

Quality

# Single-phase Hybrid Inverter Installation Guide

Zhejiang Hyxi Technology Co., Ltd.

Innovation

Efficiency

Win-win

# Contents





# **Product introduction**



Physical installation



**APP** configuration

# Preparation 1- Program Overview 交流线





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.

# **Preparation 2- Material 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. Understand whether the emergency load is connected to the site, and the emergency load cannot exceed the equipment specifications;

4. Check the location of the inverter and home air conditioner;

5. 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;



Electric drill



Marker







Multimeter

Wire strippers

Crimping Tool

Heat gun

Screwdriver

Utility knife

4

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 | Communicatio<br>n cable | 485 communication cable   | RVVP double-core shielded wire, 0.5mm <sup>2</sup> |
| 3 | AC output cable         | AC side wiring of the inverter , use three-core outdoor copper core cables  | 4~10mm²  |
| 4 | Spare output cable      | For wiring on the backup side of the inverter, use three-core outdoor copper core cables  | 4~10mm²  |
| 5 | Ethernet cable          | For inverter and battery communication, can use a standard network cable; (equipment comes with a 2- meter long network cable)  | Standard network cable                             |
| 6 | Ground wire             | For equipment grounding use   | 4~10mm²  |
| 7 | Battery power<br>line   | The power cable used between the battery and the inverter must comply with 600V and 35A standards. (When placing orders for subsequent products, you can choose to have a battery power line) | 6mm²   |

# Preparation 2 - Material (零件图)



|     | The product already has an equipment list |                          |   |  |  |  |
|-----|---|--------------------------|---|--|--|--|
| No. | Name                                      | Name Picture Description |   |  |  |  |
| 1   | Single phase Hybrid<br>Inverter           | aritema                  | Includes an inverter and a batch of inverter related accessories  |  |  |  |
| 2   | Battery                                   |                          | Contains battery energy management unit ( BDU ) and battery module  |  |  |  |
| 3   | Single phase meter                        |                          | Measure circuit voltage, current, power, etc.   |  |  |  |
| 4   | Current Transformer                       |                          | Induced current size, used with electric meter  |  |  |  |
| 5   | DCS communication<br>stick                |                          | After registering the device to the cloud server, it can be managed uniformly through the cloud platform.     |  |  |  |
| 6   | Ethernet cable                            |                          | Comes with a 1- meter long network cable. If the length is not long enough, you need to purchase it yourself. |  |  |  |

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# **Product Introduction 1- Introduction to Hybrid Inverter**





|   | Name                             | Description  |    | Name                   | Description                             |   |
|---|----------------------------------|--|----|------------------------|---|---|
| 1 | LED Indicator Panel              | Indicates the current operating status of inverter | 9  | BAT Communication      | BAT(RS485) Communication                |   |
| 2 | Mounting Pegboard                | Fixed inverter top                                 | 10 | METER Port             | Smart Meter                             |   |
| 3 | Mounting Bracket                 | Fixed inverter bottom                              | 11 | DRM port               | DRM function Reserved(Australia)        |   |
| 1 | Fin Heat Sink                    | Heat dissingtion and ventilation                   | 12 | DCS                    | Monitoring Port                         |   |
| 7 |                                  |  | 13 | Back-up Port           | Back-up(Off-grid) Output                |   |
| 5 |                                  | DC lock hole Report (d(Austrolia)                  | 14 | Reserved Communication | Reserved Communication                  |   |
| 0 |                                  |  | 15 | AC Output Terminal     | AC output to GRID/UTILITY               |   |
| 1 | (PV+/PV-)                        | Invener-PV   | 16 | Pressure Relief Valve  | Pressure Relief Valve(not for customer) |   |
| 8 | BAT Power<br>Terminal(BAT+/BAT-) | INV-BAT Power                                      | -  |                        | <u>k</u>                                | 7 |

#### **Product Introduction 2- Inverter Accessories Introduction**



#### Positive cold pressing terminal



| 1 | Photovoltaic interface connector 1           |
|---|--|
| 2 | Photovoltaic interface connector 2           |
| 3 | Battery interface connector                  |
| 4 | Meter connector                              |
| 5 | Battery and inverter communication connector |
| 6 | DRM and COM communication connector          |
| 7 | Emergency load connector                     |
| 8 | AC connector                                 |

Description

No.

