



# SOLAX DataHub1000 Pocket Cloud Monitoring Module User Manual

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**SOLAX DataHub1000 Pocket Cloud Monitoring Module**



## Specifications

- Manufacturer: SolaX Power Network Technology (Zhejiang) Co., Ltd.
- Model: DataHub 1000

## Overview of DataHub

The DataHub is a special equipment designed for the monitoring platform of photovoltaic power generation systems. It offers various functions including interface aggregation, data acquisition, data storage, output control, and centralized monitoring and maintenance of inverters, electricity meters, and environmental monitors.

## Appearance

1. **Antenna jack**

Connect an antenna for wireless communication.

2. **TF card socket (TF)**

Insert a TF card for data storage.

3. **RST button (RST)**

Press this button to reset the DataHub.

4. **SIM card socket (SIM)**

Insert a SIM card for cellular communication.

5. **USB socket (USB)**

Connect a USB device for data transfer.

6. **TYPE-C socket**

Connect a TYPE-C device for data transfer.

7. **LED indicator (RUN, SERVER, ALARM)**

Indicate the status of the DataHub:

- RUN (GREEN): The program is running normally.
- SERVE (GREEN): The program is running abnormally.
- ALARM (RED): Device alarms.

8. **Rail clip**

Attach the DataHub to a rail for installation.

9. **NET socket (NET)**

Connect to a network using an Ethernet cable.

10. **RS485 socket (RS485)**

Connect RS485 devices for communication.

11. **CAN socket (CAN)**

Connect CAN devices for communication.

12. **12V power output (12V/GND)**

Provide 12V power output for external devices.

13. **DO socket (DO)**

Connect digital output devices.

14. **AI socket (AI)**

Connect analog input devices.

15. **DI socket (DI)**

Connect digital input devices.

16. **12V power input (DC12V)**

Connect the power adapter for power supply.

## Installation

### Packing List

- Power adapter
- Installation instruction

- WiFi antenna
- Screws
  - 6\*30 Nylon \* 2
  - ST4.8\*L30 sus304 PAN \* 2
  - M3\*L6 sus304 C HEN \* 4
  - M3\*L8 sus304 PAN S + P \* 8
  - M2\*L4 1022APAN \* 2
- Plug-in terminal \* 5
- Plug-in terminal \* 1
- Plug-in terminal \* 1
- Rail buckle \* 2
- RS485 NET Cable (Cat 5e or higher standard network cable)

## Device Installation

### Preinstallation Check

For Wi-Fi mode, ensure the following:

- The longest connection distance between the router and the equipment is no more than 150 meters.
- If there is a wall between the router and the equipment, the longest connection distance is 20 meters.
- The number of walls between the equipment and the router should be less than 3.

**Note:** The above requirements are not applicable for LAN mode.

## FAQs

### Q: Can children play with the DataHub?

A: No, children should be supervised to ensure they do not play with the DataHub as it may cause personal injury or damage to the device.

### Q: Can I open the top cover of the DataHub?

A: No, please do not open the top cover of the DataHub. Touching or replacing components without authorization may cause personal injury or damage to the device.

### Q: What should I do if there is static electricity?

A: Static electricity may damage the electronic components. It is recommended to take appropriate anti-static measures when handling the DataHub.

### Q: What do the LED indicators on the DataHub mean?

A: The LED indicators have the following meanings:

- RUN (GREEN): The program is running normally.

- **SERVE (GREEN):** The program is running abnormally.
- **ALARM (RED):** Device alarms.

**Q: How do I reset the DataHub?**

A: To reset the DataHub, press the RST button located on the device.

**Q: What are the functions of the DataHub?**

A: The DataHub offers various functions including interface aggregation, data acquisition, data storage, output control, and centralized monitoring and maintenance of photovoltaic power generation systems.

## **Safety**

The DataHub produced by SolaX Power Network Technology (Zhejiang) Co., Ltd. has been designed and tested strictly in accordance with relevant safety regulations. The safety instructions must be followed when installing and maintaining the electrical and electronic equipment. Improper operation will cause personal injury and property damage to the operator and the third party.

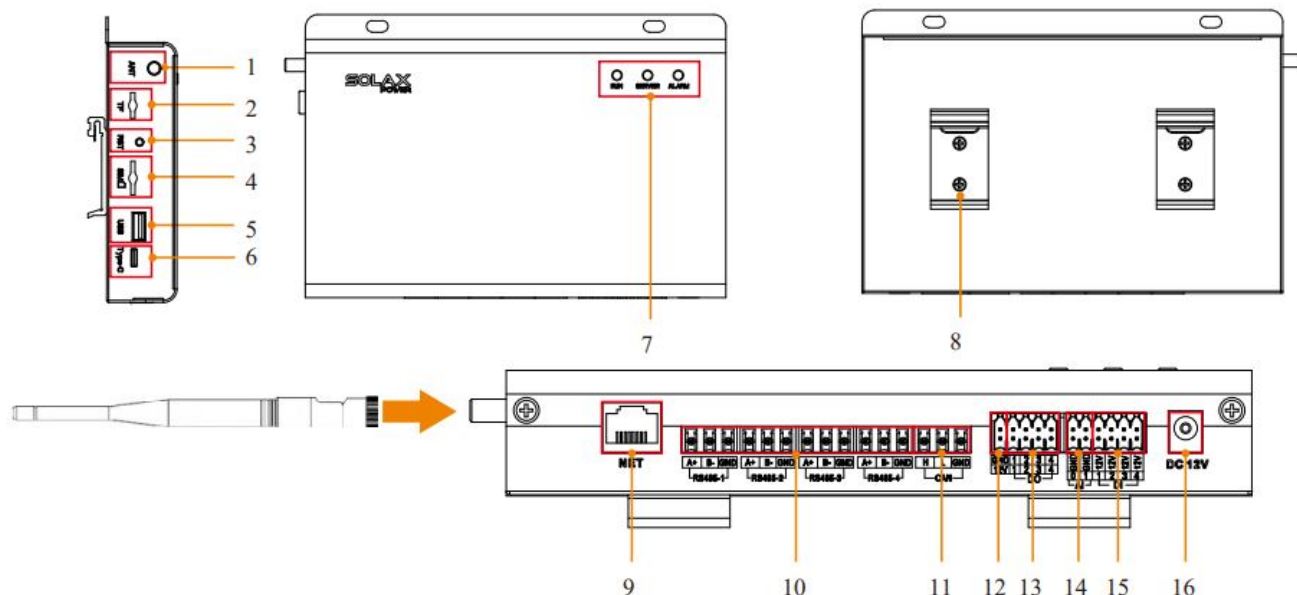
- Children should be supervised to ensure that they do not play with DataHub;
- Please do not open the top cover. Touching or replacing the components without authorization of SolaX may cause personal injury or damage to DataHub. SolaX does not assume any responsibility and warranty;
- Static electricity may damage the electronic components; therefore, appropriate anti-static measures should be taken.

## **Overview of DataHub**

### **introduction**

DataHub, a special equipment of the monitoring platform of photovoltaic power generation system, has realized many functions, with details as follows: interface aggregation, data acquisition, data storage, output control, and centralized monitoring and centralized maintenance of inverters, electricity meters, environmental monitors and other equipment in photovoltaic power generation systems.

### **Appearance**



1. Antenna jack
2. TF card socket (TF)
3. RST button (RST)
4. SIM card socket (SIM)
5. USB socket (USB)
6. TYPE-C socket
7. LED indicator (RUN, SERVER,ALARM)
8. Rail clip
9. NET socket (NET)
10. RS485 socket (RS485)
11. CAN socket (CAN)
12. 12V power output (12V/GND)
13. DO socket (DO)
14. AI socket (AI)
15. DI socket (DI)
16. 12V power input (DC12V)

## LED Indicator




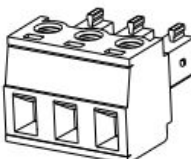
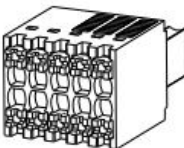
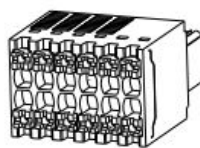
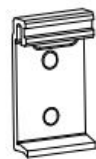
Sign	Status	Explanation
RUN (GREEN)	Flash	The program runs normally.
	Always on or always off	The program runs abnormally.
SERVE (GREEN)	ON	The network connection is normal.
	OFF	The network connection isn't normal.
ALARM (RED)	ON	Device alarms
	OFF	No alarm

## Installation

### Packing List

After receiving the package of DataHub, please check whether the accessories are complete and there is no obvious damage to the appearance. If there is any damage or items missing, please contact the dealer.

### Packing List

 <p>Power adapter</p>	 <p>Intallation instruction</p>	 <p>WiFi antenna</p>	Screws	
			6*30Nylon	*2
 <p>Plug-in terminal *5</p>	 <p>Plug-in terminal *1</p>	 <p>Plug-in terminal *1</p>	ST4.8*L30sus304PAN	*2
			M3*L6sus304CHEN	*4
 <p>Rail buckle*2</p>			M3*L8 sus 304 PAN S+P	*8
			M2*L41022APAN	*2

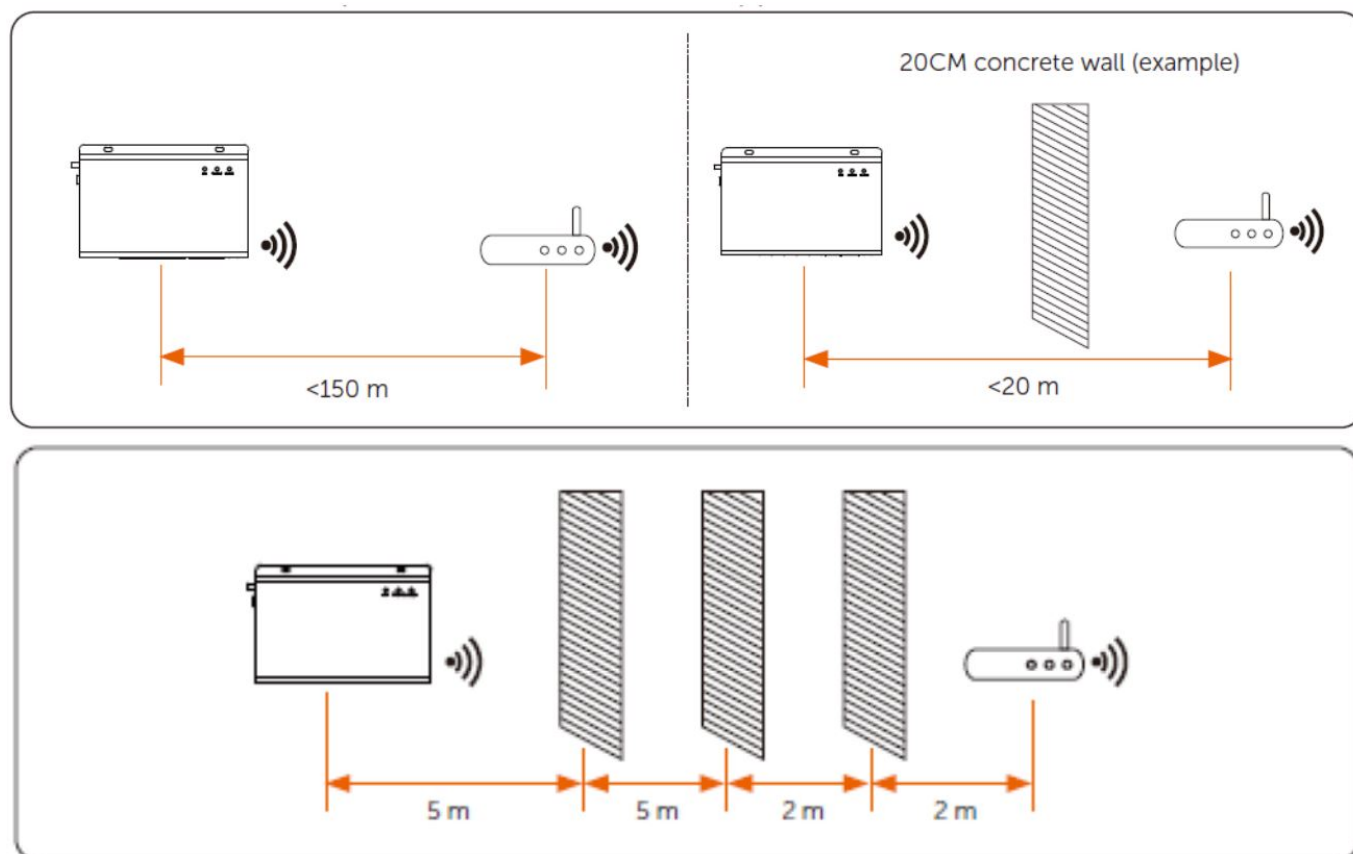
Line Specification	
RS485	Cross-sectional area 0.2mm <sup>2</sup> ~2.5mm <sup>2</sup> (24AWG ~ 14AWG) dual-core or multi-core cables
DO/DI/AI	Cross-sectional area 0.2mm <sup>2</sup> ~1.5mm <sup>2</sup> or (24AWG ~ 16AWG) dual-core or multi-core cables
NET Cable	Cat 5e or higher standard network cable

## Device Installation

### Preinstallation Check

For Wi-Fi mode, the longest connection distance between the router and the equipment should be no more than 150 meters; if there is a wall between the router and the equipment, the longest connection distance is 20 meters; the number of walls between the equipment and the router should be less than 3.

For LAN mode, the requirements above are not applicable.

