HYXiPOWER
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Single Phase String Inverter Installation Guide HYX-S(7~12)K-S -General

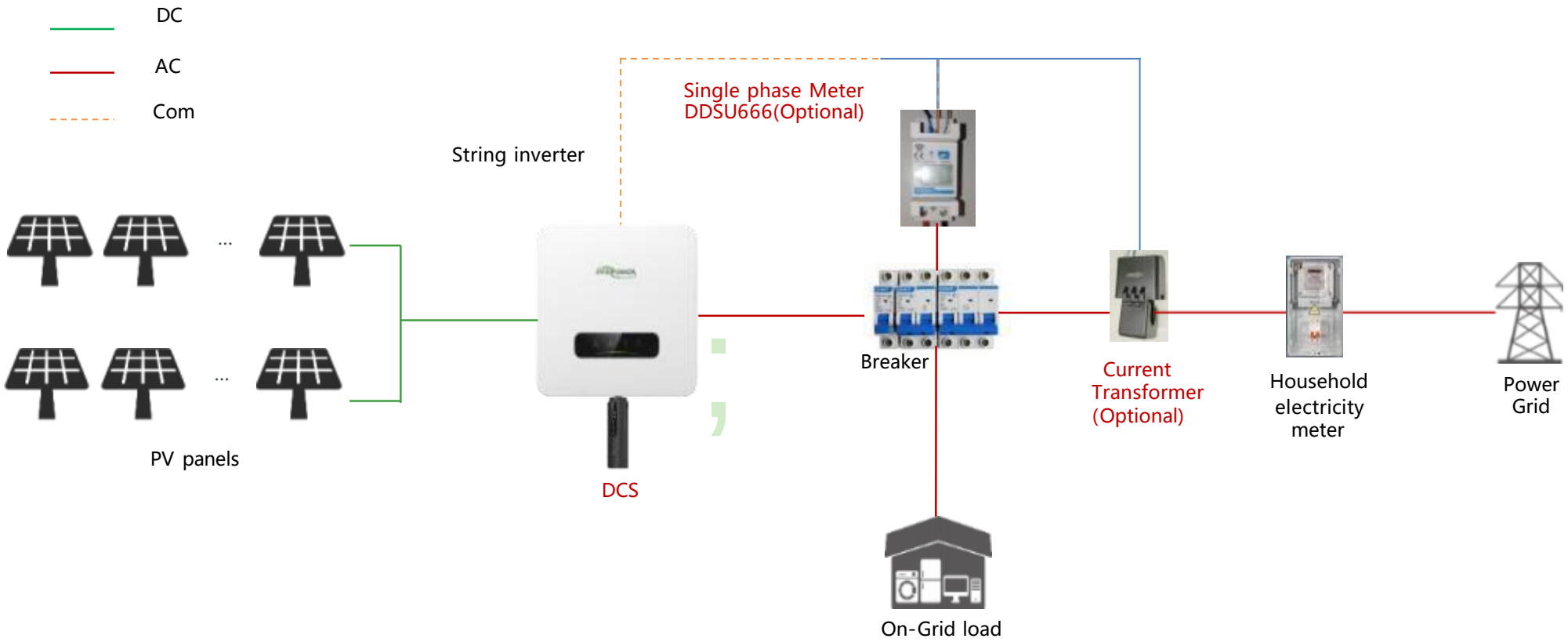
Delivery and Service Center

品质 创新 高效 共赢

V2.0 – 2025/06

CONTENTS

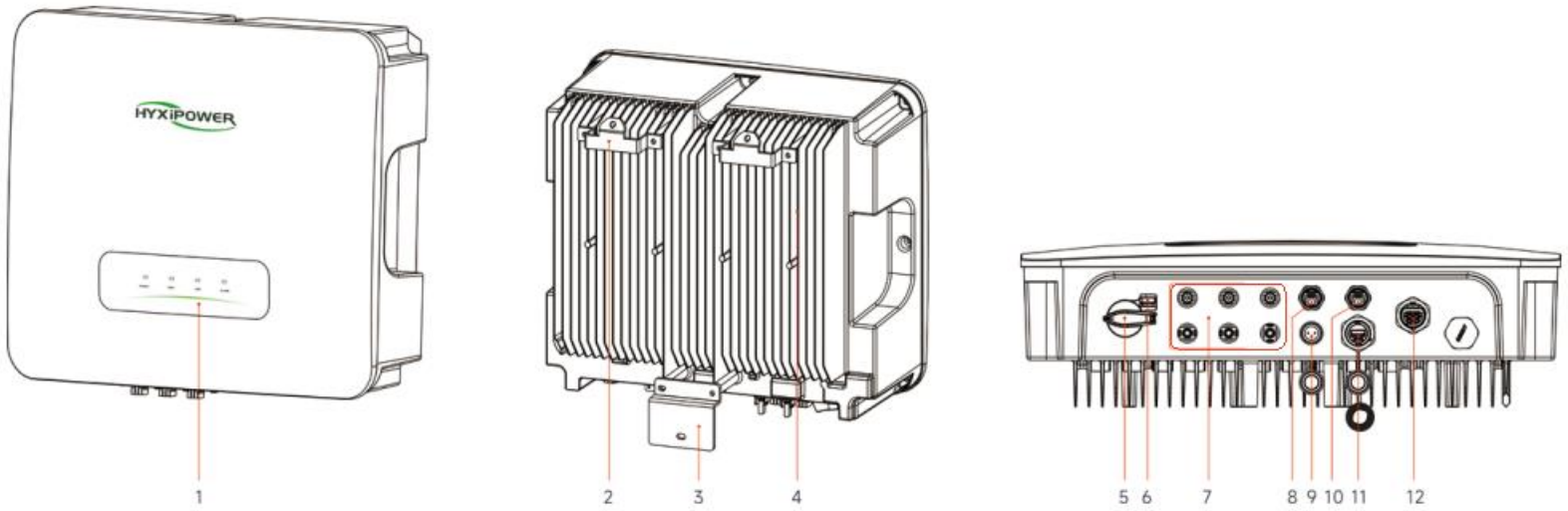
Program Overview-Solution Overview



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
1	LED Indicator Panel	Indicates the current operating status of inverter
2	Mounting Pegboard	Fixed inverter top
3	Mounting Bracket	Fixed inverter bottom
4	Fin Heat Sink	Heat dissipation and ventilation
5	DC switch	On/Off DC input
6	DC switch lock	DC lock hole Reserved(Australia)

	Name	Description
7	DC Input Terminal (PV+/PV-)	Inverter-PV
8	COM.1	RS485 communication
9	METER Port	Smart Meter
10	DRM port	DRM function Reserved(Australia)
11	DCS	Monitoring Port
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.

CONTENTS

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;	4～10mm²
2	Communication cable	485 communication cable	RVVP double-core shielded wire, 0.5mm²
3	AC output cable	AC side wiring of the inverter , use three-core outdoor copper core cables	4～10mm²
4	Ground wire	For equipment grounding use	4～10mm²

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.
5	Ethernet Cable		The device includes a 2-meter CAT5e Ethernet cable as standard. Extended cable lengths must be procured separately if required.
6	Wall-mounted Bracket		Wall-mounted inverter support (mounting bracket included in product packaging)

