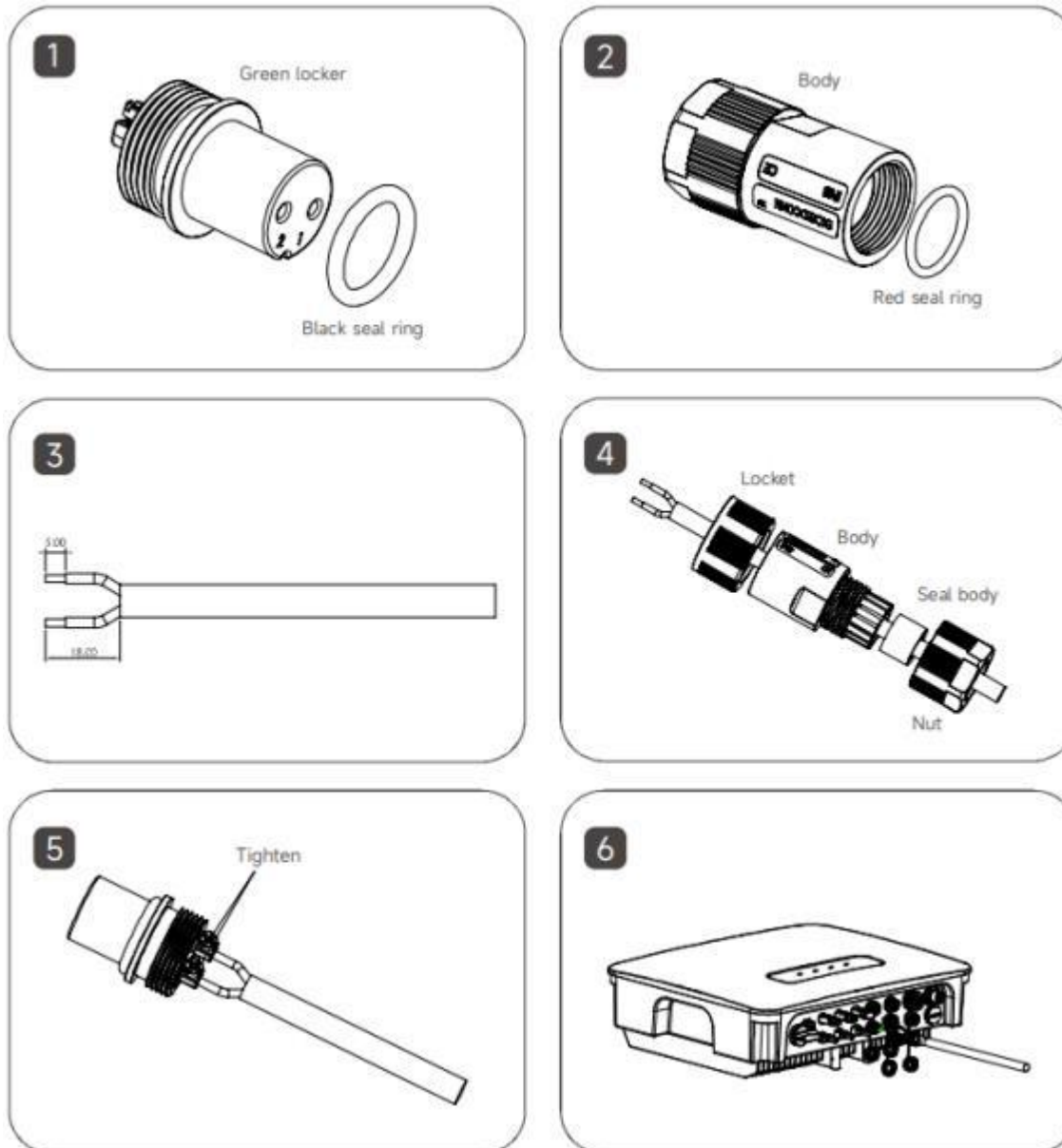


Figure 7

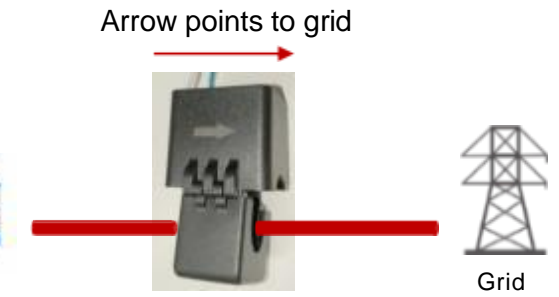


Figure 8

Step 1: Place black seal ring on the green Locker.

Step 2: Put red seal ring into the bottle of body inside.

Step 3: Wire stripping.

Step 4: Pass all parts through the wire in the following order.

Step 5: Crimp the 2pin copper core on the green locker and tighten it. **1 on the connector corresponds to A on the electric meter , and 2 corresponds to B on the electric meter** (Figure 7).

Step 6: Screw all parts together and connect the water-proof 2pin connector to inverter meter port.

Step 7: Connect the meter in parallel to the power grid, connect 3 to the live wire and 4 to the neutral wire.

Step 8: Pass the magnetic ring of the current transformer through the live wire of the grid. Note that the arrow points to grid (Figure 8).