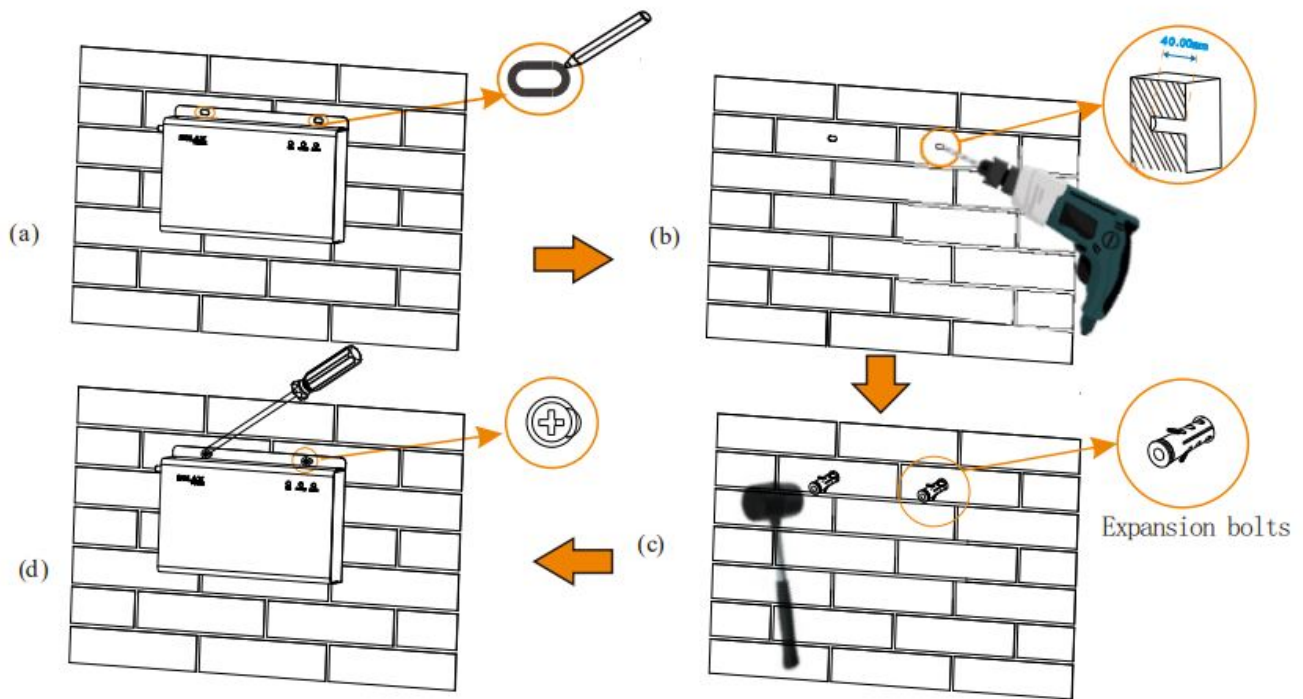


\*Note: When the Wi-Fi signal is weak, please install a Wi-Fi signal booster at the appropriate location.

### Indoor Wall Mounting

1. Choose a flat and solid indoor wall to drill for installation;
2. Hang the DataHub on the wall with the cable connection area facing down.

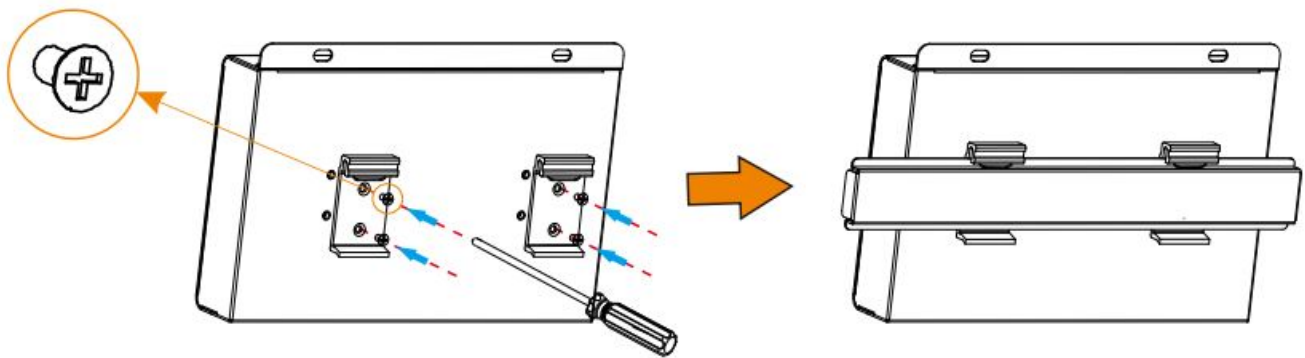




## Guide Rail Mounting

1. Use the four M3\*L6 screws in the accessory bag to fix the buckle on the DataHub.
2. Please prepare 35mm standard rail (effective length  $\geq 230\text{mm}$ ) and install it firmly.

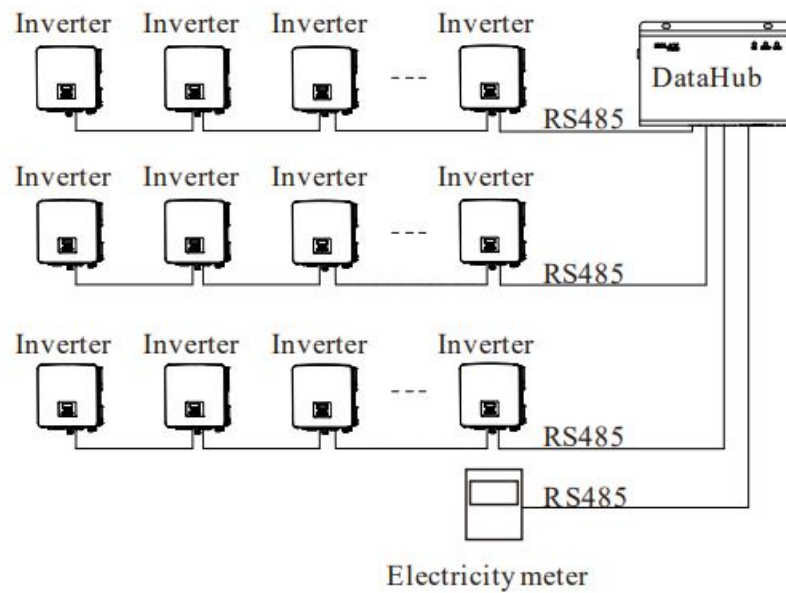
**\*Note:** The outdoor installation must be in a waterproof housing.



## Electrical Connection

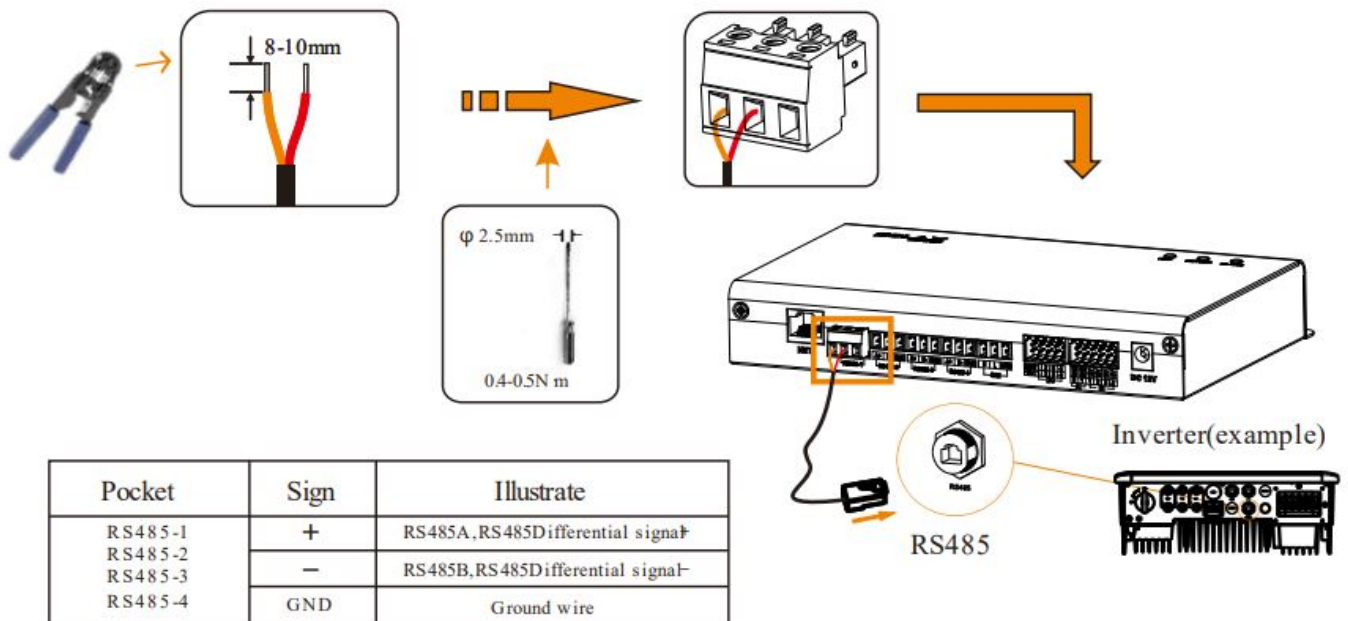
### Inverter Connection

1. The inverter is connected to the DataHub through the RS485. For the connection method of the inverter, please refer to the inverter installation manual;
2. It is recommended that the number of devices connected to each channel of RS485 is less than 20;
3. The baud rate, communication protocol and verification method of the inverters connected to the same RS485 port of DataHub must be consistent, and the communication addresses of the inverters must be consecutive and not repeated.



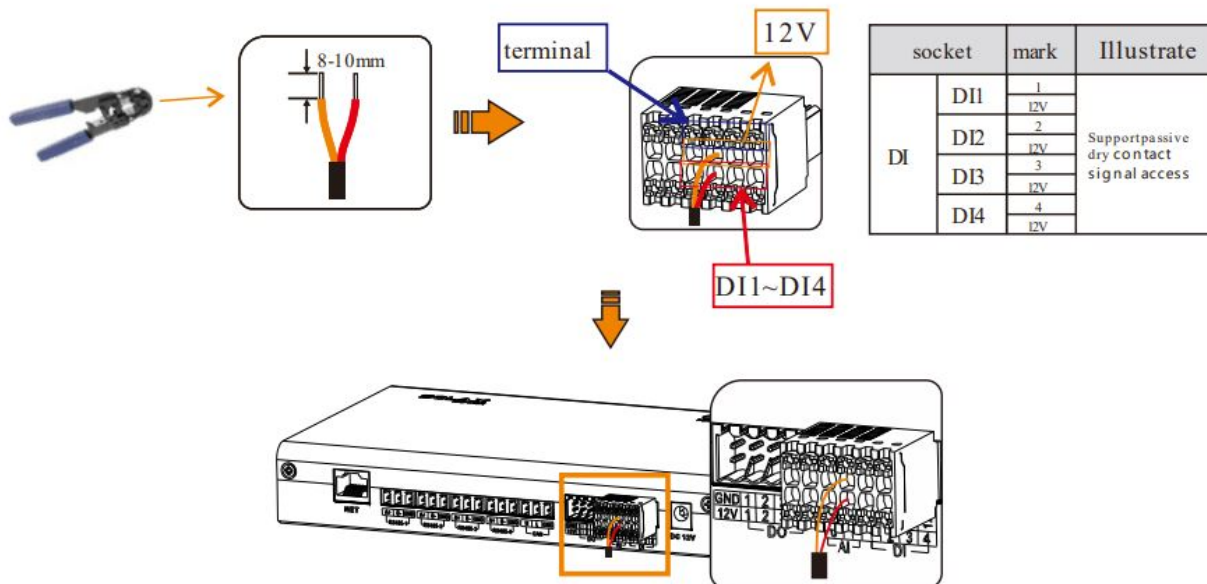
## Installation of RS485

Make sure that RS485+ is connected to DataHub's RS485+, RS485- is connected to DataHub's RS485-, RS485 GND is connected to the GND of DataHub.



## Installation of DI Signal Cable

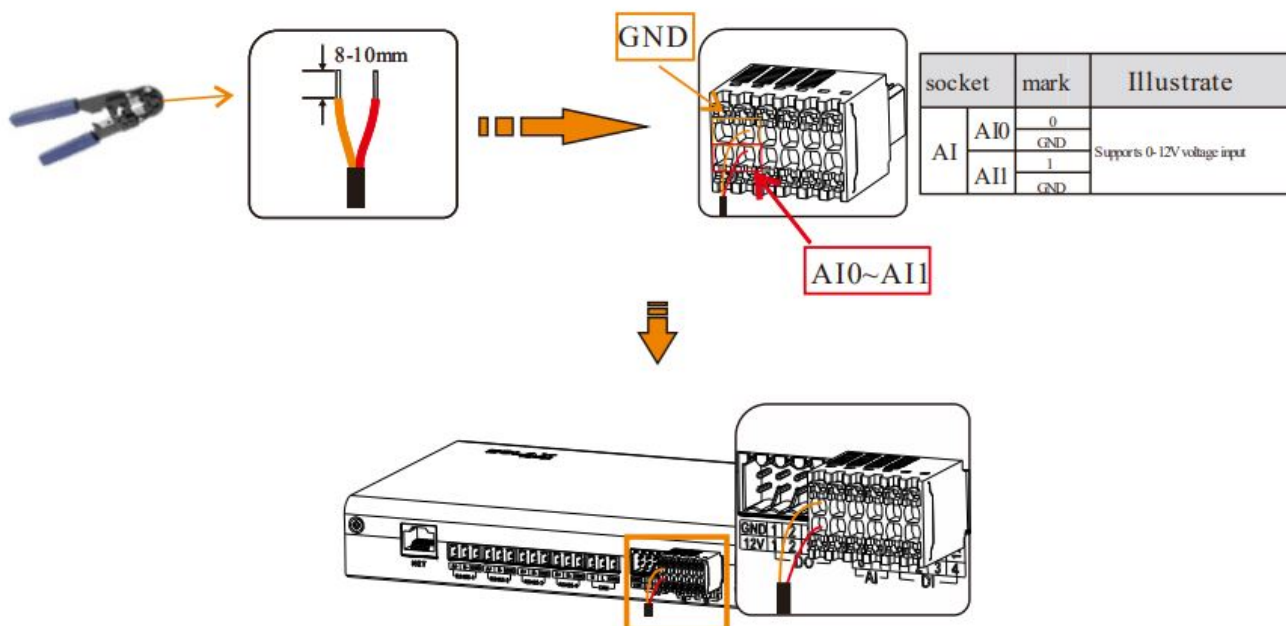
DataHub can access DI signals such as remote control and alarms through the DI port.



