# AiSWEICLOUD APP User Manual

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# 1. Instructions for this manual

The Manual describes the precautions, installation methods and operating instructions, etc. for the AiSWEI smartphone monitoring system (AiSWEICloud) in detail. The technical parameters described in this document are applicable to the current version of the product. We reserve the right to change the contents of the Manual as a result of new features and improvements. The description may be subject to change without separate notice. Please contact AiSWEI to confirm the latest version.

## 1.1 Scope of Application

The Manual is applicable to AiSWEI smartphone monitoring system (AiSWEICloud), which refers to a photovoltaic system with AiSWEI inverter and AiSWEI monitor device. The Manual assumes that the AiSWEICloud APP has been installed on the user's smartphone.

## 1.2 Users

The users of this manual are authorized experienced installers and end users who have the AiSWEI APP installed by experienced installers. Please read this manual carefully before setting up your AiSWEI APP photovoltaic power station.

## 1.3 Abbreviations

| Abbreviations | Interpretation |
|---|---|
| Generation | output |
| Income | earnings |
| Vpv | Dc input voltage |
| Ipv | Dc input electricity |
| Pac | Ac output |
| E-today | Daily output |
| E-month | Monthly output |
| E-total | Total output |

Table 1-1 Abbreviations

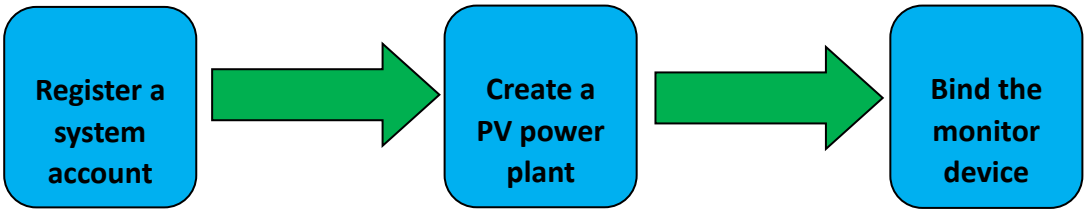
# 2. AiSWEICloud APP

AiSWEICloud APP is a smartphone terminal application provided to the users by AISWEI New Energy Technology (Jiangsu) Co., Ltd. The monitoring device of AiSWEI New Energy Technology (Jiangsu) Co., Ltd. transmits working data to the cloud platform AisweiCloud via the Internet so that users can remotely monitor their photovoltaic power stations and inverters through mobile phone terminals..

You can browse and download the AiSWEICloud APP by your mobile phone at the following website:

1. If the Aiswei APP is used to monitor photovoltaic power stations and inverters, the monitoring device should be configured and connected to the Internet to work normally.
2. Before registering an account, you need to have an email address or mobile phone number that can be available normally.

The process of using the photovoltaic monitoring system of AiSWEI New Energy Technology (Jiangsu) Co., Ltd. is as follows:




Please ensure that you have AiSWEI inverter and monitor device before using AiSWEI PV monitoring system.

## 2.1 Account Registration

The users who use the AiSWEICloud APP for the first time need to register an account on the APP or on the AiSWEICloud website (www.AiSWEICloud.com). After the user registers and creates a power plant, the power plant can be established and the power plant operation information can be monitored.

**Step 1**: Download and install the AiSWEICloud APP, and open the APP as shown in Figure 2-1-1.

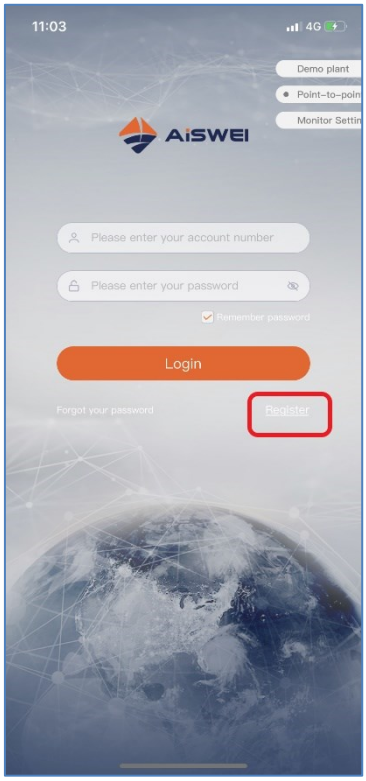



Figure 2-1-1 Homepage Page

**Step 2**: Click the “Register” button in red in Figure 2-1-1 to enter the registration page, as shown in Figure 2-1-2.

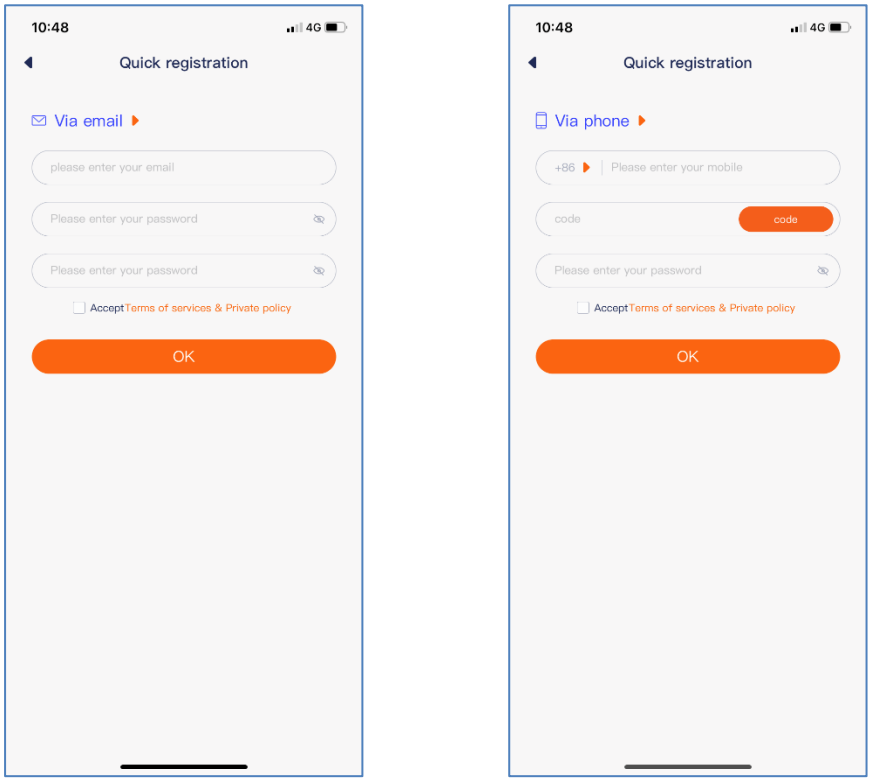



Figure 2-1-2 Registration Page (Tab Switching Email/Mobile Phone)

**Step 3 (1)**: Register by email (as shown in Figure 2-1-2): Enter the available email and login password (the password length should be greater than 6 digits but less than 32 digits, and it may be English letters A (a)-Z (z) and numbers 0 to 9).

**Step 3 (2)**: Register by mobile phone (as shown in Figure 2-1-2): Enter the available mobile phone and login password (the password length should be greater than 6 digits but less than 32 digits, and it may be English letters A (a)-Z (z) and numbers 0 to 9).

**Step 4 (1)**: Register by email: Upon completion of registration, AiSWEICloud will send an activation email to you so that you can activate your AiSWEICloud account based on the information in the email. If you don't receive an activation email, please look for it in the spam box.

**Step 4 (2)**: Register by mobile phone: After filling in the mobile phone number, AiSWEICloud will send a verification SMS to you and you can use your AiSWEICloud account after inputting the correct verification code.

I. If you don't receive the email from AiSWEICloud, maybe it is caused for the following reasons:

1. This email is defined as a spam. Please check if the email is in the spam box. If the email sent by AiSWEICloud is defined as a spam, please add the AiSWEICloud email address to your whitelist so as to prevent subsequent emails from being defined as spams. AiSWEICloud sends emails by Alibaba Cloud proxy server. If you cannot receive the email, please contact customer service personnel.

2. Maybe the email address you have opened is not the one you filled in when you registered. Please confirm if it has been sent to your other emails. If

you filled in an unknown email address when you registered, please re-register.

II. If you don't receive the SMS from AiSWEICloud, it may be caused for the following reasons:

1. The mobile phone number you are using is not the one you filled in when you registered. Please confirm if it has been sent to your other mobile phone number. If you filled in an unknown mobile phone number when you registered, please re-register.

## 2.2 Create a PV Power Plant

**Step 1**: Open the AiSWEICloud APP and log in with your registered account.
**Step 2**: After successful login, you will see the PV power plant list page, as shown in Figure 2-2-1 (Hint: If you have not created or been shared with the power plant before, the power plant list will be empty).

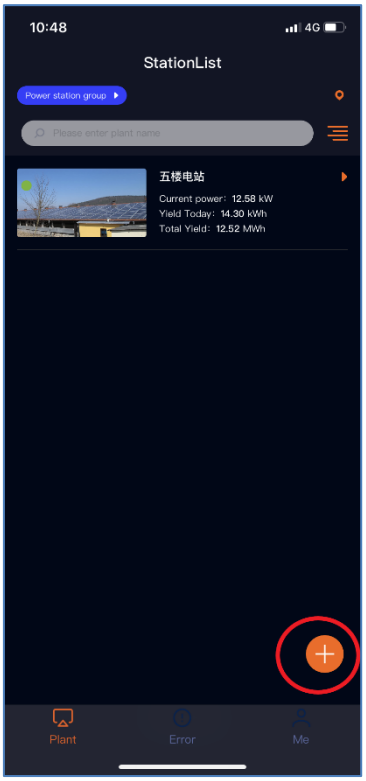



Figure 2-2-1 Power Plant List Page

**Step 3**: Click the "+" button in red in the upper right corner of Figure 2-2-1 to enter the PV power plant creation page, as shown in Figure 2-2-2.

1. The registration code and serial number can be found on the external label of the device. You can manually input it or click the icon of 1 to call the mobile phone camera to scan the QR code and fill it out automatically.
2. Filling in the installed capacity can help us to evaluate the performance of the PV power plant in a real-time manner.
3. Select the correct time zone. Please select +8 Beijing time zone for China.

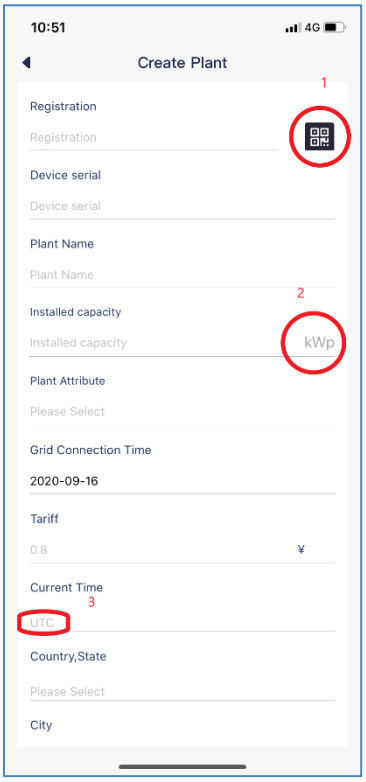



Figure 2-2-2 Create Plant Page

1. When creating a PV power plant, it is important to choose the right time zone. The cloud platform will calculate the correct time and send it to the monitor device according to the selected time zone to keep the monitor device time correct.
2. Please select the correct time zone for the location of the PV power plant, as shown by the red mark 3 in Figure 2-6.

When creating a PV power plant, you need to enter the serial number and registration code of the monitor device, or to scan the QR code containing such two pieces of information. The information can be found on the label on the outside of the inverter/monitor device.

The status icon of the power plant is displayed on the power plant list page, as explained below:

: All devices are online and no errors have occurred.

: One or more devices (inverters and monitor devices) are offline.

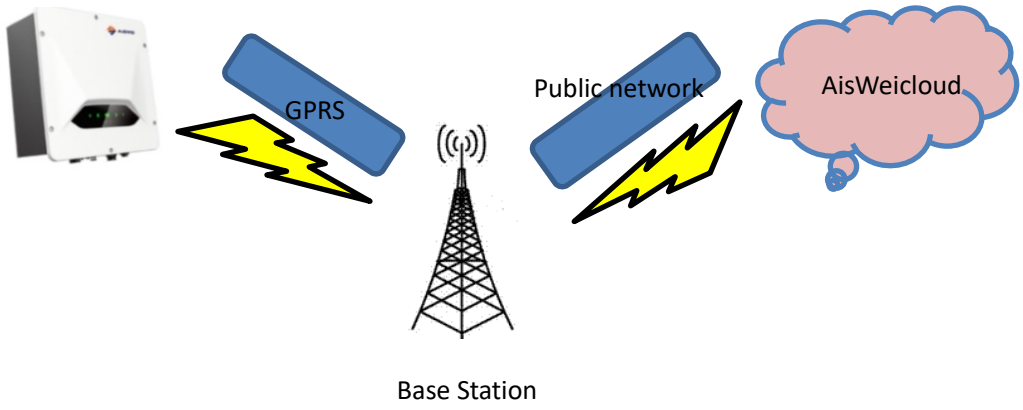
: One or more devices have failed. The status of the failure will be released when the inverter generation is >100W.

