HYXiPOWER
华 昱 欣

SUB-1G Microinverter System

HYX-M300/400/500/600/700/800/900/1000/1600/1800/2000-S -General

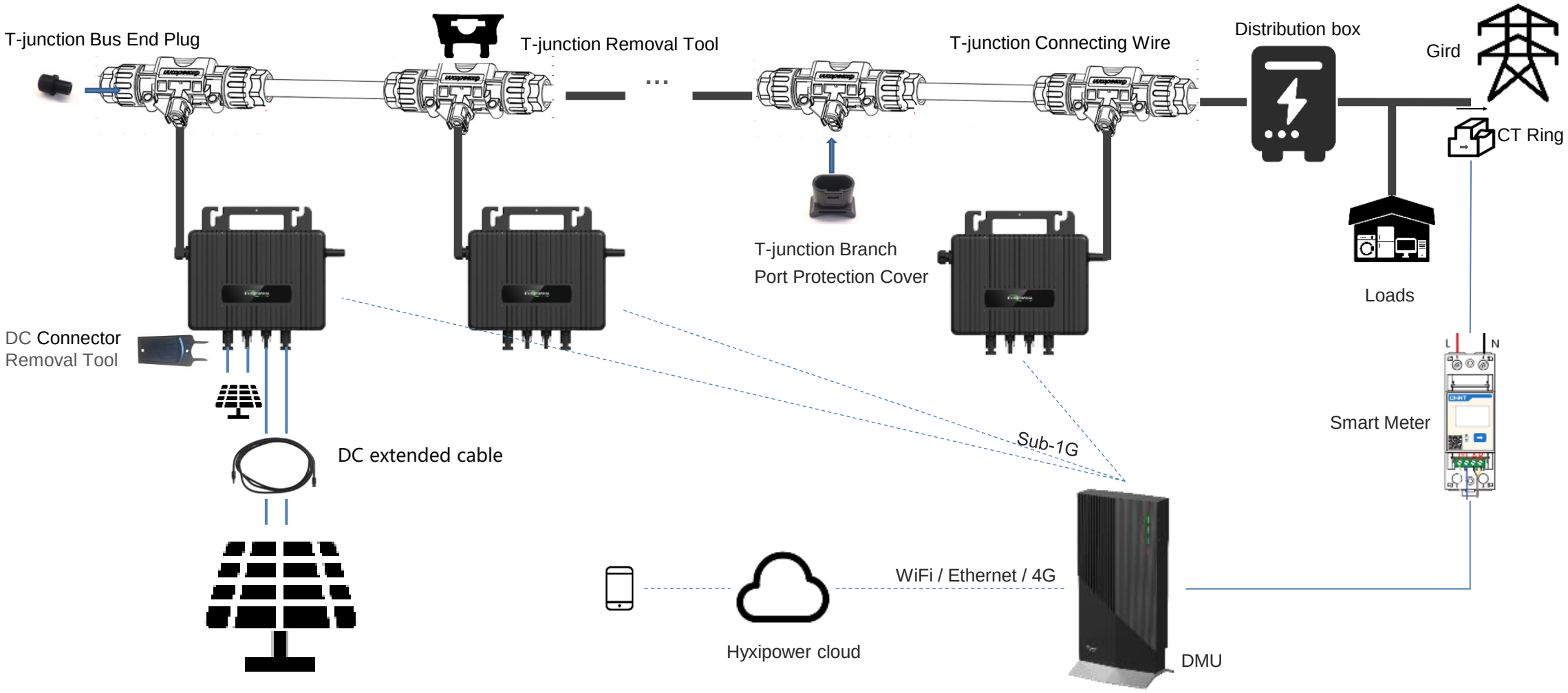
Delivery & Service Center

品质 创新 高效 共赢

V2.0 – 2025/06

Contents

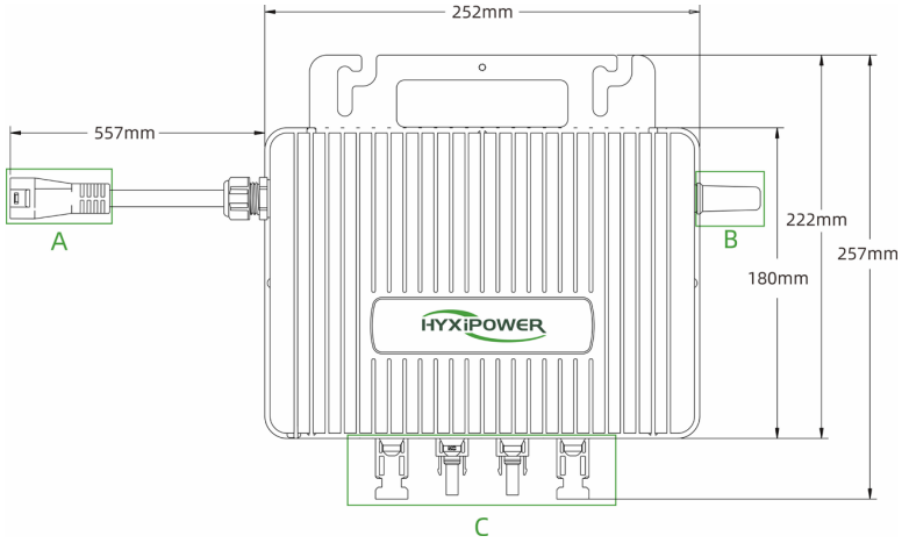
Program Overview-Solution Overview



Solid line: physical connection

Dashed line: internet connection

Program Overview- Inverter Introduction

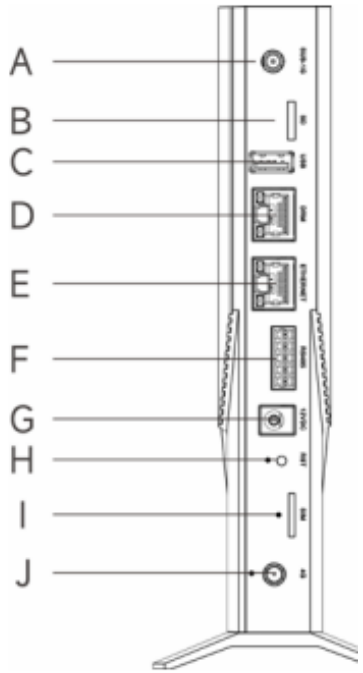


No.	Component Name
A	AC Branch Connector
B	Antenna
C	DC terminal

LED Color	LED Status	Status Description
Green	Fast flashes(1s gap)	Normal
	Slow flashes(3s gap)	Communication fault
	Slow flashes(5s gap)	PV input fault
Red	Light on	Ground fault
	Fast flashes(1s gap)	Fault
	Fast flashes(1s gap)	AC fault

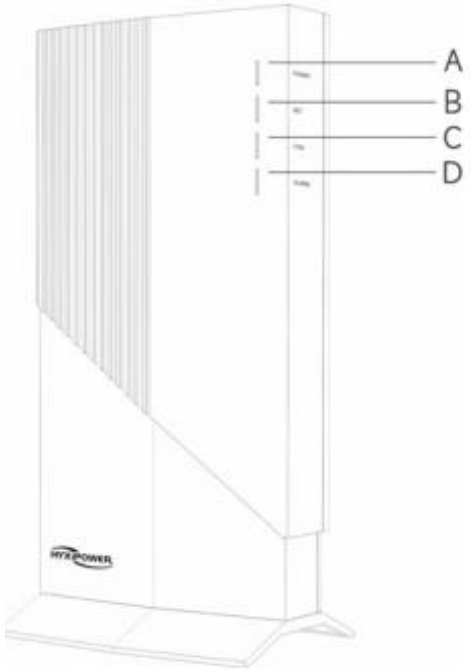
Program Overview- DMU Introduction

Interface Layout



NO.	Name
A	External Sub-1G antenna interface
B	SD card slot
C	USB port
D	DRM port
E	Ethernet port
F	RS485
G	Power port
H	Reset Button
I	SIM card slot
J	External WiFi/4G antenna interface

Indicator Lights



NO.	Name	Description
A	POWER	Power indicator
B	NET	Network communication (connecting to the server)
C	COM.	Microinverter communication (connecting to microinverter)
D	FAULT	Fault condition

**** Normal State: A, B, C are always on, D is off**

Program Overview-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.

Contents

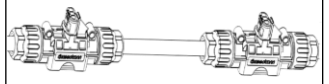
Installation Preparation-Materials and Tools Preparation

The following product list is included in the pre-sale kit.
Before system installation, please check if all equipment and tools are fully prepared.

NO.	Product Name	Picture	Description
1	SUB1G-Microinverters		Equipment for generating electricity
2	DMU(Wi-Fi/4G)		Connect Microinverter and the Internet
3	Meter		Measure power generation. Connect DMU to transmit data
4	Wi-Fi External antenna (Long one)		DMU external antenna (If the DMU is installed inside a metal box, under a metal concrete roof, or in a complex installation environment that results in weak signal strength, it is recommended to add an external antenna to the DMU to increase signal strength)
5	Sub-1G External antenna (Short one)		

Installation Preparation-Materials and Tools Preparation

The following product list is included in the pre-sale kit.
Before system installation, please check if all equipment and tools are fully prepared.

NO.	Product Name	Picture	Description
6	DC Extension Cable		Extending the connection distance between microinverters and photovoltaic modules
7	T-junction Bus End Plug		Protecting unused bus connection ports on AC bus connectors at the end of AC branches
8	T-junction Branch Port Protection Cover		Protecting unused branch connection ports on AC bus connectors
9	T-junction Removal Tool		Removing the upper cover of the AC bus connector for loading, unloading, or replacing the AC bus cable
10	T-junction Bus Connector		Connecting the AC output of the microinverter to the AC bus
11	DC Connector Removal Tool		Disassembling the connection between the photovoltaic module and the input of the microinverter
12	T-junction connecting wire		It can be connected the microinverter to the distribution box for AC side convergence. The T-junction connecting wire is composed of T-junction bus connector and cables, and the spacing between the connectors on the bus is evenly distributed.

Installation Preparation-Materials and Tools Preparation

The following product list is not included in the pre-sale kit and needs to be purchased separately.

Before system installation, please check if all equipment and tools are fully prepared.

NO.	Product Name	Description	Product Specification
1	Screws	Fixing Microinverter	M8*25
2	RS 485 Communication Cable	Connecting meter to DMU	RVVP double-core shielded wire, 0.5mm²
3	Ground wire	For equipment grounding use	4~10mm²
4	DC Extension Cable	Extending the connection distance between microinverters and photovoltaic modules	DC-EC-1m

** If the DC extension cables are included in the list, there is no need to purchase again.

Installation Preparation–Tool Installation

Installation Tool


Electric Drill


Heat Gun


Hex Key


Wire Stripper


Hydraulic Pliers


Crimping Tool


Screwdriver


Marker Pen

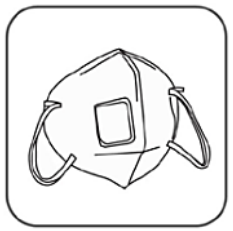

Utility Knife


Multimeter


Tape Measure


Hammer

Protect Tool


Protective Mask


Safety Glasses


Insulated Safety Shoes


Insulating Gloves

Contents

Device Installation- Product Unboxing Inspection

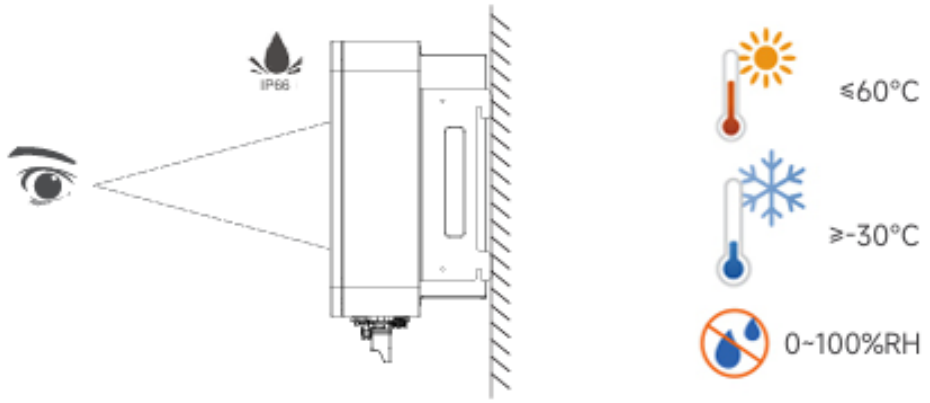
Inverter Unboxing Inspection:

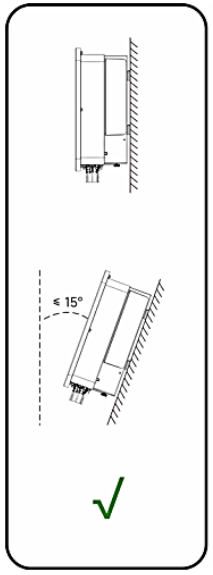
- Check whether the device hardware and ports are intact.
- Check whether the device accessories are intact.

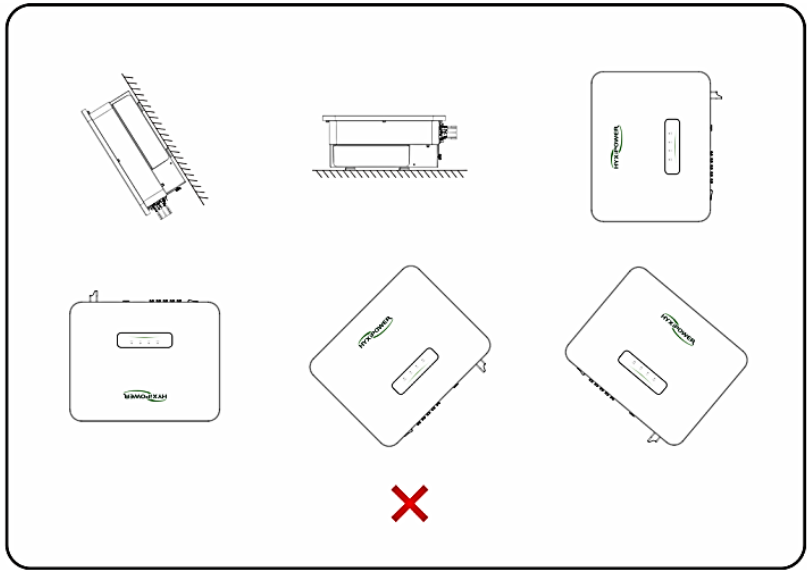
No.	Name
1	AC Branch Connector
2	DC Terminal
3	Antenna

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.

