目　录

About This Manual

About This Manual

Target Group

This manual is intended for distributors, installers, and end users of residential PV plant, energy storage system, and commercial PV plant.

Symbols

```
Additional information, emphasized contents or tips that may be helpful, e.g. to help you solve problems or save time.
```

System Requirements

Item	Requirement
Browser	Chrome 60 or later (recommended), Safari 10 or later, and Firefox 60 or later
Resolution	1920 * 1080 (recommended) / 1366 * 768 (supported)

Expression Explanation

Type	Example
Select certain element or menu	Select “Plant Overview”
Select several elements or menus	Select “All plants -> Plant unit”

Intended Use

This manual is intended to guide users in operating and managing Smart Solar Cloud.

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This manual is prepared based on the version V1.1.1.20220730.
Screenshots are for reference only, and actual interfaces may differ.
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Common Operations

Common Operations

Account Registration

Account Registration

This section describes how to register an Smart Solar Cloud account.

Prerequisites

The Smart Solar Cloud operates normally and the network between the computer and the server is normal.

Introduction

The account distinguishes two user groups, end user and distributor/installer.

The end user can view plant information, create plants, set parameters, share plants, etc.

The distributor/installer can help the end user to create plants, manage, install, or maintain plants, and manage organizations as well as users.

Procedure

1.Enter the specified URL https://www.smartsolarcloud.net.

2.Click the icon in the upper right corner to switch languages.

3.Click “Register” to enter the registration interface.

4.Select “end user” or “distributor/installer” to enter the corresponding interface.

```
Select "International server", end user and distributor/installer are allowed to register.
```

5.Enter the registration information, including server address, e-mail, verification code, password, confirm password, country (region),. The distributor/installer further has the permission to fill in the company name and the code of upper level distributor/installer.

```
Select "International server", email is allowed to register.
```

6.Tick “Accept privacy protocol” and click “Register”, to finish the registration operation.

- The code of upper level distributor/installer can be obtained from the upper-level distributor/installer. Only when your organization belongs to the upper-level distributor/installer organization, can you fill in the corresponding the code.

Login

Login

This section describes how the end user or distributor/installer logs into the Smart Solar Cloud management system.

Prerequisites

The user has got the account and password.

The Smart Solar Cloud operates normally and the network between the computer and the server is normal.

Procedure

1.Enter the specified URL https://www.smartsolarcloud.net in the browser address bar.

2.Click the icon in the upper right corner to switch languages.

3.The default server address is “International server”.

4.Enter the username and password and click “Login”.

```
For the convenience of subsequent login, the users can select "Remember me".
```

Logout

Logout

This section describes how the end user or distributor/installer logs out of the Smart Solar Cloud management system.

Prerequisites

The user has logged into the Smart Solar Cloud management system.

Procedure

Click the button “Logout” in the lower left corner of the home page to log out of the Smart Solar Cloud management system.

Home

Home

Interface Description

Interface Description

Click the menu “Home” to enter the corresponding interface, on which you can view plant information, share plants, etc.

1. Menu Bar 2. Message center and help 3. Personal center 4. Plant query bar 5. Plant information List 6. Plant operation Bar 7.Screening Column and Creat Plant

Menu bar

The menu bar displays main function categories of the Smart Solar Cloud. Users can switch to the corresponding interface of different functions and perform related operations.

<table>
<tr><th>Function page</th><th colspan="2">Description</th></tr>
<tr><td>Home</td><td colspan="2">Display plant list.
View detailed plant information.
Share or delete plants.</td></tr>
<tr><td>Fault</td><td colspan="2">View fault information of plant devices.</td></tr>
<tr><td>Report</td><td colspan="2">View plant statistics reports (daily report, weekly report, monthly report, annual report and overall report); create self-defined reports.</td></tr>
<tr><td>Curve</td><td colspan="2">View plant power generation curve.</td></tr>
<tr><td rowspan="4">Advanced</td><td>Settings</td><td>Set initial grid connection parameters of plant devices.</td></tr>
<tr><td>Firmware update</td><td>Upgrade plant software device.</td></tr>
<tr><td>Live date</td><td>Display the measuring point interface and the curve interface, and the measuring points that the current device does not support.</td></tr>
<tr><td>Alarm subscribe</td><td>Set plant plan manner.</td></tr>
</table>

```
Only the distributor/installer has the permission of firmware update.
```

Message center and help

Message center

You can view the history records of creating plants, sharing plants, upgrading device, and changing installers.

Click “Edit” in the upper right corner, to delete history messages or mark the unread messages as read.

Help

Item	Description
About	Click “About” to view the software version, terms of service, and privacy policy.
User manual	Click “User manual” to view the corresponding user manual.

Personal center

Item	Description	
Me	Profile	Click "Me" to enter the user information interface, on which you can modify nickname and user ID, select country (region), and set time zone. The distributor/installer can view his organization information, but the end user does not have organization information. The code of distributor/installer must be filled in and the code of end user is optional.
Me	My Service Provider	You can view service provider information.
Me	Account and security	Click "Account and security" to bind a phone number or email address for retrieving password. In addition, you can change the password and delete account.
Me	Notification	You can determine whether to receive notifications.
Me	General settings	You can switch the language, theme color, background color, radiation unit, and temperature unit.