Device Installation- DCS Connection



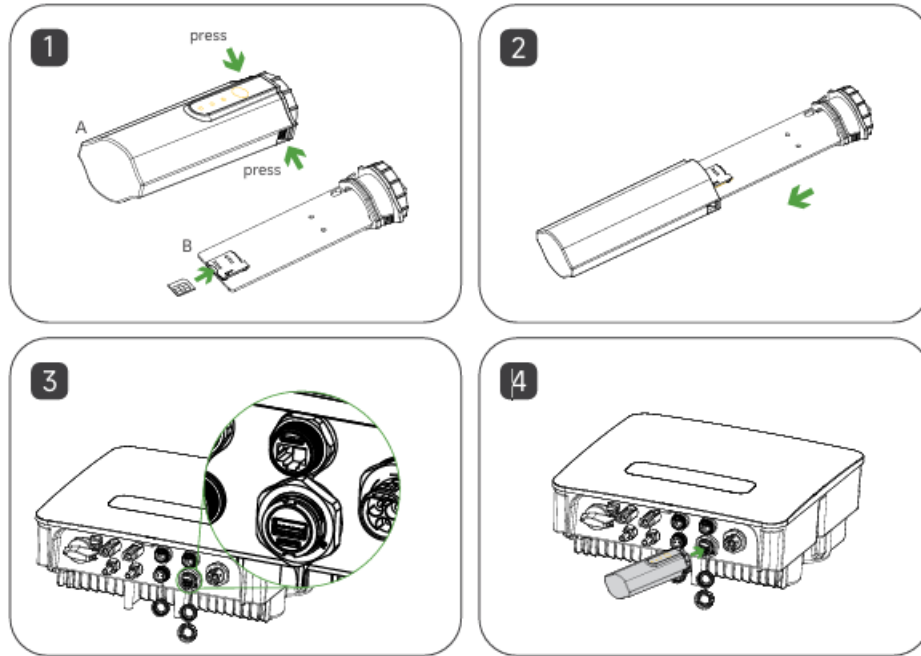
1. DCS communication stick installation (4G version)

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

Step 2: Install 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 to ensure firmness.

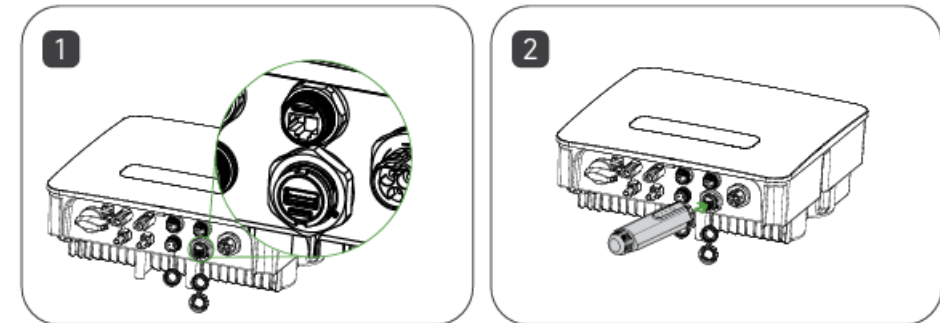


2. DCS communication stick installation (Wi-Fi version does not require disassembly and installation of the sim card)

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 secure.

Note: For the Wi-Fi version, if the on-site Wi-Fi signal is poor (below -60dBm), you need to consider adding a Wi-Fi repeater to strengthen the network signal, otherwise there will be a risk that device data cannot be uploaded to the platform.



Device Installation- Inverter System Startup



Figure 1

Step 1: Open the circuit breaker on the AC side.

Step 2: Open the circuit breaker on the photovoltaic side.

Step 3: Turn on the DC switch on the inverter.

Step 4: Confirm the indicator light status of the inverter. The indicator light status in Figure 2 is normal.

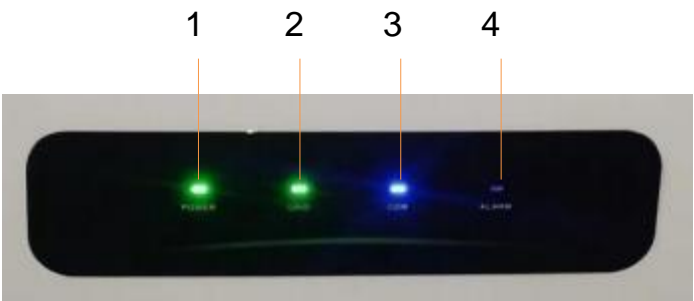


figure 2

No.	Indicator	Status	Description
1	POWER	ON	Inverter Powered ON
		OFF	Inverter Powered OFF
2	GRID	ON	Grid Normal
		Blink 1	Grid Abnormal
		Blink 2	Grid Disconnected
3	COM.	ON	COM. Normal
		Blink 1	Meter COM. Fault
		Blink 2	COM. Fault With BMS
		OFF	Fault Both Meter&BMS
4	ALARM	OFF	Normal
		Blink 1	Inverter Internal Alarm
		Blink 2	Other Alarms

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APP Configuration-Registration

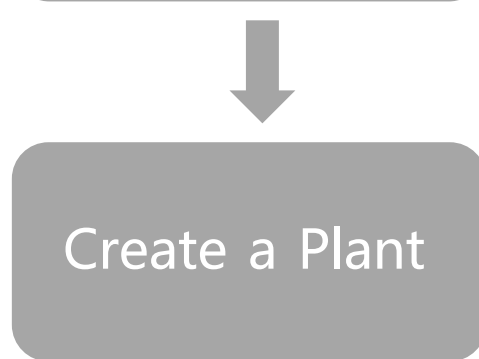


- 1、 Download HYXipowerAPP
- 2、 Register the account of the person in charge of the organization



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**

Method 1

Search "Hyxipower" in the Application Store

- APP store (IOS)
- Google play

Method 2

Scan the QR code download the APP



Language

HYXiPOWER

hyxipower01@bccto.cc

Password

Forgot Password? **Register Now**

☒ I agree to the Terms of Use and I have read the Privacy Policy

Login

Device Installation Demo Site



Select Role

Please select the relevant server for your area

Select Your Server **European Server**

If Your Role Is An Installer Or A Distributor, Please Register For The Following Role.

