



# User Manual of Omnik Internal Data Collector

Omnik New Energy Co. Ltd.

## Catalog

Part 1. WiFi Card Install SOP.....	3
1. Disassembly.....	3
2. Preparation.....	3
3. Installation .....	5
Part 2. Wifi card user manual.....	8
1. Unpacking .....	8
2. PV data collector interface and buttons.....	8
3. Set up antenna .....	8
4. S/N Label.....	9
5. Connect the PV data collector to the inverter (Shown in Pic.5-1) .....	9
5.1 Connection .....	9
5.2 IP Address Display and settings.....	9
6. LED Indicators .....	12
7. Network Settings (In AP mode by WiFi) .....	13
8. Troubleshooting.....	17
9. Register on monitoring website.....	18
9.1 Click Register button to go to registering interface for new account .....	18
9.2 Fill in user’s information as required.....	18
10. Login the PV monitoring system to manage the power station.....	21
10.1 “Owner” User Interface.....	21
11. iPhone & iPad application.....	26
12. Contact .....	28

## Part 1. WiFi Card Install SOP

### 1. Disassembly



Picture 1-1

Unscrew the four screws on the interface panel with the screwdriver as shown in Picture1-1 and keep the screws aside.

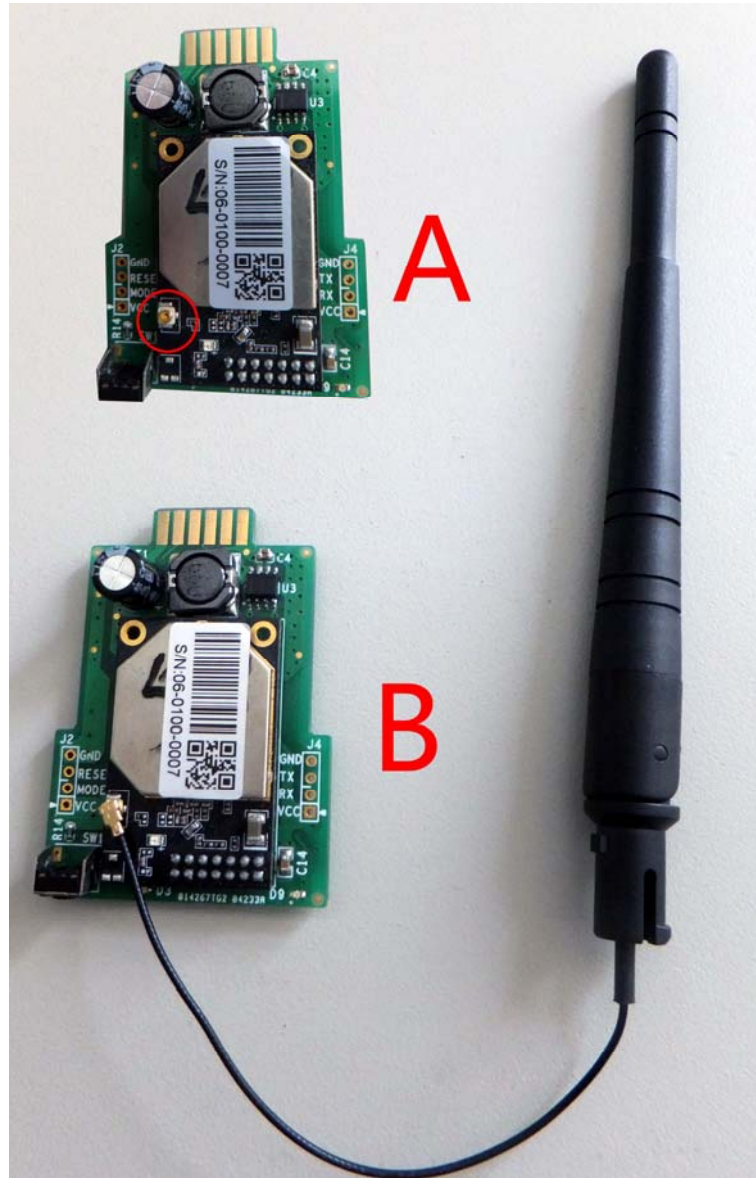


Picture 1-2

Unscrew the two-holed water-proofing connector from the interface panel. The standard connector coming with the inverter is two-holed as shown in Picture1-2, circled in red.