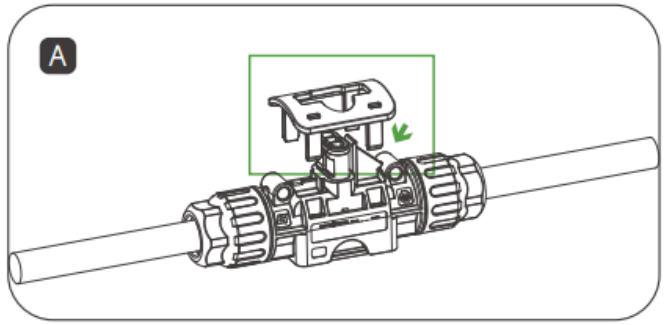




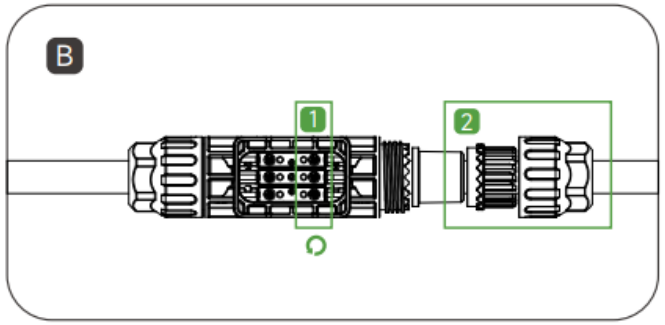


Device Installation-T junction

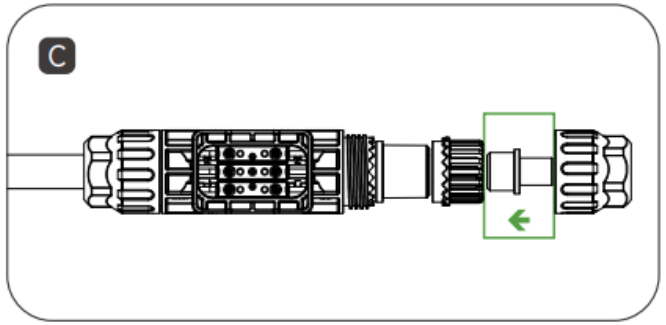
Step 1: Prepare several sections of T-junction connecting wires according to the number of Microinverters to be installed on site.
Step 2: Removing the T-junction cable at the end.



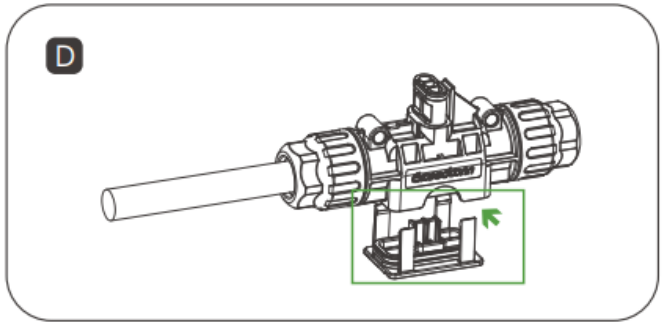
Use the T-junction removal tool to remove the lower cover.



Loosen the inner screw, unscrew the nut, and remove the cable.



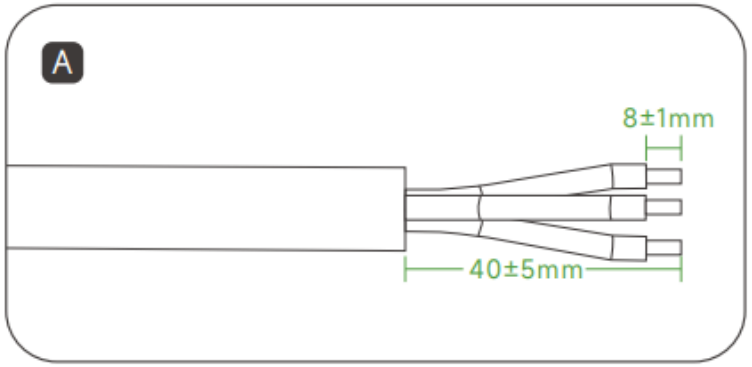
Install a T-junction bus end plug at the end of the T-junction.



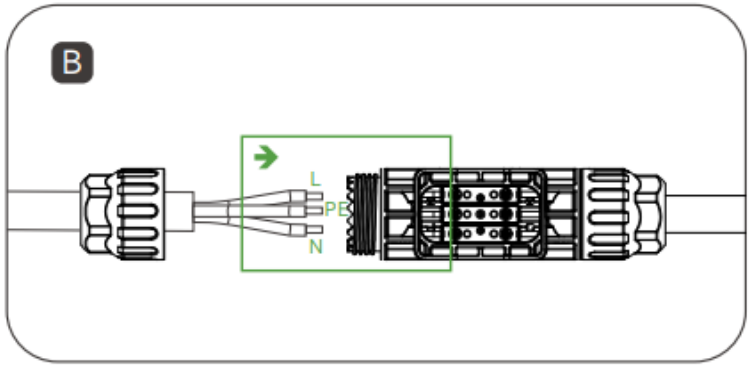
Insert the lower T-junction cover back into place and make sure it is secure.

Device Installation-T junction

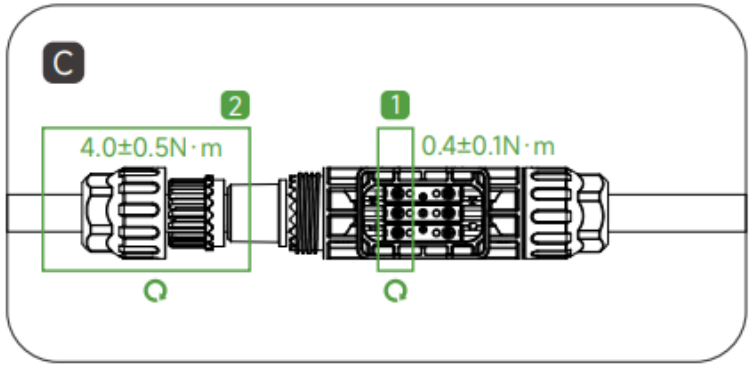
Step 3: T-junction and bus connection



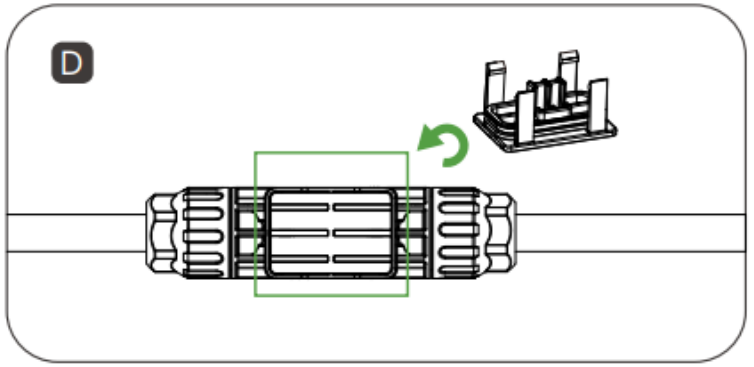
Prepare the AC cable by stripping the ends



Insert the AC cable into the T-junction connector at the correct hole position.

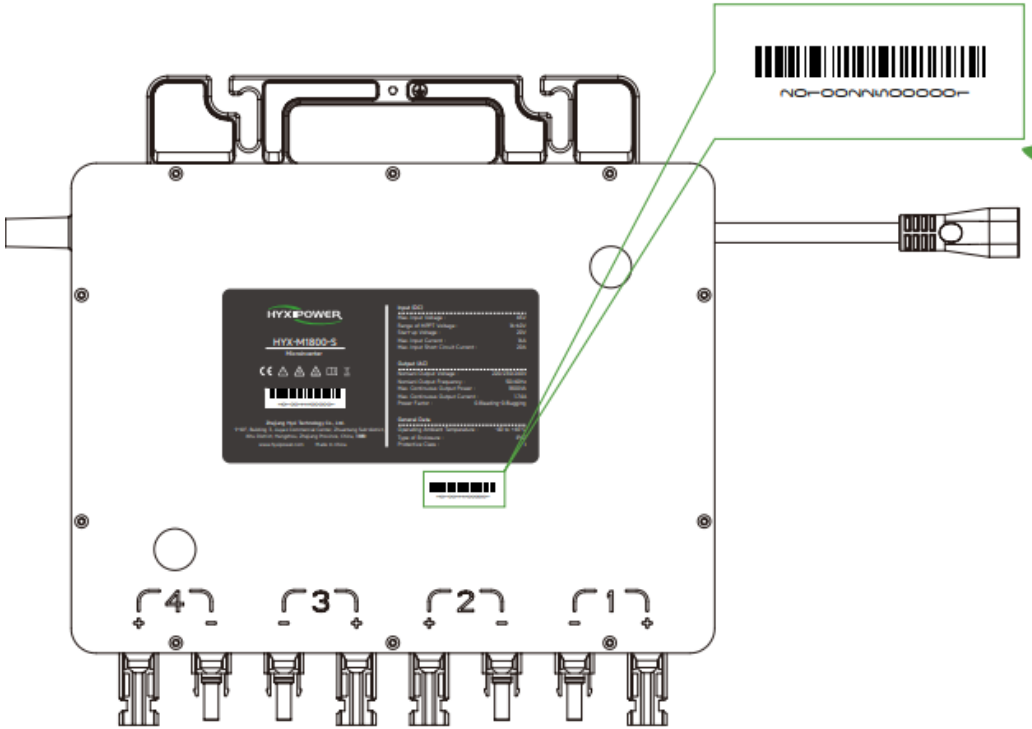


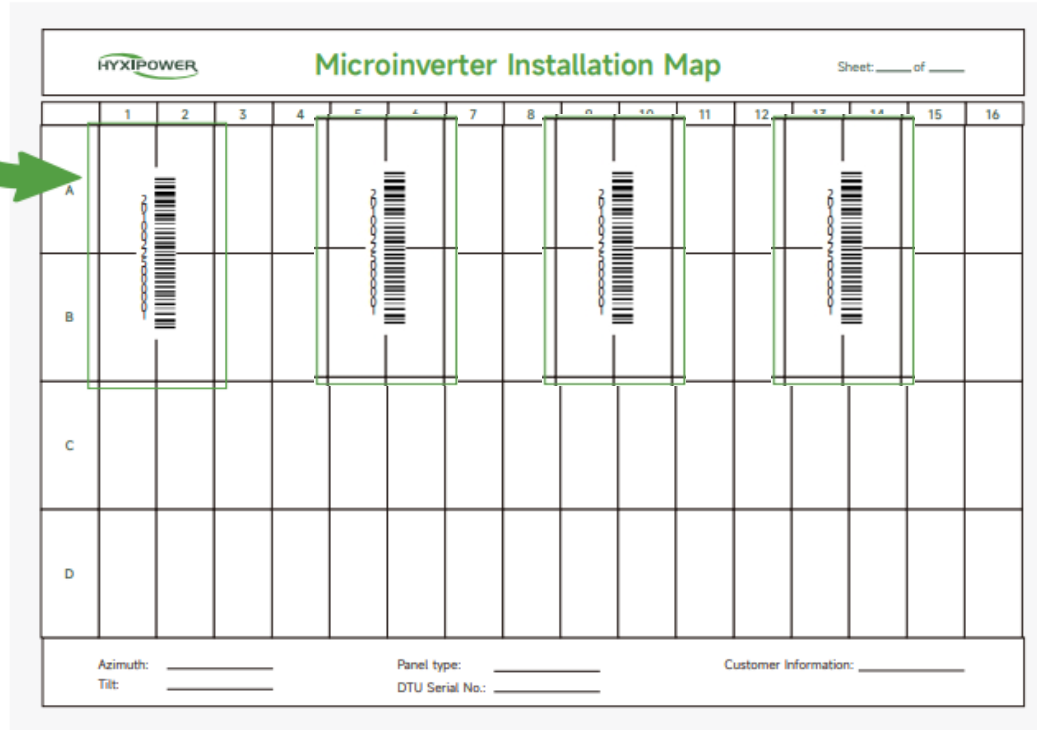
Tighten the screws, and then the nuts.



Insert the lower T-junction cover back into place, making sure it is secure.