## Installation of AI Signal Cable

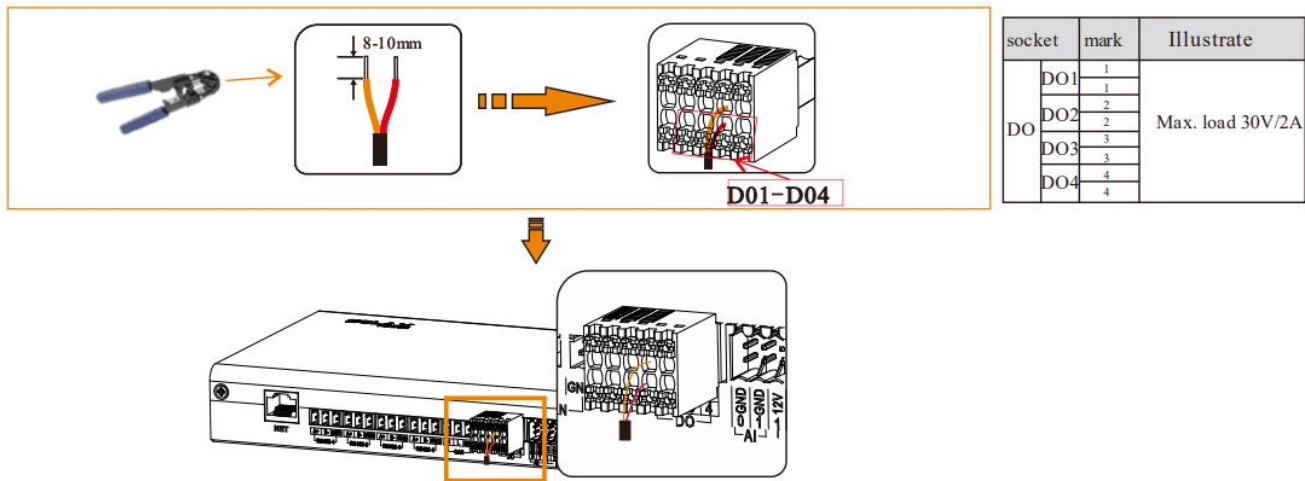
### Installation advice

- It is recommended that the transmission distance does not exceed 10 m;
- AI port 0 and AI port 1 are connected to AI signal +, and GND is connected to AI signal-.



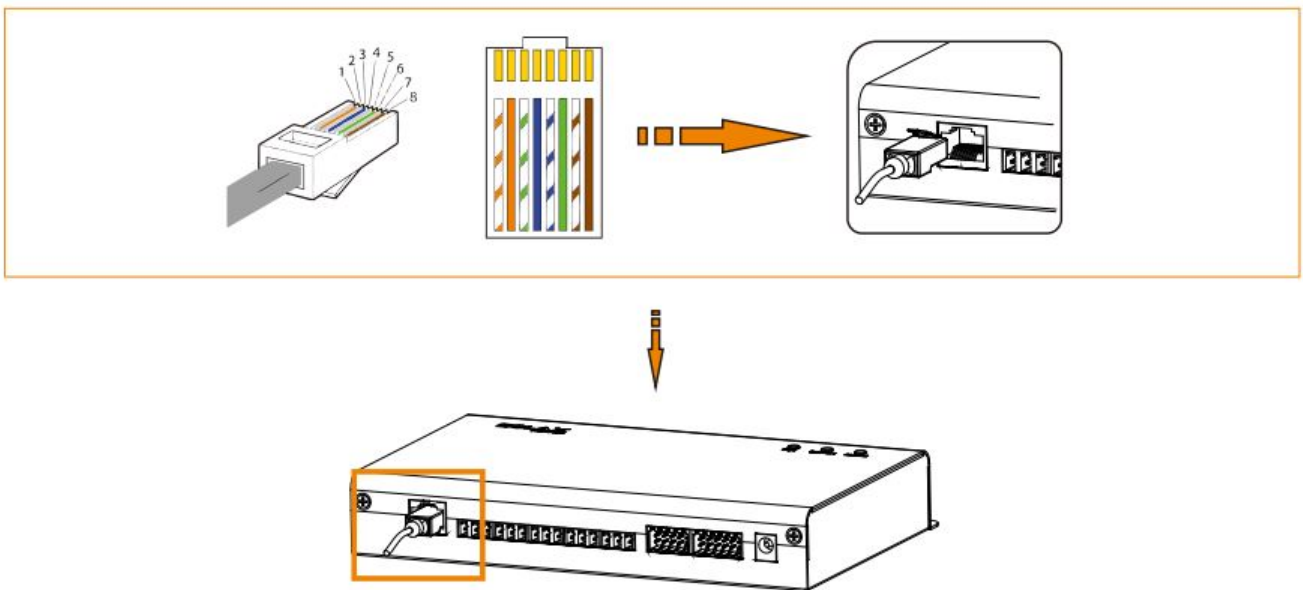
## Installation of DO Signal Cable

The DO port supports 30V signal voltage in maximum. The contact of four-group output is on by default.

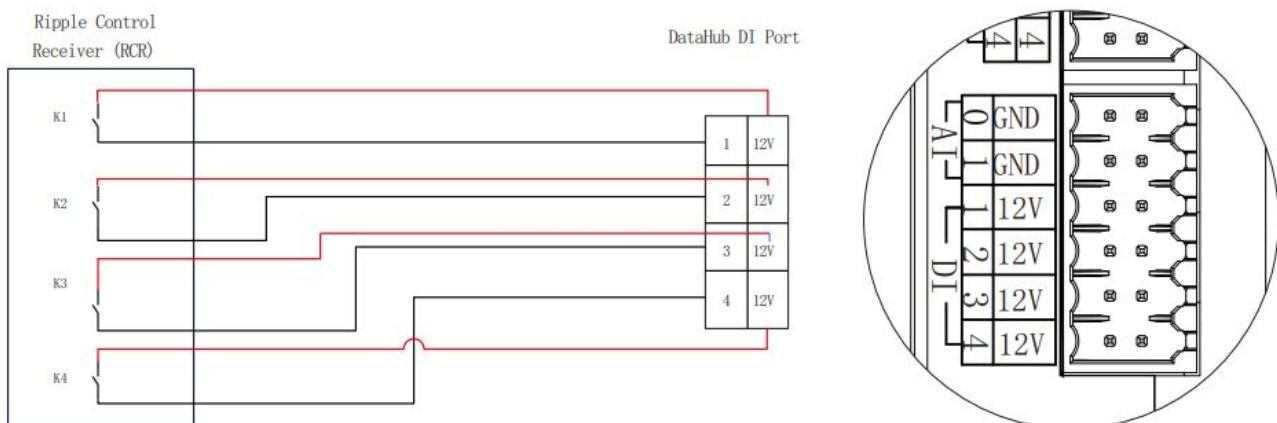


## Installation of Network Cable

- Use Cat 5e or higher specifications and Shielded crystal head connectors to prepare the network cable.
- The communication distance does not exceed 100 m.
- When crimping the network cable, ensure that the shielding layer of the network cable is properly connected to the metal shell of the RJ45 connector.

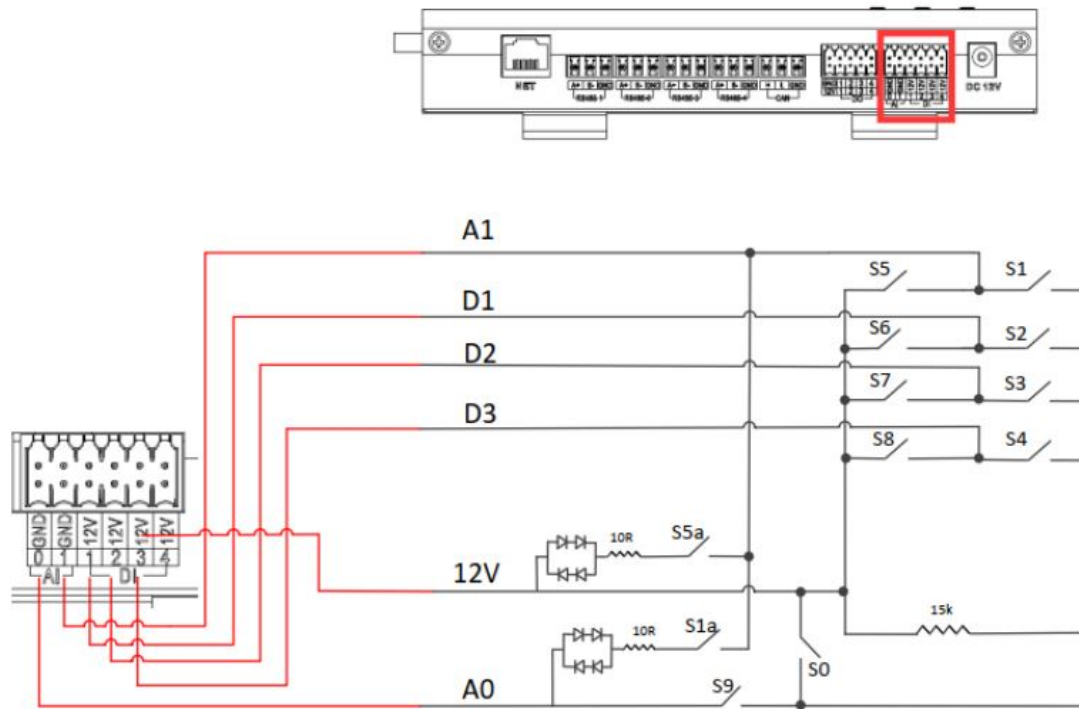


## Connecting to Ripple Control Receiver





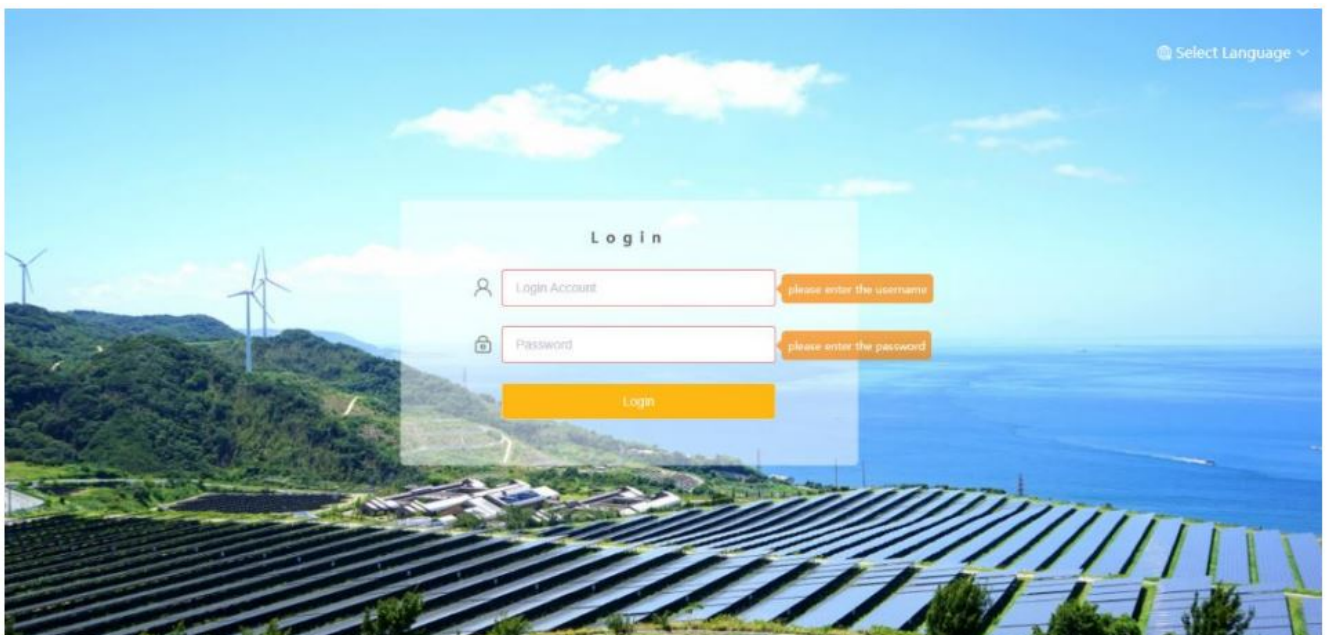
## Connecting to DRED



## Configuration Function

### Login

- **Local login:** connect the computer to the DataHub hotspot (WiFi \_xxxxxxx; xxxxxxx refers to the Registration No. of DataHub), and use the computer to access 192.168.10.10 to enter the login interface.
- **LAN login:** please refer to 5.7.1 Internet setting.
- **Administrator account:** admin, initial Password: (the same as Registration Number).
- **User account: user, initial Password:** 123456.
- **Visitor account:** visitor, initial Password: 123456.



**Note:** To remotely monitor or set the device, please access [http:// www.solaxcloud.com](http://www.solaxcloud.com) and follow the user guide

on the website to finish the registration. When connecting via hotspot (WiFi \_xxxxxxx), please check “Auto-connect”.

## Site Management

### Add Device

The devices supported by DataHub are as follows: Inverters, EV Charger, Electricity Meters, and Environmental Monitors. Select the device type under the serial port, set the starting address and the number of devices under the serial port, and save these settings.

RS485 Channel	Device Type	Initial Address	Number of Devices
1	Inverter	1	1
2	Inverter	0	0
3	Inverter	0	0
4	Meter	0	0

Check Device Detail

Save

Automatically add device: By this function, users can add new devices without setting inverter modbus address. To enable this function, users need to select device quantity and click “Add device automatically”. DataHub will distribute Modbus address to devices automatically and add these devices.

RS485 Channel	Device Type	Initial Address	Number of Devices
1	Inverter	0	0
2	Meter	1	1
3	Inverter	1	1
4	Inverter	1	1

Automatically add devices

Save

### Note:

1. Please refer to Appendix 1 to check whether the baud rate of the model is 19200 or not. If the baud rate is not 19200, please refer to 5.6.3 Serial port setting for more details of setting baud rate.

2. When connecting to X3-MIC-G2, please make sure the meter is disabled.
3. Currently, the automatically add device function is only applicable to X3-FTH, and one string 485 is capable of supporting a maximum of five devices. If the number of devices searched is inconsistent with the actual quantity, please click automatically add device again until all devices are found.
4. Please check the power intake and consumption on meter on the “Overview” interface.

The device details will pop up. Please confirm whether the model is correct or not and then Click “Save”.