Negative cold pressing terminal

#### **Product Introduction 3- Battery Introduction**





Disassembly diagram of battery module

**Overall battery diagram** 

BDU disassembly diagram

4 5 9

| No. | Description                            |
|-----|--|
| 1   | Battery Energy Management Unit ( BDU ) |
| 2   | BDU Emergency Stop Switch              |
| 3   | BDU Display Panel                      |
| 4   | High Voltage Negative Socket           |
| 5   | High Voltage Positive Socket           |
| 6   | Debug Port                             |
| 7   | Inverter Communication Port            |
| 8   | High Voltage Power Button              |
| 9   | 12V Low Voltage Power Button           |

Note: When starting the battery, first press the 12V low-voltage power button briefly , and then press and hold the high-voltage power button for about 5 seconds. When you hear the relay "click", it means the battery has been started.

### **Product Introduction 4-DCS Introduction**





| RESET | butt     | on: |  |
|-------|----------|-----|--|
| -     | <b>.</b> |     |  |

1. Press 2 times to restart

2. Press 3 times to enable local configuration (AP mode);

3. Press 4 times to restore factory settings(If forget the password)

(Within 1 second between pressing)

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

### **Product Introduction 5 - Meter Introduction**







| No. | Cable Name                             | Description   |  |  |
|-----|--|---|--|--|
| 1   | Live wire                              | Connect the live wire between the grid and the inverter   |  |  |
| 2   | Neutral wire                           | Connect the neutral wire between the grid and the inverter  |  |  |
| 3   | Current transformer communication wire | Connect current transformer   |  |  |
| 4   | Inverter 485 communication wire        | Communication wire between inverter and meter   |  |  |
| 5   | Current Transformer                    | It is used to obtain the current of the alternating<br>current on the grid side, which facilitates the inverter<br>to control the power output<br>Note: the arrow must point to the grid during<br>installation |  |  |

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# **Physical Installation 1 - 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.





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

Installation video reference(1m33s-2m55s): https://webfile.hyxipower.com/soft/20240102/Installation-Video\_Hybrid-inverter-Battery\_Ver1.0-2023121.mp4

# **Physical installation 2 - Inverter Grounding Installation**



5 C 1.2N.m 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.

#### Installation video (2m59s-3m31s):

https://webfile.hyxipower.com/soft/20240102/Installation-

Video Hybrid-inverter-Battery Ver1.0-2023121.mp 4

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### **Physical Installation 3 - 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  $2.5 \sim 3N$ -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(3m33s-4m38s):

https://webfile.hyxipower.com/soft/20240102/Installation-Video\_Hybrid-inverter-Battery\_Ver1.0-2023121.mp4

# Physical Installation 4 - 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.

Installation Video(4m40s-5m50s):

https://webfile.hyxipower.com/soft/20240102/Installation-Video Hybrid-inverter-Battery Ver1.0-2023121.mp4

### **Physical installation 5 - Meter Connection**

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Grid

### Physical installation 6 - DCS communication stick 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.

Installation video (7m07s-8m02s): https://webfile.hyxipower.com/soft/20240102/Installation-video Hybridinverter-Battery Ver1.0-2023121.mp4

#### **Physical installation 7 - Battery Installation**





Step 1: Place the battery base on a flat surface.

**Step 2:** Carefully place the battery module on the battery base, making sure that the interface connection is accurate (the process needs to be done carefully and slowly). If there are multiple battery modules, just stack them one by one.

Step 3: Shake gently repeatedly to ensure the installation is firm.Step 4: Carefully assemble the battery management unit from above, making sure the interface connections are accurate (the process needs to be done carefully and slowly).

Step 5: Shake gently repeatedly to ensure that the installation is firm.

**Note:** When there are 3-4 battery modules stacked in the entire battery system, the stability of the equipment needs to be considered, and installation brackets need to be considered if necessary.

#### **Physical Installation 8 - Battery Connection**





**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 both ends of the network cable into the corresponding network ports of the inverter and battery BDU respectively , and tighten the nuts.
Step 4: Use crimping pliers to tightly connect the battery power cable and connector. Pay attention to distinguish the positive and negative poles. Orange is positive and black is negative.