: All devices are offline.

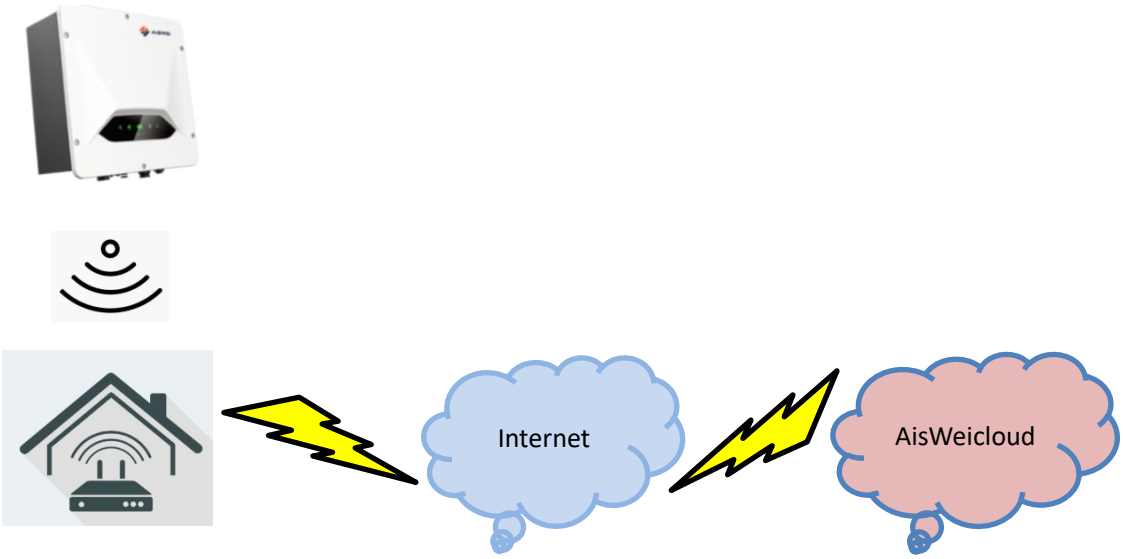
## 2.3 Network configuration of monitor device

After creating the PV power plant, we can connect the monitor device to the cloud platform. The monitor device needs to upload data to the cloud through the network. For GPRS monitor devices, you can directly access the Internet without network configuration. For non-GPRS devices, you need to configure the network.

GPRS network schematic diagram:




Schematic diagram of WIFI network:




In order to facilitate the user to configure the WIFI network, we have added an interface which is interacted with the mobile APP in the new version of WIFI monitor device. WIFI monitoring configuration is as follows:

**Step 1**: Open the WIFI management page of the mobile phone system and find the WIFI hotspot named AISWEI-XXXX. As shown in Figure 2-3-1.

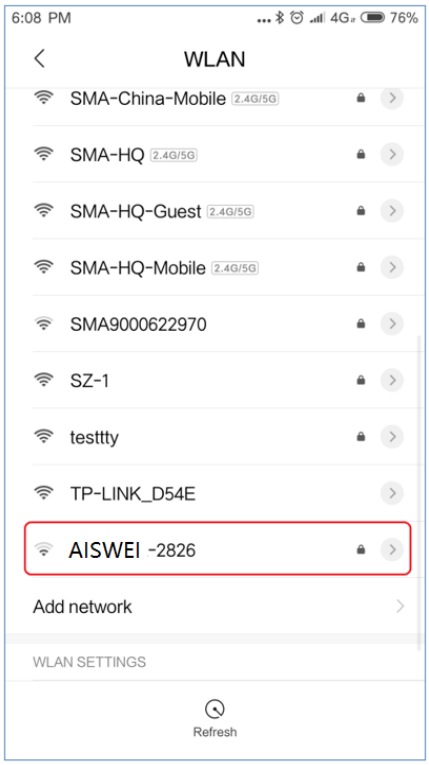



Figure 2-3-1 Wireless configuration

Note: The name of the hotspots of our WIFI products begins with AISWEI- (in capital letters). Please see the 'Registry Key' at the product label for the password .

**Step 2**: After connecting the mobile phone to WIFI hotspot of the monitor device, open the APP to enter the homepage and click "Point-to-Point" on the top right corner. As shown in Figure 2-3-2.

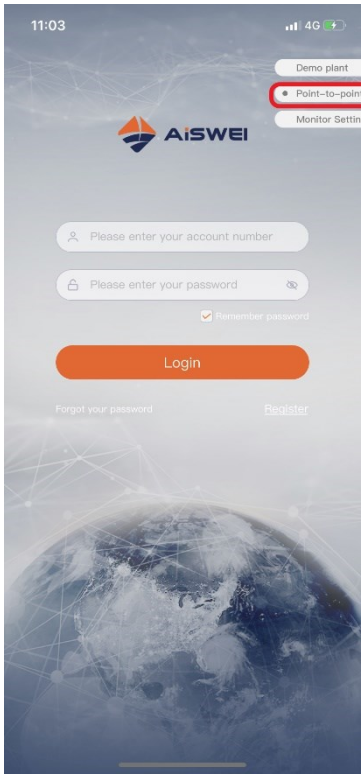



Figure 2-3-2 Wireless configuration

You will enter “Point-to-Point”, and the APP will automatically search for monitor devices in the network, and list the devices in the form of serial number + IP. It takes about 2 minutes to search. As shown in Figure 2-3-3 and Figure 2-3-4.

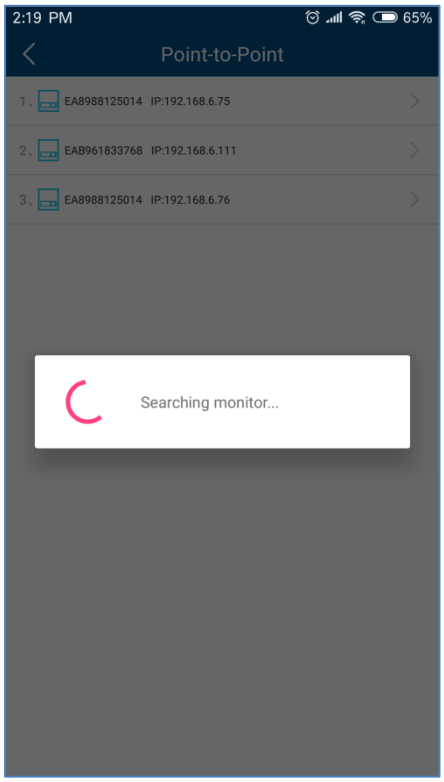



Figure 2-3-3 Wireless configuration

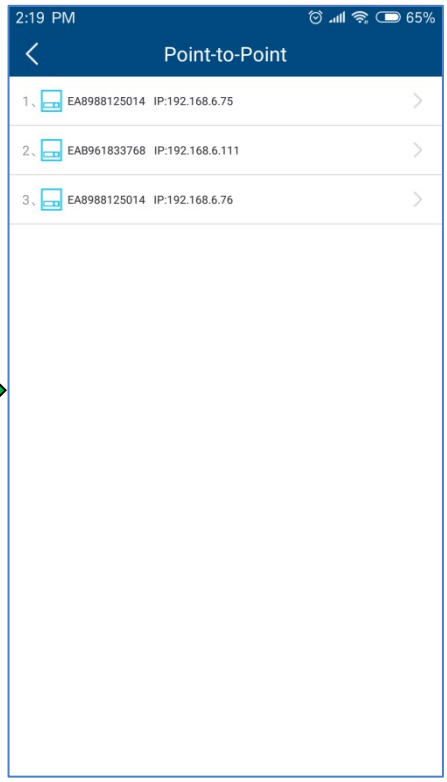
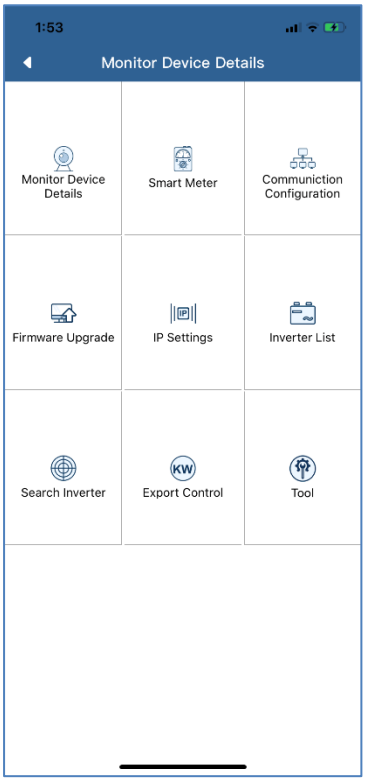



Figure 2-3-4 Wireless configuration

**Step 3**: Select the Monitor Device Details→to enter the Communication Configuration (as shown in Figure 2-3-5. If both WIFI and Ethernet are connected, two devices with the same serial number will appear, but the IP is different. Configure the connection of WIFI of the monitor device to the user’s router (the router needs to be able to access the Internet) on the router page. The user can manually enter the name of the home router (SSID) in the network name or click the down arrow in the red circle to select the name of the WIFI signal detected by the monitor device, then enter the router password and click “Confirm Settings” to complete. As shown in Figure 2-3-6.



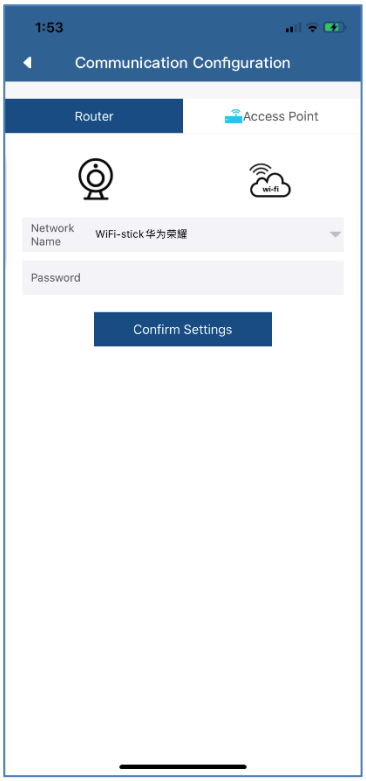




Figure 2-3-5 Communication configuration Figure 2-3-6 Communication configuration

After the above configuration is successful, the monitor device will be automatically connected to the router to access the cloud server and collect the uploaded data.

## 2.4 Browse PV Power Plant

The menu structure of the PV power plant is shown in Figure 2-10:

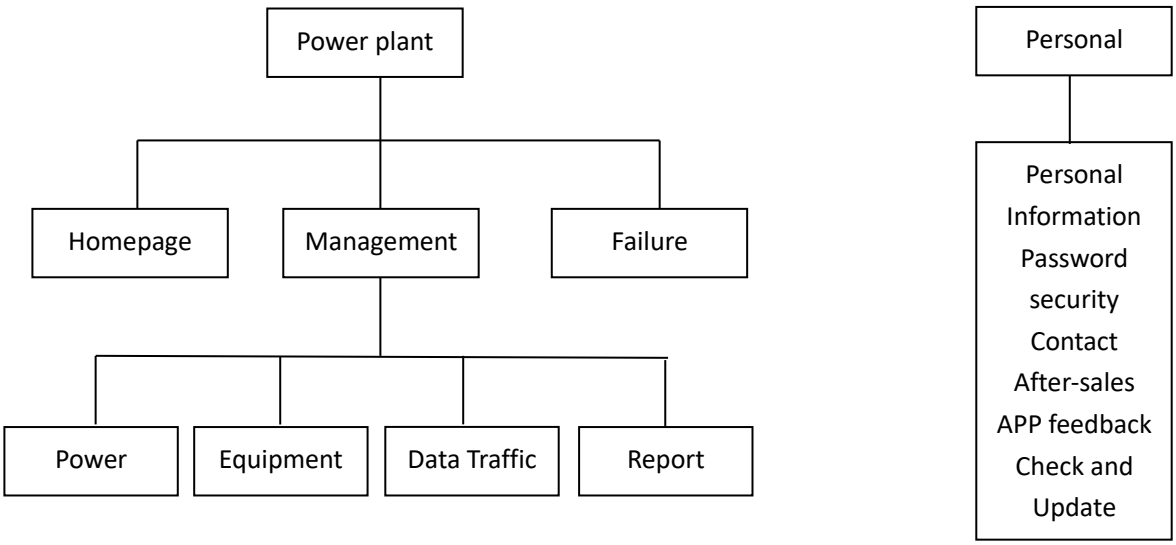



Figure 2-10 PV Power Plant Monitoring Page Menu Structure

### 2.4.1 Homepage

This menu provides the summary information such as current generation power, daily power generation, daily income, total power generation, total income, etc., as well as real-time generation power of current day, daily power generation of current month, monthly power generation of current year and annual statistical power generation, as shown in Figure 2-4-1-1.