Export

<input type="checkbox"/>	RS485 Channel	Device ID	SN	Device Type	Device Type	Operating Sta...	Inverter Error ...	Version
<input type="checkbox"/>	1	1	XB406000000996	Inverter	X1-BOOST-G4	unknown	unknown	0.00

## Device Detail

Click the corresponding device to query the device data, or select the device to export the device data.

admin Select Language Log Out

Overview

Site Management

Add Device

Device Detail

Site Setting

Inverter Setting

Smart Scene

Device Upgrade

DataHub Setting

Export

<input type="checkbox"/>	RS485 Channel	Device ID	SN	Device Type	Device Type	Operating Status	Inverter Error Num...	Version
<input type="checkbox"/>	1	1	unknown	Inverter	unknown	unknown	0	0.00

## Sits Setting

“Site Setting” is equipped with three modules, which are “Export Limit Control”, “Power Control”, “Electricity Price Setting”, “Meter Setting” and “Other Setting”. The “Export Limit Control” and the “Power Control” are mutually exclusive so that only one can be enabled.

admin Select Language Log Out

Overview

Site Management

Site Setting

Export limit Control

Power Control

Electricity Price Setting

Meter Setting

Other Setting

Inverter Setting

Smart Scene

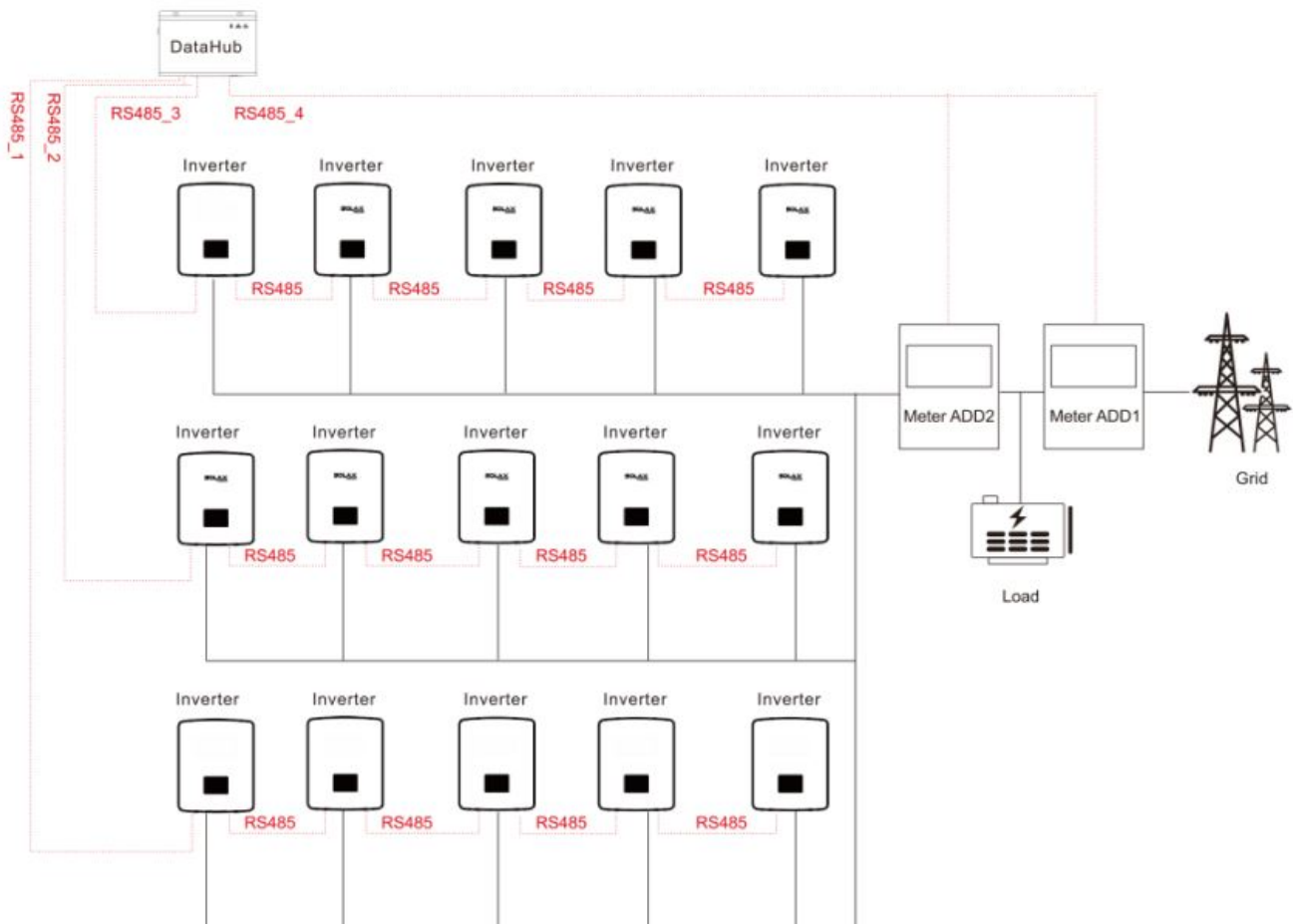
Device Upgrade

Export

	RS485 Channel	Device ID	SN	Device Type	Device Type	Operating Status	Inverter Error Num...	Version
<input type="checkbox"/>	2	1	230804033414	Meter	ZTY-3	online	0	0.00
<input type="checkbox"/>	3	1	X3G06013G04004	Inverter	X3-MGA-G2	Run Mode	0	XMMEGA V009.09

## Export Limit Control

The purpose of the “Export Limit Control” is to limit the power supplied to the grid. The inverter generates electricity to the grid when the power source is positive, and takes electricity away from the grid when the power source is negative. Before using the “Export Limit Control” function, make sure that two meters have been connected to the DataHub. The purpose of two meters is to control speed and stability. Please refer to the schematic diagram for the specific wiring mode (as shown below).



The control mode includes “Total” and “Per Phase”.

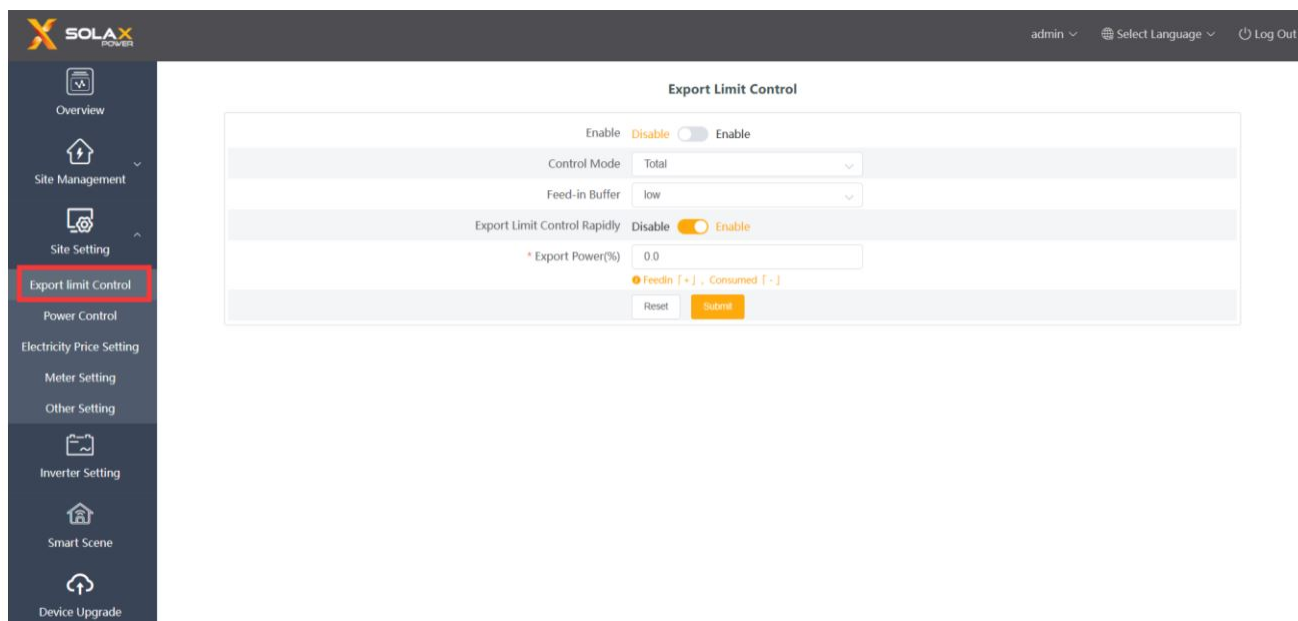


- **“Total”**: The Site Limit is the total export power (the combined production minus the combined consumption) on all the phases combined. Reverse current on one phase will count as negative power and can compensate for another phase.
- **“Per Phase”**: For three phase inverter connections, the inverter sets the limit on each phase to 1/3 of the total site limit. Use this mode if there is a limit on each individual phase.

**\*Note:**

1. The output of device will be abnormal when connecting to three phase three wire under “Per Phase” mode. If two meters cannot be installed or other circumstances arise, please contact our presale service, we will provide you with suitable installation suggestion according to specific local conditions.
2. For “Export Limit Control” function, please ensure that the meter is correctly connected to DataHub.
3. The equipment output may be abnormal if “Per Phase” is used for three-phase and three-wire connections.
4. Inverter shutdown after DataHub communication loss: After communication loss, the inverter will shut down in 10s (triggered once a DataHub communication succeed). Inverter startup after DataHub communication connection: After communication connected, the inverter will start up (triggered when all DataHub communication completed).

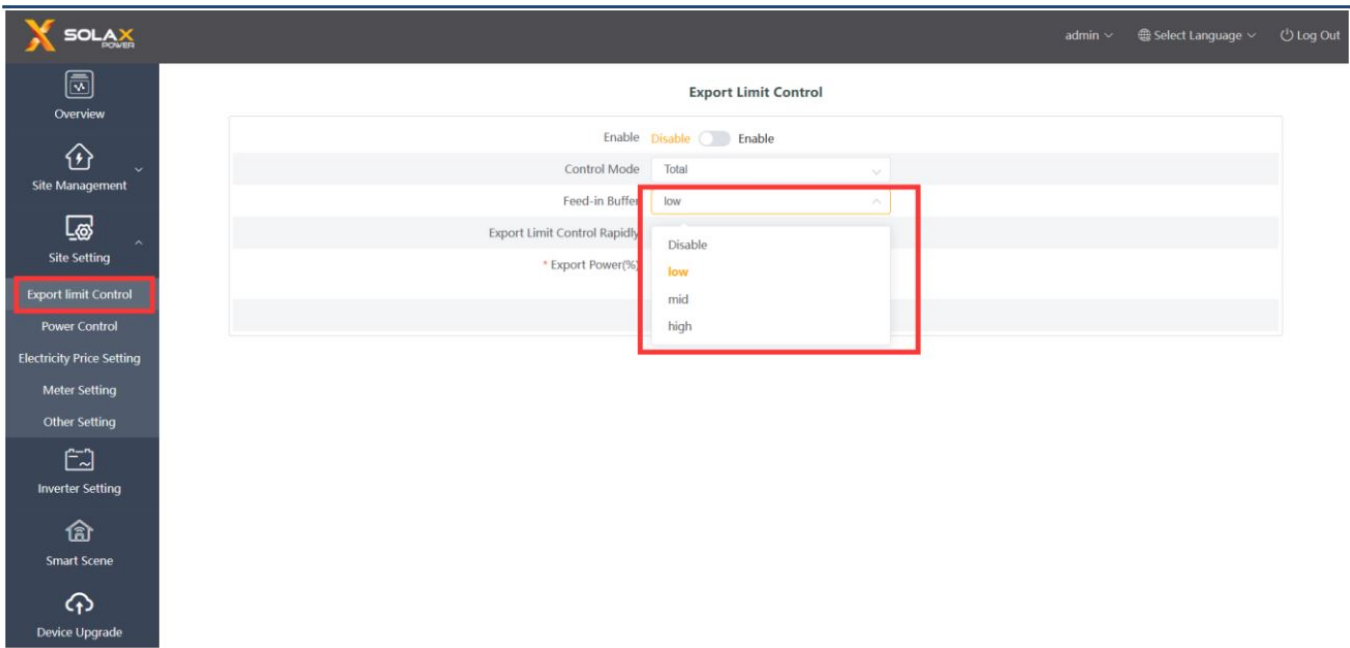
Please refer to 5.4.3 “Parameter Setting” to enable DataHub communication loss shutdown and DataHub communication connection startup. The corresponding Modbus addresses are respectively: 6152 and 6153; Set value: “0”: Disable, “1”: Enable. DataHub communication refers to: i) The communication between DataHub and inverters; ii) The communication between DataHub and meters.



“Feed-in Buffer” is divided into 4 gears: “Disable”, “Low”, “Mid”, “High”.  
The representative threshold values for each gear are respectively: 1%, 2.5%, 4.5% and 6.5%.  
The definition of those threshold values is:

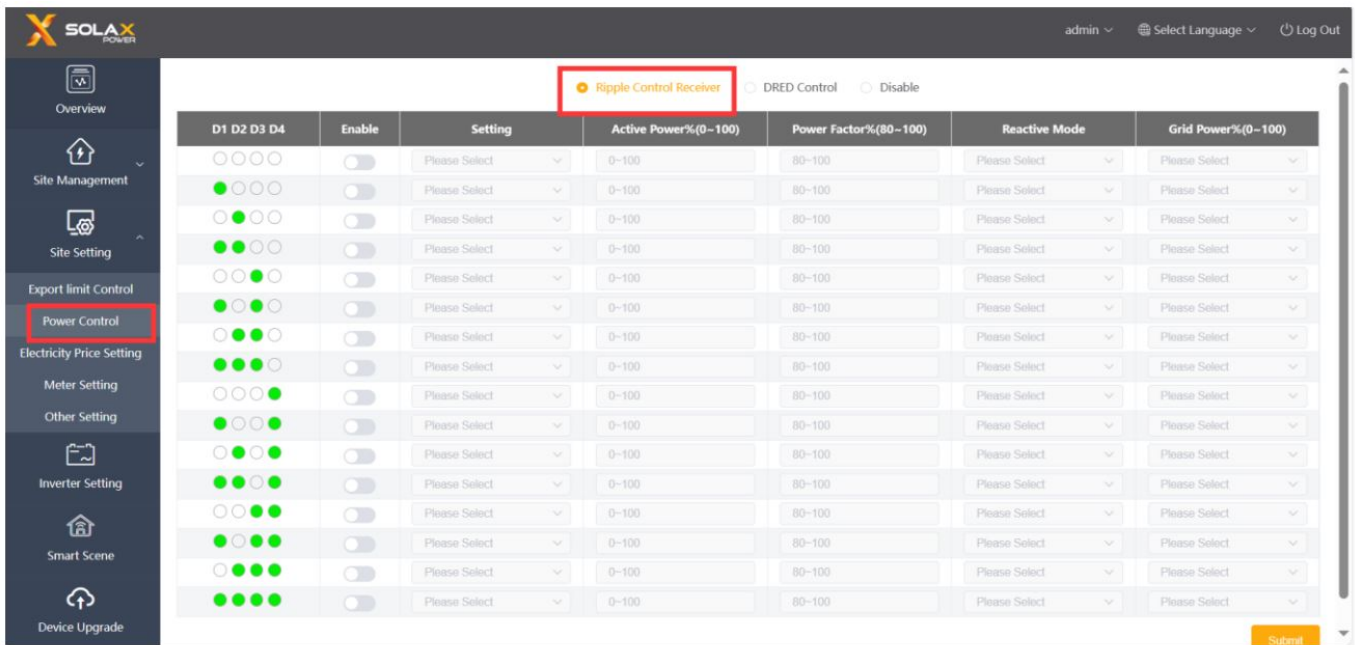
1. Except for “Disable”, when the load in other 3 gears is stable, taking power from the grid [the total power of grid-connected inverter \* threshold value] is preferred; In the “Disable” gear, when the load is stable, the output power of grid-connected inverter ranges from [taking 1% of power] to [selling 1% of power]. [Selling 0% of power] cannot be guaranteed, but less power will be taken from the grid.
2. When the load fluctuates within the range of [the total power of grid-connected inverter \* threshold value], the

power of grid-connected inverter will not drop to 0 directly; Otherwise, the power of grid-connected inverter will drop to 0 immediately and then the power will increase slowly.




