



SolisCloud Monitoring System

User Manual-Organization

Ver 2.0

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1. About

1.1 Description of Copyright

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1.2 Manual Content

This manual introduces the functions and operation procedures of SolisCloud platform to satisfy the requirements of users for convenient operation and management.

1.3 Scope

SolisCloud is suitable for users who have purchased Solis GPRS/4G, WiFi, LAN, RF-Link stick and data logger box. The data from the power plants monitored by the data loggers can be uploaded to the SolisCloud for viewing, and can be logged in through the APP or Web terminal. It can be used to monitor the power plant, so as to visualize and analyze the power plant data for management.

1.4 Requirements

Website: www.soliscloud.com

The following points should be noted when accessing the website:

1. Visiting browser minimum compatible with IE browser V9.0 version or above, 360 browser V3.0 version or above;
2. The recommend display resolution is 1920 x 1080.

Mobile Phone APP: SolisCloud

Download: Search for "SolisCloud" in the app market or scan the QR code below to download.



1.5 For Readers

This manual is mainly for professionals and users who need to access, manage, and maintain SolisCloud platform. Technicians and users need to have the basic network knowledge and be familiar with Solis products.

2. Guideline

2.1 Description on Platforms

2.1.1 Solis Home/Solis Pro

Solis Home/Solis Pro are the first generation of the Solis monitoring platform. Solis Home is for end users to check the operation status of their plants.

Solis Pro is for installers/distributors to operate and realize the whole life cycle management of the power plant to maintain the continuous and stable operation of the power plant.

It includes intelligent management such as power plant operation and maintenance, device remote monitoring and so on.

2.1.2 SolisCloud

SolisCloud is the second-generation of Solis monitoring and management system, which combines the first-generation platform login portal into one, identifying different identities such as organization and owner.

It is a new generation of PV intelligent monitoring and operation and maintenance system for the whole world. The system integrates real-time monitoring, accurate message pushing, intelligent alarm, efficient operation and maintenance, remote upgrade control, visualization screen and statistical analysis, and it can monitor the operation status of inverter equipment in real time.

It can monitor the operating status of inverter equipment in real time, automatically calculate the power generation and efficiency of equipment and power station dimensions, and quickly locate the faulty power station, assisting operation and maintenance personnel to quickly complete on-site decontamination work. The system adopts the leading cloud computing platform, advanced framework technology, safe and reliable data, easy operation and beautiful interface.

2.2 User Information

2.2.1 Description on Users

“Organization” indicates all parties that are related to monitoring applications, such as companies, distributors, and installers etc.

A “Sub-organizer” is created by the organizer when third parties, such as internal departments or other cooperative companies, need access to the portal.

2.2.2 Solis Pro User

When using the SolisCloud platform for the first time, enter the account and password previously used for Solis Home App. The SolisCloud Monitoring platform will migrate all of your Solis Pro profile and all original data. Everything on your account will be displayed within 2 hours.

2. Guideline

2.2.3 SolisCloud Installer/Organization User

Directly register the account on SolisCloud as an installer dealer.

Please refer to [3.1 Register](#) for details.

2.2.4 SolisCloud Installer/Sub-organization User

If you are an installer of SolisCloud organization user (refer to [4.6.3 Organization Management](#) for role content), after getting the account information created by the organization, the first login needs to validate the name information of the newly created role, and it is recommended to change the password to protect the security of the account.

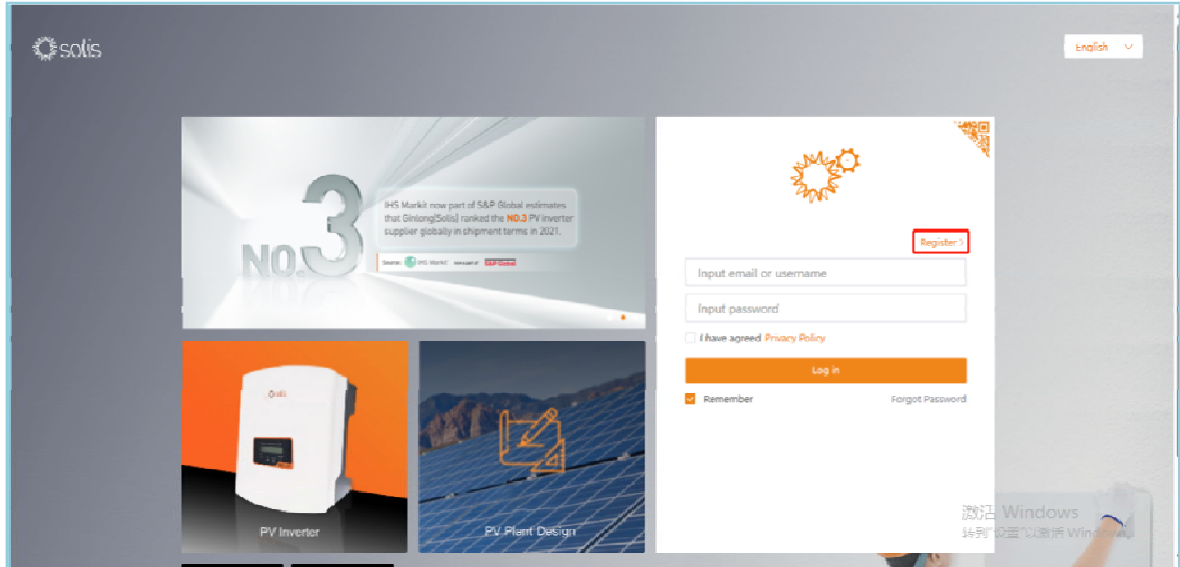
If you are a sub-organization of SolisCloud organization user (refer to [4.6.3 Organization Management](#) for role content), after getting the account information created by the organization, the first login needs to validate the name information of the newly created role, and it is recommended to change the password to protect the security of the account.

3. Normal Operation

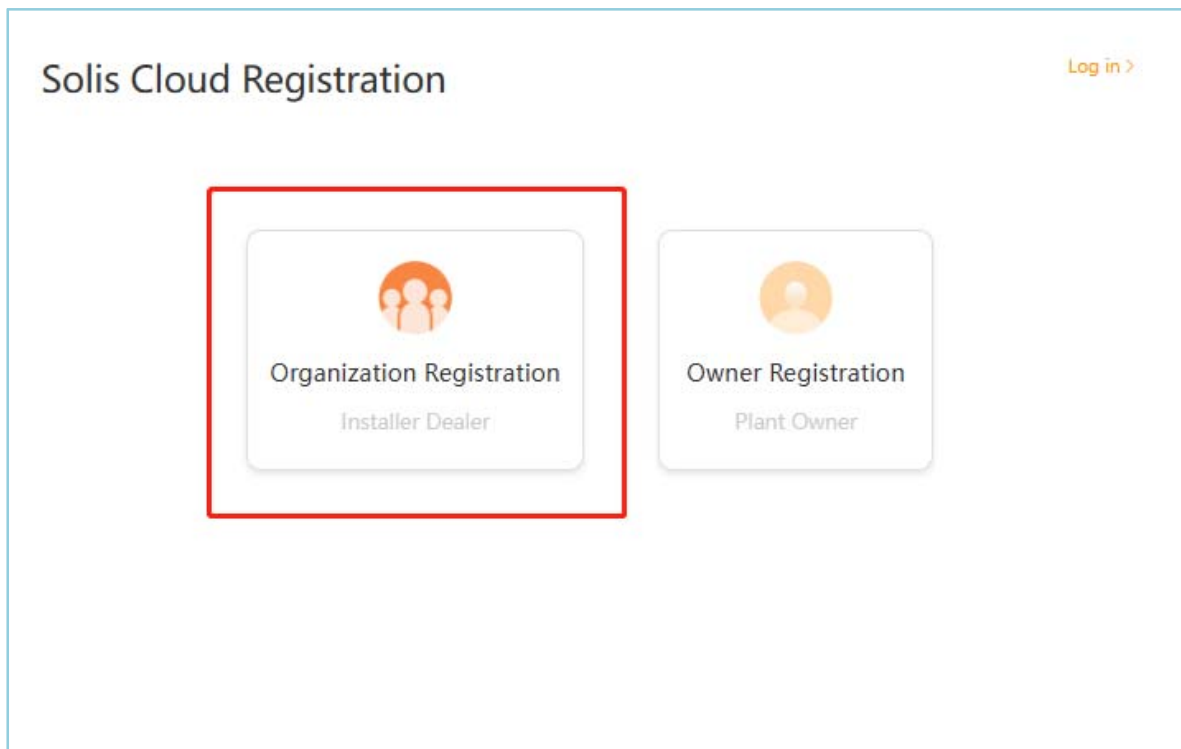
3.1 Register

Please register an account when using SolisCloud for the first time. It requires an account to log in. Detailed steps as follows:

1. Open the web browser and input www.soliscloud.com. Press "ENTER" to turn to SolisCloud login page and click [Register].



2. When organization user is registering the account, please select [Organization].



3. Normal Operation

3. Fill in the correct information on the registration page, use email to register, complete the information to fill in the checkbox to read and agree to the user privacy agreement to complete registration.

Organization Registration

[Log in >](#)

Tip: If your organization (company) has already registered an organization account in the SolisCloud system, you do not need to register again. Please contact the administrator of your organization (company) to add you as a lower organization or organization member in the system.

* Name of Organization

* Email

* Vcode

* User Name

* Password

Password Strength: — — — — ?

* Confirm Password

Organization Code

Superior Organization Code

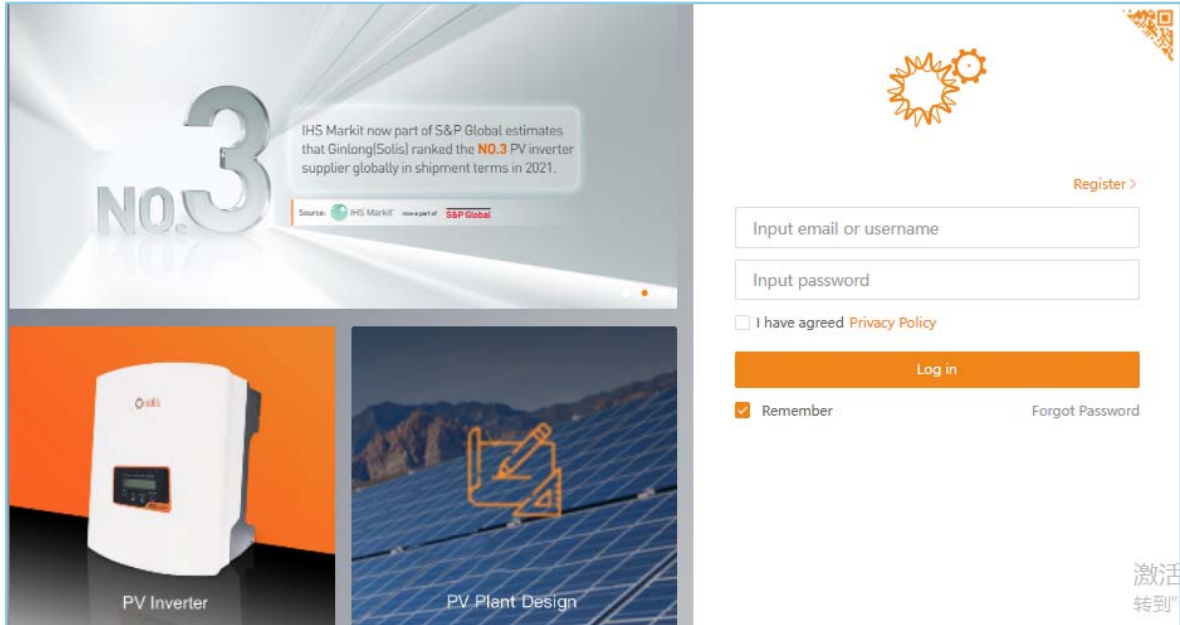
* Time Zone

I have agreed [Privacy Policy](#)

3. Normal Operation

3.2 Log in

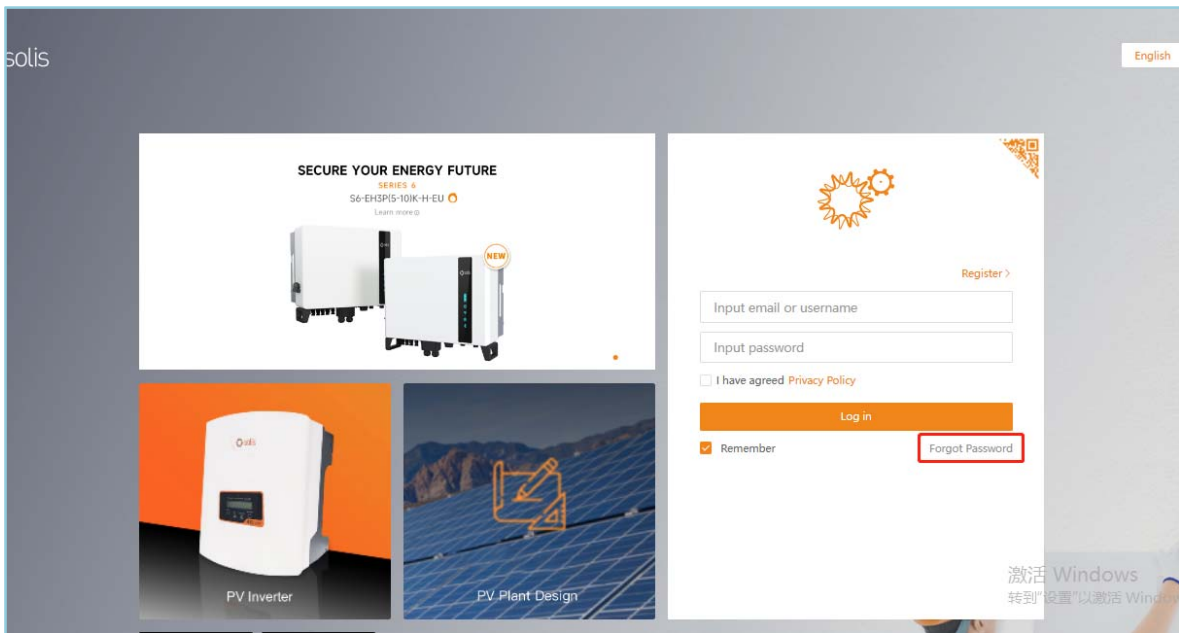
For users that have finished the registration or already have the account setup, please enter the email address or username and password to log in. You may click the [Remember] option to save the data in the browser.



3.3 Retrieve Password

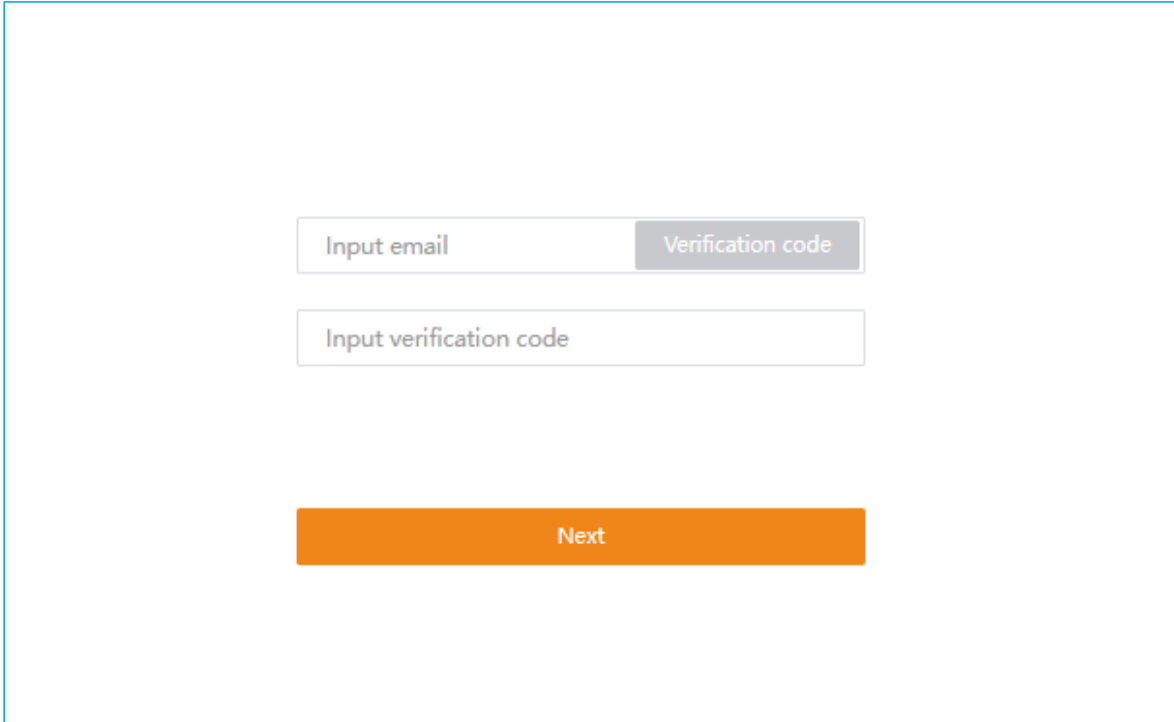
Users can click [Forgot Password] to retrieve password of their account. Detailed operation as follows:

1. Click [Forgot Password] to enter the page to retrieve password.



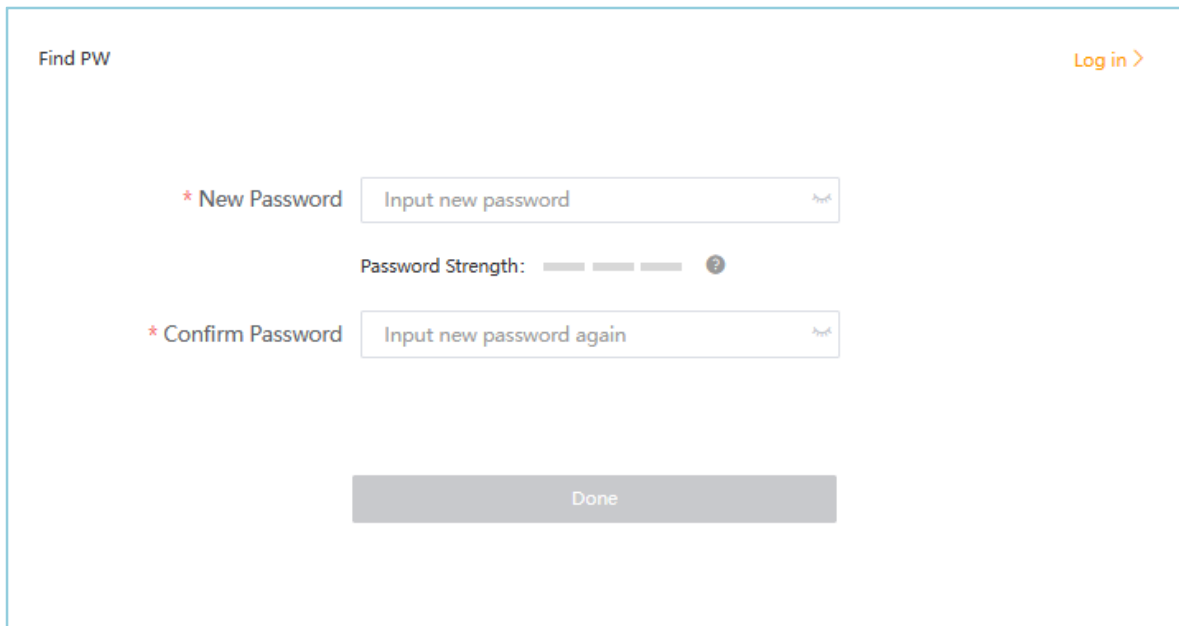
3. Normal Operation

- 2. Enter the account email address and click "Verification code" . A code will be quickly sent to the email address. Then enter the verification code and click [Next] , The email address must be the same as the one used for initial registration.