The instrument panel in the figure shows the ratio of current inverter power to installed capacity. This ratio can reflect the energy efficiency of PV generation systems.

There are statistical curves and histograms of the power plant at the bottom. As shown in Figure 2-4-1-2.

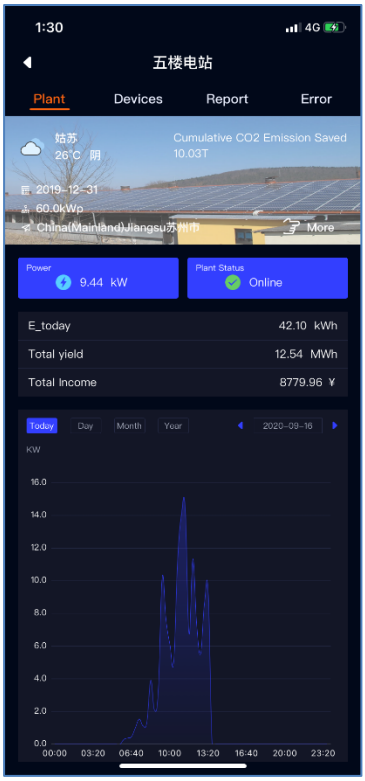



Figure 2-4-1-1 Overview Page


Figure 2-4-1-2 Overview Chart

The energy efficiency displayed on the instrument panel can reflect the performance of the PV system. Thus, please fill in correct installed capacity of the power plant (please refer to menu: “Management” -> “Plant”).

Click on the power plant name to view the device overview and plant information, as shown in Figures 2-4-1-3.

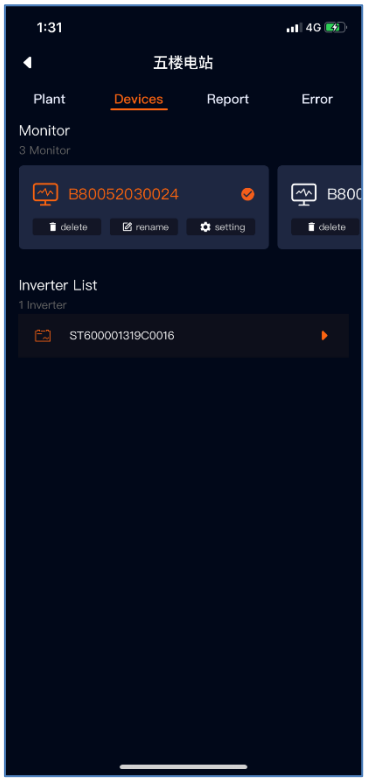



Figure 2-4-1-3 Device Overview Page

The device overview page can allow you to go directly to a single inverter to view detailed data curves. As shown in Figure 2-4-1-4.

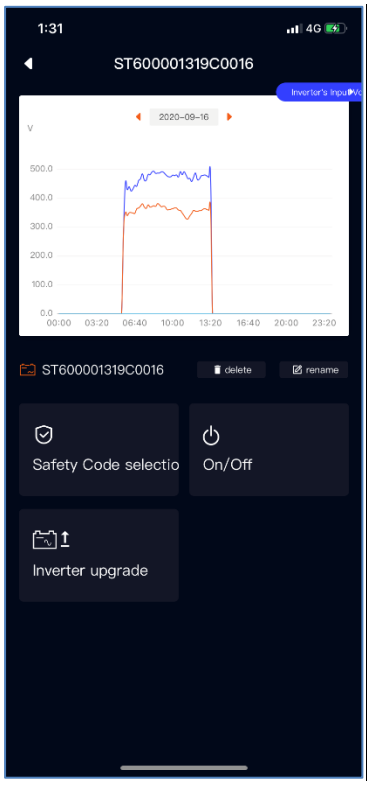



Figure 2-4-1-4 Inverter Curve

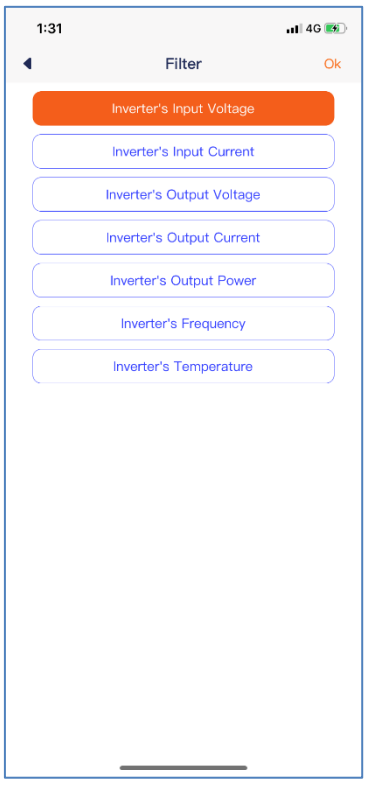



Figure 2-4-1-5 Curve Switching

The curve part shows the input voltage by default. You can select other parameter curves from the drop-down box on the right side of the middle, as shown in Figure 2-4-1-5. The lower

part of the curve shows the real-time DC/AC data of the inverter on the current day.

### 2.4.2 Management

Such information as power plant, device, data traffic, WiFi settings, reports, etc. is available in this menu.

#### 2.4.2.1 Power Plant Management

You can view the status of the power plant and manage it on this page.

1. The current status of the power plant is displayed.
   a) Green indicates that the devices in the power plant are all online and normal.
   b) Yellow indicates that some devices in the power plant are not online and the power plant management personnel are required to check the network and cables.
   c) Red indicates that there is an inverter failure in the power plant and it needs to be checked by the power plant management personnel.
2. Set up a shared account so that you can entrust the supplier or others to operate and manage the power plant.
3. Edit and modify the plant information.
4. Delete the personal power plant.

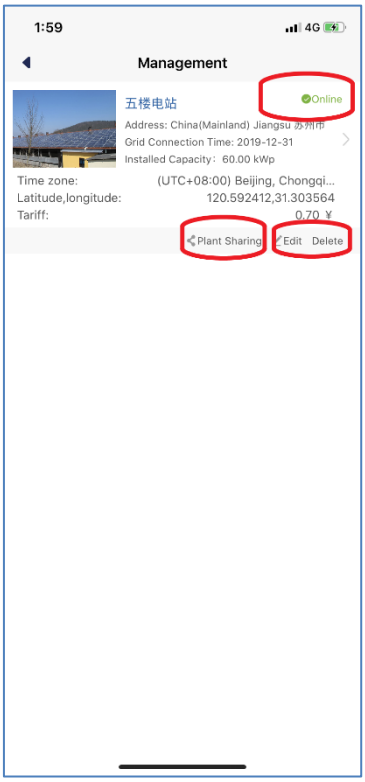



Figure 2-4-2-1 Plant Management

### 2.4.2.2 Device

1. Add a monitor device. You need to enter the monitor device serial number and registration code, or scan the QR code of the monitor device. As shown in Figure 2-4-2-2-2.
2. Change the monitor device name. It supports up to 32 characters (Chinese, English or numbers, and special characters are not guaranteed to be valid).
3. Delete the monitor device. You need to enter the registration code of the monitor device. Note: After the monitor device is deleted, all inverters under the monitor device will also be deleted. So, please be careful.
4. Change the inverter name. It supports up to 32 characters (Chinese, English or numbers, and special characters are not guaranteed to be valid).
5. Delete the inverter. Note: The inverter information will be updated and re-uploaded after the monitor device is restarted. However, the operation of deleting the inverter may also cause the inverter data to be lost. So, please operate with caution.

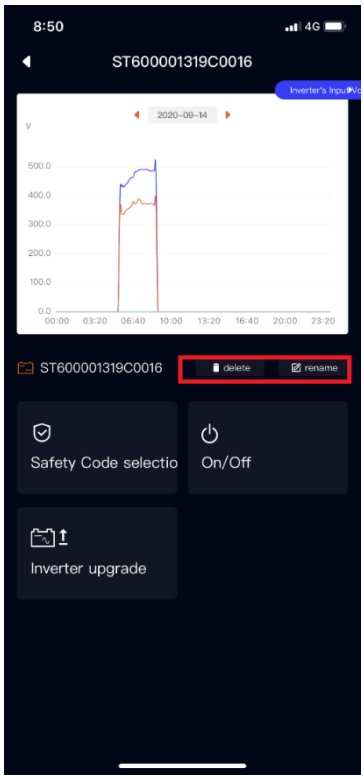



Figure 2-4-2-2-1 Device Management Page

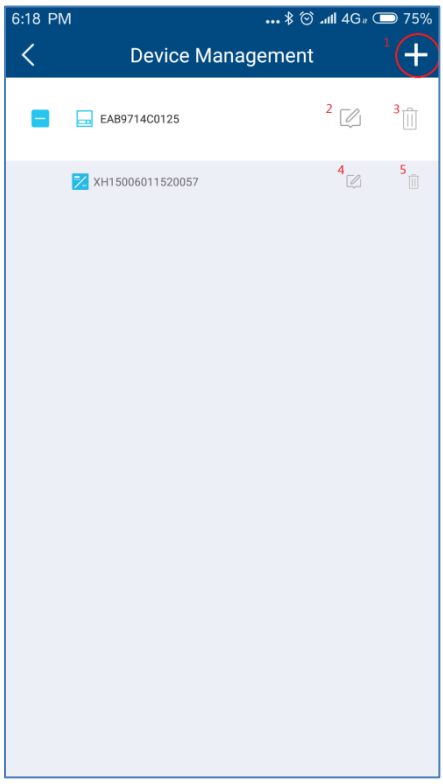



Figure 2-4-2-2-2 Add Monitor Device

Figure 2-4-2-2-3 Add Monitor Device

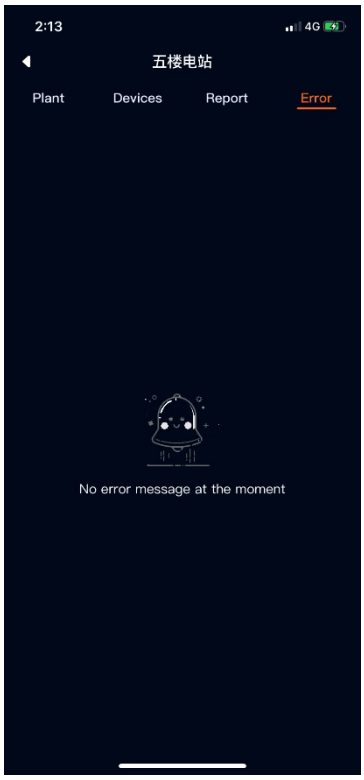
### 2.4.2.3 Reports

We provide you with an operation and maintenance report of the power plant within one week on this page. Please see Appendix 1I for detailed error code.


Figure 2-4-2-3 Weekly Report20

### 2.4.3 Error

A list of failures of the inverter that occur during the day is provided on this page. We will provide solution guidance for failure information.