Installation Preparation–Tool Installation

Installation Tool


Electric Drill


Heat Gun


Hex Key


Wire Stripper


Hydraulic Pliers


Crimping Tool


Screwdriver


Marker Pen

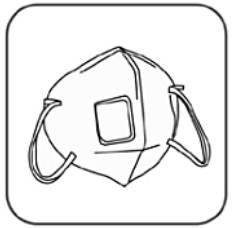

Utility Knife


Multimeter


Tape Measure


Hammer

Protect Tool


Protective Mask


Safety Glasses


Insulated Safety Shoes


Insulating Gloves

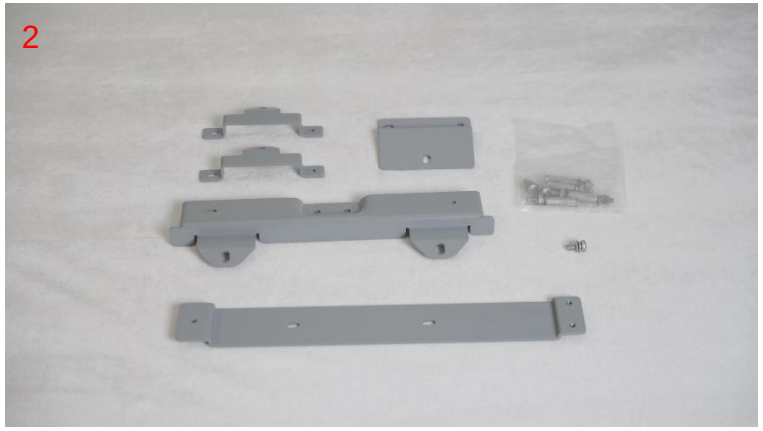
CONTENTS

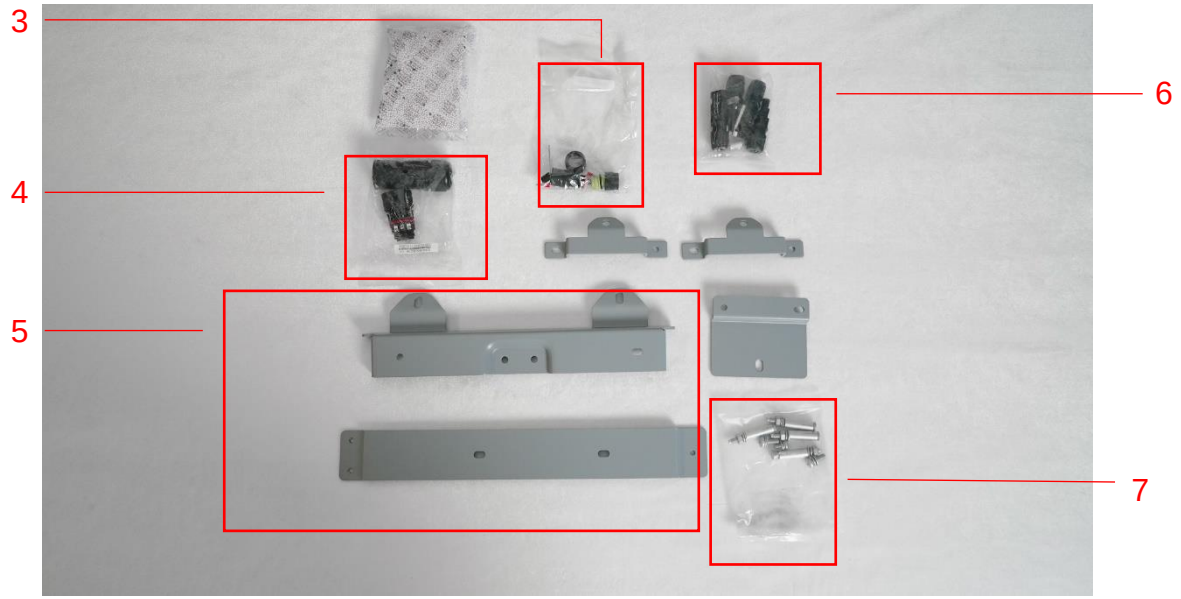
Device Installation- Product Unboxing Inspection

Inverter Unboxing Inspection:

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

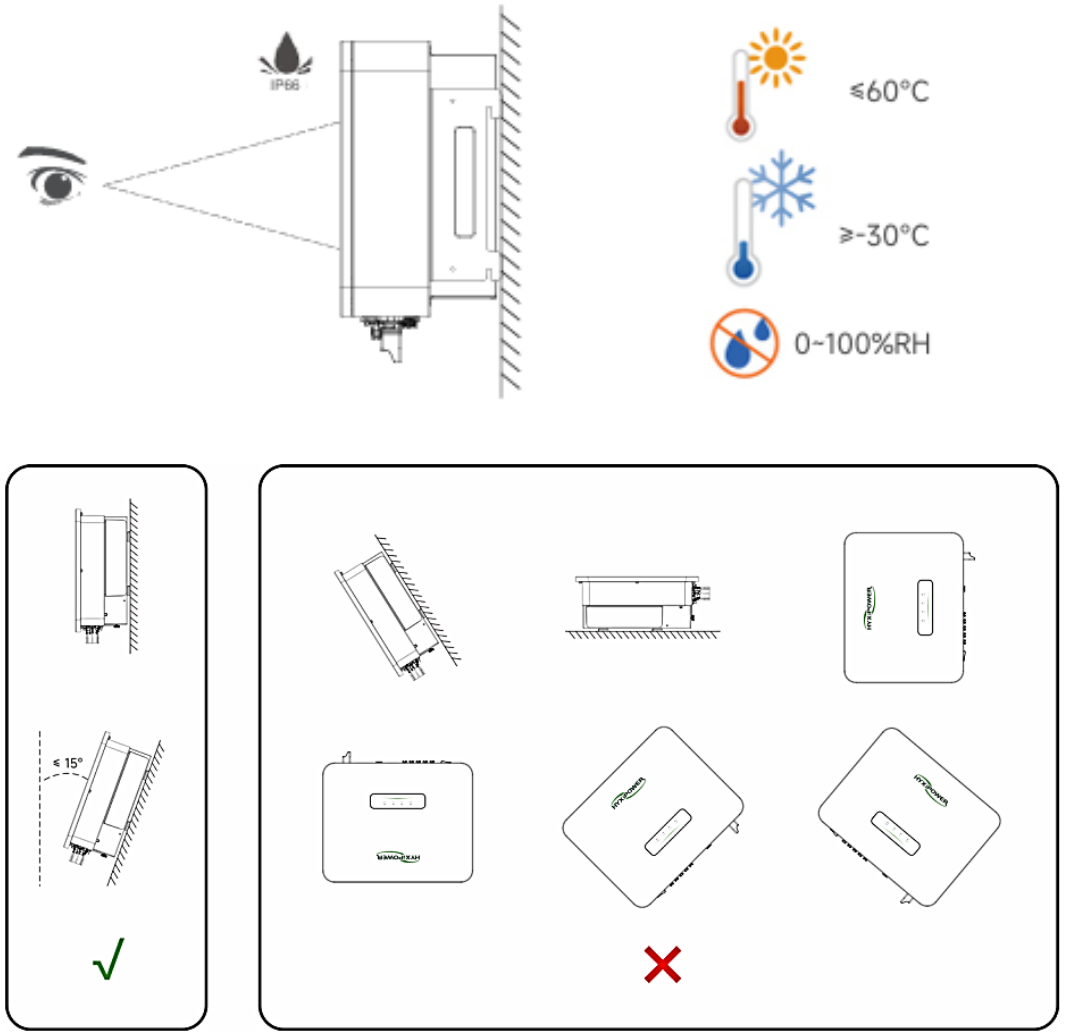
No.	Name
1	Inverter
2	Mounting Bracket
3	Signal Connector
4	AC Connector
5	Hexagon Wrench
6	DC Connector
7	Screws





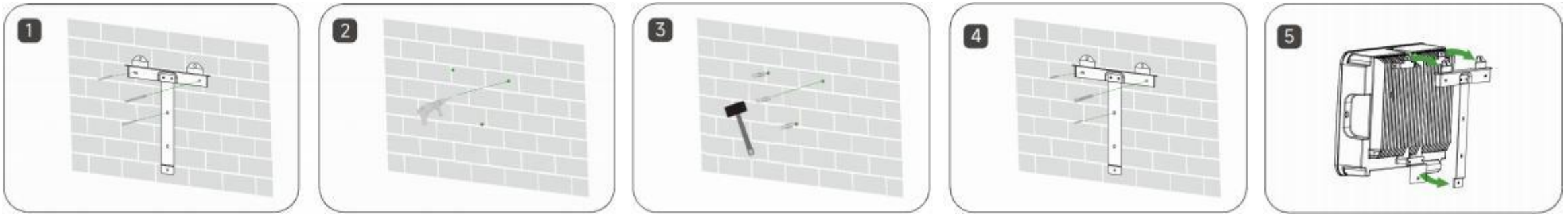
Device Installation–Environment Requirements

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.



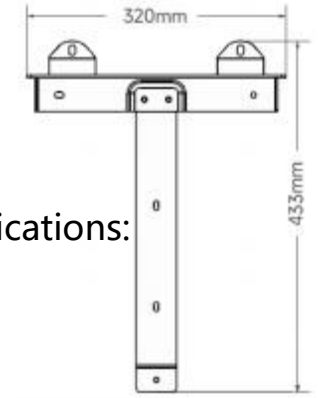
Device Installation - Inverter Installation

The mounting bracket and inverter can be fixed as follows:



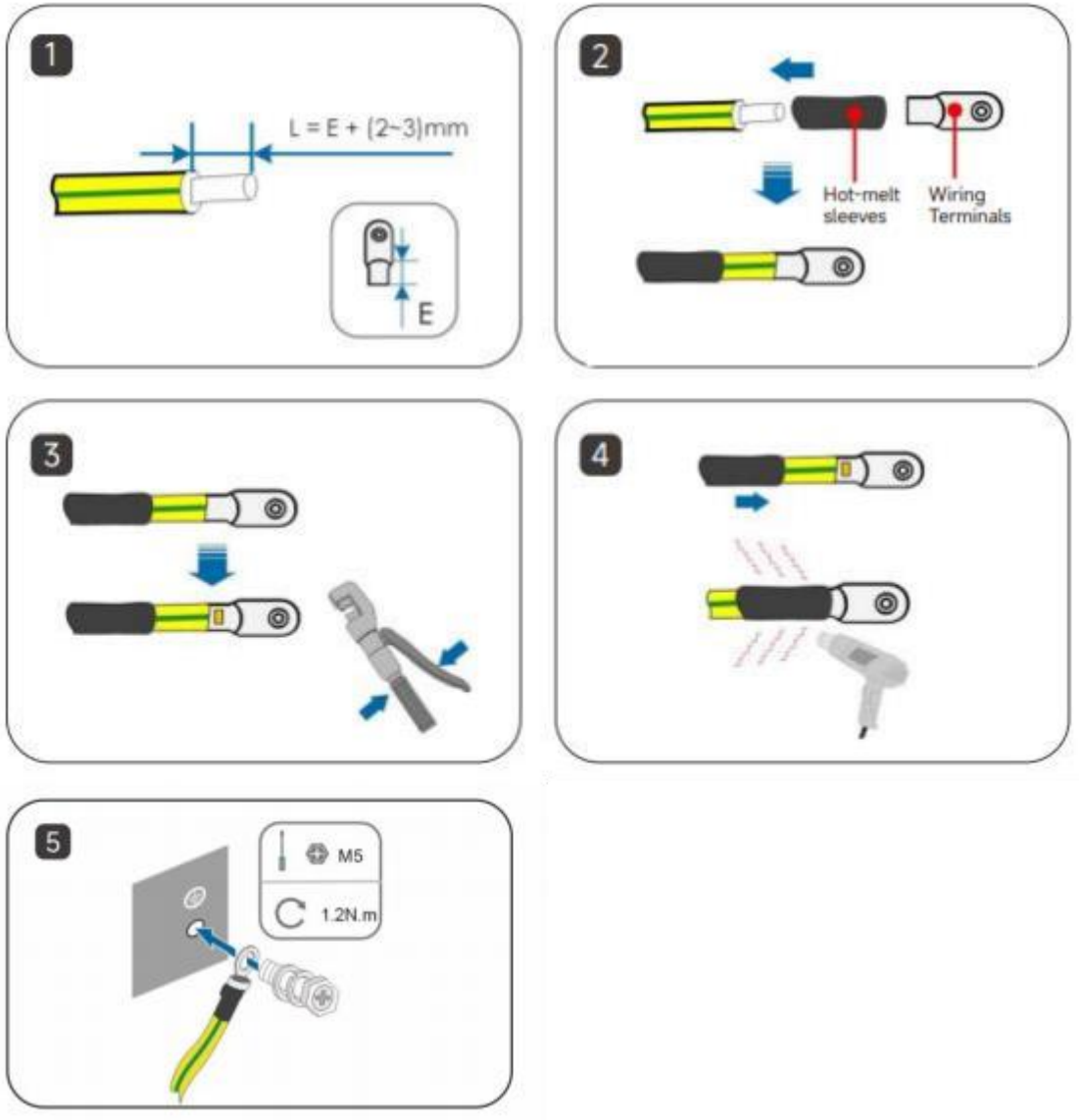
When installing multiple inverters, a distance of more than 300mm should be maintained between the two inverters.

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 .

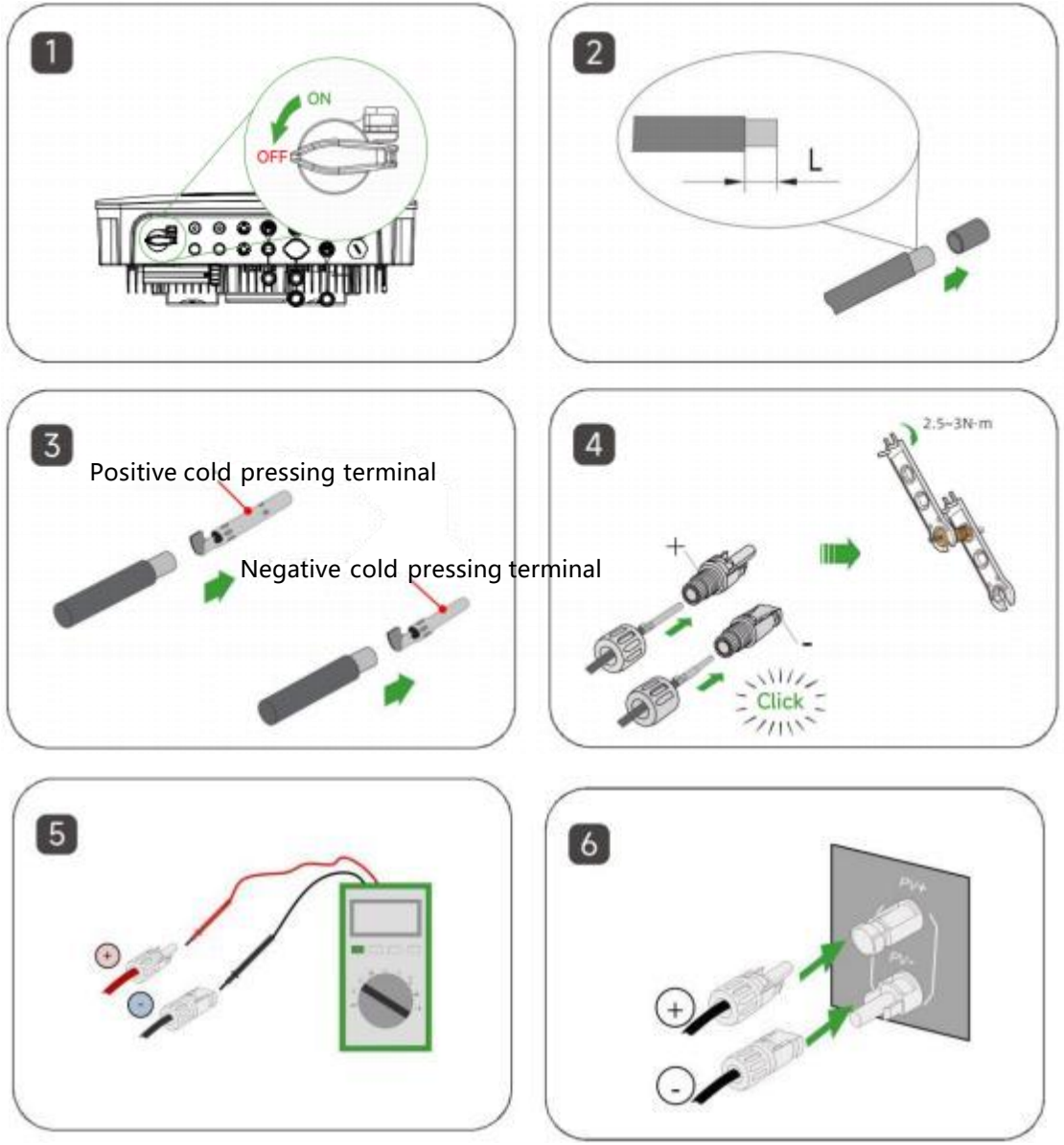
Step 2 : Pass the cable through the hot melt sleeve and insert it into the terminal block.

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.

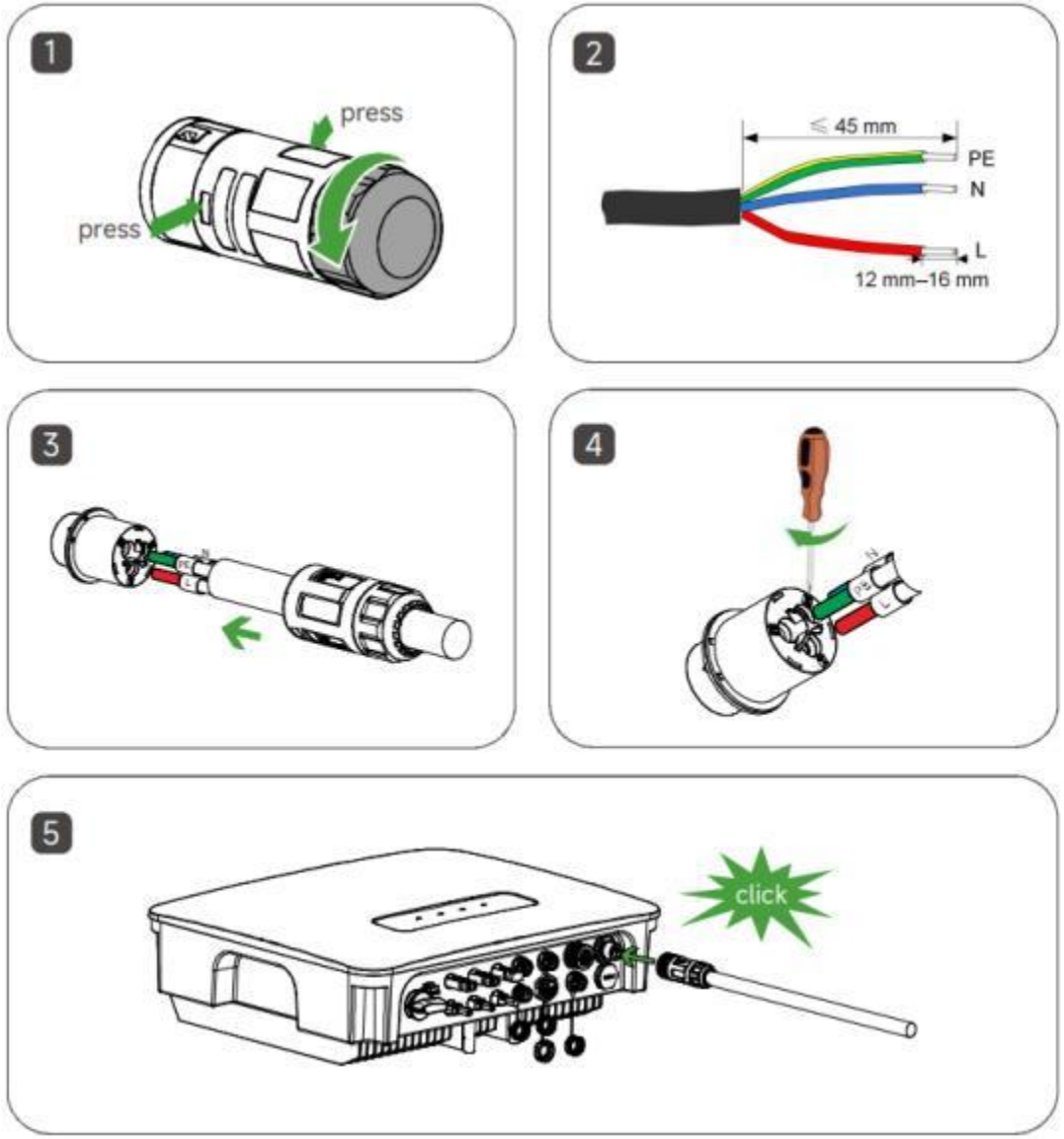
Step 4: Insert the cable through the cable sealing sleeve, insert it into the insulating sleeve and fasten it, and pull the cable gently to make sure it is tightly connected. Use 2.5 ~ 3N-m force to tighten the sealing sleeve and insulation sleeve.