Plant query bar

Users can search for desired plants by setting corresponding conditions.

Plant information list

Display all plants of the current user and plants shared by others.

1. Click plant name to enter “Overview” interface by default, where you can view plant information.See the section of “Viewing Plant Information” for more detailed operation.

2. Click to reorder the list.

Plant operation bar

You can share and delete plants.

```
Only the end user can share plants, and the distributor/installer does
not have the sharing permission but can receive shared plants.
```

Plant Creation and Viewing

Plant Creation

Click to enter the corresponding interface by default. For creation process， refer to the section of “Create Plant”。

1. A single plant can be created.

2. Plants can be created in batches.

Filter Columns

Click to check the indexes needed to be checked, such as communication, transient irradiance, PR values, etc.

Viewing Plant Information

1.Click in the upper-right corner to view the plant list under current the user.
2.Click in the upper-right corner to view the plant tiles under the current user.

Viewing Plant Information

Viewing Plant Information

In the plant information list area, you can view plant information and device information as well as configure plants.

This area displays plant state and other basic information.

Description of plant information parameters

Parameter	Description
Plant Status	Running and communication states of the power plant normal running, fault, alarm, offline, connecting
Plant Name	User self-defined name
Plant Type	The type is determined based on application scenario and it can be set on the “Plant configuration” interface.
Installed Power	Installed power of the plant which can be edited on the “Plant configuration” interface.
Real-time Power	Real-time output power of the plant
Today Yield	Accumulative power yield of the day
Total Yield	Accumulative power yield of the plant

Plant Information Introduction

Plant Information Introduction

Parameters displayed may vary with plant types, and actual interfaces prevail.

```
Description is given by using residential energy storage plant as an example.
```

1.Click the plant name on the “Home” page to enter the corresponding plant information interface.

2.Click “Overview” on the menu bar to view detailed plant information.

Viewing basic plant information

Basic plant information includes “today revenue”，”today yield”，”real-time power”，”current month’s yield”, “total yield”,“CO2 reduction”, etc.

Viewing power flow diagram

You can view information such as real-time power, feed-in power, load power, and battery charging/discharging power.

The power flow diagram of the energy storage system is as follows:

```
The line with an arrow indicates energy flow between connected devices, and the arrow pointing
```

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Gray line indicates that the connected devices are in off-line state.
```

Viewing and exporting plant data

Plant data can be viewed and exported based on time segment “Day”，”Month”， “Year”，and “Total”.

1.Click “Day”, “Month”, “Year”, or “Total” to select the desired period.

2.Perform the following operations according to actual conditions.

- Click the icons and in the upper right corner to display the data in chart form and table form respectively.
- Click the icon in the upper right corner to export the plant data, where the exported file is in .xlsx format by default.

Viewing the calculation standards

The bottom of the overview page shows data related to energy saving and emission reduction, including CO2 reduction, standard coal saving, equivalent tree planting, etc.

Click the icon to view the calculation standards for energy conservation and emissions reduction of PV power generation

Viewing Device Information

Viewing Device Information

Select “Device information” on the menu bar to enter the device information interface, on which you can view basic device information and alarm information.

Querying device

1.Enter device S/N and device name and select device type and device state.

2.Click to view the corresponding devices.

Viewing device information

All devices in the plant are displayed in the tab form. Click the tab to view corresponding device information. You can view the general information, device alarm information, power curve, etc.

Viewing General Information

The basic device information includes measuring point data such as the general information, MPPT information, load information, battery information, and grid information, as well as device information such as device status, model, S/N, manufacturer, etc.

1.Click device name, and you will enter “General Information” interface by default.

2.Click or behind the parameters to select time segment and time interval, and click . In this way, you can view history information.

3.Perform the following operations according to actual conditions.

- Click the icon to refresh the interface information.
- Click the icon to change the curve into report.
- Click “Save table data” to export the parameter information to the local.

Viewing Active Fault

View the list of alarms not closed.

1.Click device name, and you will enter “General Information” interface by default.

2.Click “Active Fault” to enter the corresponding interface.

3.Enter time segment and fault classification, and select “Alarm processing state”.

4.Click to view the corresponding faults.

Viewing Fault History

View the list of history alarms closed.

1.Click device name, and you will enter “General Information” interface by default.

2.Click “Fault History” to enter the corresponding interface.

3.Enter time segment and fault classification.

4.Click to view the corresponding faults.

Viewing chart

View power generation information displayed in the chart.

1.Click device name, and you will enter “General Information” interface by default.

2.Click “Chart” to enter the corresponding interface.

3.Select time segment and click the icon to select the time interval. The power generation statistical period can be set to 10 seconds, 5 minutes, 15 minutes, 30 minutes, or 60 minutes.

4.Click to view the corresponding curve.

5.Perform the following operations according to actual conditions.

- Click the icon to refresh the interface information.
- Click the icon to change the curve into report.