Device Installation-Draw Installation Map





Installation Map of Microinverters

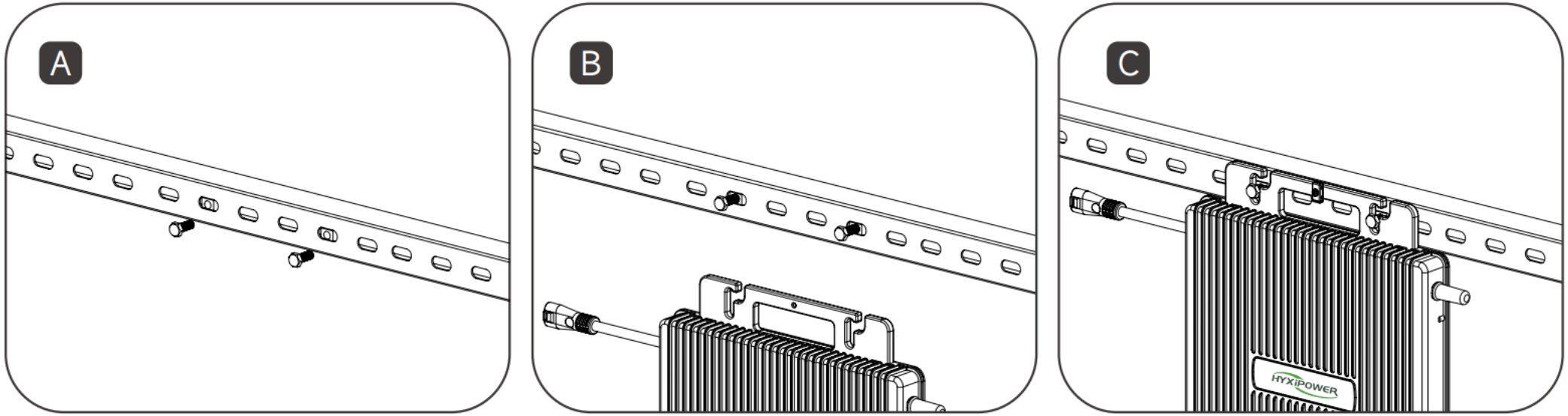
Step1: Record the location of the Microinverters to facilitate operation and maintenance

Step2: Facilitate the establishment of connection between DMU and microinverters

Device Installation-Microinverter

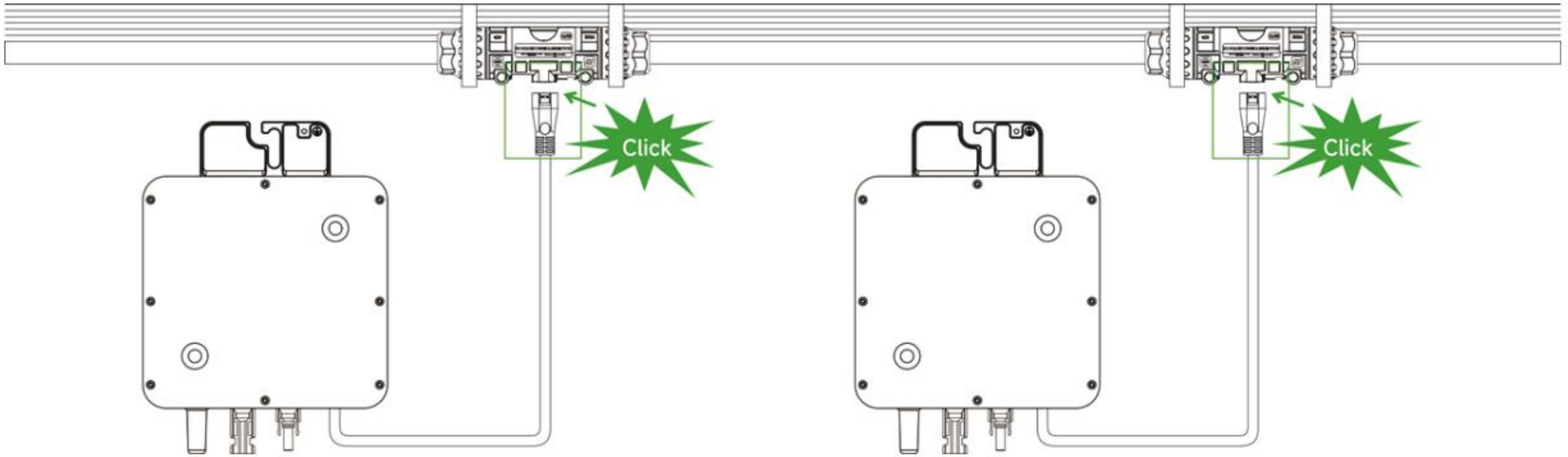
Step 1: Mark the installation position of the Microinverter on the bracket according to the layout of the photovoltaic modules.

Step 2: Fix the Microinverter on the bracket with M8*25mm screw, then lock the screw.



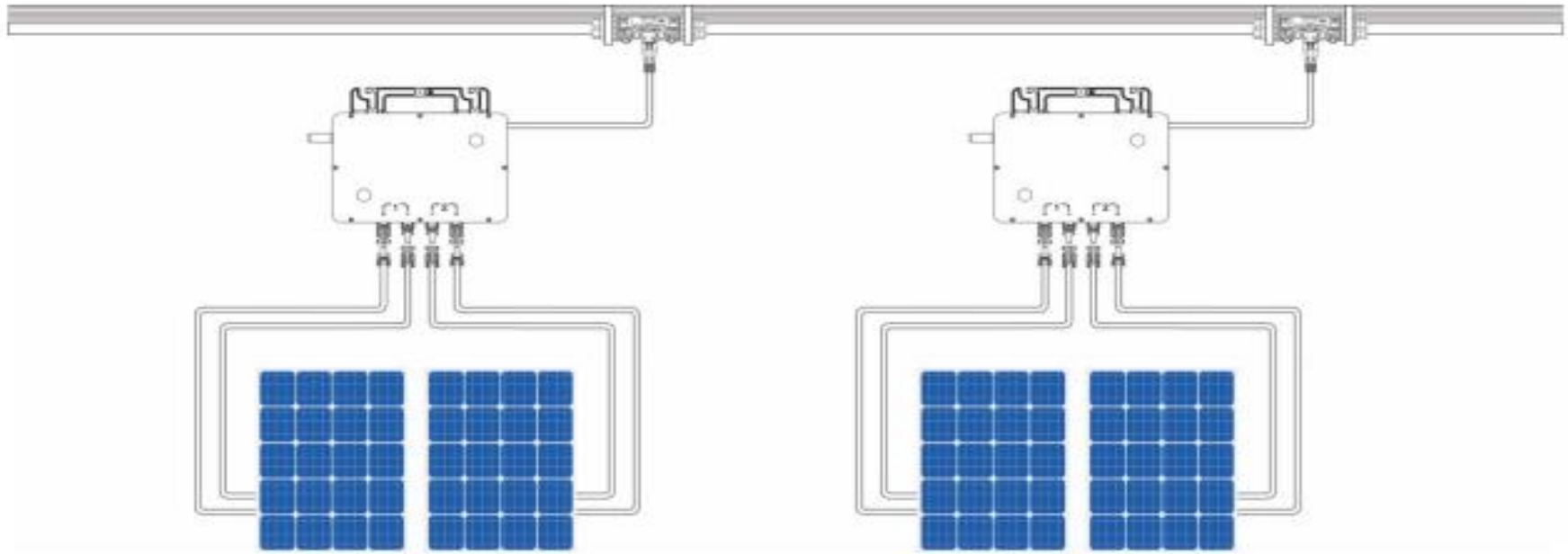
Device Installation-Connect Microinverter with T-junction

Insert the output AC feeder connector of the microinverter into the T-junction bus connector until hearing a ‘click’ sound. Ensure that the installation is tight.



Device Installation-Connect PV Model

Step 1: Install the PV module above the microinverter.
Step 2: Connect the DC output cable of the PV module with the input side of the microinverter.



Key Point 1: Microinverter installation completion indicator: Green indicator light on the microinverter flashes slowly (1 second).

Device Installation- Residential scenarios

- **Install on desktop**: Suitable for indoor installation**:** After tightening the DMU and the base bolts, find a suitable position to place the DMU.
- **Wall-mounted:** Suitable for indoor or outdoor installation. Fix the tray from the accessories to the wall, then place the DMU on the tray

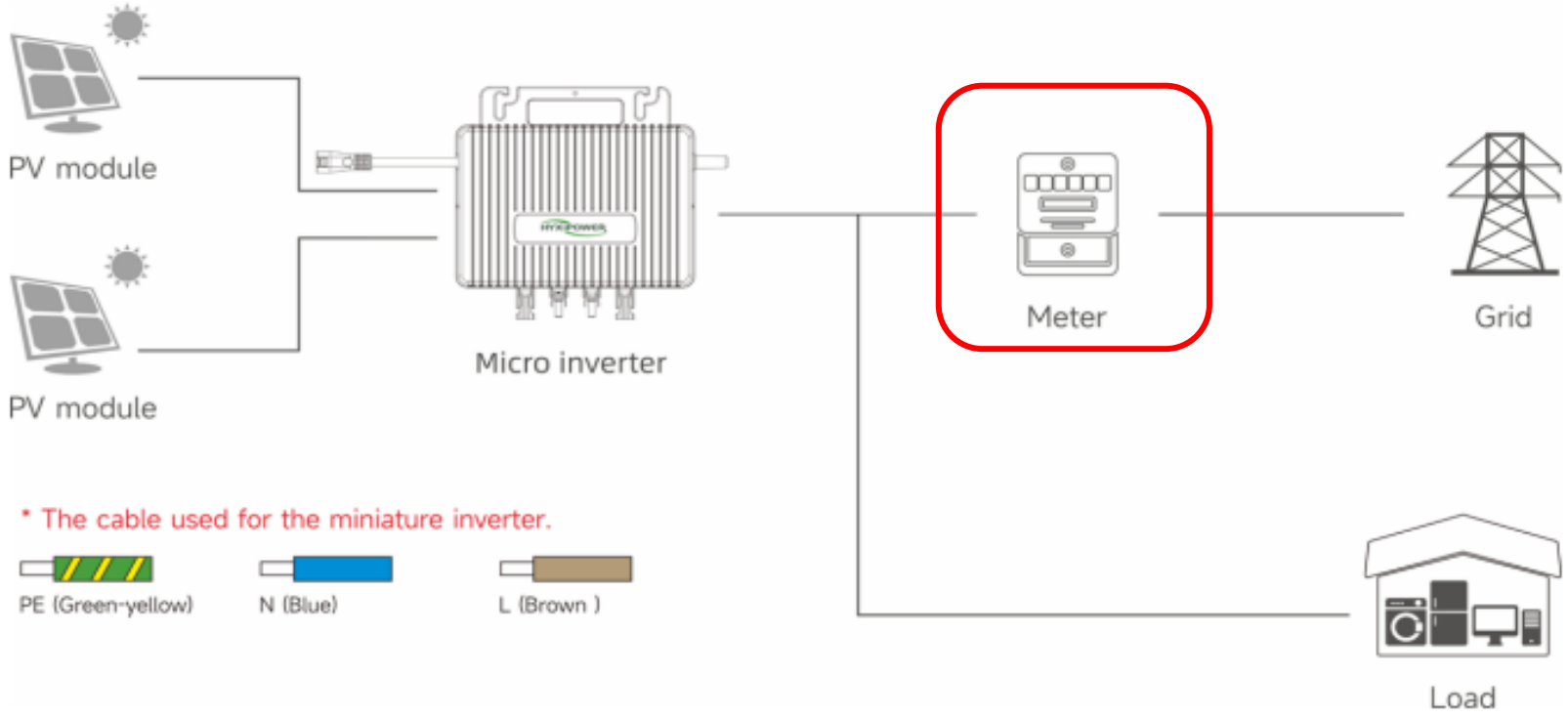
Install on desktop

Wall-mounted

Key Point 2: DMU installation completion indicator: Power light of DMU is constantly on.

Device Installation- Meter Connection

1. Installation position of meter



- Depending on the scenario, it is optional to choose between installing a single-phase meter, a three-phase meter, or no meter. (When using a three-phase meter, the total power of the microinverters connected to each phase ****must** be equal**.)
- The DMU 2-pin 485 cable **must** meet the following specification: 0.5 mm² RVVP shielded two-core wire.

Device Installation- Meter Connection

2. Installation steps of single-phase meter：

Step 1: Thread all parts through the wire in the following sequences.

Step 2: Use the communication cable to connect terminals 24 and 25 of the meter to RS485A and RS485B on the DMU, respectively. Connect the communication cable from the CT to the CT port of the meter.

Step 3: Connect the meter in parallel to the grid: terminal 3 (top) to the live wire (L) and terminal 4 to the neutral wire (N).

Step 4: Pass the CT magnetic ring through the live wire (L) from the main circuit breaker to the grid. Make sure that the arrow on the right side of the CT is pointing toward the grid.

Single-phase meter

DMU

CT Arrow points to the Grid

Device Installation- Meter Connection

3. Installation steps of three-phase meter：

Step 1: Thread all parts through the wire in the following sequences.

Step 2: Use the communication cable to connect terminals 24 and 25 of the meter to RS485A and RS485B on the DMU, respectively. Connect the communication cables from the three pairs of CTs to the CT1, CT2, and CT3 ports of the meter.

Step 3: Connect the meter in parallel to the grid: terminals 3, 6, and 9 (top) to the live wires L1, L2, and L3, respectively, and terminal 10 to the neutral wire (N).

Step 4. Pass the magnetic rings of the three pairs of CTs through the live wires L1, L2, and L3 from the main circuit breaker to the grid. Ensure that the arrows on the right side of the CTs are pointing toward the grid.

Three-phase meter

DMU

CT Arrow points to the Grid

Contents

APP Configuration- registration

Registration	**1. Download HYXipower APP** **2. Register the account of the person in charge of the organization**
Near-end Commissioning	**1.Connect the phone to DMU** **2.Connect microinverters to DMU** **3.Connect DMU to internet**
Check Signal Strength	**Check signal strength between DMU and microinverter**
Create a Plant	**Create a plant for users**

APP Configuration- registration

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

Step 1: Download the APP and **register**

Method 1

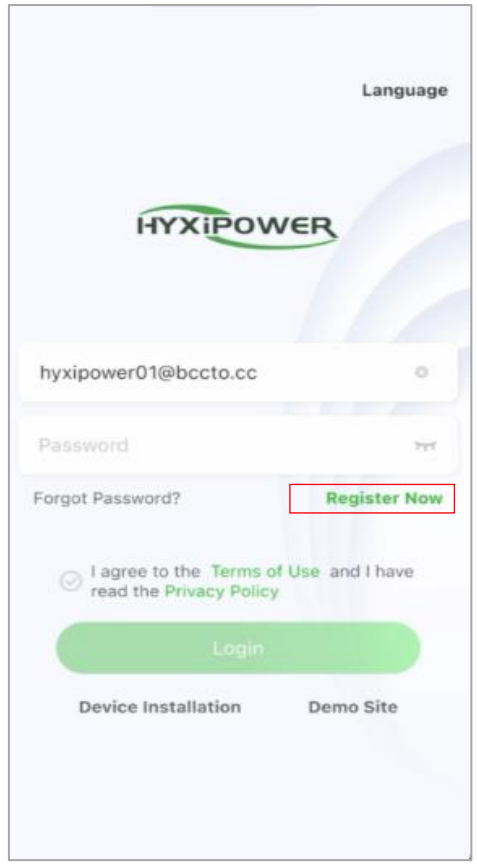
Search “Hyxipower " in the Application Store

· APP store (IOS)