The screenshot shows a verification code input form. It consists of two input fields: "Input email" and "Verification code". The "Verification code" field is currently disabled (greyed out). Below these fields is a single input field labeled "Input verification code". At the bottom of the form is a large orange button labeled "Next".

- 3. Set a new password and reconfirm the new password, then click [Done] to enter the platform homepage.

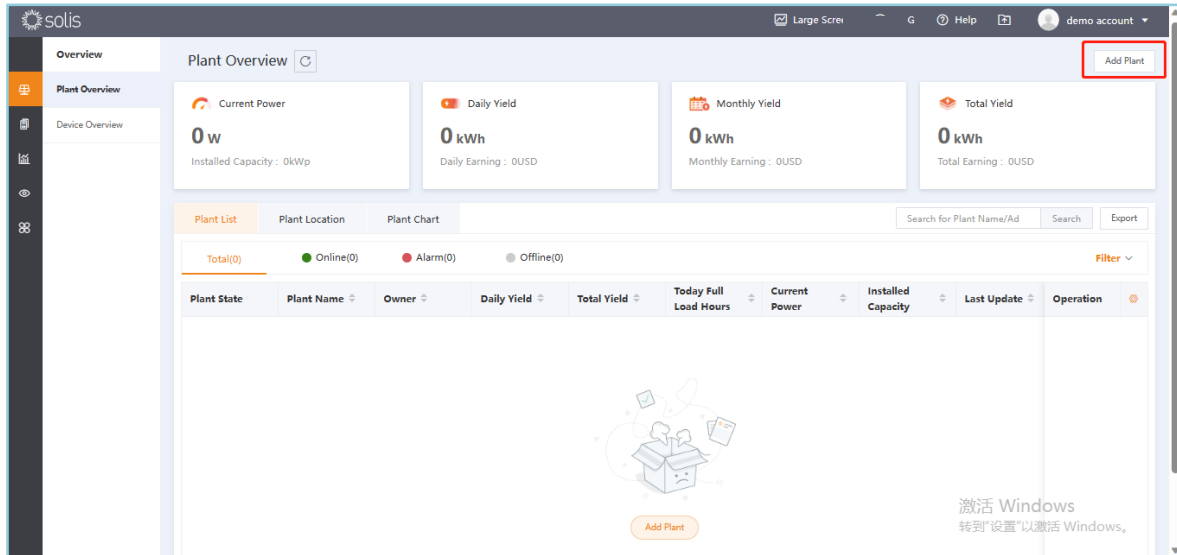


The screenshot shows a "Find PW" form. It includes a "Log in >" link in the top right corner. The form has two main sections: "New Password" and "Confirm Password". The "New Password" section has a label "* New Password" and an input field "Input new password" with a toggle icon. Below it is a "Password Strength:" indicator with three bars and a question mark icon. The "Confirm Password" section has a label "* Confirm Password" and an input field "Input new password again" with a toggle icon. At the bottom is a grey button labeled "Done".

3. Normal Operation

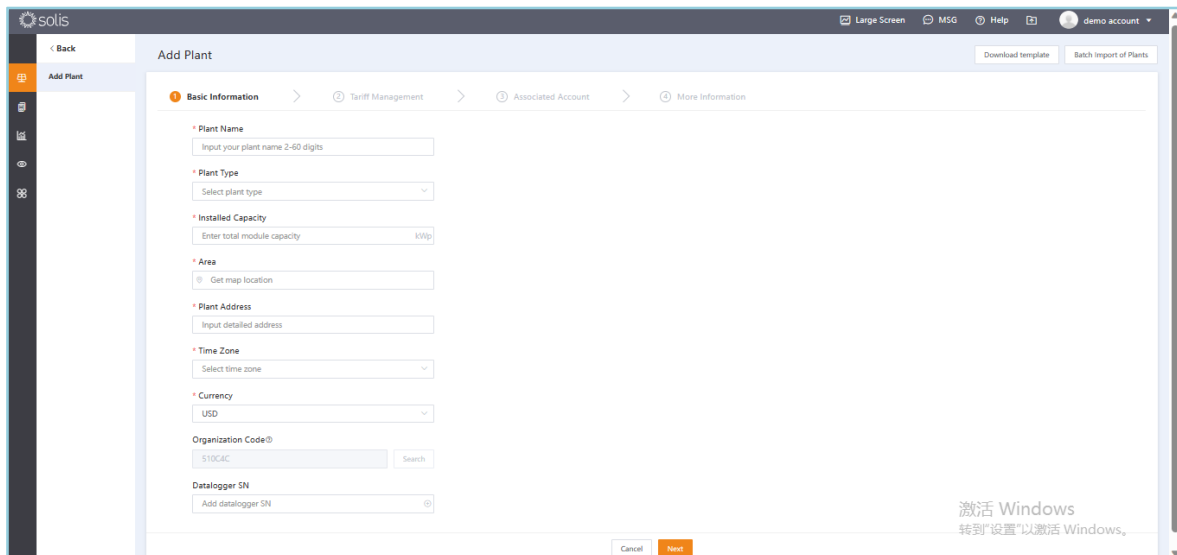
3.4 Add plant

Users need to add a plant to manage it after first logging into SolisCloud platform, and click [Add Plant] to enter the plant creation interface.



3.4.1 Plant Creation Interface

The plant creation interface is divided into: basic plant information, tariff management, associated accounts, and more information.



3. Normal Operation

3.4.1.1 Basic Plant Information

Required fields:

[Plant Name] Customize the name of the plant within 2-60 digits.

[Total Module Capacity] The total installed capacity of the modules of the plant.

[Location]: The construction area of the plant, which can be selected by map positioning.

[Detailed Address] The detailed address of the plant, if the previous step is located by map, the system will automatically fill in the detailed address.

Optional fields:

[Datalogger SN] Datalogger stick/box SN number.

[Plant Type] Select the type of power station including: Residential Plant, Commercial Plant, Utility Plant, and Energy Storage Plant.

[Organization Code] The organization code of the current user, which cannot be changed.

3.4.1.2 Tariff management

This function sets the feed-in tariff.

[Tariff type] Select tariff type including: fixed tariff and peak/valley tariff.

To select a fixed tariff, you need to enter the revenue per kWh in USD/kWh.

The screenshot shows a web interface for 'Tariff Management'. At the top, there are two tabs: 'Basic Information' (with a checkmark icon) and '2 Tariff Management' (with a number 2 icon). Below the tabs, the section is titled 'Feed-in Tariff'. There are two required fields, both marked with a red asterisk: '* Tariff Type' with a dropdown menu showing 'Fixed Tariff', and '* Tariff' with a text input field containing 'Input Earning per kWh' and a unit label 'USD/kWh' to its right.

Selecting peak and valley tariffs can set tariffs in segments.

The screenshot shows the 'Tariff Management' form with 'Peak-valley Tariff' selected in the '* Tariff Type' dropdown. The '* Tariff' field is empty. Below this, there is a 'Date Range' section with two date pickers: '01-01' and '12-31'. Underneath, there are two time pickers: 'Start Time: 00:00:00' and 'End Time: 24:00:00'. To the right of these is a 'Tariff' input field with the placeholder 'Enter Tariff per kWh' and a unit label 'USD/kWh', followed by an 'Add Time' button. At the bottom, there is a '+ Add Date' button and 'Previous' and 'Next' navigation buttons.

3. Normal Operation

3.4.1.3 Associated Accounts

Add owner:

1. Owner permission: you can edit and view this plant.
2. Requirement for adding: there is only one owner for one plant.
3. Adding steps:

(1) Click the [+] button in the plant owner's column.

The screenshot shows a progress bar with four steps: Basic Information, Tariff Management, Associated Account (active), and More Information. Below the progress bar, there are two sections: 'Plant Owner' and 'Plant Guest'. The 'Plant Owner' section has a text input field with the placeholder 'Set owner, one owner for one plant' and a '+' button in the top right corner. The 'Plant Guest' section has a text input field with the placeholder 'Add guest, a plant can have multiple guests' and a '+' button in the top right corner. At the bottom, there are 'Previous' and 'Next' buttons.

(2) Fill in the owner's e-mail address and click [Next].

This screenshot shows the same 'Associated Account' step. The 'Plant Owner' section now has an 'Email' input field with the placeholder 'Input owner's email' and a 'Next' button. A red box highlights the email input field and the 'Next' button. A reminder message above the input field reads: 'Reminder: Both registered and unregistered email addresses can be filled in'. The 'Plant Guest' section and the bottom navigation buttons remain the same.

(3) If the owner has already registered, the system will display the user name, click [Confirm association] will be added successfully.

This screenshot shows the 'Associated Account' step where the 'Plant Owner' section displays the user name 'User Name' and a 'Confirm association' button. The 'Plant Guest' section and the bottom navigation buttons remain the same.

(4) If the owner has not registered, the system will prompt the owner is not registered, will register a new account, click [Register and associated] will be added successfully, thus forming the identity of the owner of the new account can be logged in to use the platform, the system will send the account number and password to the user via email.

This screenshot shows the 'Associated Account' step where the 'Plant Owner' section displays a message: 'The owner has not registered and will register a new account ()'. Below this message is a 'Register and associate' button. There is also a checkbox labeled 'Whether to notify the owner by email'. The 'Plant Guest' section and the bottom navigation buttons remain the same.

3. Normal Operation

Add guest:

1. Guest permission: you can view this plant, you can't edit the information of the plant.
2. Requirement to add: users who need to view data from this plant, multiple guests per power station possible.
3. Adding steps:
 - (1) Click the [+] button in the Guests section of the plant.

The screenshot shows a multi-step configuration process. The current step is '3 Associated Account'. Below the navigation bar, there are two sections: 'Plant Owner' and 'Plant Guest'. The 'Plant Guest' section contains the text 'Add guest, a plant can have multiple guests' and a '+ ' button, which is highlighted with a red rectangular box. At the bottom of the form, there are 'Previous' and 'Next' buttons.

- (2) Fill in the guest's e-mail address and click [Next].

This screenshot shows the same configuration screen as above, but now the 'Plant Guest' section is expanded. It contains an 'Email' input field with a red box around it. Above the input field is a reminder: 'Reminder: Both registered and unregistered email addresses can be filled in'. To the right of the input field is a 'Next' button. The 'Previous' and 'Next' buttons are also visible at the bottom.

- (3) If the guest has been registered, the system will display the user name and e-mail, click [Confirm association] will be added successfully.

- (4) If the guest has not been registered, the system will prompt to fill in the user name, fill in the completion of the click on the [register and associate] will be added successfully, thus forming the identity of the owner of the new account can be logged in to use the platform, the system will send the account number and password to the user via email.

This screenshot shows the 'Plant Guest' section with two options. The first option is 'The owner has not registered and will register a new account', with a 'Register and associate' button. The second option is 'Whether to notify the owner by email', which is selected with a radio button. Below this, there is a 'User Name' input field and a 'Confirm association' button. The 'Previous' and 'Next' buttons are at the bottom.

3. Normal Operation

3.4.1.4 More Information

Optional fields:

[Installer E-mail] The e-mail address of the plant installer.

[Installer Phone Number] The phone number of the installer of the plant.

[Number of Modules] The total number of modules used in the plant.

[Grid connection type] Select the type of grid connection including: full grid connection, self-generation and self-consumption balance connection, and off-grid connection.

[Grid connection time] System generated: the first grid connection data generation time after the creation of the plant; customized: the actual grid connection time after the user has customized the time shall prevail.

[Plant Contact] Enter the phone number of the plant contact.

[Plant Picture] Upload no more than 9 pictures in 700kb format.

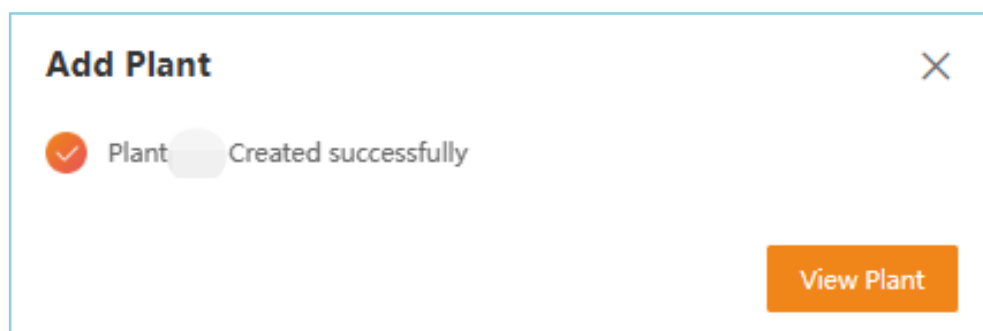
[Access Platform Time] System Generated: the first grid connection data generation time after the plant is created; customize: the user customizes the access platform time to prevail.

3.4.1.5 Batch Import

The upper right corner of the interface can be operated by batch importing plants, click [Download Template] to export the Excel template for batch importing plants, according to the template, fill in the plants that need to be imported correctly and save it; click [Batch Importing Plants], select the Excel file that has been filled in before and upload it.

3.4.2 Plant Created Successfully

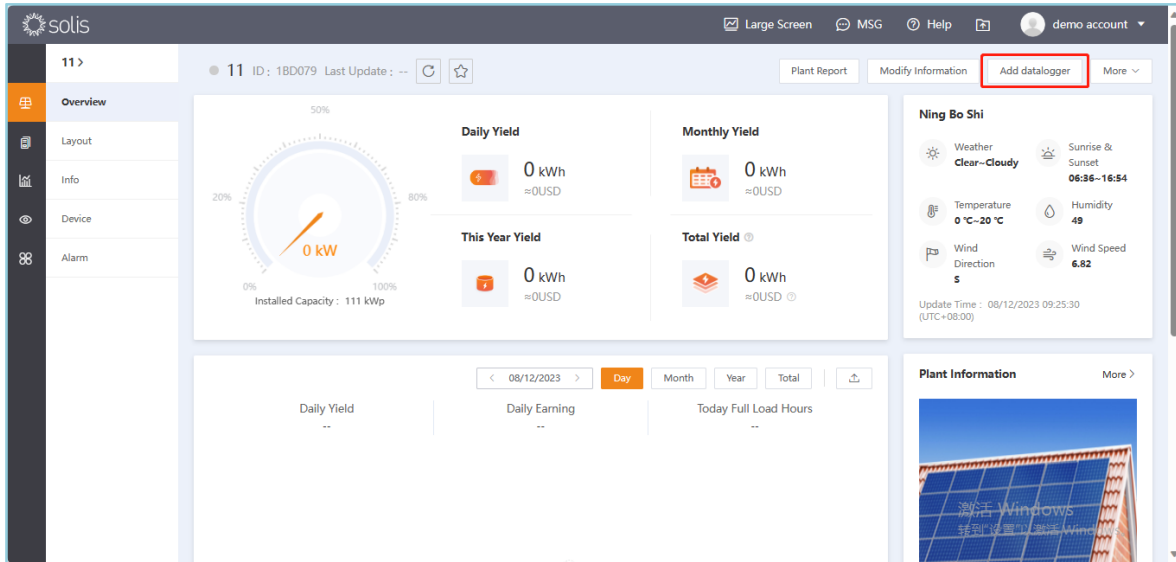
After the information is filled in completely, click [Add Plant]. When the plant is added successfully, the display interface is as follow:



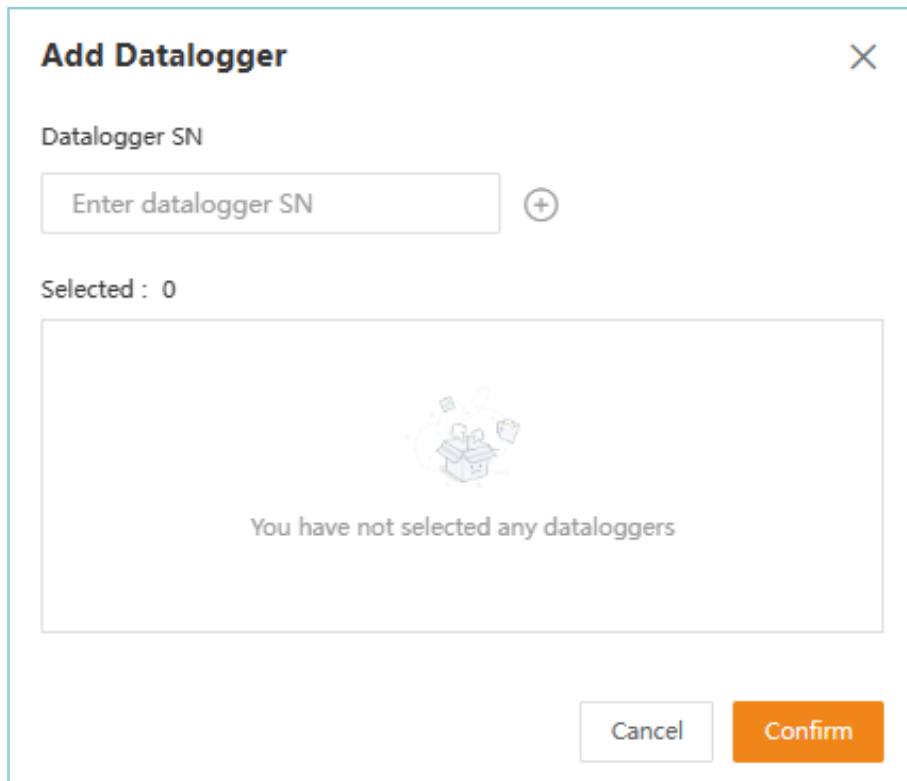
3. Normal Operation

3.5 Add Datalogger

After adding the plant, you need to add the datalogger used by the plant, and upload the data collected by the datalogger to the platform in order to realize the management of plant, data. The specific operation steps are as follows:



1. In the interface of a newly added plant or a plant that needs to add a datalogger, click [Add Datalogger] in the upper right corner.
2. Enter the SN number of the datalogger to be added and click [Confirm] to complete the operation.