Register as Organization
Installer or Distributor

Register as Owner

Register as Owner
Plant Owner

If You Have Only Installed A Balcony Photovoltaic System, Please Register The Following Roles.

Registered Balcony System Homeowner
Balcony System Owner

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

Register as Organization

Note: If your organization or company has registered for an organization account in this system, you do not need to register again. Please contact your administrator to add you to the member list

Organization/Company Name Please Enter

Registration Method

Please Enter @hotmail.com

Please Enter Send

Complete Info

Password Please Enter

Confirm Password Please Enter

Register

☒ I agree to the Terms of Use and I have read the Privacy Policy

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

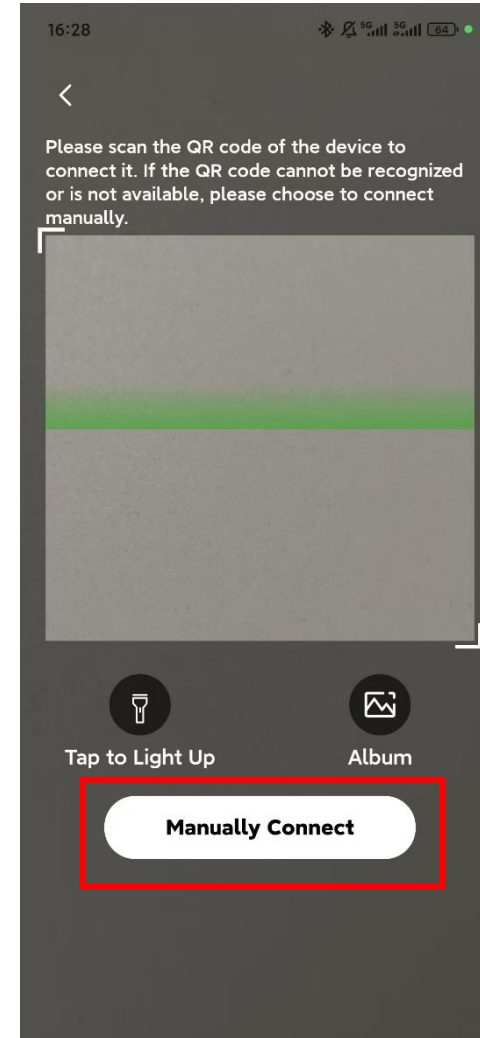
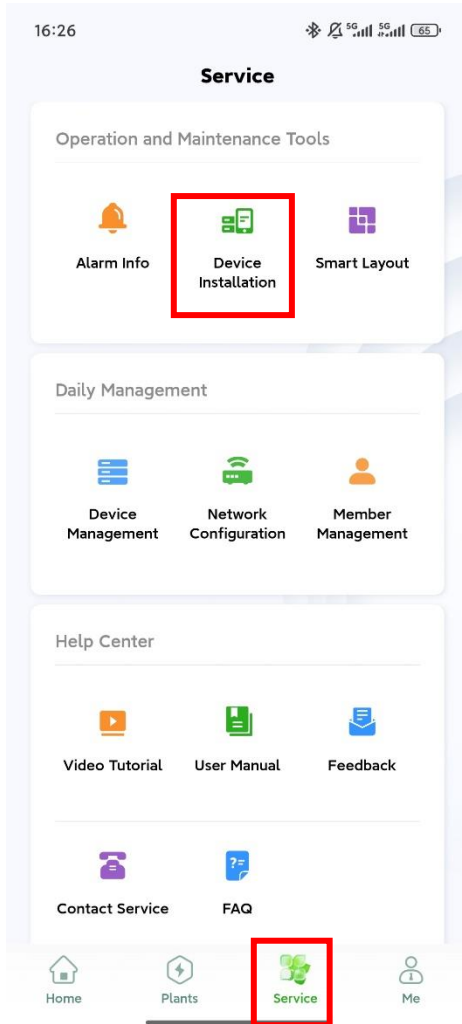
Create a power station for users
You can manage the equipment through the Plant and check the equipment status, system power generation and usage, etc.

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.