**Step 5**: Plug the battery power cable terminal into the battery BDU until you hear a "click" sound.

**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" sound.

Installation Video: (8m08s-9m59s) https://webfile.hyxipower.com/soft/20240102/Installation-video\_Hybrid-inverter-Battery\_Ver1.0-2023121.mp4

# **Physical Installation 9- 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             |  |  |
|-----|-----------|---------|-------------------------|--|--|
| 4   |           | ON      | Inverter Powered ON     |  |  |
| 1   | POWER     | OFF     | Inverter Powered OFF    |  |  |
|     |           | ON      | Grid Normal             |  |  |
| 2   | GRID      | Blink 1 | Grid Abnormal           |  |  |
|     |           | Blink 2 | Grid Disconnected       |  |  |
| ON  |           | ON      | COM. Normal             |  |  |
|     | COM.      | Blink 1 | Meter COM. Fault        |  |  |
| 3   |           | Blink 2 | COM. Fault With BMS     |  |  |
|     |           | OFF     | Fault Both Meter&BMS    |  |  |
|     | ALARM     | OFF     | Normal                  |  |  |
| 4   |           | Blink 1 | Inverter Internal Alarm |  |  |
|     |           | Blink 2 | Other Alarms            |  |  |

Blink 1 time, interval 1.5 seconds; Blink 2 times, interval 0.2 second.

### **Physical Installation 10 - Battery System Startup**



#### Step 1: Short press the 12V button.

Step 2: Press and hold the power button for 5 seconds and

hear the "click" sound from the relay.

**Step 3**: Confirm the status of the battery indicator light. The power display is normal and the WORK light is always on.





| No. | name       |
|-----|------------|
| 1   | SOC Green  |
| 2   | WORK Green |
| 3   | ALARM Red  |

| Sustam Status      | WORK              | ALARM             | SOC                           |          |           |       |
|--------------------|-------------------|-------------------|-------------------------------|----------|-----------|-------|
| System Status      | •                 | •                 | • • •                         |          | •         |       |
| Shutdown           | OFF               | OFF               |                               | С        | )FF       |       |
| Idle state         | On 0.5s, Off 1.5s | OFF               | Displa                        | ay based | on actual | power |
| Normal operation   | ON                | On 0.5s, Off 0.5s | Display based on actual power |          |           | power |
| First Level Alarm  | ON                | On 0.5s, Off 1.5s | Displa                        | ay based | on actual | power |
| Second Level Alarm | OFF               | OFF               | Displa                        | ay based | on actual | power |
| Third Level Alarm  | OFF               | ON                | Display based on actual pov   |          | power     |       |

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# **APP Configuration 1 - Download&Registration**



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

Step 1: Download the APP and register .

#### Method 1

Search "Hyxipower " in the App Store

- APP store (IOS)
- · Google play

#### Method 2

Scan the QR code download the APP



|   | More 🗸              |
|---|---------------------|
| HYXIPOW   | /ER                 |
| Email/Phone No.                                   |                     |
| Password  | ¥                   |
| Forgot Password?                                  | <b>Register Now</b> |
| ✓ I agree to the Terms of read the Privacy Policy | f Use and I have    |
| Log In  |                     |
| Experience  |                     |
| Experienc   | e                   |

<

If Your Role **Register** For

**Register** as

If You Have O System, Plea

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

| Select Role   | < Register as Organization   |
|---|--|
| Please select the relevant server for your area Select Your Server European Server Your Role Is An Installer Or A Distributor, Please | Note: If your organization or company<br>has registered for an organization<br>account in this system, you do not need<br>to register again. Please contact your<br>administrator to add you to the member<br>list |
| Register as Organization >  | Organization/<br>Company Please Enter<br>Name  |
| gister as Owner   | Registration Method  |
| Register as Owner >   | Please Enter @hotmail.com  |
| You Have Only Installed A Balcony Photovoltaic<br>stem, Please Register The Following Roles.  | Please Enter Send  |
| Registered Balcony System   | Complete Info  |
| Balcony System Owner  | Password Please Enter 77   |
|   | Confirm Please Enter 77  |
|   | Register   |
|   | I agree to the Terms of Use and I have read  |

#### APP Configuration 1 – Download&Registration - Admin registration



Step 3 : Log in to your account , select Service - Member Management , and then select " + " Invite members . It is recommended to choose the administrator role.