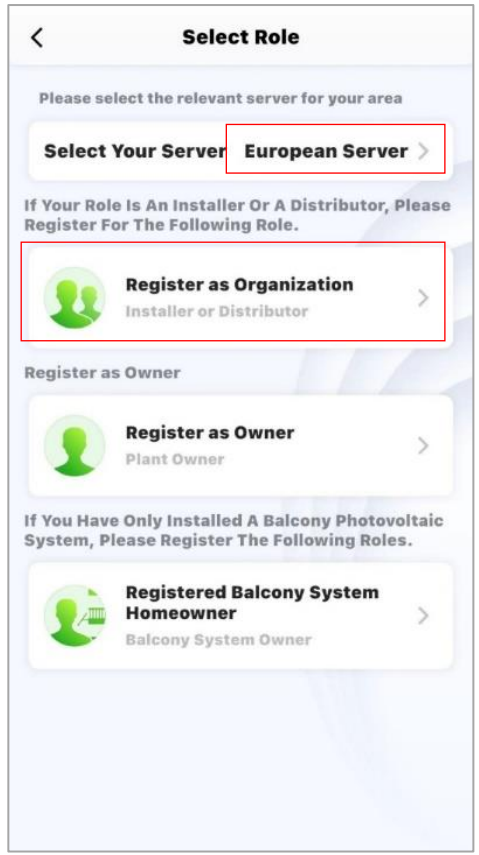
· Google play

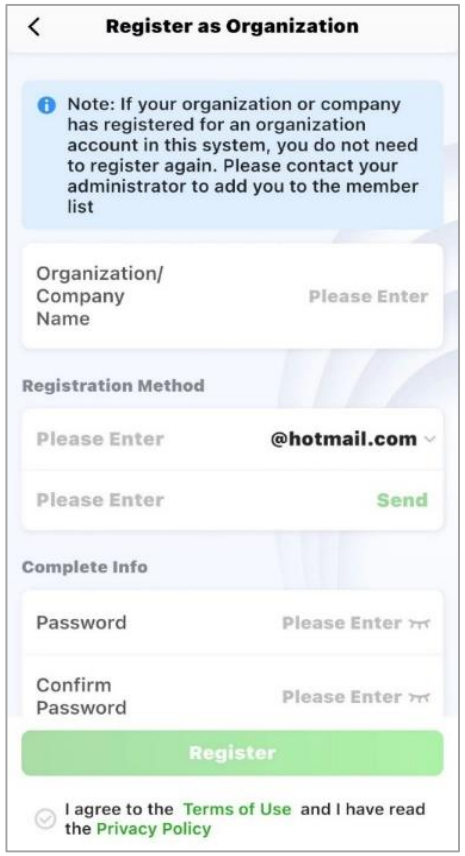
Method 2

Scan the QR code download the APP



Step 2 : According to the country or region, select **server**, select **organization** , fill in the relevant information and **register.**



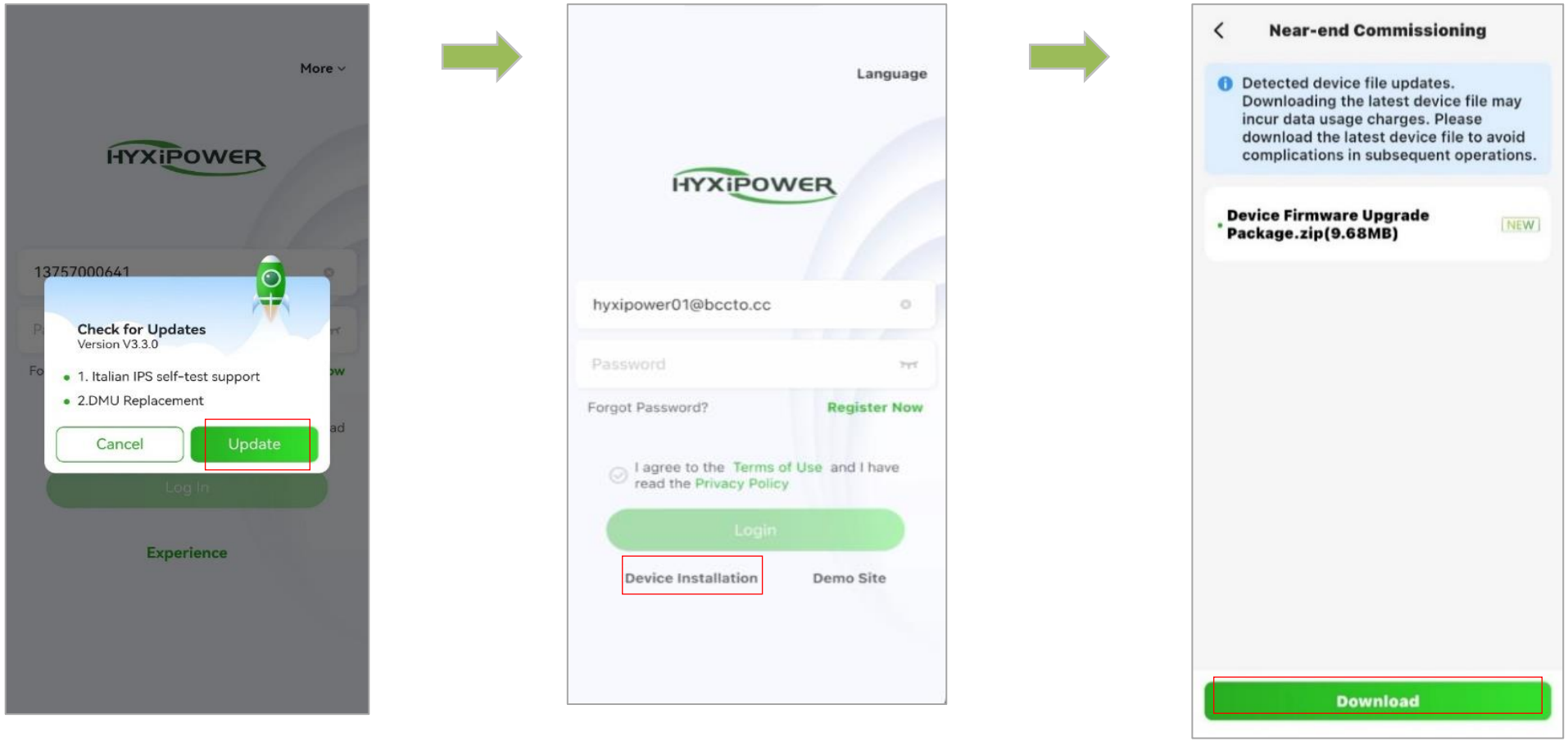


APP Configuration-Near-end Commissioning

Registration	**1. Download HYXipower APP** **2. Register the account of the person in charge of the organization**
Near-end Commissioning	**1.Connect the phone to DMU** **2.Connect microinverters to DMU** **3.Connect DMU to internet**
Check Signal Strength	**Check signal strength between DMU and microinverter**
Create a Plant	**Create a plant for users**

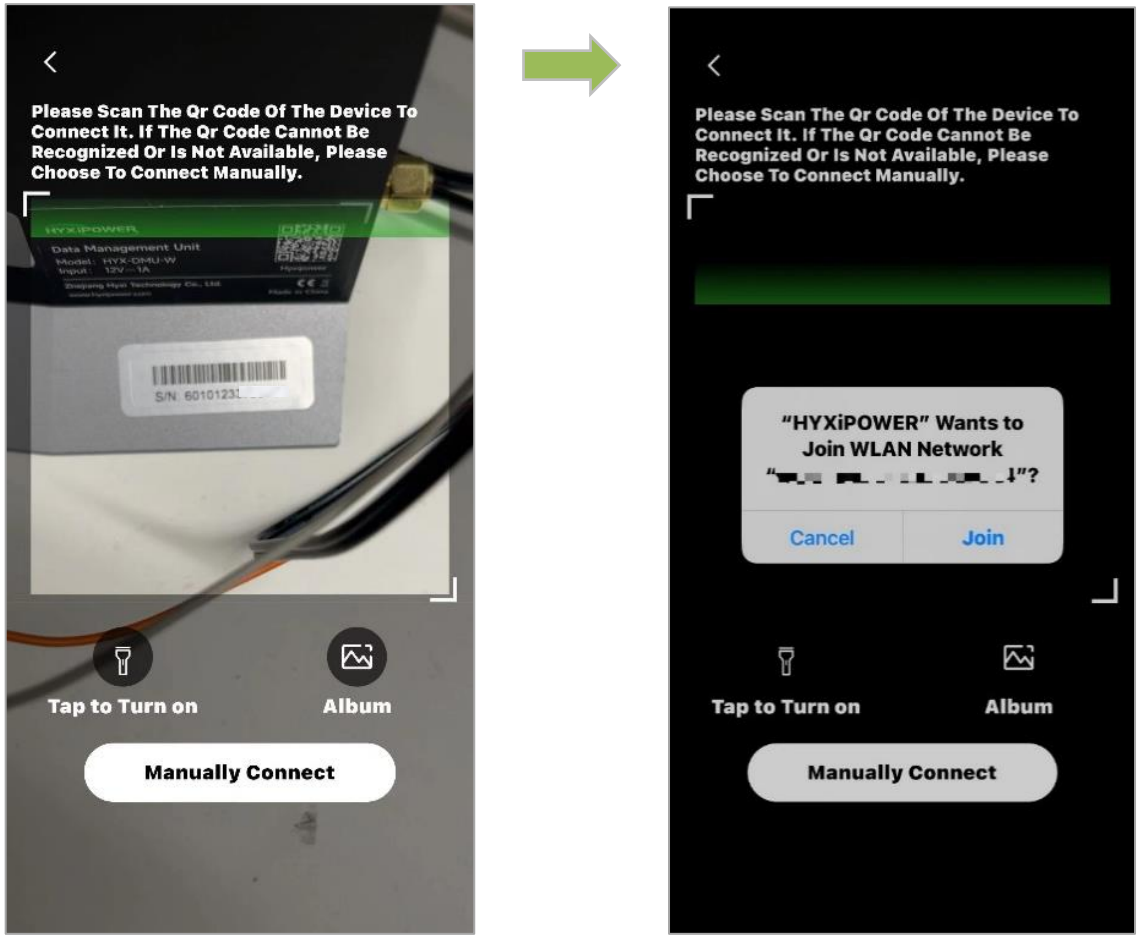
APP Configuration- Connect Phone to DMU

Step 1： If a version update is prompted, please update first before proceeding with debugging. Select “Device installation” and “Download.” If the latest firmware package is already available on the phone, the download step will be skipped automatically.



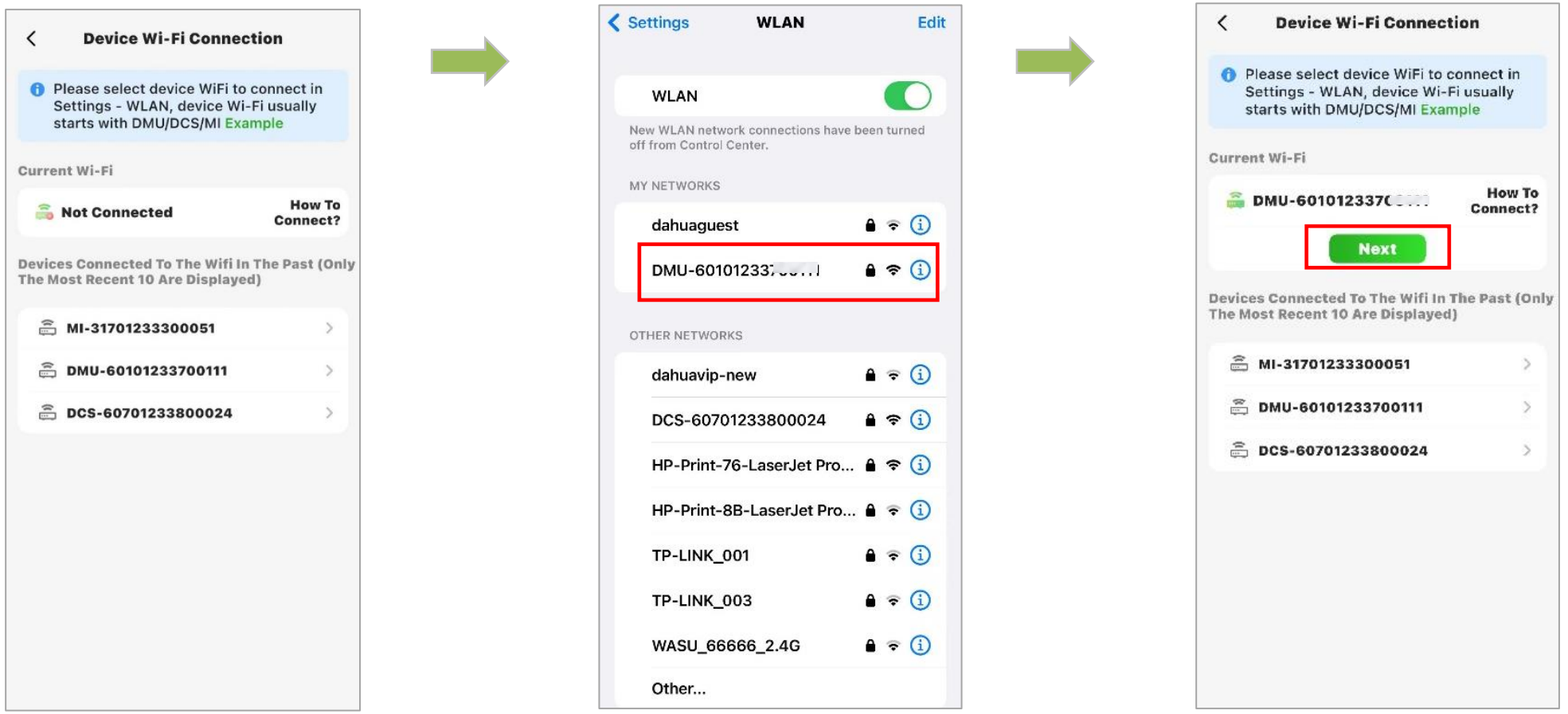
APP Configuration- Connect Phone to DMU

Step 2: Scan the barcode of the DMU, join WLAN network DMU-XXXXXXXXXXXX. （If the barcode cannot be recognized,You can also choose to **connect manually.**）

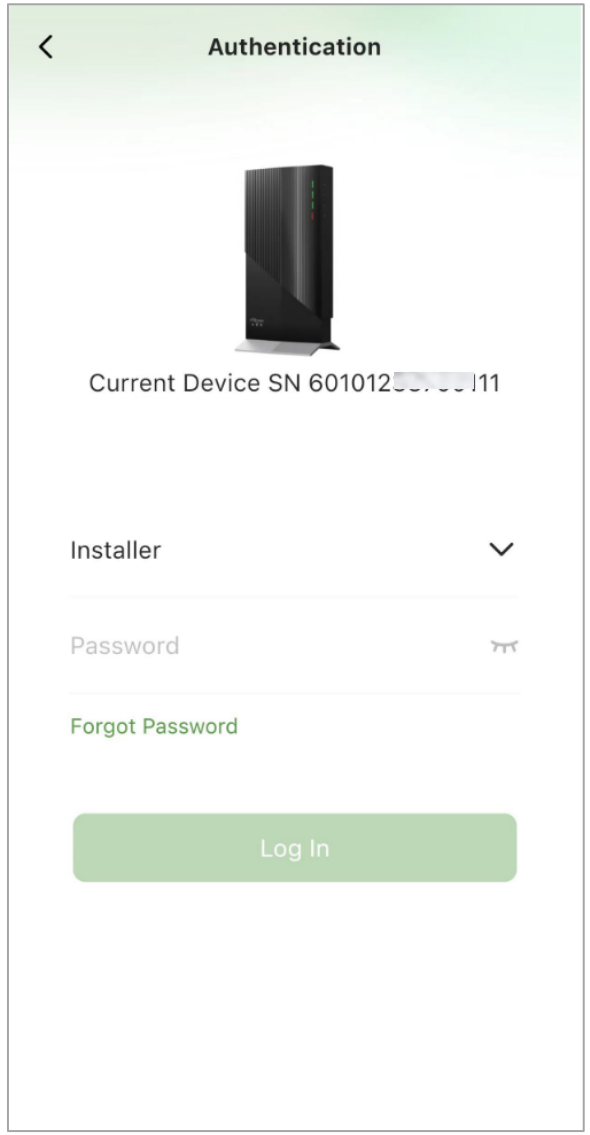


APP Configuration- Connect Phone to DMU

Manually connection: Find the WIFI in settings of phone starting with DMU and connect: DMU-XXXXXXXXXXX; Password is hyxi0607, after connected, return to the "Hyxipower" APP and select Next.