### 2. Preparation

Pick out the antenna and the water-proofing connector from the package and plug the antenna into the socket circled in red in Picture2-1 A, as shown in Picture2-1 B:



Picture 2-1

The water-proofing connector for WiFi card is single-holed. Screw the connector onto the interface panel with a torque of 2.0N.m, as shown in Picture2-2:

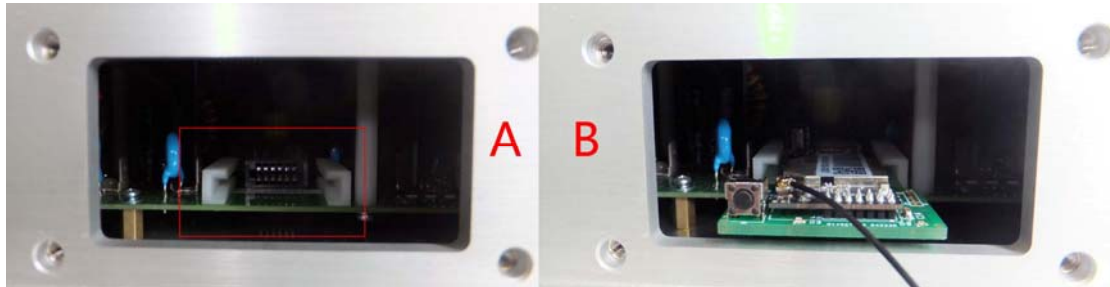


Picture 2-2



### 3. Installation

Insert the WiFi card into the socket marked in red rectangular in Picture3-1 A. Gently insert the card until it fully and tightly contacts with the connecting fingers as shown in Picture3-1 B.



Picture3-1

Power on the inverter and check if the red LED is lit to indicate the installation is successful, as shown in Picture3-2. If the red LED is not lit, check if the WiFi card is properly connected to the inverter.



Picture3-2

Power off the inverter and put the antenna through the water-proofing connector on the interface panel, as shown in Picture3-3:



Picture3-3

Screw the interface panel tight onto the inverter with a torque of 1.2N.m as shown in Picture3-4:



Picture3-4

Screw the water-proofing connector tight to fixate the antenna with a torque of 1.5N.m in a way that the antenna is properly mounted and can be turned in 360 degrees as shown in below pictures:



Picture 3-5



Picture 3-6



Picture 3-7

## Part 2. Wifi card user manual

### 1. Unpacking

After unpacking the box, please check the parts according to the below list. Contact the manufacturer immediately, should you find any damage, missing or wrong model of the device or any parts.

No.	Name	Quantity
A	PV data collector	1
B	WIFI antenna	1



Picture1-1

### 2. PV data collector interface and buttons

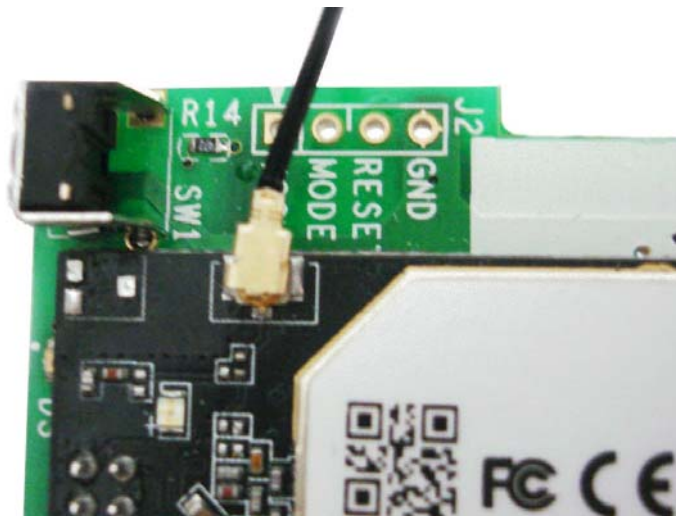
No.	Name
A	12pin connecting fingers
B	Reset Button
C	I-PEX Interface



Picture2-1

### 3. Set up antenna

Connect the WIFI antenna with the data collector through I-PEX interface as shown in Pic.3-1:



Picture.3-1



#### 4. S/N Label



Picture4-1

#### 5. Connect the PV data collector to the inverter (Shown in Pic.5-1)

##### 5.1 Connection

1. Power off the inverter;
2. Open the RS232/RS485 interface panel;
3. Plug the data collector with antenna onto the inverter through the connecting fingers;
4. Power on the inverter.