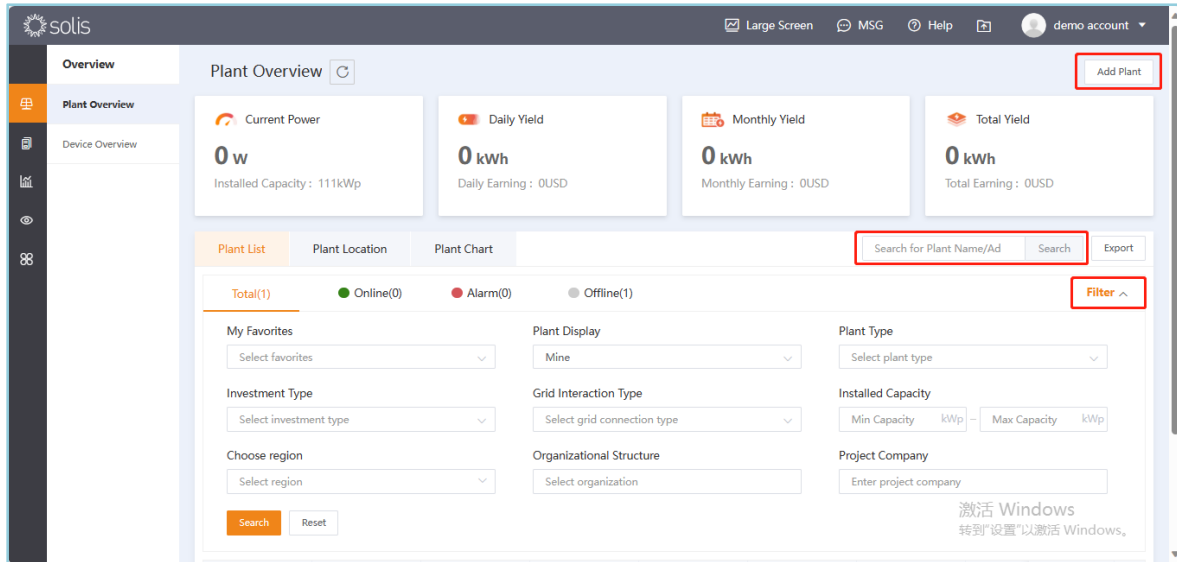
Note: When using the APP to add the datalogger, you can scan the QR code on the datalogger to complete the process.

4. Function Description

4.1 Plant Management

Users can operate and manage plants in the [Overview] - [Plant Overview] interface.

4.1.1 Plant Overview



[Plant Data Display]

Users can view the basic information of the total plant, please refer to the following table for specific information description:

Basic Information	Information Description
Current Power	Click to see the real-time power number, installed capacity and full hours of operation of the total plant.
Yield	Click to view daily, monthly and cumulative yield details for the total plant.
Earning	Click for details of the total plant's current day, month and cumulative earnings.
Full Load Hours	Number of hours of full load generation from the plant in a day.

[Add Plant]

Users can add a plant to be created in this interface, please refer to section 3.4 for specific operation.

[Search plants]

Users can search for a specific plant according to their own needs by entering the name or address of the plant and clicking [Search] to complete the search.

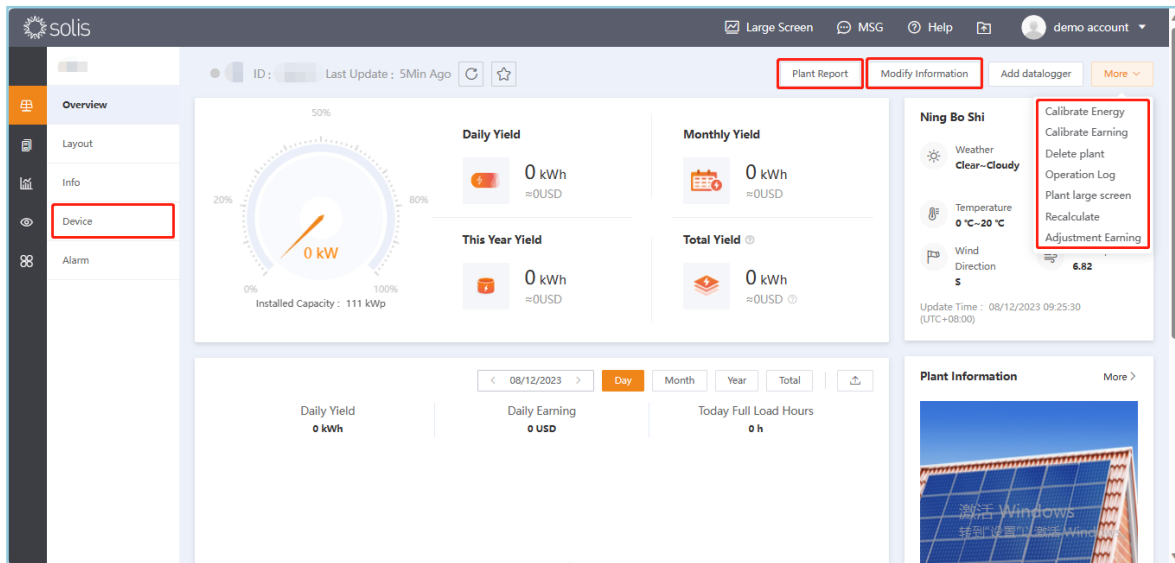
[Filtering Plants]

Users can use the filtering function to sort and search for power plants, the main categories include: Favorites, Plant Display, Plant Type, NMI, Grid Connection Type, Total Module Capacity, Selected Regions, and Organization.

4. Function Description

4.1.2 Plant Information

Click on a specific plant to view specific information about the plant and manage it individually.



[Viewing the overview of the plant]

Users can view the basic information of the plant, please refer to the following table for specific information description:

Basic Information	Information Description
Current Power	You can view real-time power, installed capacity and full load hours of the plant can be viewed.
Daily Yield	You can view the plant power for each 5 minutes and energy yield of the current day
Monthly Yield	You can view the amount of energy yield and the earnings of the plant for the day and current month.
Annual Yield	You can view the amount of energy yield and the earnings of the plant for the month and current year.
Total Yield	You can view the amount of energy yield and the earnings of the plant for the current year and cumulatively.
Weather	You can view the day and night weather, temperature, sunrise and sunset times, humidity, wind direction, and wind speed at the location of this plant.
Environmental Benefits	You can view the equivalent number of green plants and CO ₂ emissions reduced by using the plant.
Alarm Information	You can view the historical alarm information of the plant, which can also be seen by clicking on the [Alarm] interface of the plant.
Plant Information	You can view the Plant States, Installed Capacity and Earning per kWh.
Location	You can view the exact location of the plant and zoom in and out by rolling your mouse over the map.

4. Function Description

[Modify plant information]

Users can update and modify the information set when adding a plant in two methods:

Method 1: Click [Modify Information] in the upper right corner of the [Overview] interface of the plant to operate.

Method 2: Click [Modify Information] in the upper right corner of the [Info] interface of the plant to operate.

[Delete plant]

Users can delete a plant by clicking on [Delete Plant] in the upper right corner of the [Overview] interface and a warning message will pop up, click [Delete] to complete.

[Manage Devices]

Users can add and edit the devices used in the plant.

① Add device: You can add the equipment of this plant by adding collector, please refer to [3.5 Add Datalogger](#) for specific operation steps.

② Edit devices: Click on the [Device] interface of the plant to view the inverters, dataloggers and EPMs under the plant, and users can edit and manage the devices in this interface.

[Calibrate Energy]

Users can manually calibrate the power generation of the plant, details can be seen in the tips.

The screenshot shows a 'Calibrate Energy' dialog box with a close button (X) in the top right corner. It contains three sections for calibration, each with an 'Enter offset' input field and a 'Save' button:

- General Calibration:** A single 'Enter offset' field and 'Save' button.
- Yearly Yield Calibration:** A date selector set to '2023', a 'This Year Yield : -- kWh' display, an 'Enter offset' field, and a 'Save' button.
- Total Yield:** A 'Total Yield : 0 kWh' display, an 'Enter offset' field, and a 'Save' button.

A red-bordered tip box at the bottom contains the following text:

Tip :

1. Example: 100, -100, 100.005, -100.005. If you want to add 100kWh offset, please enter 100; If you want to reduce 100kWh offset, please enter -100.
2. Daily yield calibration will affect monthly and yearly yield; Monthly yield calibration will affect yearly yield.
3. Calibrated yield affects revenue, and calibrated earning also affects final earning. Final earning formula: Final earning = total yield * earning per kWh + earning offset

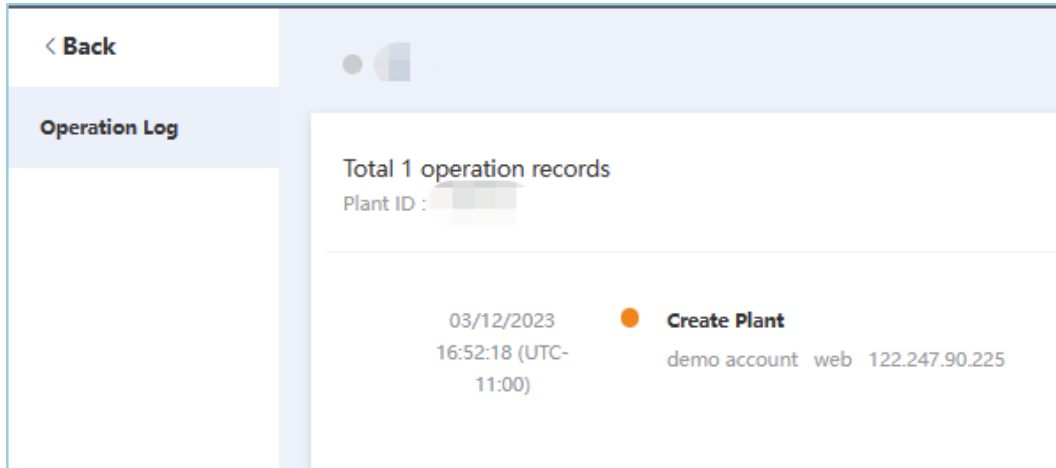
4. Function Description

[Calibrate Earnings]

Users can manually calibrate the plant earnings, details can be seen in the prompt.

[Operation Log]

Users can view the operation log of the plant.



[Plant Large Screen]

You will jump to the interface as shown in the figure, displaying the data related to the plant.



4. Function Description

[Recalculate]

You can recalculate the power and related data for the customer's visible equipment under the plant.

Recalculate

Only recalculate the power and related data of the device visible to the customer under the plant, and the device that has been unbound in the history will not be calculated.

Select Time

All Time Select Time -

[Adjustment Earning]

Users can adjust the tariff for a customized time period.

Adjustment Earning

Tip : Time of creation of power station. : 2023-12-04; Time of first earnings generation : --
Example : Adjustments to 2020-01 earning, January earning = January yield * tariff, 2020 earning = 2020 yield * tariff, will affect total earning if the end date covers the current month

Select a time period

-

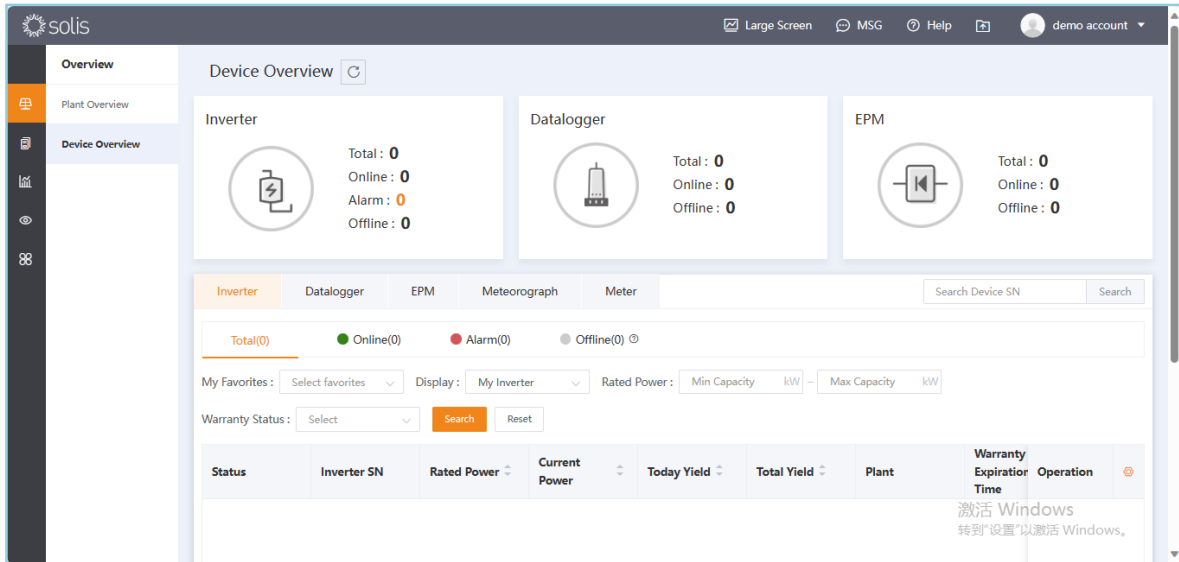
* Tariff

USD/kWh

4. Function Description

4.2 Device Management

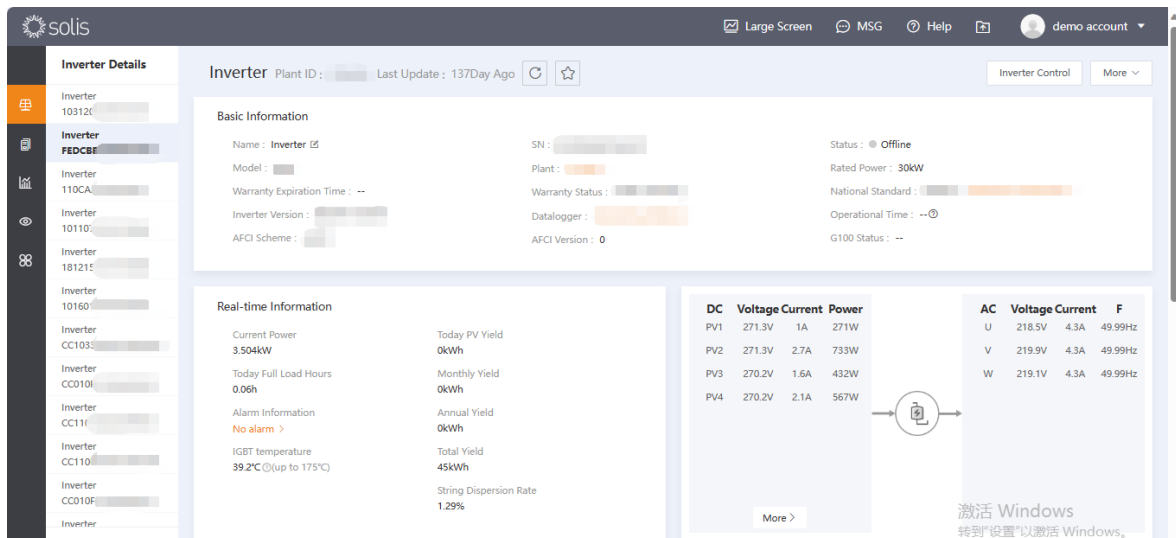
Users can monitor the summary and status of the number of inverters, dataloggers and EPM devices under the account in the [Overview] - [Device Overview] interface, and click on a single device in the device list to view its detailed information and related data, and operate and manage the device.



4.2.1 Inverter

[View Inverter Information]

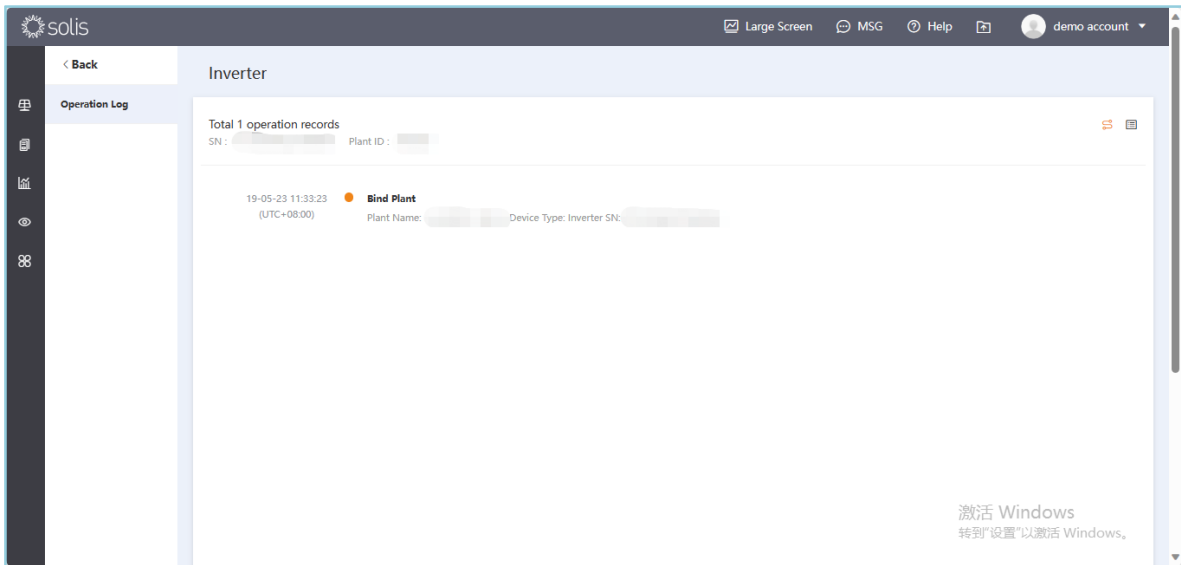
Users can view basic information such as inverter name, model, and version, as well as real-time information such as real-time power and power generation.



4. Function Description

[Operation Log]

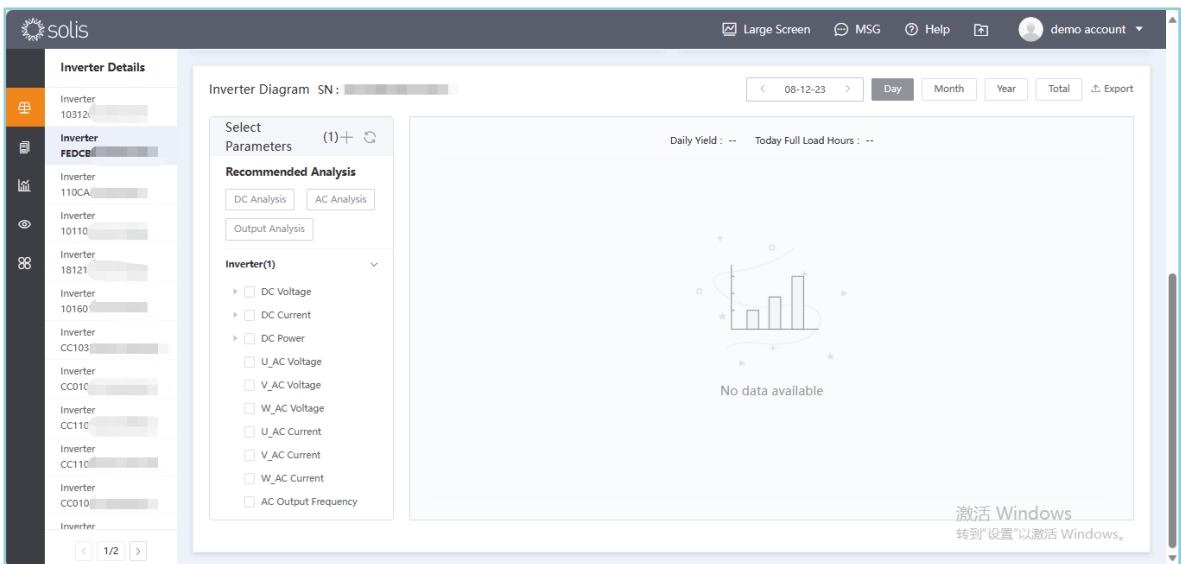
You can view the inverter's history of control logs and upgrades.