APP Configuration- Connect Phone to DMU



Step 3: Scan DMU's barcode and log in device :

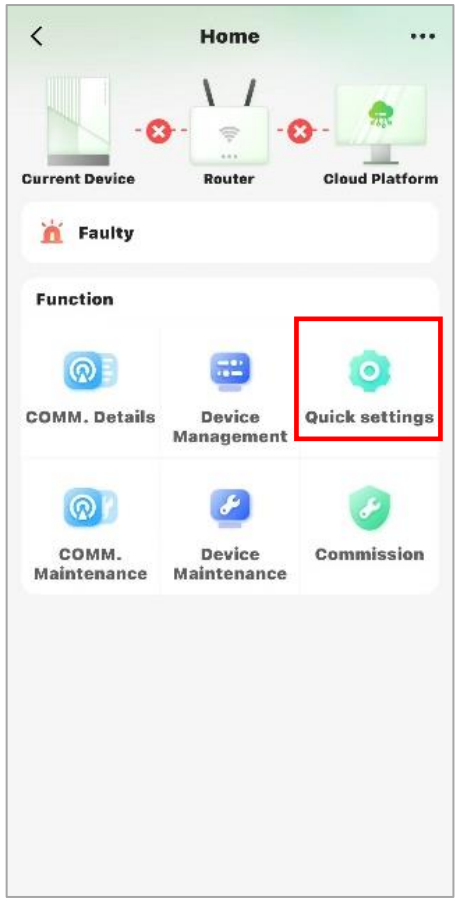
Initial default password: hyxi0607

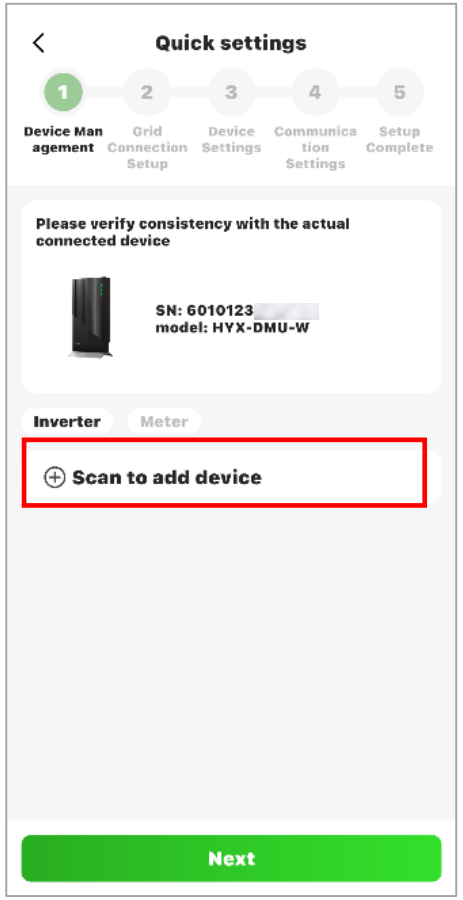
Quickly press the DCS RESET button 4 times to reset password if you forget the password.

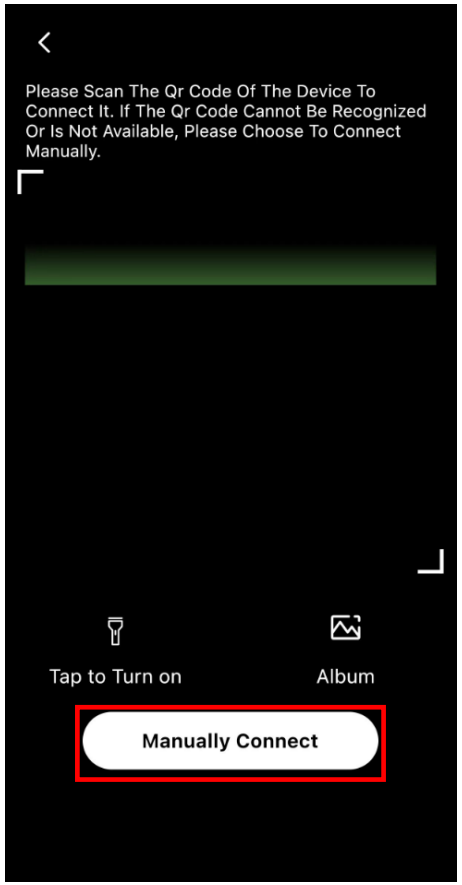
APP Configuration- Connect DMU to Microinverters

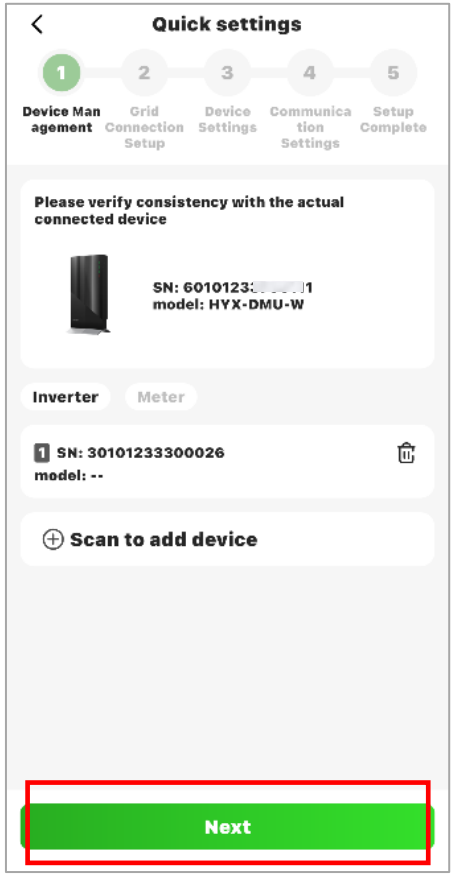
Step 4: Enter quick settings

Step 5: Select "Inverter" and scan the barcode of the **Microinverters** to connect them to DMU.



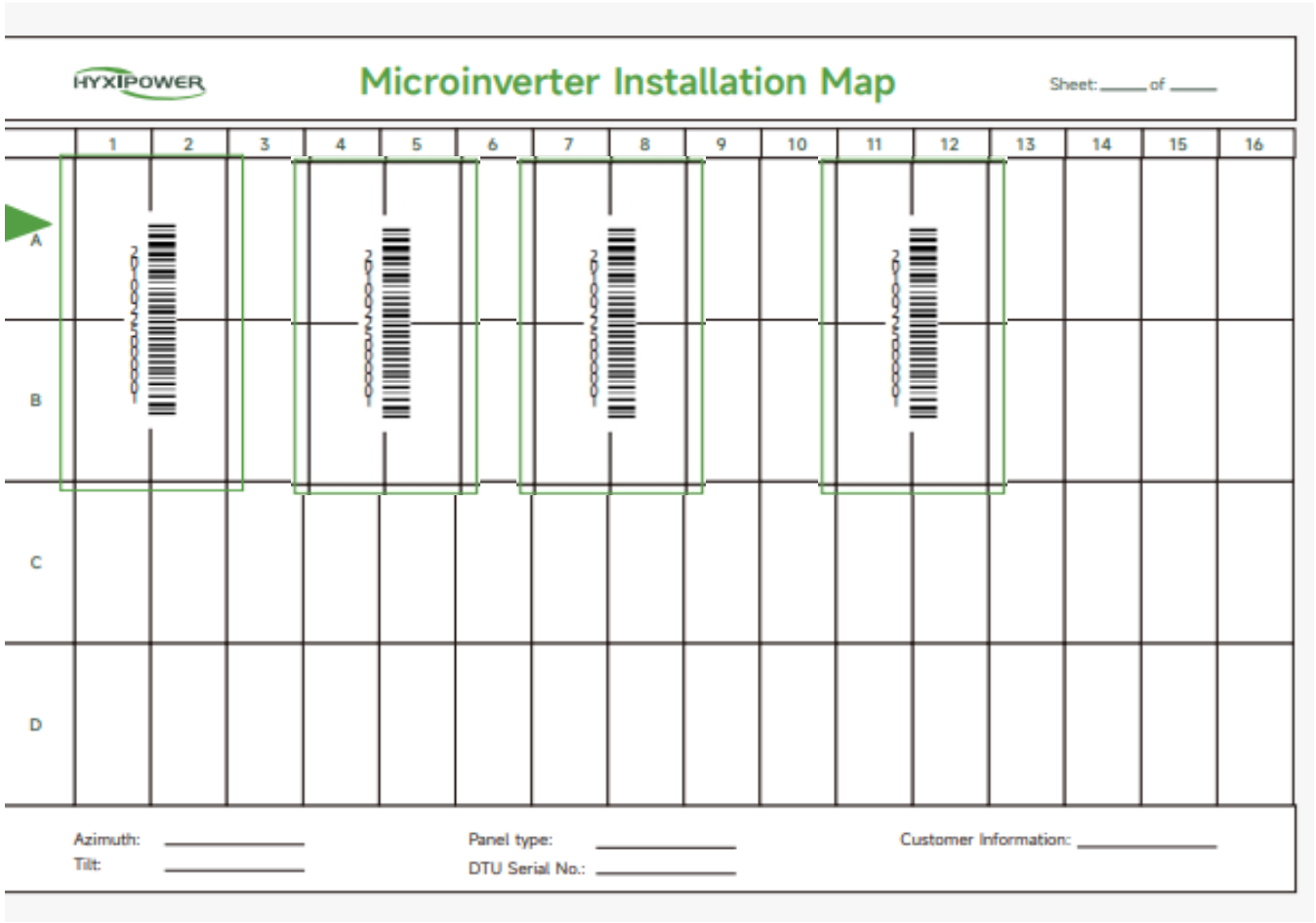






APP Configuration- Connect DMU to Microinverters

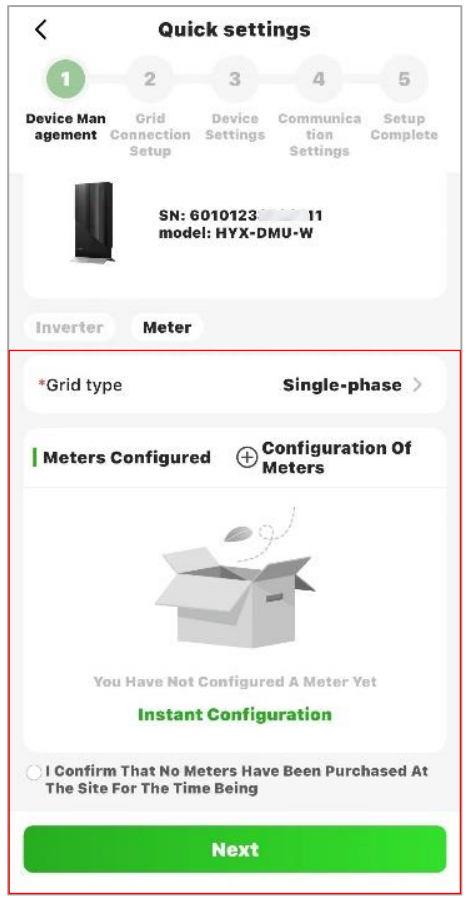
Step6: Add Microinverters to the certain DMU by scanning the barcode on the installation map.