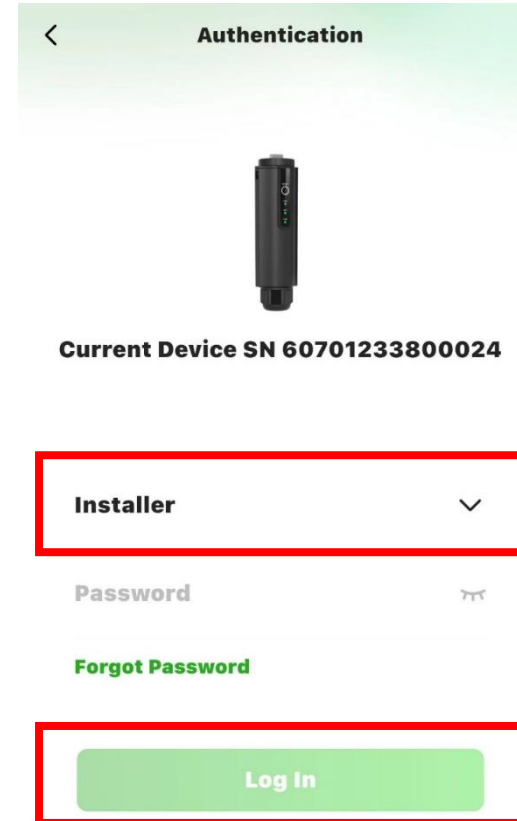


APP Configuration-Near-end Commissioning



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

A screenshot of the 'Authentication' screen in the APP. At the top, there is a back arrow and the title 'Authentication'. Below this is a large, faint image of a device. In the center, there is a smaller image of a black device. Below the device image, the text 'Current Device SN 60701233800024' is displayed. Further down, there is a dropdown menu labeled 'Installer' with a downward arrow, which is highlighted with a red rectangle. Below the dropdown is a 'Password' field with a toggle icon. Underneath the password field is a link labeled 'Forgot Password' in green text. At the bottom, there is a green 'Log In' button, also highlighted with a red rectangle.

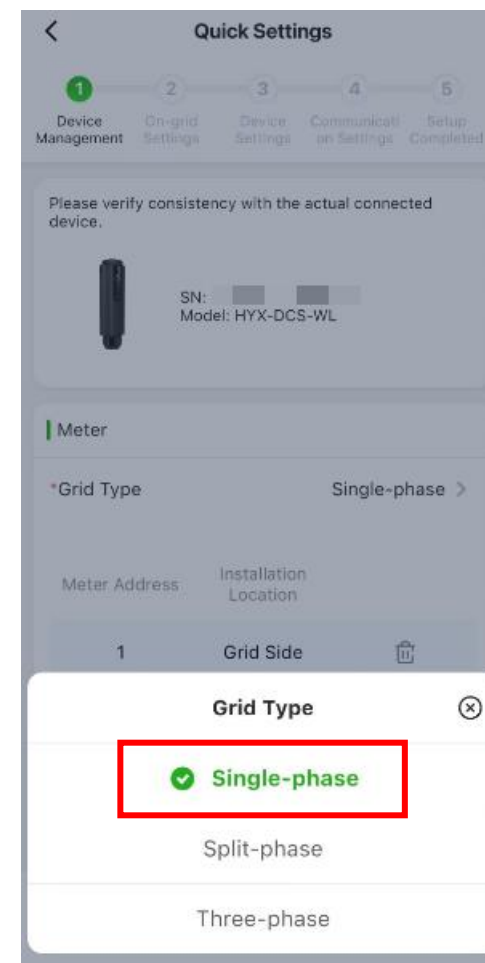
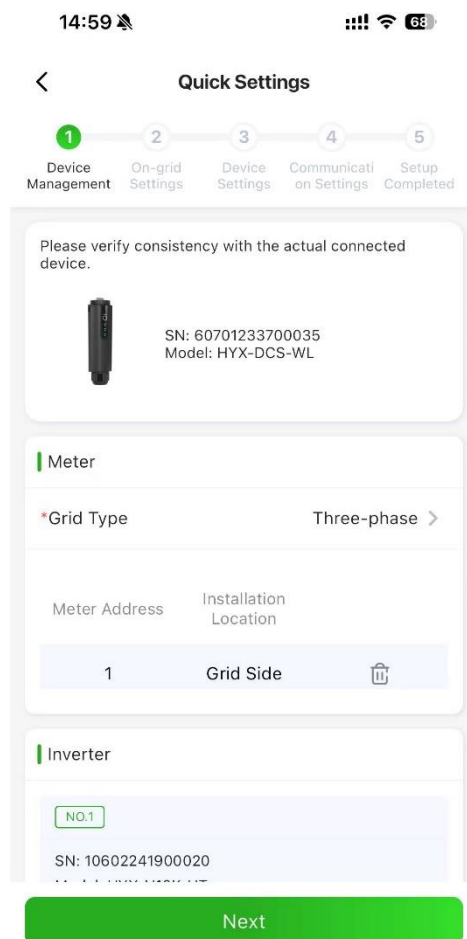
APP Configuration-Near-end Commissioning



Step3: Quick Settings

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

Meter settings: 1. Grid type—**Single-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.

Quick Settings

Device Management On-grid Settings Device Settings Communication Settings Setup Completed

Country/Area China >

Grid Code

EN 50549
Common European Standard >

Please make sure to configure the grid standard code correctly according to the local policies and regulations, otherwise the equipment may not work properly.

Previous Next

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

Quick Settings

Device Management On-grid Settings Device Settings Communication Settings Setup Completed

Whether to enable the grid feed-in power limit ☐

1.If disabled, there will be no restriction on the power fed into the grid. If enabled, users can set the upper limit of the power fed into the grid. If set to 0, it completely prohibits feeding power into the grid for Export Control.

2.If the input value exceeds the maximum limit of the equipment, it shall be limited to 1.1 times the rated power of the equipment.