```
Click "Save table data" to export the parameter information to the local.
```

Viewing Remote Signaling Status

1.Click device name, and you will enter “General Information” interface by default.

2.Click “Remote Signaling Status” to enter the corresponding interface.

3.View remote signaling status.

4.Click to refresh the interface information.

5.Click ，select the time，and click ，to view parameter history.

6.Click to export the table.

`Only Logger1000 and Logger3000 have remote signaling status.`

Repair

This section describes how to repair devices.

Procedure

1.Click device name, and you will enter “General Information” interface by default.

2.Click “Repair” at the bottom of the interface to enter the corresponding interface.

3.Fill in fault information.

Parameter	Description
Fault classification	Fault and warning
Processing time	Estimated time for processing the fault. Includes emergency, 1 hour, 8 hours, 1 day, 3 days, 3 days above
Source	Cause of the fault Includes manual inspection, routine maintenance, interval test, device maintenance, device rebuilding, system note, and other sources

4.Optionally, fill in fault details and upload fault picture.

5.Click “Repair” to upload the fault. You can view the repair information on the “Fault” interface.

Viewing Fault Information

Viewing Fault Information

Select “Fault” on the menu bar to enter the fault information interface, on which you can view fault information.

For details, refer to “Fault”.

Plant Configuration

Plant Configuration

This section describes how to modify plant information and how to set the tariff.

Modifying plant information

This section describes how to edit basic plant information.

Prerequisites

The user has the permission of editing plant information.

Procedure

1.Click “Plant configuration”-> “Plant” to enter the corresponding interface.

2.Fill in the basic plant information.

Parameter	Description
Plant name*	User self-defined name
Owner’s email	The e-mail address of the end user, used for receiving fault and alarm notification messages.
Power installed*	Plant installed power Click “Setting” and a setting window pops up. Click to enter the power value, in kWp. Click “Confirm”.
Plant type*	It can be set to “Utility”, “Commercial PV”, “Residential (PV)”, “Residential (Storage)”, and “Microgrid” according to the application scenario.
Grid-connection type	It can be set to “100% Feed-in”, “Self-consumption”, “Zero Export”, or “Off-grid”.
Location	The system automatically obtains the longitude, latitude and detailed address of the plant. Users can manually modify longitude, latitude, and detailed address of the plant.
Image	Click “Image upload” to select a local image and upload it.
Country (region)	Country (region) where the plant is located at.

Time zone	Time zone of the plant
Time of connection	Time at which Smart Solar Cloud starts to monitor the plant
Grid-connection date	It is the time of creating the plant by default. Click the icon to modify the grid-connection time.
Plant delivery address and zip	Delivery address and zip code for spare parts
Distributor/installer organization code	-

Note: * indicates fields that must be filled in.

- The end user assigns the distributor/installer to manage the plant, and fills in the distributor/installer organization code which can be obtained from the corresponding distributor/installer.

- If the end user changes another distributor/installer to manage the plant, click the button to modify the organization code, so that the plant will be managed by the another distributor/installer.

- The distributor/installer can change the organization code to transfer the plant to another distributor/installer for management.

3.Click “Save”.

Tariff

The tariff is used to calculate revenue.

This section describes how to set a specified tariff and TOU tariff.

Prerequisites

The user has the permission of setting the tariff.

Procedure

1.Click “Plant configuration”-> “Tariff” to enter the corresponding interface.

2.Set the tariff to a specific value or set the TOU tariff.

- Setting the tariff to a specific value

  Specific value: the tariff is the same for all time segments.

1.Select a charging unit.

2.Enter the tariff.

3.Click “Save”.

- Setting TOU tariff

TOU tariff: the tariff is different at different time segment.

1.Select a charging unit.

2.Enable “TOU tariff”.

3.Fill in start time, end time, and price.

4.Optionally, click “Add” to set time segment and tariff.

5.Optionally, repeat the foregoing step to set TOU tariff for multiple time segments within a day.

6.Fill in “Price in other time period”.

7.Click “Save”.

Click the icon to delete the corresponding setting item.

TOU tariff should cover 24 hours and be different in each time segment.

Settings

Settings

Click “Settings” on the menu bar to enter the parameter settings page to set the parameters of devices in the plant.

See the section of “Settings” for more detailed operation.

Firmware Upgrade

Firmware Upgrade

Click “Device Upgrade” on the menu bar to enter the device upgrade page to perform a software upgrade of devices in the plant.

See the section of “Device Upgrade” for more detailed operation.

Plant Sharing

Plant Sharing

The plant list includes plants of the end user and plants shared by other end users.

Sharing Plant

End user can assign plants to other end users or distributor/installer for management.

Prerequisites

Only the end user can share plants, and the distributor/installer does not have the sharing permission but can receive shared plants.

The end user has plants.

Procedure

1.Click the icon on the operation bar, to enter the sharing interface.

2.Click “ADD Share”, and the ADD Share window pops up.

3.Fill in the “Shared email” select sharing authority (Read Only or Management).

Description of sharing permission

Permission	Description
Read only	Users can only view data of the plant.
Management	Users can manage the plant but cannot delete the plant.

4.Click “Confirm” to finishing the sharing operation.

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Plants can be shared to at most 6 users who have the management permission, but the number of
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The user cannot share the plants shared to him by the end user to other users.
```

Subsequent procedure

Once the sharing is cancelled, the user to whom a plant is shared cannot view or manage the plant any more.