[Monitoring of real-time and historical inverter data]

Monitor inverter data in a date dimension by making single or multiple selections of different parameters.

Displays corresponding chart data analysis, which contains parameter analysis corresponding to the direction of DC analysis, AC analysis, Output analysis, etc., and can customize parameter grouping for data analysis.



4. Function Description

[Inverter Control]

You can remotely control a single device, change the current state or parameters of the device, and set the grid parameters, EPM, inverter function, inverter parameters, inverter power, voltage ride-through, and so on.

The screenshot shows the 'Inverter Control' dashboard. At the top, there's a header with 'Inverter Control' highlighted in a red box. Below it, the 'Basic Information' section displays various details: Name (Inverter), Model, Warranty Expiration Time, Inverter Version, AFCI Scheme, SN, Plant, Warranty Status (Under warranty), Datalogger, AFCI Version (0), Status (Offline), Rated Power (30kW), National Standard, Operational Time, and G100 Status. The 'Real-time Information' section shows Current Power (3.504kW), Today PV Yield (0kWh), Monthly Yield (0kWh), Annual Yield (0kWh), Total Yield (45kWh), and String Dispersion Rate (1.29%). It also includes Alarm Information (No alarm) and IGBT temperature (39.2°C). A table displays DC and AC parameters for four PV strings (PV1-PV4), including Voltage, Current, and Power. A 'More >' button is visible at the bottom of the table. A watermark for Windows activation is present in the bottom right corner.

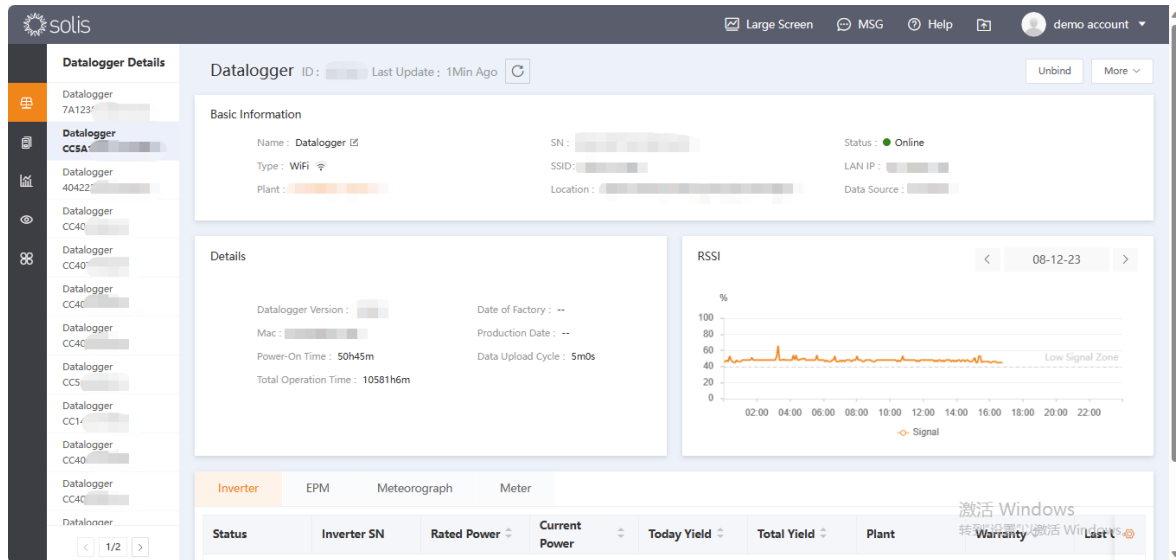
The screenshot shows the 'Inverter Control' settings page. It features a 'Basic Info' section with fields for SN, Name (Inverter), Model, Plant, and Status (Online). Below this is a 'Search Control' input field and a list of control options: on/off, Inverter Special Function Setting, Grid Parameter Setting, EPM Setting, Inverter Function Setting, Inverter Parameter Setting, Inverter Power Setting, and Other Setting. The main area contains a table with columns: SN, Parameter Name, Current, Set Value, Radius, U..., Notes, and Operation. A watermark for Windows activation is visible in the bottom right corner.

[Inverter Upgrade] Implementation of upgraded inverter firmware version for internal personnel only.

4. Function Description

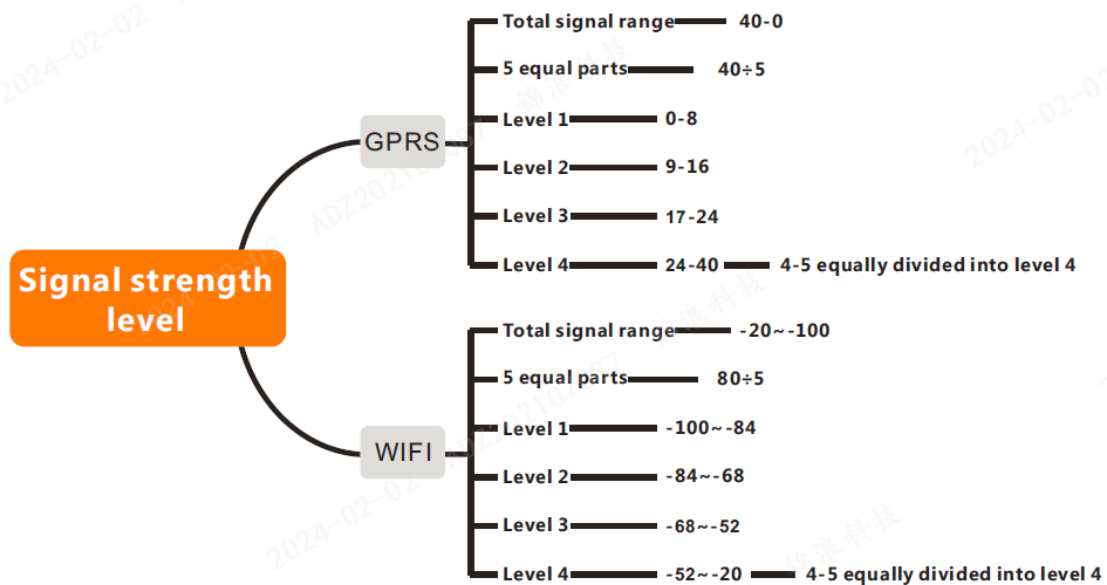
4.2.2 Datalogger

[View Datalogger Information] Users can view detailed information such as datalogger name, version, factory time, etc. You can also view the signal strength of the current datalogger and information of the corresponding inverter, EPM, weather meter, and meter.



[Parameter Information]

[RSSI] Shows the strength of the current datalogger's data signal.



[Total Operation Time] The total operation time of the registered datalogger.

[Data Upload Cycle] Time interval of data obtained by logger, the default interval is 5 mins.

[Power-on Time] The daily operation duration of the datalogger.

4. Function Description

[Related Operation]

[Search Datalogger] Search according to the name or SN of the datalogger.

[Filter Datalogger] Filter and view the datalogger list.

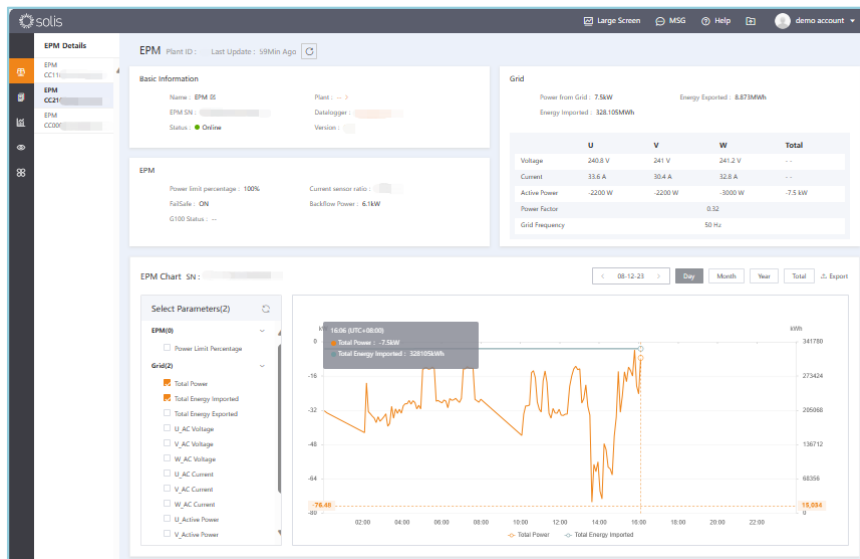
[Unbind Datalogger] Unbind the connection between datalogger and plant.

[Change Datalogger] Complete through entering the SN of changed datalogger.

4. Function Description

4.2.3 EPM

[EPM]Users can view the basic information of the device, load, and grid side as well as the real-time data display of the device's inputs and outputs from different sides.



[Parameter]

[Power Limit Percentage] Used for limiting the inverter's output power, a percentage based on rated power.

[CT Ratio] Ratio between primary current and secondary current.

[FailSafe Status] When the output power limit function and failsafe function are activated, the inverter will automatically set the output power to zero to avoid sending power to the grid if the inverter loses communication with the METER/EPM/CT.

[Backflow power] When using the output power control function, you can set the maximum limit of power allowed to be injected into the grid.

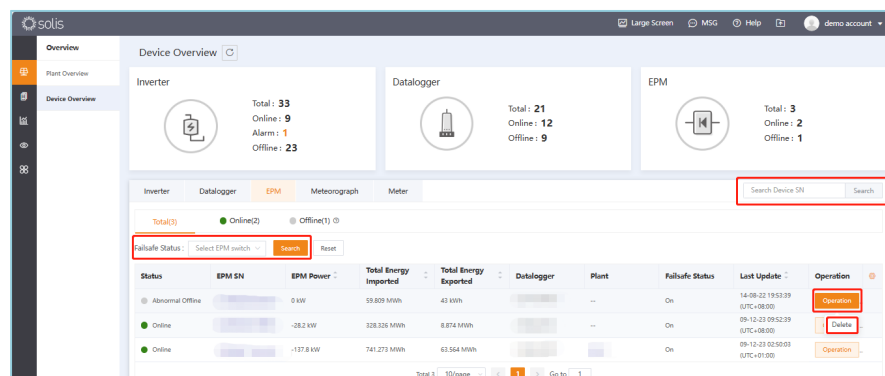
[Power Factor] Factor used to show the efficiency of the inverter, equal to the ratio of the active power to the apparent power.

[Related Operation]

[Search for EPM] Search for EPM according to name or SN.

[Filter EPM] Filter selection of EPM for certain applied conditions according to the current status of device.

[Delete EPM] Delete EPM from the plant.



4. Function Description

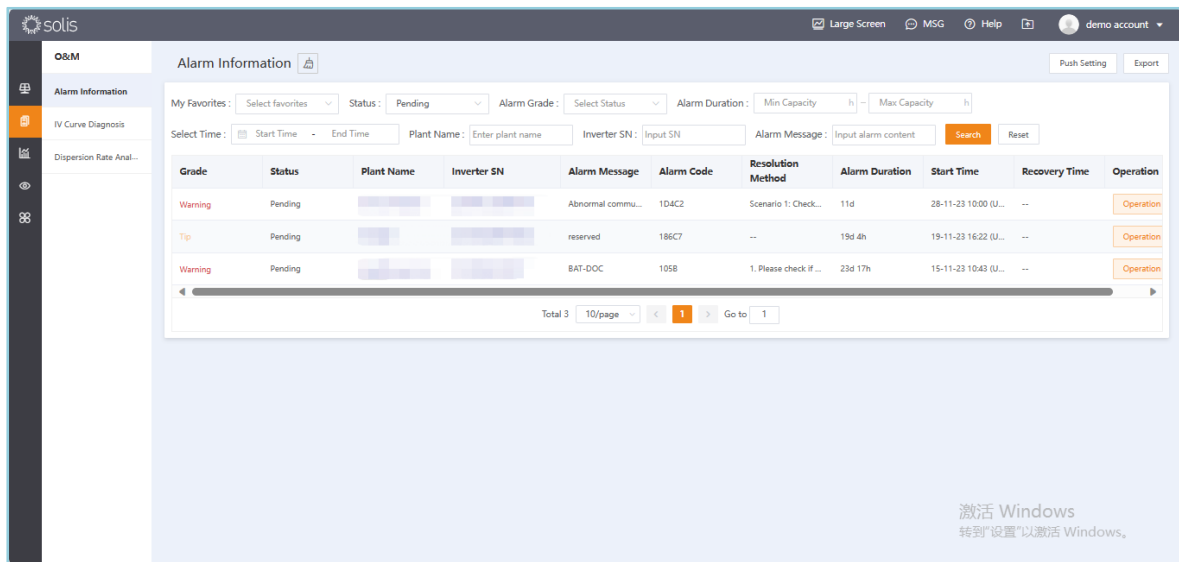
4.3 Operation & Maintenance

Users can carry out operation and maintenance management in the [O&M] interface, mainly including alarm information and discrete rate analysis.

4.3.1 Alarm Information

Users can check whether there is any abnormality in the operation of the plant devices under the account in the alarm information, and they can also check all the alarm information of the plant devices under the account.

Alarm information processing status classification, including unprocessed information, processed information, restored information, etc., can also be filtered according to the time period; alarm information, the system will assess the level and provide recommendations for processing, the user can be based on the recommended processing of the alarm information for the corresponding processing.



[Search Alarm] Enter the name of the plant to be operated, the SN number of the inverter, or the content of the alarm in the search box at the upper right corner of the page and click [Search] to finish.

[Filter Alarm] You can filter alarm messages by favorites or alarm message status.

[Ignore Alarm] Users can customize whether to ignore the unprocessed information that does not affect the normal use of the device, click on a single alarm message and the system will pop up the alarm details, click [Ignore] to complete the operation.

[Delete Alarm] Users can delete the alarm information by themselves, either by clicking on the alarm details that appear after a single alarm message for deletion, or by clicking on the single alarm message on the right side of the [Operation] option for deletion; users can click on the clear symbols at the back of the alarm information to delete all the information.

[Export Alarm] Users can export alarm information and generate forms.

[Alarm Push Setting] Users can choose to set alarm notification by clicking [Push Setting] in the upper right corner of the interface and selecting [Allow Notification] to turn on the function.

4. Function Description

- ① Push notification: Users can choose to push the degree of urgency of the alarm and the speed of the message notification time according to their own needs.
- ② Mailbox notification: Users can define the receiving mailbox according to their own needs and choose whether to turn on mailbox notification.

4.3.2 PC IV Curve Diagnosis

The neural algorithm is used to analyze the pattern of string IV curve and realize the full monitoring of string IV curve.

[Operation Premise]

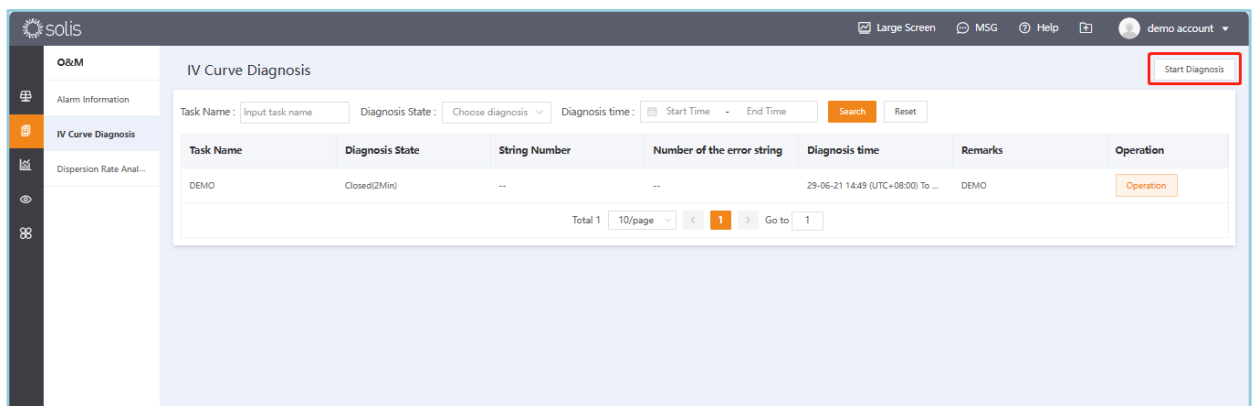
- 1) The device to be scanned is in the state of normal connection.
- 2) String information must be correct.
- 3) It does not support scanning residential inverters with optimizer.
- 4) Only support scanning single crystal PV module and polycrystalline PV module.
- 5) Only inverters with this function can be diagnosed after checking the box.

[Hint]

- 1) It is suggested during 11:00-13:00.
- 2) It not recommended above 50 pcs at once (about 15 minutes).
- 3) It will affect power production during the examination (about 5 minutes).

[IV Curve Scanning Operation]

- 1) Function Location: Click [O&M] - [IV Curve Diagnosis]; if the equipment meets the IV curve scanning model, then click [Equipment Details] - [IV Curve Diagnosis] to perform the operation.



4. Function Description

- 2) Select the device to be diagnosed, click OK to start scanning and generating the report.

Start Diagnosis [X]

* Task Name
Input task name

* Select Device
Select Device

Wiping Status
Choose wiping status [v]

Plane Irradiance of module(W/m2)
Input plane irradiance of module

Temperature of the module's backboard (°C)
Input temperature of the module's backboard

Remark
Input remarks 0/255

激活 Windows
转到设置以激活 Windows。
Cancel Confirm

- 3) You can view the current diagnostic progress and records.

4. Function Description

4.3.3 PC Dispersion Rate Analysis

Dispersion rate is an indicator that describes the change of string current, which is used to assess the consistency of the power generation performance of PV strings, and can effectively reflect the health status of plant operation. The smaller the dispersion rate is, the more stable the operation of the plant is, and the better the power generation condition is. On the contrary, it indicates that there may be faulty branch circuits, which may affect the power generation.