Note: Due to the shielding of the metal case, please keep the antenna outside of the inverter. Otherwise, the signal of wireless communication will be too weak.



Picture 5-1

##### 5.2 IP Address Display and settings



Picture. 5-2

Press the function “button” and the display will change to IP address, as shown in picture 5-4



Picture. 5-3



Picture. 5-4

When you see the IP address, Press Function button for 5 seconds , the default value will be Displayed as in picture 5-5



Picture. 5-5

Continue to press the function key, you will see the following picture: YES Pac=xxxw



Picture. 5-6

When you see Picture 5-6 , Press Function button for 5 seconds , you will see SET OK as in picture 5-7



Picture. 5-7

Pic5-7, automatically quit setting after 5 seconds, it will show 10.10.100.254 IP, Pic 5-8



Picture. 5-8



## 6. LED Indicators

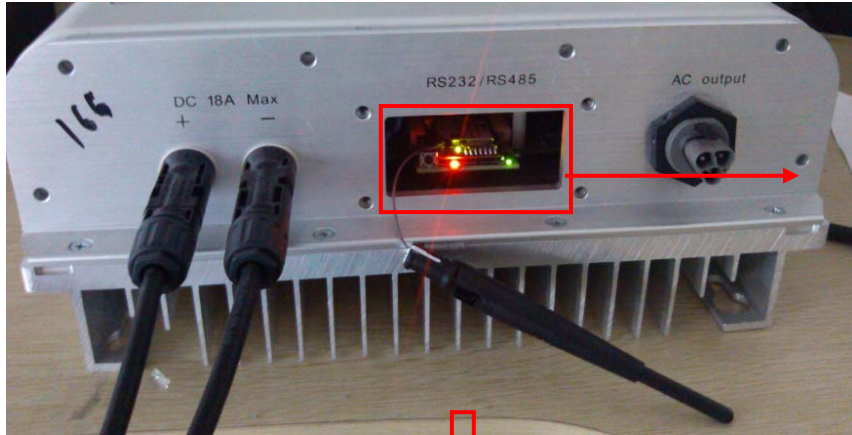


picture6

LED Name	Status	Description
RUN	On/Blinking	Module is working
	Off	Module is not working
LINK	On	Module is successfully connected to the server by WiFi under STA mode
	Blinking	The WiFi module is in AP mode
	Off	In STA mode; No WiFi connection or no connection to the server
STATUS	On	Communication with the inverter is working
	Blinking	Communicating with the inverter (transferring data)
	Off	Communication with the inverter is not working

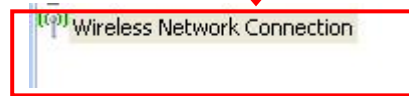
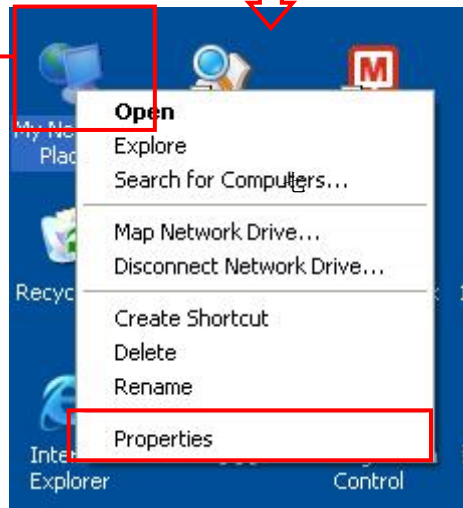


