

Wi-Fi Portal Introduction

For end-user

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This document is for Pylontech product end-user to register on the Wi-Fi portal to monitor battery status and acquire battery information.

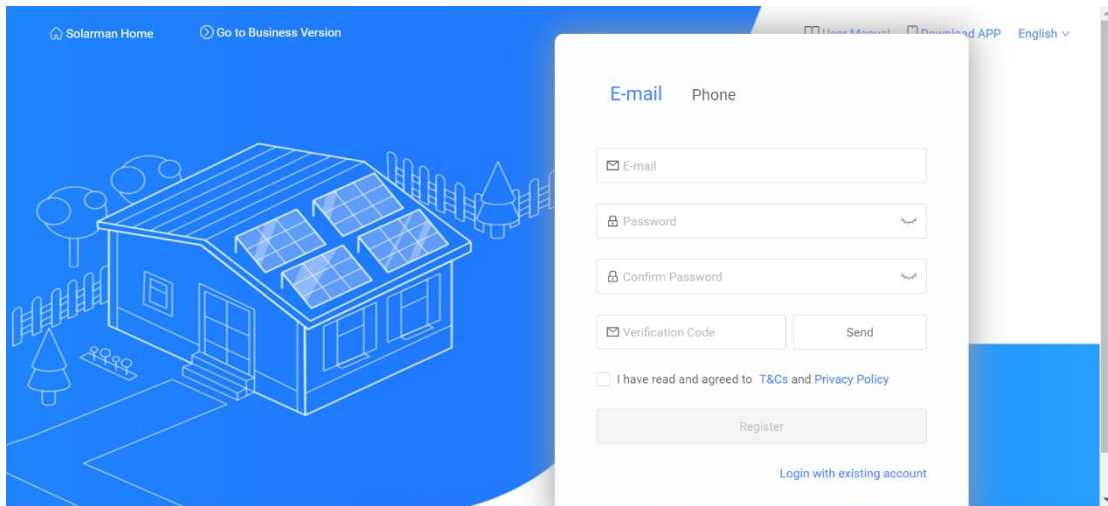
The WIFI logger is currently available on FORCE H and Force L series of products. Further development on other product series is in the processing.

1. For Laptop Operation

a. Login to the website <https://home.solarmanpv.com/login>.

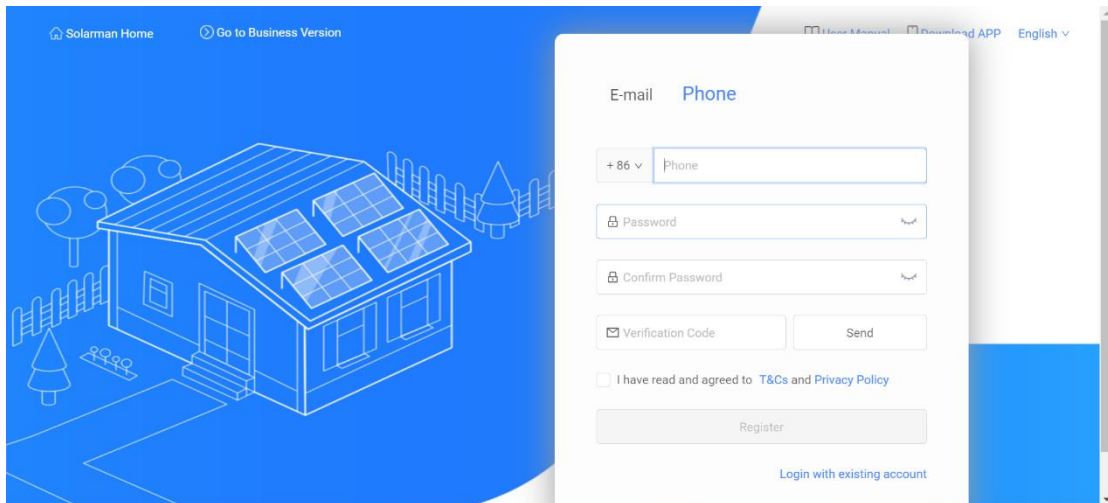
There are two methods to register an account: email or mobile number registration

E-mail registration:



The screenshot shows the registration form on the Solarman website. The form is titled "E-mail" and "Phone". It includes fields for "E-mail", "Password", and "Confirm Password". There is a "Verification Code" field and a "Send" button. A checkbox indicates "I have read and agreed to T&Cs and Privacy Policy". A "Register" button is at the bottom, and a link for "Login with existing account" is at the bottom right. The background features a blue illustration of a house with solar panels on the roof.

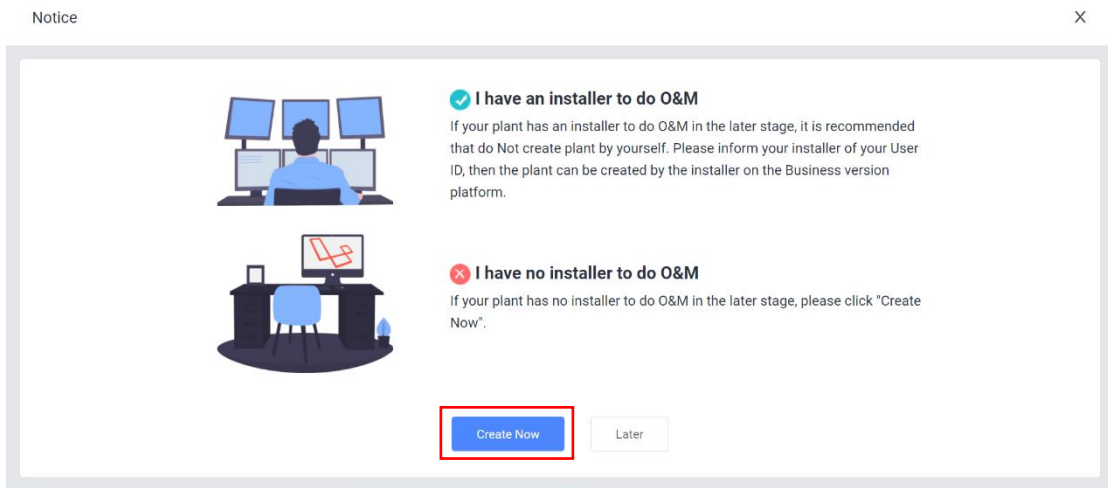
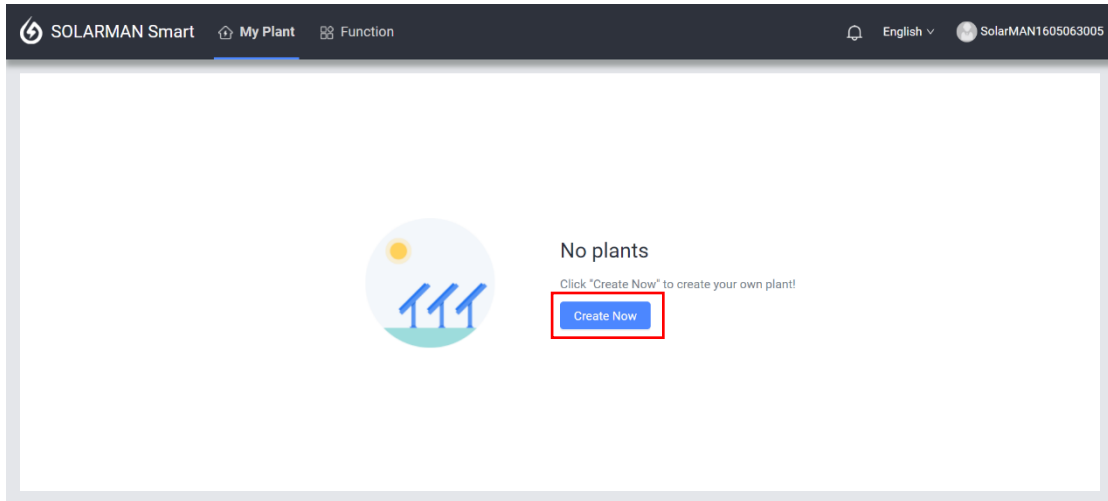
Mobile phone registration:



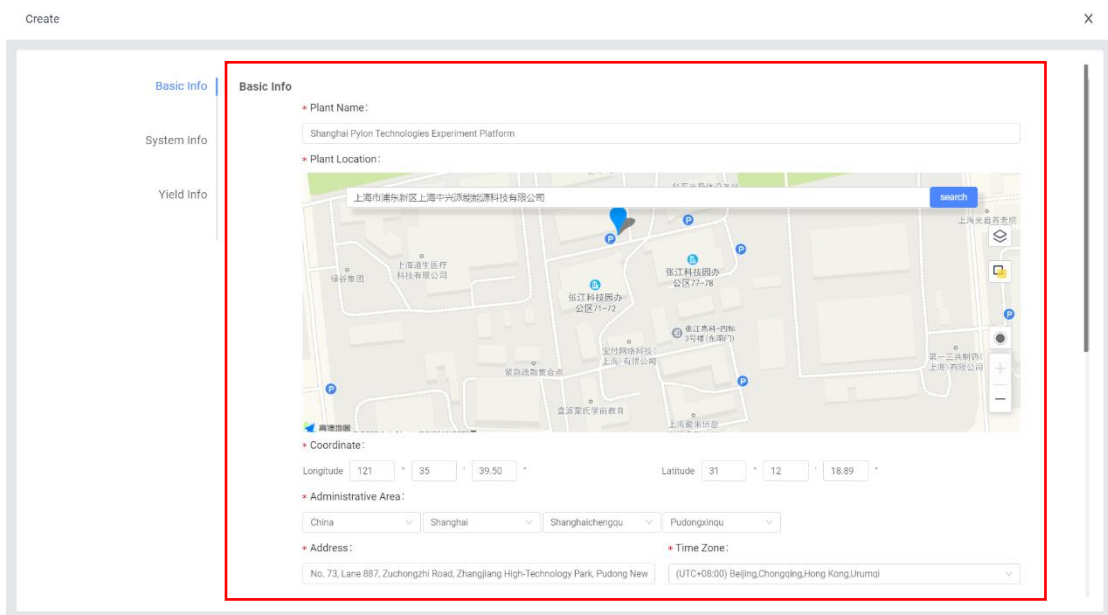
The screenshot shows the registration form on the Solarman website, switched to "Phone" registration. It includes a dropdown for the country code "+86" and a "Phone" field. There are fields for "Password" and "Confirm Password". There is a "Verification Code" field and a "Send" button. A checkbox indicates "I have read and agreed to T&Cs and Privacy Policy". A "Register" button is at the bottom, and a link for "Login with existing account" is at the bottom right. The background features a blue illustration of a house with solar panels on the roof.

b. Build a new plant.

After the registration is completed, users will be prompted to build a new plant. A power station can be built according to the guidance.



On the page of creating power plant, basic information, system information and yield information can be provided to finish the creation.



