Operating Manual of Aiswei APP

Contents

1 Instructions for this manual....2

1.1 Range of application....2

1.2 Users....2

1.3 Abbreviations....2

2 AiSWEI APP....3

2.1 Account registration....4

2.2 Create a photovoltaic power station....6

2.3 Network configuration of monitoring device....8

2.4 Browse photovoltaic power stations....12

2.4.1 Homepage....13

2.4.2 Management....15

2.4.3 Faults....17

2.5 Point-to-point....18

2.5.1 Monitor details....21

2.5.2 Smart electric meter....22

2.5.3 Communication configuration....23

2.5.4 Firmware upgrade....23

2.5.5 IP settings....24

2.5.6 Inverter list....25

2.6 Personal settings....44

2.6.1 Basic settings....45

2.6.2 Security settings....46

2.6.3 Contact the after-sales....47

2.6.4 APP feedback....48

3 Contact Us....49

1 Instructions for this manual

This manual details the precautions, installation methods, operating instructions and other information for the smart phone monitoring system of AiSWEI New Energy Technology (Jiangsu) Co., Ltd. (AiSWEI). The technical parameters described in this document apply to products of the current version. We reserve the right to change the contents of this manual as a result of the adoption of new features and improvements. The instructions are subject to change without prior notice. Please contact AiSWEI New Energy Technology (Jiangsu) Co., Ltd. to confirm the latest version.

1.1 Range of application

This manual is applicable to the smart phone monitoring system of AiSWEI New Energy Technology (Jiangsu) Co., Ltd. (AiSWEI), which refers to photovoltaic systems with inverters and monitoring devices of AiSWEI New Energy Technology (Jiangsu) Co., Ltd.. This manual assumes that AiSWEI APP is already installed on the user's smart phone.

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	Definition
Generation	--
Income	--
Vpv	DC input voltage
Ipv	DC input current
Pac	AC output power
E-today	Power generation today
E-month	Power generation for the month
E-total	Cumulative generation

Table 1-1 Abbreviations

2 AiSWEI APP

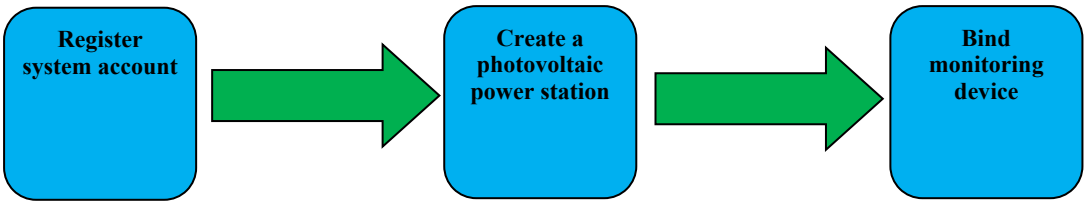
AiSWEI APP is a smart phone terminal application provided to users by AiSWEI New Energy Technology (Jiangsu) Co., Ltd.. The monitoring device of AiSWEI New Energy Technology (Jiangsu) Co., Ltd. transmits working data to the cloud platform AisweiCloud via the Internet so that users can remotely monitor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

You can use your mobile phone to visit the following website to browse and download the AiSWEI APP application:
Android mobile phone:

iPhone:

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 a working email address or mobile phone number.

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



Before using the photovoltaic monitoring system, please ensure that you have the inverter and monitor of AiSWEI New Energy Technology (Jiangsu) Co., Ltd.

2.1 Account registration

Users who use the AiSWEI APP for the first time need to register an account on the APP or on the AisweiCloud website (www.aisweicloud.com). After the user has registered and created the power station, he can build the power station and monitor the operation information of the power station.

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

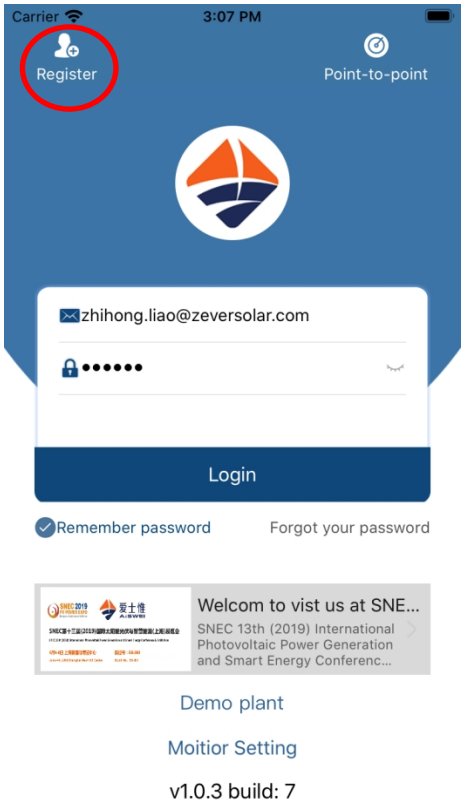


Figure 2-1-1 Home page

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

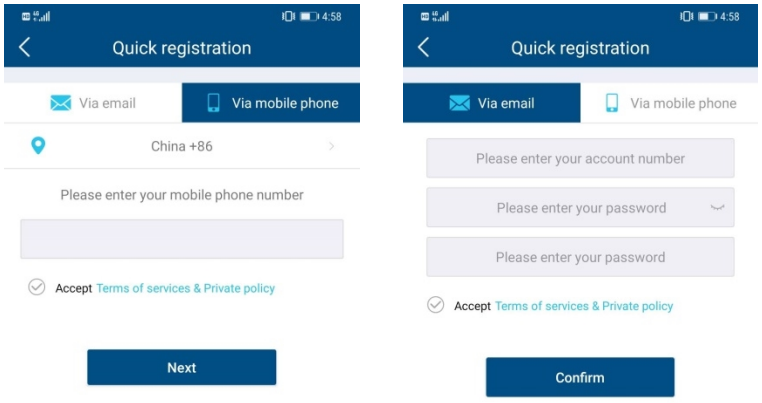


Figure 2-1-2 Registration page (tab page to switch email address/mobile phone)

Step 3(1): Register via email address (as shown in Figure 2-1-2): Enter the working email address and login password (the password length is greater than 6 digits and less than 32 digits, which can be upper- and lower-case English alphabets A (a) -Z (z) and numbers 0-9)

Step 3(2): Register via mobile phone (as shown in Figure 2-1-2): Enter the working mobile phone number and login password (the password length is greater than 6 digits and less than 32 digits, which can be upper- and lower-case English alphabets A (a) -Z (z) and numbers 0-9)

Step 4(1): Register via email address: After completing the registration, AisweiCloud will send an activation email to activate your AisweiCloud account according to the information in the email. If you have not received an activation email in your inbox, look it up in the spam box.

Step 4(2): Register via mobile phone: After filling in the mobile phone number, AisweiCloud will send a verification message. After the verification code is correct, you can use your AisweiCloud account.

I. If you have not received the email from AisweiCloud, the reasons may be:

1. The email is defined as spam. Please check if the email is in the spam box. If the email sent by AisweiCloud is defined as spam, please add the email address of AisweiCloud to your white list to avoid subsequent emails being defined as spam; AisweiCloud uses the Aliyun proxy server to send emails. If you have not received emails, please contact the customer service staff.

2. Maybe the mailbox you opened is not the email address you filled in when you registered. Please confirm if it has been sent to another email address. If you filled in an unknown email address during registration, please re-register.

II. If you have not received the message from AisweiCloud, the reasons may be:

1. Maybe the mobile phone number you used is not the one you filled in when you registered. Please confirm if it has been sent to another mobile phone number. If you filled in an unknown mobile phone number during registration, please re-register.

2.2 Create a photovoltaic power station

Step 1: Open the AiSWEI APP and log in with the registered account.
Step 2: After successful login, you will enter the photovoltaic power station list page, as shown in Figure 2-2-1 (Note: If you have not previously created or shared a power station, the power station list will be empty).

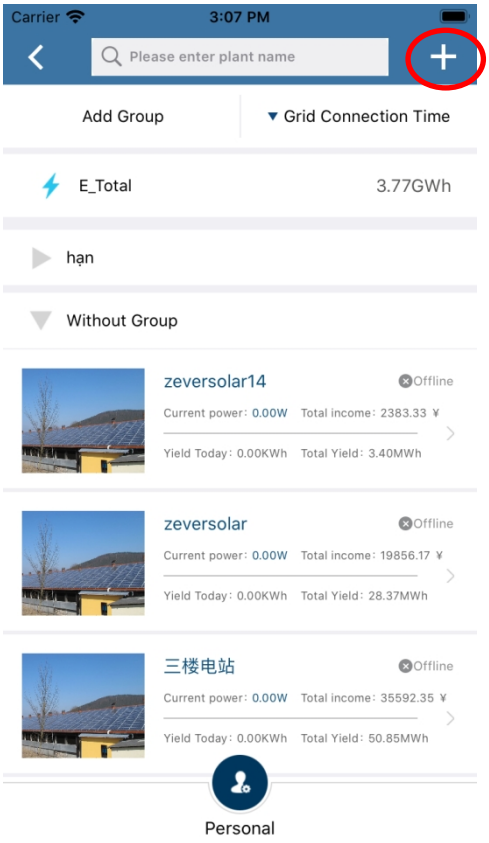


Figure 2-2-1 Power station list page

Step 3: Click the "+" button marked in red in the upper right corner of Figure 2-2-1 to enter the photovoltaic power station 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 enter it manually or click the icon at 1 to call the mobile phone camera to scan the QR code and fill it in automatically.
2. Fill in the installed capacity, which is conducive to real-time evaluation of the performance of the photovoltaic power station.
3. Select the correct time zone. For China, please select +8 Beijing time zone.

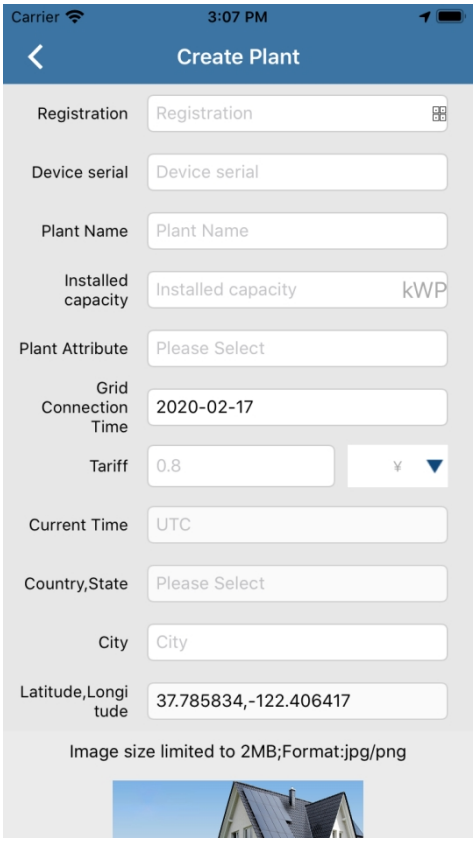


Figure 2-2-2 Create power station page

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

When creating the photovoltaic power station, you need to enter the serial number and registration code of the monitor, or scan the QR code containing the two messages. This information can be found on the label on the outside of the inverter/monitor.

The status icon of the power station will be displayed on the power station list page. The explanation is as follows:

: All devices are online and no errors occur.

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

: One or more devices have faults. The fault status will be cleared when the inverter Generation is> 100W.

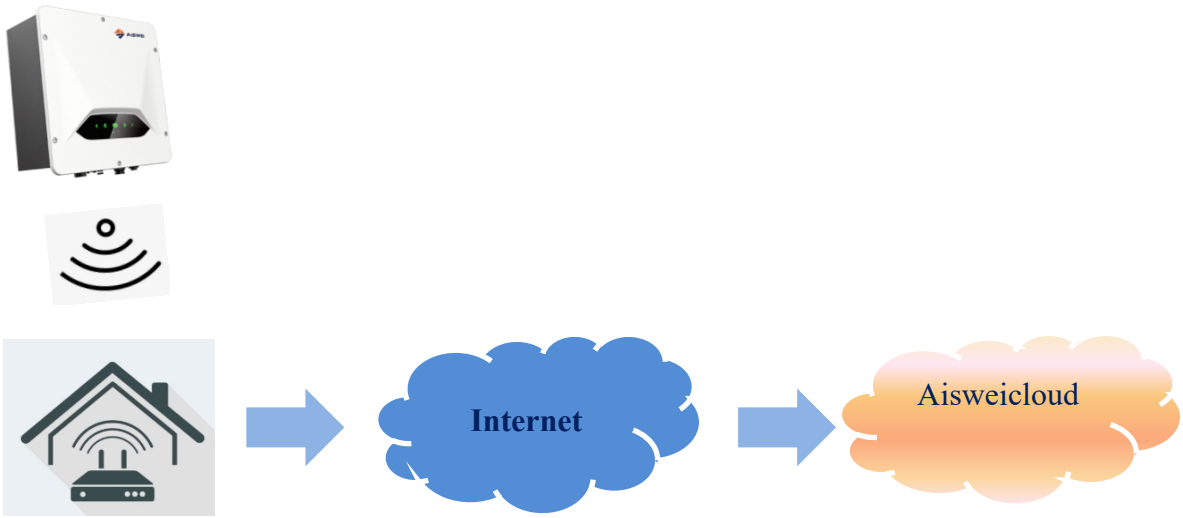
: All devices are offline.