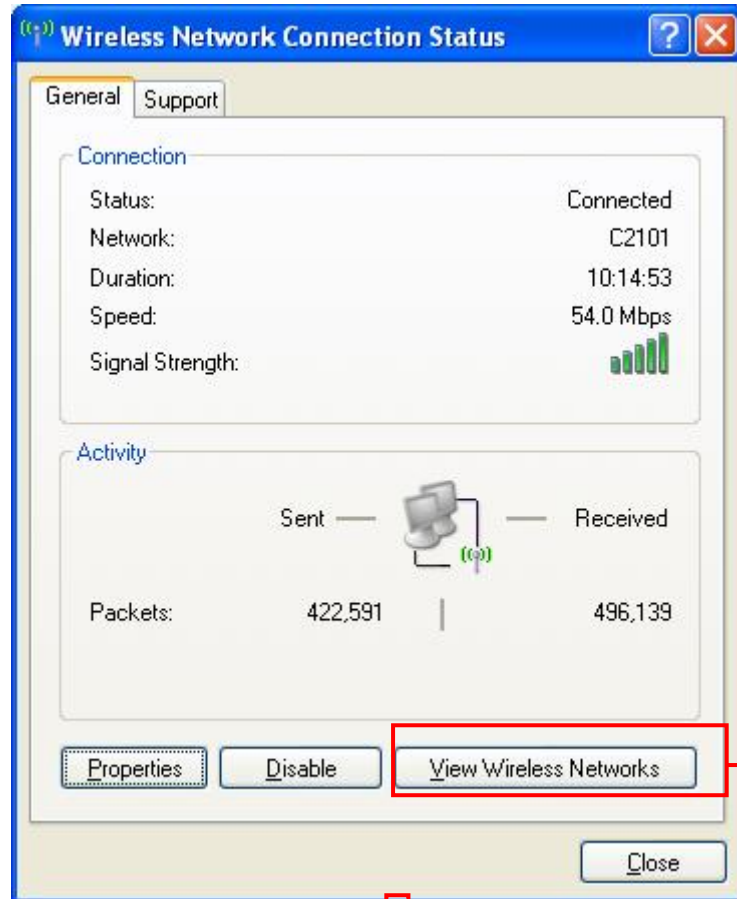
## 7. Network Settings (In AP mode by WiFi)



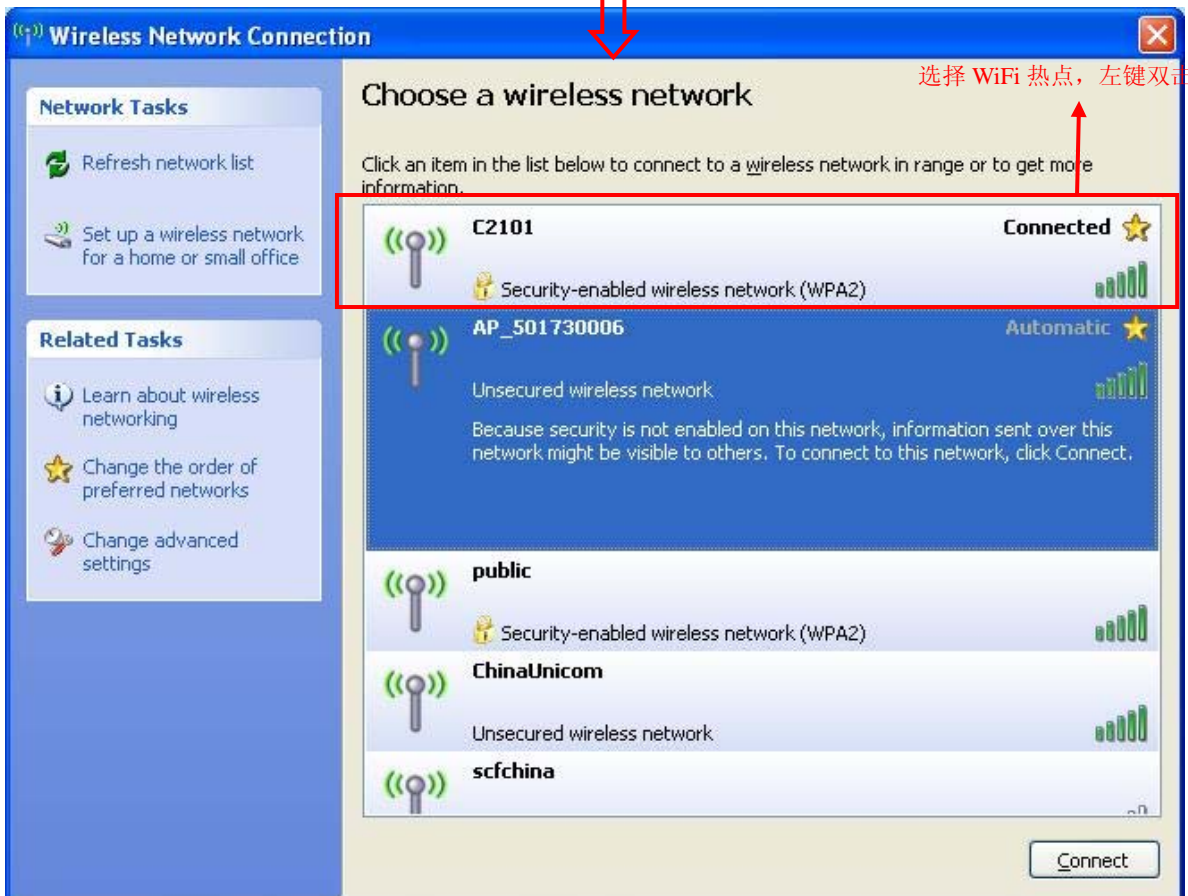
Insert the module, and turn on the DC power, three minutes later enter the next step.