Create X

China
Shanghai
Shanghaichengqu
Pudongqinqu

Basic Info

* Address: No. 73, Lane 887, Zuchongzhi Road, Zhangjiang High-Technology Park, Pudong New

* Time Zone: (UTC+08:00) Beijing,Chongqing,Hong Kong,Urumqi

System Info

Yield Info

System Info

* Plant Type: Residential Rooftop

* System Type ID: Storage System

* Installed Capacity (Unit: kWp): 100

* Operating Date ID: 2020-11-11

Yield Info

* Currency: CNY

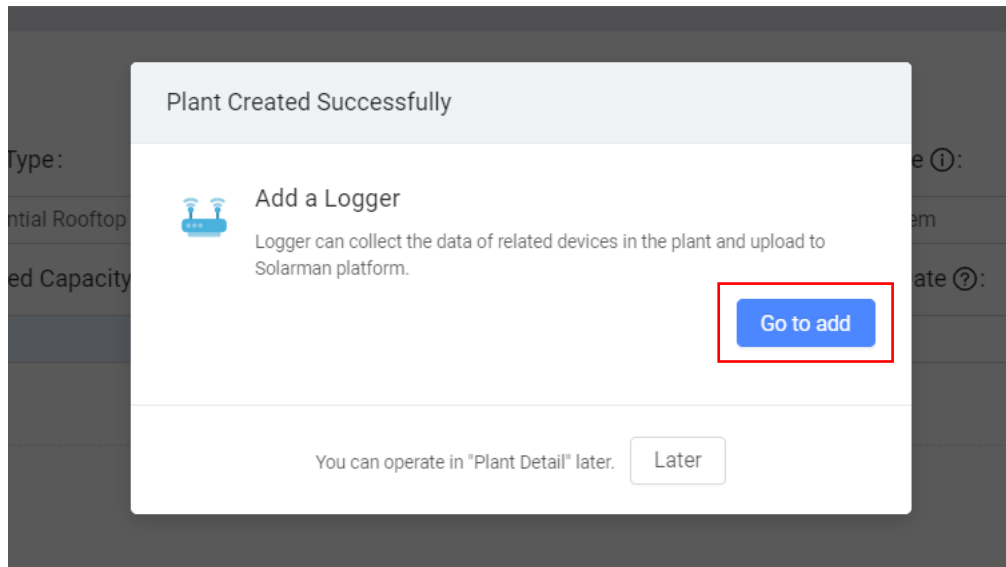
Unit Price(Unit: CNY/kWh) ID: Unit Price

Total Cost(Unit: CNY): Total Construction Cost

[Finish](#)

c. Add a new logger.

When finishing the creation of plant, the system will prompt to add a logger (the serial number can be viewed by the code posted on the device or hotspot name), enter the logger SN number to add it, and choose to automatically select the associated device when adding the logger.



Add a Logger

X

SN:



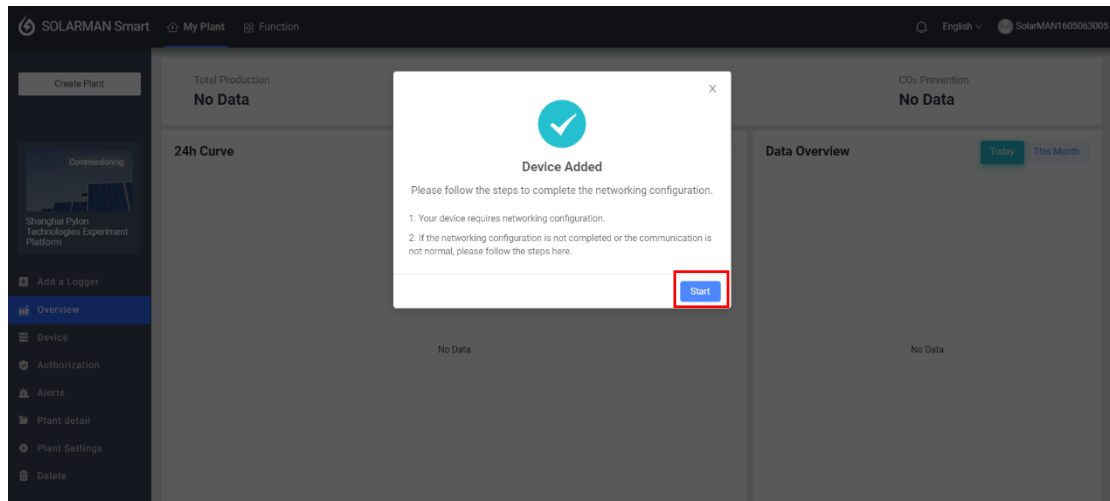
Serial number position

Add a Logger

X

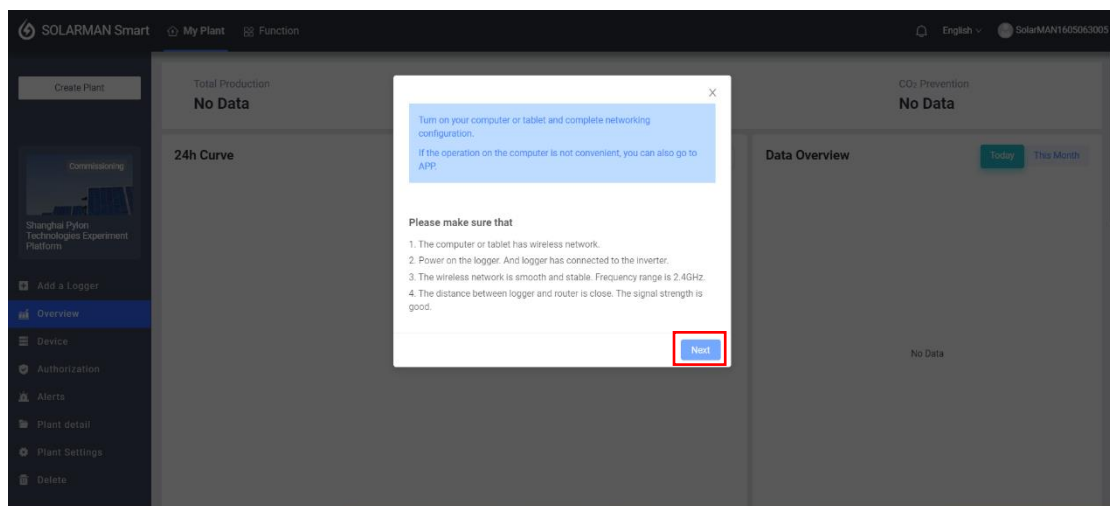
SN: 4033112143

Please select sub-device:

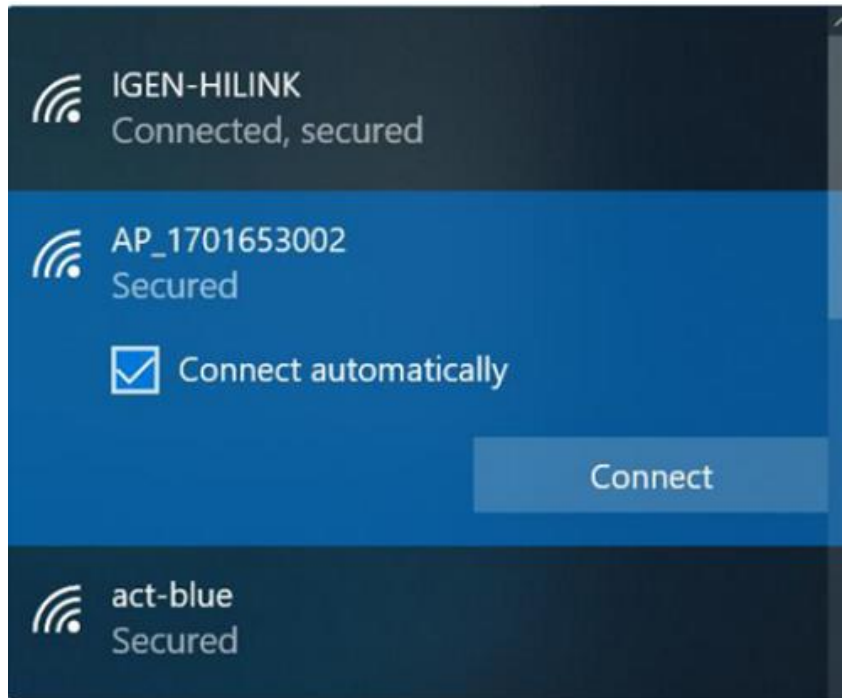


d. Network configuration.

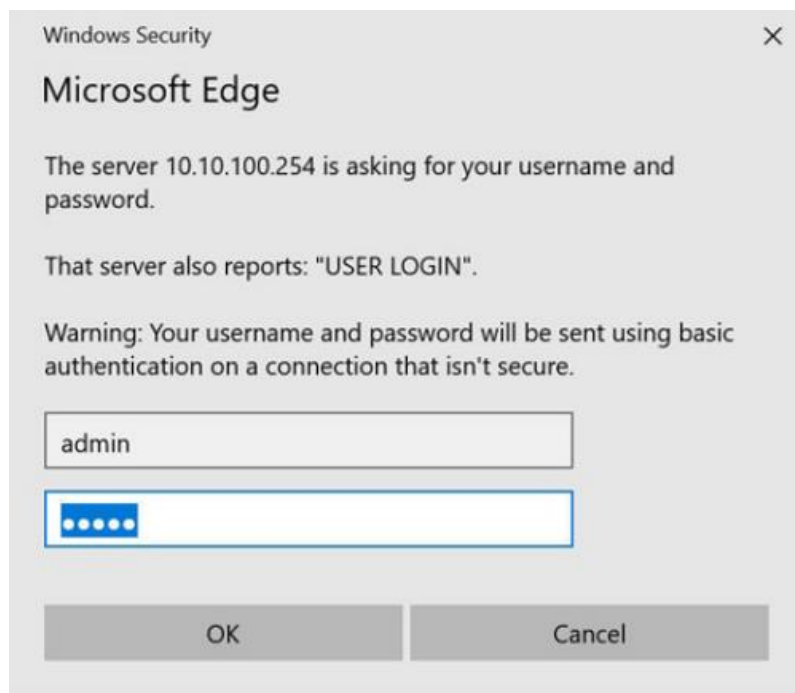
The network configuration steps of the logger are as follows:



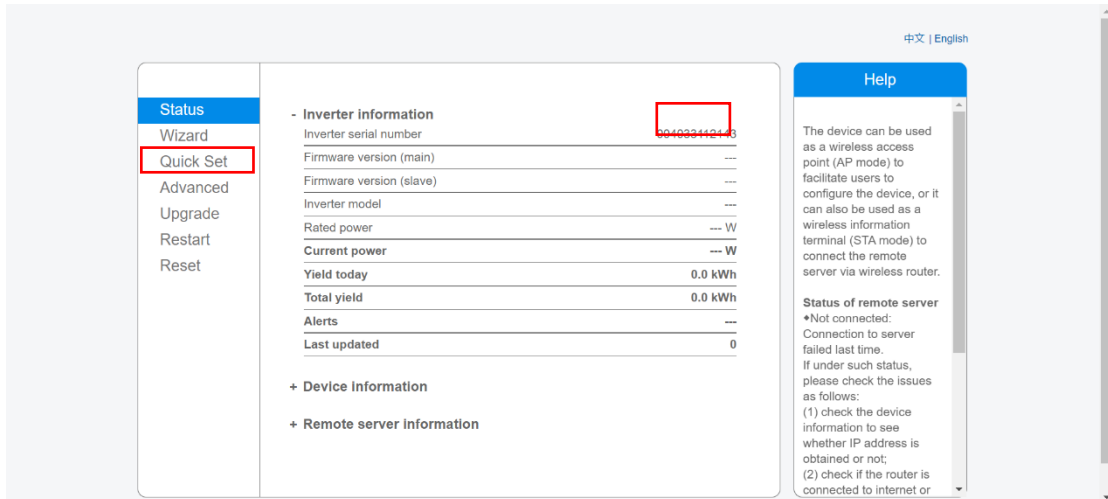
Go to wireless network list and connect to "AP_123456"(123456 is logger SN). The connection do not require password.