**Step 1:** Open the APP. Please update APP before debugging if there is one. Select More and choose your local server. Then choose Near-end Commissioning. It will take few seconds download the latest firmware. The file will be stored in the phone as a backup. If the phone has the latest firmware package, this step will be skipped.





#### **Step 2** : **Scan** DCS QR code , Join wireless network DCS-XXXXXXXXXXX .



If the scanned barcode cannot be recognized, You can also choose **to connect manually** .





#### IOS

Find the WIFI in settings of phone starting with DCS and connect: DCS-XXXXXXXXXXXX, Password is hyxi0607 or 12345678, after connected, return to the "Hyxipower" APP and select Next.

| < Device Wi-Fi Connect  | tion                             |                    | Settings WLAN                   | Edit    | Settings WLAN                       | Edit  | < Device Wi-Fi Connection   |
|---|----------------------------------|--------------------|---------------------------------|---------|-------------------------------------|-------|---|
| Please select device WiFi to c<br>Settings - WLAN, device Wi-F<br>starts with DMU/DCS/MI Exan | connect in<br>Fi usually<br>mple |                    | WLAN                            |         | WLAN                                |       | Please select device WiFi to conn<br>Settings - WLAN, device Wi-Fi us<br>starts with DMU/DCS/MI Example |
| Current Wi-Fi   |                                  |                    | MY NETWORKS                     |         | DCS-60701233800024<br>Weak Security | 🗎 🗢 🚺 | Current Wi-Fi   |
| 高 Not Connected   | How To<br>Connect?               | Keep the APP       | dahuaguest                      | 🔒 🗢 🚺   | MY NETWORKS                         |       | DCS-6070123380002   |
| Devices Connected To The Wifi In 1  | The Past (Only                   | background and     | OTHER NETWORKS                  |         | dahuaguest                          | ۵ 🗢 🕯 | Next  |
| a MI-31701233300051   | -)<br>-)                         | enter the WiFi     | dahuavip-new                    | ê 🗢 i   | OTHER NETWORKS                      |       | Devices Connected To The Wifi In The<br>The Most Recent 10 Are Displayed)                               |
| DMU-60101233700111  | >                                | settings page      | DCS-60701233800024              | 🗎 🗢 🚺   | dahuavip-new                        | 🗎 🗢 🚺 | 🛱 DMU-60101233700111  |
| DCS-60701233800024  | >                                | manually.          | E12-HYXi                        | ≜ ≑ 🚺   | E12-HYXi                            | 🔒 🗢 🚺 | 🛱 DMU-60201233700013  |
|   |                                  | Enter the WiFi     | HiBoardaaf0                     | ≜ হ 🚺   | HiBoardaaf0                         | ۵ 🗢 💧 | 🚊 DCS-60701233800024  |
|   |                                  | password.          | HP-Print-76-LaserJet<br>Pro MFP | ê ╤ (j) | HP-Print-76-LaserJet<br>Pro MFP     | 🔒 🗢 🚺 | 🛱 MI-31701233300051   |
|   |                                  | Then return to the | HP-Print-8B-LaserJet<br>Pro MFP | ê 🗢 i   | huayuxin.vip                        | ê 🗢 i |   |
|   |                                  | APP.               | huayuxin.vip                    | ê ≎ (ì) | hyxipower                           | ê 🗢 i |   |
|   |                                  |                    | hyxipower                       | ê 🗢 🚺   | Imouvip-new                         | ۵ 🗢 🚺 |   |
|   |                                  |                    | Imouvip-new                     | 🔒 🧟 🚺   | JSZCB                               | 🔒 🗢 🚺 |   |

#### Android system :

Find the WIFI in settings of phone starting with DCS and connect: DCS-XXXXXXXXXXXXX; Password is hyxi0607 or 12345678, after connected, return to the "Hyxipower" APP and select Next.