- The end user cancels the sharing

1.Click the icon on the operation bar, to enter the sharing interface.

2.Click the icon on the operation bar, to cancel the sharing.

- The user to whom a plant is shared cancels the sharing

1.Click the icon in the plant operation area, and a window pops up.

2.Click “Confirm”.

Plant Publicity

When “Publish plant” is turned on, the plant can be shared to visitors.

Prerequisites

The end user has the permission of turning on “Publish plant”.

The end user has plants.

Procedure

1.Click the icon on the operation bar, to enter the sharing interface.

2.Turn on the “Publish plant” switch, so that visitors can view plant data.

Subsequent procedure

The end user cancels plant publicity

1.Click the icon on the operation bar, to enter the sharing interface.

2.Turn off the “Publish plant” switch, so that visitors cannot view plant data.

Querying Plant

Querying Plant

1.Select plant state and plant type, enter plant name and S/N on the top of the home interface.

2.Click , to view corresponding plants.

Create Plant

Create Plant

Click on the homepage to enter the corresponding page by default.

Create Plan

A single plant can be created. Perform the following operations according to actual condition.

Viewing Basic Plant Information

Parameter name	Description
* Plant name	The name of a plant is the device serial number by default.
*Plant type	Click to select the corresponding plant type.
*Installed power （kWp）	Input installed power.
*Country (Region)	Click to select the country (region) of the plant.
*Time zone	Click to select the time zone where the plant is located.
*Grid-connection type	Click to select the corresponding grid-connection type.
Grid-connection date	Click to select the grid-connection date.
Plant picture	Click to upload a plant picture.

Note: * indicates required fields.

Plant location

Plant location, which can be added in two ways:

- Manual entry: Manually enter the plant location in the input box;
- Automatic access: Click on the map to automatically obtain the location and longitude and latitude information of the plant.
    - Click in the lower-right corner of the map or slide the mouse wheel up to zoom in the map.Click or slide the mouse wheel down to zoom out the map.

Parameter name	Description
*Plant address	Fill in the specific address of the plant
Postcode	Fill in the postcode of the plant location
*Longitude	Fill in the longitude of the plant location
*Latitude	Fill in the latitude of the plant location

Note: * indicates required fields.

Owner Information

Owner’s e-mail: used to receive SMS

Configure Tariff (Optional)

Parameter name	Description
Unit	Click to select the tariff unit.
Feed-in tariff	The price of electricity sold to the grid. Enter tariffs in either of the following ways. 1.Enter feed-in tariff. 2.Turn on time-of-use tariff and fill in the feed-in tariff in different time segments.
Consumption tariff	The price of electricity purchased from the grid. Enter tariffs in either of the following ways： 1.Enter grid tariff. 2.Turn on time-of-use tariff and fill in the grid tariff in different time segments.

Add Communication Device (Optional)

Communication devices can be added in either of the following ways.

- Manually add: Click to select the device model, enter the S/N of the communication device, and click Add.
- Scan QR Code: Click Identify QR code to upload a picture of the device’s QR code or drag the image to the QR code identification box.

Click “Create Plant” below to finish adding.

Create Plants in Batch

Import plants in batches. Perform the following operations according to actual condition.

Plant Information

- Fill in the parameters and click Next to enter the batch import page.

Parameter name	Description
*Plant type	Residential
*Country (Region)	Click to select the country (region) of the plant.
*Time zone	Click to select the time zone where the plant is located

Batch Import:

- Click to download the template to local and enter the plant information according to the instruction in Excel and save it.
- Click Batch Import and select the edited Excel file to upload.
- Click Create Plant below to enter the overview page.

Overview

To view information about the plants that are being created.

- Click Continue Batch Plant Creation to continue with the batch creation.
- Click Complete. Create Plants in Batch finishes.

Fault

Fault

Interface Description

Interface Description

Click “Fault” on the menu bar to enter the fault list interface and view the plant alarm information.

1.Plant list 2. Fault query bar 3. Fault information list 4. Operation bar

Plant list

Display information on the plants, devices, and measuring points.

Fault query bar

Users can search corresponding faults by setting corresponding conditions.