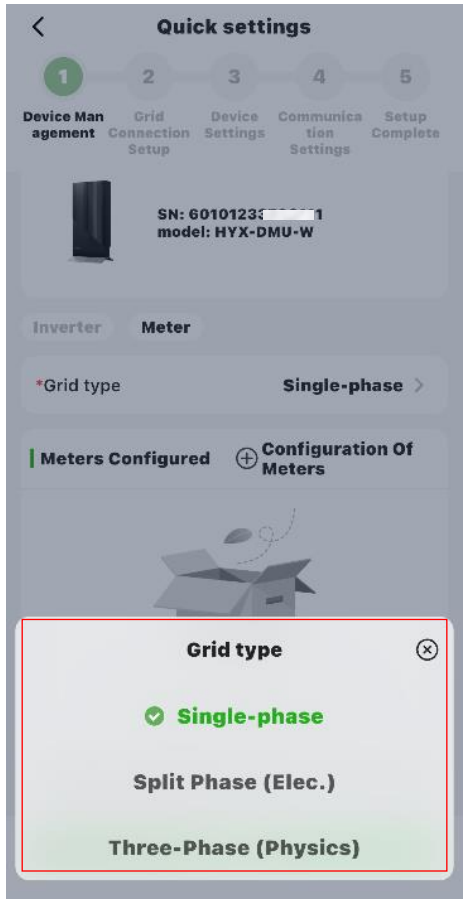


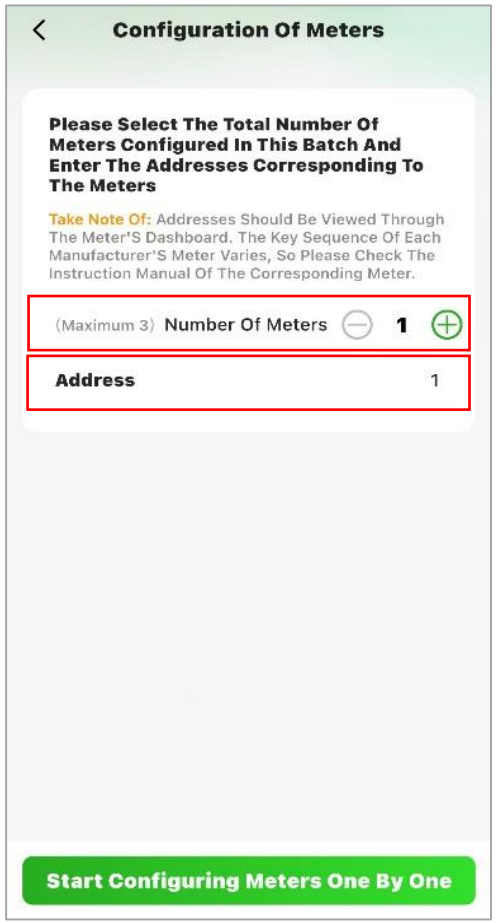
APP Configuration- Meter

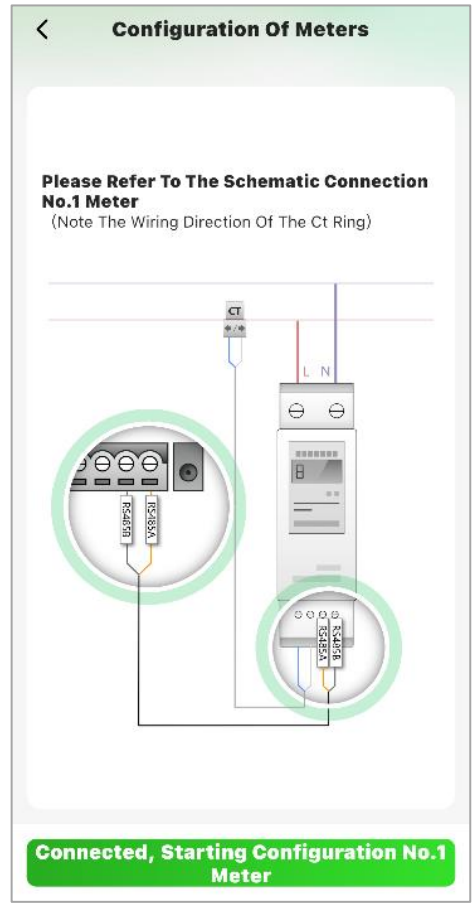
Step 7: Click “Meter” and select "Grid type"
Click "Configuration of Meters" , fill in the number of meters (Usually 1) and address of meters(The default address is 1)

Check and connect the meter according to the diagram



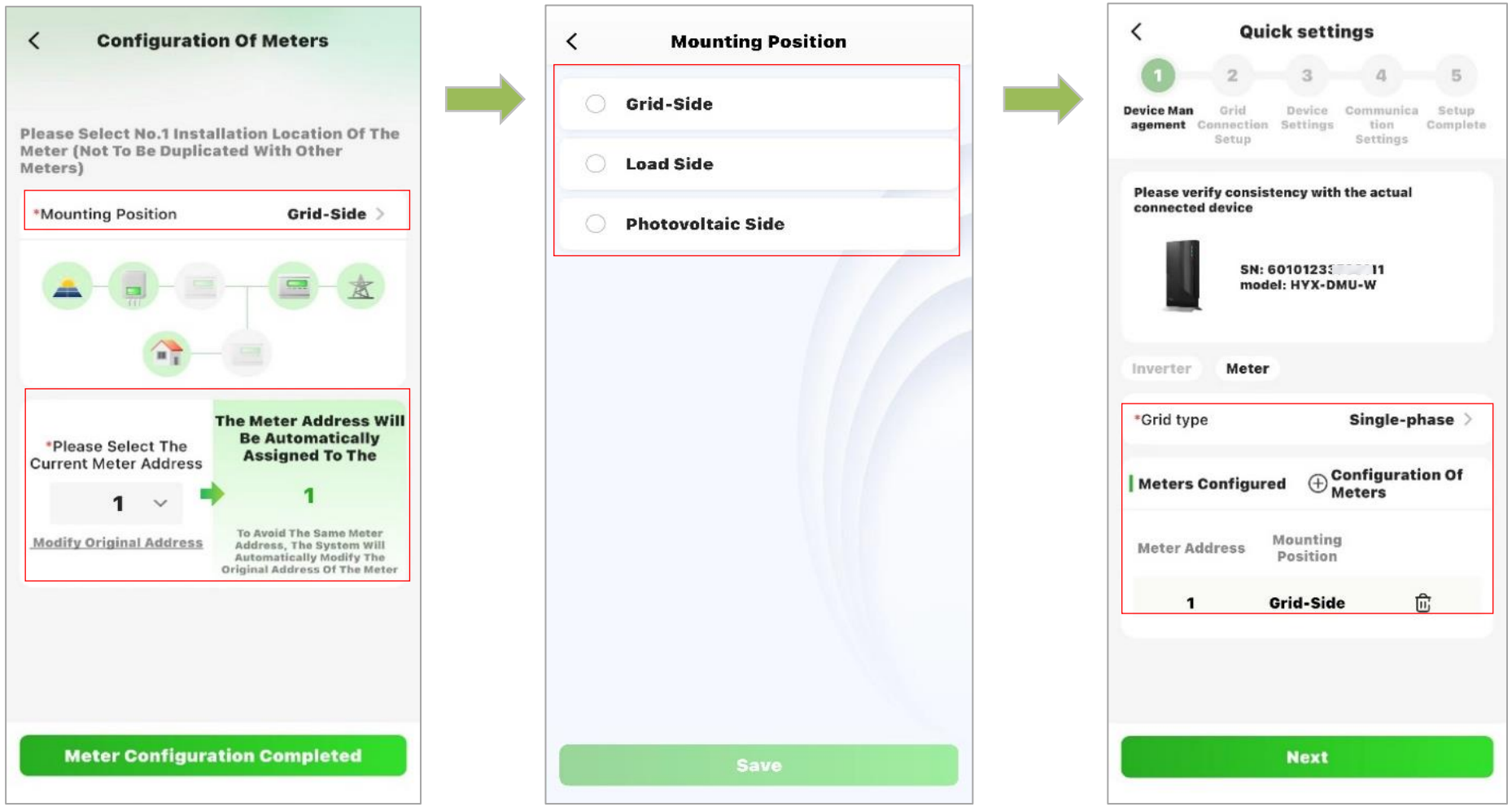






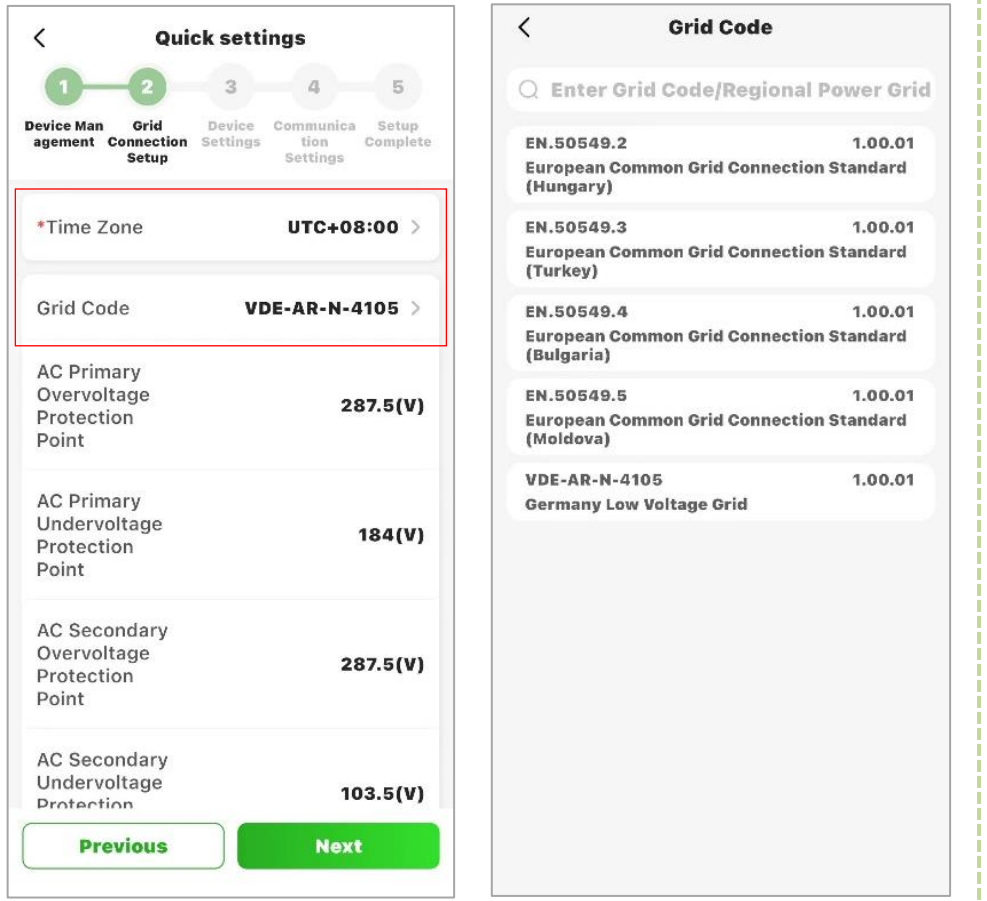
APP Configuration- Meter

Step 8: Select the "**Mounting position**" for the current meter, and select the address of the **current meter**, and the APP will automatically assign an address to the current meter.

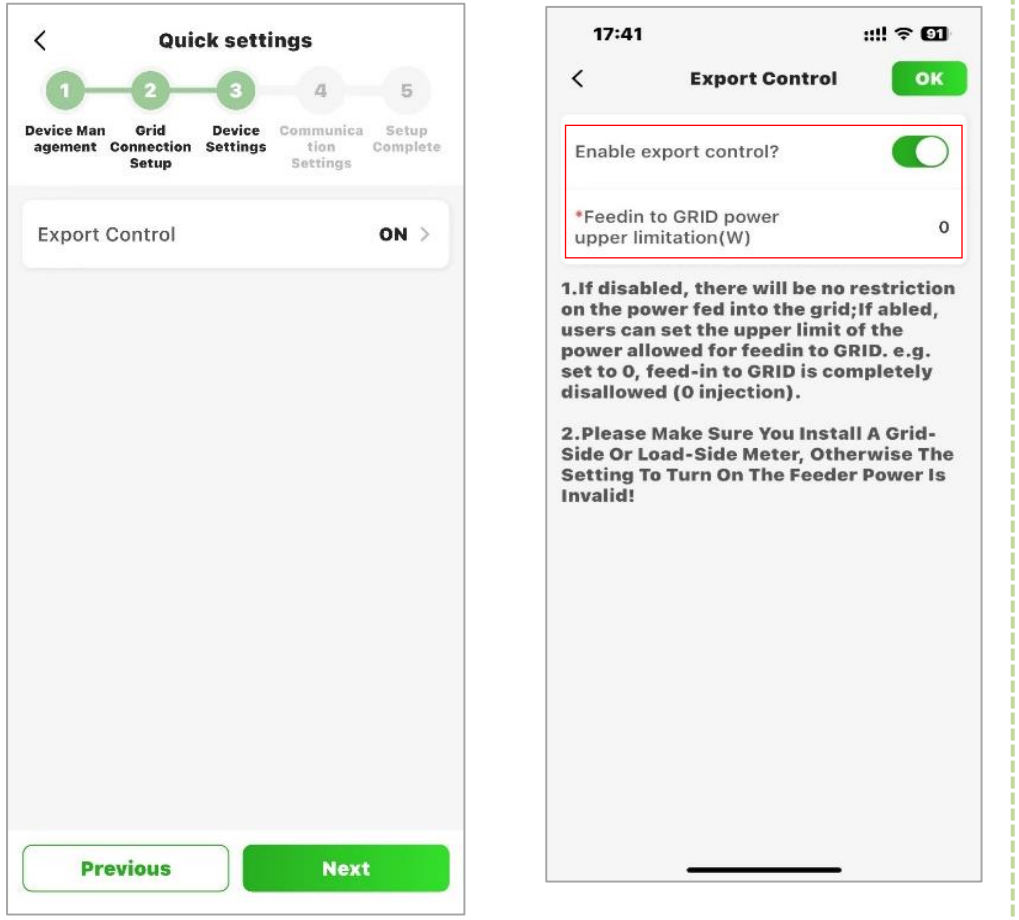


APP Configuration- Setup Time Zone and Grid code

Step 9： Enter the grid connection Setup and set the time zone and grid code according to local regulations