Choose "My network place" click right hand

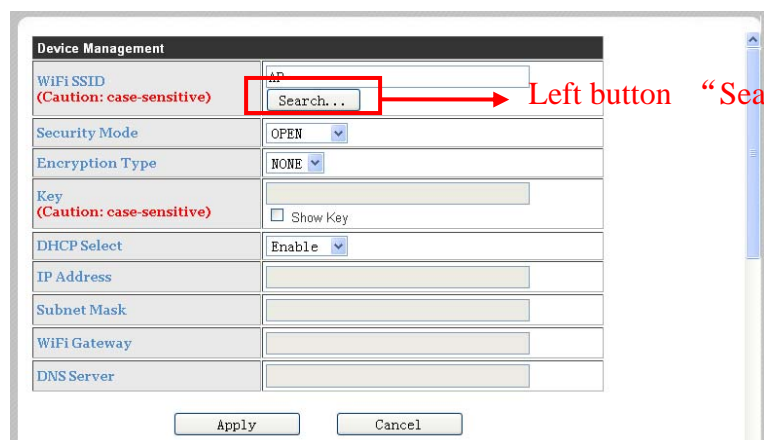
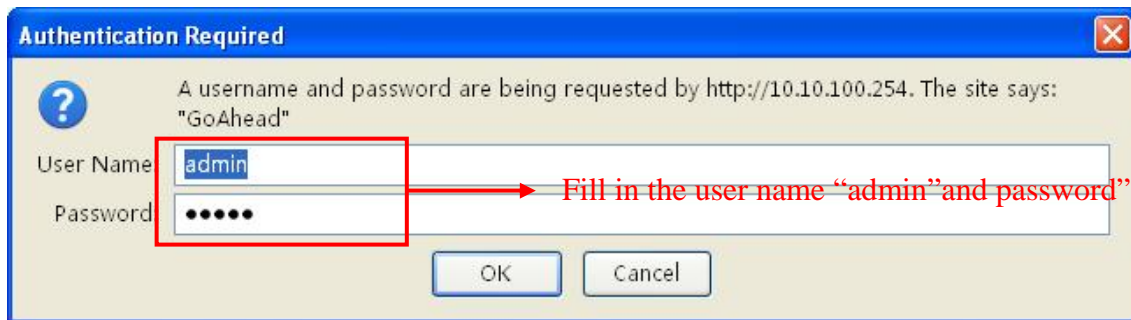
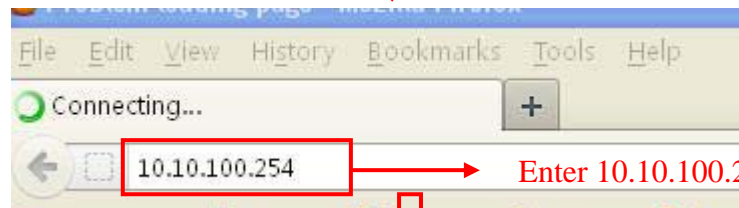
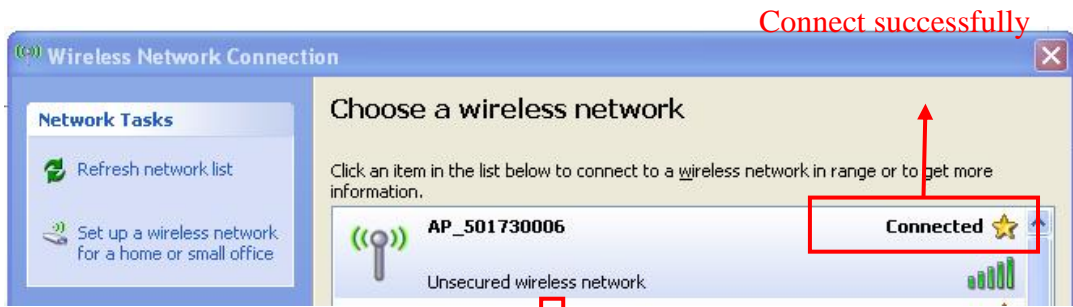