Open the browser and enter "10.10.100.254". When connecting AP network, authentication is required (Default account and password are admin).



After entering Web configuration page, please go to quick configuration/networking menu and follow the prompts to complete networking configuration.



中文 | English

Quick Set

- Inverter information

Inverter serial number	0046934424-0
Firmware version (main)	---
Firmware version (slave)	---
Inverter model	---
Rated power	--- W
Current power	--- W
Yield today	0.0 kWh
Total yield	0.0 kWh
Alerts	---
Last updated	0

+ Device Information

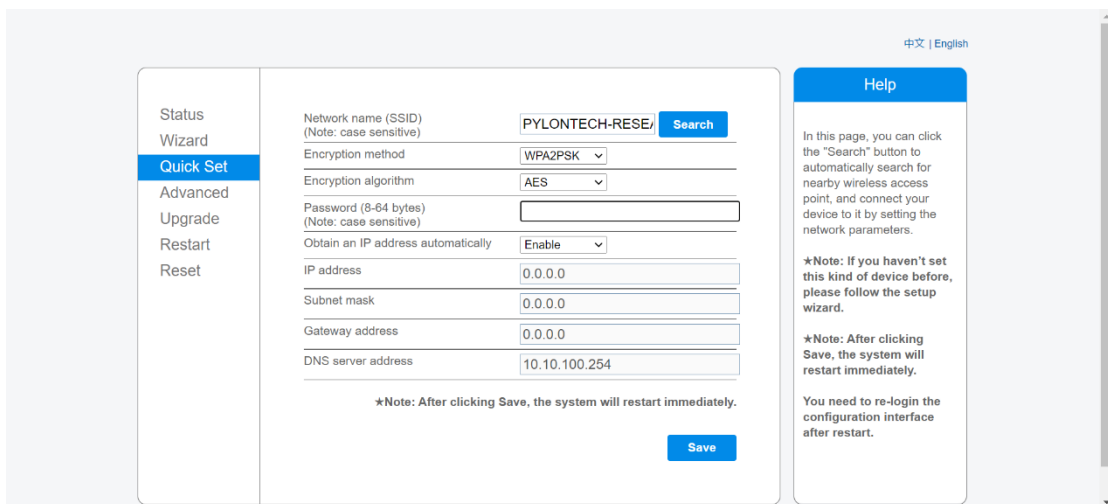
+ Remote server Information

Help

The device can be used as a wireless access point (AP mode) to facilitate users to configure the device, or it can also be used as a wireless information terminal (STA mode) to connect the remote server via wireless router.

Status of remote server

*Not connected:
Connection to server failed last time.
If under such status, please check the issues as follows:
(1) check the device information to see whether IP address is obtained or not;
(2) check if the router is connected to internet or



中文 | English

Quick Set

Network name (SSID)
(Note: case sensitive) PYLONTECH-RESE/ **Search**

Encryption method WPA2PSK

Encryption algorithm AES

Password (8-64 bytes)
(Note: case sensitive)

Obtain an IP address automatically Enable

IP address 0.0.0.0

Subnet mask 0.0.0.0

Gateway address 0.0.0.0

DNS server address 10.10.100.254

*Note: After clicking Save, the system will restart immediately.

Save

Help

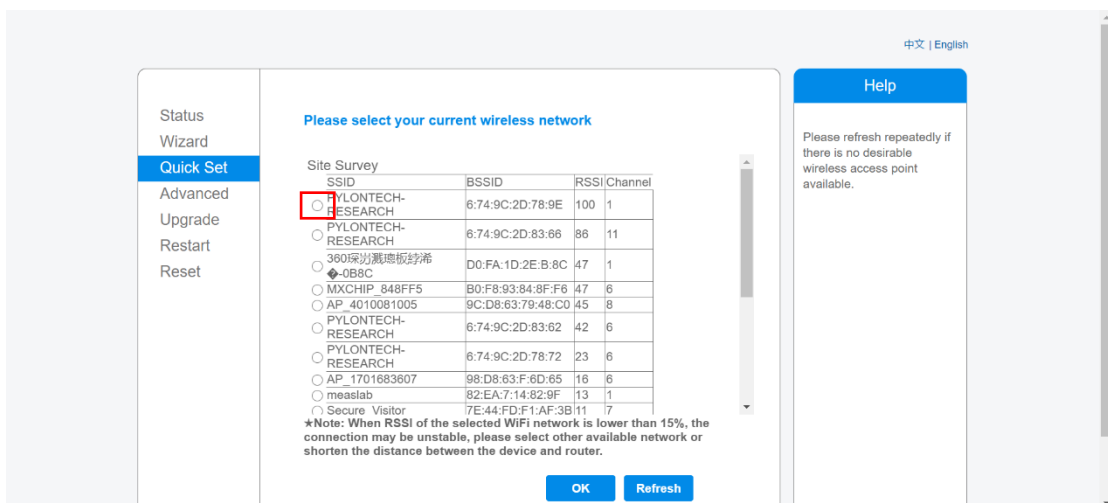
In this page, you can click the "Search" button to automatically search for nearby wireless access point, and connect your device to it by setting the network parameters.

*Note: If you haven't set this kind of device before, please follow the setup wizard.

*Note: After clicking Save, the system will restart immediately.

You need to re-login the configuration interface after restart.

Click "Search" button on the page, users can find existed wireless network servers around their locations.



中文 | English

Quick Set

Please select your current wireless network

Site Survey

SSID	BSSID	RSSI	Channel
<input checked="" type="radio"/> PYLONTECH-RESEARCH	6:74:9C:2D:78:9E	100	1
<input type="radio"/> PYLONTECH-RESEARCH	6:74:9C:2D:83:66	86	11
<input type="radio"/> 360深测测德板绿希	D0:FA:1D:2E:B:8C	47	1
<input type="radio"/> MXCHIP_B48FF5	B0:F8:93:84:8F:F6	47	6
<input type="radio"/> AP_4010081005	9C:D8:63:79:48:C0	45	8
<input type="radio"/> PYLONTECH-RESEARCH	6:74:9C:2D:83:62	42	6
<input type="radio"/> PYLONTECH-RESEARCH	6:74:9C:2D:78:72	23	6
<input type="radio"/> AP_1701683607	98:D8:63:F6D:65	16	6
<input type="radio"/> measlab	82:EA:7:14:82:9F	13	1
<input type="radio"/> Secure_Visitor	7E:44:FD:F1:AF:3B	11	7

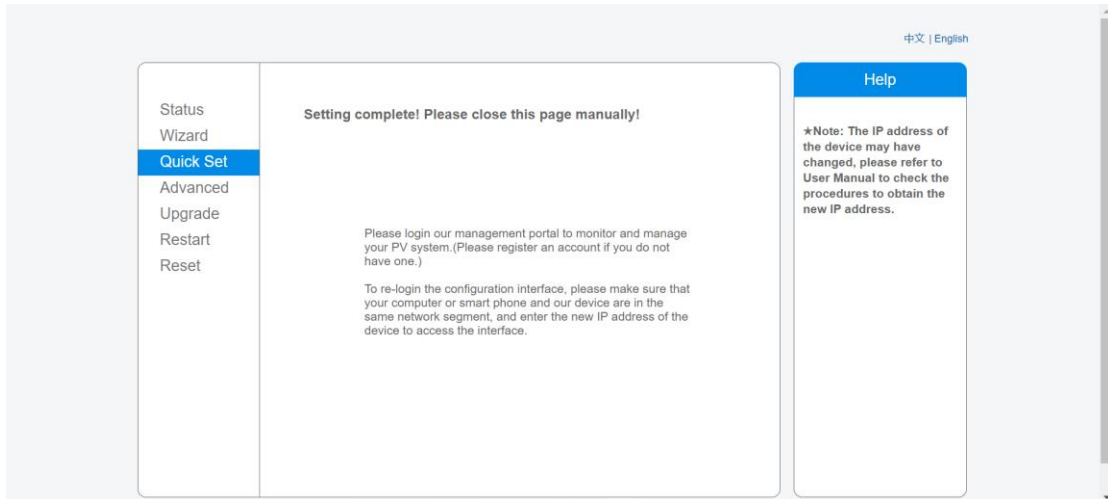
*Note: When RSSI of the selected WiFi network is lower than 15%, the connection may be unstable, please select other available network or shorten the distance between the device and router.

OK **Refresh**

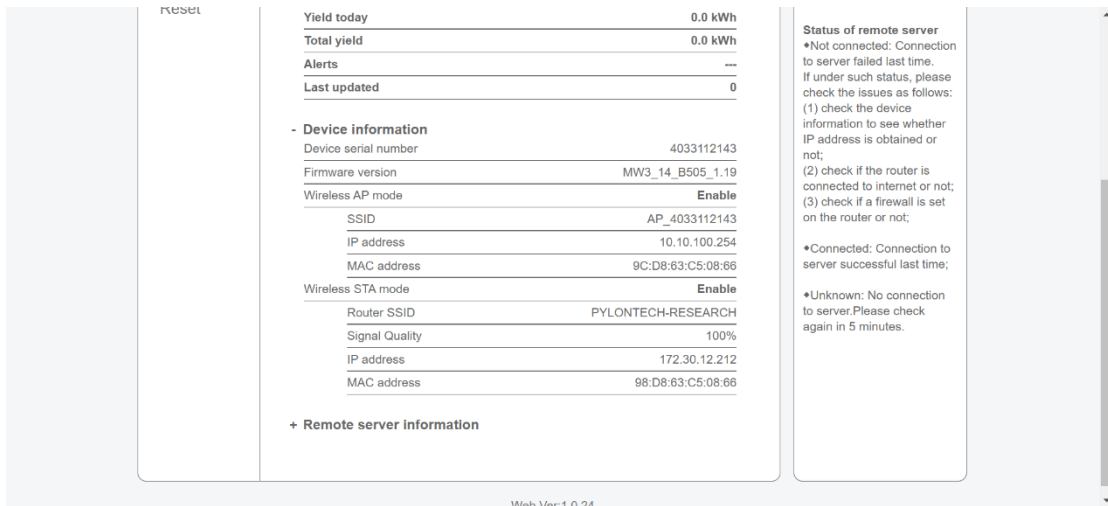
Help

Please refresh repeatedly if there is no desirable wireless access point available.

Select one site, and click "OK" to finish the setting.

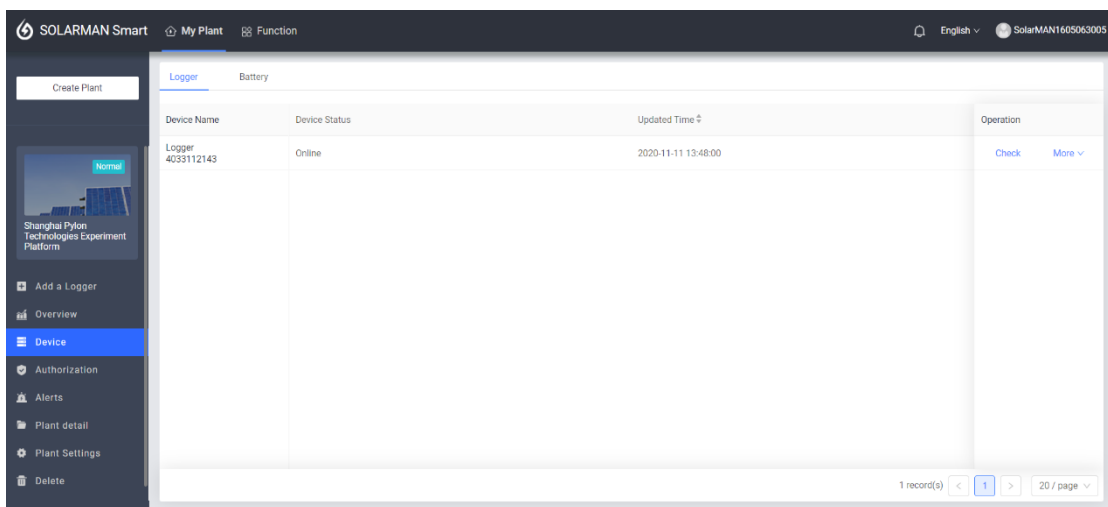


In the status window, the device information can now be viewed.



e. View the battery information.