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.

Installation Video(3m22s-4m27s):

Device Installation - AC Side(ON-Grid and Back Up)



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

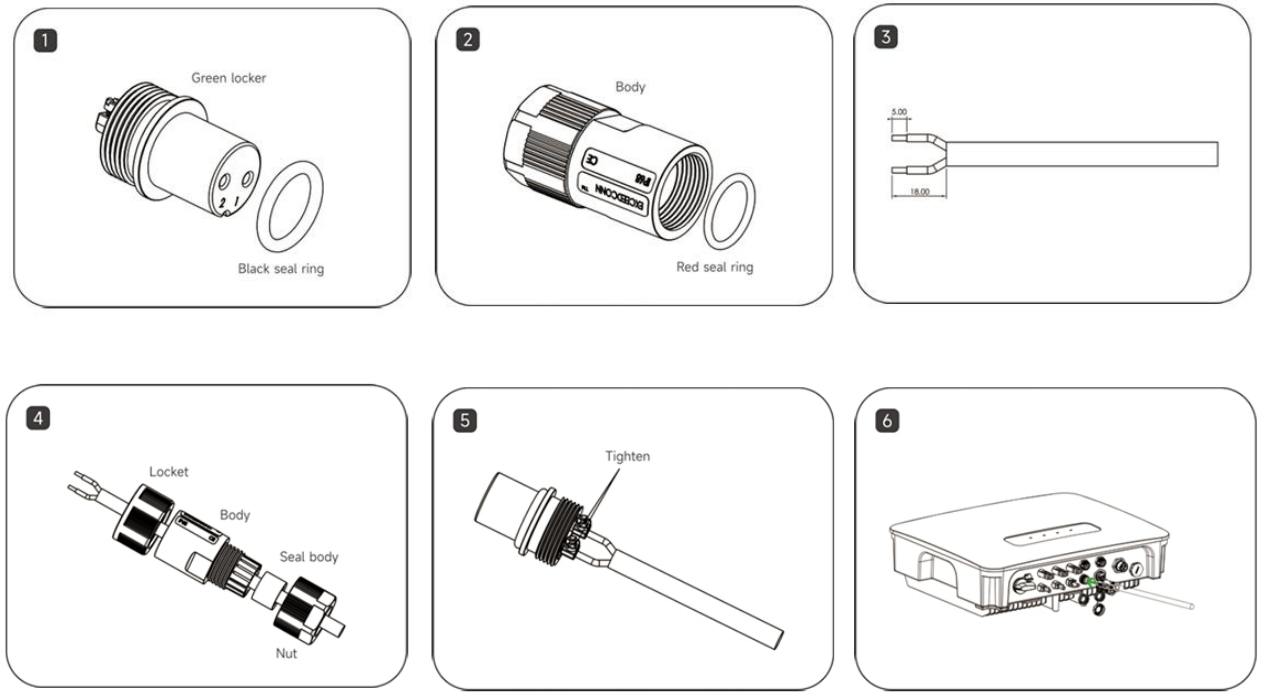


Figure 7

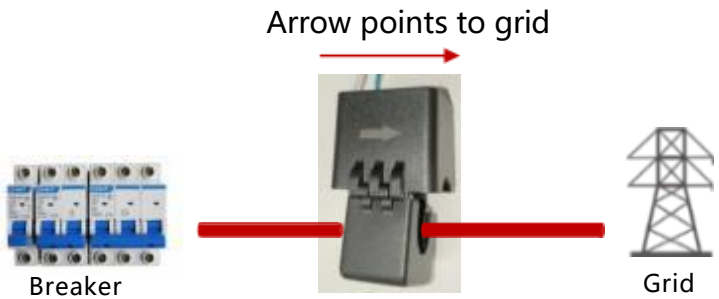


Figure 8

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 striping.

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 connecter 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 Installation

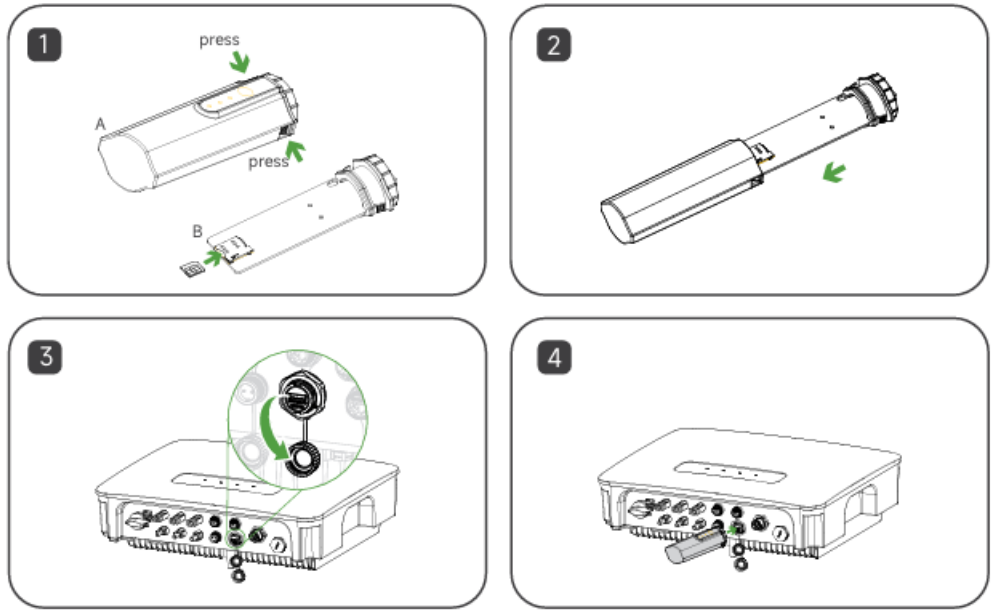
1. DCS communication stick installation (4G version)

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.



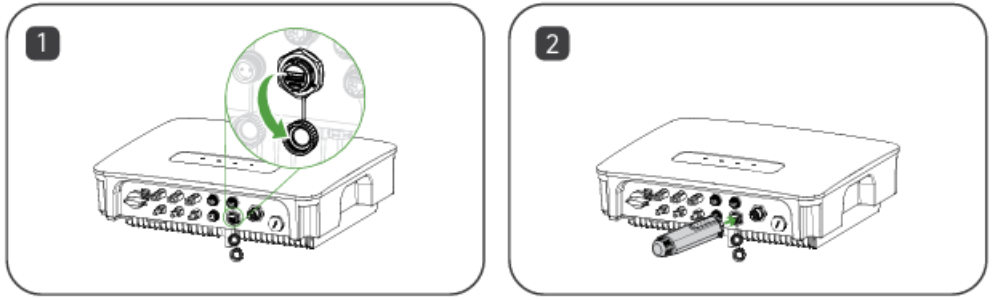
2. DCS communication stick installation (Wi-Fi version does not require disassembly and installation of the sim card)

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.

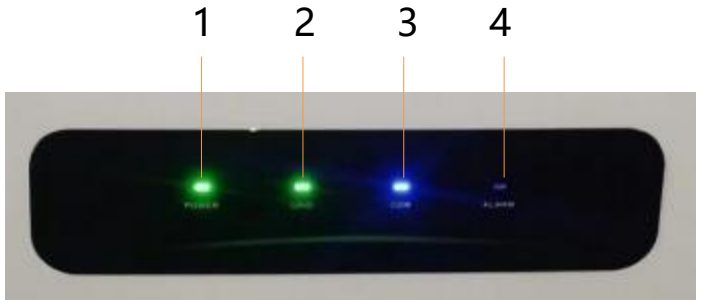


figure 2

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

CONTENTS

APP Configuration - Registration

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 power station and check the equipment status, system power generation and usage, etc.