Left click



选择 WiFi 热点, 左键双击



Wireless Site Survey - Mozilla Firefox  
10.10.100.254/m2m/site\_survey.asp

Site Survey							
	SSID	BSSID	RSSI	Channel	Encry Mode	Security Mode	Network Type
<input type="radio"/>	AP_601000000	88-8b-5a:00:0d:65	20%	1	NONE	OPEN	Infrastructure
<input type="radio"/>	C2101-305	5c:63:bf:69:b8:62	5%	1	AES	WPA2PSK	Infrastructure
<input checked="" type="radio"/>	C2101	b0:48:7a:60:09:36	81%	4	AES	WPA2PSK	Infrastructure
<input type="radio"/>	public	70:65:82:06:f4:02	70%	6	AES	WPA2PSK	Infrastructure
<input type="radio"/>	ChinaNet	00:23:ea:7e:eb:30	0%	6	NONE	OPEN	Infrastructure
<input type="radio"/>	C2-305	64:9e:f3:9d:a8:38	0%	9	TKIP	WPAPSK	Infrastructure

Apply

Choose your regional WiFi and click "Apply"

Please input key!

OK

If your WiFi has a password, click confirm

Device Management

WiFi SSID (Caution: case-sensitive)	C2101 Search...
Security Mode	WPA2PSK
Encryption Type	AES
Key (1~32 Bytes) (Caution: case-sensitive)	1234567890
	<input checked="" type="checkbox"/> Show Key
DHCP Select	Enable
IP Address	
Subnet Mask	
WiFi Gateway	
DNS Server	

Apply Cancel

Do not fill in

Fill in the password of your wifi

Whether display your password

"Disable" or "Enable",  
"Enable" suggested

Left button "Apply"

Set successfully. Rebooting. Please close this page manually!

**Note: this default setting is router DHCP is on, if you can not connect the network, please check if you open the DHCP function.**



## 8. Troubleshooting

Status			Possible Causes	Solution
RUN	LINK	STATUS		
On/ Blinking	On	On	Connection is successful	No need
On/ Blinking	On	Blinking	Communicating with the inverter	No need
Off	Off	Off	No power connection	Check if the connecting fingers are contacting properly
				Check if the inverter is working properly
On/ Blinking	Off	Off	Inverter connection is abnormal	Check if the inverter is working properly
			Resetting or initializing	Check the LEDs again after 1 minutes
			WiFi connection is not successful	Change the position of the inverter or the antenna to get better signal reception
			Antenna is not properly connected	Check if antenna is connected properly. Screw tight if loose
On/ Blinking	On	Off	Communication with the inverter is abnormal	Check if the connecting fingers are contacting properly
On/ Blinking	On	X	Connection of the data collector is abnormal	Check the setting of AP wireless router
				Check the WiFi settings

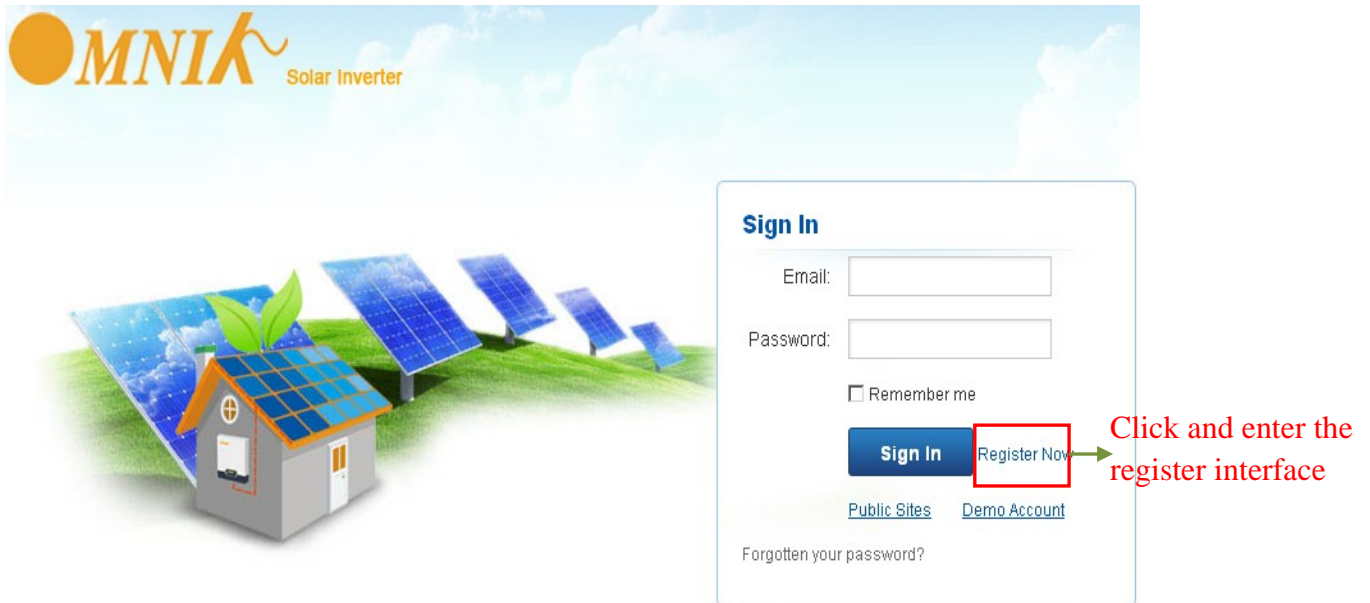
Note 1 : X means status unknown.