After the logger is connected to the Internet, return to the Wi-Fi platform interface, and the battery status information can be viewed in the device battery information bar.



To check device data, just click the "Check" button, select "Architecture" window, click

“Parent device” part.

Battery4010913561 ● Online 2020-11-13 16:01:32 X

[Device Data](#) [Architecture](#)

Basic Information ^

Connected Device SN: 004010913561

Battery pack ^

No. of Battery Pack: 2

Battery Pack 1 ^

Battery Pack 1 Connected Device Sn: 1252656548545785	Battery Pack 1 Device Name: Force_L	Battery Pack 1 Brand: Pylon-----
Voltage-1: 48.13V	Current-1: 0A	Battery Pack 1 SOC: 11%
Cell voltage 1-1 Warning: 0	Cell voltage 1-2 Warning: 0	Cell voltage 1-3 Warning: 0
Cell voltage 1-4 Warning: 0	Cell voltage 1-5 Warning: 0	Cell voltage 1-6 Warning: 0
Cell voltage 1-7 Warning: 0	Cell voltage 1-8 Warning: 0	Cell voltage 1-9 Warning: 0
Cell voltage 1-10 Warning: 0	Cell voltage 1-11 Warning: 0	Cell voltage 1-12 Warning: 0
Cell voltage 1-13 Warning: 0	Cell voltage 1-14 Warning: 0	Cell voltage 1-15 Warning: 0

Battery4010913561 ● Online 2020-11-13 16:01:32 X

[Device Data](#) [Architecture](#)

Battery Pack 1 ^

Battery Pack 1 Connected Device Sn: 1252656548545785	Battery Pack 1 Device Name: Force_L	Battery Pack 1 Brand: Pylon-----
Voltage-1: 48.13V	Current-1: 0A	Battery Pack 1 SOC: 11%
Cell voltage 1-1 Warning: 0	Cell voltage 1-2 Warning: 0	Cell voltage 1-3 Warning: 0
Cell voltage 1-4 Warning: 0	Cell voltage 1-5 Warning: 0	Cell voltage 1-6 Warning: 0
Cell voltage 1-7 Warning: 0	Cell voltage 1-8 Warning: 0	Cell voltage 1-9 Warning: 0
Cell voltage 1-10 Warning: 0	Cell voltage 1-11 Warning: 0	Cell voltage 1-12 Warning: 0
Cell voltage 1-13 Warning: 0	Cell voltage 1-14 Warning: 0	Cell voltage 1-15 Warning: 0
BMS Temperature Warning Battery Pack 1: 0	Temperature Point 1 Warning Battery Pack 1: 0	Temperature Point 2 Warning Battery Pack 1: 0
Temperature Point 3 Warning Battery Pack 1: 0	Temperature Point 4 Warning Battery Pack 1: 0	Temperature Point 4 Warning Battery Pack 1: 0
Battery Pack 1 Charge current Warning: 0	Battery Pack 1 Module voltage Warning: 0	Battery Pack 1 Discharge current Warning: 0
Battery Pack 1 Remain Capacity: 8.14AH	Battery Pack 1 Module Total Capacity: 74AH	

Battery4010913561 ● Online 2020-11-13 16:01:32 X

[Device Data](#) [Architecture](#)

Battery Pack 2 ^

Battery Pack 2 Connected Device Sn: 1212121211111111	Battery Pack 2 Device Name: Force_L	Battery Pack 2 Brand: Pylon-----
Voltage-2: 48.13V	Current-2: -0.1A	Battery Pack 2 SOC: 11%
Cell voltage 2-1 Warning: 0	Cell voltage 2-2 Warning: 0	Cell voltage 2-3 Warning: 0
Cell voltage 2-4 Warning: 0	Cell voltage 2-5 Warning: 0	Cell voltage 2-6 Warning: 0
Cell voltage 2-7 Warning: 0	Cell voltage 2-8 Warning: 0	Cell voltage 2-9 Warning: 0
Cell voltage 2-10 Warning: 0	Cell voltage 2-11 Warning: 0	Cell voltage 2-12 Warning: 0
Cell voltage 2-13 Warning: 0	Cell voltage 2-14 Warning: 0	Cell voltage 2-15 Warning: 0
BMS Temperature Warning Battery Pack 2: 0	Temperature Point 1 Warning Battery Pack 2: 0	Temperature Point 2 Warning Battery Pack 2: 0
Temperature Point 3 Warning Battery Pack 2: 0	Temperature Point 4 Warning Battery Pack 2: 0	Temperature Point 4 Warning Battery Pack 2: 0
Battery Pack 2 Charge current Warning: 0	Battery Pack 2 Module voltage Warning: 0	Battery Pack 2 Discharge current Warning: 0
Battery Pack 2 Remain Capacity: 8.14AH	Battery Pack 2 Module Total Capacity: 74AH	

In the historical data window, a line chart of some basic data of the battery at any date should be represented.



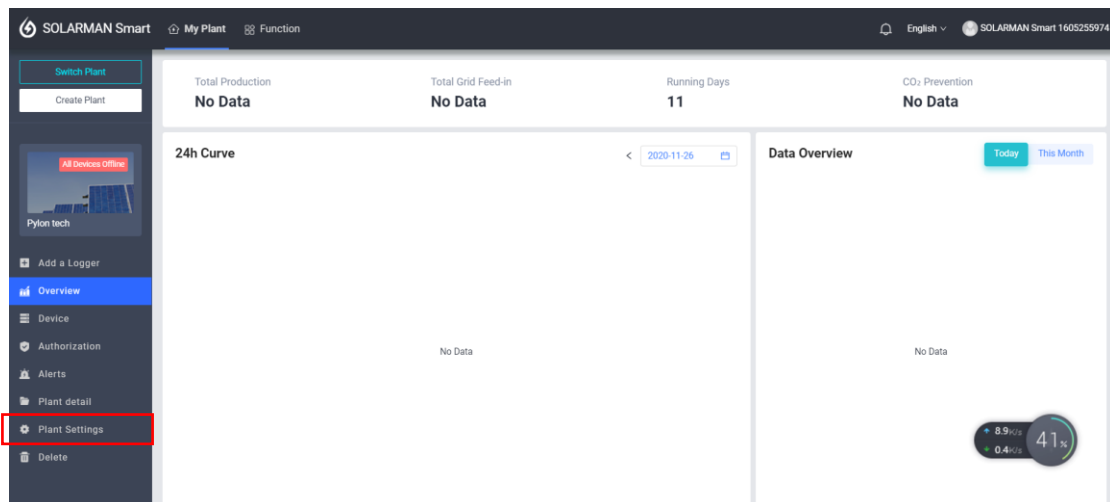
2. Authorization

Authorization is a function of specifying access rights/privileges to resources, which is related to information security or computer security in general and to access control in particular. After authorization, the business unit can obtain the information provided by the producer and the user can customize the information available for sharing at the same time.

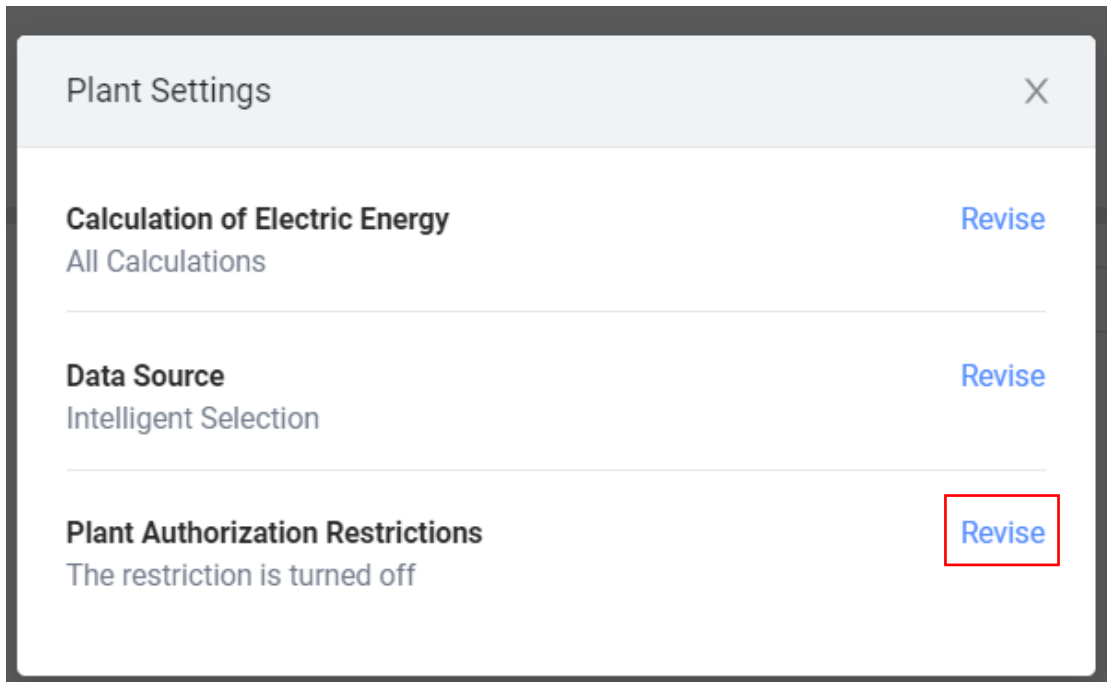
Authorization can only be managed on laptop.

a. Before start

Before starting the authorization operation, users should check the authorization settings through “plant settings” button.



Then view “Plant Authorization Restrictions”, if the restriction is turned off, click “Revise” to change it.