Failure 2-4-3-1 Failure

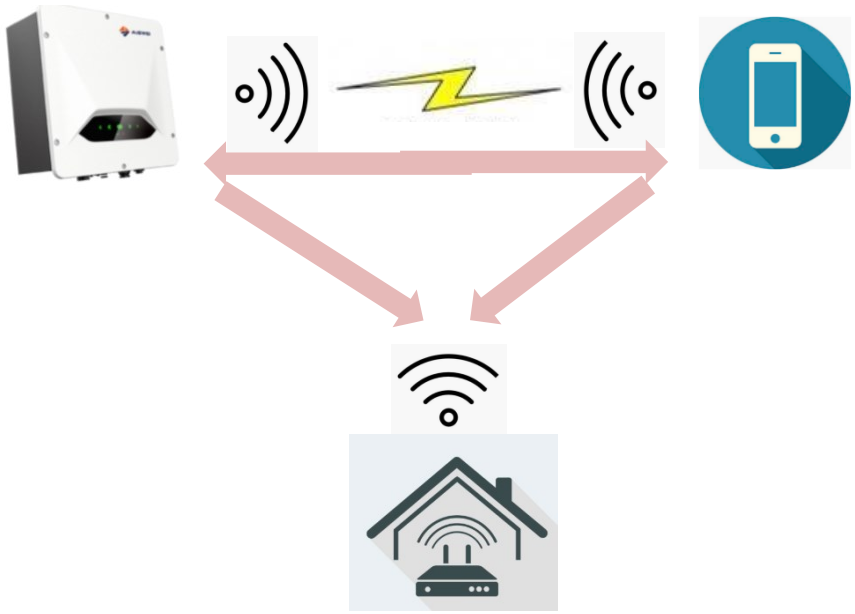
## 2.5 Point-to-Point

The point-to-point mode is the main service provided by us to set the inverter parameters. For the setting of some inverter parameters, please operate under the guidance of our professionals.

Schematic diagram for use of point-to-point mode network:

Monitor device hotspot mode: The user intelligent terminal is directly connected the inverter WIFI hotspot through WIFI.

Router mode: Both the user intelligent terminal and the inverter WIFI are connected to the home WIFI hotspot, and the intelligent terminal and the inverter communicate with each other in the local area network.



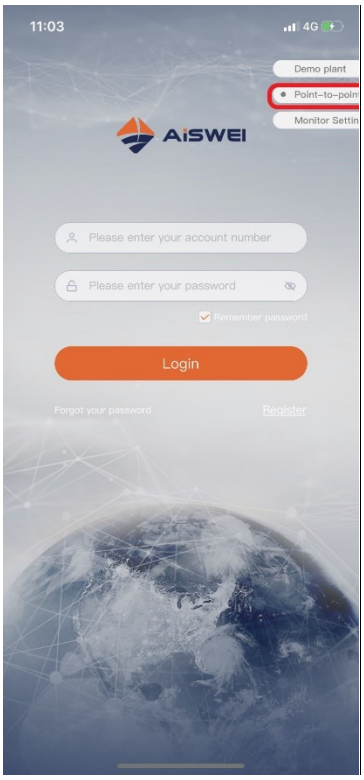



Figure 2-5-1 Homepage

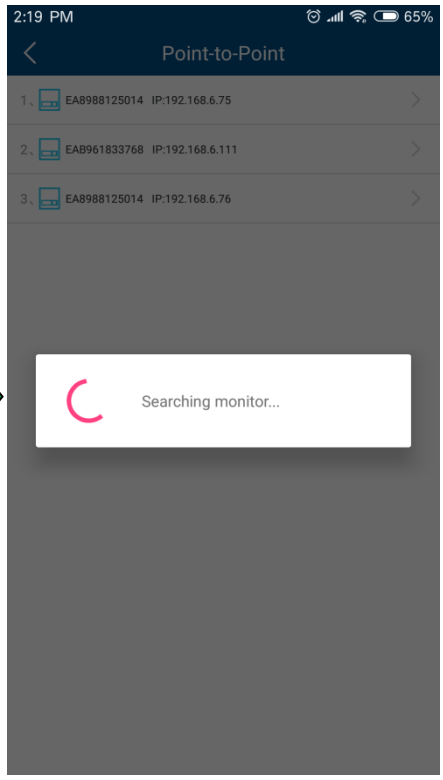



Figure 2-5-2 Search Device

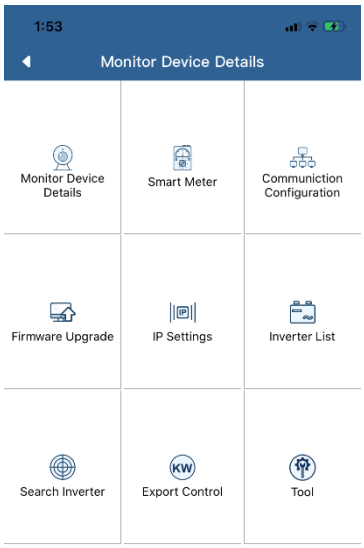



Figure 2-5-3 Point-to-Point Menu Page

Before opening the monitor device control interface, please first ensure that your terminal mobile device has been manually connected to the WiFi of the monitor device.

### 2.5.1 Monitor Device Details

You can view the basic information about the monitor device on this page.

1. Check the status of the connection to the cloud platform: Normal connection to the cloud platform is displayed in blue and marked with "√"; and abnormal connection to the cloud platform is displayed in red and marked with "×". The network abnormality code is shown in the brackets. The code description is shown in Attachment 2.
2. Click this button to synchronize the time of your phone to the monitor device. If the monitor device can access the cloud platform through the external network, the monitor device will follow the cloud platform synchronization time.

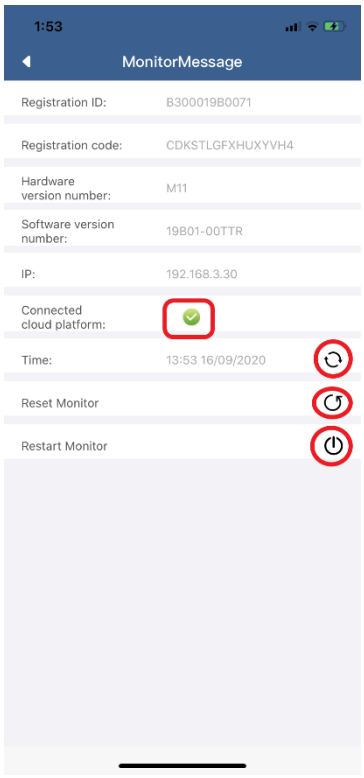



Figure 2-5-4 Monitor Device Details Page

### 2.5.2 Smart Meter

Our monitor device can access to the smart meter protocol for power control output or user power analysis.

1. The monitor device is currently compatible with the following smart meter models of

Eastron Electronic Instruments Co., Ltd. (http://www.eastrongroup.com/):

| |
|---|
| Ex9EMS 3P 4M 100A 2T |
| Ex9EMS 3P 4M 100A MB 2T |
| Ex9EMS 3P 4M 100A MO 2T |
| Ex9EMS 3P 4M CT 2T |
| Ex9EMS 3P 4M CT MB 2T |
| Ex9EMS 3P 4M CT MO 2T |

2. The real-time power of the meter may be positive and negative.
   a) + power representation
   b) – power representation
3. Total electricity purchased
4. Total electricity sold

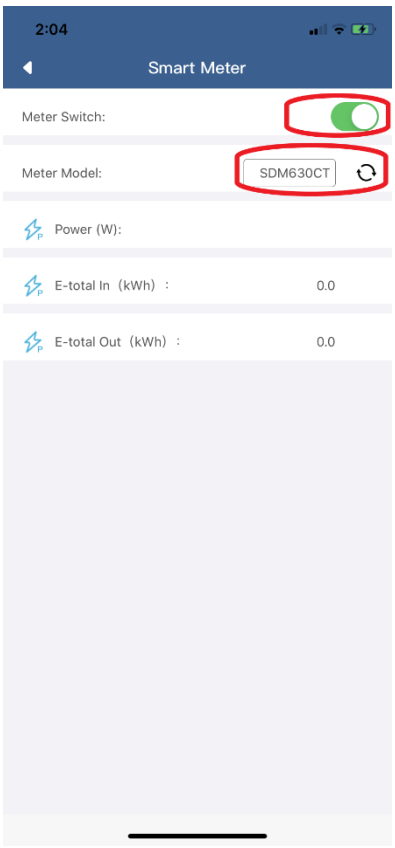



Figure 2-5-5 Smart Meter Page

### 2.5.3 Communication Configuration

Router page: Configure the monitor device to be connected to the router through WIFI.
WIFI hotspot page: Modify the WIFI name of the monitor device, wherein up to 32

characters can be supported.

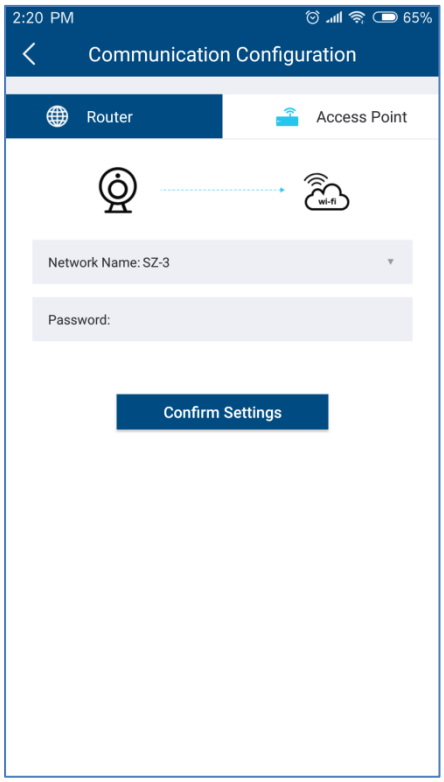



Figure 2-5-6 Communication Page-Router Configuration

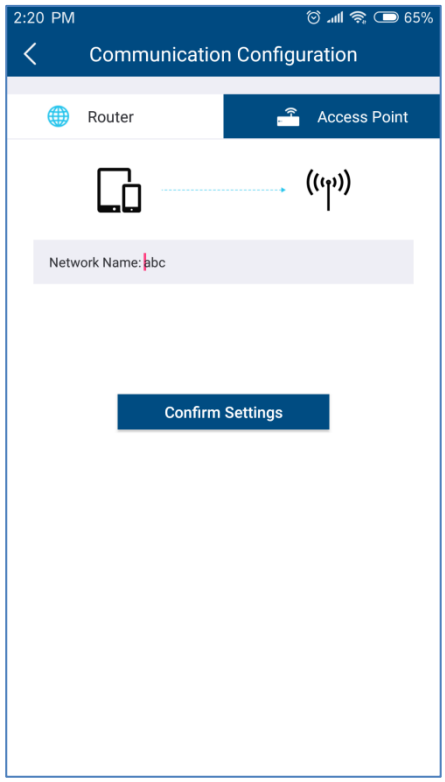



Figure 2-5-7 Communication Page-Modify Hotspot

### 2.5.4 Firmware Upgrade

Our devices are generally upgraded remotely by the service personnel under the authorization of the user. In the absence of a network, you may first download the device firmware via the mobile APP to your mobile phone through the mobile phone network (currently only the Android version is

available), and then send it to the monitor device for upgrade.

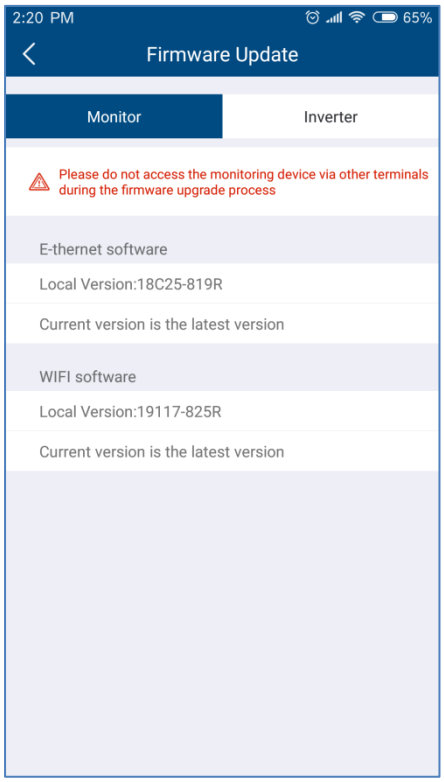



Figure 2-5-8 Firmware Upgrade-Monitor

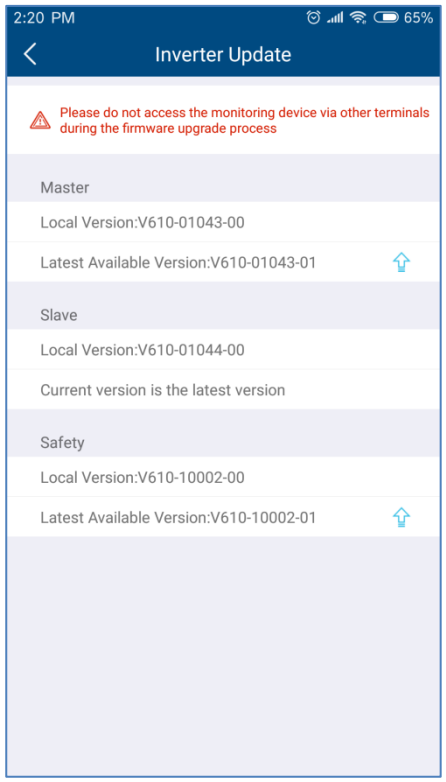



Figure 2-5-9 Firmware Upgrade-Device Inverter

## 2.5.5 IP Settings

LAN page: Ethernet interface network, with the IP automatically obtained by default. You can also cancel the automatic mode and manually assign a static IP.
Wireless LAN page: WIFI interface network, with the IP automatically obtained by default. You can also cancel the automatic mode and manually assign a static IP.
Generally, the home network is dynamically assigned with an IP, and no static settings are

required.