3.Please make sure you install a grid-side meter, otherwise the setting to turn on the grid feed-in power is invalid!

Previous Next

Quick Settings

Device Management On-grid Settings Device Settings Communication Settings Setup Completed

Whether to enable the grid feed-in power limit ☒

*Maximum Allowable Grid Feed-in Power(W) 0

1.If disabled, there will be no restriction on the power fed into the grid. If enabled, users can set the upper limit of the power fed into the grid. If set to 0, it completely prohibits feeding power into the grid for Export Control.

2.If the input value exceeds the maximum limit of the equipment, it shall be limited to 1.1 times the rated power of the equipment.

3.Please make sure you install a grid-side meter, otherwise the setting to turn on the grid feed-in power is invalid!

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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

Quick Settings

Device Management On-grid Settings Device Settings **Communication Settings** Setup Completed

Current Device Router Cloud Platform

Communication mode for connecting to the cloud platform server

*Communication Mode Wi-Fi >

Wireless connection mode parameter configuration (please ensure device is within the coverage range of public Wi-Fi)

*Wi-Fi Name hyxipower1 >

Wi-Fi Password

Previous Next

Wired

Quick Settings

Device Management On-grid Settings Device Settings **Communication Settings** Setup Completed

Current Device Router Cloud Platform

Communication mode for connecting to the cloud platform server

*Communication Mode Wired Connection Mode >

Wired connection mode parameter configuration (please ensure device is connected to the public network via Ethernet cable)

Auto Acquire IP Address Switch ☒

Wired MAC Address 12:34:56:78:ab:cd

Wired IP Address 255.255.255.255

Previous Next

4G

Quick Settings

Device Management On-grid Settings Device Settings **Communication Settings** Setup Completed

Current Device Router Cloud Platform

Communication mode for connecting to the cloud platform server

*Communication mode Wireless Connection mode >

Wireless connection mode parameter configuration (please ensure device has inserted the SIM card from the carrier)

APN Please Enter

Username Please Enter

Password Please Enter

Previous Next



Quick Settings

Device Management On-grid Settings Device Settings Communication Settings **Setup Completed**

The quick setup is complete. Please confirm.

Grid Code Succeeded
EN 50549

Meter Succeeded

Hybrid Settings Succeeded

Communication Settings Succeeded

Current Device Router Cloud Platform

Please switch to a public network, log in to the app, create a new plant, and bind the current device.

Search

Previous Finish

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

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

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Create a Plant

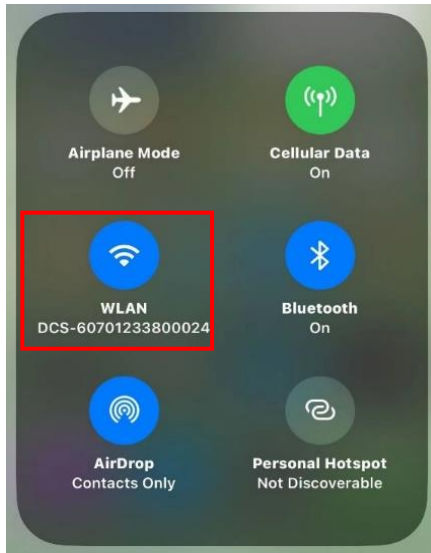
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You can manage the equipment through the Plant and check the equipment status, system power generation and usage, etc.