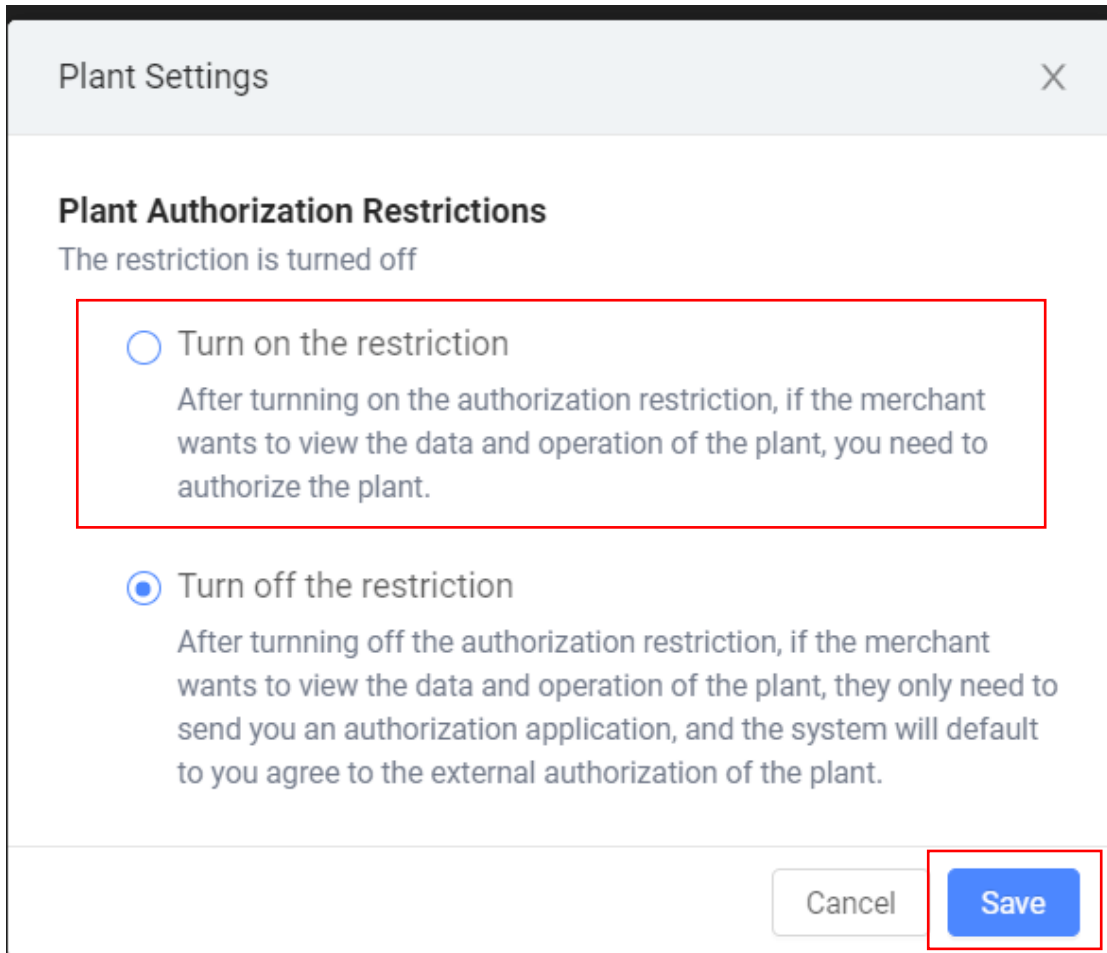
Plant Settings [X]

Calculation of Electric Energy Revise
All Calculations

Data Source Revise
Intelligent Selection

Plant Authorization Restrictions Revise
The restriction is turned off

Choose “Turn on the restriction”, and “Save it”.



Plant Settings [X]

Plant Authorization Restrictions
The restriction is turned off

Turn on the restriction
After turning on the authorization restriction, if the merchant wants to view the data and operation of the plant, you need to authorize the plant.

Turn off the restriction
After turning off the authorization restriction, if the merchant wants to view the data and operation of the plant, they only need to send you an authorization application, and the system will default to you agree to the external authorization of the plant.

Cancel Save

Now, the authorization function could be used.

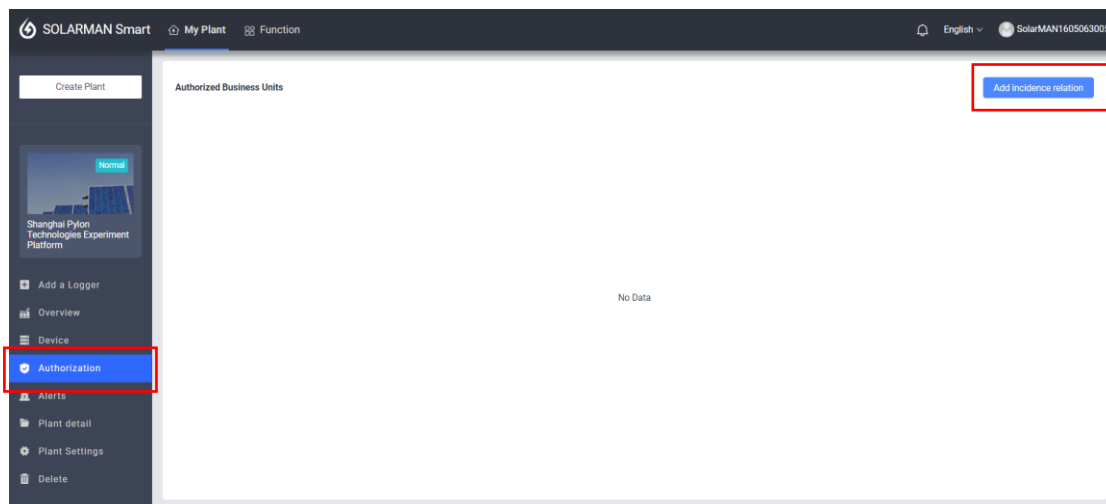
b. Definitions:

- View subsystem/sub-device: Check the subsystems or sub-devices (usually batteries and loggers) working under the system.
- View power plant alarm: Check the alarm records issued by the power station.
- View about power plant: View basic information about the power plant, including photos displayed by the business units.
- View system layout: Users can check the physical layout and electrical layout of the system.

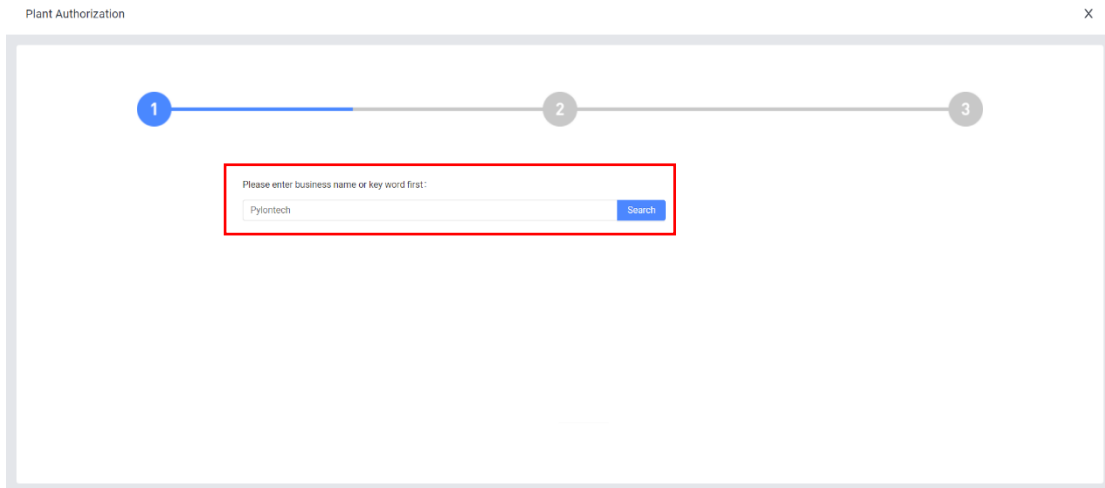
c. Authorize procedures:

Users need to search for the business unit information first, and then authorize to the business unit, the business unit can see the user registration information after authorization. After the authorization is successful, the user can also cancel the authorization, and multiple businesses can be authorized.

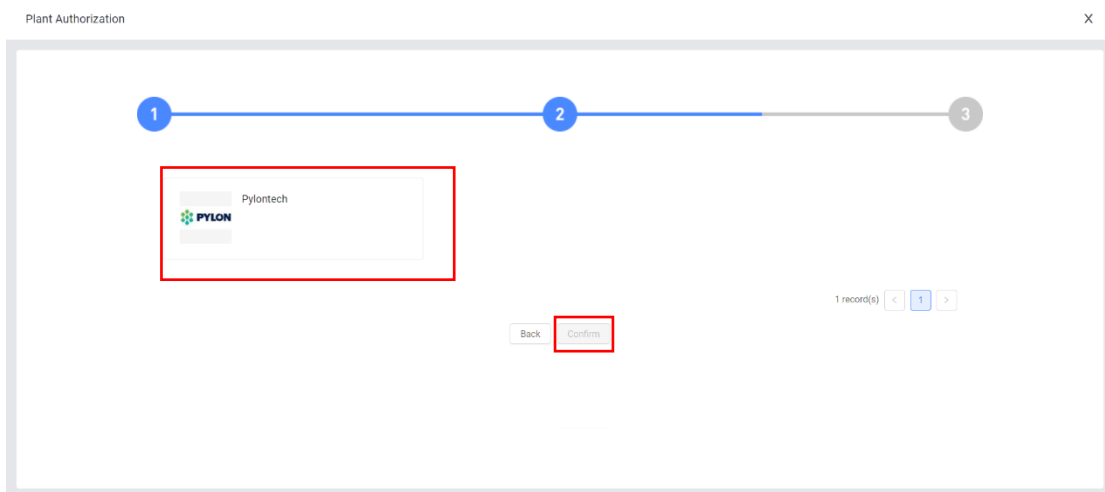
Select “Authorization” in the menu bar of the page and click “Add incidence relation”.



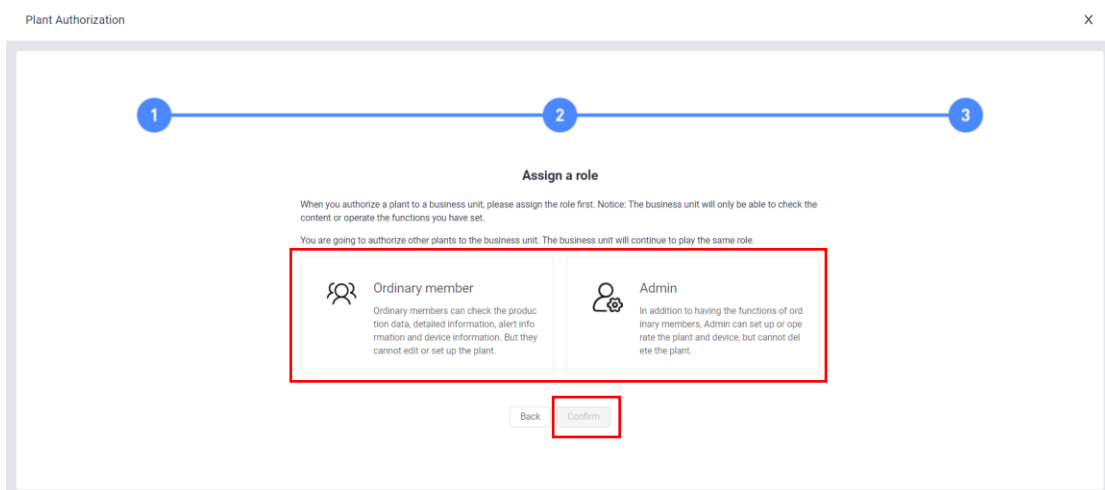
Enter business unit name and search.