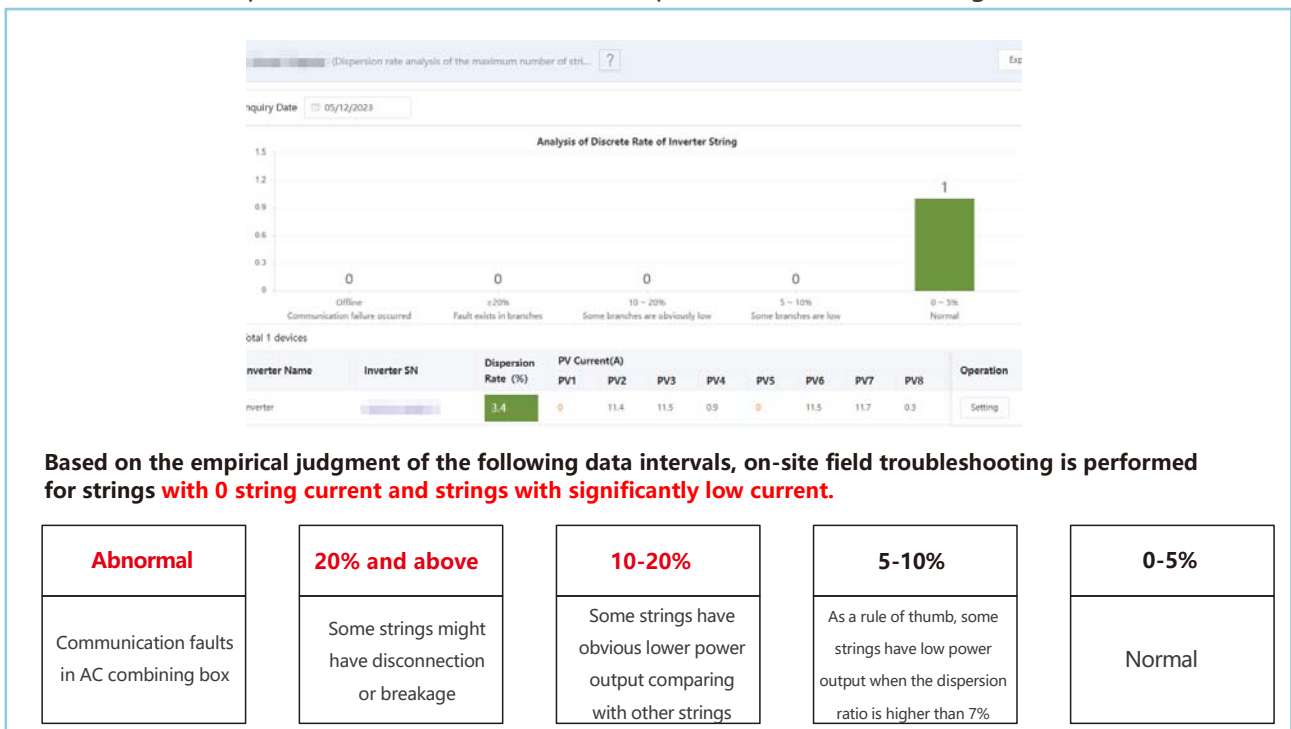
[Operation Premise]

- 1) The time interval for discrete rate calculation is from 10:00 to 14:00 every day, please check the discrete rate analysis result of the plant on that day after 10:00.
- 2) The number of strings connected to the inverter is greater than or equal to 6.
- 3) The real-time power of the inverter is greater than 10% of the rated power.

[Hint] If there are some strings not connecting to PV panels, or their connected power is far different from others, it is not recommended to add these strings to the dispersion rate analysis (click on these strings to set).

[Operation]

- 1) Function location: Click [O&M] – [Dispersion Rate Analysis], and you can also view the dispersion rate curve data in the parameter data of a single device.



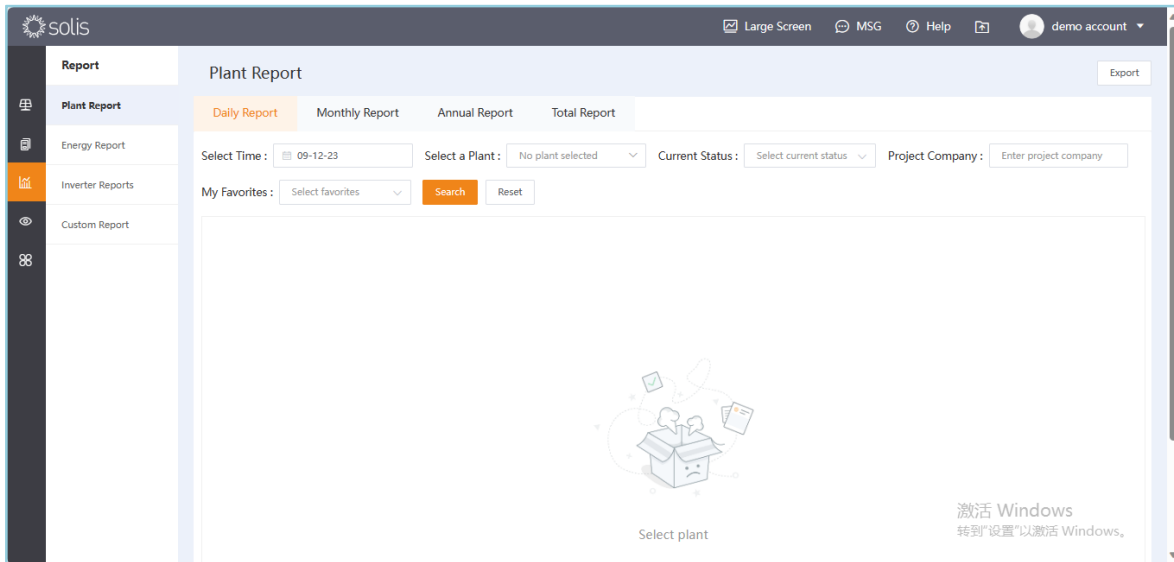
- 2) You can view the string dispersion rate data of the devices under the plant, and you can also export the dispersion rate data.
- 3) Strings can be set to not participate in the discrete rate calculation.

4. Function Description

4.4 Report Management

Users can manage the report on the [Report] interface, mainly including 4 components: Plant Report, Energy Report, Inverter Report and Customer Report.

4.4.1 Plant Report



[Select Time]Users can select to export the power station report for the specified time period. The choice of the time period corresponds to the type of report selected, when the report type selects the cumulative report, do not choose the time.

[Select power station]Users can select the name of the power station that needs to export the report, click [Select power station], and check the name of the required power station Click [OK] to complete; Or filter by the area or search by the name of the station.

[Select report type]Users can select the types of exported power station report: Daily report, Monthly report, Annual report, and Cumulative report.

[Current Status]Users can filter the power station according to whether the station is currently online、 offline or alarming.

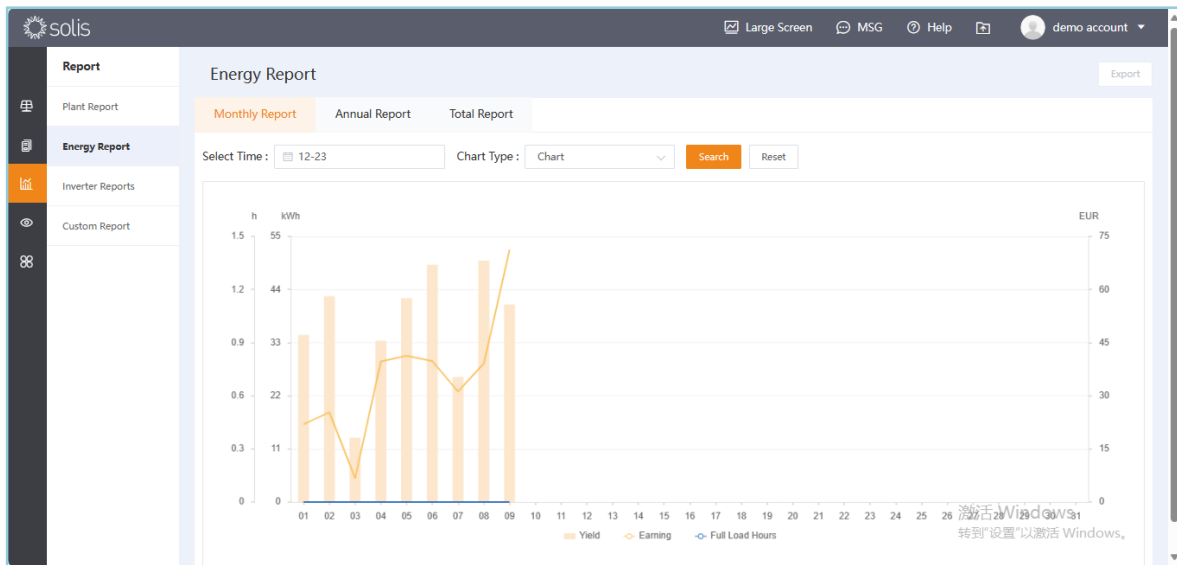
[Project Company]Users can input the name of the project company to filter the corresponding power station.

[My Favorites]The user can select a favorite to display the stations in that favorite.

[Export Report]After the above selection operation is completed, click [Export] in the upper right corner to pop up the download option. Users can customize the name and download path, and click [Download] to complete the operation. Users can also click the [Export] operation on the far right of the list of power stations to download the data of a single power station.

4. Function Description

4.4.2 Energy Report

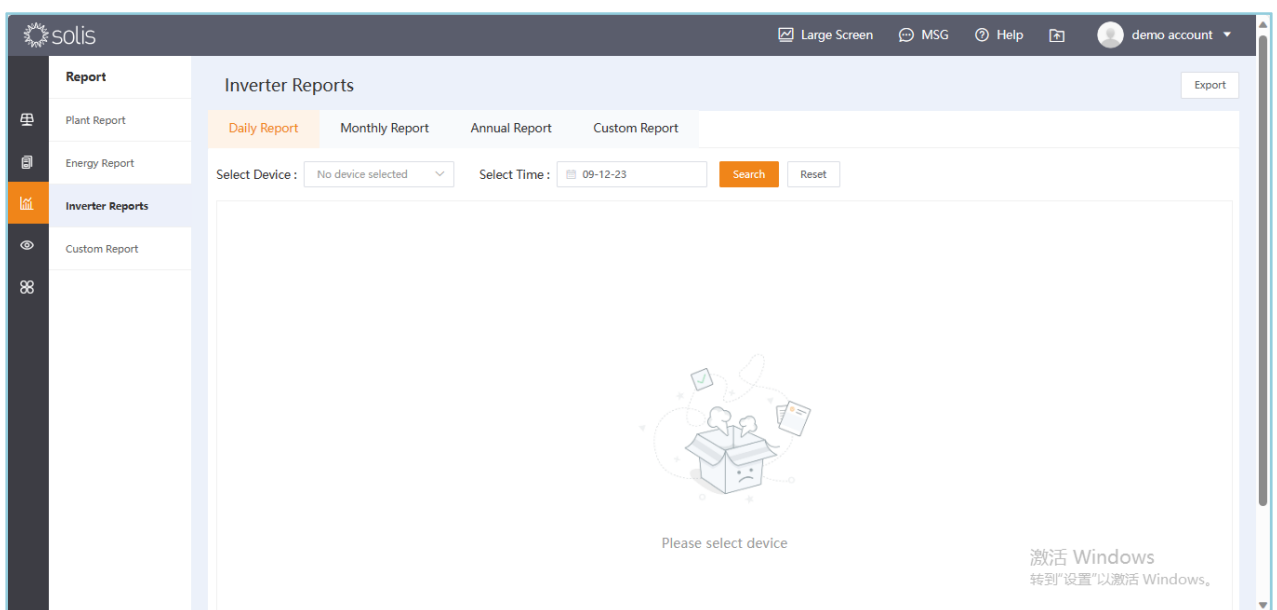


[Select Report Type]Users can select the types of exported power station report: Daily report, Monthly report, Annual report, and Cumulative report.

[Select Time]The user can select to export the power station report for the specified time period.

[Chart Type]Users can view the power generation, revenue and total full generation hours of the plant in the form of graphs or tables.

[Export report]After the above operation are completed, click the [Export] in the upper right corner, and then enter the verification code in the pop-up verification code window to export the report. Click [Download] to generate the Excel sheet.



4. Function Description

4.4.3 Inverter report

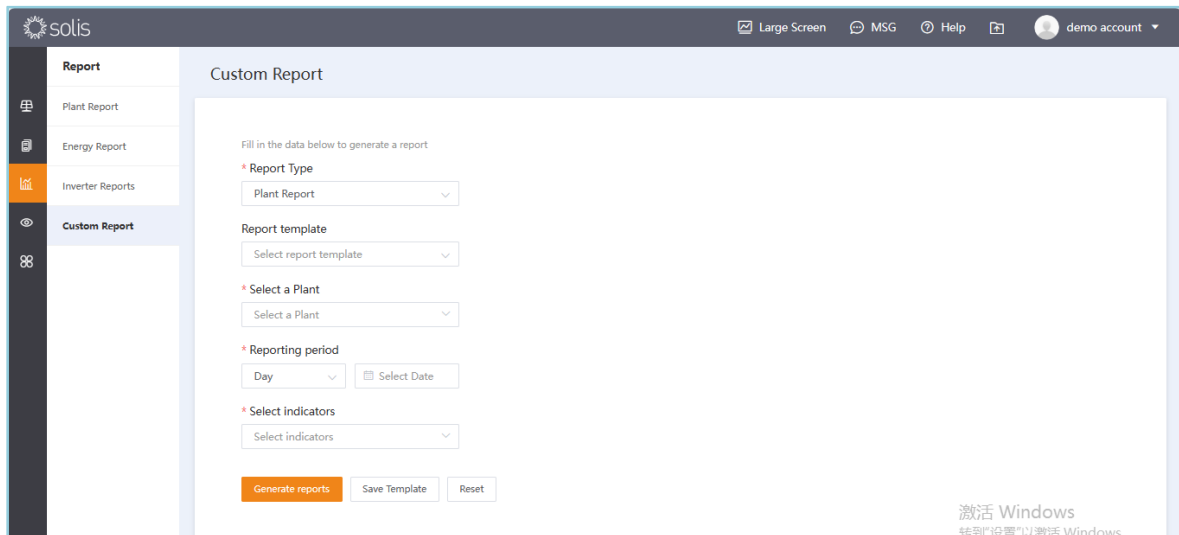
[Select Device] Select device Users can select the device SN number that needs to export the report, click Select Device, and check the name of the required power station Click [OK] to complete; or search by device SN

[Select report type] Users can select the types of exported power station report: Daily report, Monthly report, Annual report, and Cumulative report.

[Select Time] The user can select to export the power station report for the specified time period.

[Export report] After the above operation are completed, click the [Export] in the upper right corner, and then enter the verification code in the pop-up verification code window to export the report. Click [Download] to generate the Excel sheet.

4.4.4 Customer Report



[Report Type] Report type is fixed as a power station report, not optional.

[Report Template] Users can save the customized template, which can be directly applied in the next export, without the need to check the correlation number occupy.

[Select power station] Users can select the name of the power station that needs to export the report, click [Select power station], and check the name of the required power station Click [OK] to complete; Also filter by station area or search by station name.

[Report cycle] Users can select a day, month, month or total report.

[Select Indicator] The user can check the metrics that need to be exported.

4. Function Description

Select indicators [Close]

Select indicators

Search indicators

- Plant information
- Datalogger information
- Inverter information
- Statistical information
- Information About National Standards

0 indicators selected [Empty]

Search indicators

Select indicators

Cancel Confirm

[Generate report] After the above selection operation is completed, click [Generate report] and enter the verification code in the pop-up verification code window to guide it Publish the report, click [download] to generate the Excel table.

Export [Close]

Input verification code

E0AR

Cancel Confirm

[Save the template] You can save the currently filled data as a template and enter a name.

Template Name [Close]

* Report template

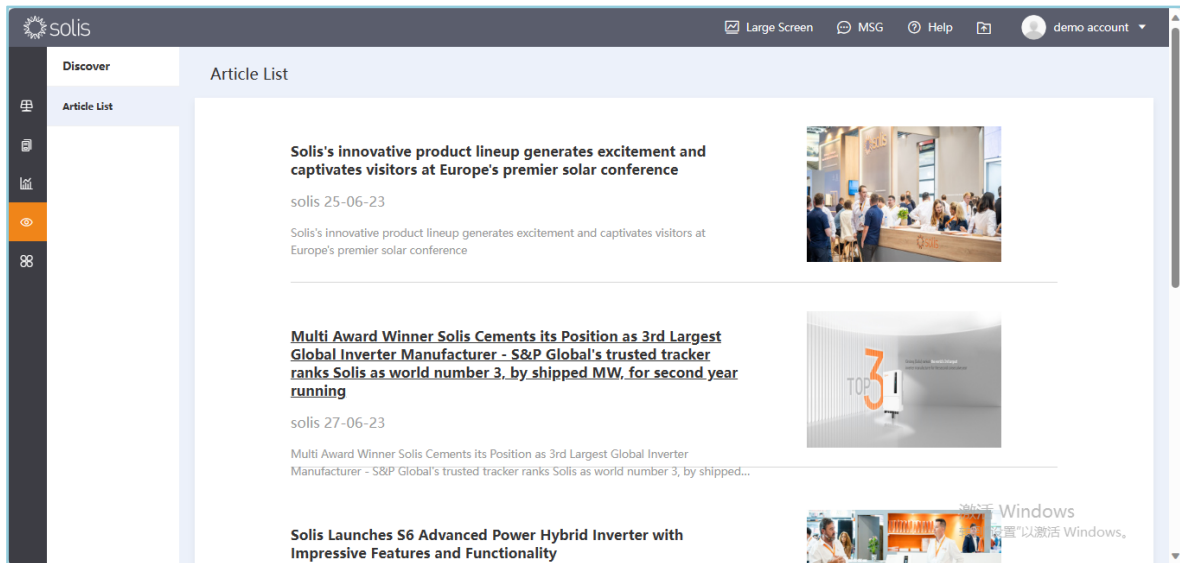
Input report template

Cancel Confirm

4. Function Description

4.5 Discover

Users can view the articles published by Solis in the [article list] in the discovery.

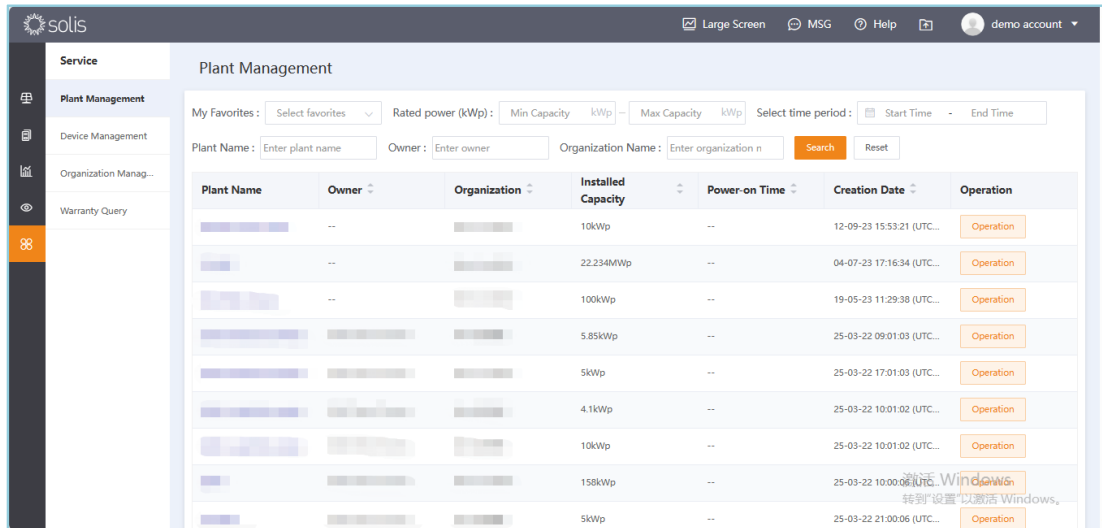


4. Function Description

4.6 Service

4.6.1 Plant Management

The plant management interface mainly displays all the plants added under the account. Click the specified plant to view the specific information of the plant and manage it, specific operation steps refer [4.1.2](#).