#### APP

**Device Wi-Fi Connection** 

#### Please select device WiFi to connect in Settings - WLAN, device Wi-Fi usually starts with DMU/DCS/MI Example Current Wi-Fi Switch Wi-Connected Fi

Keep the APP running in the background and enter the WiFi settings page manually.

Enter the WiFi password.

Then return to the APP.

|  |     | -   |     |
|--|-----|---|-----|
| <del>~</del>                           | 8   |   | Ę   |
| WLAN                                   |     | VVLAN   |     |
| WLAN                                   |     | WLAN  |     |
| Network acceleration                   | >   | Network acceleration  |     |
| Saved networks                         |     | DCS-60701233800024<br>Connected to device. Can't<br>provide internet. | • • |
| E12-HYXi (2.4G/5G)                     | A > | Saved networks  |     |
| Available networks                     | 0   | 중 E12-HYXi (2.46/56)  | • • |
| 奈 DCS-60703800024                      | A 🔊 | Available networks  | 0   |
| 🛜 huayuxin.vip 💿                       |     | 🗢 huavuxin vin 🗟  | • > |
| hyxipower 56                           |     |   |     |
| 奈 HP-Print-8et Pro MFP                 | â > |   |     |
| 奈 TP-LINK_004                          |     | ি TP-LINK_001   |     |
|  | â > | HP-Print-8et Pro MFP  |     |
| 중 TP-LINK_005                          |     | 奈 TP-LINK_005   | ₽ > |
| 4.5 anom 201934032554.2 - 320101386455 |     |   | A 5 |

### WIFI setting interface

#### 8 **Device Wi-Fi Connection** < Please select device WiFi to connect in Settings - WLAN, device Wi-Fi usually starts with DMU/DCS/MI Example Current Wi-Fi DCS-60701233800024 0 A > â >

#### APP

Switch Wi-

Fi

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**Step 3 :** Device login, initial password: hyxi0607. (If the password is incorrect, please try 12345678) Log in and change the password, then save. (Record the new password. If you forget the password, you can quickly press the DCS RESET button 4 times to restore the factory settings)



Step 4 : Quick Settings - Device Management , confirm the SN of DCS and Inverter

Set up the meter configuration if there is one.





| <                       | Qui                         | ck setti                   | ngs                           |                   |
|-------------------------|-----------------------------|----------------------------|-------------------------------|-------------------|
| 1                       | 2                           | 3                          | 4                             | 5                 |
| Device Man<br>agement   | Grid<br>Connection<br>Setup | Device<br>Settings         | Communica<br>tion<br>Settings | Setup<br>Complete |
| Please ver<br>connected | rify consis<br>I device     | tency with                 | the actual                    |                   |
|                         | SN: (<br>mod                | 60701233<br>el: HYX-D      | 800024<br>CS-WL               |                   |
| Inverter                | Meter                       |                            |                               |                   |
| *Grid typ               | e                           |                            | Single-pl                     | nase >            |
| Meters                  | Configure                   | ed $\oplus_N^{\mathbf{C}}$ | onfigurati<br>leters          | on Of             |
| Meter Ac                | Idress                      | Mounting<br>Position       | l.                            |                   |
| 1                       |                             | Grid-Sid                   | e (                           | Ì                 |
|                         |                             |                            |                               |                   |
|                         |                             |                            |                               |                   |
|                         |                             |                            |                               |                   |



#### Step 5 : Grid connection settings,

select your time zone and Grid Code.

| k settings   | < Quie   |
|--|--|
| 3 4 5  | 0-2  |
| Device Communica Setup<br>Settings tion Complete<br>Settings | evice Man Grid<br>agement Connection<br>Setup      |
| UTC+08:00 >  | *Time Zone   |
| VDE-AR-N-4105 >  | Grid Code  |
| 287.5(V)   | AC Primary<br>Overvoltage<br>Protection<br>Point   |
| 184(V)   | AC Primary<br>Undervoltage<br>Protection<br>Point  |
| 287.5(V)   | AC Secondary<br>Overvoltage<br>Protection<br>Point |
| 103.5(V)   | AC Secondary<br>Undervoltage<br>Protection         |
| Next   | Previous   |

Step 6 : Device settings - feeder power limit setting - If there is a need to inject into the grid, set the corresponding power value. Turned on the **Battery low SOC Dead protection(Default 10%).** The battery type needs to be set to lithium battery.