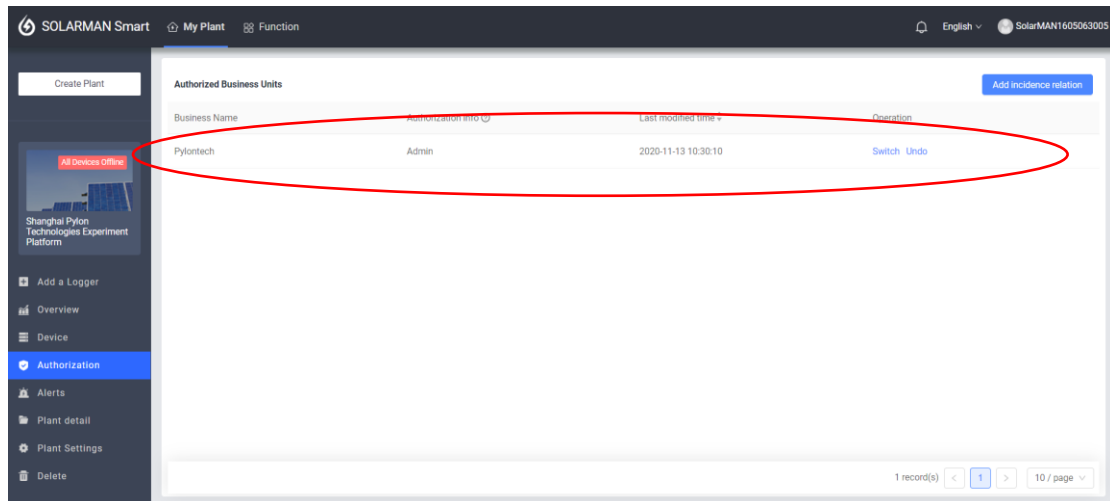
Click the authorized user and the “confirm” button will be lighted.



The user can be assigned as a new role.



The authorized business units can be viewed now.



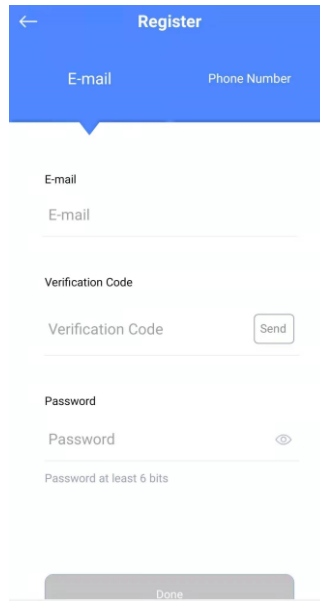
3. For Mobile Operation

Mobile device could also be used as a way for terminal users to monitor batteries(Suitable for Android and IOS).

- a. Download 'SOLARMAN Smart' APP from App Store.

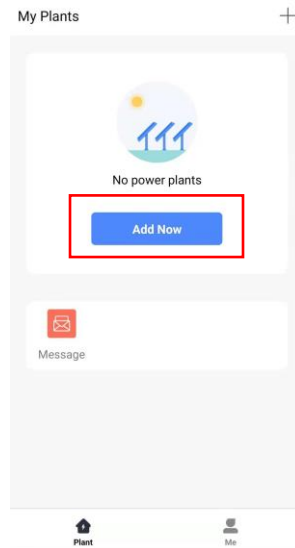


Open the application and finish the registration.
Similar to laptop portal, it has two methods to register.



The image shows a mobile application registration screen. At the top, there is a blue header with a back arrow on the left and the word "Register" in the center. Below the header, there are two tabs: "E-mail" (which is selected) and "Phone Number". The main content area is white and contains several input fields: an "E-mail" field with a placeholder "E-mail", a "Verification Code" field with a "Send" button to its right, and a "Password" field with a placeholder "Password" and an eye icon to its right. Below the password field, there is a note: "Password at least 6 bits". At the bottom of the form, there is a grey "Done" button.

b. Create a new power plant.



Click "No" and "Create Now" respectively.

← Notice

Dear owners, do you have an installer to do O&M in the later stage?

Yes No

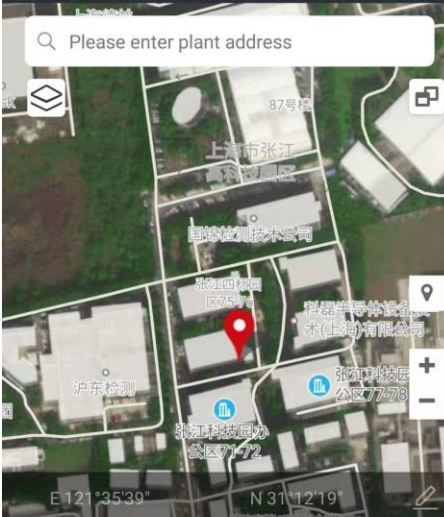
If your plant has no installer to do O&M in the later stage, please click "Create Now".

Create Now

Select or enter the power plant address, then click "Next".

← Confirm Plant Location

Please enter plant address



Plant Address China, Shanghai, Shanghai Chenggu, Pudongxinqu >

Please enter plant address

Next

Type in power plant information to complete the plant creation.

← **Plant Info**

Basic Info

Plant Name

Time Zone (UTC+08:00) Beijing,Chongqing,Hong Kong,Urumqi >

System Info

Plant Type Residential Rooftop >

System Type Please select >

Installed Capacity(kWp) Please enter

Operating Date ⓘ 2020-11-13 >

Yield Info


Currency CNY >

Unit Price(CNY/kWh) ⓘ Please enter (Optional)

Total Cost(CNY) Please enter (Optional)


Click “Go to Add” to add a logger for the plant.

Created



Created

Continue the following steps

 **Add a logger** [Go to Add](#)

Logger can collect the data of related devices in the plant,upload to platform for data analysis

If you don't know the device information for a while, this step can be skipped and you can then operate in the power station details.[Skip](#)

- c. Add a logger.
Enter or scan the SN of the device.

← **Add a logger**

Please enter the logger SN belongs to the plant. System will calculate plant data according to the logger.

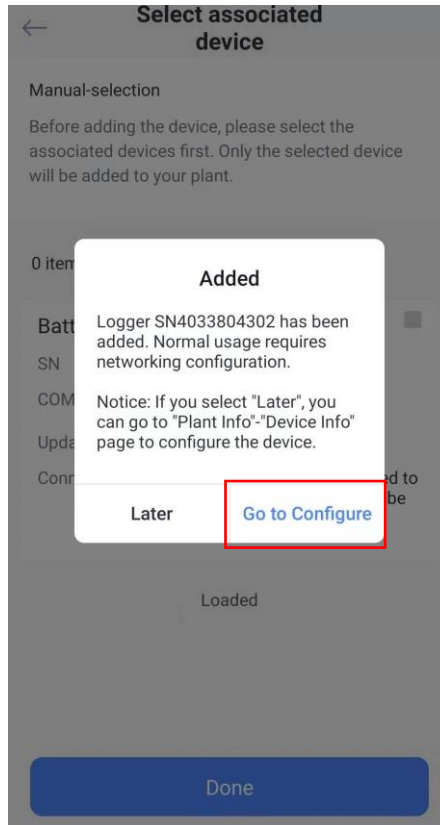
Cannot Find SN/Barcode?

Add

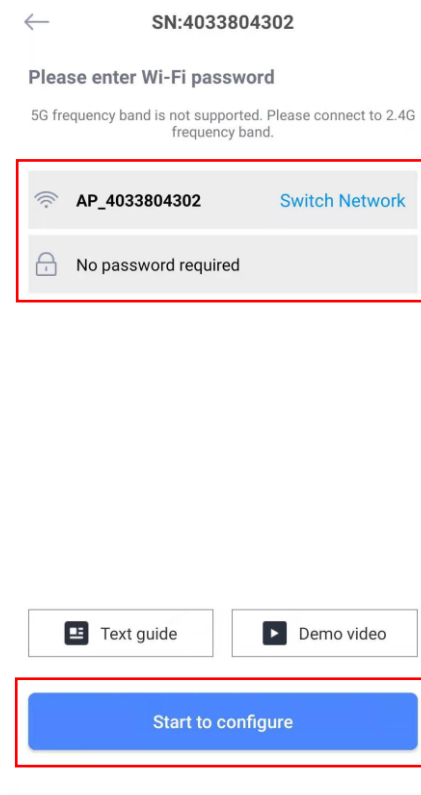
The serial number is located on the back of the box



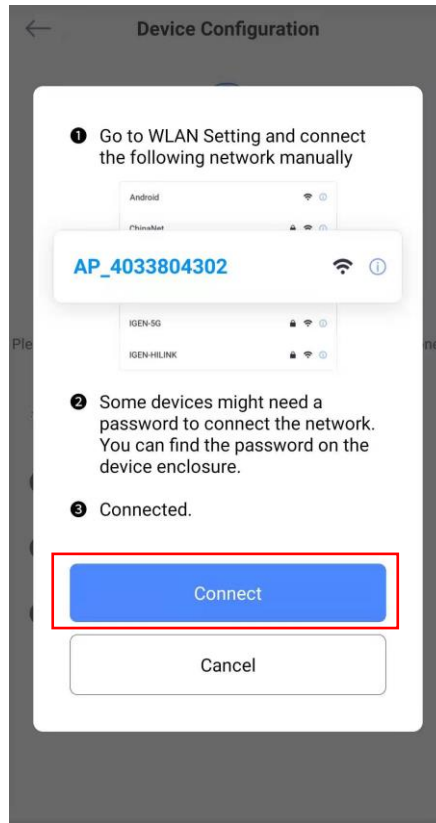
Select “Go to Configure” to start the setting.



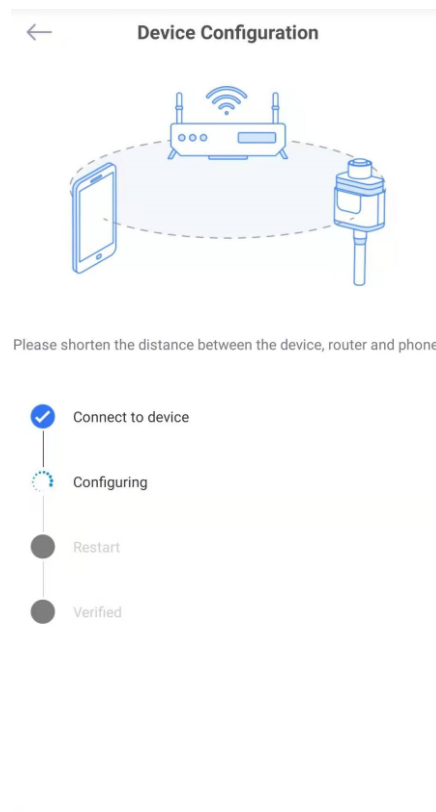
d. Connect to the Wi-Fi network.



Click "Connect" to switch the network to the device Wi-Fi network.



Device enter the status of configuration.



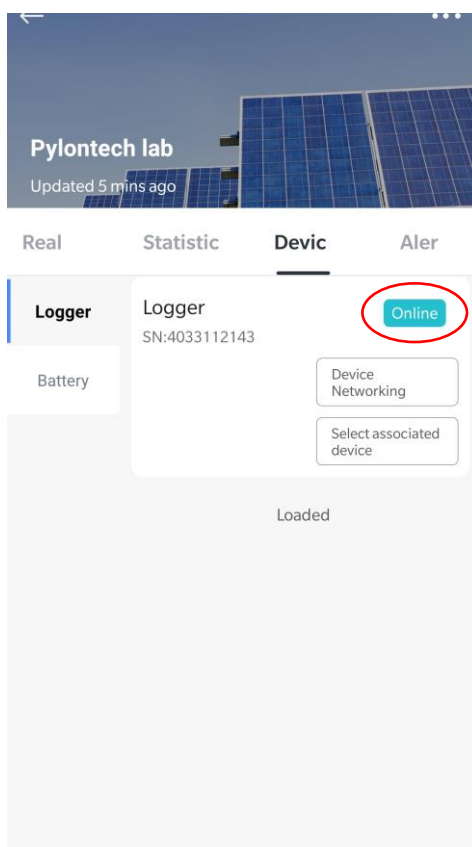


Configuration succeeded

Device data will be displayed in 10 mins. After that, you can check device status in device list.