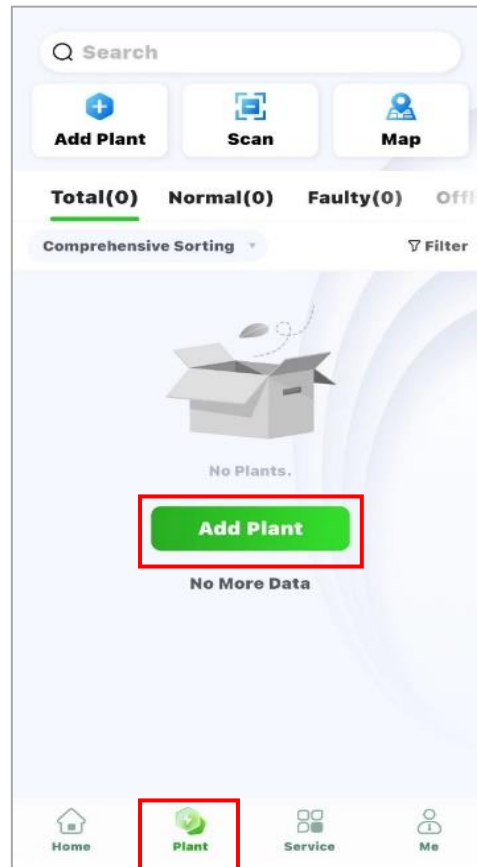
APP Configuration-Create a Plant



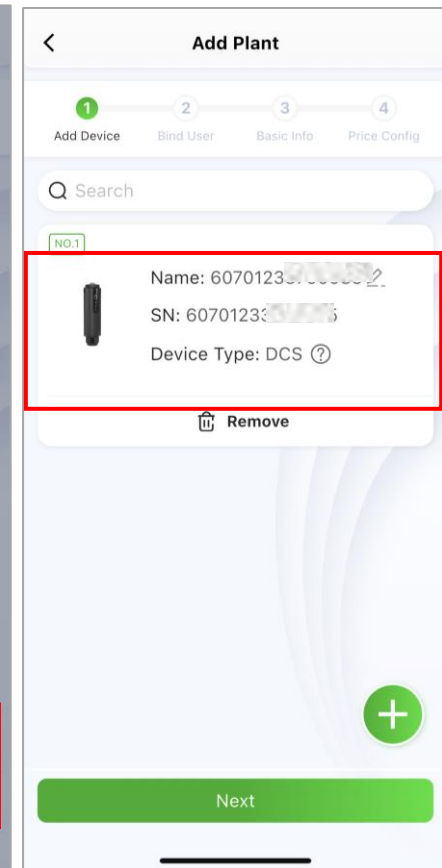
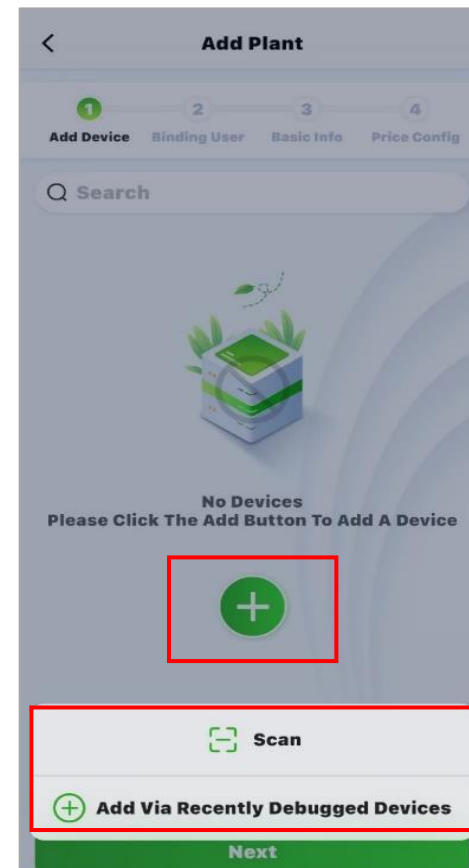
Step 1: Disconnect the phone from the DCS' s WiFi. Make sure your phone has Internet access



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



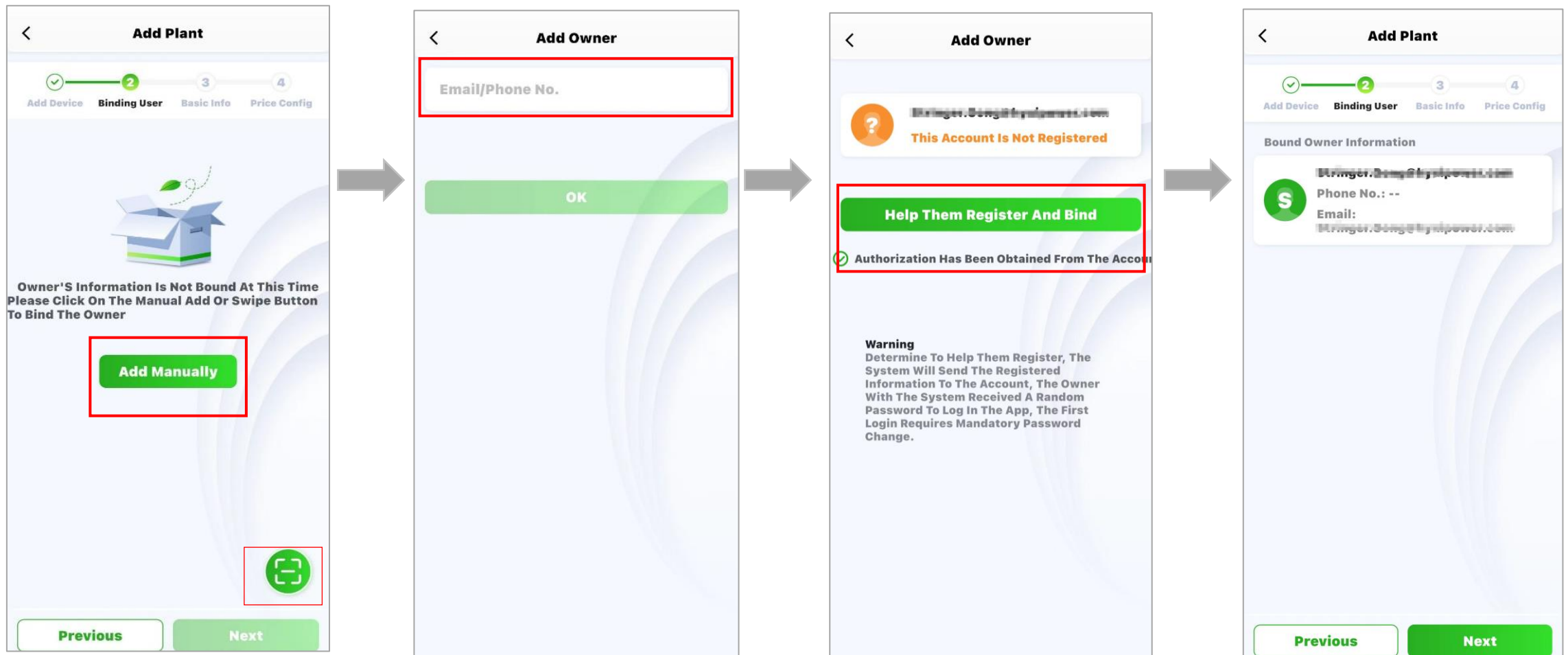
Step 3: Scan the QR code of the DCS or add it through Recently Debugged Device