2.3 Network configuration of monitoring device

After the photovoltaic power station is created, we can connect the monitoring device to the cloud platform. The monitoring device needs to upload data to the cloud via the network. GPRS monitoring device can directly access the Internet without network configuration; For WIFI devices, network configuration is required.

GPRS network diagram:

WIFI network diagram:



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

Step I: First, open the AiSWEI APP start interface, click the monitoring configuration at the bottom to start scanning the QR code on the shell, as shown in Figure 2-3-1:

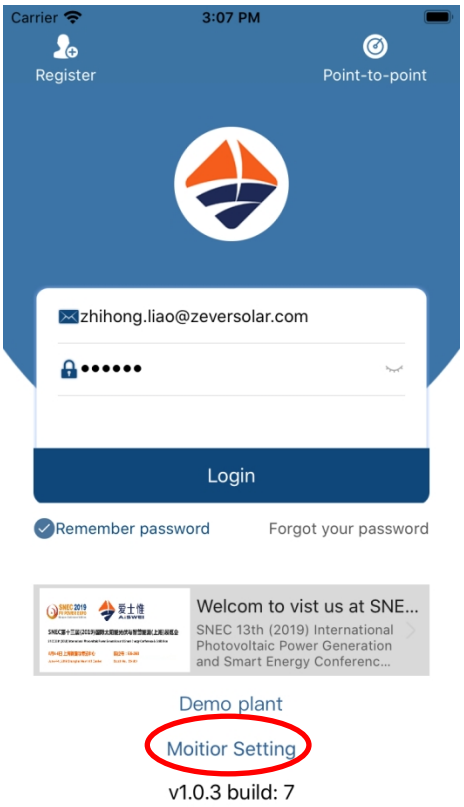


Figure 2-3-1 Monitor setting

Step II: Manually write the information of the router to be connected on the network configuration interface that pops up after scanning the code, and click Settings, as shown in Figure 2-3-2. If the router information written is correct, it will display the network configuration success and display some device information on the current interface, as shown in Figure 2-3-3

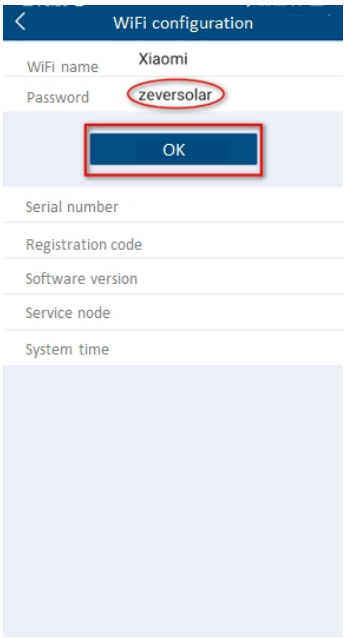


Figure 2-3-2 WiFi configuration

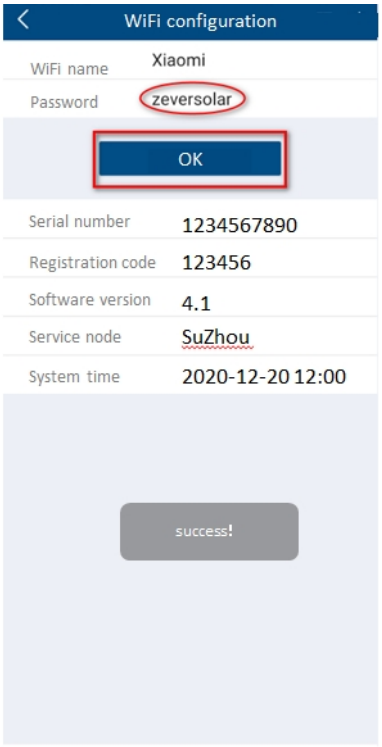


Figure 2-3-3 WiFi configuration

Step III: If Step II fails, the WIFI device will turn on hotspot mode. After the mobile phone is connected to the WIFI hotspot of the monitoring device (SSID: AiSWEI-XXXX), open the APP to the homepage and click the point-to-point in the upper right corner. As shown in Figure 2-3-4:

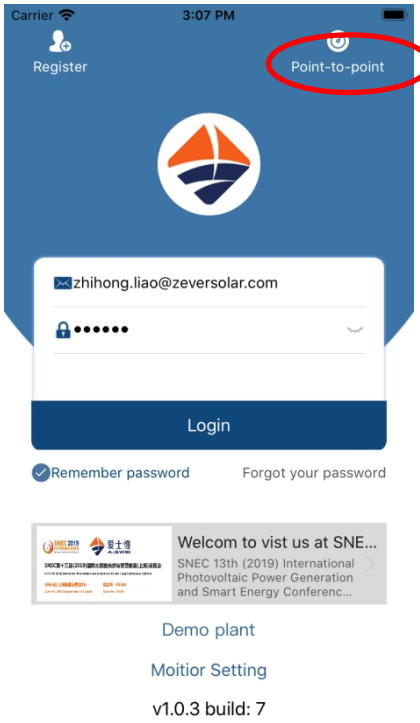


Figure 2-3-4 WiFi configuration

Enter the point-to-point. The APP will automatically search for monitoring devices in the network, and list the devices in the form of serial number + IP. As shown in the following Figure 2-3-5 and 2-3-6

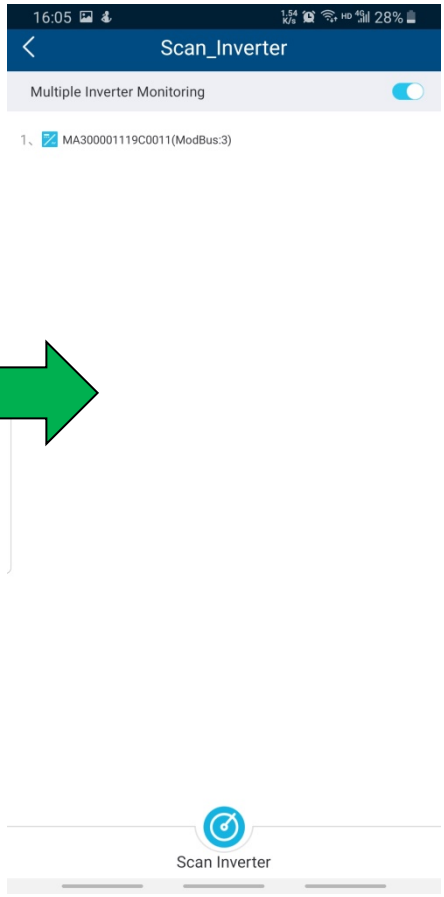
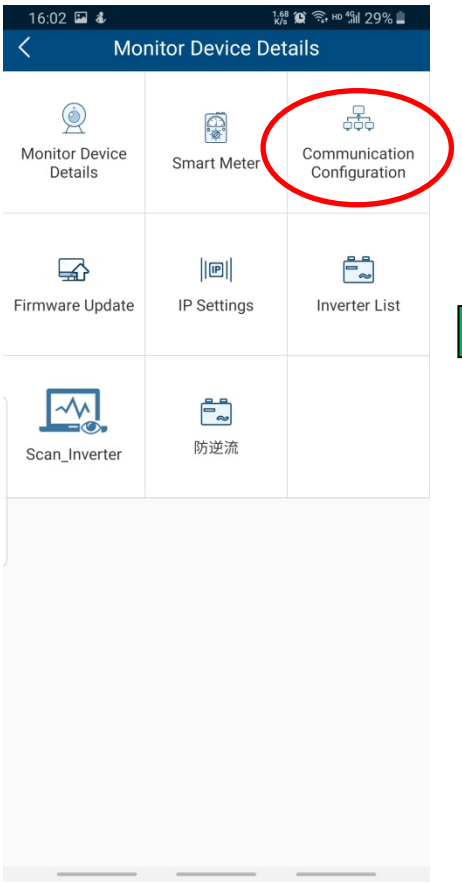


Figure 2-3-5 WiFi configuration

Figure 2-3-6 WiFi configuration

Step III: Select the monitoring device to enter →communication configuration. On the router page, configure the connection between the WIFI of the monitor and the user router (the router should be able to access the Internet). 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, then enter the router password, and click to confirm that the setting is successful. As shown in Figure 2-3-8



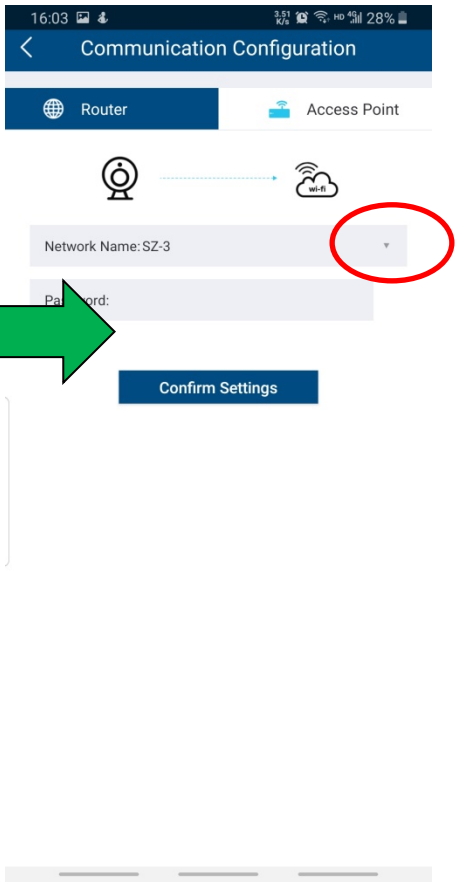


Figure 2-3-7 Communication configuration

Figure 2-3-8 Communication configuration

After the above configuration is successful, the monitor will automatically connect to the router to access the cloud server, and collect and upload data.

2.4 Browse photovoltaic power stations

The menu structure of the photovoltaic power station is shown in Figure 2-10:

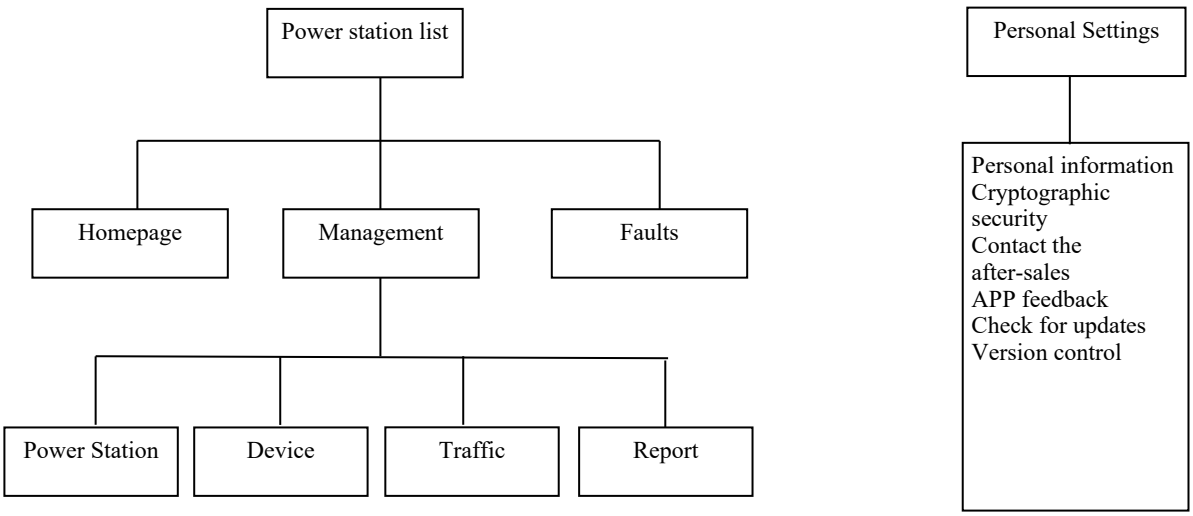


Figure 2-10 Menu structure of photovoltaic power station monitoring page

2.4.1 Homepage

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

The instrument panel in the figure shows the ratio of the current inverter power to the installed capacity. This ratio can be used to estimate the energy generation efficiency of photovoltaic system.