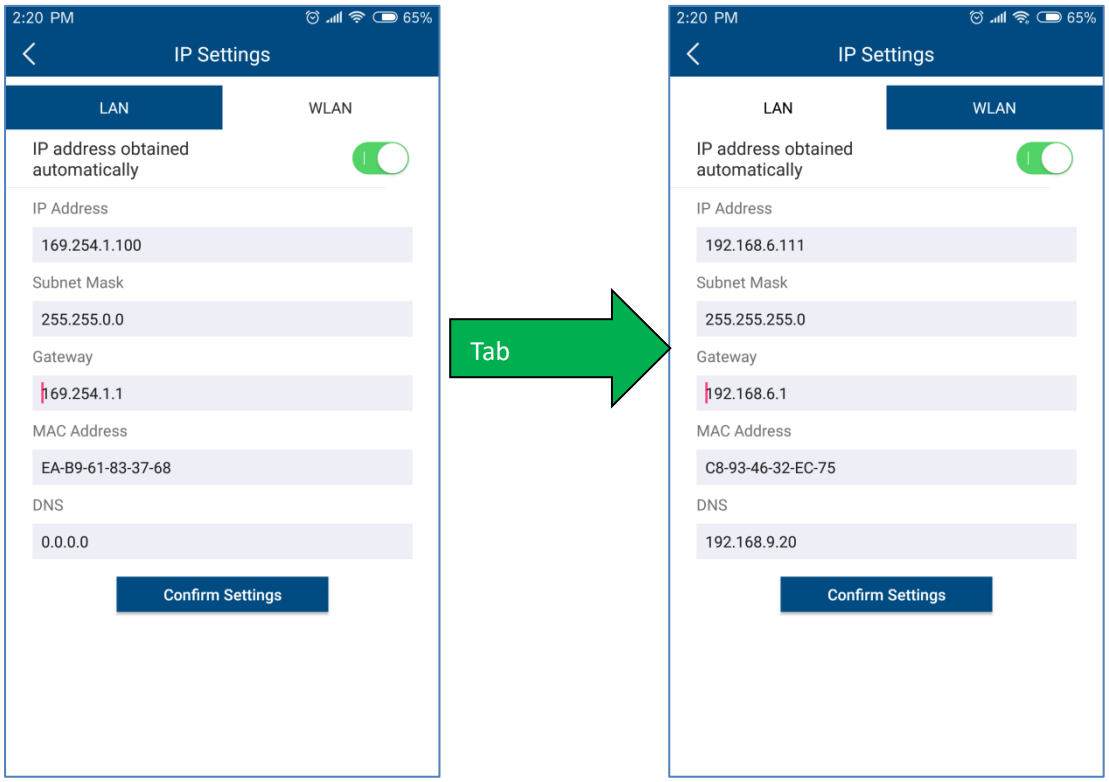



Figure 2-5-10 Network Parameters-Ethernet Network

Figure 2-5-11 Network Parameters-Wireless

### 2.5.6 Inverter List

On this page, you can view the detailed information of the inverter, the voltage and current information of the PV side, the voltage and current information of the AC side, and the statistical information of the inverter, as well as the real-time power, pf value, fault code, Data time.
If you need to confirm the safe code information, please click the settings in the upper right corner, you can set the inverter safety code, active power curve setting, reactive power curve setting, etc.

1. The upper right button allows you to jump to the inverter parameter settings.
2. Inverter error code explanation is detailed in Attachment 1.
3. For the setting of some inverter parameters, please operate under the guidance of our professionals.

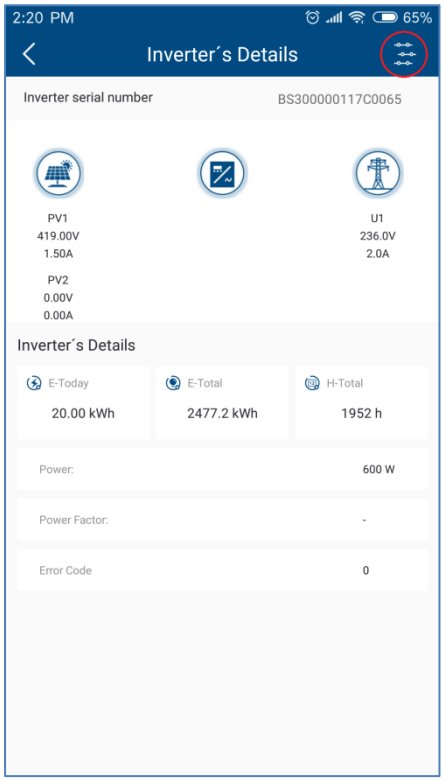



Figure 2-5-12 Inverter Information

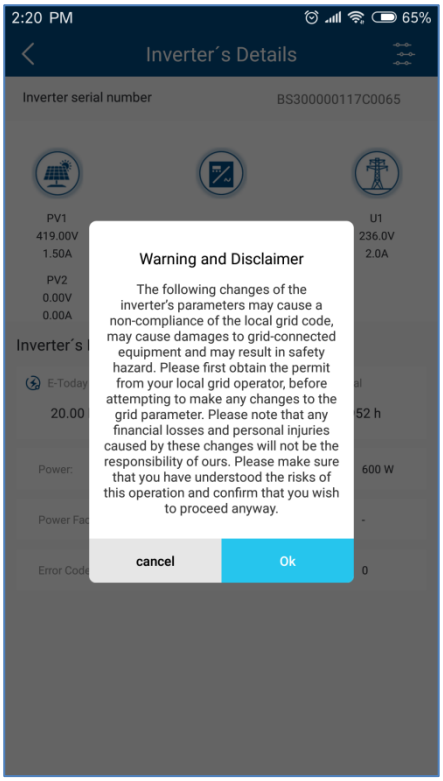



Figure 2-5-13 Disclaimer

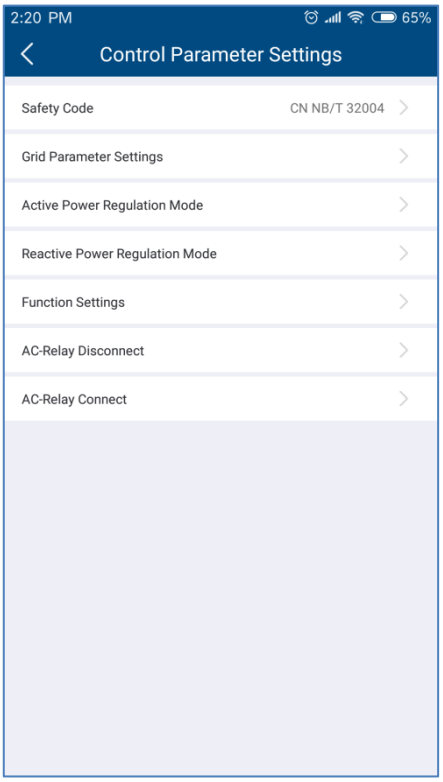



Figure 2-5-14 Parameter Setting

The inverter parameter configuration can be set at the commissioning freely. Once you have finished the setting, you need a password when you need modify some parameter and the safety code. You can contact AISWEI services.

### 2.5.6.1 Safety code setting

Click “Safety code” will display all safety codes supported by this inverter, as shown in Figure 2-5-16. You can click the required safety code according to local requirements.

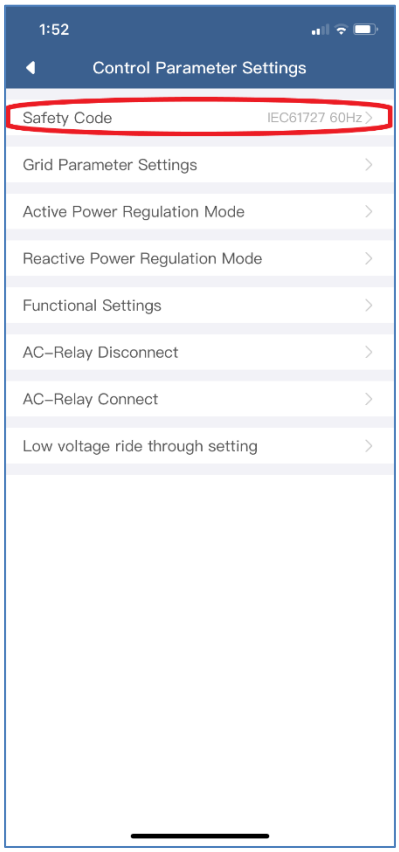



Figure 2-5-15 Select safety code

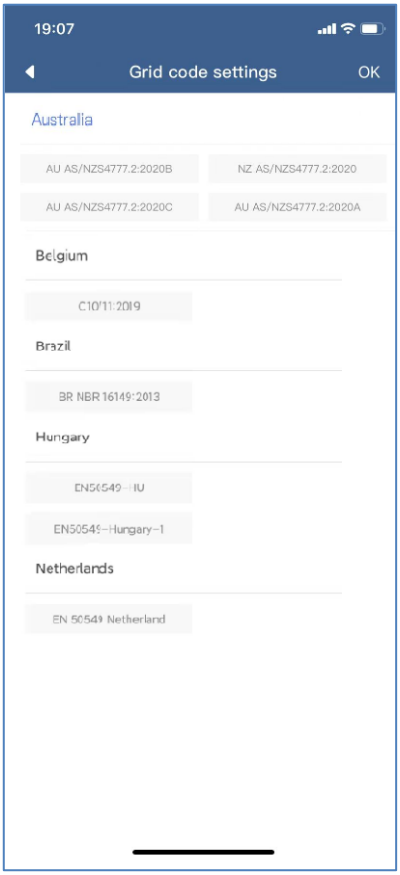



Figure 2-5-16 Select safety code

### 2.5.6.2 Grid parameter settings

Click "Grid parameter settings" as shown figure 2-5-14 to set the grid protection parameters. Click button to select the voltage protection value and time, the frequency protection value and time, the startup parameter settings, the reconnection time settings or the ISO protection settings.

**Voltage protection setting:** The inverter can set three levels of voltage protection values and the time corresponding to each protection value. As shown in figure 2-5-17.

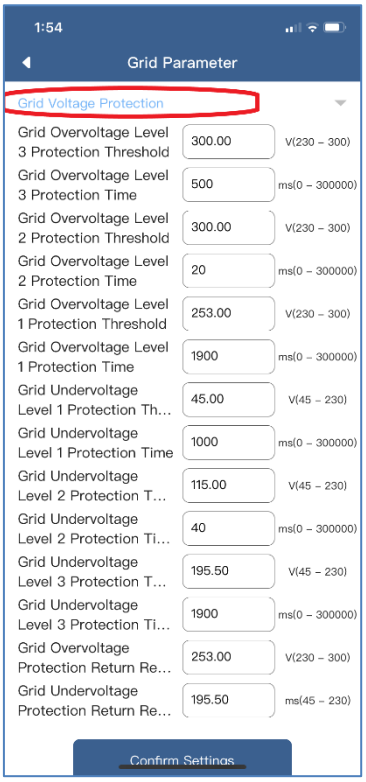



Figure 2-5-17 Grid voltage protection

**Frequency protection setting:** the inverter can set three levels of frequency protection values and the time corresponding to each protection value. As shown in Figure2-5-18.

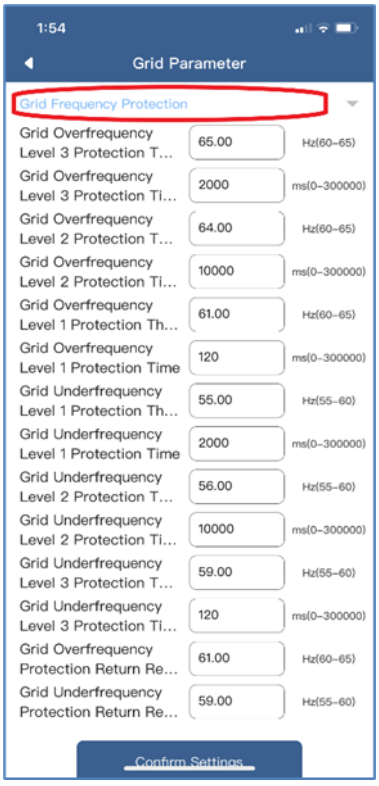



Figure 2-5-18 Grid frequency protection

**The parameter setting for connection:** The inverter can set power-on parameters and reconnection parameters. These parameters include Upper voltage limit, lower voltage limit, upper frequency limit, lower frequency limit. As shown in Figure2-5-19.