Other functions

Parameter	Description
Fault recording task	To query a fault recording task, enter the task name, device name, device S/N, and fault name in the search box. Click “View” to view the fault recordings for the corresponding task.
Fault refresh setting	Set refresh time in the upper right corner of the interface, where the minimum interval is 5 minutes, and click to refresh the fault list.
Batch close	Select multiple faults in the fault list, and click “Batch close” in the upper right corner to close faults in batch.
Fault export	Click the icon in the upper right corner to export faults within specified time segment, where the exported file is in .xlsx format by default.

Fault information list

In the fault information area, users can view information such as plant name, alarm type, fault code, alarm name, device name, and occurrence time. In addition, users can view fault details and close the faults. Click the plant name to jump directly to the single plant overview, and click the device name to jump directly to the device detail interface.

Plant operation bar

- Click to view fault details.

- Click to close faults.
- Click to deliver the fault recording task.

Querying Faults

Querying Faults

This section describes how to query faults.

Procedure

1.Select the fault tab “Active” or “Fault History”.

2.Set time segment, where the default time segment is one year.

3.Enter the alarm name and fault coad and select alarm type.

4.Click to view the corresponding faults.

Viewing Fault Details

Viewing Fault Details

1.Click the icon on the operation bar, to enter the fault detail interface.

2.View basic fault information, such as fault type, source, processing time, and processing opinion.

Closing Fault

Closing Fault

This section describes how to close faults.

Procedure

1.Click the icon on the operation bar, to enter the fault closing interface.

2.Fill in processing opinion.

3.Click “Close fault”.

Report

Report

View plant statistics reports (daily report, weekly report, monthly report, annual report overall report and plant report); or create self-defined reports.

Interface Description

Interface Description

Click the menu “Report” to enter the report interface and view report information.

1.Display area 2.Report push configuration

Display area

Content displayed in this area varies with function interfaces.

Report push configuration

The report can be sent to the reserved e-mail box through configuration.

Custom Report

Custom Report

Users can create self-defined reports according to demands.

Procedure

1.Click the menu “Report” to enter the “All” tab by default.

2.Click “Custom report” to enter the corresponding interface.

3.Click “Add” and enter the Page Report interface by default.

- Select the report type, report period, and the parameter indicators to be displayed.
- Click “Save”, enter the report name, and click “Confirm”, to add the new report to the custom report.

4.Click “Add” and then click “EXCEL Report”.

- Select the report type, report period, plant (multiple choices supported) and the parameter indicators to be displayed (multiple choices supported).
- Click “Generate Comparison Excel” or “Generate Statistics Excel” to generate the corresponding EXCEL report according to your needs.

1. Click “Task List” in the upper right corner to view the operation time and status of historical custom reports.

View Custom Report

Procedure

1. Click “Report” on the menu bar to enter the “All” tab by default.
2. Click “Custom Report” to enter the “Custom Report” interface.
3. Click the custom report tab you want to view to enter corresponding interface.
4. Tick the plant (multiple choices supported) and click to set the time to display the plant report for the day.
5. Click “Switch Table” to switch the table style.
6. Click “Modify” to modify the custom report settings.
7. Click “Delete” to delete the custom report.

8. Click to export the table.

Statistics Report

Statistics Report

You can view statistics report of a plant, and the report types include daily report, weekly report, monthly report, annual report, overall report and plant report.