## Power Control

Power limit control includes “Ripple Control Receiver” and “DRED Control” disable. The “Ripple Control Receiver” is to control the input active power and reactive power, output active power and reactive power of the inverter and inverter off according to the high or low input of the DI port. The green one indicates the high input of power; the white one indicates the low input of power. There are a total of 16 situations for users to set the active and reactive power according to each situation.



DRED control is applied to set the active power according to high or low input of the A0, A1, D1, D2 and D3 of DI ports.

Mode	Operate	Explanation	Note
DRM0	Close S9,S0	Inverter shutdown	
DRM1	Close S9,S1,	Close S1 charging power is 0%	When two or more DRM
	disconnect S0		modes work at the same
DRM5	Close S9,S5	Inverter does not output active power	time, take the optimal result
DRM6	Close S9,S6	The active power output by the inverter does	that can satisfy both of them.
		not exceed 50% of the rated power	
DRM7	Close S9,S7	The active power output by the inverter does	
		not exceed 75% of the rated power	
		The active power of the inverter output power	
DRM8	Close S9,S8	starts to recover.	
		Description: The inverter outputs according to	
		the active power percentage set by DataHub.	


admin Select Language Log Out

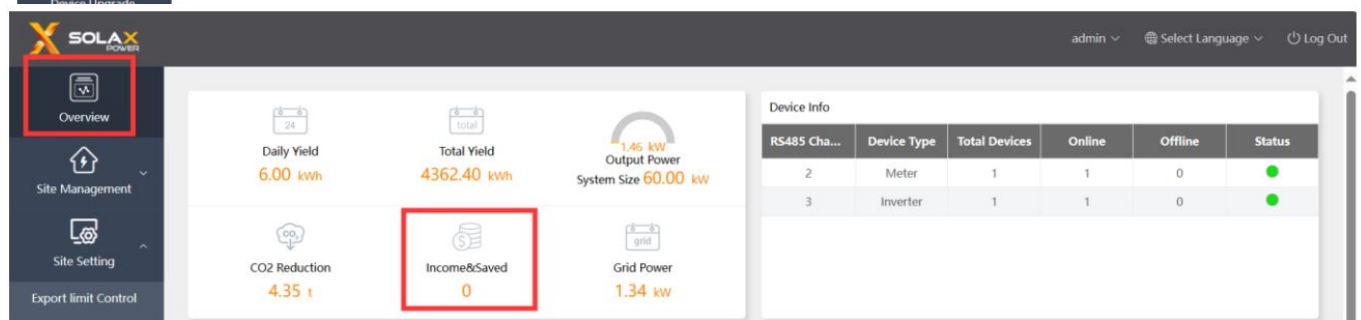
Ripple Control Receiver **DRED Control** Disable

Current Status	DRM Mode	A0	A1	D1	D2	D3	Inverter Power
	0	<span style="color: green;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	Turn Off
	1	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	Input active power 0%
	5	<span style="color: red;">●</span>	<span style="color: green;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	Output active power 0%
	6	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: green;">●</span>	<span style="color: gray;">●</span>	<span style="color: gray;">●</span>	Output active power 50%
	7	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: green;">●</span>	<span style="color: gray;">●</span>	Output active power 75%
	8	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: green;">●</span>	Output active power 100%

Submit

## Electricity Price Setting

Electricity Price Setting: Set the electricity price to calculate the benefit, which is displayed on the Overview interface as “Income&Saved”.



**Distribution Fee:** Distribution Fee Refers to fees of the electric grid infrastructure, including “Fixed” and “Unfixed” ones. Under the “Unfixed” mode, users can choose “Week Distribution Fee” and “Holiday Distribution Fee” to set the calculating rules, with the Holiday calculating rules have higher superiority.

**Commission Fee:** Commission charge that the seller has to pay when selling electricity to the grid.

**Electricity Price Setting**

Electricity Price Setting(per kWh)

Distribution Fee(per kWh) ☐ Fixed ☒ Unfixed

\*Week Distribution Fee(per kWh)

Rule01

at ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

from  to  , price is

+ Add a rule

Holiday Distribution Fee(per kWh)

Commission Fee(per kWh)

Taxes(%)

Taxes: The ratio of total fees that the buyer has to pay as taxes.

**Electricity Price Setting**

Electricity Price Setting(per kWh)

Distribution Fee(per kWh) ☐ Fixed ☒ Unfixed

\*Week Distribution Fee(per kWh)

Rule01

at ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

from  to  , price is

+ Add a rule

Holiday Distribution Fee(per kWh)

Commission Fee(per kWh)

Taxes(%)

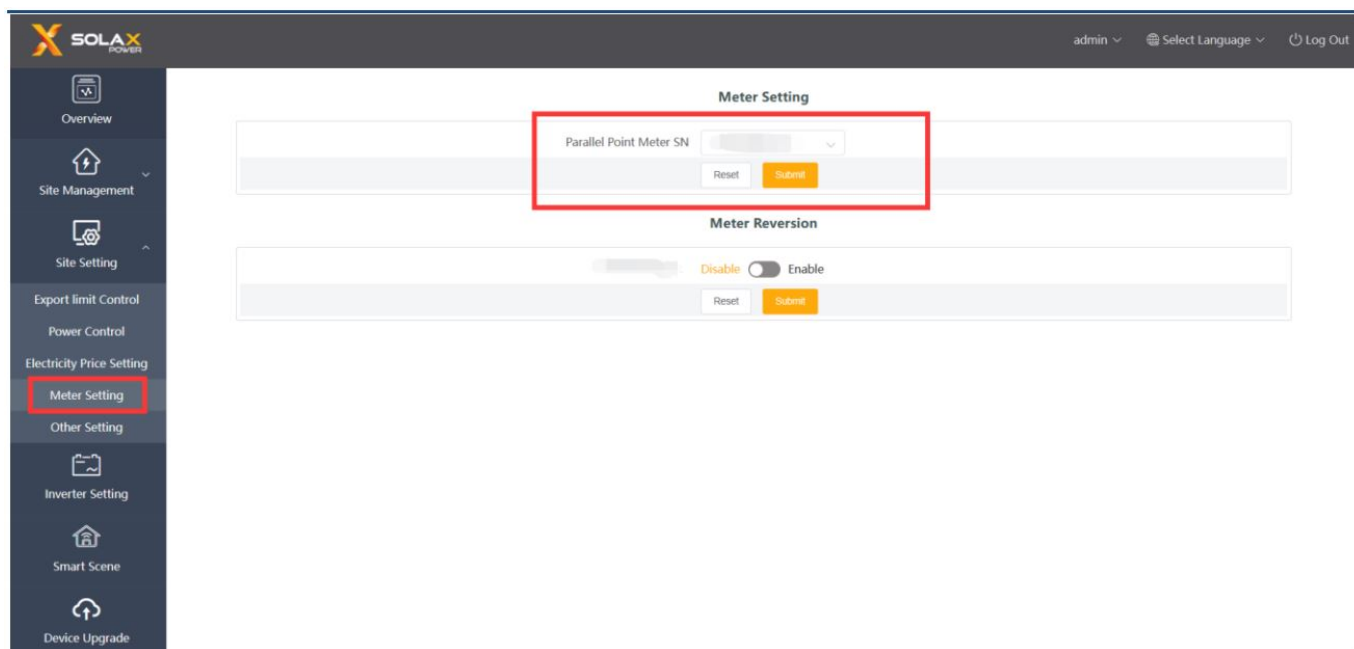
## Equation:

The price of buying electricity = (electricity fees + distribution fees) \* (1+taxes rate)  
 The price of selling electricity = fees of selling electricity – commission fees

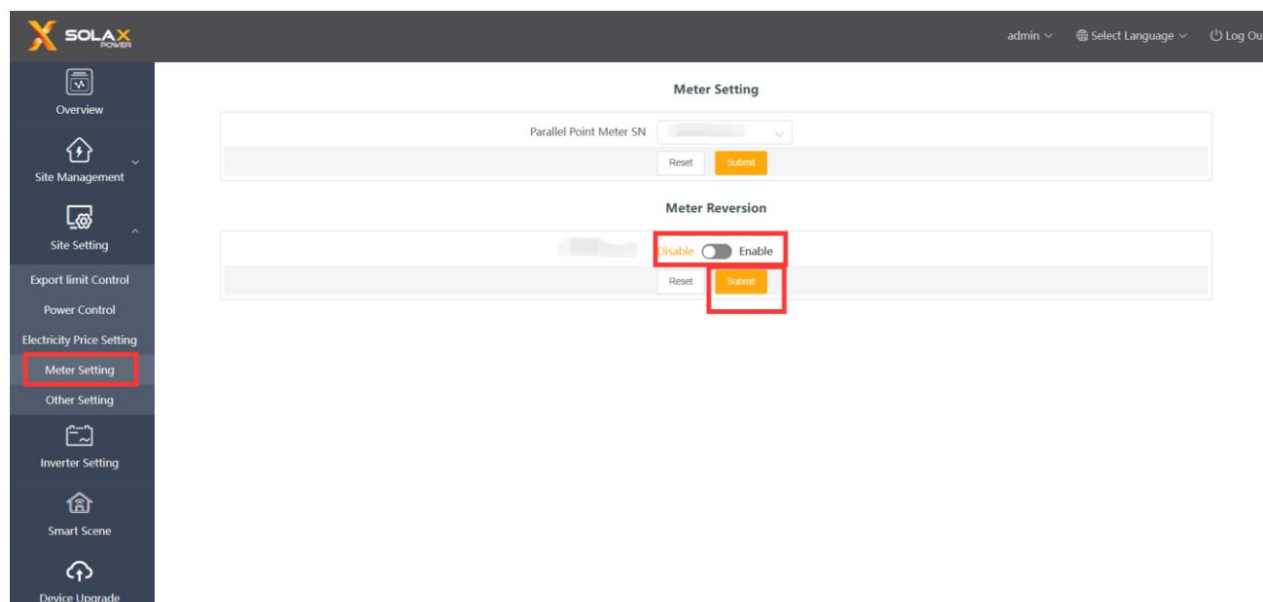
**\*Note:** Distribution Fee, Commission Fee and Taxes are parameters used to set region electricity price in the Smart Scene.

## Meter Setting

**Meter Setting:** This function is designed for setting parallel point meter. The grid-connected power of the homepage will use the value of the meter by default, and its data will also be uploaded to cloud platform and used in export control function. For multiple-meter connection, please manually select "Parallel Point Meter SN".



**Meter Reversion:** If user's meter is connected reversely, they don't have to rewire, just turn on the "enable" switch and submit.



## Other Setting

- **Main Breaker Limit:** Valid only when the EV charger is available. By controlling the charging power of EV charger, limit the current taken from the grid no more than the set value.

**SOLAX POWER** admin Select Language Log Out

Overview  
Site Management  
Site Setting  
Export limit Control  
Power Control  
Electricity Price Setting  
Meter Setting  
**Other Setting**  
Inverter Setting  
Smart Scene  
Device Upgrade

**Main Breaker Limit**

Main Breaker Limit 60  
Reset Submit

**Maximum Unbalance Power**

Maximum Unbalance Power 4.6kW  
Reset Submit

**plc enabled**

plc enabled **Disable** Enable  
Reset Submit

**Maximum Unbalance Power:** Valid only when the EV charger is available. By controlling the charging power of EV charger, limit the power differences between each phase no more than the set value.