| < Quick settin  | ngs   | <                                   | Export Control  | ОК                              | <                         | Quick se                                     | ttings   |
|---|---|-------------------------------------|---|---------------------------------|---------------------------|--|--|
| evice Man Grid Device<br>agement Connection Settings<br>Setup | 4 5<br>Communica Setup<br>tion Complete<br>Settings | Enable e                            | export control?   | •                               | Device Man<br>agement Con | 2 3<br>Grid Devic<br>mection Settin<br>Setup | 4 5<br>e Communica Setur<br>gs tion Comple<br>Settings |
| Export Control  | OFF >   | *Feedin<br>upper li                 | to GRID power<br>mitation(W)  | 0                               | Export Co                 | ntrol  | ON   |
| On-Grid Work<br>Mode  | >   | 1.If disal<br>on the po<br>users ca | bled, there will be no re<br>ower fed into the grid;I<br>n set the upper limit of | estriction<br>f abled,<br>the   | On-Grid W<br>Mode         | /ork   | B  |
| Off-Grid Work<br>Mode   | >   | set to 0,<br>disallow               | feed-in to GRID is com<br>ed (0 injection).                                       | pletely                         | Off-Grid V<br>Mode        | Vork   | 3  |
| Battery Low SOC<br>Dead Protection                            | ON >  | 2.Please<br>Side Or L<br>Setting T  | Make Sure You Install<br>oad-Side Meter, Other<br>To Turn On The Feeder           | A Grid-<br>wise The<br>Power Is | Battery Lo<br>Dead Prot   | w SOC<br>ection                              | ON   |
| Battery Type<br>Settings                                      | Li-ion >  | invanu:                             |   |                                 | Battery Ty<br>Settings    | pe   | Li-ion   |
|   |   |                                     |   |                                 |                           |  |  |
|   |   |                                     |   |                                 |                           |  |  |
|   |   |                                     |   |                                 |                           |  |  |
| Previous  | Next  |                                     |   |                                 | Previ                     | ous  | Next   |

Setup mplet



Step 7: If you have already installed photovoltaic panels, Skip this step. Device settings – On-Grid Work Mode. The default is for self-use. For those Plants without photovoltaic panels, need to setup the grid backup time and minimum SOC. It is recommended to set the grid backup mode for 2 hours per day and set the minimum SOC of power grid backup to 95%.

| < Quick settings  | < On-Grid Work Mode 🕀                 | < Mode Settings            | < Add Period   |
|---|---------------------------------------|----------------------------|--|
| Original Communical Setup                                   | • Note: Unset time periods default to | selfuse (?)                | 9 Note: Unset time periods default to  |
| agement Connection Settings tion Complete<br>Setup Settings | spontaneous self-use mode!            | Minimum SOC(%) 10          | spontaneous self-use mode!   |
| Export Control OFF >  | Mode Settings >                       | backup(green) <sup>®</sup> | Monday,Tuesday,W<br>ednesday,Thursda   |
| On Orid Work  |                                       | Minimum SOC(%) 60          | Period Settings y,Friday,Saturday, Sunday  |
| Mode >  |                                       | backup(grid) ⑦             |  |
| Off-Grid Work   |                                       | Minimum SOC(%) 95          | 00:00 × ~ 02:00 × backup(grid) × 🖨   |
| моде  |                                       | feedin ⑦                   | + Add  |
| Battery Low SOC ON > Dead Protection                        |                                       | Minimum SOC(%) 10          | Decorintion  |
| Battery Type Li-ion ><br>Settings                           |                                       |                            | selfuse<br>Try to make energy self-circulating to achieve the<br>purpose of buying as little electricity as possible from<br>grid                                  |
|   |                                       |                            | <b>backup(green)</b><br>Try not to use battery to ensure always have enough<br>backup.Not allowed to buy electricity from grid to<br>charge battery                |
|   |                                       |                            | <b>backup(grid)</b><br>Try not to use battery to ensure always have enough<br>backup. Forced to buy electricity from grid to charge<br>battery at the setted power |
|   |                                       |                            | feedin<br>Feedin energy to grid at maximum power until battery<br>reaches min SOC  |
| Previous Next   |                                       |                            | Save   |



Step 8 : Communication settings, Choose your local server, fill in the Wi-Fi name and password for wireless mode. Confirm the automatic IP acquisition switch is ON for wired connection mode. No need to fill in the APN, username and password for the 4G version wireless mode. The next step is to wait for the device to connect to the Internet.