At the bottom, there are statistical curves and histograms of the power station. As shown in Figure 2-4-1-2

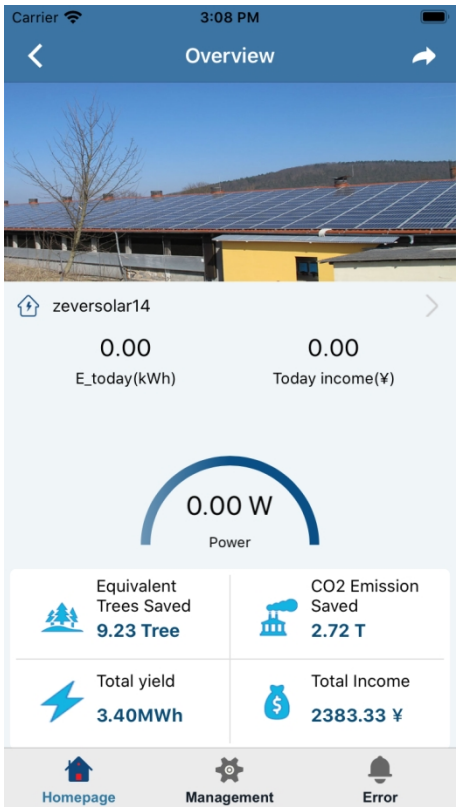


Figure 2-4-1-1 Overview page

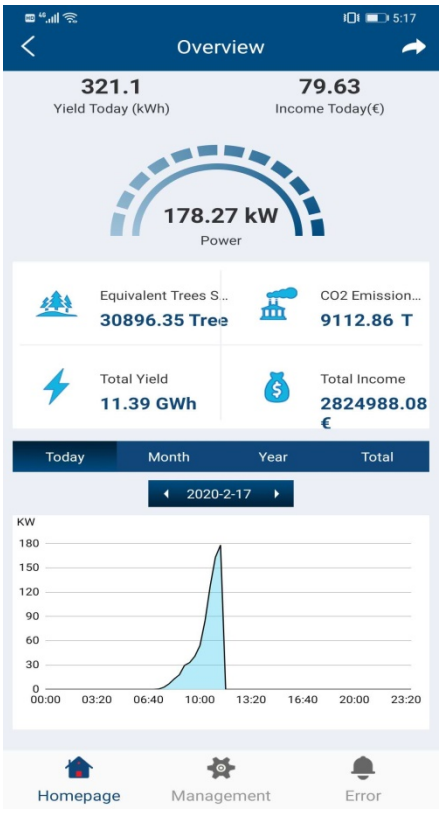


Figure 2-4-1-2 Overview chart

The energy efficiency displayed on the instrument panel can reflect the performance of the photovoltaic system, so please fill in the installed capacity of the power station correctly (see the menu: "Management"-> "Power Station" for details).

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

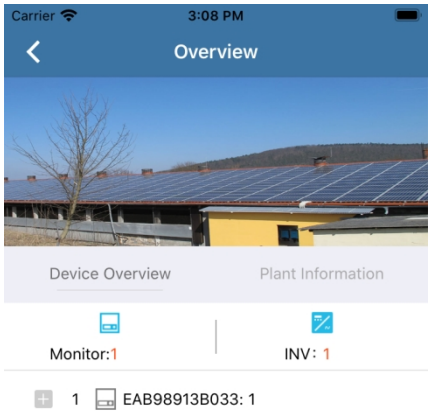
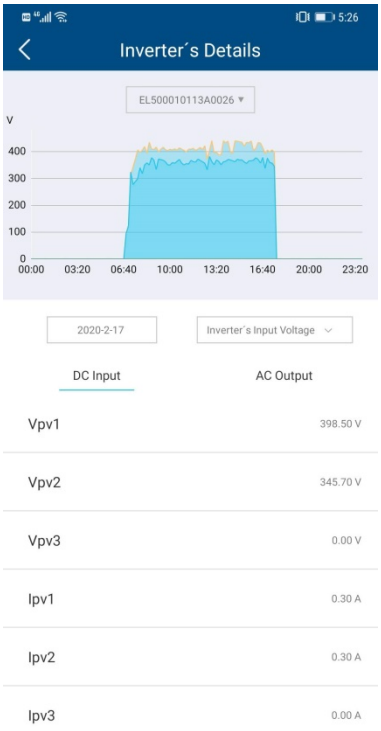


Figure 2-4-1-3 Device overview page Figure 2-4-1-4 Power station information page

In the device overview page, you can directly enter a single inverter to view detailed data curves. As shown in Figure 2-4-1-5:



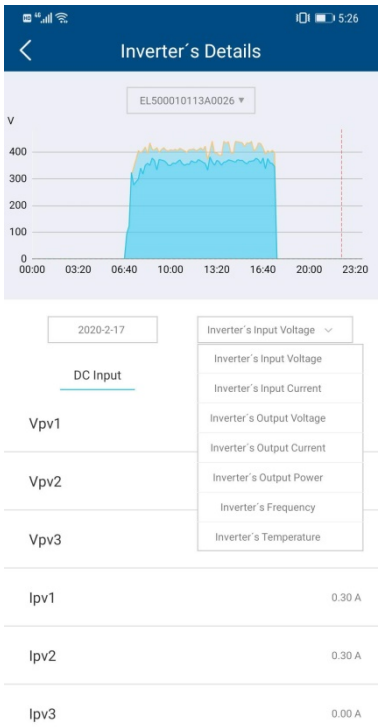


Figure 2-4-1-5 Inverter curve Figure 2-4-1-6 Curve switching

The curve section displays the input voltage by default. Other parameter curves can be selected

through the drop-down box on the right in the middle, as shown in Figure 2-4-1-6. The lower part of the curve is the real-time DC/AC data of the inverter on that day

2.4.2 Management

This menu provides information about the power station, devices, reports, etc..

2.4.2.1 Power station management

On this page, you can view the status of the power station and manage the power station.

1. Displays the current power station status.
   a) Green means that all devices in the power station are online and working properly
   b) Yellow indicates that some devices in the power station are offline, and the power station management personnel need to check the network and cables.
   c) Red indicates that the inverter in the power station is faulty, which needs to be checked by the power station management personnel.
2. Set a sharing account. You can host the power station to suppliers or other people for operation and maintenance management.
3. Edit and modify power station information.
4. Delete personal power stations.

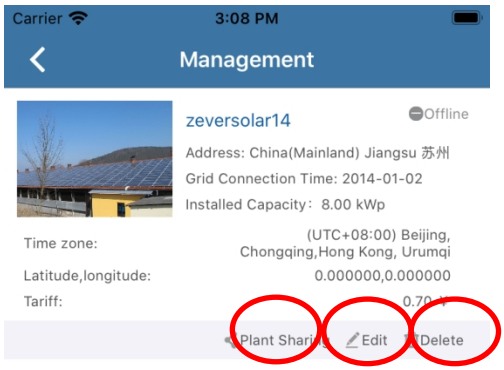


Figure 2-4-2-1 Power station management

2.4.2.2 Device

1. To add a monitoring device, you need to enter the serial number and registration code of the monitoring device, or scan the QR code of the monitoring device. As shown in Figure 2-4-2-2-2.
2. Change the monitoring device alias, support up to 32 characters (Chinese, English, numbers, special characters are not guaranteed to be valid).

3. To delete a monitoring device, you need to enter the registration code of the monitoring device. Notes: After deleting the monitoring device, all inverters under the monitoring device will also be deleted. Please operate carefully.
4. Change the inverter alias, support up to 32 characters (Chinese, English, numbers, special characters are not guaranteed to be valid).
5. Delete the inverter. Notes: After the monitoring device is restarted, the inverter information will be updated and uploaded again. However, deleting the inverter may also cause inverter data loss. Please operate carefully.

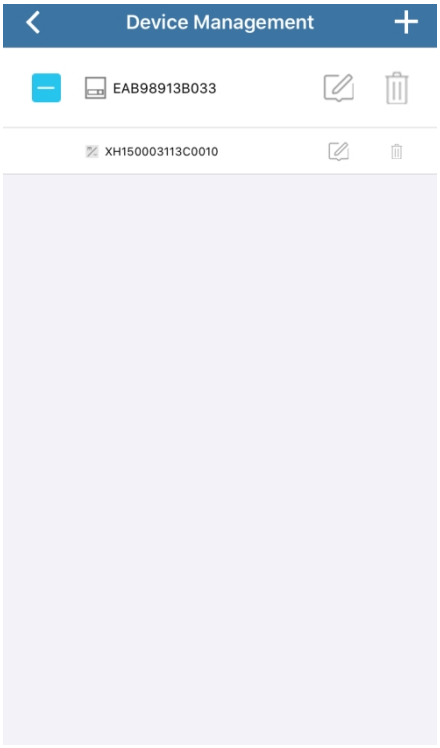


Figure 2-4-2-2-1 Device management page

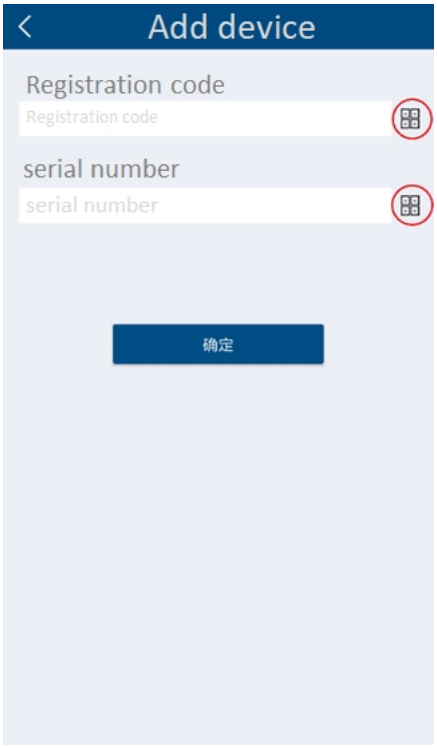


Figure 2-4-2-2-2 Add monitor

2.4.2.3 Traffic

We will provide separate personal traffic query and recharge services for domestic GPRS users, so stay tuned.

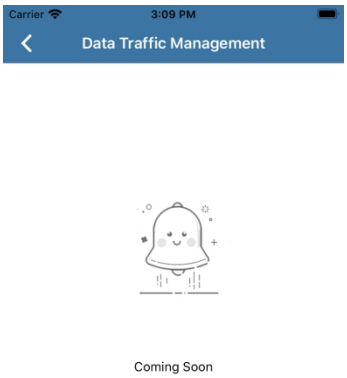


Figure 2-4-2-3 Data traffic management

2.4.2.5 Reporting

On this page, we provide you with an operation and maintenance report of the power station within one week. For details of error codes, see Annex I.

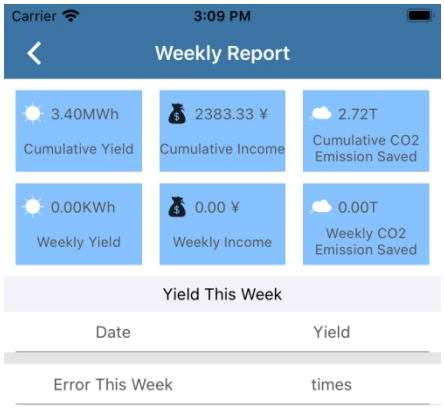


Figure 2-4-2-5 Weekly report

2.4.3 Faults

This page provides a list of inverter faults during the day. We will provide solution guidance for the fault information.

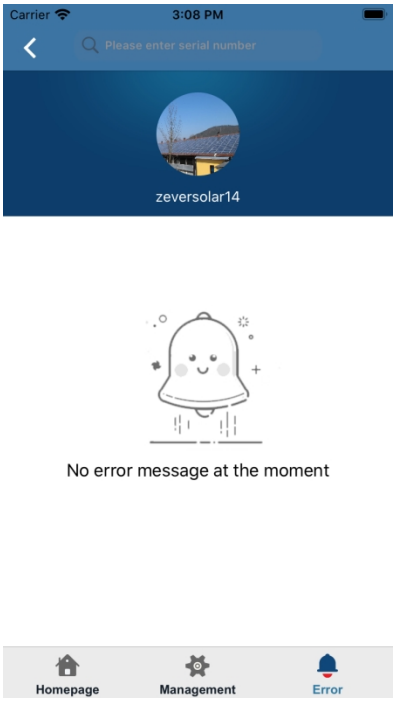


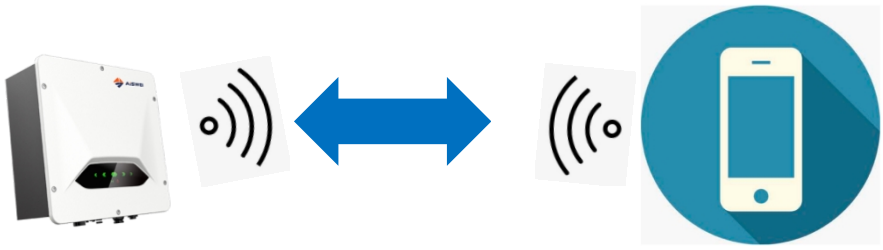
Figure 2-4-3-1 Faults

2.5 Point-to-point

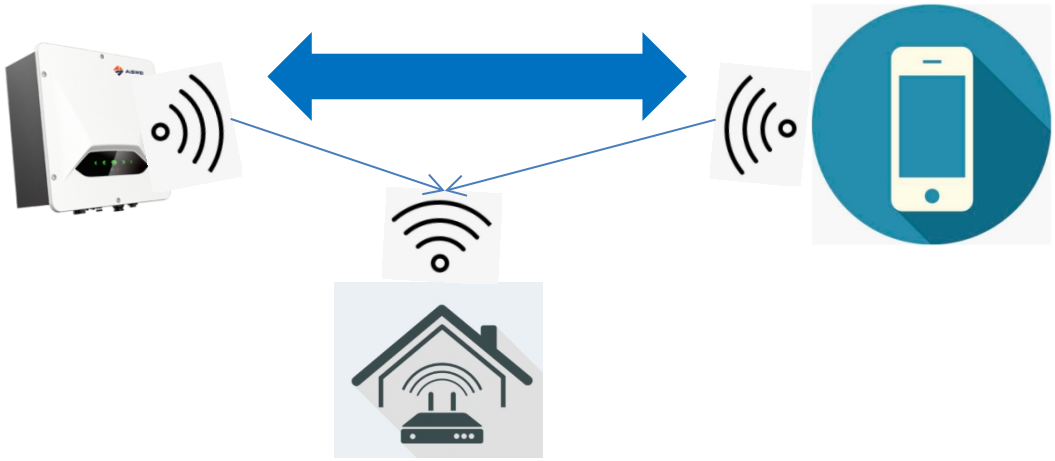
The point-to-point mode is mainly the service of setting inverter parameters provided by our company. The setting of some inverter parameters should be carried out under the guidance of our professionals.