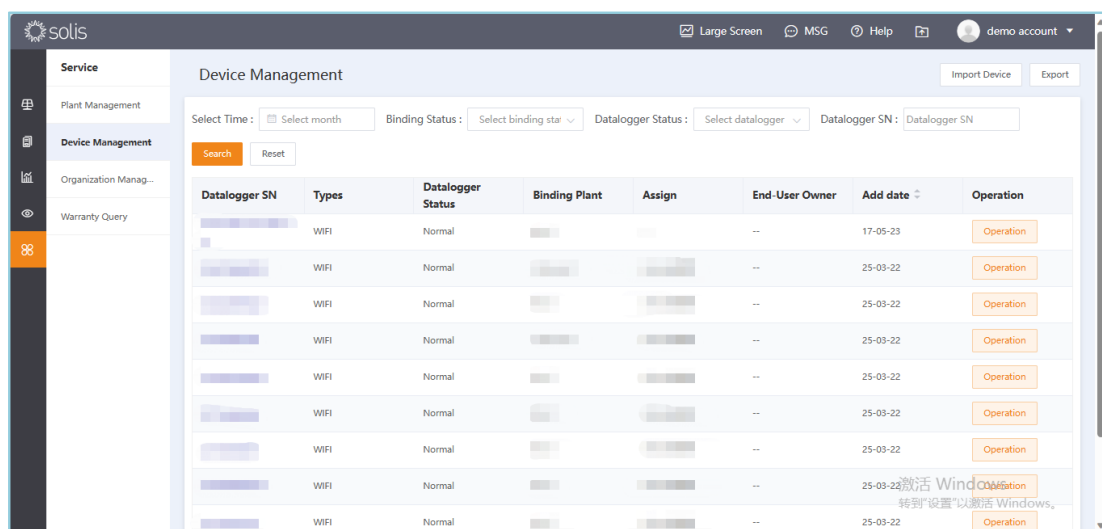
[Filter plant]Users can classify queries by my collection, installed capacity, and creation time period.

[Search plant]Users can search by entering the plant name, owner or organization name.

[Operation]The user can operate and process a single power station in this interface.

4.6.2 Device Management

The device management interface mainly shows all the collectors added under this account.

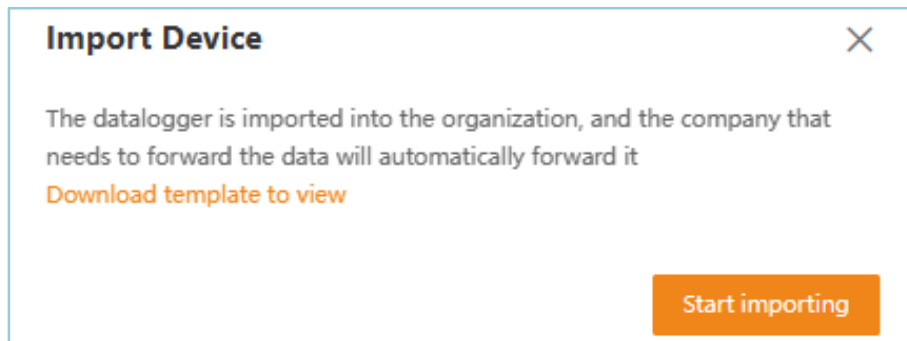


4. Function Description

[Filter device] Users can filter through the specified month, bind state, and data logger.

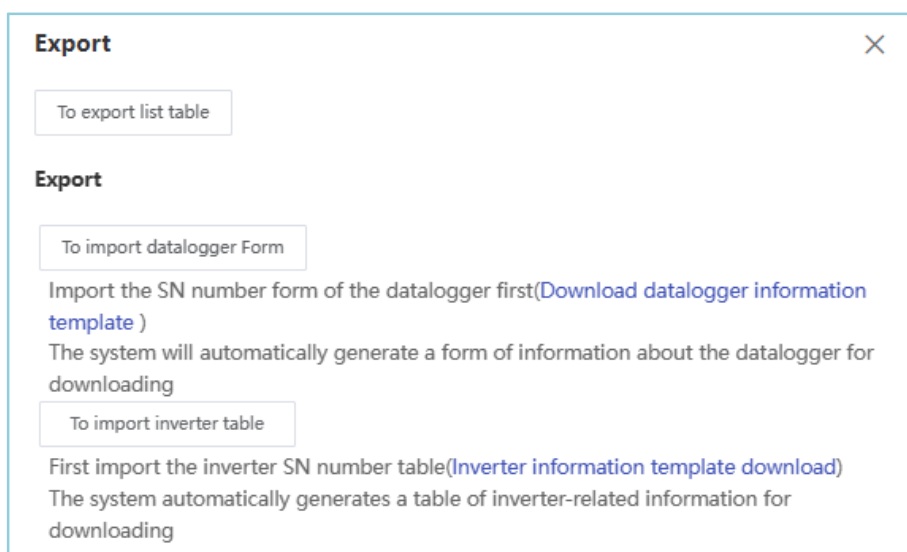
[Search]User can search by entering the SN number of data logger.

[Import Device]Users can import devices in bulk. Click[Import Equipment] in the upper right corner, the system will pop up the import confirmation guide, click [Download template view], input the data logger SN to be imported into the Excel sheet and save it, click [Start Import] then select the saved Excel sheet and click "OK" to complete the import.



[Export Table]Users can export device data in bulk. Click [Export List Table] in the upper left corner, the system will pop up the export table.

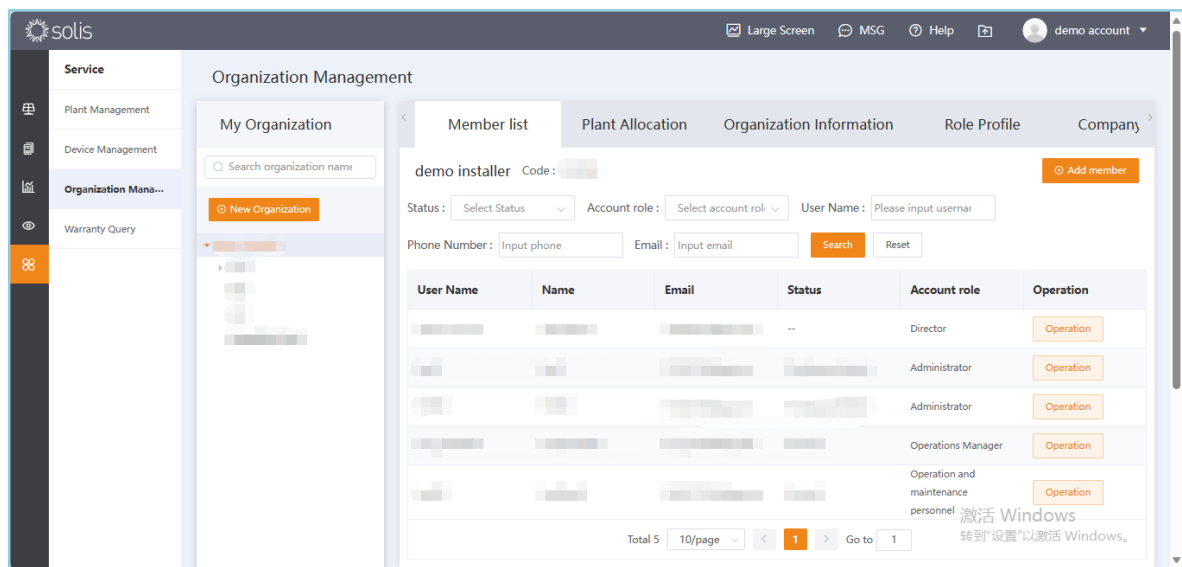
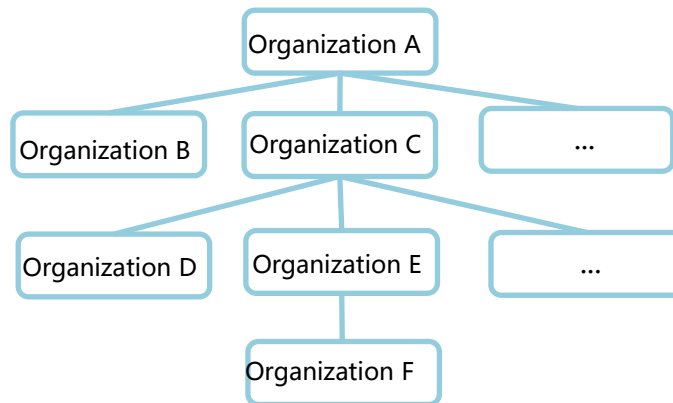
Instruction as the above picture , if you want export the data logger list table, Click[Download Data logger information template]and fill in the SN numberof which data logger you want export and then save it, click[To import inverter table] choose the Excel table you want to save ; if you want export the inverter list table, click [Inverter information template download]and fill in the SN number of whichinverter you want export and then save it. After finishing above operations ,click the [To export list table]finish the export.



4. Function Description

4.6.3 Organization Management

According to the user scenario, the organizational structure can be created without limit, and the scale of the structure can be developed horizontally and vertically, so as to realize organizational management, distributional monitoring of the power station, and create account roles for daily maintenance and operation.



[Create Sub-organization]

Create inner organization: be appropriate for the type which has close relationship, for example: headquarter- subsidiary, company-department.

Internal organization authority: The power station information assigned by the superior organization can be modified and operated.

Create external organization: Suitable for organizations with loose relationships such as distributor/installer relationships, etc.

External organization authority: For the power station assigned by the superior

4. Function Description

organization, only the viewing authority has no modification authority.

[Create member role]click[Add member]and fill in the information and finish it.

The screenshot shows a web interface with a top navigation bar containing 'Member list', 'Plant Allocation', 'Organization Information', 'Role Profile', and 'Company'. Below the navigation, the page title is 'demo installer' with a code '913721'. A red box highlights an 'Add member' button. Below this are input fields for 'Status', 'Account role', 'User Name', 'Phone Number', and 'Email', along with 'Search' and 'Reset' buttons. A table below lists members with columns for 'User Name', 'Name', 'Email', 'Status', 'Account role', and 'Operation'. The table contains three rows: one with 'Director' role and two with 'Administrator' roles. Each row has an 'Operation' button.

The screenshot shows a dialog box titled 'Add member account(demo installer)'. It contains several required fields marked with an asterisk: 'User Name', 'Name' (split into 'Family Name' and 'Name'), 'Password', 'Account role' (a dropdown menu set to 'To be allocated'), and 'Email' (with a note 'Email (can be used as Log in account)'). At the bottom, there are 'Cancel' and 'Create account' buttons. A watermark for 'Windows' is visible at the bottom of the dialog.

[Role and Authority]

Administrator: The largest authority owner in the organization, with all management functions such as organization, power station, operation and maintenance.

4. Function Description

Operations Manager : They can add, delete, modify and control the plant and equipment within the organization, and can issue and process work orders.

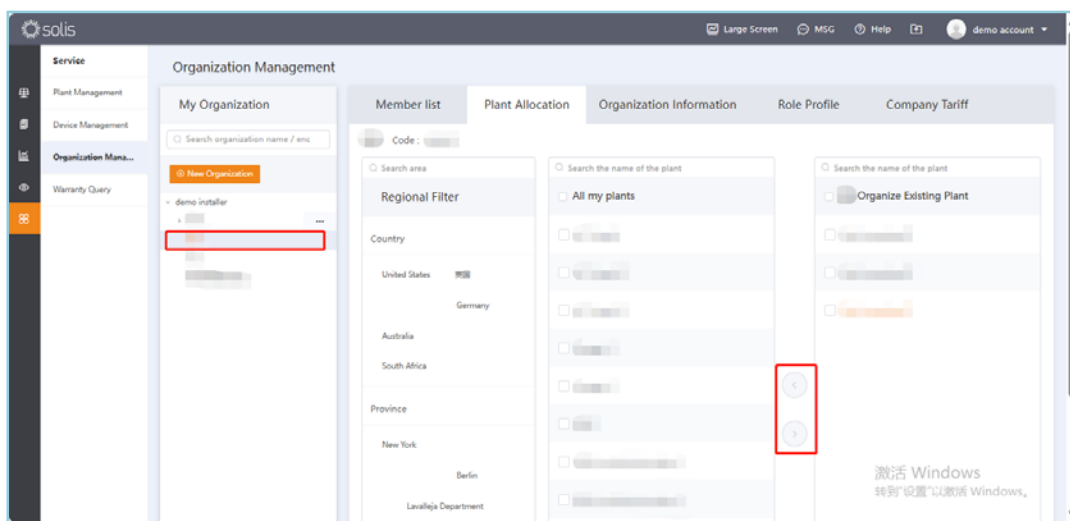
Operation and maintenance personnel : The organization can add, delete, modify, check and control the power stations and equipment within the organization, and can process work orders, but cannot issue work orders.

Installer : The plant and equipment in the organization can be added 、 deleted, modified and checked, but the equipment cannot be controlled remotely.

General User : They can add, delete, and check the plants and equipment within the organization, but they cannot remotely control the equipment.

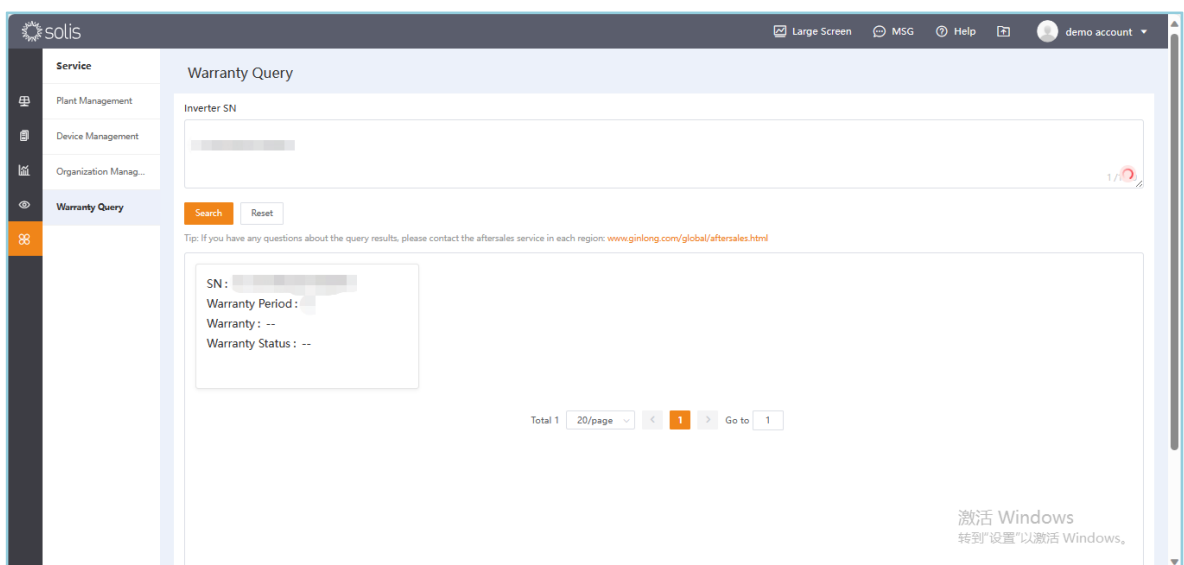
Marketing staff : Only the plant and equipment within the organization can be inspected and operated.

[Plant Allocation]The plant under the organization are selected and assigned to the subordinate organizations, and the assigned power stations are operated accordingly according to different roles.



4.6.4 Warranty Query

Enter the device SN number, and the user can query the warranty life, warranty end date and warranty status of the equipment.



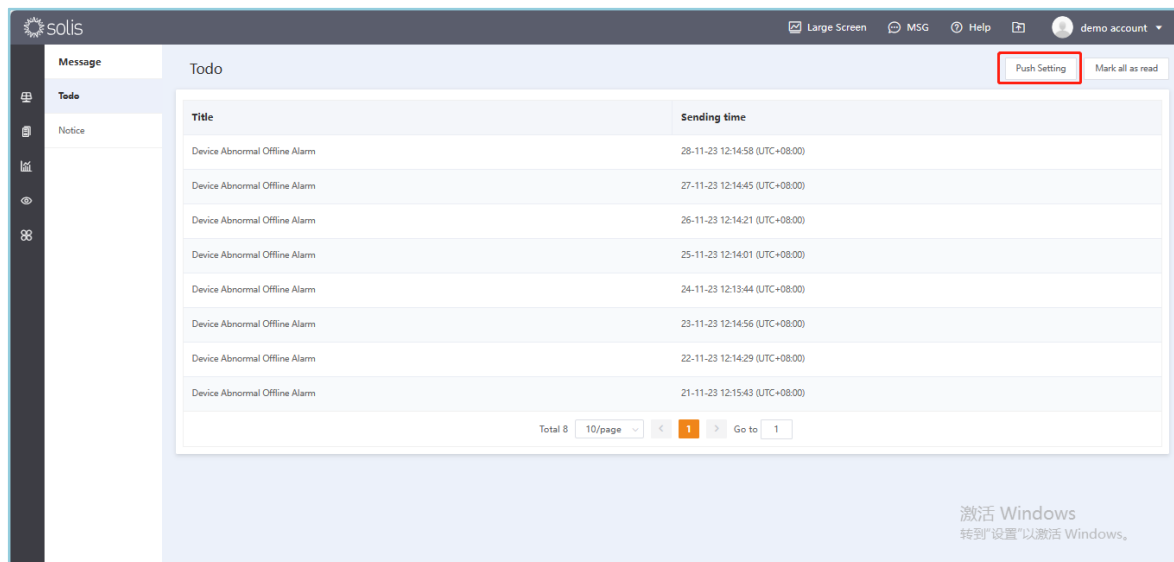
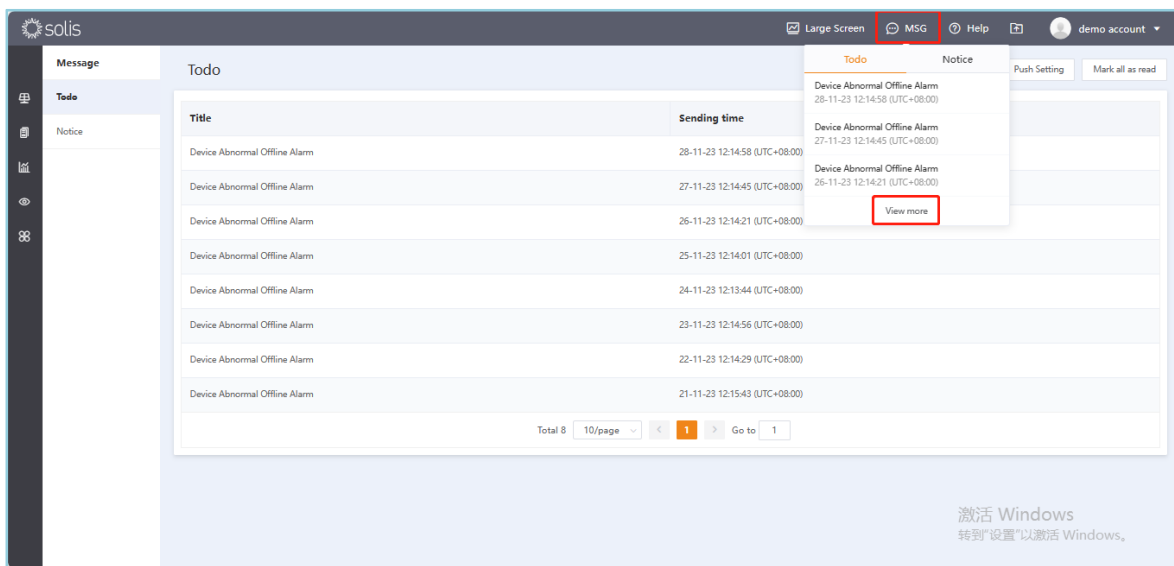
4. Function Description