**SOLAX POWER** admin Select Language Log Out

Overview  
Site Management  
Site Setting  
Export limit Control  
Power Control  
Electricity Price Setting  
Meter Setting  
**Other Setting**  
Inverter Setting  
Smart Scene  
Device Upgrade

**Main Breaker Limit**

Main Breaker Limit 60  
Reset Submit

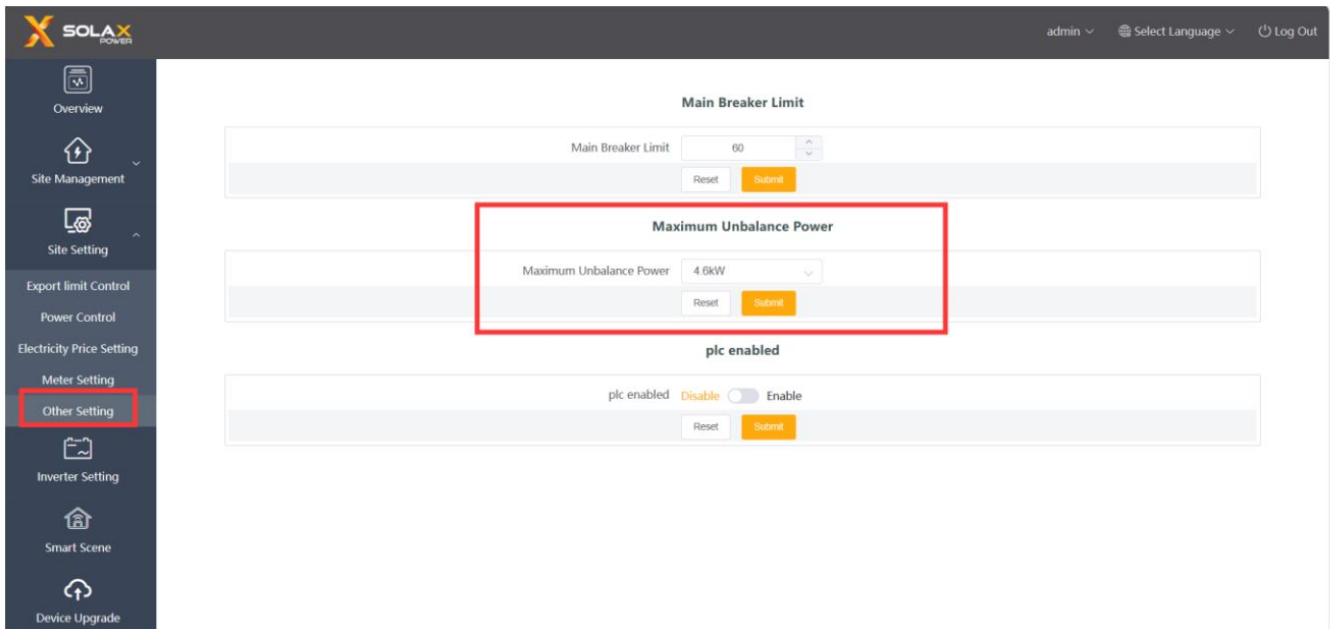
**Maximum Unbalance Power**

Maximum Unbalance Power 4.6kW  
Reset Submit

**plc enabled**

plc enabled **Disable** Enable  
Reset Submit

**Plc enabled:** Used with plc box of our company. If the plc box is used, turn on the “enable” switch and submit; If the plc box is not used, DataHub will not found equipment even the “Enable” switch is turned on.

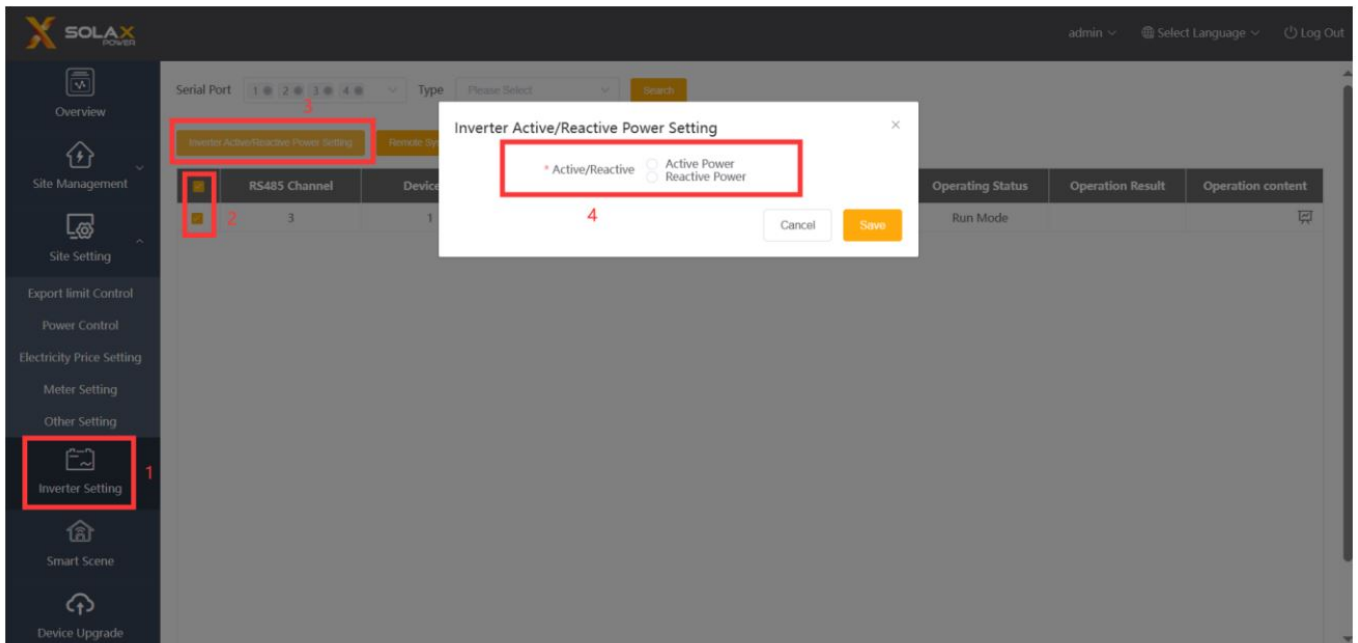


## Inverter Setting

There are three functions under “Inverter Setting”: “Inverter Active/Reactive Power Setting”, “Remote System Switch” and “Parameter Setting”.

### Inverter Active/Reactive Power Setting

Remotely set the active or reactive power of the inverter. The reactive power mode is divided into “OverExcited”, “UnderExcited”, “Fixed Reactive Power” and “Disable” terms. (multiple selections are available)



## Remote System Switch

Remote control of inverter switching. (Can be operated in batches)

## Parameter Setting


Professionals can read and write the inverter through the inverter’s “Modbus Opcode”, under which there are

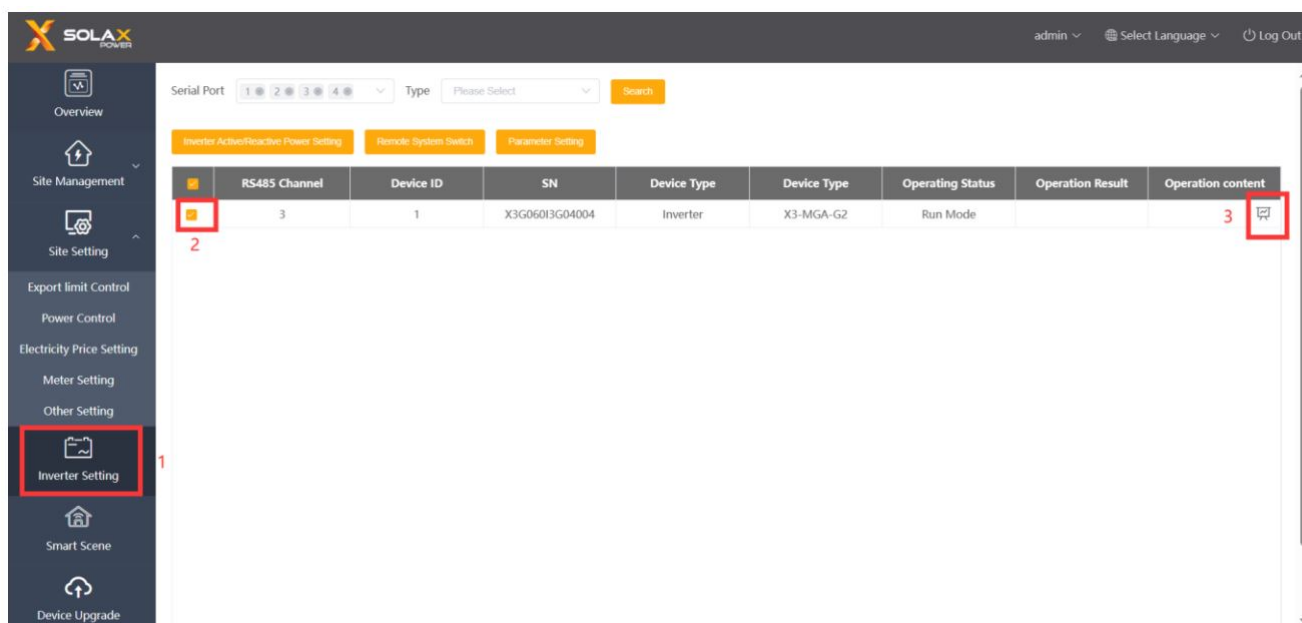


“READ\_HOLDING\_REGISTERS”, “READ\_INPUT\_REGISTERS”,  
“WRITE\_SINGLE\_REGISTER”and“WRITE\_MULTIPLE\_REGISTERS”. (Can be operated in batches)

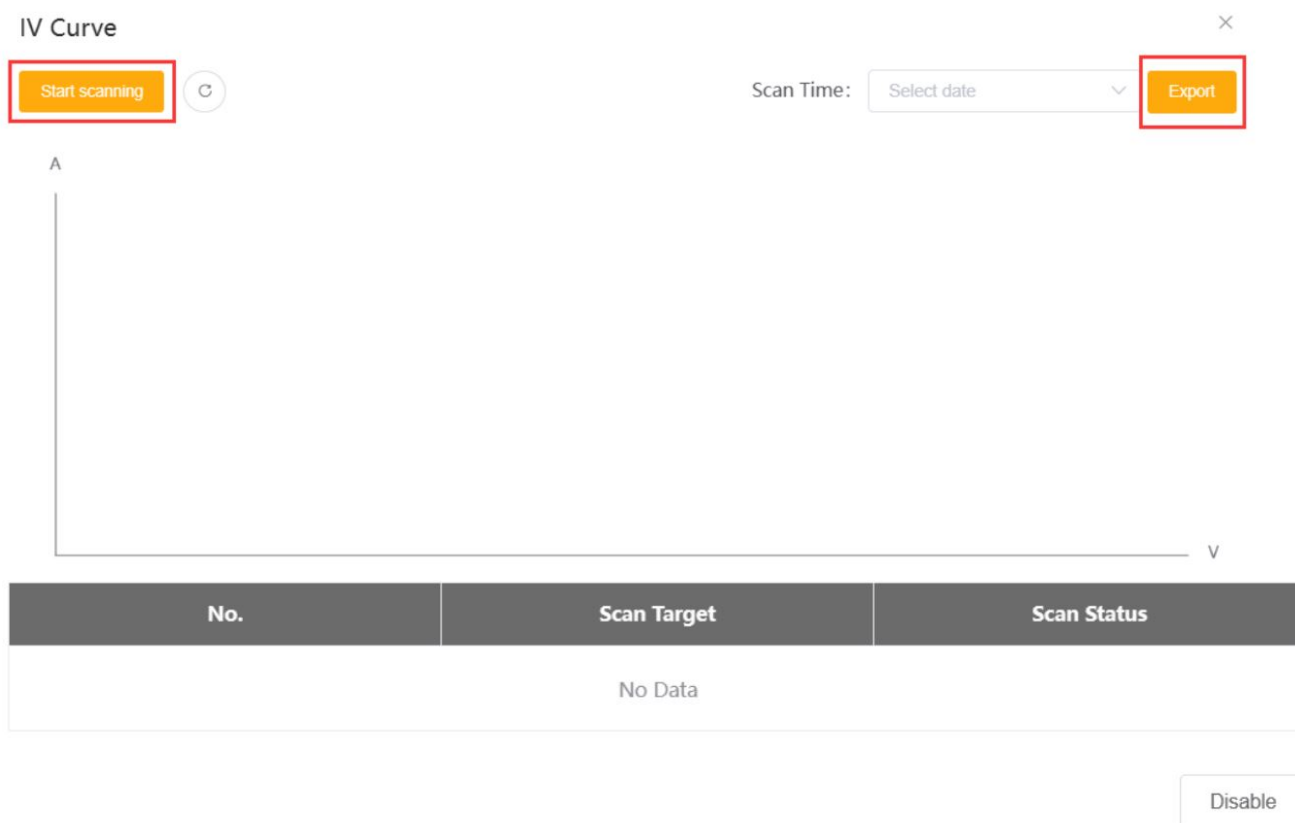
## Curve Scanning

This function can collect the corresponding PV power of different PV voltage in each PV.

1. Click the icon  in the operation content, and the IV curve scanning interface will pop up.



2. Select “Start scanning” and wait for a while until the IV curve displays. The user can also export the curve by clicking “Export”.



**\*Note:** The “IV Curve” is exclusive for X1-BOOST-G4 and X1-MINI-G4.

## Smart Scene

The Smart Scene function on the Datahub web page comes pre-loaded with a variety of conditions and executable instructions. Users can customize “IF-Then” function based on their actual needs to create automatically executed custom scenes. When the “IF” condition is met, the user-defined “Then” instruction will be executed automatically. “IF” conditions include Date & Time, Weather, Inverter & Battery, DataHub, Meter, and Electricity Price. “Then” instructions include Delay, Send Mail, Inverter & Battery, DataHub. With DataHub as the center, the equipment in the system and third-party elements are connected to create a smart control scene.

The screenshot shows the SOLAX Power web interface for configuring a Smart Scene. The left sidebar contains navigation options: Overview, Site Management, Site Setting, Inverter Setting, Smart Scene (highlighted), Device Upgrade, and DataHub Setting. The main content area has a form with the following sections:

- Title and Description:** Fields for "Enter the title" and "Description".
- IF Section:** A dropdown menu set to "When all conditions are met". Below it are six rows of conditions, each with a right-pointing arrow: Date & Time, Weather, Inverter & Battery, DataHub, Meter, and Electricity Price.
- Then Section:** Four rows of actions, each with a right-pointing arrow: Delay, Send Mail, Inverter & Battery, and DataHub.
- Buttons:** "Cancel" and "Save" buttons at the bottom right.

## Create a Smart Scene

1. Click the icon  to create a scene.

This screenshot shows the initial setup of the Smart Scene configuration. The left sidebar is the same as in the previous image, with "Smart Scene" highlighted. The main content area shows a large red square with a plus icon in the center, indicating where to click to create a new scene. To the right of this square is a small panel with a toggle switch, a text field labeled "Introduction:yyy", and a sequence of icons (clock, folder, arrow, clock) representing a workflow. At the bottom right, there is a "Download Automation" link.

2. Set the “IF” and “Then” conditions and click “Save” to finish the setting.

Enter the title

Description

IF When all conditions are met



- Date & Time
- Weather
- Inverter & Battery
- DataHub
- Meter
- Electricity Price


Then

- Delay
- Send Mail
- Inverter & Battery
- DataHub

Cancel Save

**\*Note:** There is no limit to the number of conditions and instructions you can set. Users can add multiple combinations of these conditions and instructions.