APP Configuration-Create a Plant

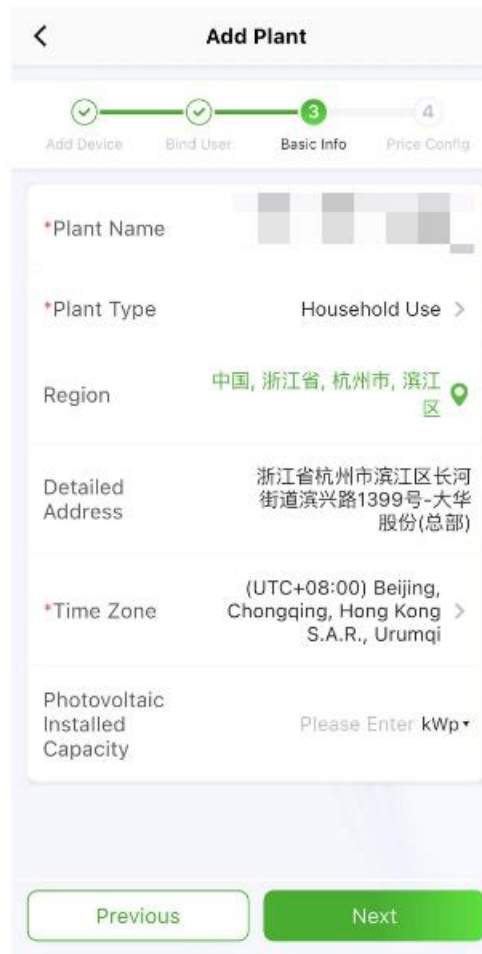


Step 4: Add owner - manually add or scan the owner's QR code to bind. Manually add - enter the email address or mobile phone number of the Plant owner. If the owner is not registered, click to help him register and bind. The system will generate a random password and send a text message or email to the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



APP Configuration-Create a Plant

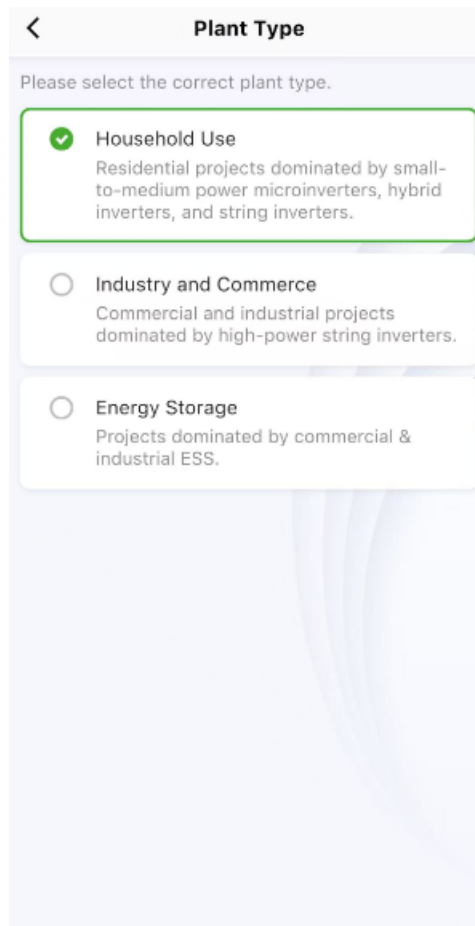
Step 5: Fill in basic information including Plant name, Plant type(**Household Use**), Region, Time Zone, and More information including Photovoltaic Installed Capacity, etc.



The screenshot shows the 'Add Plant' screen with a progress bar at the top indicating four steps: Add Device, Bind User, Basic Info (current step), and Price Config. The 'Basic Info' section contains the following fields:

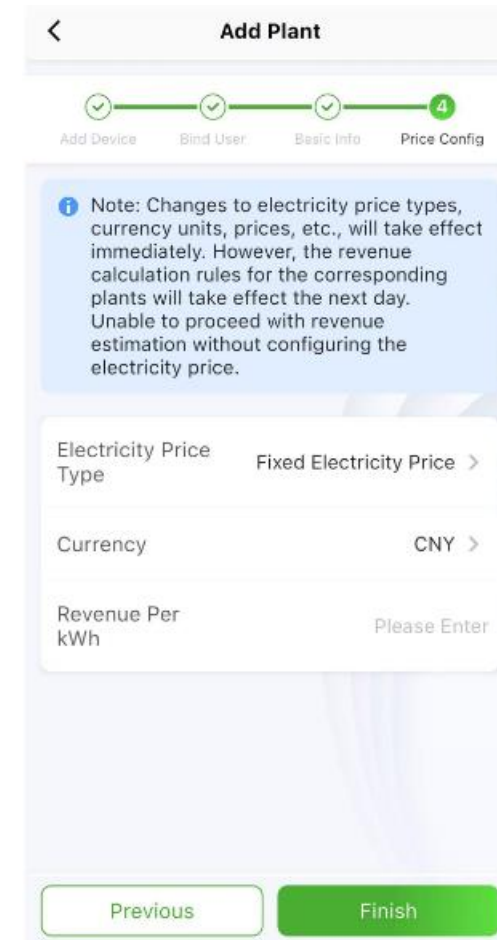
- *Plant Name: [Input field with a placeholder]
- *Plant Type: Household Use >
- Region: 中国, 浙江省, 杭州市, 滨江区
- Detailed Address: 浙江省杭州市滨江区长河街道滨兴路1399号-大华股份(总部)
- *Time Zone: (UTC+08:00) Beijing, Chongqing, Hong Kong S.A.R., Urumqi >
- Photovoltaic Installed Capacity: Please Enter kWp

At the bottom, there are 'Previous' and 'Next' buttons.