Network diagram using point-to-point mode:

Monitor hotspot mode: The user's smart terminal is directly connected to the WIFI hotspot of the inverter through WIFI.



Router mode: Both the user's smart terminal and inverter WIFI access the home WIFI hotspot, and the smart terminal and inverter communicate with each other in the local area network.



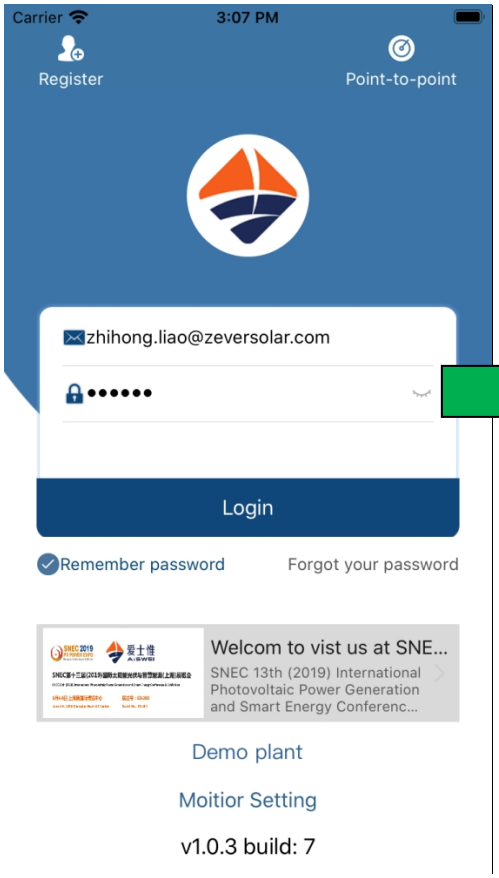


Figure 2-5-1 Home page

Figure 2-5-2 Search device

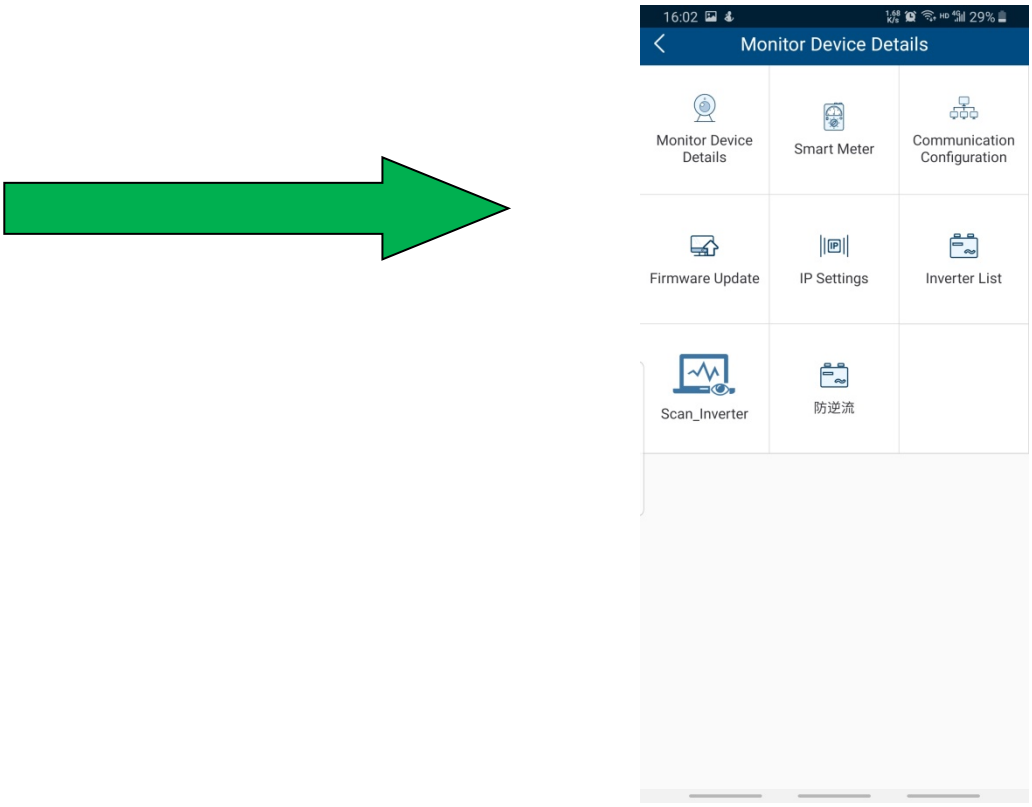


Figure 2-5-3 Point-to-point menu page

Before opening the monitoring device control interface, first make sure that your terminal mobile phone device has been manually connected to the WiFi of the monitoring device.

2.5.1 Monitor details

The basic information of the monitor can be viewed on this page.

1. View the status of connecting cloud platform: Normal connection of the cloud platform is displayed with a green tick; Abnormal connection of the cloud platform is displayed with a red cross. The network exception code is shown in the following brackets. See Annex II for code instructions.
2. Click this button to synchronize the time of the mobile phone to the monitoring device. If the monitoring device can access the cloud platform through the external network, the monitoring device will be based on the synchronization time of the cloud platform.
3. Click the button behind the reset monitor. The monitor will restore factory settings, and the network needs to be reconfigured before it can be used. For details, please refer to 2.3 network configuration of monitoring device
4. Click the button behind the restart monitor, the monitoring device will restart, and you need to re-scan and search the monitor device at the point-to-point in the upper right corner of the APP start interface.

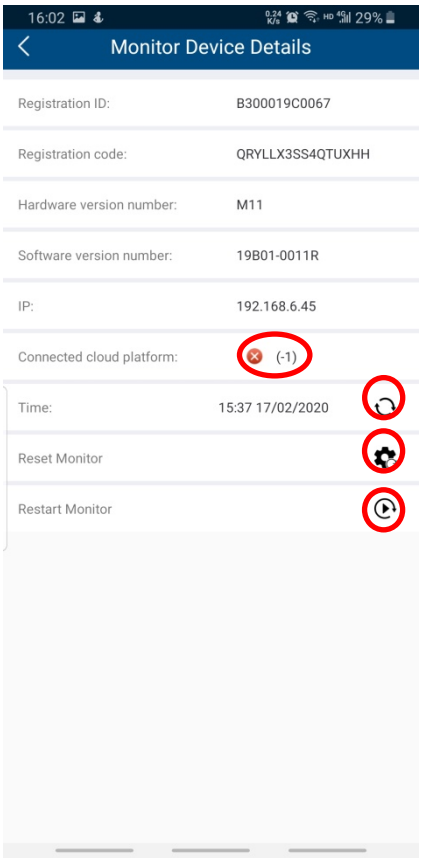


Figure 2-5-4 Monitor information page

2.5.2 Smart electric meter

The company's monitoring device can be connected to the smart electric meter protocol for power control output or user electricity analysis.

1. The monitoring device is currently compatible with the following smart electric meter models of Easton Technology (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. Click the button behind the meter switch to enable or disable the meter.
3. Click on the meter model to select the meter installed
4. The real-time power of the meter is positive or negative
    a) + power indicates the current meter buys electricity and inputs.
    b) - power indicates the current meter sells electricity and outputs.
5. Cumulative electricity bought
6. Cumulative electricity sold

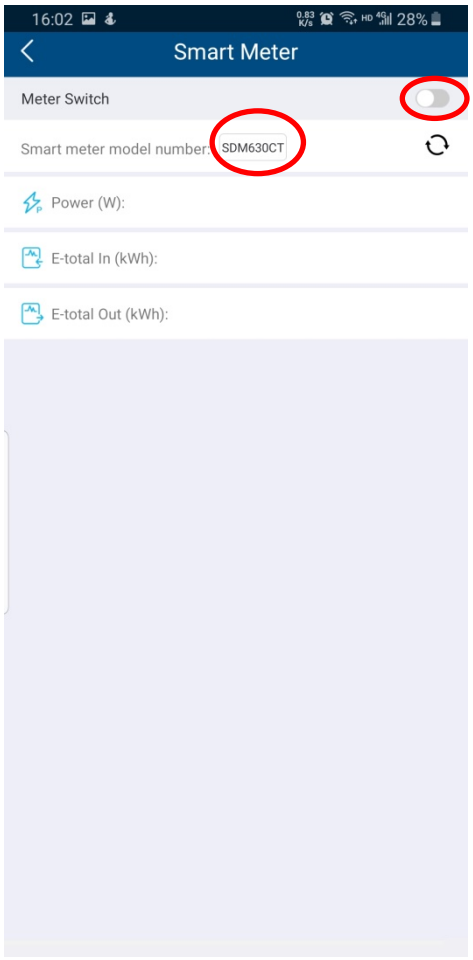
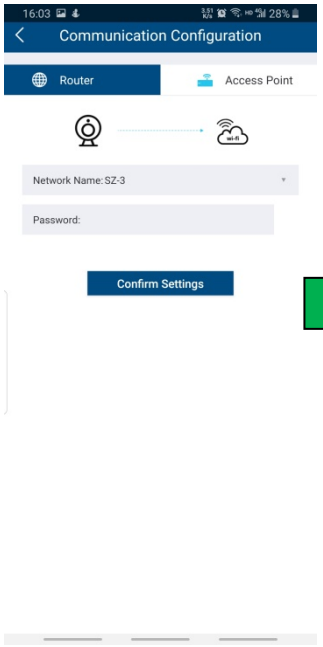


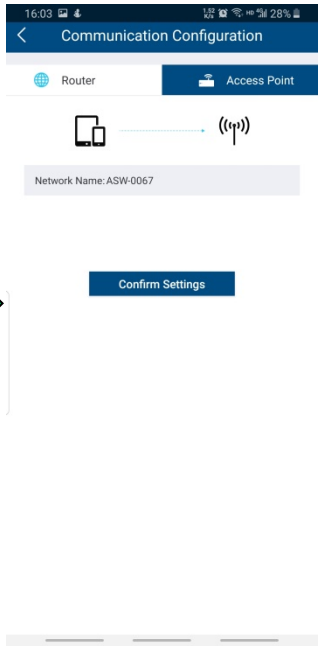
Figure 2-5-5 Smart electric meter page

2.5.3 Communication configuration

Router page: Configure the monitoring device to connect to the Internet via a router via WIFI.

WIFI hotspot page: Modify the WIFI name of the monitoring device, support a maximum of 32 characters.





Tab switching

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. When there is no network, the mobile phone APP can use the mobile phone network to download the device firmware to the mobile phone (currently only the Android version is available), and then send it to the monitoring device for upgrade.