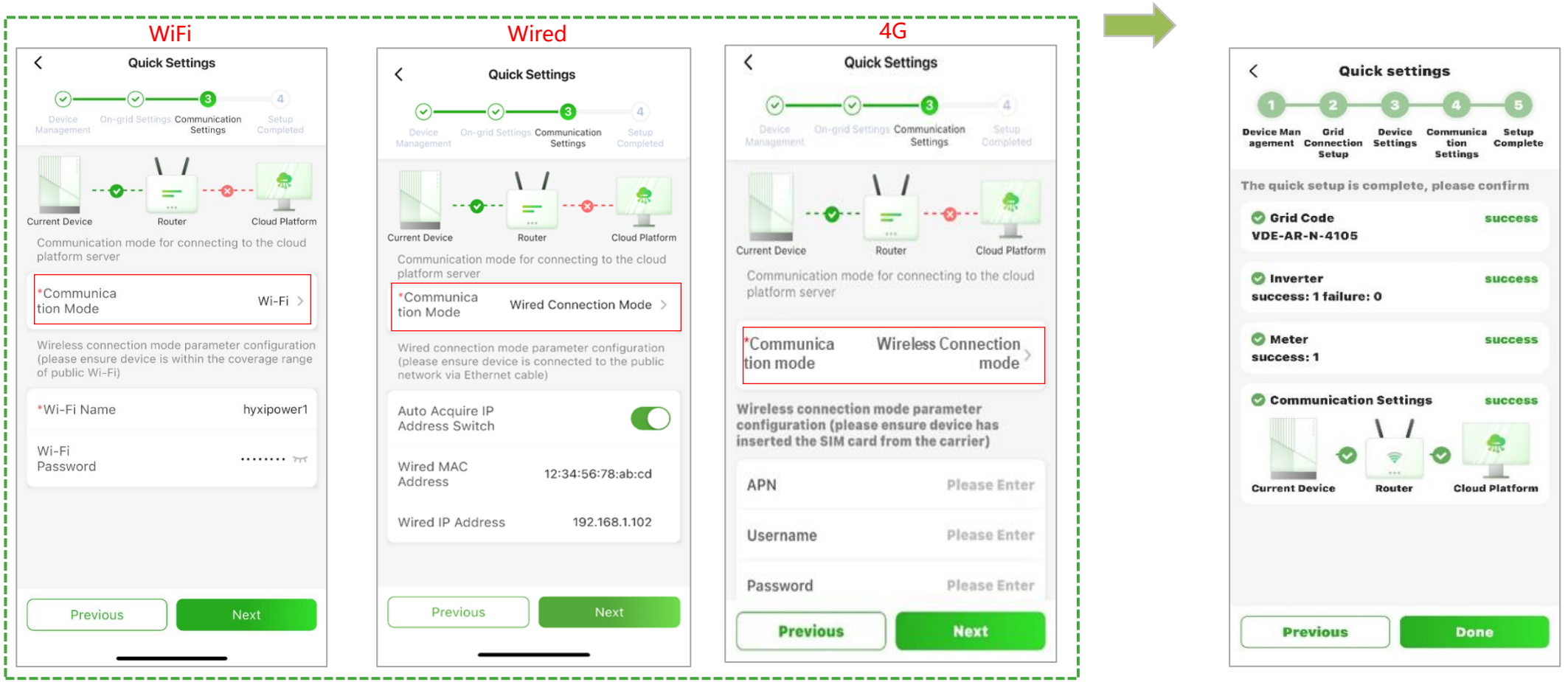
Step 10： Enter the grid connection Setup and set the time zone and grid code according to local regulations



APP configuration- Connect DMU to Internet

Step 11: Communication settings.

- Wi-Fi mode：Fill in the Wi-Fi name and password to connect.
- Wired mode: Confirm the automatic IP acquisition switch is ON for wired connection mode.
- Wireless mode (4G version)：The APN, username and password will be recognized automatically, and proceed to next step after setup.



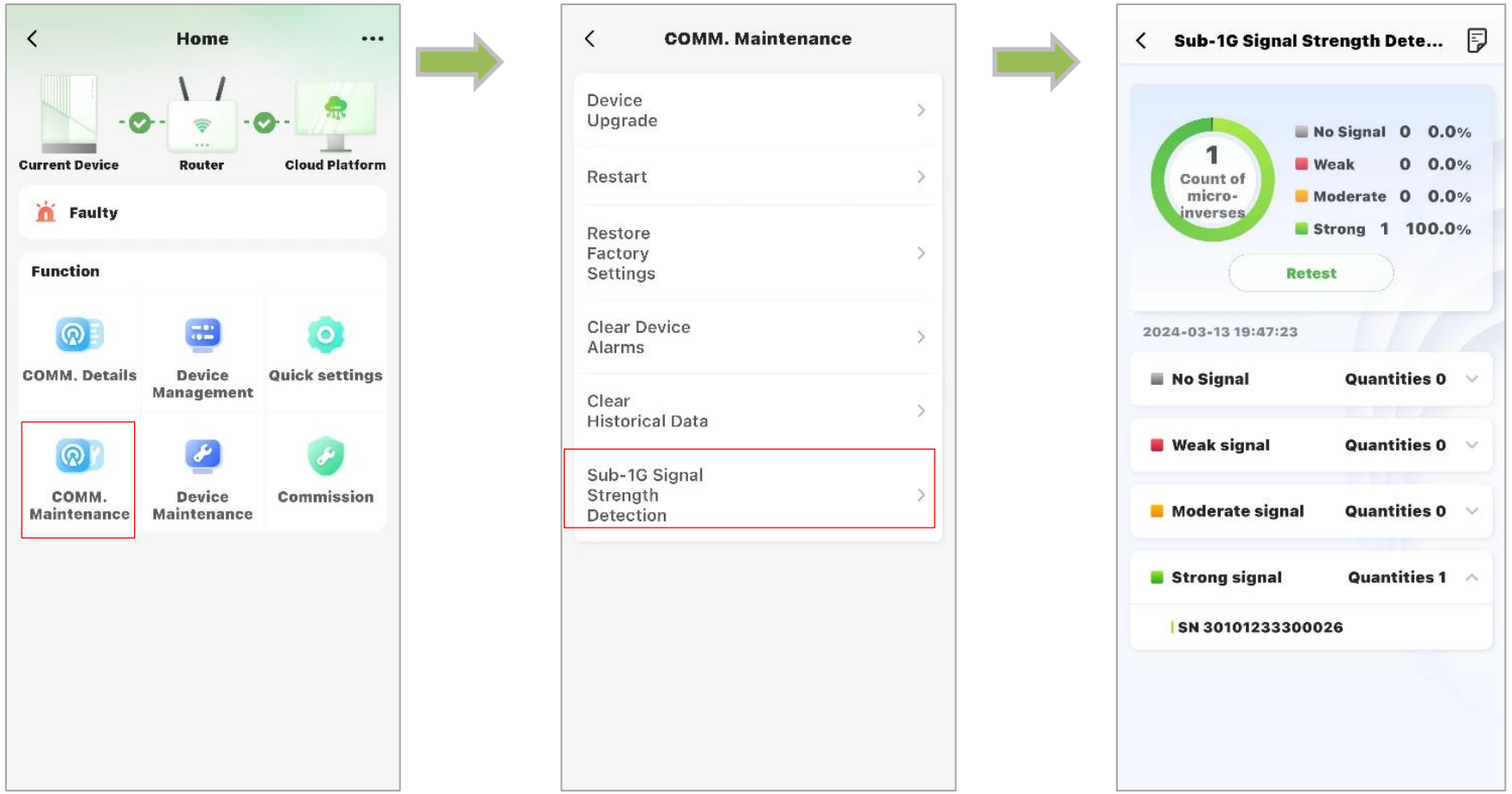
Key Point 4: DMU network configuration completion indicator: Net and Com lights of DMU are constantly on.

APP configuration- Check Signal Strength

Registration	**1. Download HYXipower APP** **2. Register the account of the person in charge of the organization**
Near-end Commissioning	**1.Connect the phone to DMU** **2.Connect microinverters to DMU** **3.Connect DMU to internet**
Check Signal Strength	**Check signal strength between DMU and microinverter**
Create a Plant	**Create a plant for users**

APP configuration 3 - Check Signal Strength

Step 1: Check the Sub-1G signal between microinverters and each DMU through **COMM.Maintenance**
Note: Adjust the position between the DMU and the microinverters to ensure that the signal strength of all devices is at least “Moderate signal” or above.

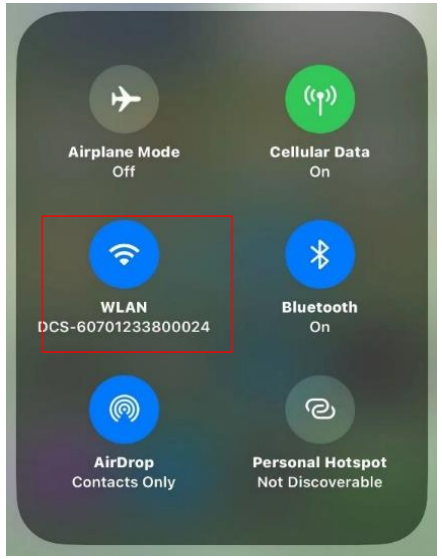


APP configuration- Create a Plant for Owner

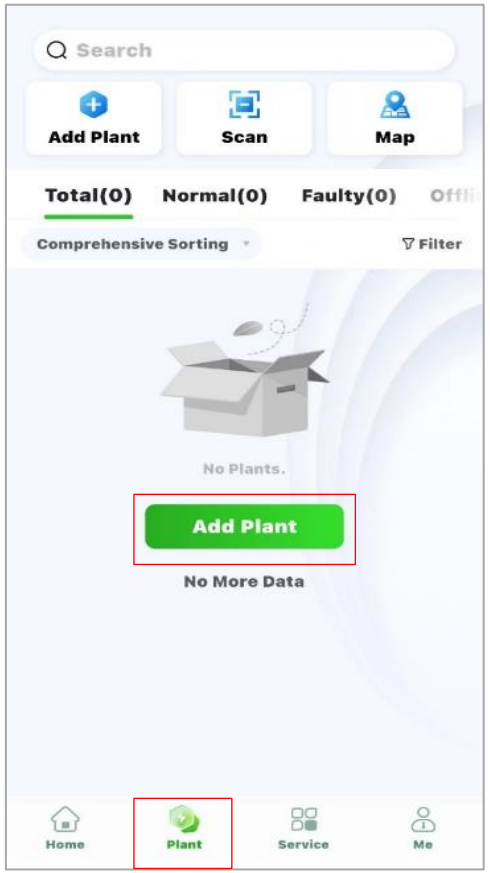
Registration	1. Download HYXipower APP 2. Register the account of the person in charge of the organization
Near-end Commissioning	1.Connect the phone to DMU 2.Connect microinverters to DMU 3.Connect DMU to internet
Check Signal Strength	Check signal strength between DMU and microinverter
Create a Plant	Create a plant for users

APP configuration- Create a Plant

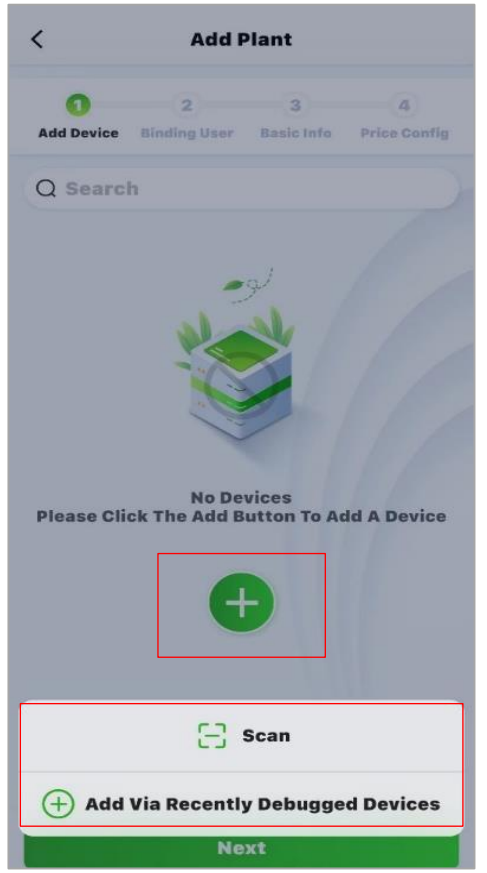
Step 1: Disconnect the phone from the DMU's WiFi. Make sure your phone has Internet access



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

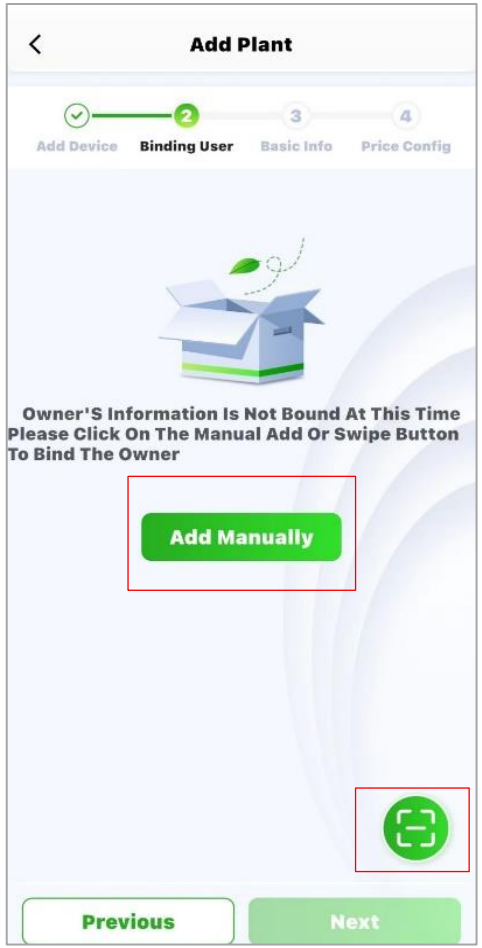


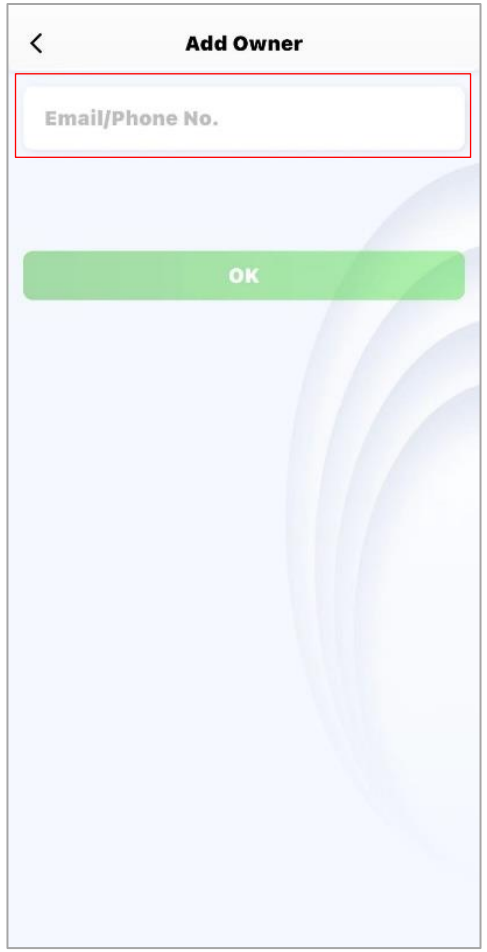
Step 3: Scan the QR code of the DMU or add it through Recently Debugging Device