4.7 Message

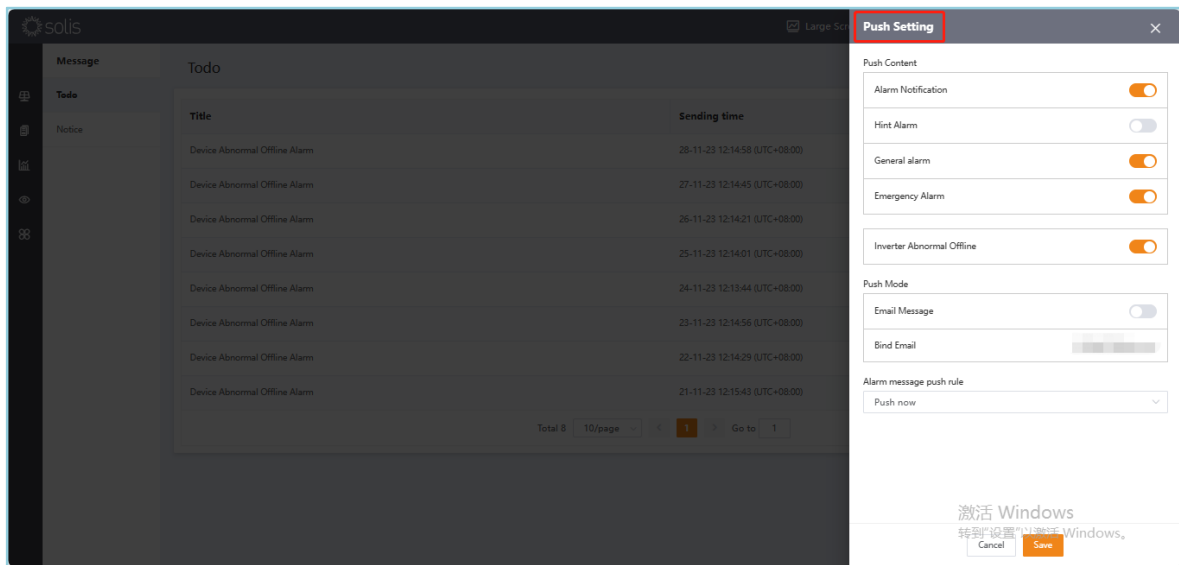
Users can enter the message center by clicking [Message] in the upper right corner or selecting [View More] to manage the received messages. The message center mainly includes to do reminders and system notifications.

4.7.1 To do Reminder

Users can check and view the processed messages on this interface, and enter the push Settings to set the push content, whether the inverter is abnormal offline to push, push method and alarm message push rules.

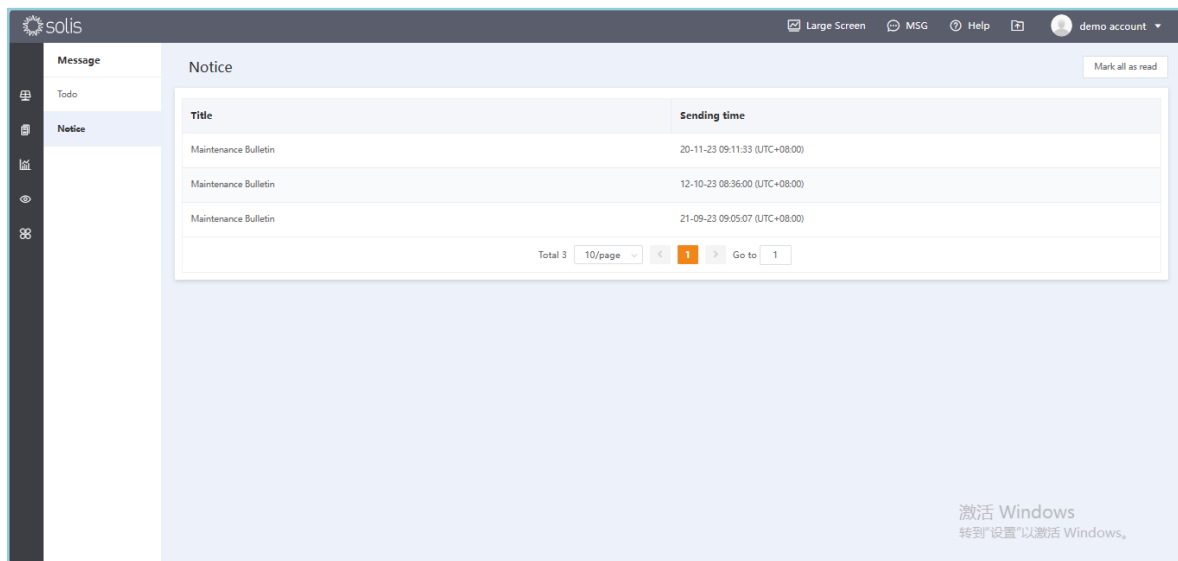


4. Function Description



4.7.2 Message

Users can view the maintenance reminder sent before each system upgrade and maintenance in this interface.



4. Function Description

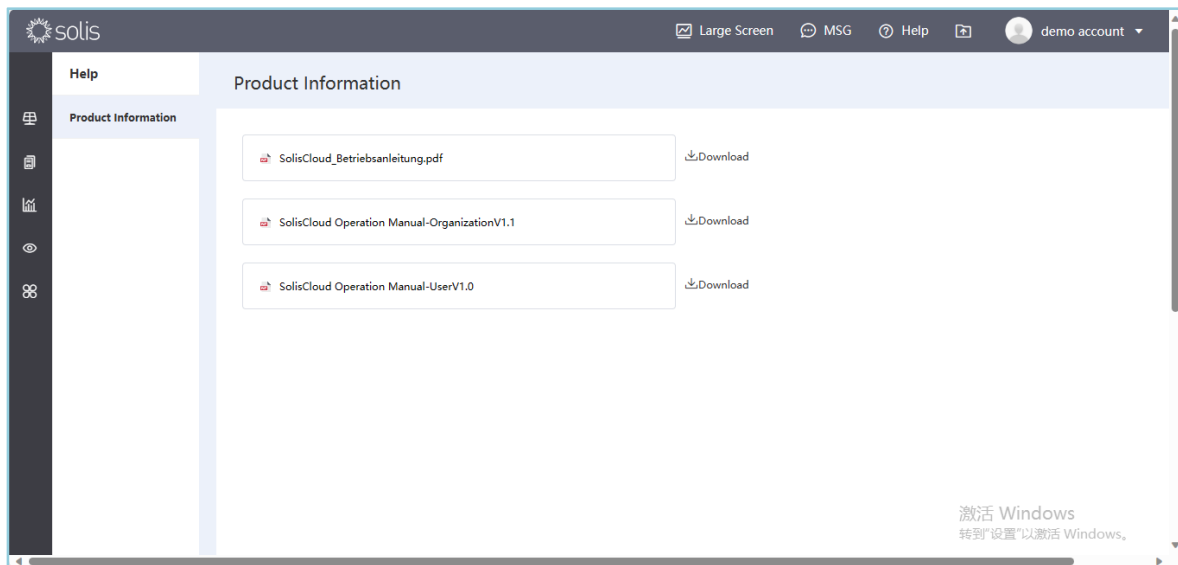
4.8 Help

The help interface includes product information and frequently asked questions.

4.8.1 Product Information

Users can download Solis Cloud user manual –organization version

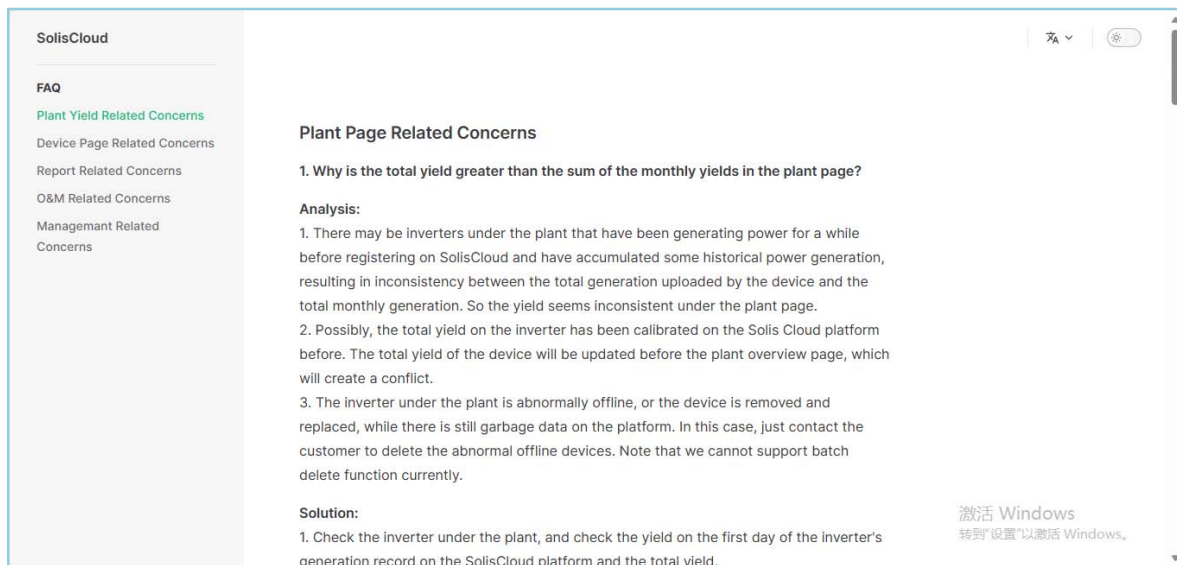
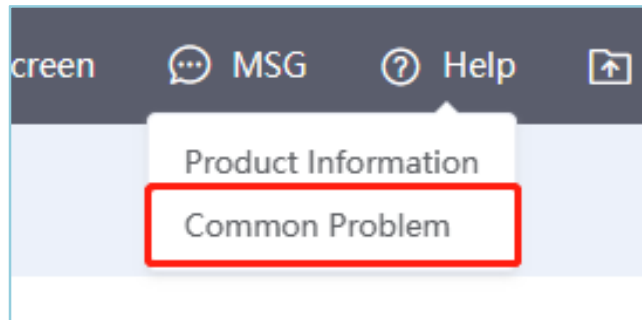
And Solis Cloud user manual –organization version-owner version on product information interface.



4. Function Description

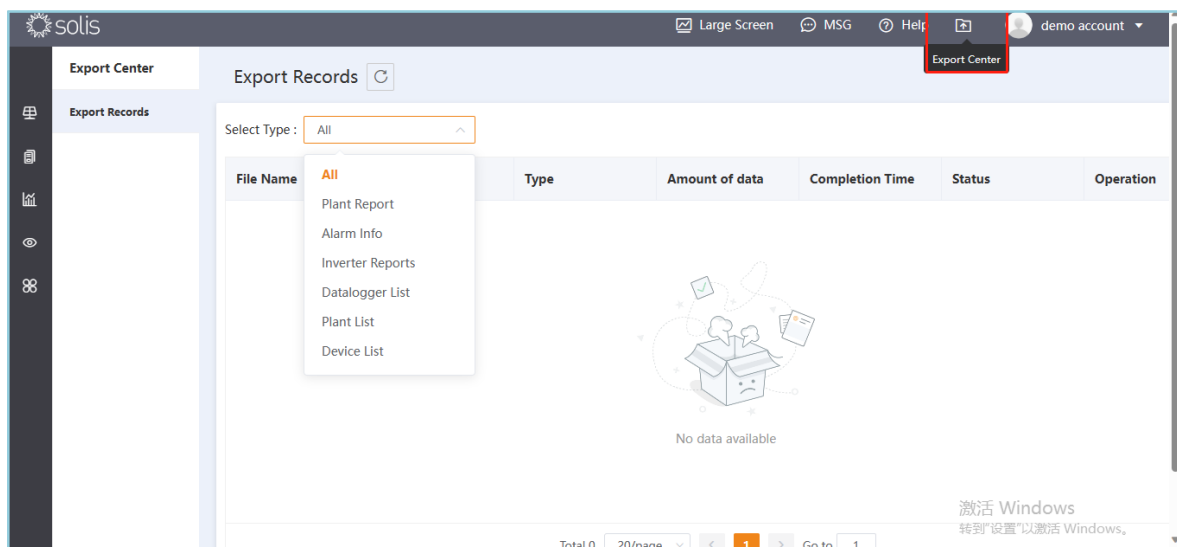
4.8.2 FAQ

Users can view solutions to some common problems in this interface.



4.9 Export Center

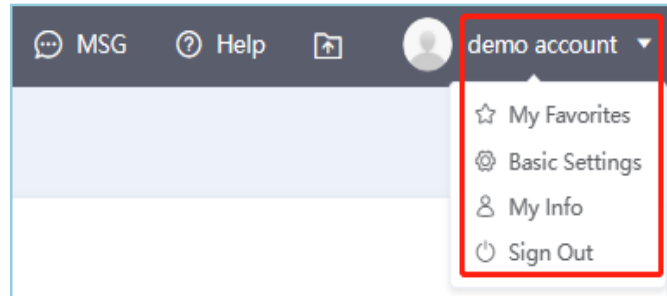
In the export center, users can view the export records and filter the records according to the export type.



4. Function Description

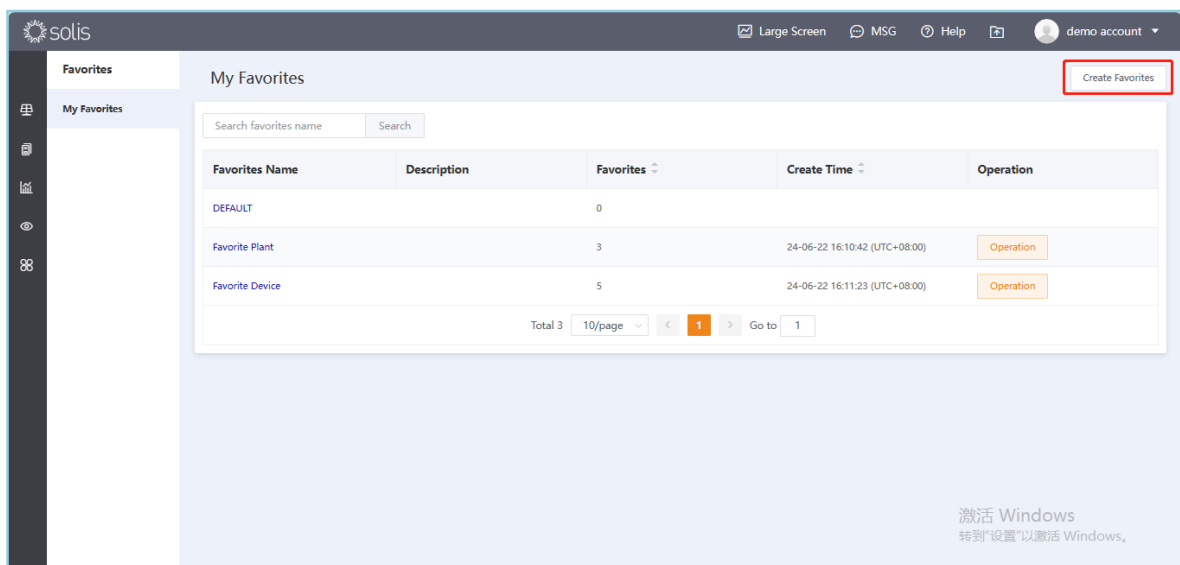
4.10 Personal Center

This module is convenient for users to manage account information and function Settings. It mainly includes four parts: My collection, basic Settings, my information and exit account.

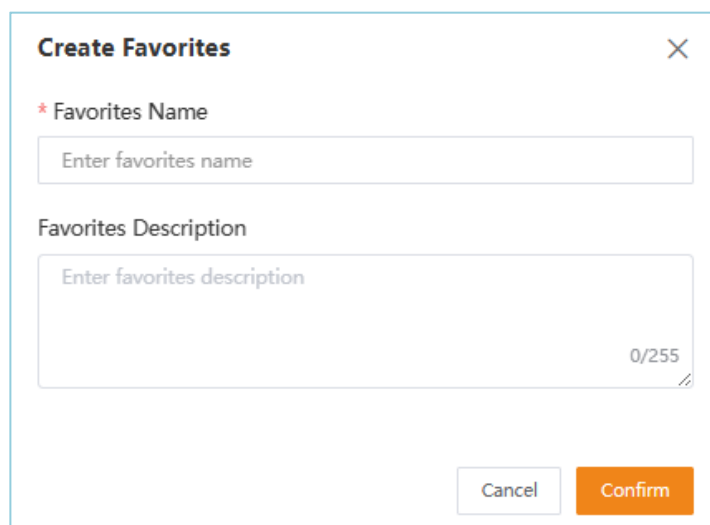


4.10.1 My Favorite

In this interface, users can view all the favorites created.



[Create Favorites] Enter the name of the favorite to create a new favorite, you can describe the favorite.



A screenshot of the 'Create Favorites' dialog box. It contains two input fields: 'Favorites Name' (required) and 'Favorites Description'. The 'Favorites Name' field has a placeholder 'Enter favorites name'. The 'Favorites Description' field has a placeholder 'Enter favorites description' and a character count '0/255'. There are 'Cancel' and 'Confirm' buttons at the bottom.

4. Function Description

4.10.2 Basic Setting


[Temperature]Users can customize the temperature unit, choose (°C) or (°F).

[Language]Default: English.