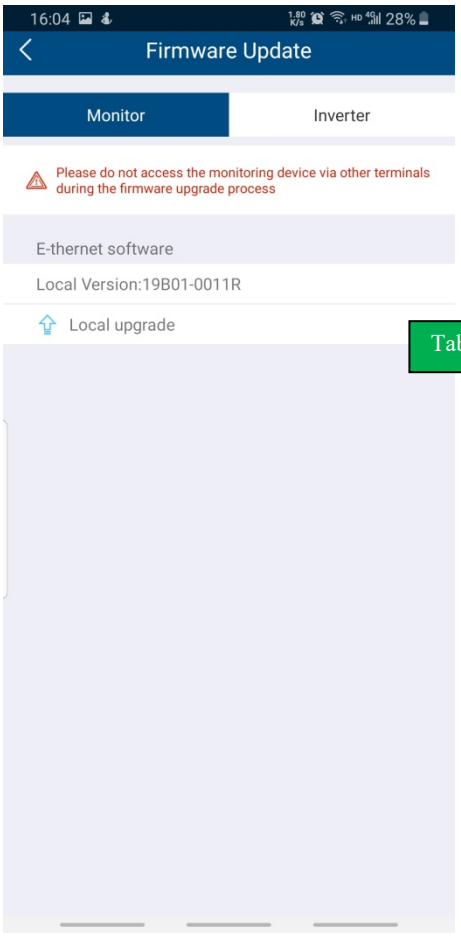


Figure 2-5-8 Firmware upgrade - monitor

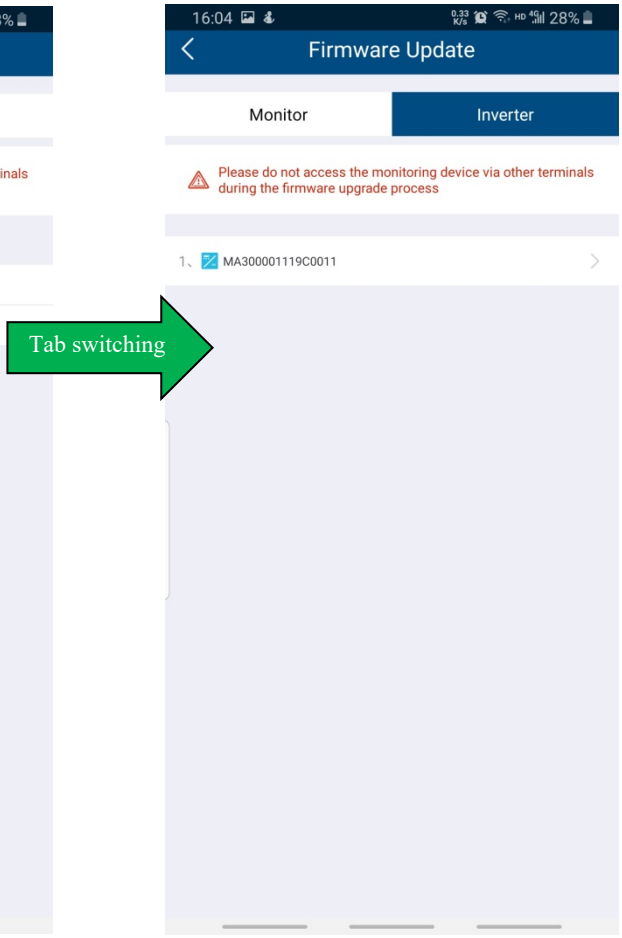


Figure 2-5-9 Firmware upgrade - inverter

Tab switching

2.5.5 IP settings

WLAN page: WIFI interface network, get the IP automatically by default; You can also cancel automatic, and manually assign the static IP .

Generally, the home network assigns IP dynamically, no static setting is needed.

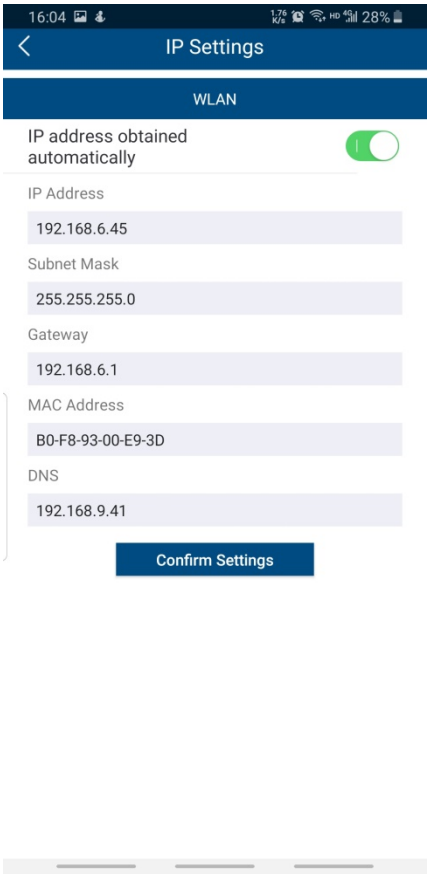


Figure 2-5-10 Network parameters - wireless network

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 can jump to the inverter parameter setting.
2. See Annex I for the explanation of inverter error codes.
3. Please set the inverter parameters carefully under the guidance of professionals.

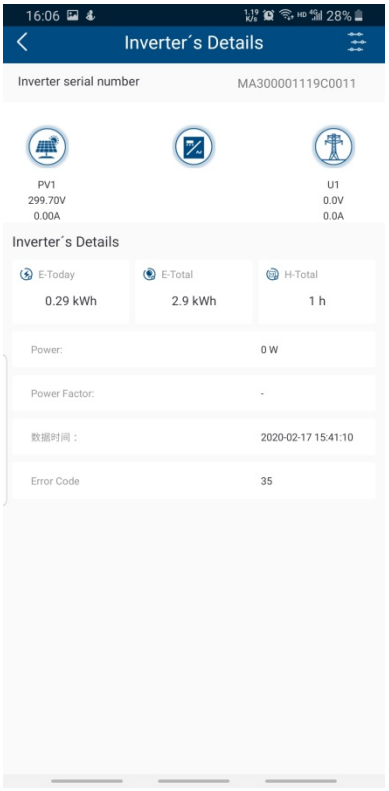


Figure 2-5-11 Inverter information

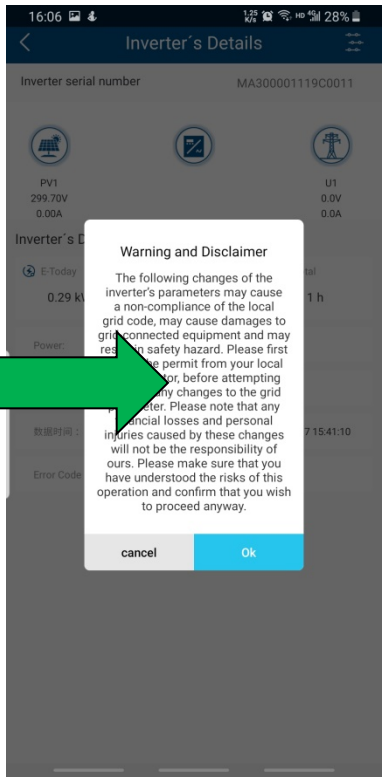


Figure 2-5-12 Disclaimer

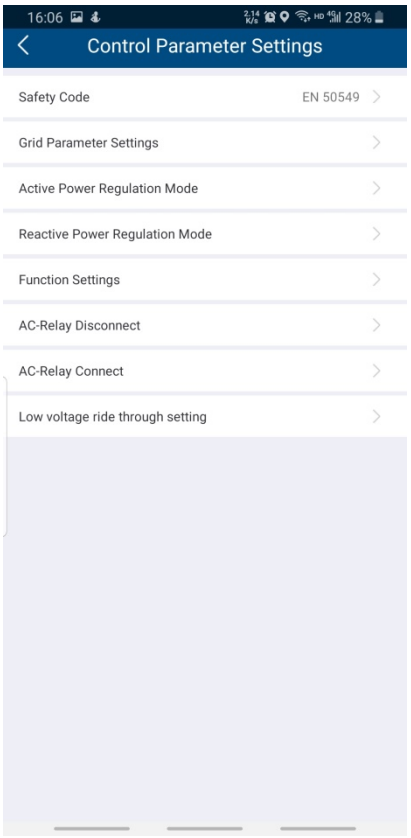


Figure 2-5-13 Parameter setting menu option

2.5.6.1 Safety code setting

Click “Safety code” will display all safety codes supported by this inverter, as shown in Figure 2-4-1-6. You can click the required safety code according to local requirements.

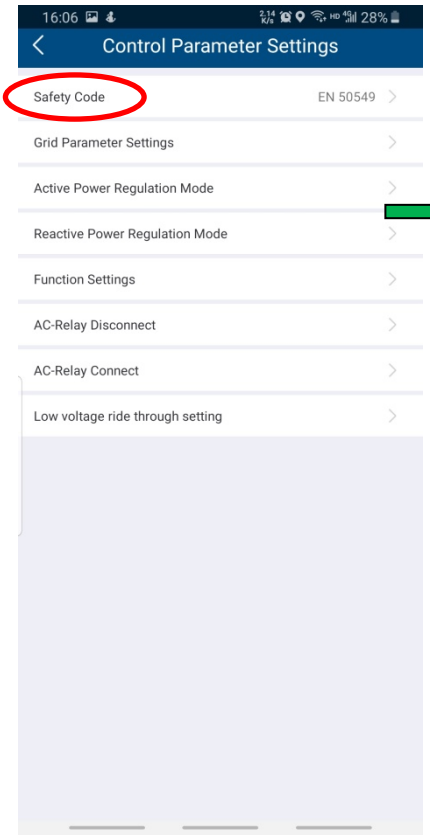


Figure 2-5-14 Select safety code

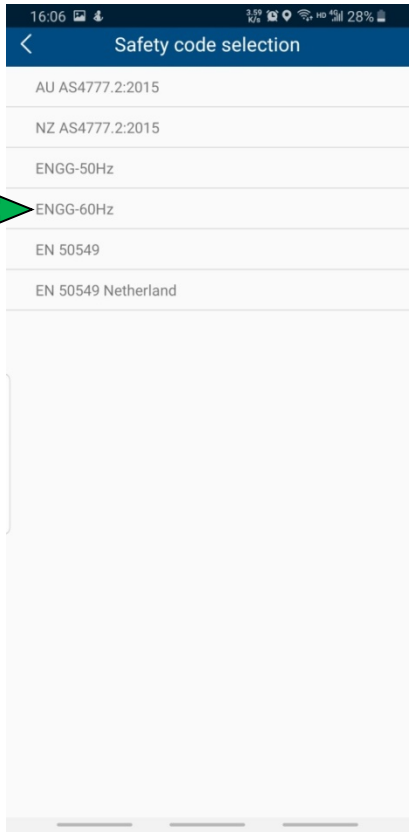


Figure 2-5-15 Select safety code

2.5.6.2 Grid parameter settings

Click "Grid parameter settings" to set the grid protection parameters. Click Grid Voltage Protection 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 2-5-16

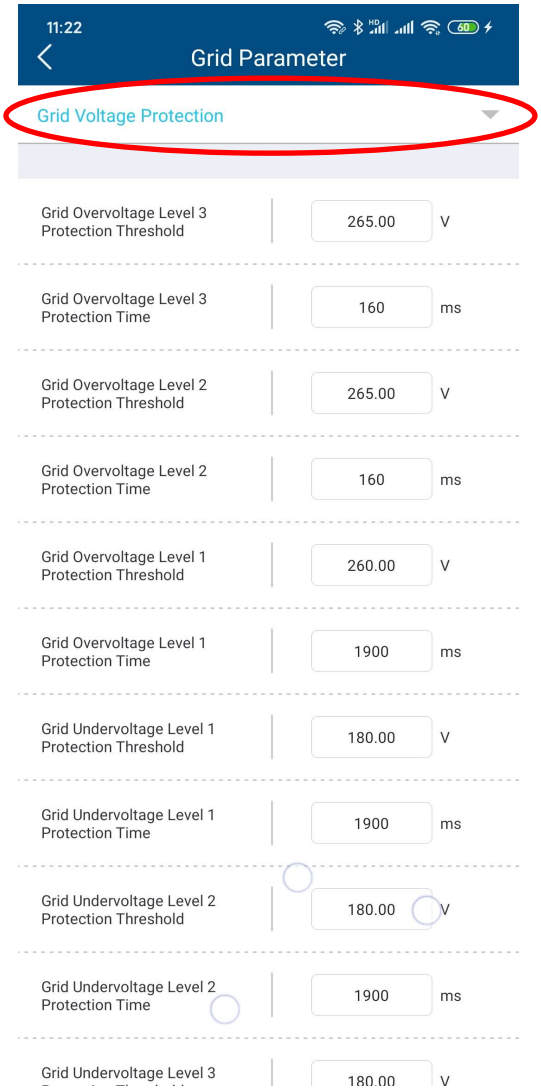


Figure 2-5-16 Grid voltage protection

- **Frequency protection setting:** the inverter can set three levels of frequency protection values and the time corresponding to each protection value .As shown in Figure2-5-17.