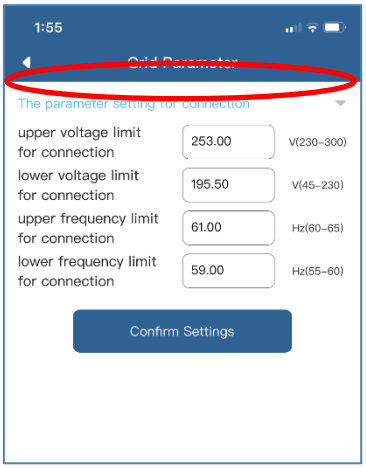



Figure 2-5-19 The parameter setting for connection

**The reconnection time setting:** the first startup time and reconnection time of the inverter. As shown in Figure2-5-20 .

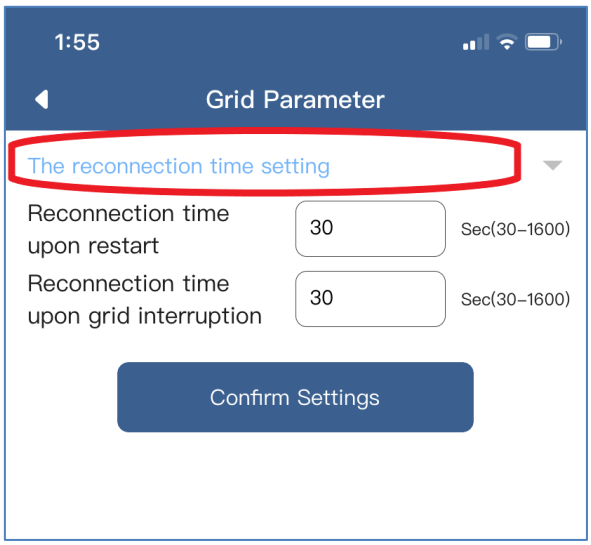



Figure 2-5-20 The reconnection time setting

**ISO protection value setting:** Insulation resistance monitoring setting of photovoltaic system. As shown in Figure2-5-21.

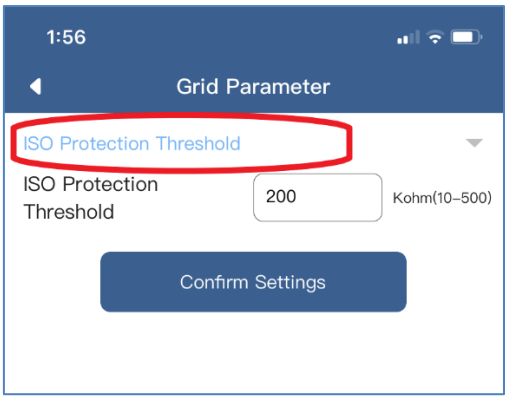



Figure 2-5-21 ISO protection threshold

**Overvoltage 10 Minute Protection Threshold：** the 10 min RMS voltage average value and the rate of change of frequency (RoCoF) of the inverter. As shown in Figure 2-5-22.

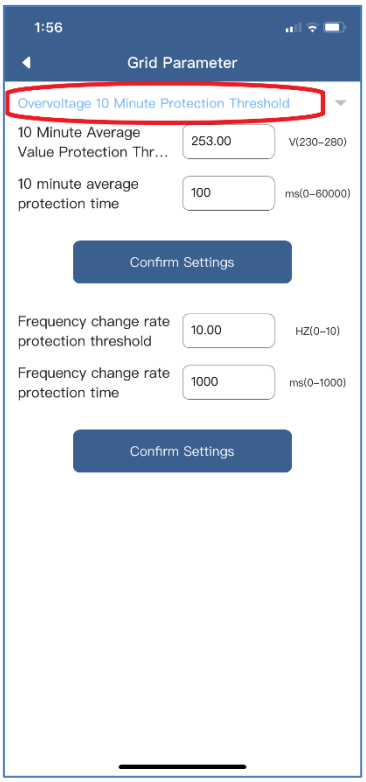



Figure 2-5-22 Overvoltage 10 Minute Protection Threshold

**Ramp Rate Settings:** The power rate limit (W) for increase during connection and reconnection. As shown in figure 2-5-23.

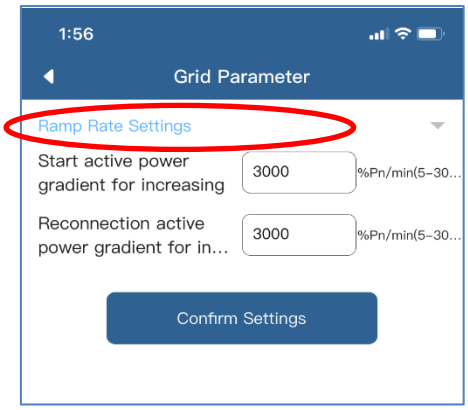



Figure 2-5-23 Ramp Rate Settings

### 2.5.6.3 Active Power Control

Click Active Power Regulation mode as shown in figure 2-5-14. You can set parameters related to active power adjustment and parameters related to active power curve here.

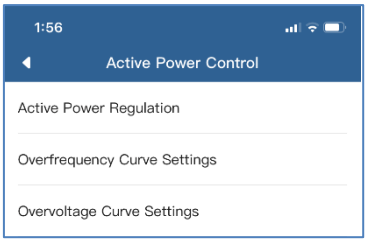



Figure 2-5-24 Active power control

**Active Power Regulation:**

Click Active Power Regulation as shown in figure 2-5-24. You can set the output power, active power gradient for increasing, active power gradient for reducing as shown in figure 2-5-25.

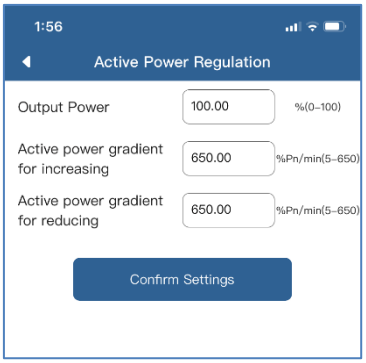



Figure 2-5-25 Active power regulation

**Output power:** limit the active power of this inverter as the percent of the rated output power. If you want to limit the output power of this inverter, you can enter the number and click setting.

**Active power gradient for increasing:** set the active power gradient during the active power adjustment. If you want to set the gradient of the active power for increasing, you can enter the number and click setting.

**Active power gradient for reducing:** set the active power gradient during the active power adjustment. If you want to set the gradient of the active power for reducing, you can enter the

number and click setting.

**Over frequency Curve Settings:**

Click Over frequency Curve setting as shown in figure 2-5-24. The parameters of the active power – frequency curve can be set according to the requirement of the local network company. Click to enable or disable this function by manually. you can enter all the parameters and click setting as the figure 2-5-26.

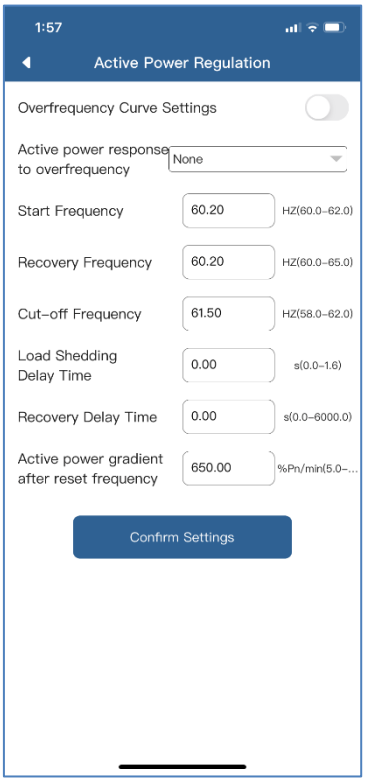



Figure 2-5-26 Over frequency Curve Settings

The illustration of the curve without hysteresis is shown in figure 2-5-27. PM is the reference power level when the frequency reaches or exceeds start frequency point. Pn is the rated active power of this inverter.

**Start Frequency**: The active power will reduce when the frequency over the start point.

**Recovery Frequency**: The active power can increase from PM to Pn when the frequency lower the recovery frequency.

**Cut-off Frequency:** The active power will reduce to zero when the frequency reach the cut-off frequency.

**Load shedding delay time:** the time delay after the frequency over than the Start frequency, then the active power can reduce according to the curve.

**Recovery Delay Time:** the time delay after the frequency lower than the Recovery Frequency, then the active power can increase from PM to 100%Pn.

**Active power gradient after reset frequency:** the active power gradient of the active power increase from PM to 100%Pn.

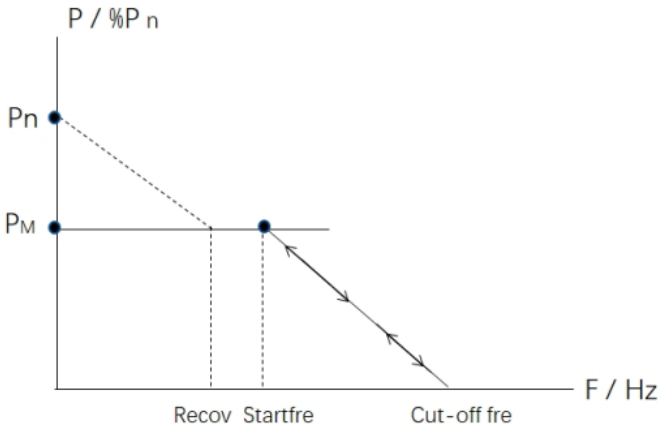



Figure 2-5-27 The illustration of the curve without hysteresis

The illustration of the curve with hysteresis is in figure 2-5-28 . PM is the reference power level when the frequency reaches or exceeds start frequency point. Pn is the rated active power of this inverter.

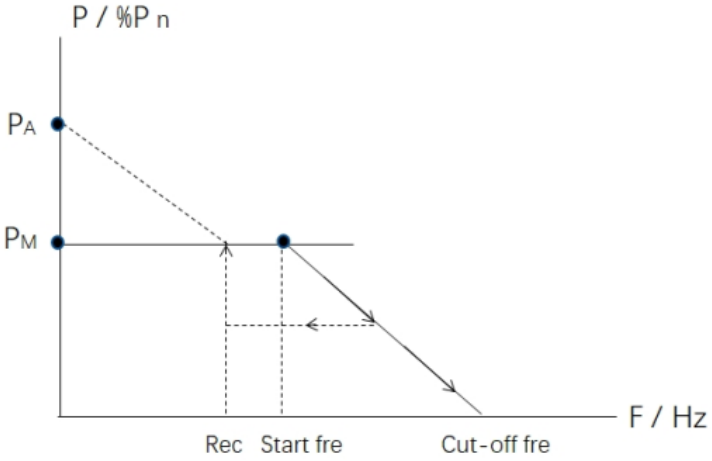



Figure 2-5-28 The illustration of the curve with hysteresis

**Start Frequency:** The active power will reduce when the frequency over the start point.

**Recovery Frequency**: The active power can increase when the frequency lower the recovery frequency.

**Cut-off Frequency:** The active power will reduce to zero when the frequency reach the cut-off frequency.

**Load shedding delay time:** the time delay after the frequency over than the Start frequency, then the active power can reduce according to the curve.

**Recovery Delay Time:** the time delay after the frequency lower than the Recovery Frequency, then the active power can increase from the lowest power to 100%Pn.

**Active power gradient after reset frequency:** the active power gradient of the active power increase from the lowest power to 100%Pn.

**Overvoltage Curve Settings:**

Click Overvoltage Curve setting as shown in figure 2-5-24. the parameters of the active power – voltage curve can be set according to the requirement of the local network company. Click to

enable or disable this function by manually. you can enter all the parameters and click setting as figure 2-5-29.

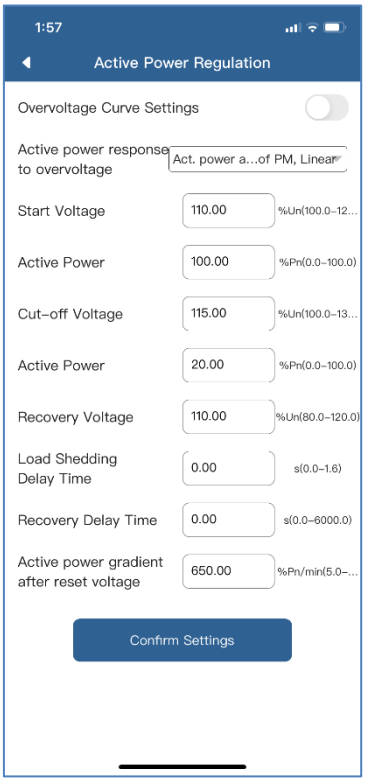



Figure 2-5-29 Click Overvoltage Curve setting

The illustration of the curve without hysteresis is shown as figure 2-5-30.