Note 2 : If the device is still not working after above operations in the table, please try resetting the device. If it is still not working after the reset, please contact customer service of the manufacturer.

## 9. Register on monitoring website

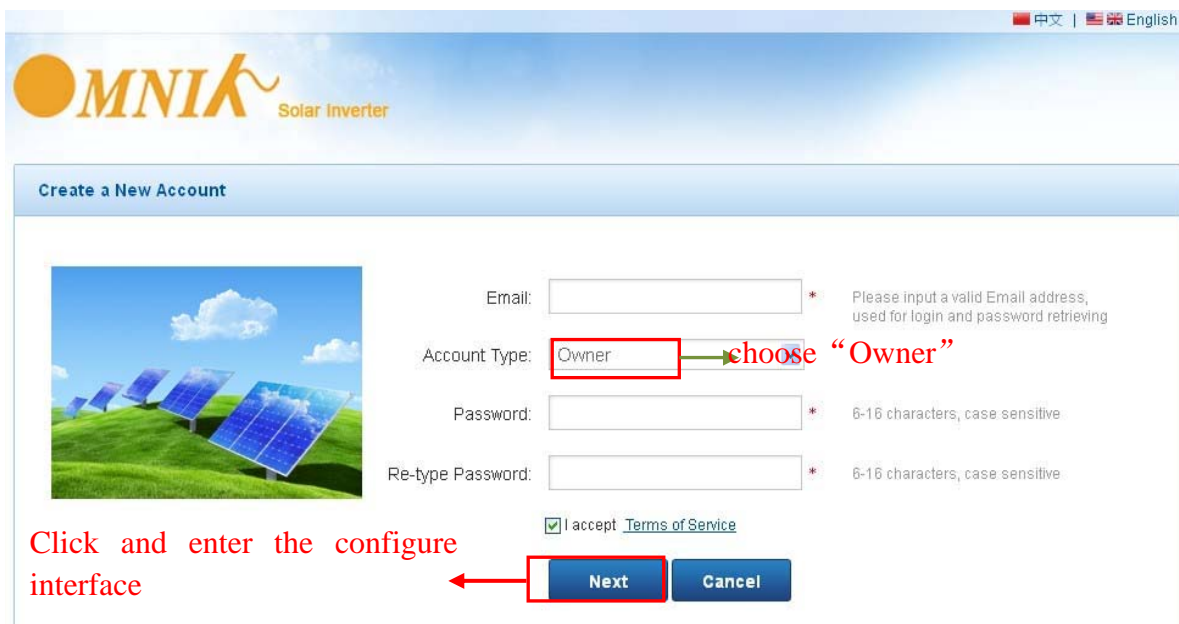
Our products supported by PV monitoring system Web site browser: IE8, Firefox, Chrome, safari, log into the website <http://www.omnikportal.com>, Click on register, enter the user registration page, follow the requirements for registration, after successful registration, enter the mailbox and activity the account, then complete the registration.