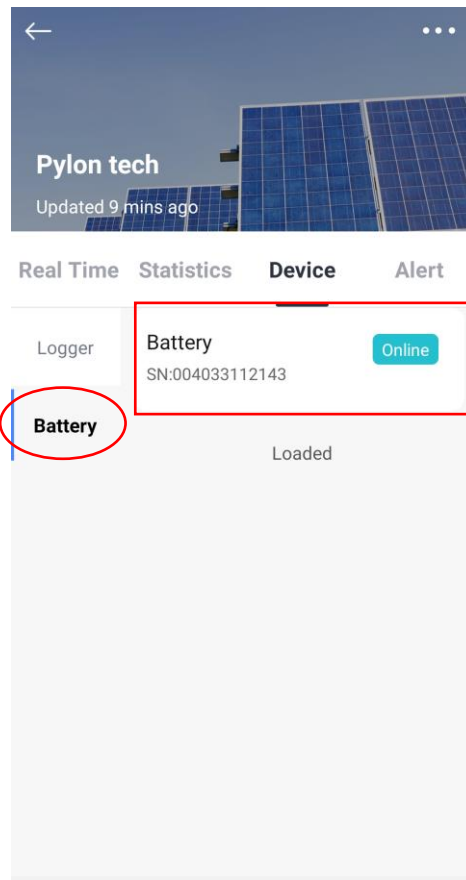
Done

When finishing the configuration, wait for 3-10 minutes, the logger could be online.



e. View the battery information.

Open the battery window, the battery information can be viewed now.



←
Battery
...

Device Parameters
Statistics
Architecture

Basic Information ▼

Connected Device SN:
004033112143

Battery pack ▼

No. of Battery Pack:
1

Battery Pack 1 ▼

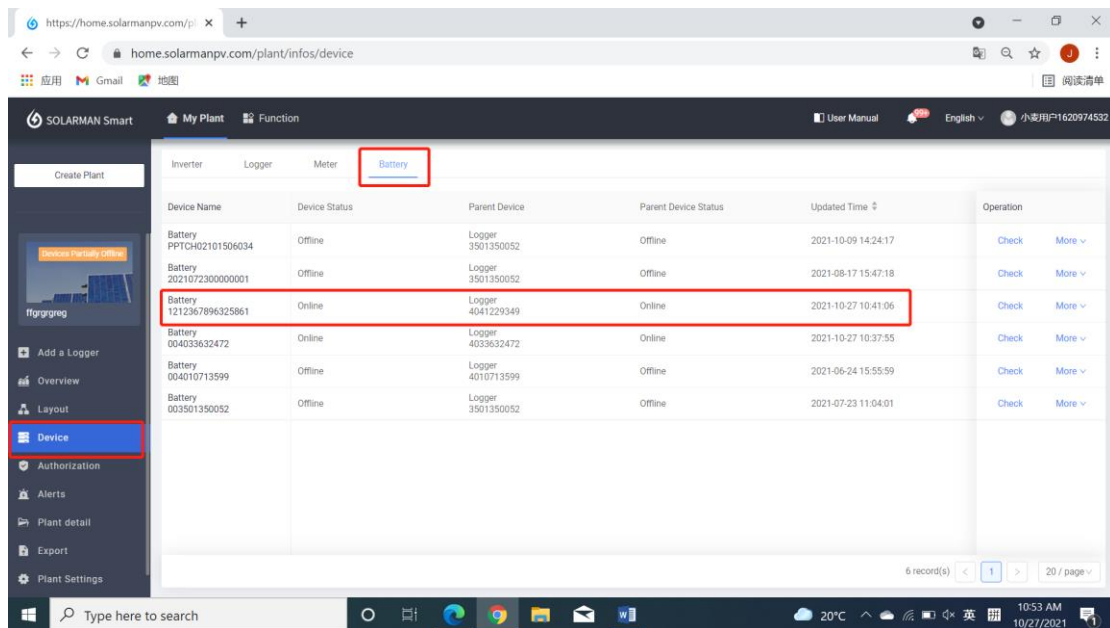
<p>Battery Pack 1 Connected Device Sn: 000000000000007</p>	<p>Battery Pack 1 Device Name: Force_L</p>
<p>Battery Pack 1 Brand: Pylon-----</p>	<p>Voltage-1: 48.64V</p>
<p>Current-1: -0.10A</p>	<p>Battery Pack 1 SOC: 15.00%</p>
<p>Cell voltage 1-1 Warning: 0</p>	<p>Cell voltage 1-2 Warning: 0</p>
<p>Cell voltage 1-3 Warning: 0</p>	<p>Cell voltage 1-4 Warning: 0</p>
<p>Cell voltage 1-5 Warning: 0</p>	<p>Cell voltage 1-6 Warning: 0</p>
<p>Cell voltage 1-7 Warning: 0</p>	<p>Cell voltage 1-8 Warning: 0</p>
<p>Cell voltage 1-9 Warning: 0</p>	<p>Cell voltage 1-10 Warning: 0</p>
<p>Cell voltage 1-11 Warning: 0</p>	<p>Cell voltage 1-12 Warning: 0</p>
<p>Cell voltage 1-13 Warning: 0</p>	<p>Cell voltage 1-14 Warning: 0</p>
<p>Cell voltage 1-15 Warning: 0</p>	<p>BMS Temperature Warning-Battery Pack 1: 0</p>
<p>Temperature Point 1 Warning-Battery Pack 1: 0</p>	<p>Temperature Point 2 Warning-Battery Pack 1: 0</p>
<p>Temperature Point 3 Warning-Battery Pack 1: 0</p>	<p>Temperature Point 4 Warning-Battery Pack 1: 0</p>
<p>Temperature Point 4 Warning-Battery Pack 1: 0</p>	<p>Battery Pack 1 Charge current Warning: 0</p>
<p>Battery Pack 1 Module voltage Warning: 0</p>	<p>Battery Pack 1 Discharge current Warning: 0</p>
<p>Battery Pack 1 Remain Capacity: 11.08AH</p>	<p>Battery Pack 1 Module Total Capacity: 73.85AH</p>

4. Maintenance

a) Download battery logs

Method 1:

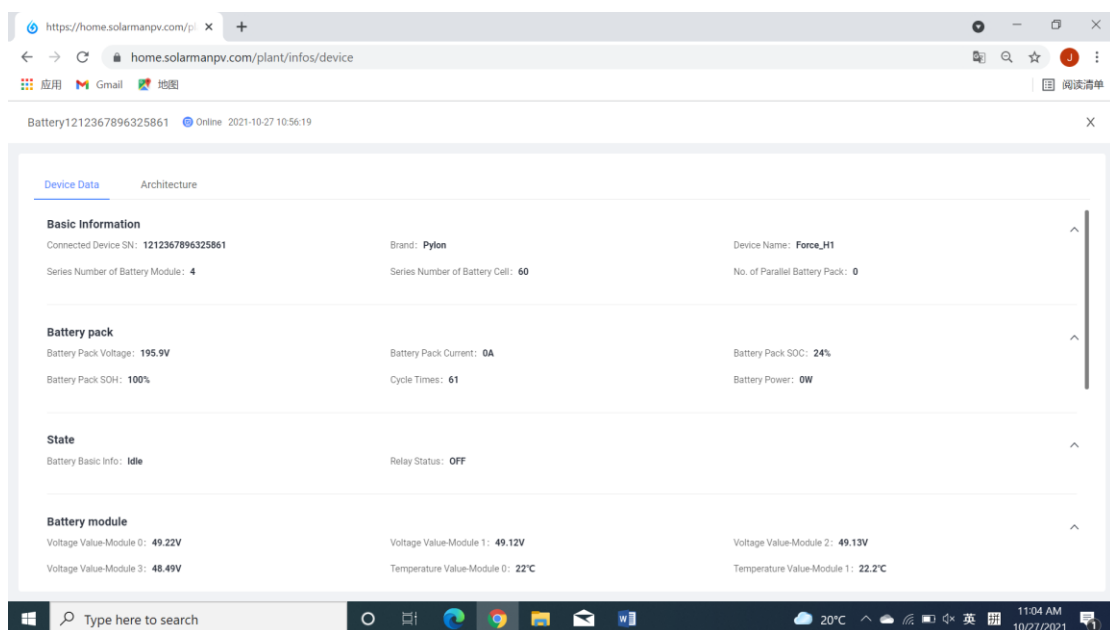
1. Go to the main window of the portal, click “Device” on the left, then choose “Battery”, select the battery you want to view.



The screenshot shows the SOLARMAN Smart portal interface. The left sidebar has the 'Device' menu item highlighted with a red box. The main content area shows a table of battery devices with the 'Battery' tab selected. The table has columns for Device Name, Device Status, Parent Device, Parent Device Status, Updated Time, and Operation. The row for device ID 1212367896325861 is highlighted with a red box.

Device Name	Device Status	Parent Device	Parent Device Status	Updated Time	Operation
Battery PPTCH02101506034	Offline	Logger 3501350052	Offline	2021-10-09 14:24:17	Check More v
Battery 2021072300000001	Offline	Logger 3501350052	Offline	2021-08-17 15:47:18	Check More v
Battery 1212367896325861	Online	Logger 4041229349	Online	2021-10-27 10:41:06	Check More v
Battery 004033632472	Online	Logger 4033632472	Online	2021-10-27 10:37:55	Check More v
Battery 004010713599	Offline	Logger 4010713599	Offline	2021-06-24 15:55:59	Check More v
Battery 003501350052	Offline	Logger 3501350052	Offline	2021-07-23 11:04:01	Check More v

2. Drag the scroll wheel to the bottom of the page.



The screenshot shows the detailed view of a battery device in the SOLARMAN Smart portal. The 'Device Data' tab is selected, and the page is scrolled to the bottom. The device information is displayed in a structured layout with sections for Basic Information, Battery pack, State, and Battery module.