APP Configuration - Registration

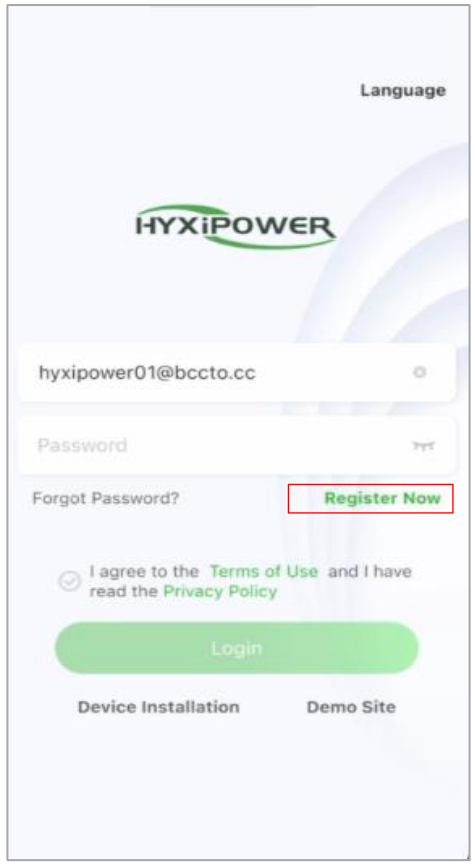
The entire process requires 2 email accounts: Organization and Owner.

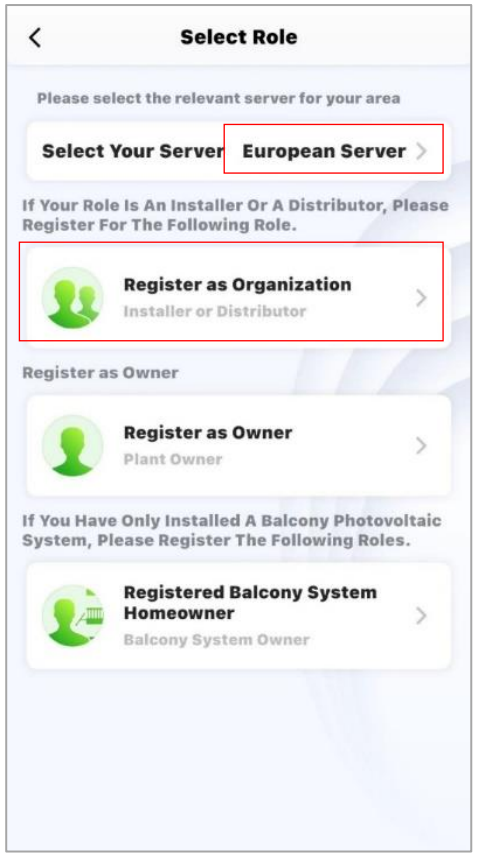
Step 2: Download the APP and **register**

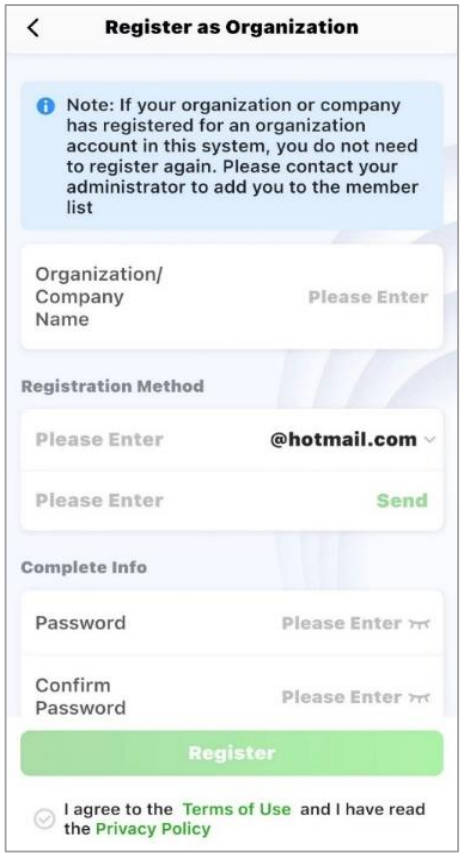
Method 1
Search “Hyxipower " in the Application Store
· APP store (IOS)
· Google play

Method 2
Scan the QR code download the APP

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







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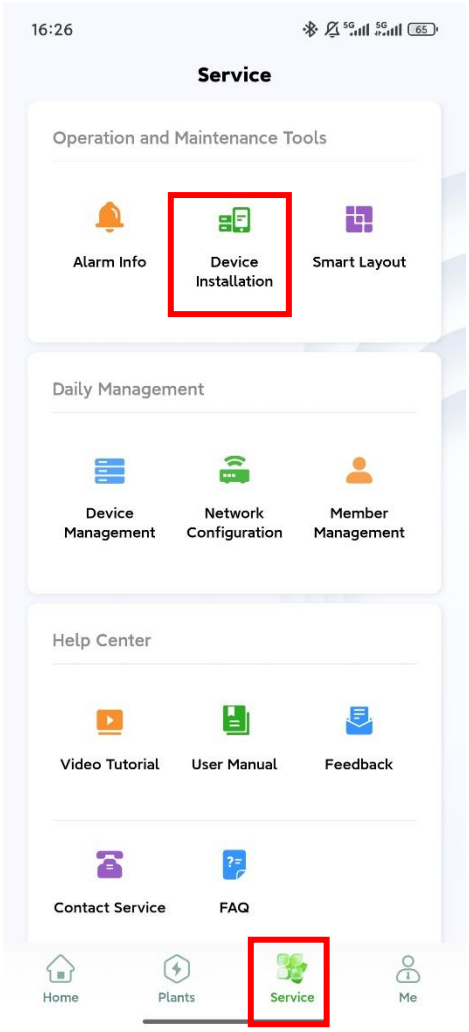
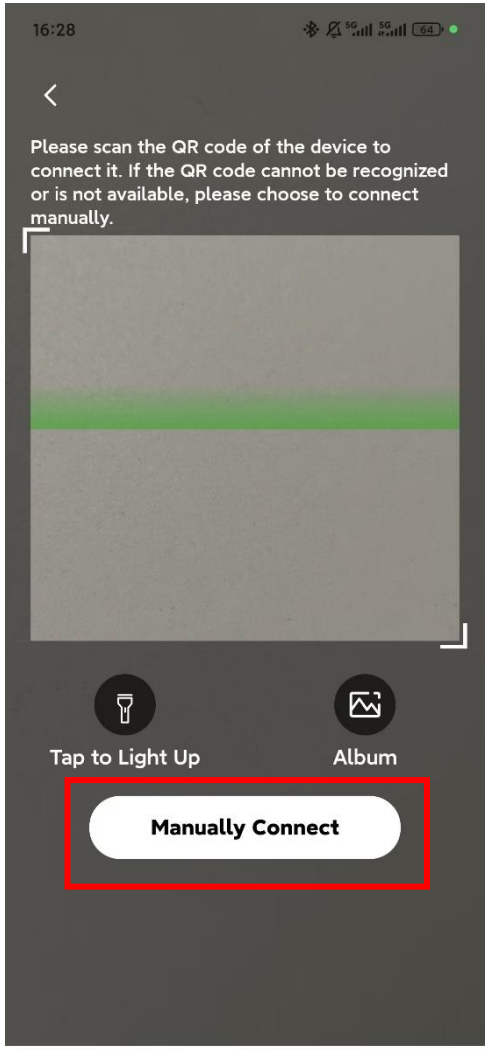
APP Configuration-Near-end Commissioning

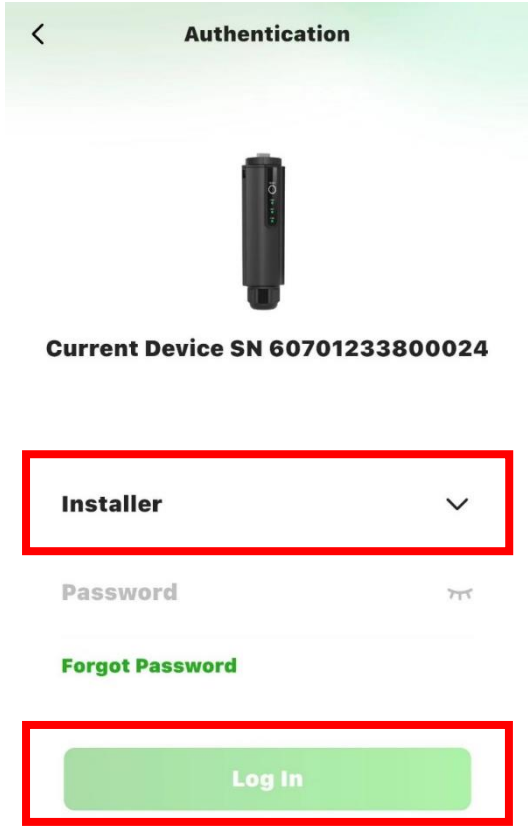
Step1: Click **Device Installation** in **Service** interface.
Then scan the QR code of the Data Communication Stick. If failed ,click the Manually Connect.