The screenshot shows the 'Plant Type' selection screen with the title 'Please select the correct plant type.' and three options:

- ☒ **Household Use**
Residential projects dominated by small-to-medium power microinverters, hybrid inverters, and string inverters.
- ☐ **Industry and Commerce**
Commercial and industrial projects dominated by high-power string inverters.
- ☐ **Energy Storage**
Projects dominated by commercial & industrial ESS.

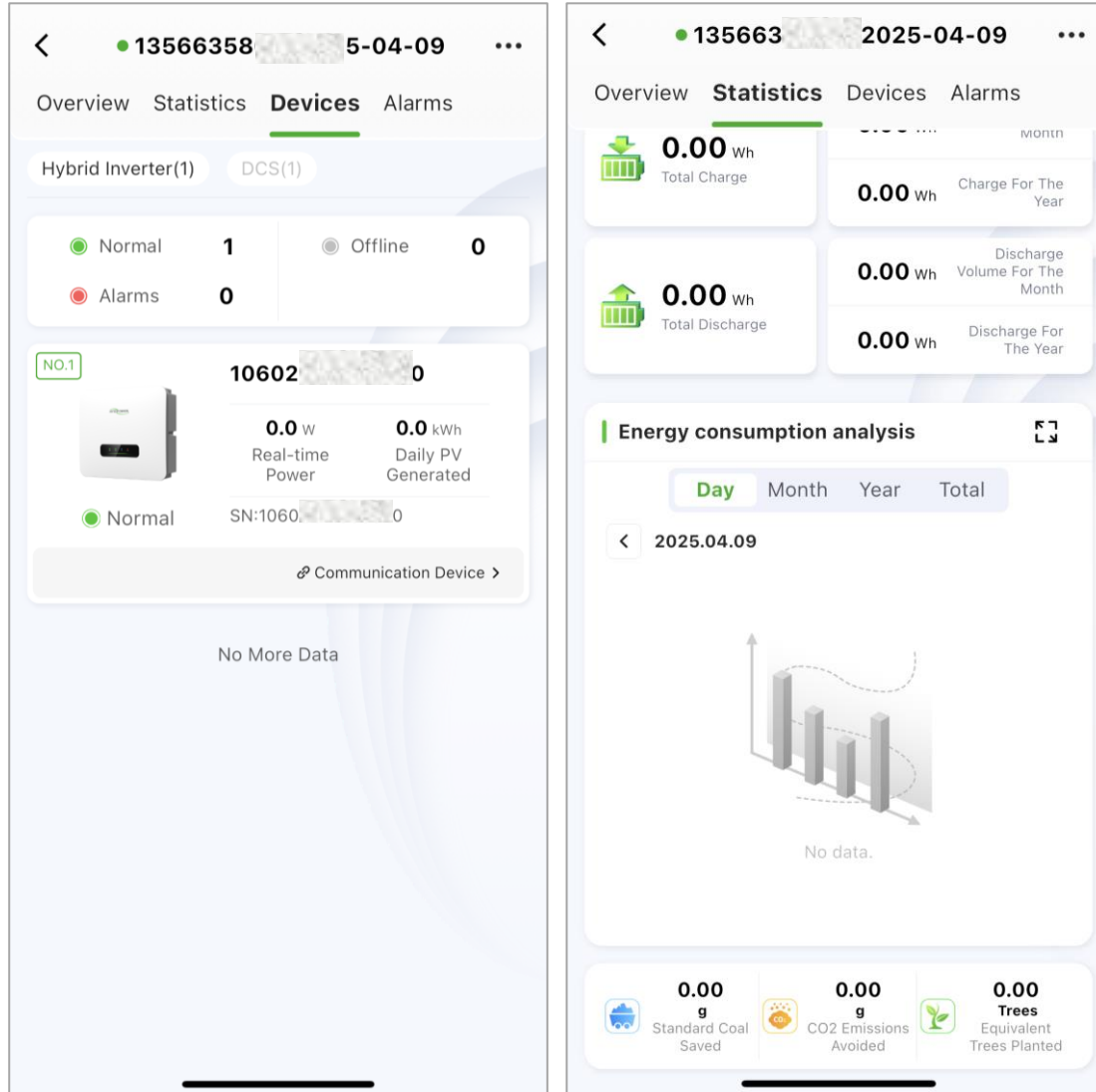


The screenshot shows the 'Add Plant' screen with a progress bar at the top indicating four steps: Add Device, Bind User, Basic Info, and Price Config (current step). The 'Price Config' section contains the following fields:

- Note: Changes to electricity price types, currency units, prices, etc., will take effect immediately. However, the revenue calculation rules for the corresponding plants will take effect the next day. Unable to proceed with revenue estimation without configuring the electricity price.
- Electricity Price Type: Fixed Electricity Price >
- Currency: CNY >
- Revenue Per kWh: Please Enter

At the bottom, there are 'Previous' and 'Finish' buttons.

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!

THANKS

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