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The procedure of viewing daily report, weekly report, monthly report, annual report, and overa
The procedure of viewing plant report is different from others,refer to "view plant report" fo
```

View daily report

1.Click the menu “Report” to enter the “All” tab by default.

2.Click “Statistics reports -> Daily report” to enter the corresponding interface, on which statistics information of the plant on the current day is displayed by default, including today yield, today revenue, etc.

3.Perform the following operations according to actual conditions.

- Viewing report on the specific day

Click the icon , select the desired date. Corresponding data will be displayed.

- Exporting report

Click “Export” to export the report locally.

View plant report

1. Click “Report” in the menu bar to enter the “All” tab.
2. Click “Statistics Report -> Plant Report” to enter the corresponding interface.
3. Tick the pant in the plant list on the left (Multiple options available) to view the plant report. By default, the interface will display the daily statistics of the plant, such as daily yield, total yield, daily purchased energy, daily feed-in energy, daily equivalent hours, etc.
4. According to the actual situation, perform the following operations.

- Click “Day”, “Month”, “Year”, “Total” to view the daily, monthly, yearly, or the total report of the plant.
- Click and select the date to view the plant report data for the corresponding date.

- Click to switch the report data interval time.
- Click “Switch Table” to switch the table format.
- Click “Screening Column” to filter the data displayed in the report.
- Click “Task List” to view the history of downloaded reports.
- Exporting Report

Click “Export” to export the plant report locally.

Click behind “Export” and select “Export All Plants” to export all plant reports locally.

Report Push

Report Push

The report can be sent to the reserved e-mail box.

Procedure

1.Click the menu “Report” to enter the “All” tab by default.

2.Click the icon in the upper right corner to enter the “Email configuration for receiving report” interface.

3.Click “Add” to enter the e-mail address.

4.Optionally, click the icon to add several addresses.

5.Select report type and click “Confirm”. The added e-mail address information will be displayed on the “Email configuration for receiving report” interface, and the state is “Wait the other party to confirm”.

6.You will receive a system e-mail once the e-mail address is added successfully. Click “Accept” in the received e-mail to finish the activation.

7.The state will turn into “Success”.

Subsequent processing

- Modifying the type of report you would like to receive.

Click the icon to enter the “Edit” interface, select report types, and click “Confirm”.

- Deleting e-mail address

Click the icon on the operation bar and then click “Confirm” on the pop-up window.

Curve

Curve

Interface Description

Interface Description

Click “Curve” on the menu bar to enter the “Curve” interface and view the curve of the plant and device.

1.Plant list 2.Time range 3.Refresh time 4.Query template 5.Display area

Plant list

Display information on the plants, devices, and measuring points.

Time range

Set the time range and time interval.

Refresh time

The refresh time is 5 min by default (the minimum refresh interval). Tick “Refresh time”, and click the icon to increase the value or click the icon to decrease the value.

Query template

Save template: save the current search conditions as a template for future using.

Template library: use the existing templates.

Display area

Display the plant or device information, such as curve and report.

Viewing Curve

Viewing Curve

Procedure

1.Click “Curve” on the menu bar to enter the corresponding interface.

2.Select parameters of a corresponding device in the plant list to add a parameter curve. The upper display area displays curve within a day by default. The lower part displays parameter list. You can change the curve type and statistical patter.

3.Optionally, click the icon in the upper right corner of the interface to display the parameters in the table form. Click “Export”, select a desired location, and click “save” to save the report locally.

Subsequent processing

- Deleting a single curve

Click the icon in the parameter list area, to delete the corresponding curve.

- Deleting all curves

Click the icon in the title bar of the parameter list area, to delete all the curves.

Saving Template

Saving Template

Save the current query conditions as a template for future using.

Procedure

1.Click “Curve” on the menu bar to enter the corresponding interface.

2.Select parameters of a corresponding device in the plant list to add a parameter curve.

3.Optionally, modify time range and time interval.

4.Click “Save template” and enter the template name.

5.Click “Confirm” to save the current query template.

Template Library

Template Library

Directly use the existing query templates.

Prerequisites

The system has query templates.

Procedure

1.Click “Curve” on the menu bar to enter the corresponding interface.

2.Click “Template Library” and click on the operation bar. The system will automatically return to the “Curve” interface and display curves according to the selected template.

Settings

Settings

Interface Description

Interface Description

Click “Advanced -> Settings” to enter the parameter setting interface, on which you can set device parameters.

1. Plant list 2. Device query bar 3. Operation bar 4. Device information list

Plant list

Display information on the plants, devices, and measuring points.

Device query bar

Users can search for desired devices by setting corresponding conditions.

Operation bar

The operation bar includes buttons such as “Initial grid connection”, “General parameter setting” and “Task list”.

Device information list

In the device information list area, you can view information such as plant name, device name, initial grid-connection state, device S/N, and inverter model. In addition, you can further view inverter parameters and history tasks.

Querying Device

Querying Device

In the device list area, you can view plant name, device name, device S/N, device model, grid frequency, and device interval. In addition, you can further view inverter parameters and history tasks.

1.Select inverter model, device model, country (region), and grid frequency in the device query area.

2.Click , to view corresponding devices.

Initial Grid Connection

Initial Grid Connection

On the initial grid connection interface, you can set parameters for the inverter, such as “Country (region) selection”, “Grid type”, and other parameters related to the specific inverter type.

Prerequisites

The user has the permission of setting initial grid-connection parameters.

The device supports the initial grid-connection setting.

Procedure

1.Select desired plants from the left plant list.

2.Select desired plant devices from the device information list.

3.Click “Initial grid connection” or “Unset” to enter the corresponding interface.

4.Select country, grid type, and other related parameters, and then click “Apply settings” on the bottom of the interface.

5.Enter the login password on the pop-up window and enter the setting interface.

6.Enter the task name on the “Settings” interface, select “Instruction valid period”, and click “Confirm”, so that the system generates parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

If the delivered instruction has not been executed within the set time, the instruction will turn to be invalid.

7.Automatically enter the “Task list” interface. Click “View” on the operation bar to view the corresponding task. Click “Cancel the task” to cancel the latest parameter setting.

Command Line Parameters Setup

Command Line Parameters Setup

Users can set parameter address, data type, and set value for the inverter through the command line parameters setup.

Prerequisites

The user has the permission of command line parameters setup.

The device supports the parameter setting.

Procedure

1.Select a desired plant from the left plant list.

2.Select desired plant devices from the device information list.

3.Click “ -> Command line parameters setup” to enter the corresponding interface.

4.Click “Add” to fill in parameter address, data type, and set value.

5.Tick desired instructions and click “Apply settings”.

6.Enter the login password on the pop-up window and enter the setting interface.

7.Enter the task name on the “Settings” interface, select “Instruction valid period”, and click “Confirm”, so that the system generates parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

If the delivered instruction has not been executed within the set time, the instruction will turn to be invalid.

8.Automatically enter the “Task list” interface. Click “View” on the operation bar to view the corresponding task. Click “Cancel the task” to cancel the latest parameter setting.

Common Parameter Setting

Common Parameter Setting

Users can set specific parameters for the inverter, such as start/stop, power generation compensation, standby time, etc.

Prerequisites

The user has the permission of general parameter setting.

The device supports the parameter setting.

Background information

The initial grid-connection setting has been performed on the device.

Procedure

1.Select a desired plant from the left plant list.

2.Select desired plant devices from the device information list.

3.Click “Common parameter settings” to enter the corresponding interface.

4.Set system parameters/protection parameters/power control parameters.

`Energy management parameter is available for energy storage inverters.`

5.Click “Apply settings”.

6.Enter the login password on the pop-up window and enter the setting interface.

7.Enter the task name on the “Settings” interface, select “Instruction valid period”, and click “Confirm”, so that the system generates parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

If the delivered instruction has not been executed within the set time, the instruction will turn to be invalid.

8.Automatically enter the “Task list” interface. Click “View” on the operation bar to view the corresponding task. Click “Cancel the task” to cancel the latest parameter setting.

One-click Update

Enter the parameter setting page, select desired plant devices from the device information list，then click “Common Parameter Settings”。

- When there is a device to be updated, the interface will pop up to remind to update, the interface shows the device type, device model and the corresponding update package of the device to be updated.
    - Click “One-Click Upgrade” to bring up the firmware update interface, displaying the task name.
    - Click “View Update Details” to bring up the task list and view the device upgrade information.
- If a device is currently being updated, the parameter setting interface will pop up, click “View upgrade details” to view the upgrade information of the device.

Advanced Parameter Setting

Advanced Parameter Setting

Users can set parameters such as restore default parameter, 10-min over-voltage protection and over-frequency derating.

Prerequisites

The user has the permission of advanced parameter setting.

The device supports the parameter setting.

Background information

The initial grid-connection setting has been performed on the device.

Procedure

1.Select a desired plant from the left plant list.

2.Select desired plant devices from the device information list.

3.Click “ -> Advanced settings” to enter the corresponding interface.

4.If parameter settings cannot be performed on the inverter, click “One-click Update” to access the “Firmware Update” interface. Click “Confirm”, so that the inverter will be upgraded automatically. Click “Firmware Update -> View Task History” to view the upgrade progress.