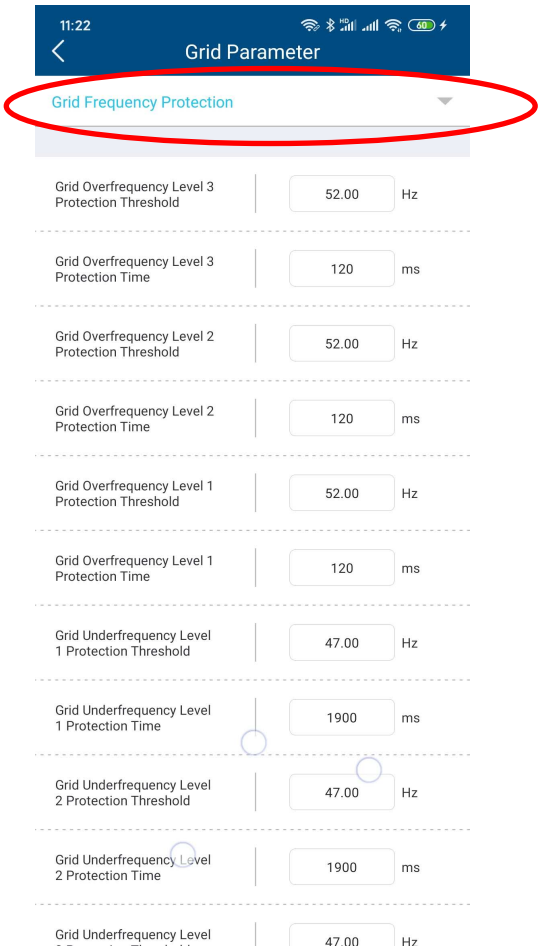


Figure 2-5-17 Grid frequency protection

- **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 Figure2-5-18.

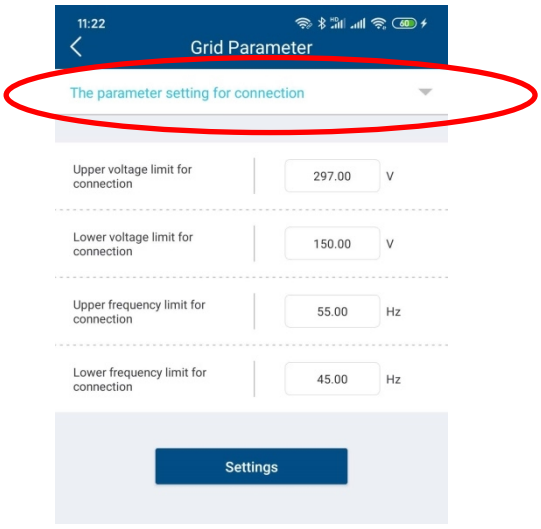


Figure 2-5-18 The parameter setting for connection

- **The reconnection time setting:** the first startup time and reconnection time of the inverter. As shown in Figure2-5-19 .

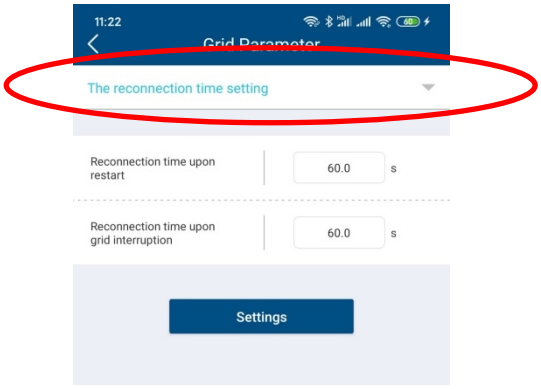


Figure 2-5-19 The reconnection time setting

- **ISO protection value setting:** Insulation resistance monitoring setting of photovoltaic system. As shown in Figure2-5-20.

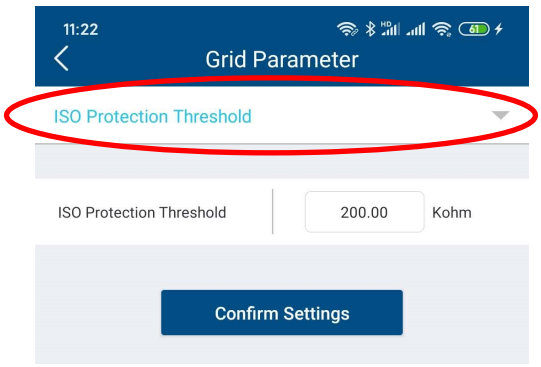


Figure 2-5-20 ISO protection threshold

2.5.6.3 Active Power Control

You can set parameters related to active power adjustment and parameters related to active power curve here.

Figure 2-5-21 Active power control

Active Power Regulation:
Click Active Power Regulation. As shown in figure 2-5-22.

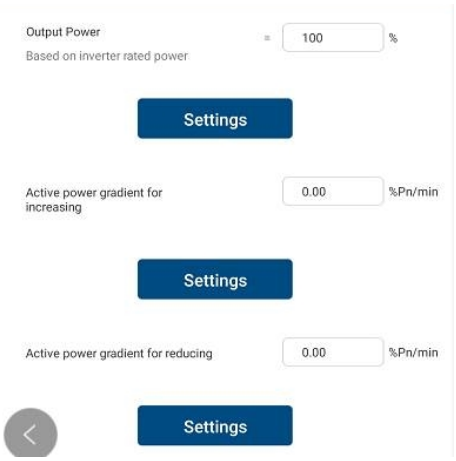


Figure 2-5-22 Active power regulation

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 2-5-23. 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. The curve with or without hysteresis can be chosen. you can enter all the parameters and click setting.

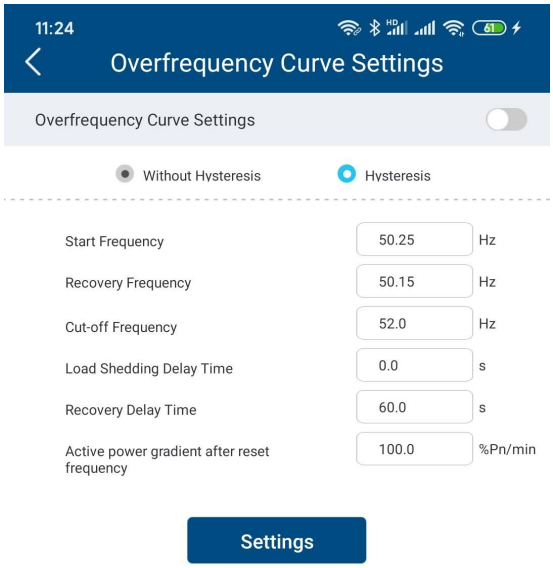


Figure 2-5-23 Over frequency curve Settings

The illustration of the curve without hysteresis is shown in figure 2-5-24. PM is the reference power level when the frequency reaches or exceeds start frequency point. Pn is the rated active power of this inverter.

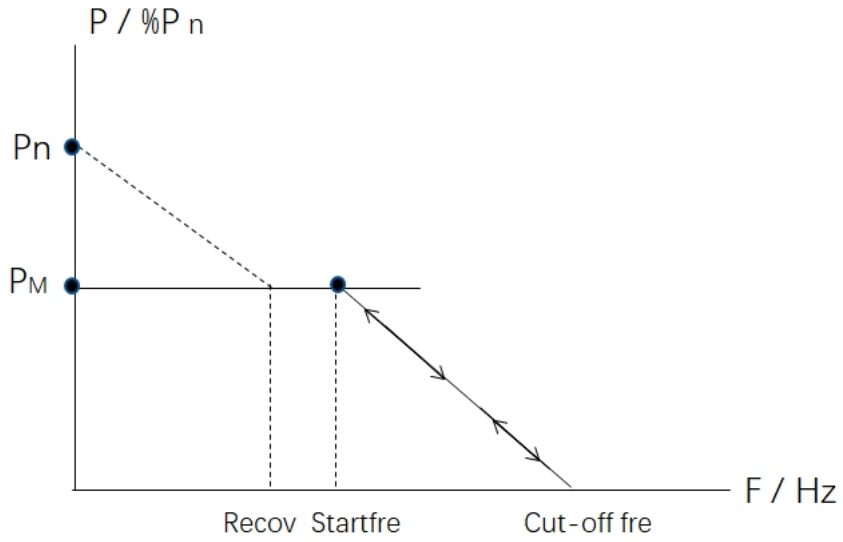


Figure 2-5-24 The illustration of the curve without hysteresis

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.

The illustration of the curve with hysteresis is in figure 2-5-25 . PM is the reference power level when the frequency reaches or exceeds start frequency point. Pn is the rated active power of this inverter.

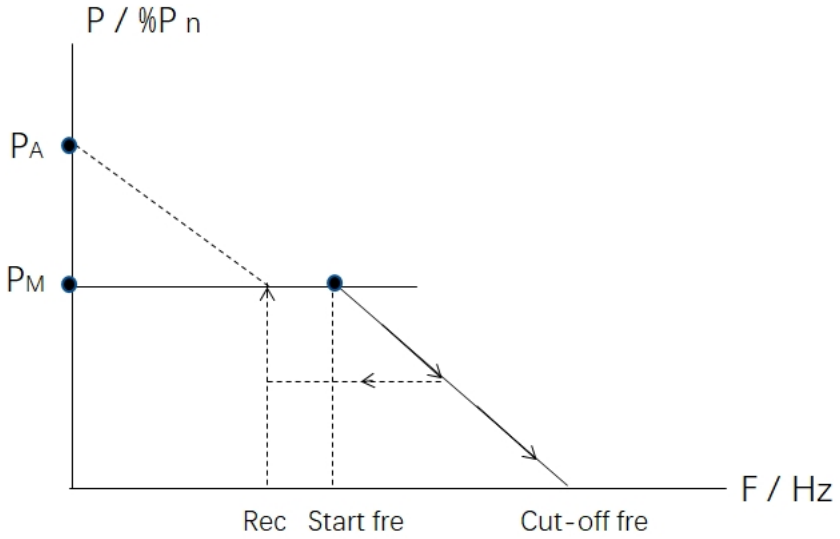


Figure 2-5-25 The illustration of the curve with hysteresis

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 2-5-26 . 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. The curve with or without hysteresis can be chosen. you can enter all the parameters and click setting.

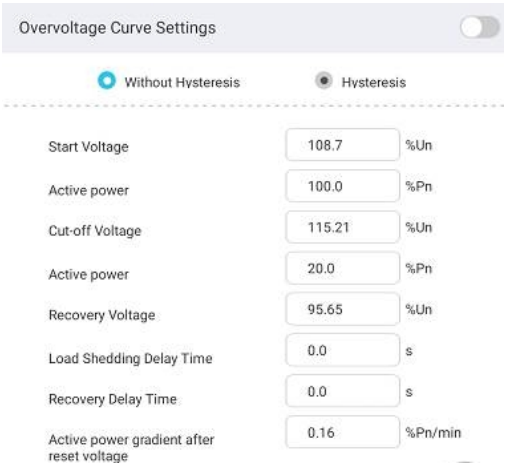


Figure 2-5-26 Click Overvoltage Curve setting

The illustration of the curve without hysteresis is shown as figure 2-5-27 .

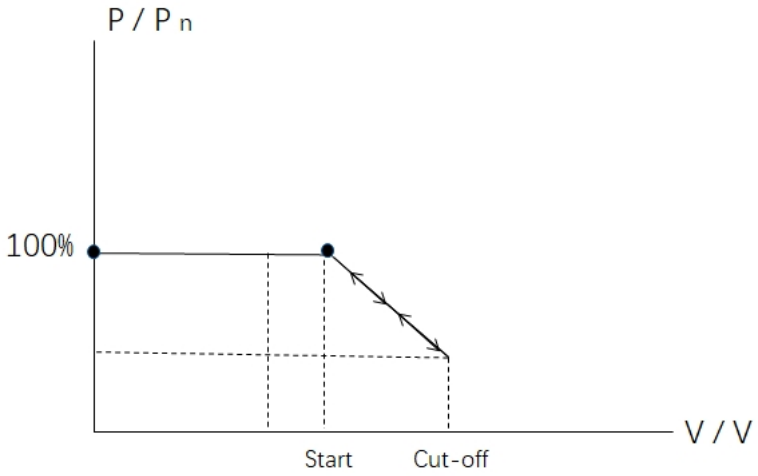


Figure 2-5-27 The illustration of the curve without hysteresis.

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 2-5-28.PM is the reference power level when the frequency reaches or exceeds start voltage point. Pn is the rated active power of this inverter.

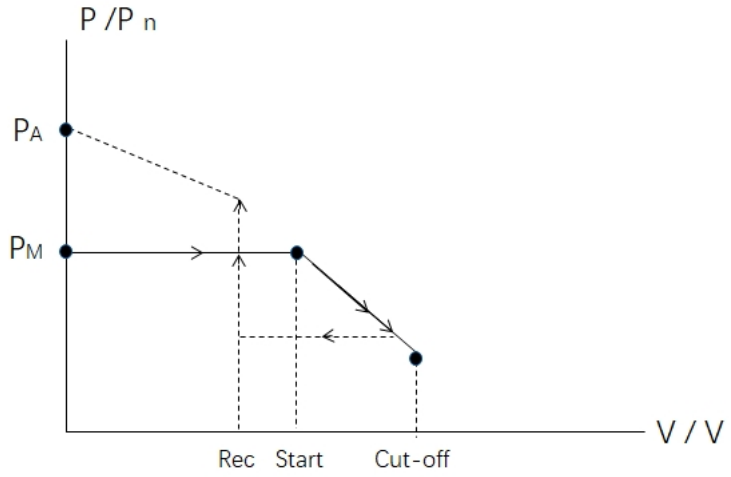


Figure 2-5-28 The illustration of the curve with hysteresis.