3. Hover the cursor over the icon  to view the scene content. Click  to edit or delete the scene.

Disable/enable the automatic control scene by clicking the icon .

admin Select Language Log Out

Overview Site Management Site Setting Inverter Setting Smart Scene Device Upgrade DataHub Setting

Introduction:yyy

The time is 00:00:00 Once Expensive Price 5 hours during 01:00 to 06:00

Then Delay:0 S

Edit Delete

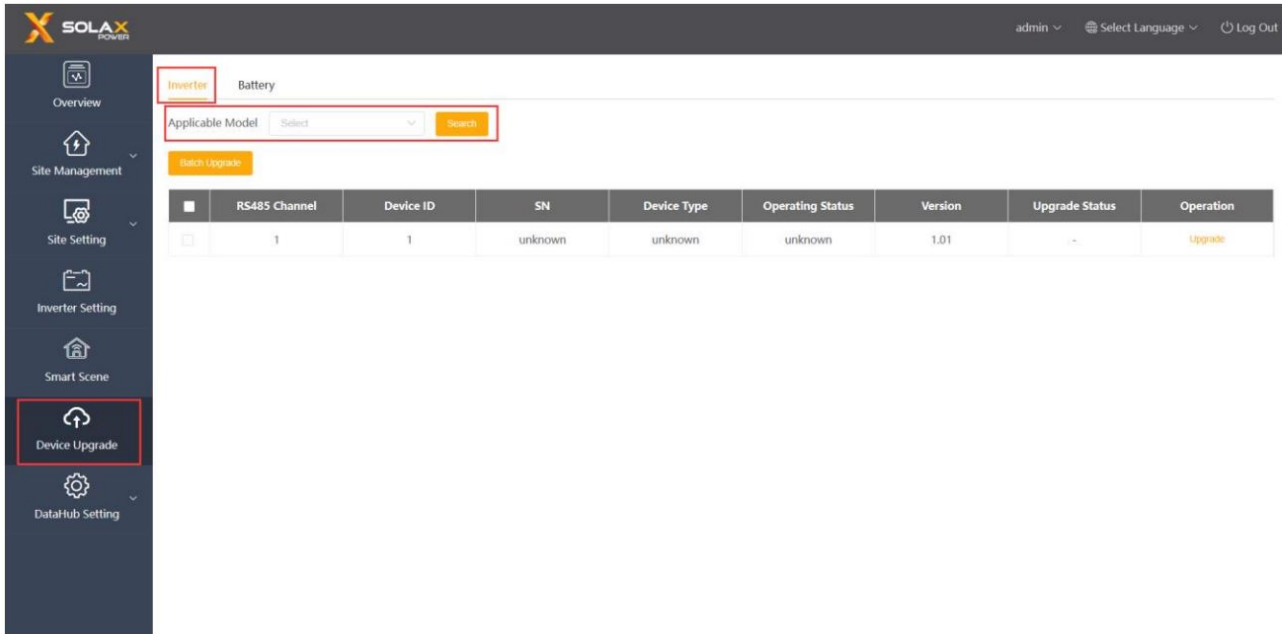
Download Automation

## Device Upgrade

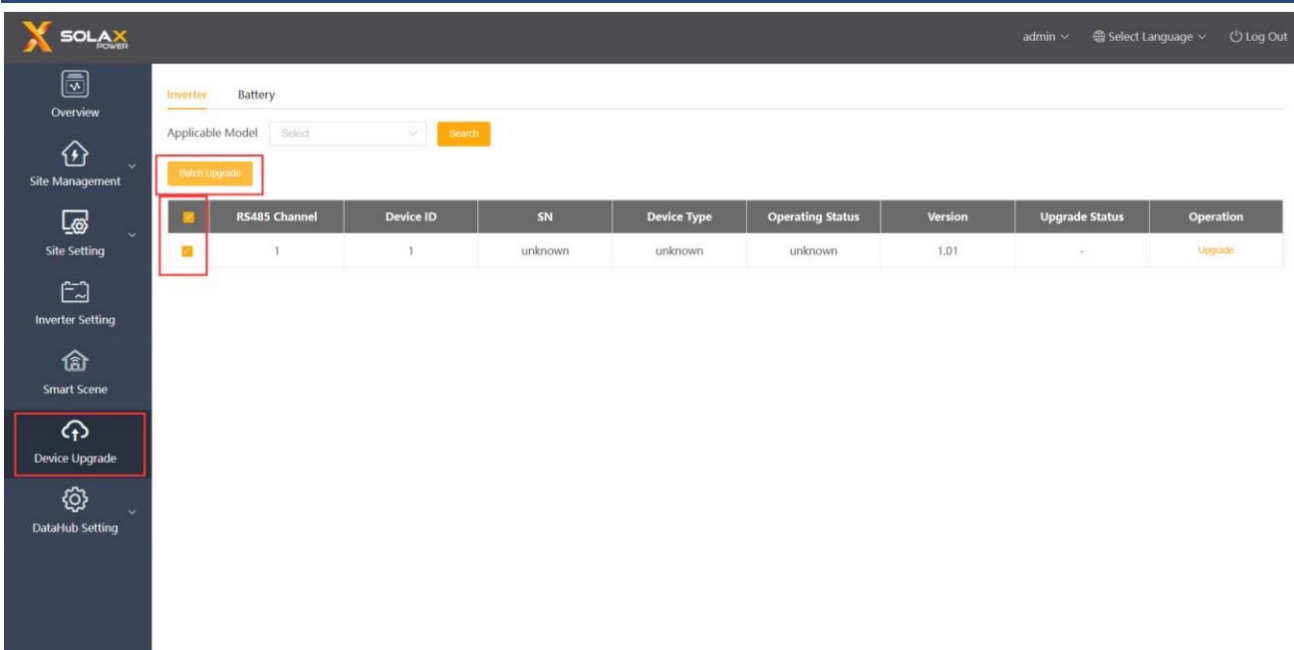
Device Upgrade includes inverter upgrade and battery upgrade.

## Inverter Upgrade

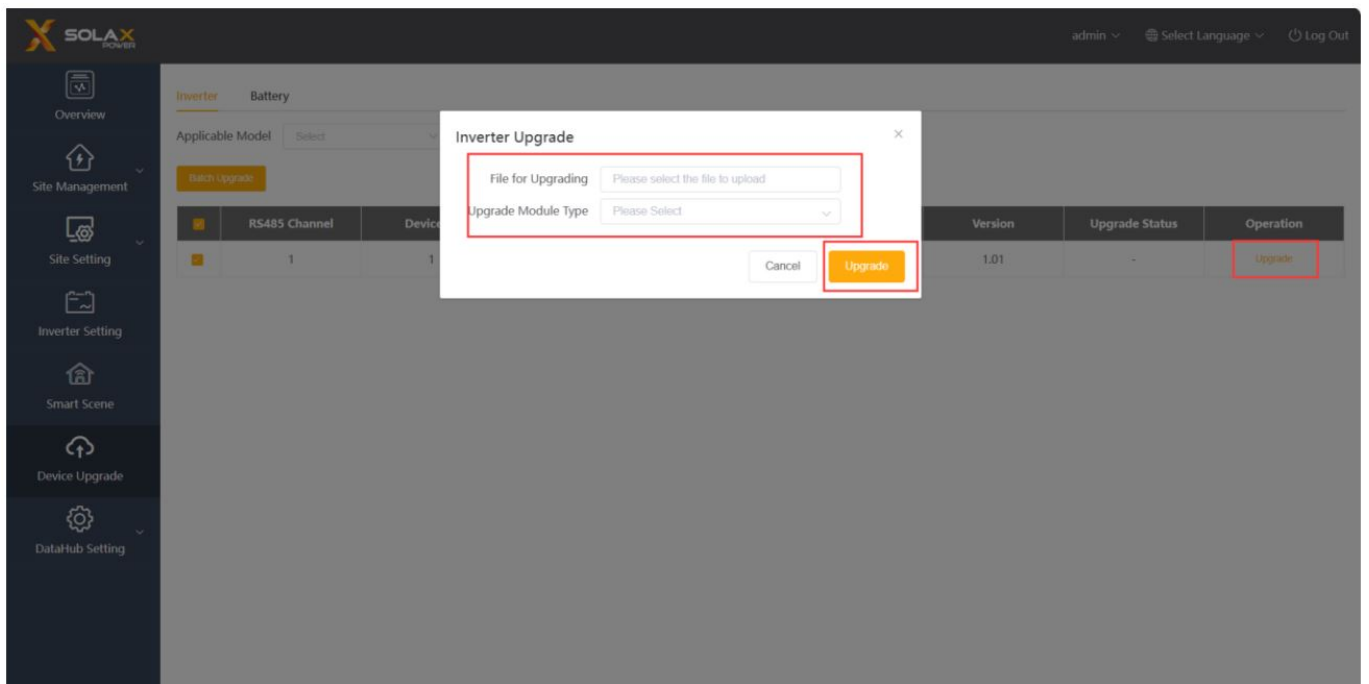
No inverters are selected by default for the Applicable Model. In this case, if users click “Search”, all models that DataHub is connected with will be acquired. If users click “Search” after selecting one of these models, all the connected inverters of that type will be searched.



For Batch Upgrade, please screen applicable models first. Otherwise, the system will notify the users to select applicable models.



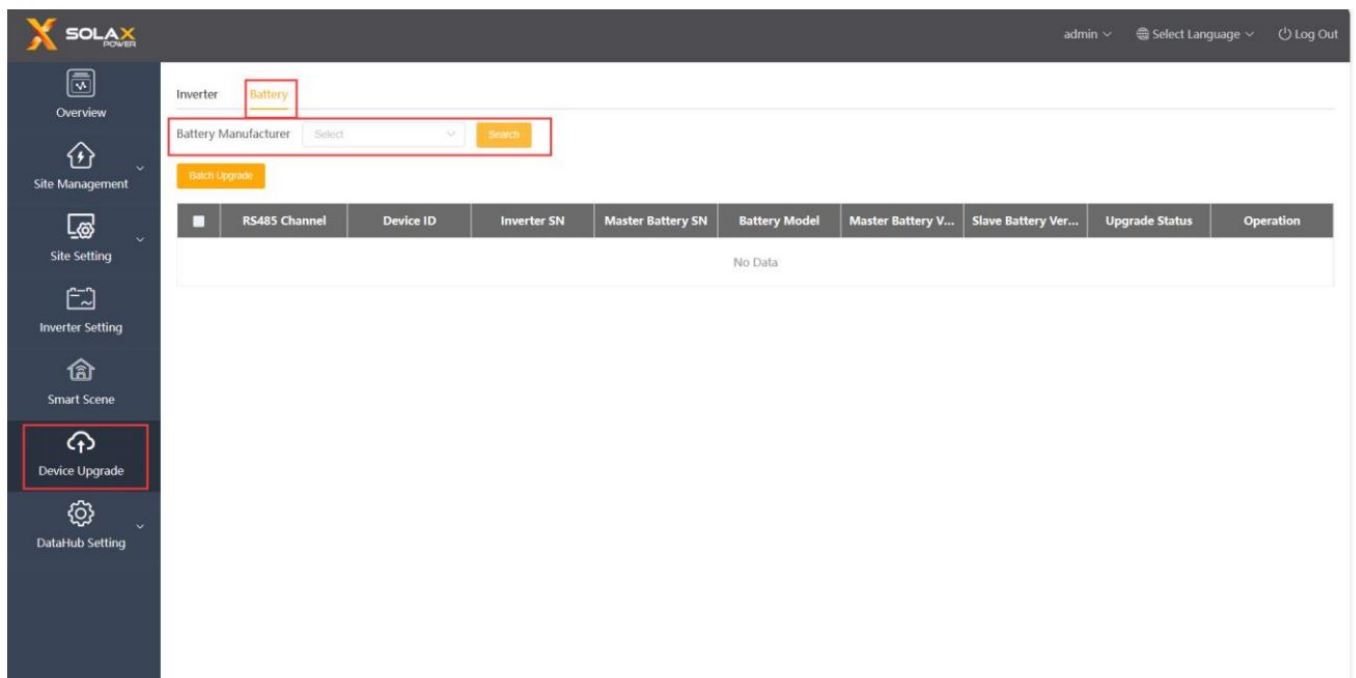
Upgrade Operation: Click “Upgrade” button under the “Operation” bar, then the “Inverter Upgrade” interface will pop up. Select the file to upload for upgrading, and then select “Upgrade Module Type” (including ARM, MDSP, SDSP, ARC, ARM+DSP, PLC\_SELF and PLC\_ARM). Afterwards, upgrade the inverter..



**\*Note:** Inverter upgrade take a long time (about 15-30 min). During upgrading, no data will be uploaded. Check the upgrade process in “Upgrade Status”.

## Battery Upgrade Tab Page

Battery Manufacturer: Users can screen the brand of connected battery by this function. If searching directly without selecting any brand, all battery information will be displayed. The upgrading logic of battery is similar to that of inverters: first select the upgrade file, and then chose BMS\_M (Battery Management System\_Master) and BMS\_S (Battery Management System\_Slave) modules to upgrade battery version. The upgrade progress and result are displayed in the Upgrade Status bar, consistent with the inverter logic.



## Datahub Setting

## Internet Setting

Wired connection: connect the DataHub and router via network cable. Wireless connection: After local login,

please enter “System Setting”-“Internet Setting”-“WiFi Setting” to select the WiFi and enter the password. Connect the computer and DataHub to the same WiFi, and then visit <http://datahub.local/> to log in. If the user cannot access, please install the Bonjour SDK, or log in through the DataHub LAN IP address. For the current IP address, please refer to “System Setting”-“System Information”. If there is no feedback of wireless connection within 30 seconds, please disconnect and reconnect the DataHub hotspot (WiFi\_XXXXXX). If the current connection is via WiFi and WiFi address already appears in the system information, it means the WiFi is successfully connected and you can login via LAN. Otherwise, try wireless connection again.

**Fixed IP:** If the user needs to fix the IP after completing wired or wireless connection via DHCP, select the correct network card type, turn off the automatic acquisition of IP address, and set the “IP Address”, “Subnet Mask”, “Gateway” and “DNS”.