Android users can automatically obtain the Wi-Fi Name and Password

IOS users need to manually input Wi-Fi Name and Password.

### **APP Configuration 2 - DCS status confirmation**



**Step 9 :** After Near-end Commissioning completed, you need to check the status of the DCS indicator. If it is as shown in the figure below, the network connection is successful. If the indicator light displays abnormally, please refer to " Preparation 6-DCS Communication Stick Introduction " to check the cause of the abnormality.







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



Step 2: Log in to your organization account, click the Add Plant button.



**Step 3:** Scan the QR code of the DCS or add it through the Recently debugged device.



Create Plant video: https://webfile.hyxipower.com/soft/20231129/HYXiPOWER-APP\_Create-plants\_Ver1.0-20231103.mp4

### **APP Configuration 3 - Create a Plant**



Step 4: Add owner, Add Manually or scan the owner's QR code. 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.



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### **APP Configuration 3 - Create a Plant**



**Step 5:** Fill the Info, Plant Name, Plant Type, Region, Time Zone.



| Plant Type   |   | <          |
|--|---|------------|
| elect the correct power station type   | _ |            |
| lousehold Use  |   | Add Device |
| For small and medium-sized<br>projects, typically under 100 kW,<br>dominated by microinverters,<br>residential energy storage, and<br>string systems |   | *Plant N   |
| ndustry and Commerce   |   | *Plant T   |
| For large-scale commercial and<br>ndustrial projects, typically under<br>100 kW, dominated by high-capacity<br>ousehold energy storage and high-     |   | Region     |
| capacity string systems  |   | Plant Ad   |
| Energy Storage<br>For projects dominated by<br>commercial and industrial energy<br>storage cabinets, typically over 100<br>W                         |   | *Time Z    |
|  |   |            |
|  |   |            |
|  |   |            |
|  |   |            |
|  |   | Pre        |

Step 6: More Info, Next.



| K Add P                               | Plant                          |
|---------------------------------------|--------------------------------|
| Add Device Binding User               | 3 4<br>Basic Info Price Config |
| Photovoltaic<br>installed<br>capacity | Please Enter <b>kWp •</b>      |
| Number of Strings                     | Please Enter                   |
| Grid<br>Connection<br>Type            | Feed All to Grid >             |
| Contribution<br>Type                  | Full Payment by<br>Owner       |
| Contact Phone<br>No                   | Please Enter                   |
| Remarks                               | Please Enter                   |
| Plant Image                           | +<br>Upload                    |
| ^ Shov                                | v Less                         |
| Previous                              | Next                           |



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

| <   | Add Plant  | Q Search                 |                |                                 |
|---|--|--------------------------|----------------|---------------------------------|
| Add Device Bin  | Juser Basic Info Price Config  | d<br>Add Plant           | E<br>Scan      | A<br>Map                        |
| <ol> <li>Note: Change<br/>currency ur<br/>effect imme<br/>revenue cal<br/>correspond<br/>next day.</li> </ol> | ges to electricity price types,<br>hits, prices, etc., will take<br>ediately. However, the<br>loulation rules for the<br>ing plants will take effect the | Total(1)<br>Comprehensiv | Normal(0) Faul | ty(0) Offi<br>⊽Filter<br>⊘Share |
|   |  | +                        | Test Plant     | 0.00 w                          |
| Electricity<br>Price Type   | Fixed Electricity Price >  | Offline                  | Daily Yield    | 0.00 wh                         |
| Currency  | USD >  |                          | No More Data   |                                 |
| Revenue Per<br>kWh  | Please Enter   |                          |                |                                 |
|   |  |                          |                |                                 |
|   |  |                          |                |                                 |
|   |  |                          |                |                                 |
| Previous  | Finish   | ~                        |                | 0                               |





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

**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.

After confirming that all the above are normal, it indicates that the device installation and configuration is successful!