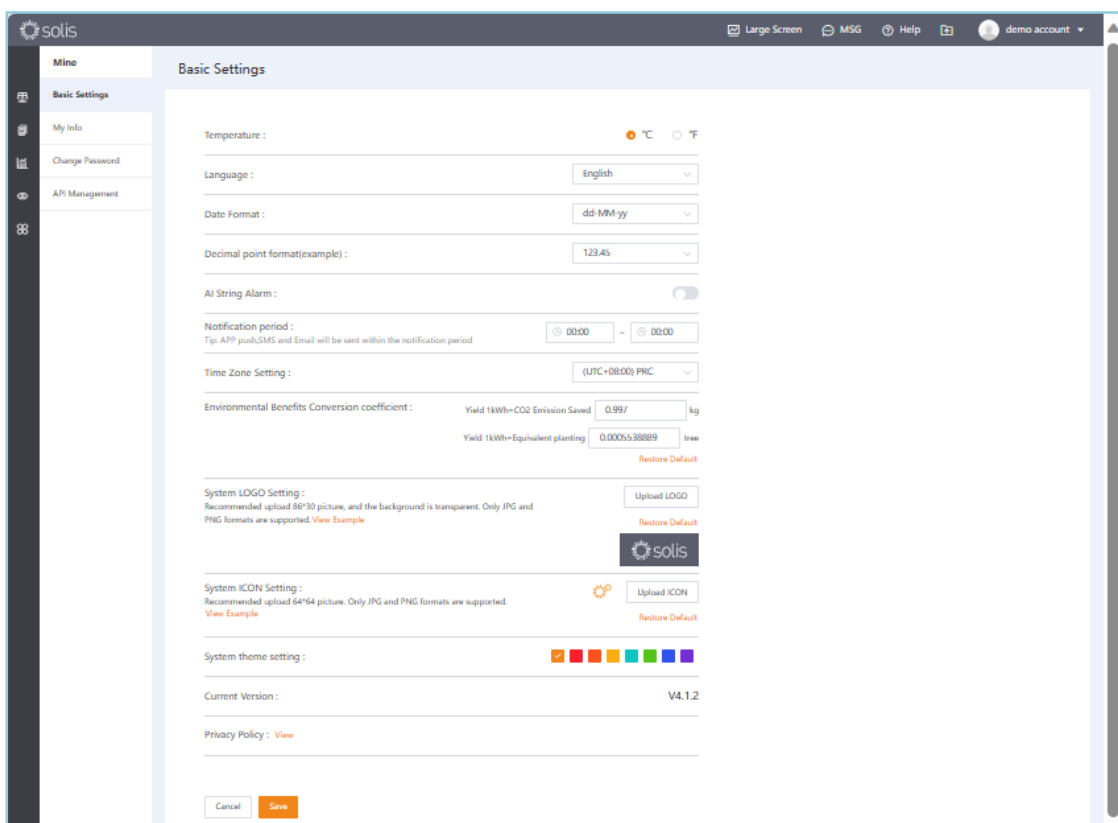
[AI string alarm]Users can choose whether to turn on the AI string alarm according to their own needs. After turning on the AI string alarm, the system will monitor all string cascaded level faults of the plant under the account, and give feedback alarm information to the owner when a fault occurs

[Notification Period]APP push, SMS and email will only be sent in the time period set by the user, and will not be sent in other time periods.

[Environment Benefits Conversion coefficient]Users can customize the conversion of 1kWh power generation into CO2 emission reduction and the number of equivalent green plants, and can also restore the default with a key.

[System Theme setting] The default system theme color is .The user can select other theme colors.

[Current Version]Users can check the current version of Solis Cloud, and APP users can upgrade the new version of the software when there is a new version released.

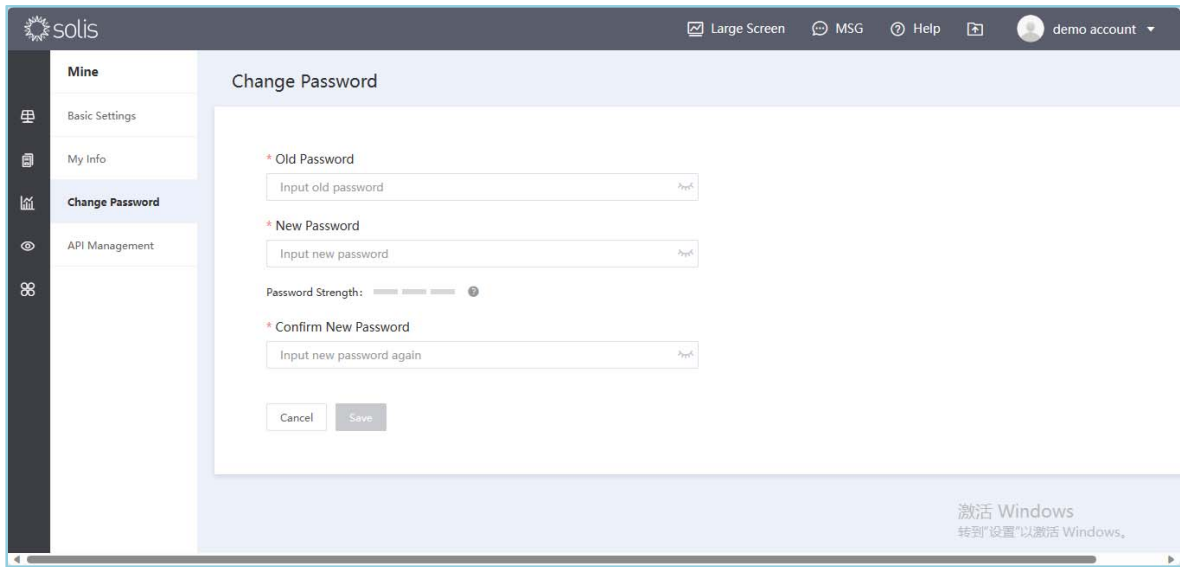


4.10.3 Mine

[My Info]Users can view account information such as user type, set personal profile picture, user name, mobile phone number, email address, apply for account cancellation, and bind third-party accounts.

[Change Password] Users need enter old password to set new password.

4. Function Description



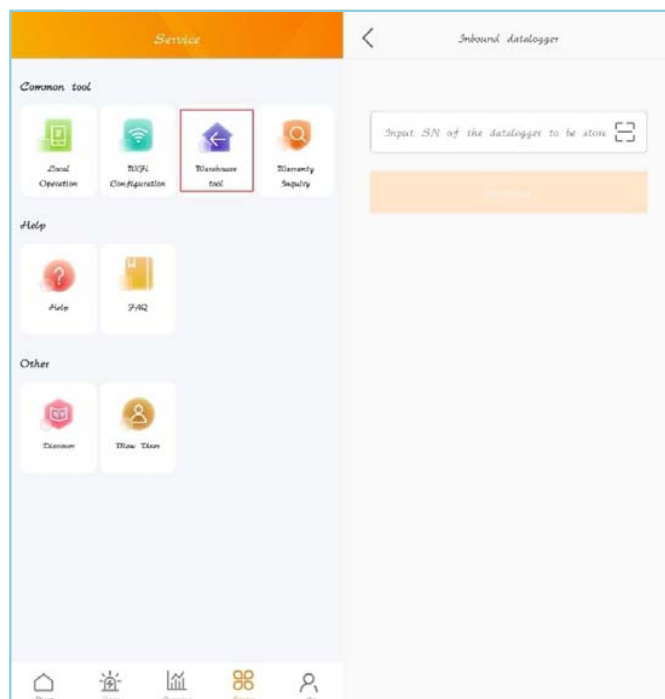
4.10.4 Log out

The user can exit the current account by clicking [Exit Account] in the upper right corner, and the page will automatically jump to the login interface. The user needs to enter the correct account password to re-enter.

4.11 Tool Management

4.11.1 APP Warehouse Tool

You can choose to import the collector into the current account. The imported collector is not bound to the power station, and the user can adjust the collector according to the situation Do station binding.



4. Function Description

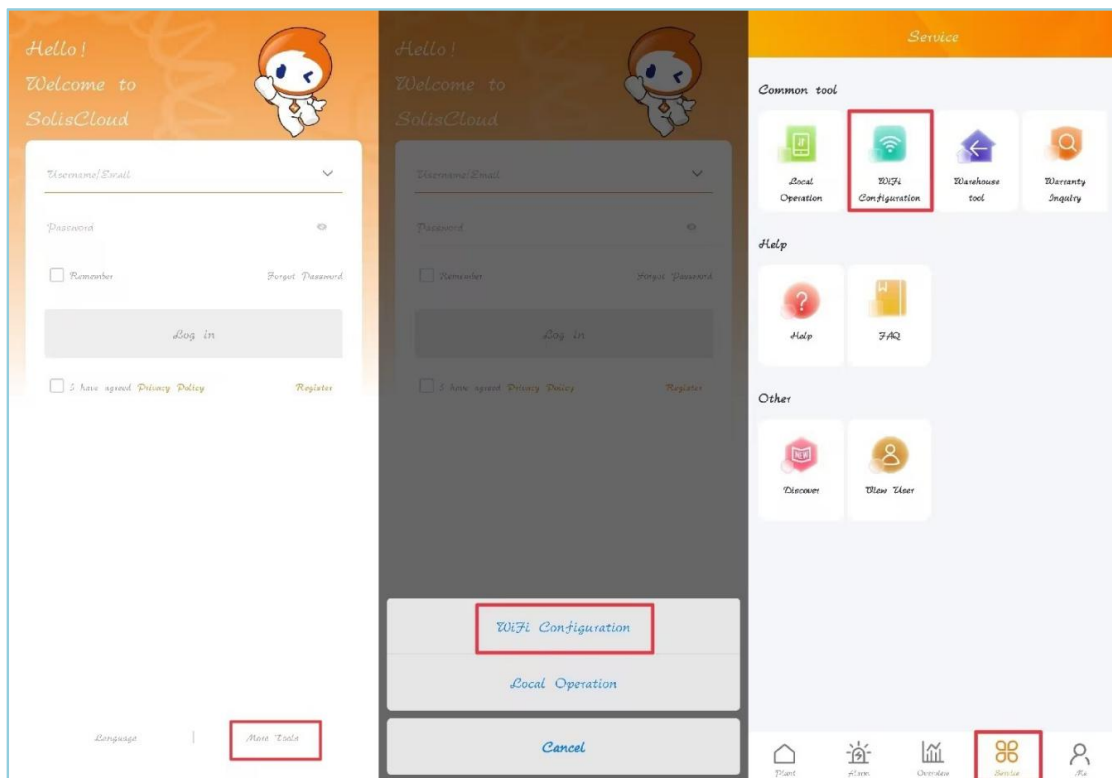
4.11.2 APP WiFi Configuration

Step 1: Mobile phone scan the QR code below to download and register Solis Cloud APP, or directly search Solis Cloud APP download in APP Store or major Android mall.



Step 2: click [more tools], click [WiFi Configuration].

If you have logged in, please go to the "Service" page to configure WiFi.



Step3: You need to fill in datalogger SN number manually or scan the QR code on datalogger.



4. Function Description

Step4: Select the [WiFi configuration]



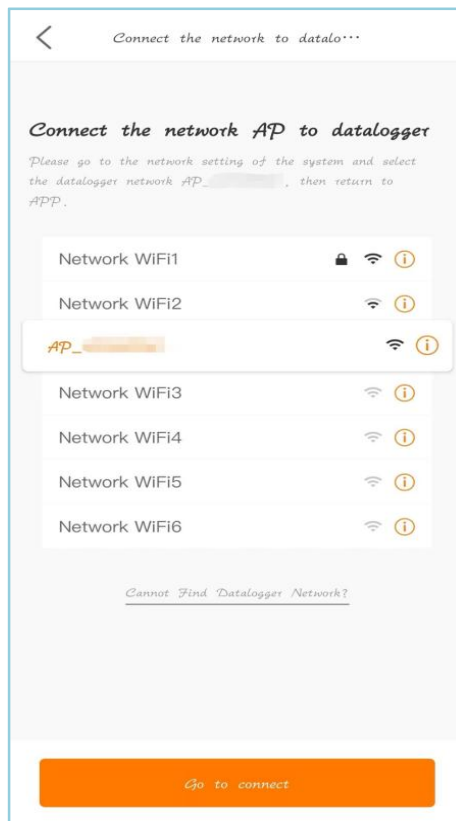
Step5: According to the tips to start the configuration mode of datalogger and then click [I am sure it is flashing]



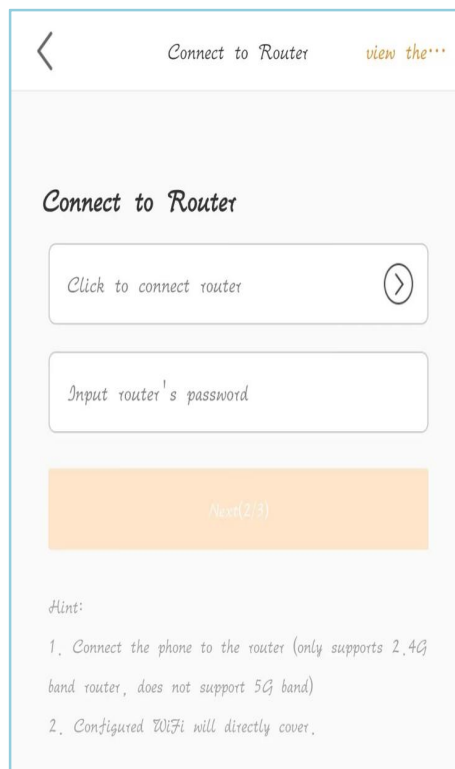
Step6: Connect the data-logger network, click [to connect], go to the network setting on your phone, choose the data-logger network.

4. Function Description

Default password: 123456789, return to App after connect successfully.




Step7: click [🔗], Make sure your phone is connected to the Wi-Fi router, then switch back to this page and enter the Wi-Fi password. Enter the password and click Next.



4. Function Description

Step8: After the router is successfully connected, the collector configuration is completed.

Configuration Complete



Configuration Complete

OK(3/3)

The setting is succeeded, the logger will try to connect to the corresponding WiFi source.

Note:

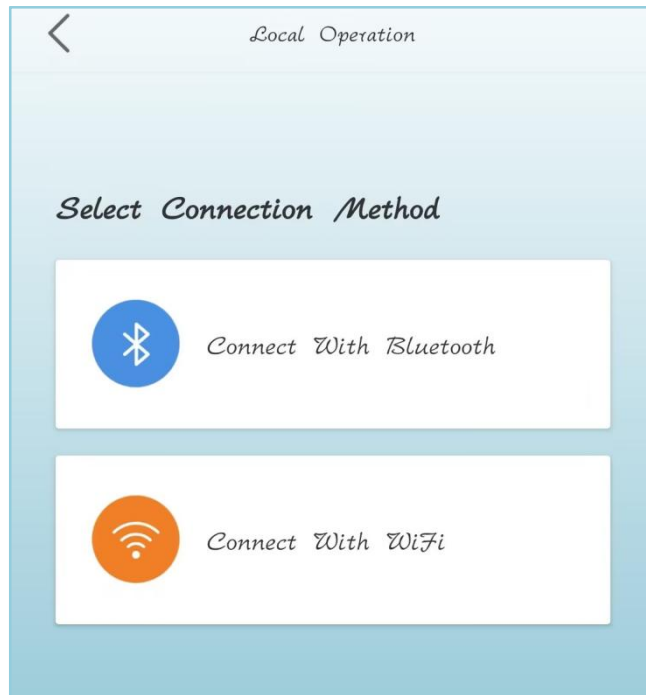
1. It takes about 1 minute for the datalogger to connect to the Internet. If the green indicator light on the logger is always on, it means that the logger is rightly connected to the Internet.
2. If the green indicator light of the logger keeps flashing after 1 minute, please try reset it again.

For more help or other questions, please check the installation manual or contact the local distributor for help.

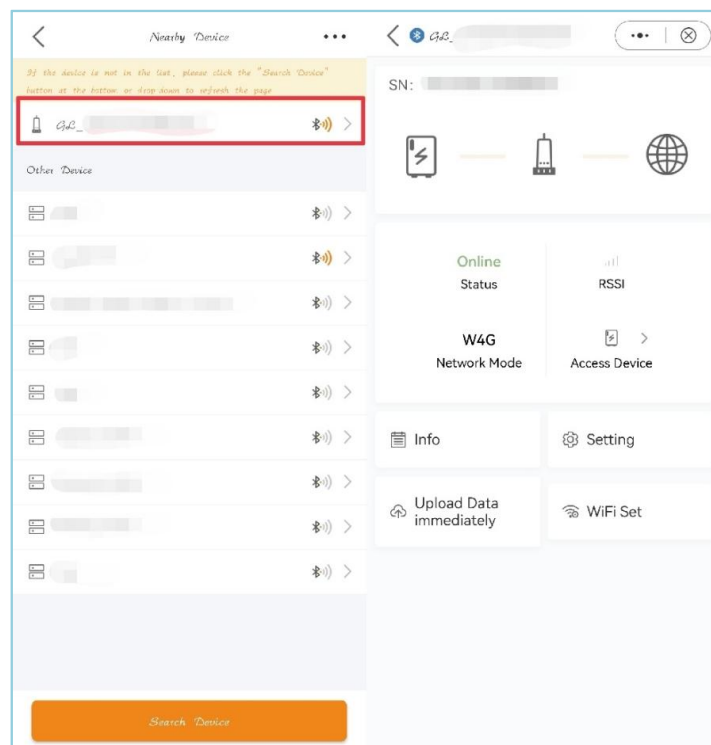
4. Function Description

4.11.3 APP nearby control

Nearby control function including Bluetooth connection and Wi-Fi connection, it can be used to debug the parameters of the equipment under special circumstances.

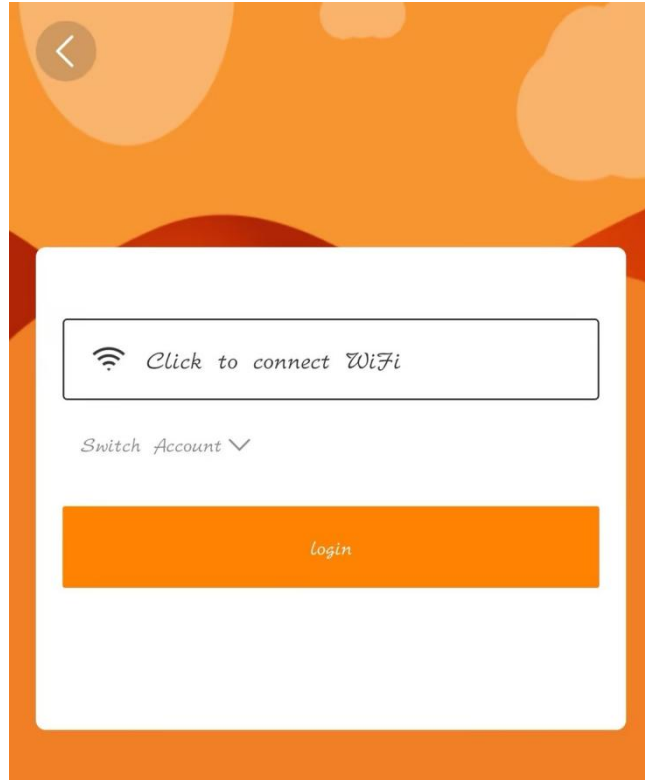


[Bluetooth connection] Click "Bluetooth Connection" to confirm that the Bluetooth connection state of the mobile phone is on. Click "Search Device" and the device to be debug will be displayed in the list of "Nearby Devices". Click the right arrow of the device to jump and enter the control password.



4. Function Description

[WiFi Connection]The current WiFi connection platform provides a way to jump to the near end debugging software of Solis TechView APP: there is no APP jump to boot installation, there is the APP system prompt to open the use; Search the device under the state of normal connection of the inverter, fill in the inverter WiFi login, and enter the control password to enter the debugging interface.





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