**\*Note:** Ordinary users do not need to perform any operations if they do not need a fixed IP.

The screenshot displays the SOLAX DataHub web interface. On the left is a dark sidebar with a menu including: Site Management, Site Setting, Inverter Setting, Smart Scene, Device Upgrade, DataHub Setting, **Internet Setting** (highlighted with a red box), Time Setting, Serial Port Setting, Other Setting, DataHub Info, and DataHub Upgrade. The main content area is titled 'IP Setting' and 'Wi-Fi Setting'. The 'IP Setting' section includes a dropdown for 'NIC Type' (set to 'Ethernet NIC'), a 'DHCP' toggle (switched to 'YES'), and input fields for 'IP Address', 'Subnet mask', 'Gateway', and 'DNS'. Below these are 'Reset' and 'Submit' buttons. The 'Wi-Fi Setting' section is a table with columns for SSID, SolaxGuest, and a status icon. The table lists four Wi-Fi networks: SolaxGuest, WIFI\_SHDP17UKLU, WIFI\_SH2XKD4MRM, and SolaxGlobal, each with a Wi-Fi icon and a lock icon indicating it is secured.

SSID	SolaxGuest	Status
SolaxGuest	Wi-Fi icon, Lock icon	Secured
WIFI_SHDP17UKLU	Wi-Fi icon, Lock icon	Secured
WIFI_SH2XKD4MRM	Wi-Fi icon, Lock icon	Secured
SolaxGlobal	Wi-Fi icon, Lock icon	Secured

## Time Setting

The time setting is to set the DataHub system time including “Time Synchronization”, “SolaXCloud Synchronization” and “Other Server Synchronization”. “Time Synchronization”: The system corrects the time automatically. “SolaXCloud Synchronization”: The platform of SolaX sends a synchronization command to change the time of system. “Other Server Synchronization”: The IEC104 server sends a synchronization command to change the time of system.

**\*Note:** When using SolaXCloud to set the time, please switch to “SolaXCloud Synchronization” mode.

## Serial Port Settings

Serial port settings is to set the baud rate of the four serial ports of DataHub, the default value of the baud rate is 19200. The user can change the baud rate under the serial port according to the model.

**\*Note:** The baud rate of the model under the serial port is consistent, and it is consistent with the serial port baud rate set by DataHub. The default value of the stop bit is 1.

RS485 Channel	Agreement Type	Baud Rate	Verification Method	Stop Bit
1	modbus	9600	No Verification	1
2	modbus	19200	No Verification	1
3	modbus	19200	No Verification	1
4	modbus	19200	No Verification	1

## Other Setting

The “Platform Setting” is the setting to upload the data to the platform, the data is sent to SolaXCloud by default, and the other is sent to the IEC104 server. The “Database Storage Setting” is a path for inverters to store data. There are two storage paths including the “Default” and the “TF Card”. The “Default” is to store data on the

DataHub. Electricity price setting: Calculate the income through the electricity price and display it in the overview interface. “CO<sub>2</sub> Savings Factor”: Calculate the amount of CO<sub>2</sub> through the coefficient and display it in the overview interface.

### \*Note

It is recommended to use a TF card with a capacity of 16G; If the database storage path is a TF card, the TF card cannot be pulled out when the system is running. If you want to pull out the TF card, you need to change the storage path to the default, and then pull out the TF card. (It is recommended to unplug after power off)

**Cloud Platform Setting**

Data Upload Platform	SolaXCloud
Local Address	
Platform Server Address	
Platform Server Port	
<button>Reset</button> <button>Submit</button>	

**Database Storage Settings**

Database Storage Path	Default
<button>Reset</button> <button>Submit</button>	

**Electricity Price Setting**

Electricity Price Setting(Per kWh)	0.00
<button>Reset</button> <button>Submit</button>	

**CO<sub>2</sub> Savings Factor**

CO <sub>2</sub> Savings Factor	0.997
<button>Reset</button> <button>Submit</button>	

### DataHub Information

“Datahub Information” displays the basic information of DataHub, including “Registration Number”, “Firmware Version”, “Internal Codes”, “System Time”, “Memory Usage”, “Free Disk Space”, “Free TF Space”, “Wi-Fi Connection”, “LAN IP Address”, “LAN MAC Address”, “WiFi IP Address” and “WiFi MAC Address”.

Clear historical data: Clear the historical data of the device.

**DataHub Info**

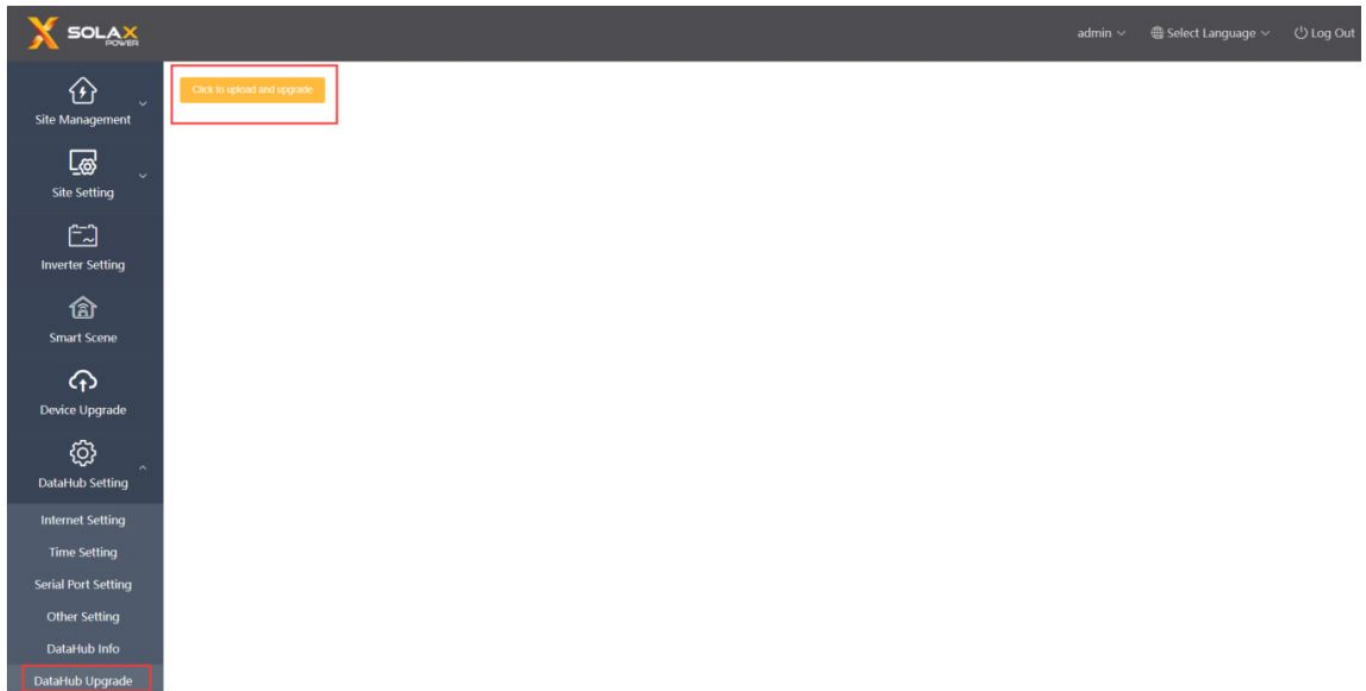
SN	SKPYDBTDAG
Firmware Version	3.09
Internal Codes	V014.02
System Time	2023-09-01 11:12:06
Memory Usage	20.0%
Free Disk Space	3.9G
Free TF Space	NA
Wi-Fi Connection	SolaxGuest
LAN IP Address	
LAN MAC Address	6ac3e5f9e4dc
WiFi IP Address	192.168.111.142
WiFi MAC Address	20:50:e7:19:85:2d

Clearing Historical Data



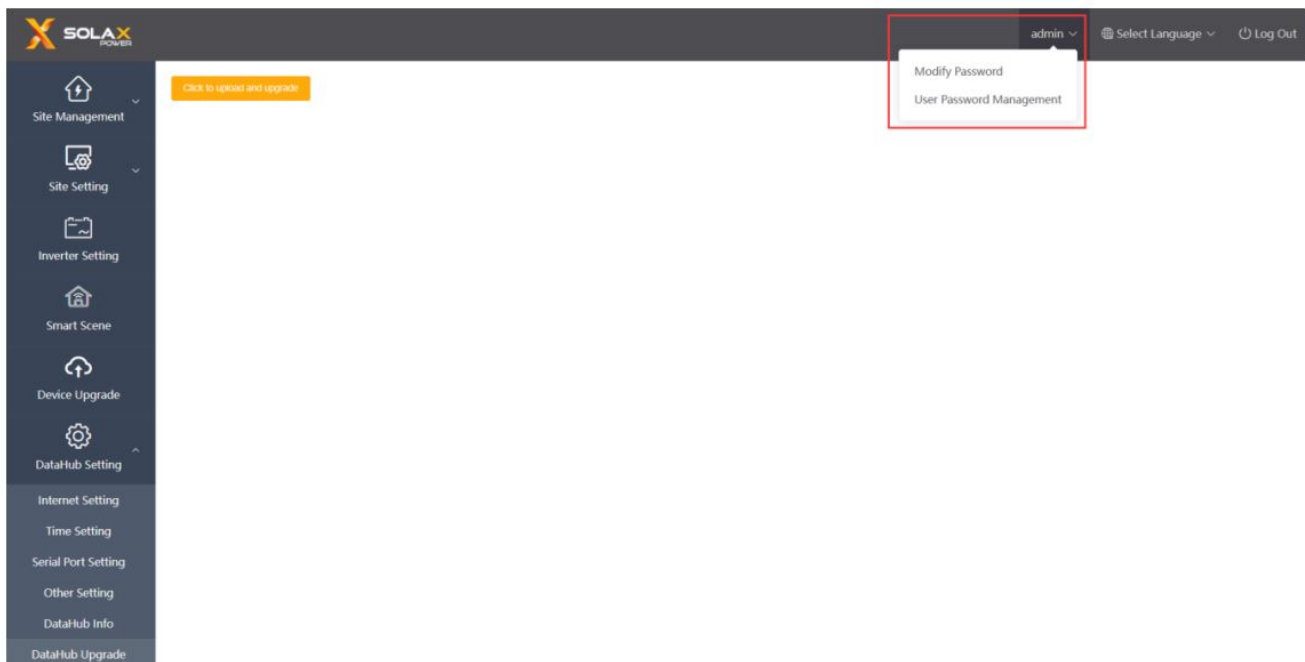
## DataHub Upgrade

Click the “Click to Upload and Upgrade” button to upload and upgrade the DataHub, then select the upgrade file and wait for the upgrading. (Only one file can be uploaded at a time, and the interface needs to be refreshed for continuous operation.)



## Password Modification

The system provides two methods for modification: “Modify Password” and “User Password Management”.



## System Resetting

System resetting restores the system to factory settings, the historical data and the configuration information of DataHub will be cleared. Operation: press and hold the “Recover” button for 10 seconds until all three LEDs are off, and then release it. After completing the above operations, the service restarts and the system reset is complete.

## Technical Specifications

Product	DataHub1000
Hardware	
Power adapter	100-240V 50/60HZ 1.5A AC Input    12V 2A DC Input
Rated power	24W
Data transfer interval	5min
Storage capacity	8G/16G TFcard
The number of managed devices	60
Communication	
Ethernet	10/100M
Wireless module	WiFi 2.4GHz
Access network	WiFi
Interface	RS485*4, CAN*1, NET*1
Communication distance	wireless <10 m, LAN < 100m
DRM interface	Australia only
USB interface	1 USB Interface (For local upgrade and parameter setting)
Dry Contactor	AI*2, DI*4, DO*4 (Reserved for external expansion)
General parameters	
Dimensions (length*width*height)	205*124*33
Weight	410 g
Operating Temperature Range	-20°C ~ +60°C
Degree of Protection	IP20
Installation method	Wall-mounted, rail-mounted
Indicator light	LED
standard	
Certification	RED/FCC/CE

## Certified Quality Assurance

### Certification mark



### Warranty

SolaX grants a standard 24-month warranty, if it is otherwise stipulated in the contract, the contract shall prevail.

## Warranty Conditions

In case the product is operated according to the above instruction, SolaX will provide after-sales service during the product warranty period if any failure (error) is caused by product quality.

## Exclusion of Liability

Warranty claims are excluded for direct or indirect damage due to:

1. Warranty period for the product or accessories have expired, but not extended;
2. Failure to operate the product in accordance with the installation and maintenance requirements described in the relevant manual;
3. Failure or damage caused by not operating, storing and using in the specified working environment;
4. Failures or damages caused by unforeseen unexpected factors, human factors or force majeure; and
5. Other failures or damages not caused by DataHub's own quality problems.

## Contact Us

If you have any question or any technical question about DataHub, please contact us through the following methods, we will serve you wholeheartedly. SolaX Power Network Technology (Zhejiang) Co., Ltd.


- **ADD:** No.288 shizhu Road, Tonglu Economic Zone, Tonglu City, Zhejiang Province, China.
- **Tel:** +86 571 56260011
- **FAX:** +86 571 56075753
- **EMAIL:** [service@solaxpower.com](mailto:service@solaxpower.com)
- **WEB:** [www.solaxpower.com](http://www.solaxpower.com)

## Appendix 1 Matched Model




Matched model	Baud rate
J1-ESS-HB	19200
X3-Hybrib-G4	19200
X1-Hybrid-G4	19200
X1-Fit-G4	19200
X3-Fit-G4	19200
X1-IES	19200

X3-IES	19200
X3-ULT	19200
X3-MIC-G2	9600
X3-PRO-G2	9600
X3-FTH	9600
X3-MGA-G2	9600
X3-FORTH	9600
X3-MEGA-G2	9600
X1-BOOST-G4	9600
X1-MINI-G4	9600
X1-SMART-G2	9600
3S-IS	9600
DTSU-666 (meter)	9600
DTSU-666 CT (meter)	9600
EM300/EM700 (meter)	9600

## Documents / Resources

 <p>DataHub1000 User Manual</p> <p><small>SOLAX Power Systems Technology (Shanghai) Co., Ltd.</small></p>	<p><a href="#">SOLAX DataHub1000 Pocket Cloud Monitoring Module</a> [pdf] User Manual DataHub1000 Pocket Cloud Monitoring Module, DataHub1000, Pocket Cloud Monitoring Modul e, Cloud Monitoring Module, Monitoring Module</p>
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## References

-  [Solax Cloud System](#)
-  [Solax Cloud](#)
-  [SolaX Power: Solar Inverter, Battery System, EV Charger](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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