APP Configuration-Near-end Commissioning

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



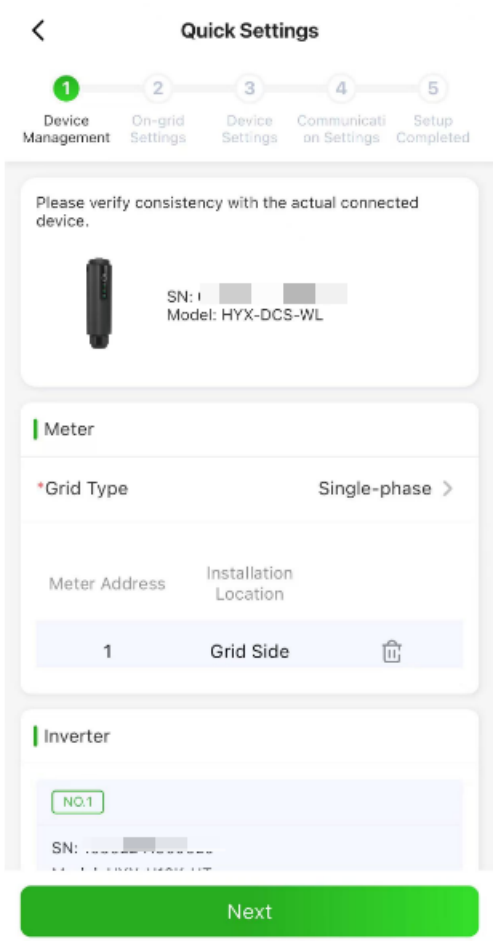
If you forgot the password, quickly press the RESET button on the DCS four times to restore factory settings

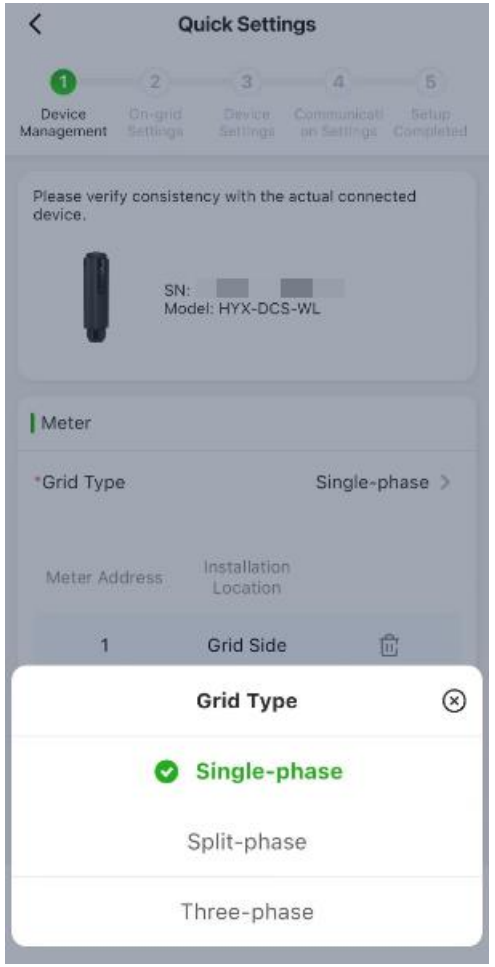
APP Configuration - Near-end Commissioning

Step3: Quick Settings

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

Meter settings(if installed)**:** 1. Grid type—Single-phase; 2. Configure meter—default address 1, install on grid side.

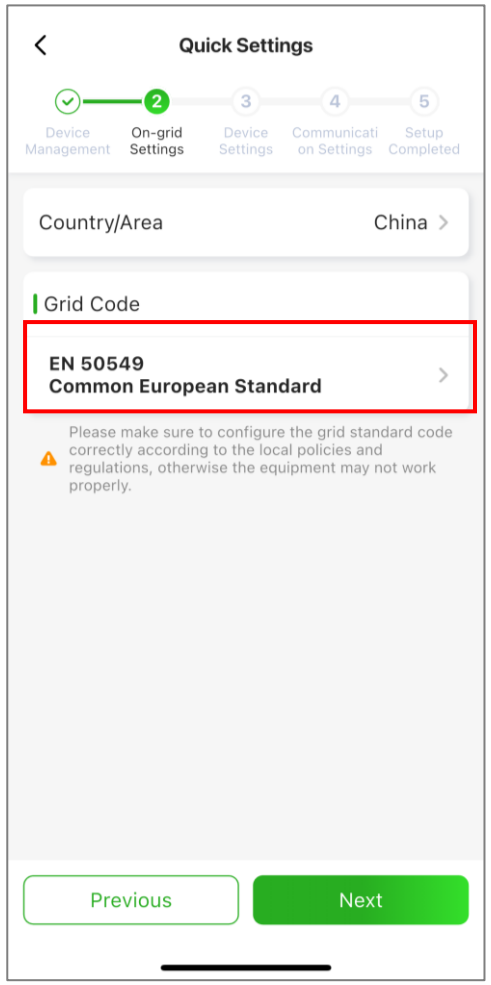


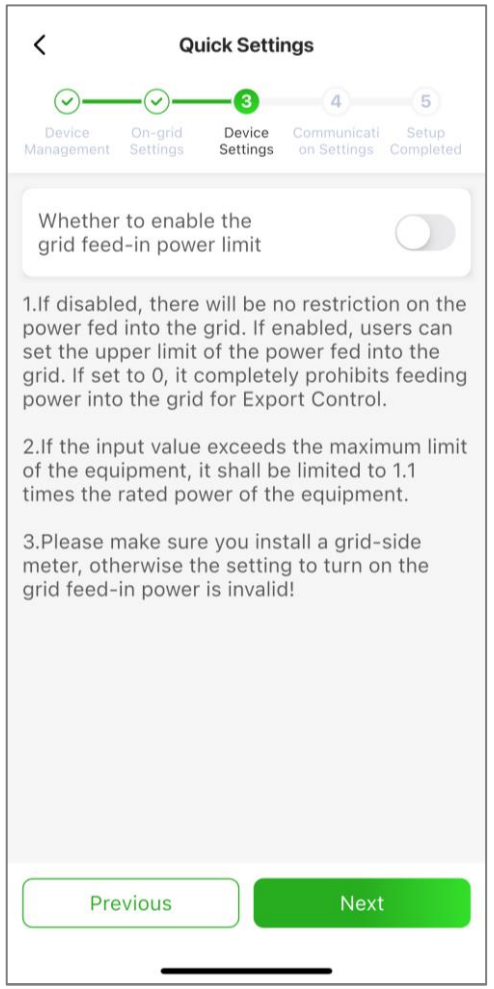


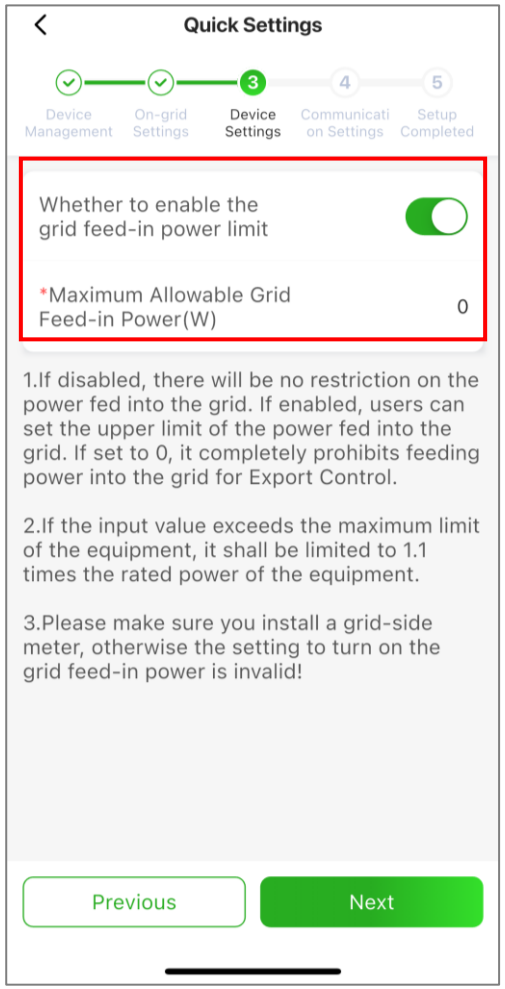
APP Configuration - Near-end Commissioning

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

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







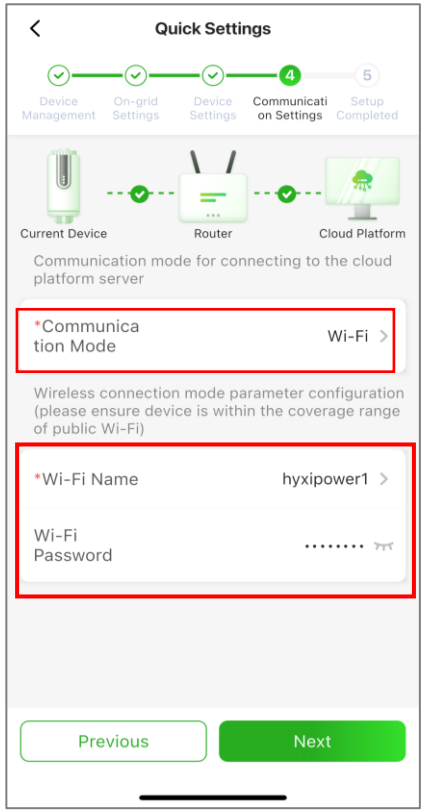
APP Configuration - Near-end Commissioning

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

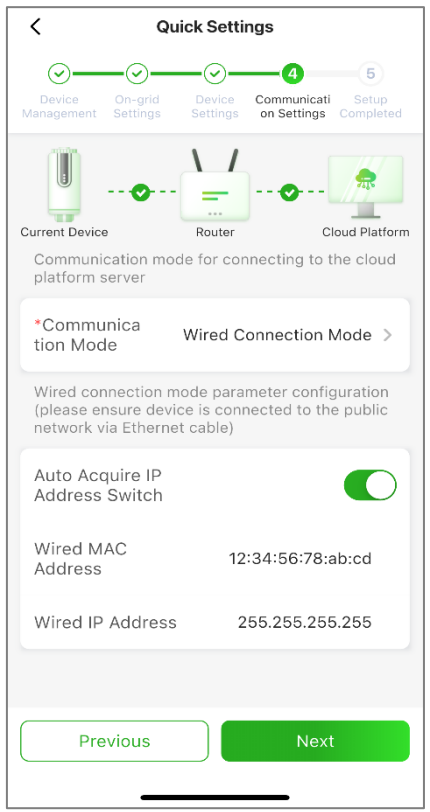
Wired Mode: Ensure automatic IP acquisition is enabled.