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

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 2-5-29 . The cosφ can be entered directly and the lagging or leading of the reactive power can be chosen.

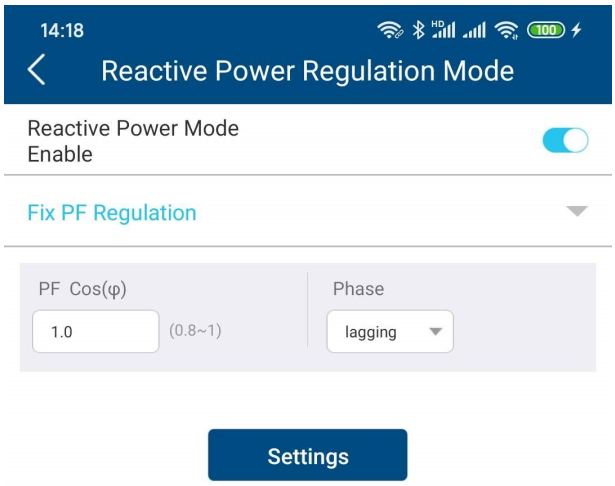


Figure 2-5-29 Fix PF Regulation

Fix Q Regulation:

Choose the Fix Q Regulation, as shown in figure 2-5-30. The reactive power value Q can be entered directly and the lagging or leading of reactive power can be chosen.

Figure 2-5-30 Fix Q Regulation

Curve Q(U) Regulation:

Choose the Curve Q(U) Regulation, as shown in figure 2-5-31. The parameters of the reactive power – voltage curve can be set according to the requirement of the local network company.

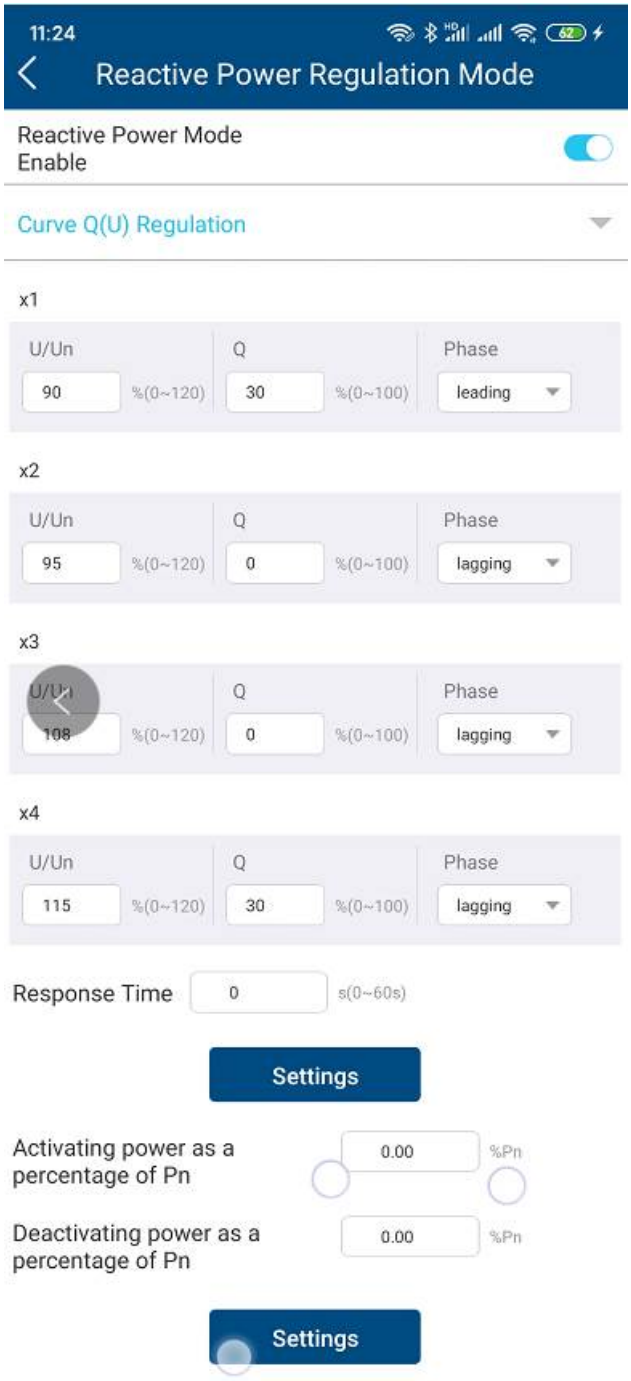


Figure 2-5-31 Curve Q(U) Regulation

The illustration of the curve is shown figure 2-5-32 .

There are four Coordinate points can be entered and the lagging or leading for every reactive

power can be chosen. The 3 τ of the ideal first order filter response time can be enter in the Response Time. Click Settings after entered all parameters.

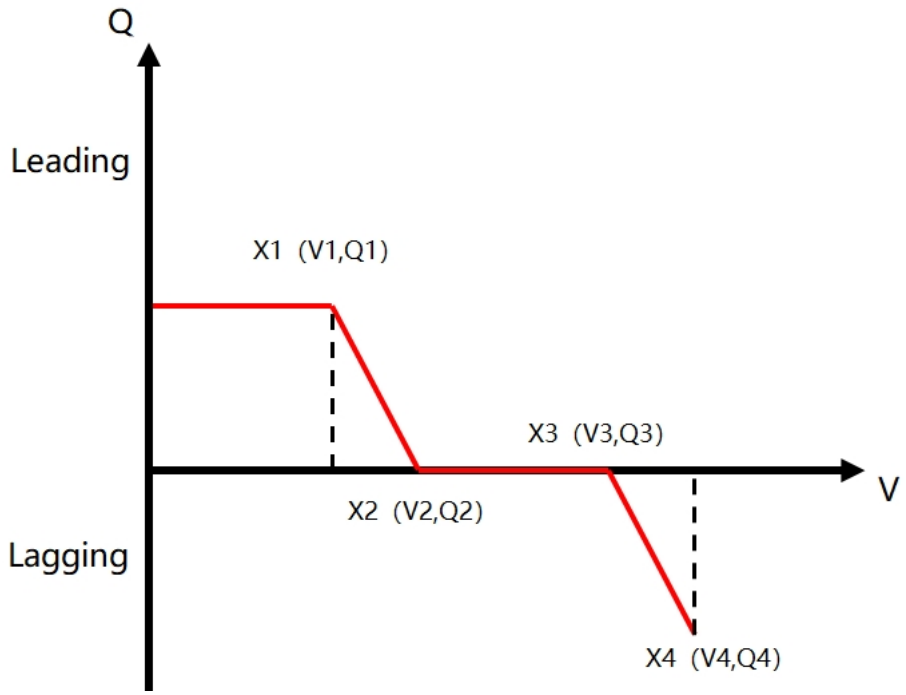


Figure 2-5-32Curve Q(U)

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".

Curve PF Regulation:

Choose the Curve PF Regulation, as shown in Figure 2-5-33. The parameters of the active power

- cosφ curve can be set according to the requirement of the local network company.

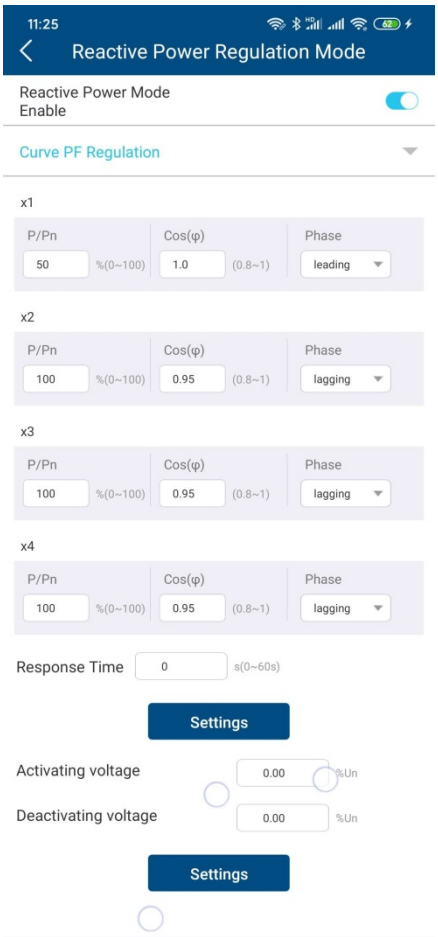


Figure 2-5-33 Curve PF regulation

The illustration of the curve is shown figure 2-5-34.

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

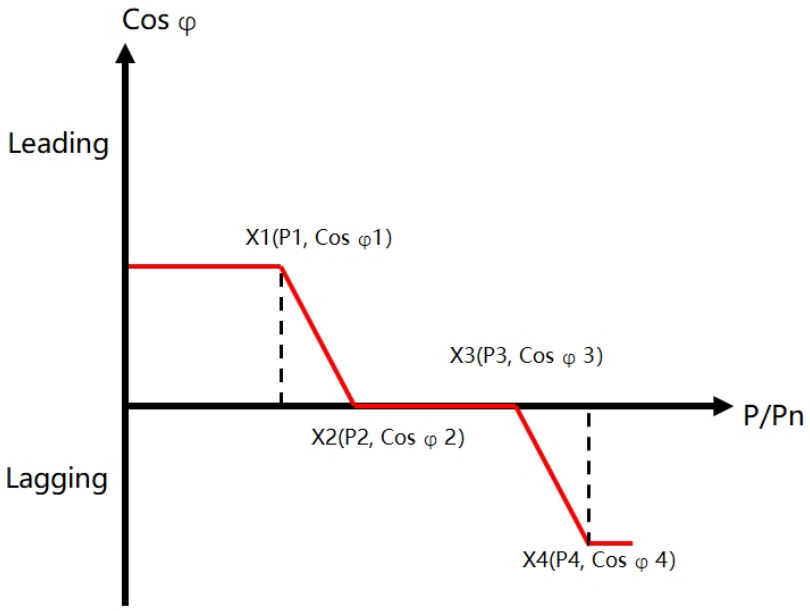


Figure 2-5-34 Curve Cosφ/P

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".

2.5.6.5 Function enable settings

This page contains the function enable switch. As shown in figure 2-5-35. 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.

Load for 10 minutes 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.

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.

Figure 2-5-35 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 2-5-36. If a pop-up message “Set up success” shown on APP, the AC relay in the inverter have been disconnected.

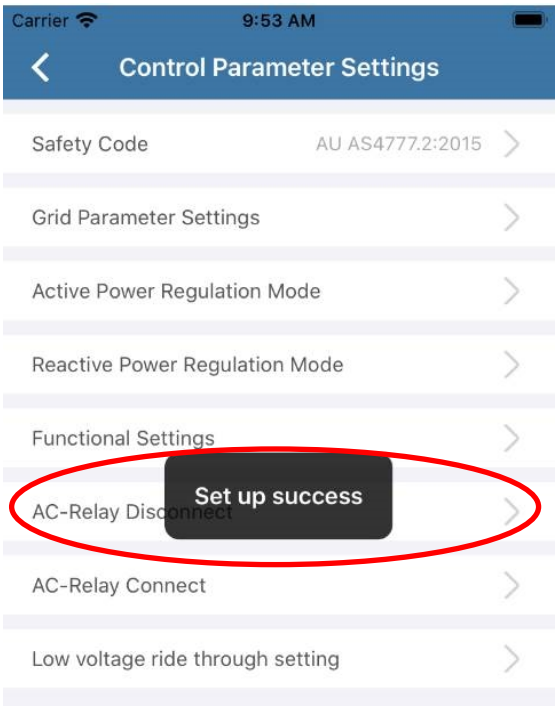


Figure 2-5-36 AC relay disconnect

- **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 2-5-37. If a pop-up message “Set up success” shown on APP, the AC relay in the inverter have been connected.

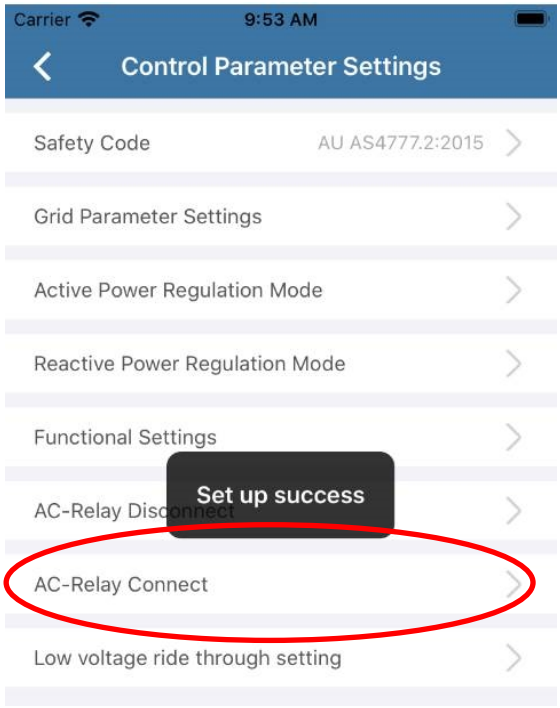


Figure 2-5-37 AC relay connect

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.