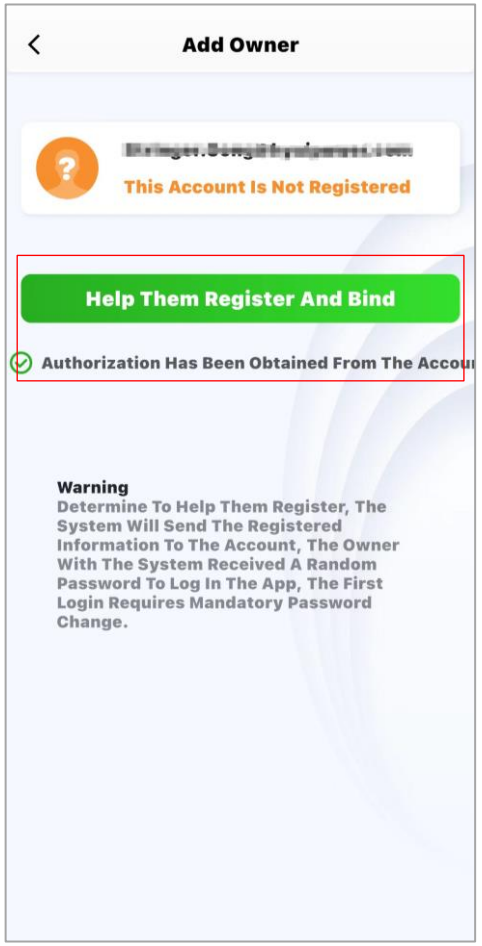


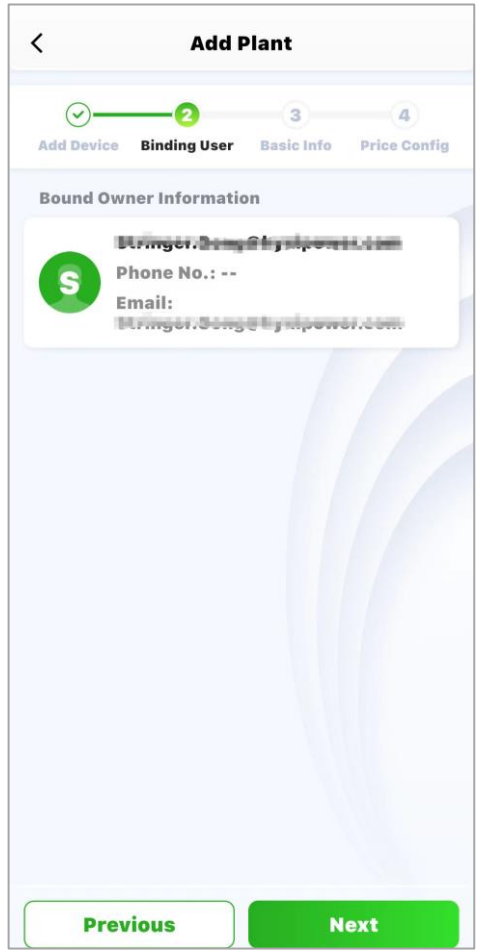
APP configuration- Create a Plant

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



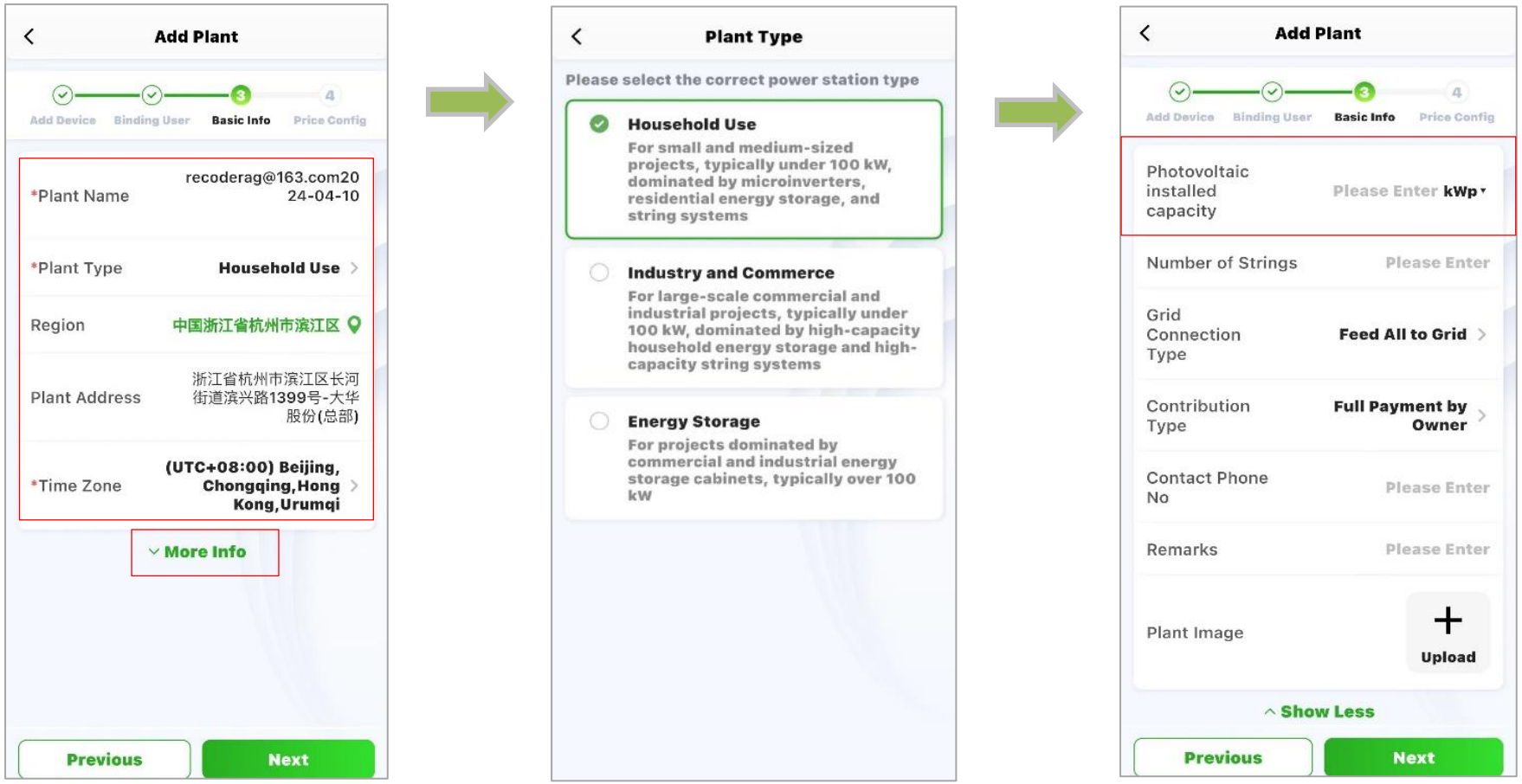






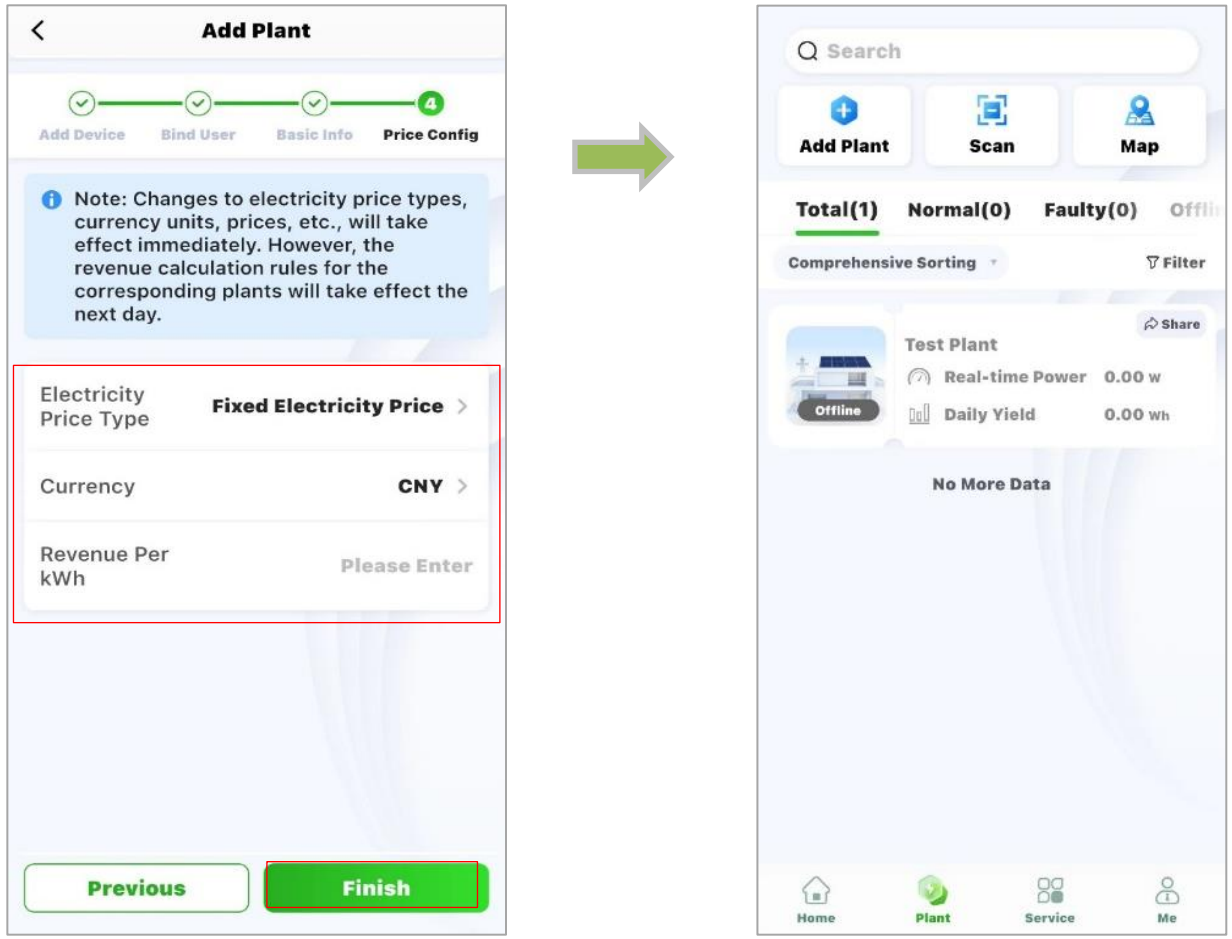
APP configuration- Create a Plant

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

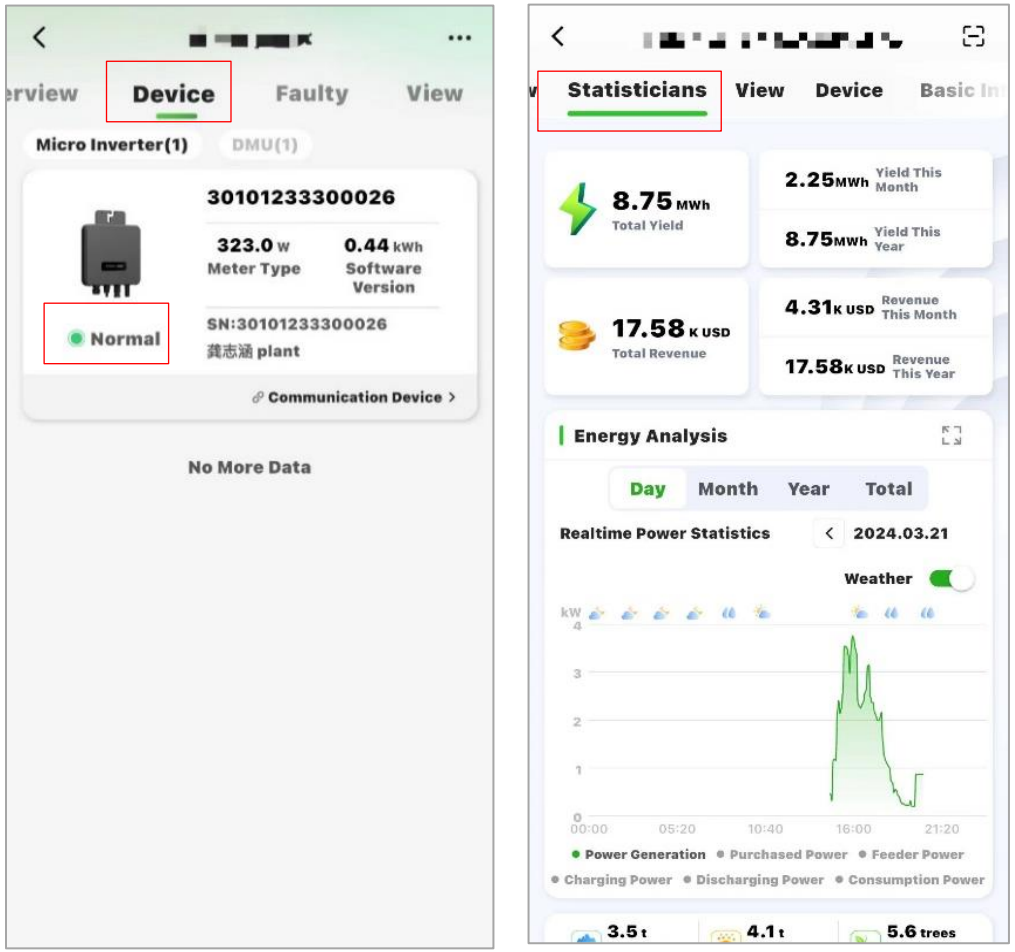


APP configuration- Create a Plant

Step 6: Fill in Electricity Price Type, Currency and Revenue per KWh, select Finish, and the Plant is successfully created.



APP configuration- Installation Acceptance



Step 1: Select Plant - User's Plant - Device, and ensure that the online state of device is normal.

Step 2: After installation is completed, continuously monitor for more than half an hour, select Statistics - Energy Analysis , view the realtime power statistics curve, and ensure that the plant has started generating electricity normally.

Key Point 5: Normal operation indicator: AC and DC power of equipment in the power plant is normal, with no alarms.

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THANKS