Device Data Architecture

Basic Information

- Connected Device SN: 1212367896325861
- Brand: Pylon
- Device Name: Force_H1
- Series Number of Battery Module: 4
- Series Number of Battery Cell: 60
- No. of Parallel Battery Pack: 0

Battery pack

- Battery Pack Voltage: 195.9V
- Battery Pack Current: 0A
- Battery Pack SOC: 24%
- Battery Pack SOH: 100%
- Cycle Times: 61
- Battery Power: 0W

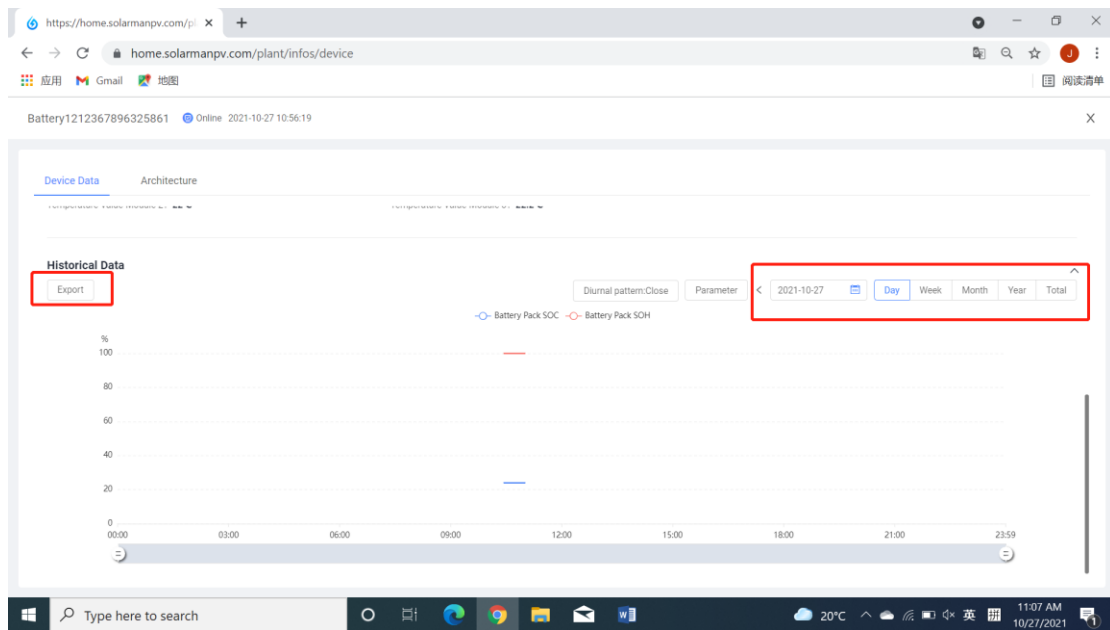
State

- Battery Basic Info: Idle
- Relay Status: OFF

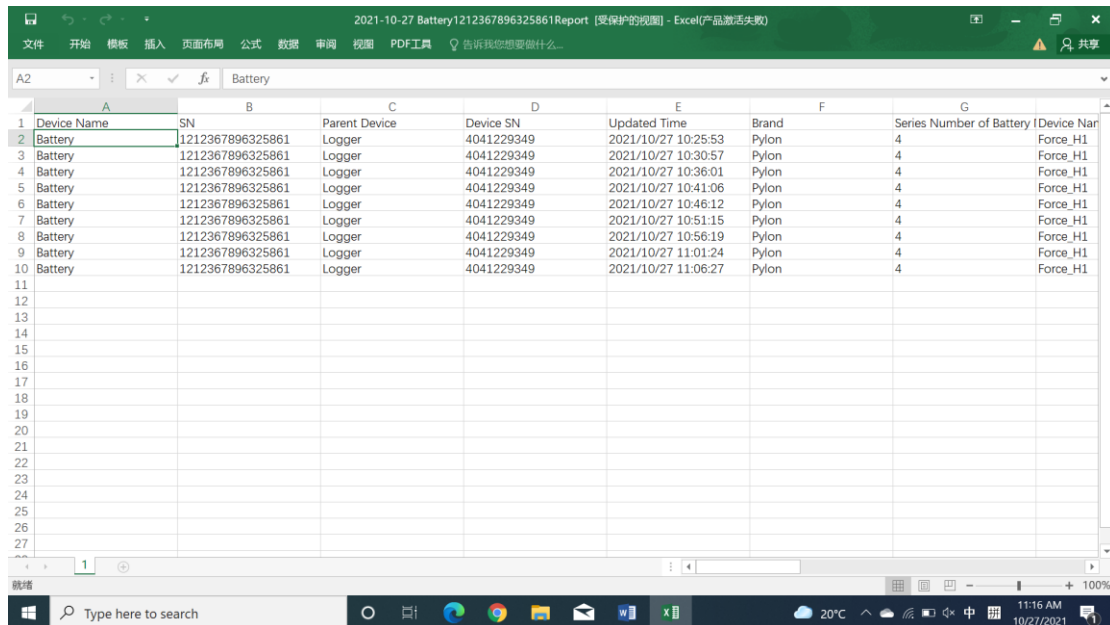
Battery module

- Voltage Value-Module 0: 49.22V
- Voltage Value-Module 1: 49.12V
- Voltage Value-Module 2: 49.13V
- Voltage Value-Module 3: 48.49V
- Temperature Value-Module 0: 22°C
- Temperature Value-Module 1: 22.2°C

- You can choose the date and length of the logs, then click the “Export” to download the data. Note that you can download the logs up to one month.



The history data will be like this:

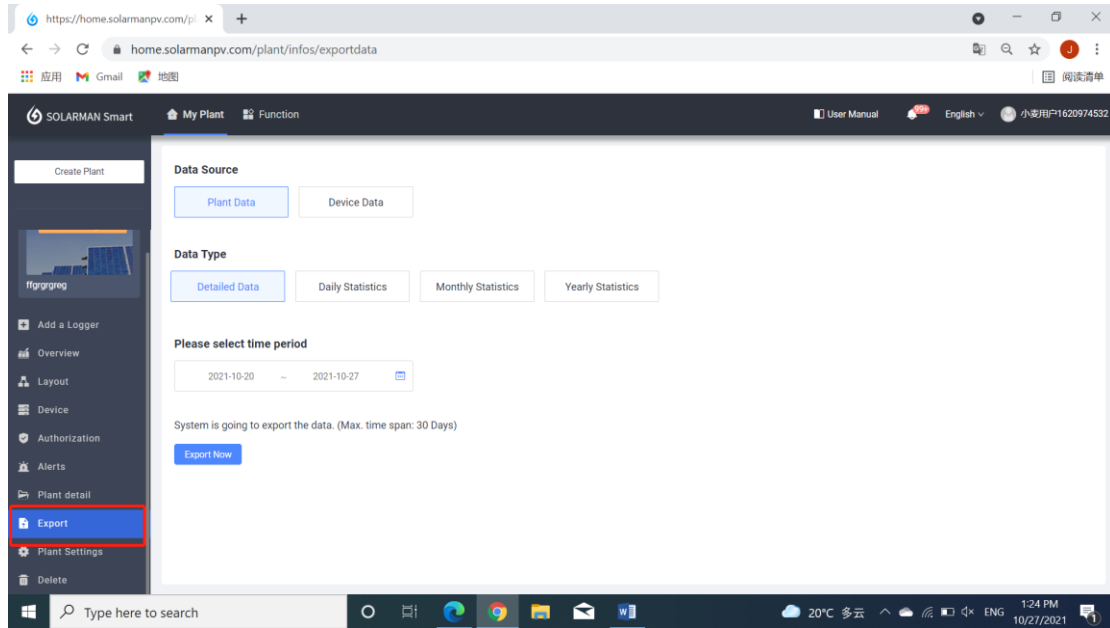


The screenshot shows an Excel spreadsheet titled '2021-10-27 Battery1212367896325861 Report'. The spreadsheet contains the following data:

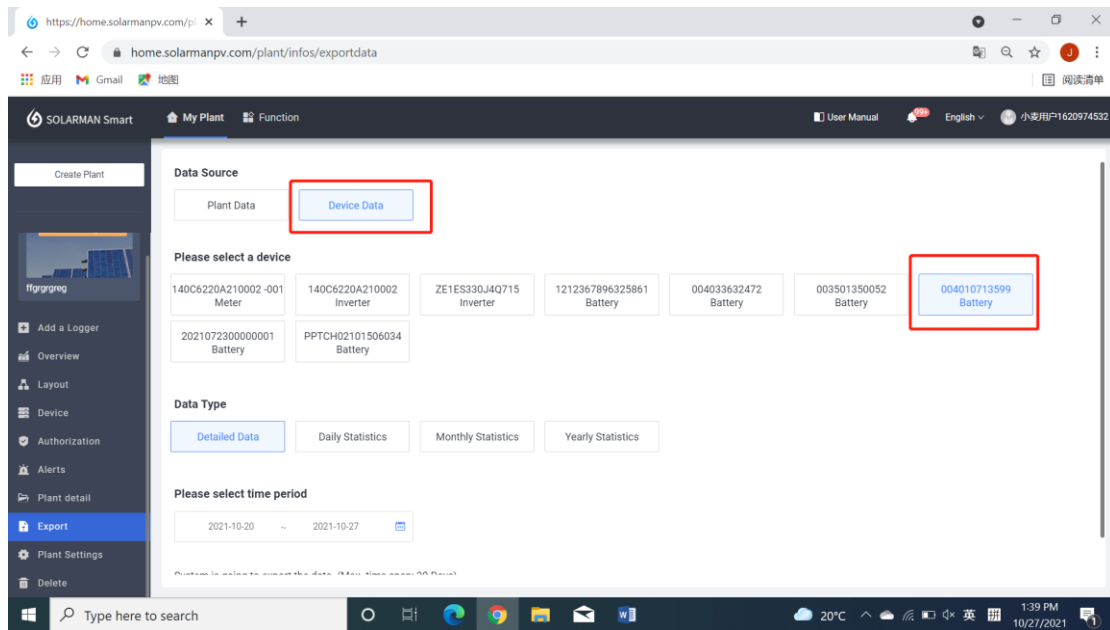
Device Name	SN	Parent Device	Device SN	Updated Time	Brand	Series Number of Battery	Device Name
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:25:53	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:30:57	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:36:01	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:41:06	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:46:12	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:51:15	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:56:19	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 11:01:24	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 11:06:27	Pylon	4	Force_H1

Method 2:

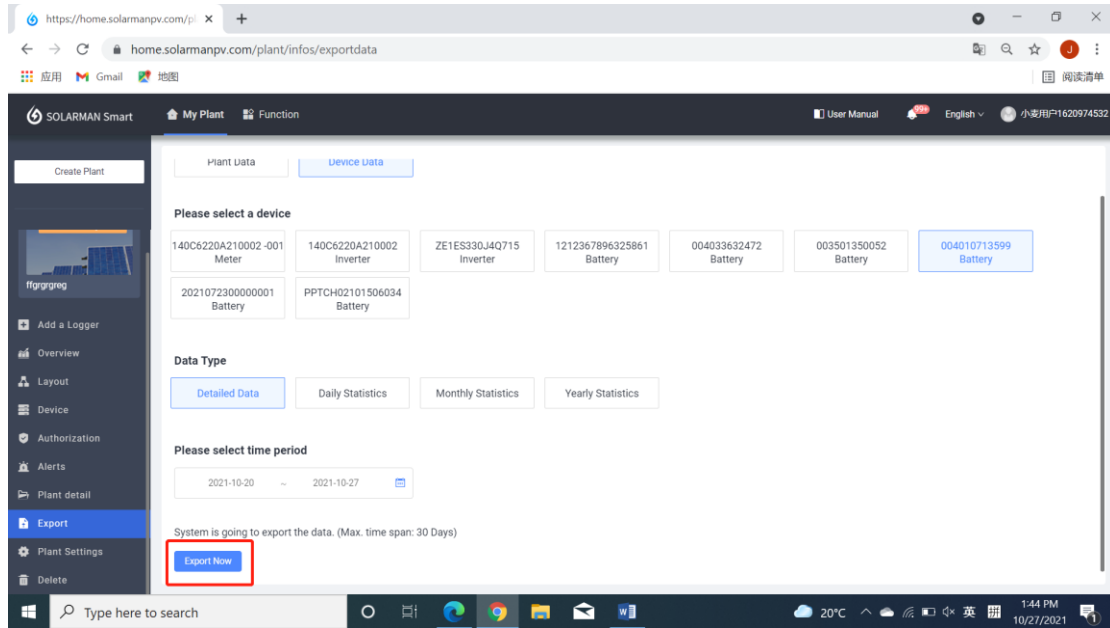
- Click “Export” on the left of the main window.



2. Select “Device Data”, choose the battery that you want to download logs, select the data type you want and choose the time period you required.



3. Click “Export Now” to download the logs.



b) Battery firmware upgrade

If you meet the problem that should be solved by firmware upgrade, please contact service@pylontech.com.cn and provide the serial number of your Wi-Fi logger. Pylontech will help you do an online firmware upgrade.