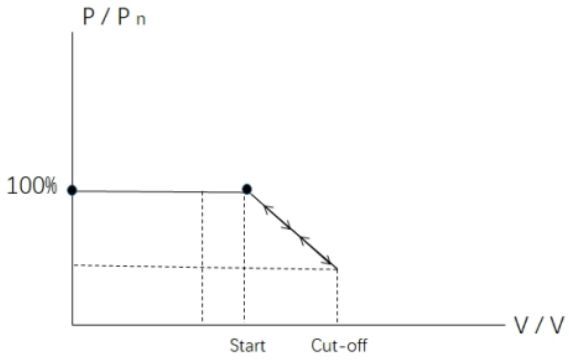



Figure 2-5-30 The illustration of the curve without hysteresis.

**Start Voltage:** The active power will reduce when the voltage over the start point.
**Active Power:** The first active power is the percent of the rated active power when the voltage is lower than the start voltage.
**Cut-off Voltage**: The active power will reduce to the lowest power when the voltage reach the cut-off voltage.
**Active Power:** The second active power is the percent of the rated active power when the voltage is higher than the cut-off voltage.
**Recovery Frequency:** This value is invalid in this type curve.
**Load shedding delay time:** the time delay after the voltage over than the Start voltage, then the

active power can reduce according to the curve.
**Recovery Delay Time:** This value is invalid in this type curve.
**Active power gradient after reset voltage:** This value is invalid in this type curve.

The illustration of the curve with hysteresis is shown as figure 2-5-31.PM is the reference power level when the frequency reaches or exceeds start voltage point. Pn is the rated active power of this inverter.

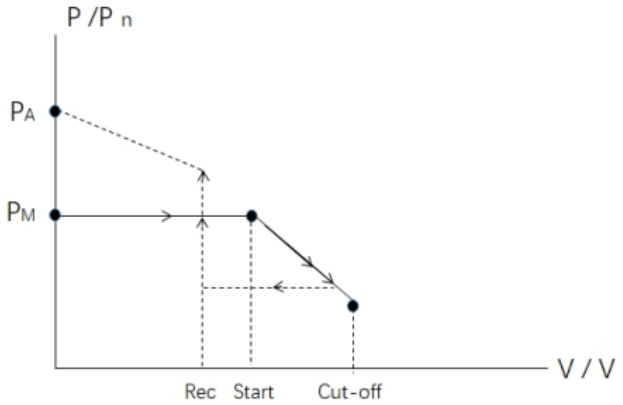



Figure 2-5-31 The illustration of the curve with hysteresis.

**Start voltage:** The active power will reduce when the voltage over the start point.
**Active Power:** The first active power is the percent of the rated active power when the voltage is lower than the start voltage.
**Cut-off Voltage:** The active power will reduce to the lowest power when the voltage reach the cut-off voltage.
**Active Power:** The second active power is the percent of the rated active power when the voltage is higher than the cut-off voltage.
**Recovery voltage:** The active power can increase when the voltage lower the recovery voltage.
**Load shedding delay time:** the time delay after the voltage over than the Start voltage, then the active power can reduce according to the curve.
**Recovery Delay Time:** the time delay after the voltage lower than the Recovery voltage, then the active power can increase from the lowest power to 100%Pn.
**Active power gradient after reset frequency:** the active power gradient of the active power increase from the lowest power to 100%Pn.

### 2.5.6.4 Reactive Power Regulation Control

Click Reactive Power Regulation mode as shown in figure 2-5-14. You can set parameters related to reactive power control here. Click to enable or disable this function by manually. there are four control method to choose by click on the drop-down menu.
**Fix PF Regulation:**
Choose the Fix PF Regulation, as shown in Figure 2-5-31. The cos φ can be entered directly and the

lagging or leading of the reactive power can be chosen.


Figure 2-5-31 Fix PF Regulation

**Curve PF Regulation:**

Choose the Curve PF Regulation, as shown in Figure 2-5-32. The parameters of the active power – cosφ curve can be set according to the requirement of the local network company.

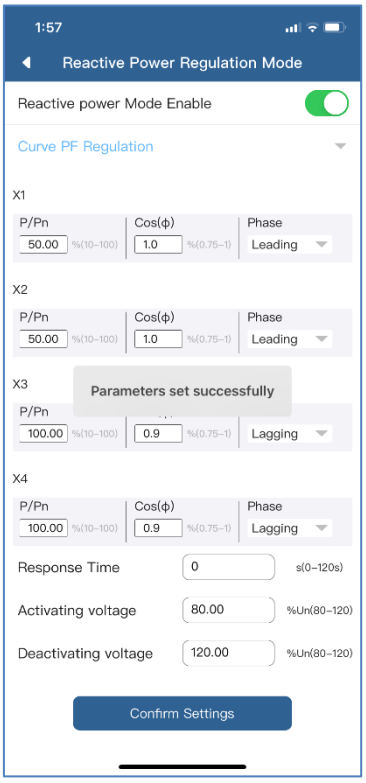



Figure 2-5-32 Curve PF Regulation

The illustration of the curve is shown figure 2-5-33.

There are four Coordinate points can be entered and the lagging or leading for every reactive power can be chosen. The 3τ of the ideal first order filter response time can be enter in the

Response Time. Click Settings after entered all parameters.

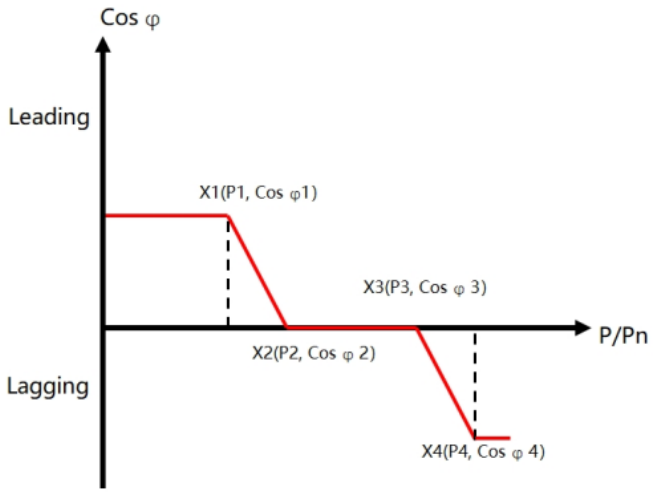



Figure 2-5-33 Curve Cosφ/P

**Activating voltage:** The minimum voltage level to enable the operation of the curve, also call “lock in”.

**Deactivating voltage:** The minimum voltage level to disable the operation of the curve, also call “lock out”.

**Fix Q Regulation:**

Choose the Fix Q Regulation, as shown in figure 2-5-34. The reactive power value Q can be entered directly and the lagging or leading of reactive power can be chosen.


图 2-5-34 Fix Q Regulation

**curve Q(U) Regulation:**

Choose the Curve Q(U) Regulation, as shown in figure 2-5-35. The parameters of the reactive power

– voltage curve can be set according to the requirement of the local network company.


图 2-5-35Curve Q(U) Regulation

The illustration of the curve is shown figure 2-5-36. There are four Coordinate points can be entered and the lagging or leading for every reactive power can be chosen. The 3τ of the ideal first order filter response time can be entered in the Response Time. Click Settings after entered all parameters.

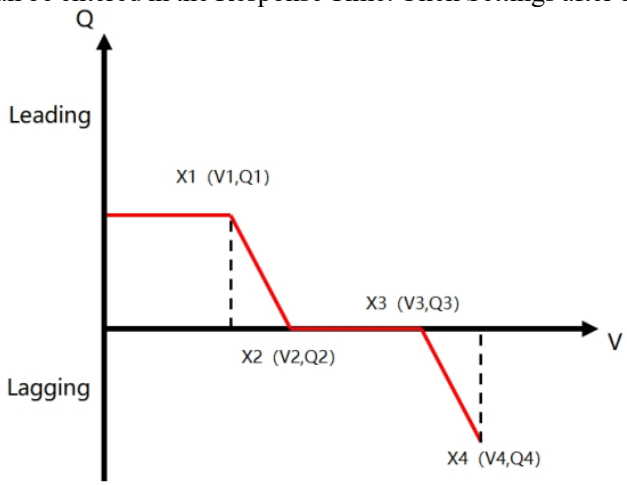



Figure 2-5-36Curve Q(U)

**Activating power as a percentage of Pn:** The minimum active power level to enable the operation of the curve, also call “lock in”.
**Deactivating power as a percentage of Pn:** The minimum active power level to disable the operation of the curve, also call “lock out”.

### 2.5.6.5 Function enable settings

Click Function enable setting as shown in figure 2-5-14. This page contains the function enable

switch. As shown in figure 2-5-37. You can choose whether the corresponding function is enabled.
**LVRT Enable:** If the enable button is turned on, when the grid fails, the inverter can ride through the fault without being disconnected.
**Power Ramp Rate Control Enable:** If the enable button is turned on, the inverter will load at the set speed of 10% Pn / min when the inverter is turned on for the first time.
**Overvoltage Protection (10-minute) Enable:** If the enable button is turned on, the inverter will be disconnected when the 10-minute sliding average of the grid voltage exceeds the value required by EN 50160.
**Reactive power control Enabled:** If the enable button is turned on, the setting for the reactive power can be active.
**Active power control Enabled:** If the enable button is turned on, the setting for the active power can be active.
**N-PE Enable:** If the enable button is turned on, the inverter will monitor the connection of the PE line. If it is not connected, the inverter will alarm and the inverter will not start.

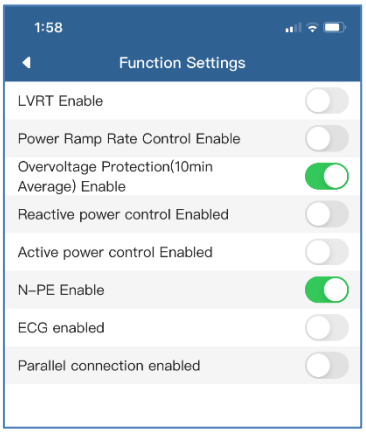



图 2-5-36 Function enable settings

### 2.5.6.6 AC relay disconnect/connect

**AC Relay disconnect:**

In an event of fault, system error or maintenance, you can turn off the inverter on the APP.
Click the AC Relay Disconnect, as shown in figure 2-5-37. If a pop-up message “Set up success” shown on APP, the AC relay in the inverter have been disconnected.

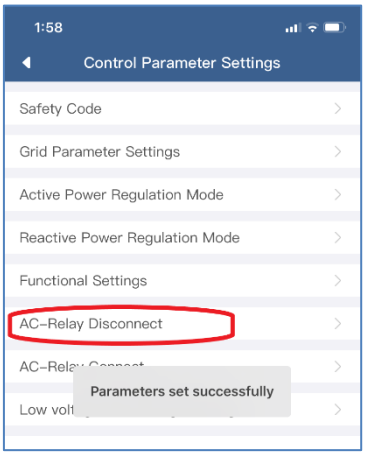



图 2-5-37 AC Relay disconnect

**AC Relay Connect：**

When an event of fault or system error is clearly, you can turn on the inverter on the APP. Click the AC Relay Connect, as shown in figure 2-5-38. If a pop-up message “Set up success” shown on APP, the AC relay in the inverter have been connected.

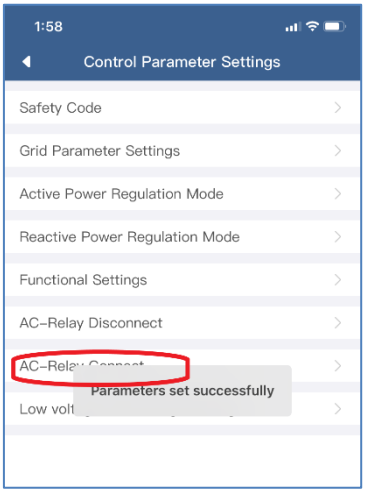



图 2-5-38 AC Relay connect

## 2.5.6.7 Low voltage ride through setting

You can set parameters related to LVRT function here, then click the settings.

**LVRT starting point:** the start voltage as the percent of the rated voltage. If the voltage lower than this voltage, the inverter will operate as LVRT.