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

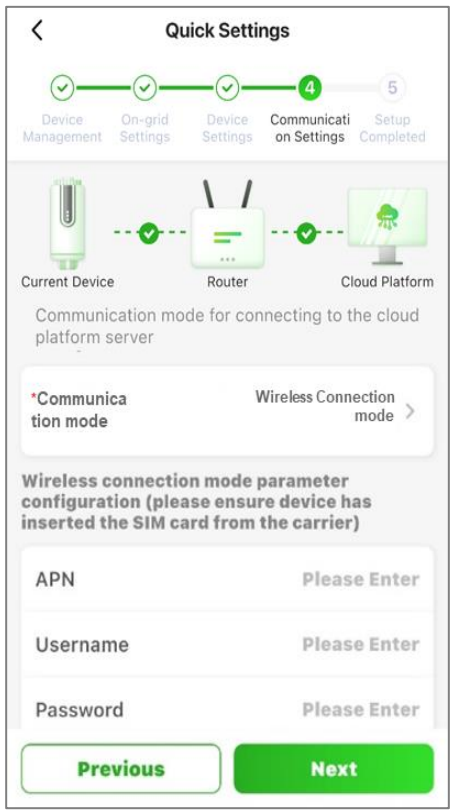
Wi-Fi

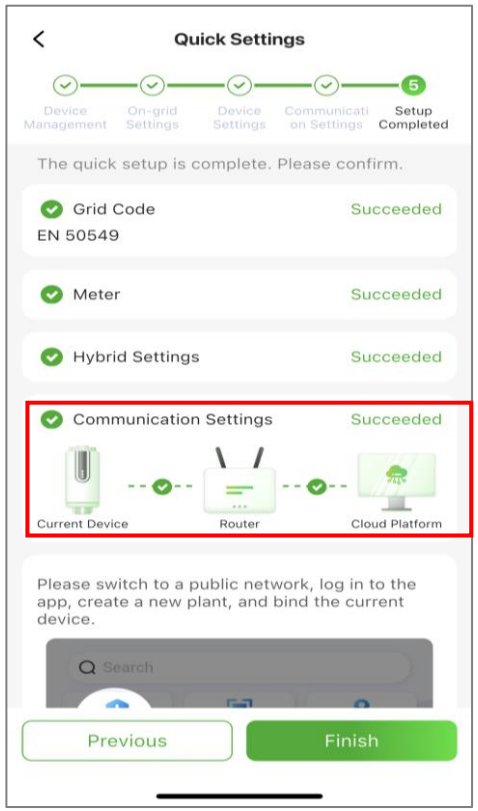


Wired



4G





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

APP Configuration - Create a Plant

Registration

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Near-end Commissioning

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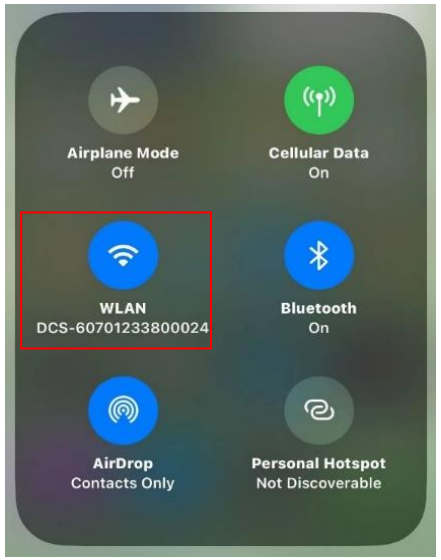
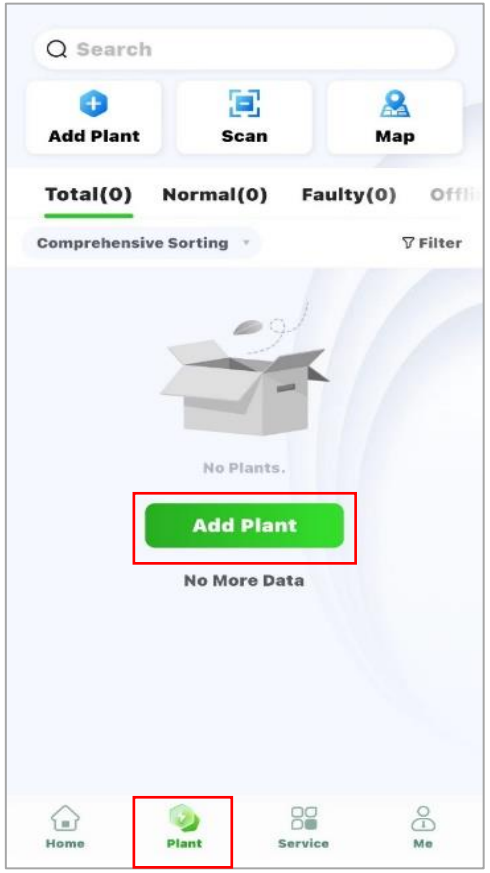
You can manage the equipment through the Plant and check the equipment status, system power generation and usage, etc.

APP Configuration - Create a Plant

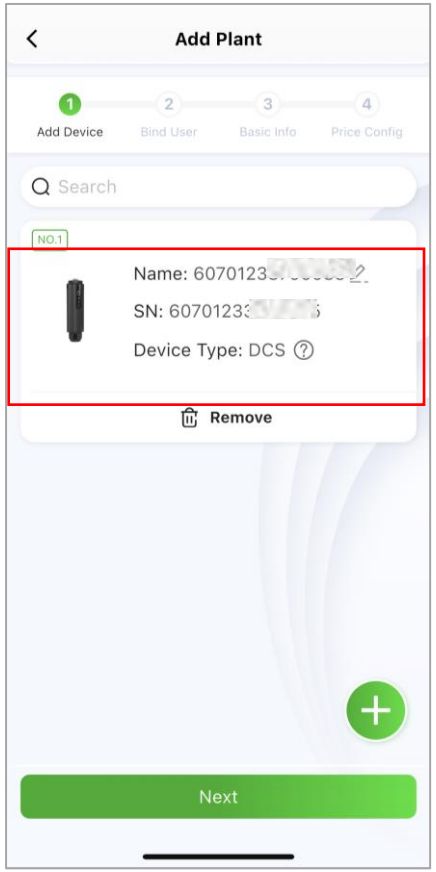
Step 1: Disconnect the phone from the DCS’ s WiFi. Make sure your phone has Internet access