```
If a device is currently being updated, the parameter setting interface will pop up, click "V:
```

5.After upgrading the inverter, click “Advanced Settings” to access the inverter parameter setting interface. In case, parameter settings still cannot be performed on the inverter, click “Customer Feedback”, to enter the “Feedback” interface, on which you can submit feedback.

```
If parameter settings can be performed on the inverter, skip performing step 4 and step 5.
```

6.Set system parameters/protection parameters/power control parameters.

```
Energy management parameter and battery parameter are available for energy storage inverters.
```

7.Click “Apply settings”.

8.Enter the login password on the pop-up window and enter the setting interface.

9.Enter the task name on the “Settings” interface, select “Instruction valid period”, and click “Confirm”, so that the system generates parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

If the delivered instruction has not been executed within the set time, the instruction will turn to be invalid.

10.Automatically enter the “Task list” interface. Click “View” on the operation bar to view the corresponding task. Click “Cancel the task” to cancel the latest parameter setting.

Viewing History Task

Viewing History Task

Users can view parameter setting history for a single device or several devices.

Procedure

1.Click “Task list” to enter the corresponding interface.

2.Select a time range, enter the task name, and click “Search”, to view the corresponding history tasks.

3.With regard to”Parameter Query” task, click the “View” button on the operation bar to view corresponding information, such as execution result of parameter setting, and parameter value and read-back value of the executed instruction.

4.Click “Export” to download the read-back values.

Firmware Update

Firmware Update

Only distributor/installer has the permission of firmware update.

Interface Description

Interface Description

Click “Advanced -> Firmware update” to enter the corresponding interface, on which you can upgrade plant software.。

1. Plant list 2. Device query bar 3. Operation bar 4. Device information list

Plant List

You can view the plant information.

Device query bar

Users can search for desired devices according to conditions set.

Operation bar

You can perform firmware update and view history tasks.

Device information list

You can view plant name, device S/N, device type, device model, online state, current version, etc.

Firmware Update

Firmware Update

On this interface, you can remotely upgrade device software of the plant system.

Prerequisites

The user has the permission of firmware upgrade.

The device supports the remote upgrade.

The user has got the upgrade file and has saved it locally.

Procedure

1.Click “Advanced -> Firmware update” to enter the corresponding interface.

2.Select plants from the left plant list. Devices of the selected plants are displayed in the display area.

3.Select desired devices in the device information list area. (Batch selection is supported)

You can upgrade devices of the same type and same model in batch.

4.Optionally, select “Device type”, “Device model”, and “Device S/N” and click . The interface will display corresponding devices. Select desired devices.

Currently, you can select device S/N in the following two manners:

```
- Manually enter: enter the device S/N in the "Device S/N" field, where S/Ns are separated by
- Batch import: Click the "Device S/N" field and then "Select file" to import the desired file
```

5.Click “Firmware update”, after which the “Upload the upgrading package” pops up.

6.Click “Select file” to select the upgrade package and click “Upgrade”. The password window pops up.

The upgrade package is the .zip file.

7.Enter the login password and wait for the uploading. You can view history upgrade information by click “View task history”.

Viewing Task History

Viewing Task History

You can view the history update information.

Procedure

1.Click “Advanced -> Firmware update” to enter the corresponding interface.

2.Click the icon to enter the corresponding interface.

3.Select the time range, device type, device model, and goal software version, and click , so that you can view the corresponding history tasks.

Live Data

Live Data

Interface Introduction

Interface Introduction

Click “Advanced->Second Data” on the menu bar to enter the live data interface.

1.Plant list 2.Device query bar 3.Operation bar

Plant List

You can browse the information of the plant, device and measuring points of the current user.

Device Query Bar

You can search for the device to be displayed by setting the conditions.

Operation Bar

View the live data of the device.

Live Data

Live Data

Live data function allows collecting a large amount of device data in a short period of time. The data is automatically refreshed when the live data page is displayed.

Procedure

1. Tick the plant on the left side of the plant list bar, or enter the plant name and click to search for the plant. The operation bar shows the devices under the plant.
2. Enter “Device S/N”, “Device Name”, tick “Device Type”, “Plant Status”, and “live data status” in the device query field, click , and the page displays the eligible devices.

Viewing Live Data

Viewing Live Data

Click the device card to view the live data measuring points and corresponding data curves on the pop-up interface.

1. Click “Main Measuring Point” to enter the device measuring point interface.
2. Click on the right side of the measuring point data to bring up the measuring point curve graph.
3. Click on the top right corner of the measuring point graph interface to refresh the measuring point curve.

Note: means that the measuring point is a live level data measuring point that is not supported by the current device

Alarm Subscribe

Alarm Subscribe

Plan management is managing the running state of the device in the plant system, for example, fault, alarm, and advice.

Interface Description

Interface Description

Click “Advanced -> Alarm Subscribe” to enter the corresponding interface.You can add, modify, and delete (singly or in batch) plan information.

1. Query bar 2. Plan information list 3. Operation bar 4 Add and batch deleted

Query bar

Users can search for desired plan information according to conditions set.

Plan information list

Users can view the corresponding plan information.

Operation bar

Modify and delete selected plan information.

Add and batch delete

Add and delete plan information in batch.

Querying Plan Information

Querying Plan Information

1.Enter the plant or plan name.

2.Click to view the corresponding plan information.

Adding Plan Information

Adding Plan Information

This section describes the procedure of adding plan information.

Prerequisites

The user has the permission of adding plan information.

Procedure

1.Click “Add” to enter the corresponding interface.

2.Fill in the plan name, select a plant, and tick fault types that you would like to receive.

3.Click “Add” to add the remind person. You can add the remind person in the following two manners:

- Add e-mail address not registered in the Smart Solar Cloud system:

Click “Custom” to access the “Add to-be-prompted person” window. Select the language and fill in Contact Name, select remind method, fill in e-mail address and verification code, and click “Confirm”.

- Add e-mail address already registered in the Smart Solar Cloud system:

Click “Select people” to access the “Add to-be-prompted person” window. Select the desired people and remind method, and click “Confirm”.

4.Click “Confirm” to save the plan configuration.

5.The newly added plan is displayed on the plan management interface after it is added successfully.

Deleting Plan Information in Batch

Deleting Plan Information in Batch

This section describes the procedure of deleting plans in batch.

Prerequisites

The user has the permission of deleting plan information in batch.

Procedure

1.Select several pieces of plan information in the plan list, and click “Batch deleted”.

2.A prompt window pops up.

3.Click “Confirm” to delete the selected plan information in batch.

Modifying Plan Information

Modifying Plan Information

This section describes the procedure of modifying plan information.

Prerequisites

The user has the permission of modifying plan information.

Procedure

1.Click the icon corresponding to the plan that needs to be modified, to enter the “Modify” interface.

2.Change the plan name and select a desired plant as well as corresponding plan type, such as fault, alarm, and advice. Further, change the remind person and remind method.

3.Click “Confirm” to finish modifying the plan information.

Deleting Plan Information

Deleting Plan Information

This section describes the procedure of deleting plan information.

Prerequisites

The user has the permission of deleting plan information.

Procedure

1.Click the icon corresponding to the plan that needs to be deleted.

2.A “Prompt” window pops up.

3.Click “Confirm” to delete the plan information.

Appendix

Appendix

Manual Description

Manual Description

The content of the manual will be periodically updated or revised as per the product development. It is probably that there are changes in manuals for the subsequent module edition.