**Active current limit:** you can choose the active current during LVRT as not requirement or reducing.

**The reference for activation threshold for symmetrical fault:** you can choose the three phase fault voltage as line to line voltage or line to neutral voltage or the positive sequence voltage.

**The reference for activation threshold for asymmetrical fault:** you can choose the one/two phase fault voltage as line to line voltage or line to neutral voltage or the positive sequence voltage.

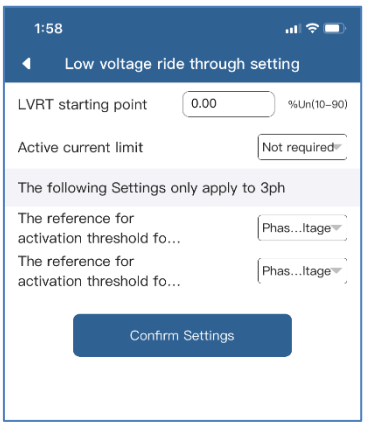



图 2-5-39 Low voltage ride through setting

## 2.6 Personal Settings

In order to better enjoy our services, please fill in the information as complete as you can.

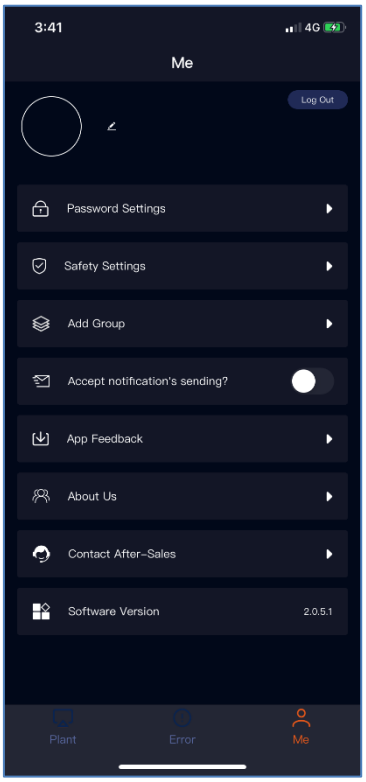



图 2-6-1 Personal Settings

### 2.6.1 Basic Settings

You can refine and modify your detailed basic information on this page, as shown in Figure 2-6-2.

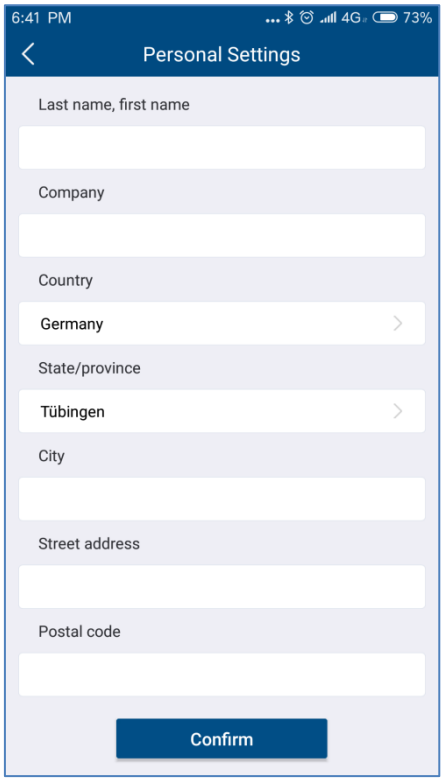



Figure 2-6-2 Basic Settings Page

### 2.6.2 Safety Settings

Mobile verification is required for certain operations on the APP for the power plant. So, if you register an account only by email, we recommend you to bind your mobile phone number.

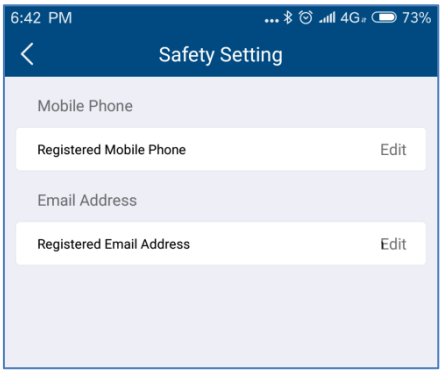



Figure 2-6-3 Safety Settings

### 2.6.3 Password Settings

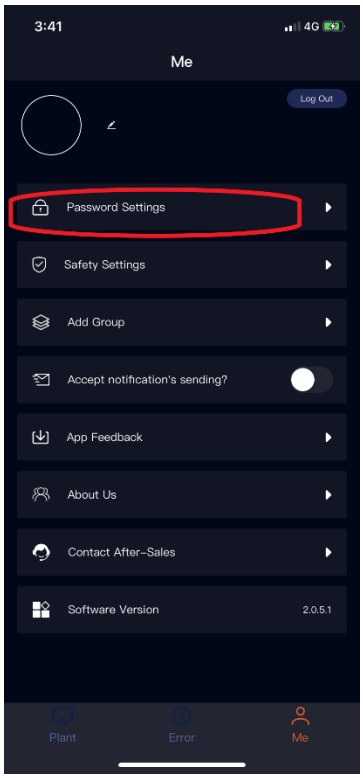



Figure 2-6-4 Click password settings

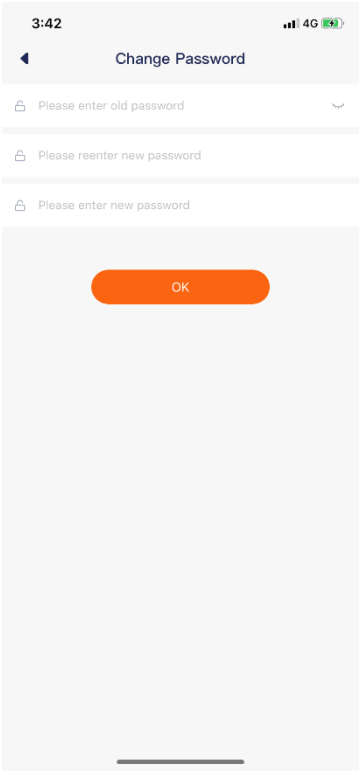



Figure 2-6-5 Password settings page

### 2.6.4Contact After-sales

There is after-sales contact information of three countries on this page. If you have any technical problem related to our products, you can call our relevant service department by clicking the “ ” button on the right.

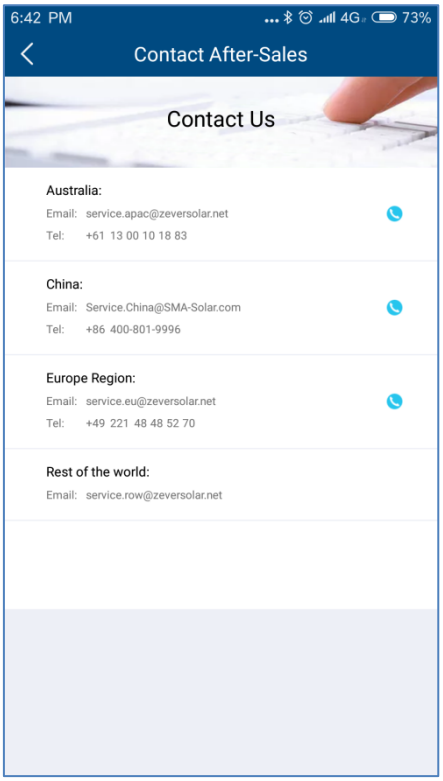



Figure 2-6-6 Contact After-sales Page

### 2.6.5 APP feedback

This page allows you to give user feedback to our APP. You can edit the information you need to feed back in the text box above, click the “ ” button on the right to upload or take the pictures needed for feedback, and click on the “Submit” button, and then we will receive your feedback.

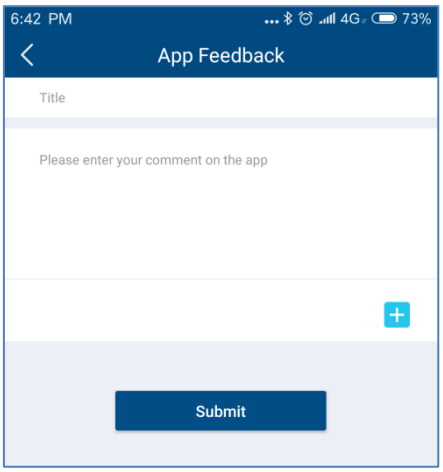



Figure 2-6-7 APP Feedback Page

# 3 Contact us

If you have any technical problem related to our products, please contact AiSWEI Service Department. We need you to provide the following information so that we can provide you with necessary support:

- Monitor device model (ZeverCom/AiCom/ComBox/ZeverManager/AiManager)
-Monitor device serial number
-Error information description
-APP client version number

You can contact our regional service department during business hours:

**AISWEI New Energy Technology(Jiangsu)Co., Ltd.**

Hotline: +86 400 801 9996 (Mainland)

+886 809 089 212 (Taiwan)

Service email: service.china@aiswei-tech.com

Web: https://solplanet.net/contact-us/

Add.: No. 198 Xiangyang Road, Suzhou 215011, China

**AISWEI Pty Ltd.**

Hotline: +61 390 988 673

Service email: service.au@aiswei-tech.com

Add.: Level 40, 140 William Street, Melbourne VIC 3000, Australia

**AISWEI B.V.**

Hotline: +31 208 004 844 (Netherlands)

+48 134 926 109 (Poland)

Service email: service.eu@aiswei-tech.com

Add.: Muiderstraat 9/G, Amsterdam 1011 PZ, the Netherlands

**Rest of the world**

Service email: service.row@aiswei-tech.com

Attachment I:

| Error code | Error description |
|---|---|
| 101 | Primary and secondary MCU communication error |
| 102 | EEPROM read and write error |
| 103 | Relay detection error |
| 104 | DC component is too high. |
| 105 | Automatic test result error |
| 106 | BUS voltage is too high. |
| 107 | Reference voltage error |
| 108 | Hall element error |
| 109 | Leakage protection device error |
| 110 | Hardware error |
| 111 | The primary and secondary MCU versions are inconsistent. |
| 112 | Reserved |
| 132 | Reserved |
| 133 | Frequency is out of the range |
| 134 | Mains voltage is out of the range. |
| 135 | Power grid is lost. |
| 136 | Leakage protection device error |
| 137 | PV input overvoltage |
| 138 | Insulation resistance error |
| 139 | Fan error |
| 140 | Inverter over-temperature |
| 141 | Mains voltage detection consistency error between the primary and secondary MCUs |
| 142 | Frequency detection consistency error between the primary and secondary MCUs |
| 143 | Residual current detection consistency error between the primary and secondary MCUs |
| 144 | DC component detection consistency error between the primary and secondary MCUs |
| 145 | Frequency and mains voltage detection consistency error between the primary and secondary MCUs |
| 146 | BUS voltage is too high. |
| 147 | Consistency error |
| 148 | 10min mains voltage over-voltage protection |
| 149 | PV1 SPD module is damaged. |
| 150 | PV2 SPD module is damaged |
| 151 | Fuse damage |
| 152 | N line is not connected. |
| 153 | ISO detection: ISO voltage is >300mV before constant current source is enabled. |

| | |
|---|---|
| 154 | ISO detection: ISO voltage is >1.37v+20%, and ISO voltage is <1.37-20% when constant current source is enabled. |
| 155 | When the relays N and P are switched, the ISO voltage is changed, namely <40mV. |
| 156 | GFCI protection: 30mA level |
| 157 | GFCI protection: 60mA level |
| 158 | GFCI protection: 150mA level |
| 159 | PV1 string current is abnormal. |
| 160 | PV2 string current is abnormal. |
| 161 | New Australian regulations: DRMS communication function is abnormal (S9 is open). |
| 162 | New Australian regulations: DRMS communication is disconnected (S0 is closed). |

Attachment II

Cloud communication status code:

| Failure code | Description |
|---|---|
| 0 | Log in to the server successfully |
| -1 | Ready to be connected to the server |
| -2 | Router SSID does not exist. |
| -3 | Router password error |
| -4 | Unknown error of router connection |
| -5 | DNS resolution error |
| -6 | Not connected to the network |
| -7 | TCP connection failed |
| -8 | Timeout when getting device information |
| -9 | Error 400 when getting the device information |
| -10 | Return of an unknown error when getting the device information |
| -10 | Timeout when getting Alibaba cloud login address |
| -11 | Error 404 when getting Alibaba cloud login address |
| -12 | MQTT subscription timeout |
| -13 | MQTT subscription error 404 |
| -14 | Timeout when getting time from the server |
| -15 | Error 404 when getting time from the server |