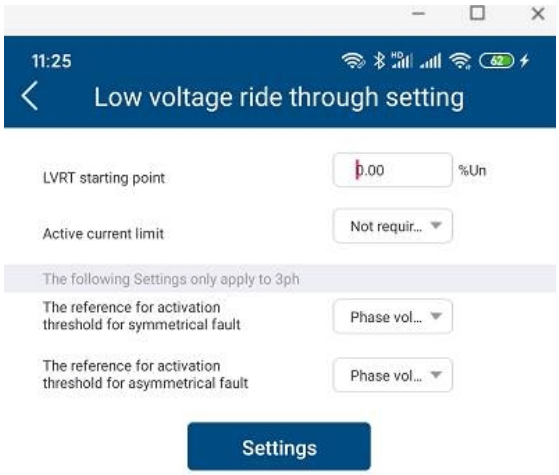


Figure 2-5-38 Low voltage ride through setting

	Inverter parameter configuration involves very professional inverter and grid knowledge. If the configuration is incorrect, the inverter may be damaged or the grid may be abnormal, so please operate under the guidance of professionals.

2.6 Personal settings

In order to better enjoy the services we provide, please fill in the information as complete as possible.

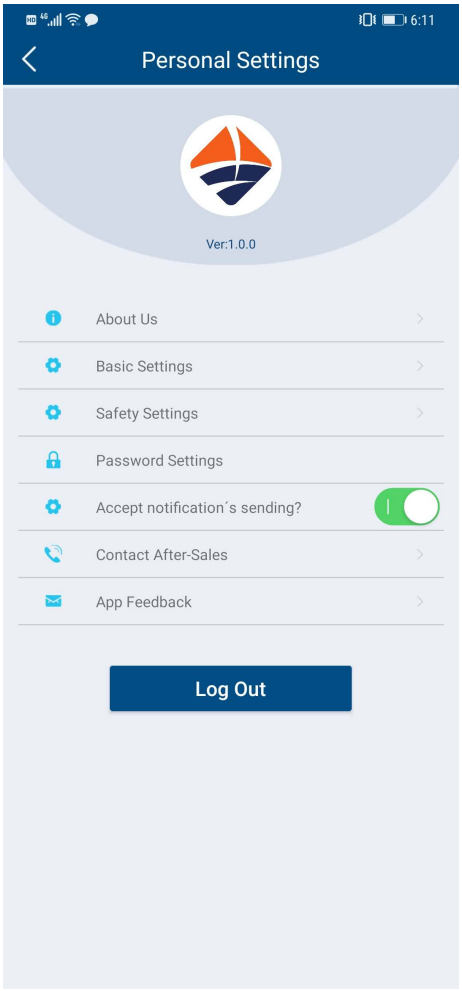


Figure 2-6-1 Personal settings page

2.6.1 Basic settings

On this page, you can complete and modify the basic personal details, as shown in Figure 2-6-2.

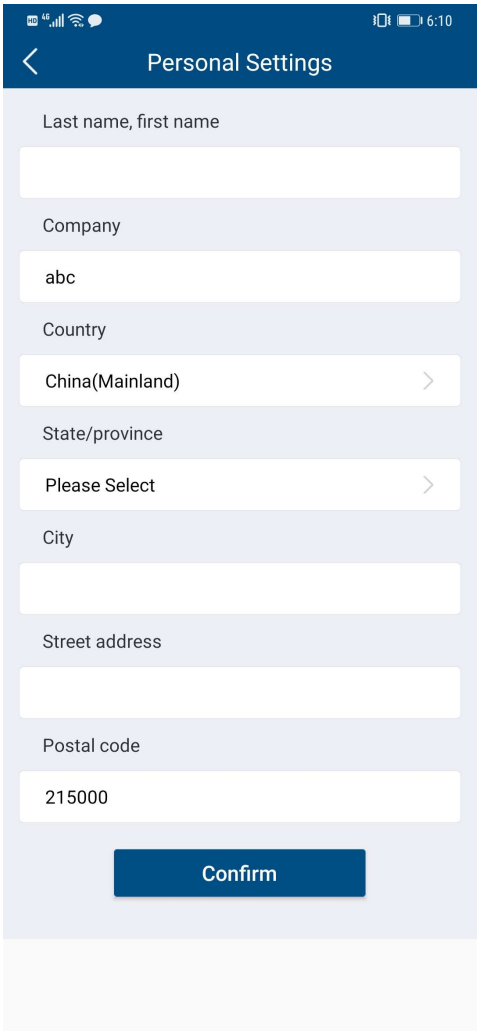


Figure 2-6-2 Basic settings page

2.6.2 Security settings

Some operations of the power station on the APP require mobile phone verification, so if you only use email to register an account, we suggest you also bind your mobile phone number.

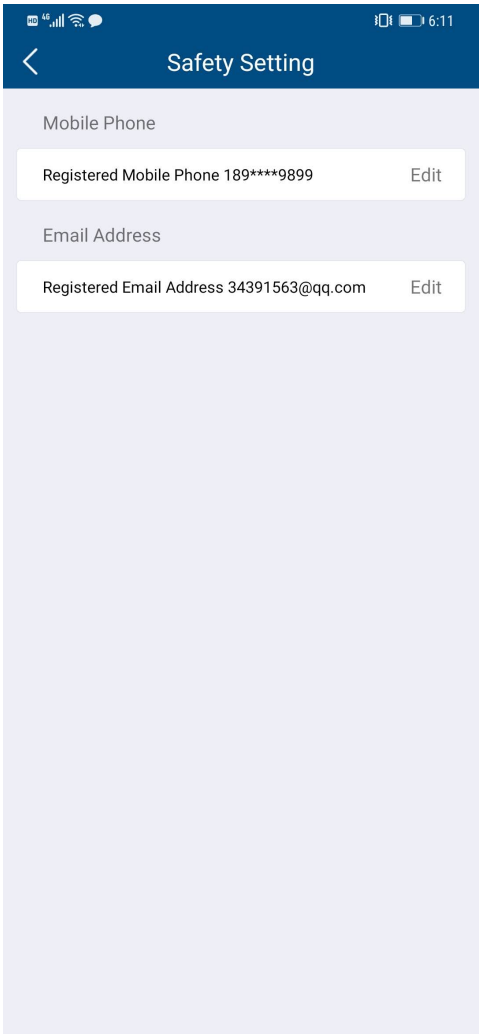


Figure 2-6-3 Security settings

2.6.3 Contact the after-sales

On this page, there is after-sales contact information in three countries. If you encounter technical problems related to our products, you can contact our related service department by clicking the "

" button on the right.

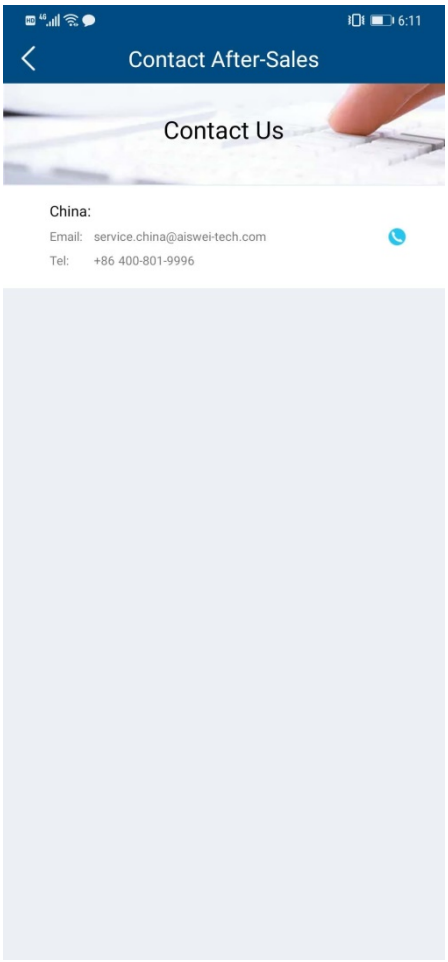


Figure 2-6-4 Contact after-sales page

2.6.4 APP feedback

On this page, you can give user feedback to our APP, edit the information you need in the text box at the top, click the " " button on the right to upload or take the picture required for feedback, and then click the "Submit" button. We will receive your feedback.

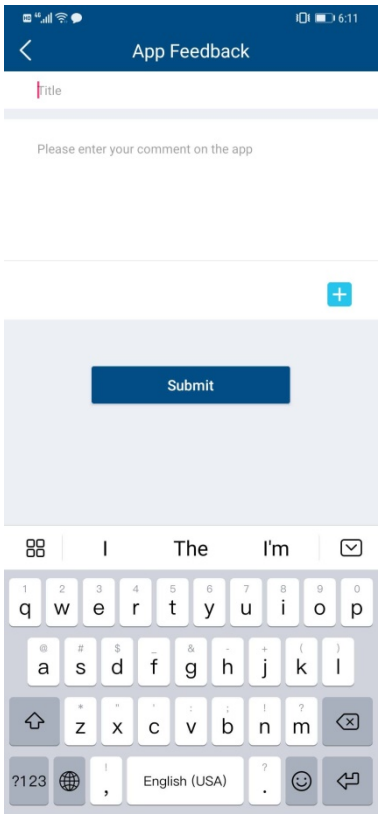


Figure 2-6-5 APP feedback page

3 Contact Us

If you encounter technical problems related to our products, please contact SMA (China) Service. We need the following information from you so that we can provide you with the necessary support:

-Monitoring device model (AiCom / AiCom WiFi / ComBox / AiManager / WIFISTICK)

-Monitoring device serial number

-Error message description

-APP client version number

You can contact our regional service department during working hours:

Service Contact:

Our regional services contact information can be found at :

https://en.aiswei-tech.com/intro/Customer-Interaction-Center-3.html

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

Tel.: +86 512 6937 0998

Fax: +86 512 6937 3159

Web: www.AISWEI-tech.com

Factory add.: No.588 Gangxing Road, Yangzhong Jiangsu, China

Headquarters add.: Building 9, No.198 Xiangyang Road, Suzhou 215011, China

Annex I:

Error code	Error description
1	Master and slave MCU communication errors
2	EEPROM read/write error
3	Relay detection error
4	Excessive DC component
5	Automatic test result error
6	BUS overvoltage
7	Reference voltage error
8	Hall element error
9	Leakage protection device error
10	Hardware error
11	Inconsistent versions of master and slave MCUs
12	Reserved
32	Reserved
33	Frequency is out of range
34	Mains voltage is out of range
35	Grid loss
36	Leakage protection device error
37	PV input overvoltage
38	Insulation resistance error
39	Fan error
40	Inverter over temperature
41	Consistency error of mains voltage detection between master and slave MCUs
42	Consistency error of mains frequency detection between master and slave MCUs
43	Consistency error of residual current detection between master and slave MCUs
44	Consistency error of DC component detection between master and slave MCUs
45	Consistency error of frequency and mains voltage detection between master and slave MCUs
46	BUS overvoltage
47	Consistency error
48	10min mains voltage overvoltage protection
49	PV1 SPD module is damaged
50	PV2 SPD module is damaged
51	Fuse is damaged
52	N line is not connected
53	ISO test: Before the constant current source is enabled, the ISO voltage is> 300mV

54	ISO test: Enable constant current source, ISO voltage> 1.37v + 20%, ISO voltage <1.37-20%
55	When N and P relays switch, ISO voltage mutation <40mV
56	GFCI protection: 30mA gear
57	GFCI protection: 60mA gear
58	GFCI protection: 150mA gear
59	PV1 string current abnormal
60	PV2 string current abnormal
61	New Australian regulations: DRMS communication function abnormal (S9 open)
62	New Australian regulations: DRMS communication disconnected (S0 closed)

Annex II

Cloud communication status code:

Fault code	Description
0	Login server successfully
-1	Ready to connect to the server
-2	Router SSID does not exist
-3	Router password error
-4	Router connection unknown error
-5	DNS parse error
-6	Not connected to the network
-7	TCP connection failed
-8	Get device information timeout
-9	Get device information 400 error
-10	Getting device information returns unknown error
-10	Get Aliyun login address timeout
-11	Get Aliyun login address 404 error
-12	MQTT subscription timeout
-13	MQTT subscription 404 error
-14	Get time from server timeout
-15	Get time from server 404 error