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

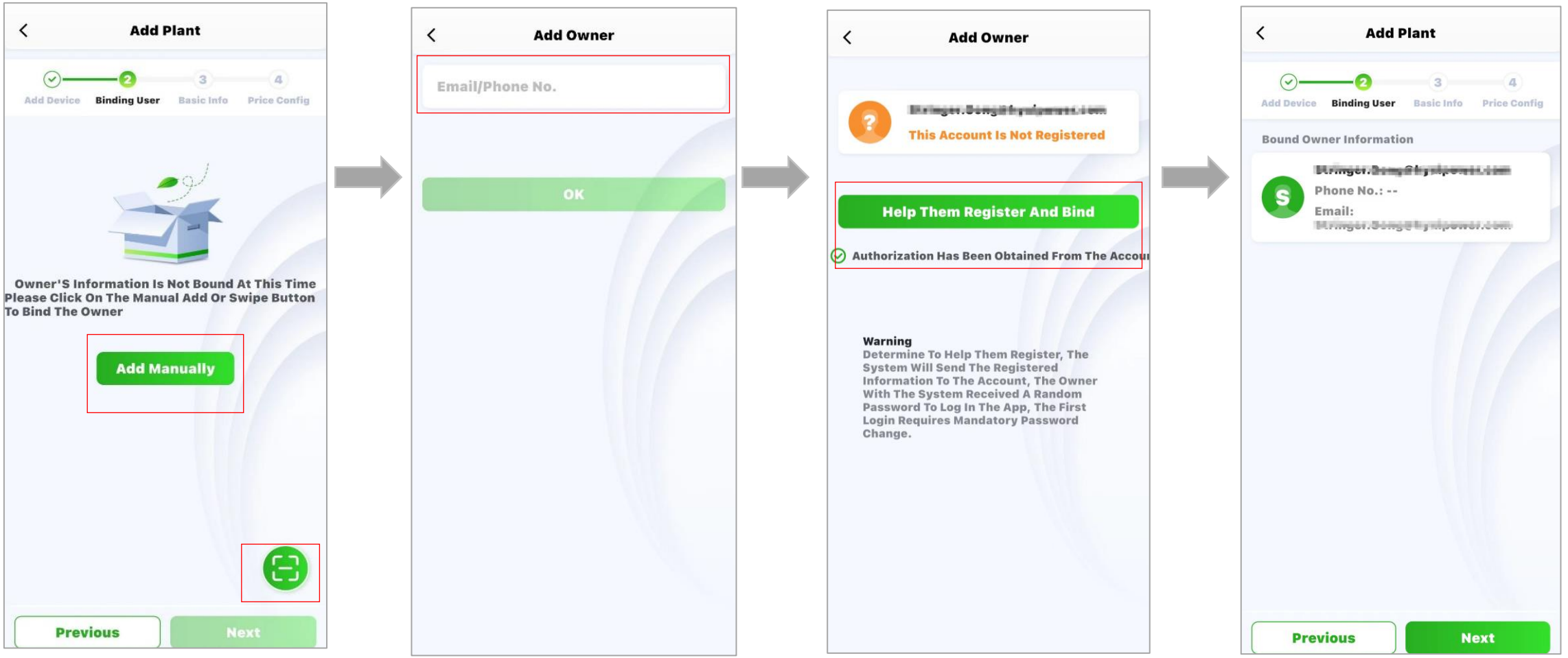


Step 3: Scan the QR code of the DCS or add it through Recently Debugged Device



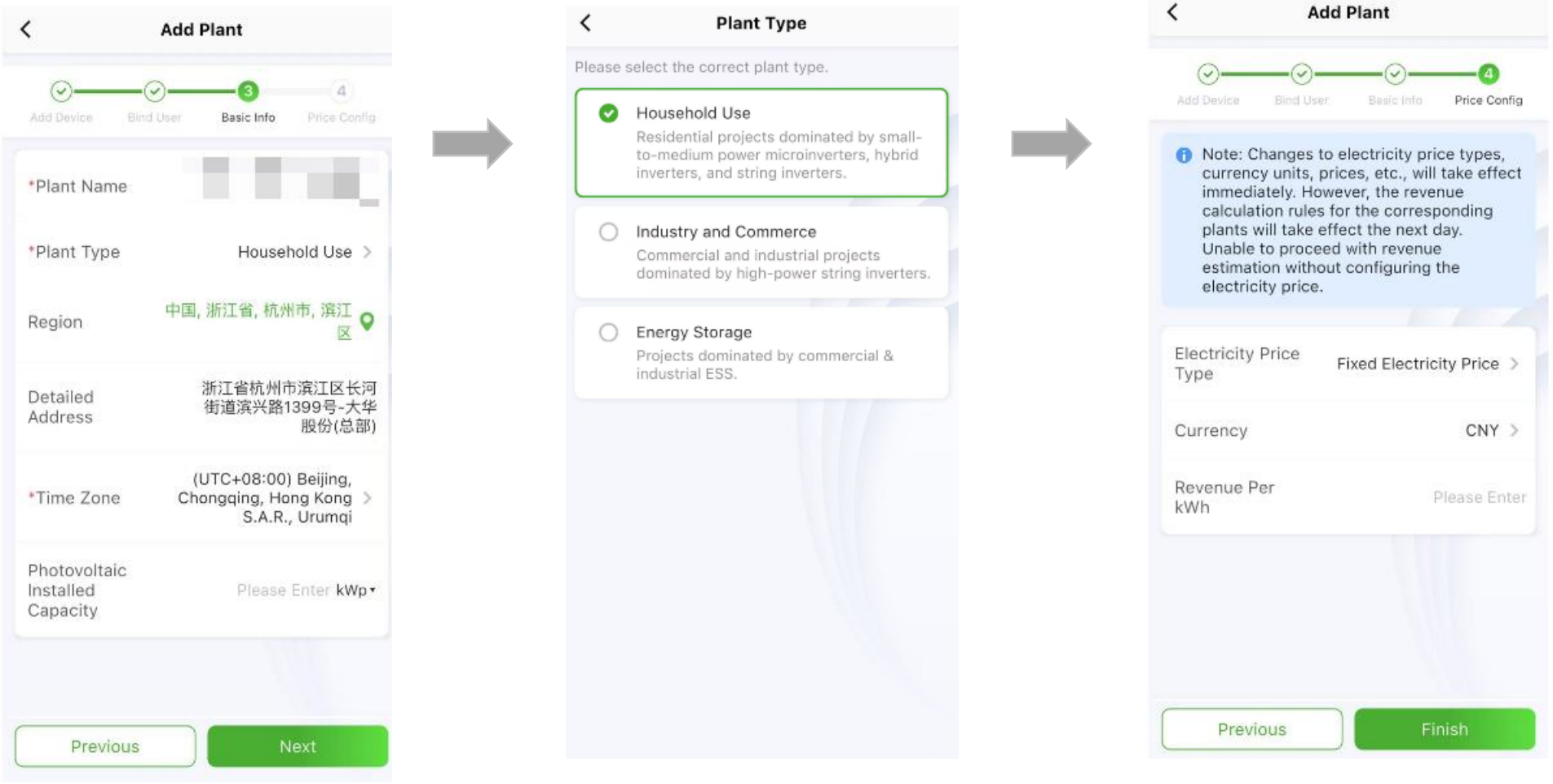
APP Configuration – Create a Plant

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

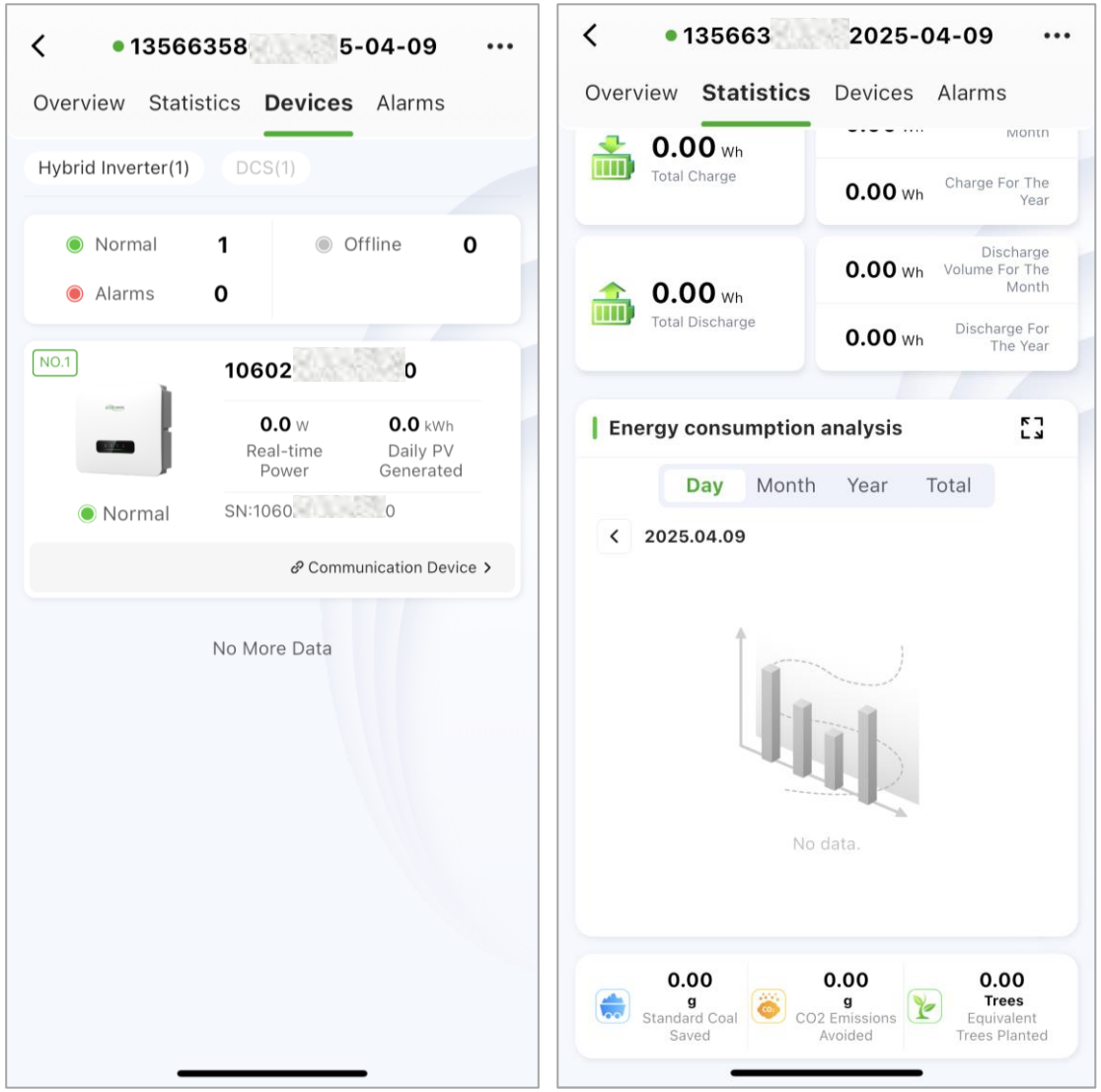


APP Configuration – Create a Plant

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



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!

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THANKS

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