### 9.1 Click Register button to go to registering interface for new account



Picture 9-1

### 9.2 Fill in user's information as required



Picture 9-2

Remarks: please read the <Omnik service agreement >carefully, the enclosure is the cost list for all the countries, please choose your operators

**Owner** means the final user

“\*” you must fill it

### 9.2.1 “Owner” Account

The screenshot shows a web form for creating an 'Owner' account. The form includes the following fields and annotations:

- Site Name**: A text input field with an asterisk (\*) indicating it is required.
- Upload Image**: A field showing 'Default.jpg' with a red box around the upload button. An annotation says: "Click and choose the aim pic". Below this is a preview image of solar panels on a green hill.
- OK**: A button below the image with a red box around it. An annotation says: "Click 'OK' save the pic".
- Capacity(kW)**: A text input field with an asterisk (\*) indicating it is required.
- Panel**: A dropdown menu with '3S' selected.
- Inverter**: A dropdown menu with 'Omnik' selected.
- Datalogger S/N**: A text input field with a red box around it. An annotation says: "Fill in WiFi card's S/N code, see pic 9-4".
- Country**: A dropdown menu with 'Afghanistan' selected and an asterisk (\*) indicating it is required.
- Province/State**: A dropdown menu with 'Default' selected and an asterisk (\*) indicating it is required.
- City**: A dropdown menu with 'Default' selected and an asterisk (\*) indicating it is required.
- Street**: A text input field with a red box around the 'Locate Your Site' button. An annotation says: "Click the map, choose the installation site".
- Timezone**: A dropdown menu with '(GMT-12: 00) International Date' selected.
- Make This Site Public**: A checkbox that is checked, with a red box around it. An annotation says: "Select, and choose it to be the share mode, other user can see".

**Contact**

Name

Phone

**← Complete** **Cancel**

Finish the register

Picture 9-3

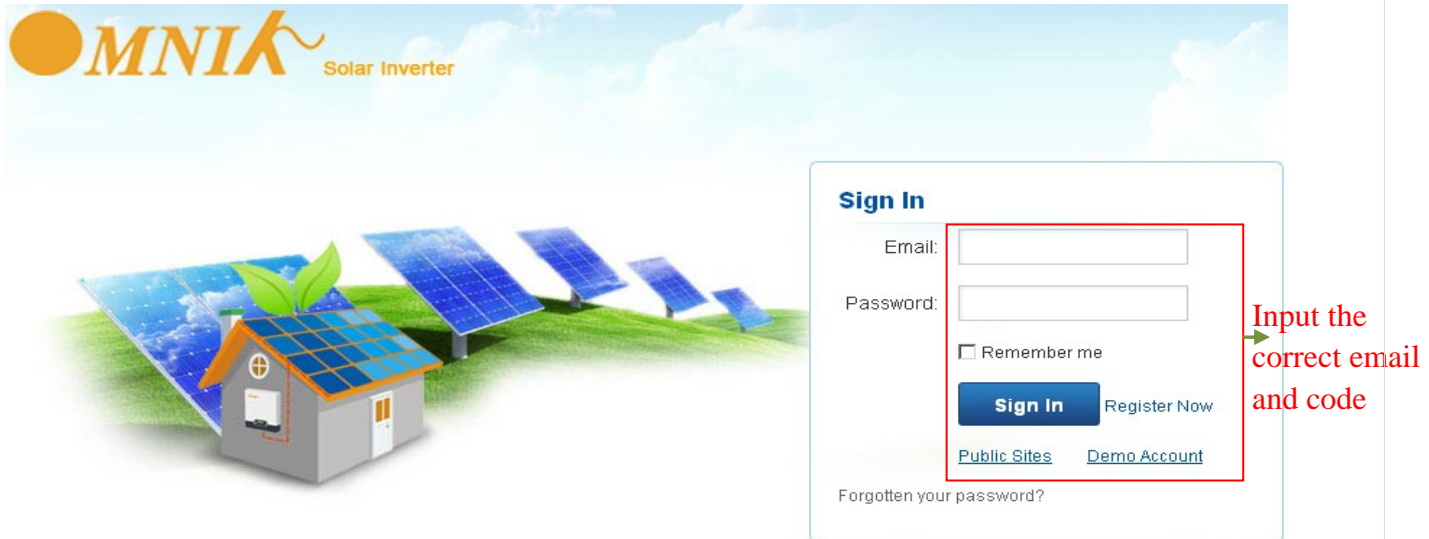


Picture 9-4



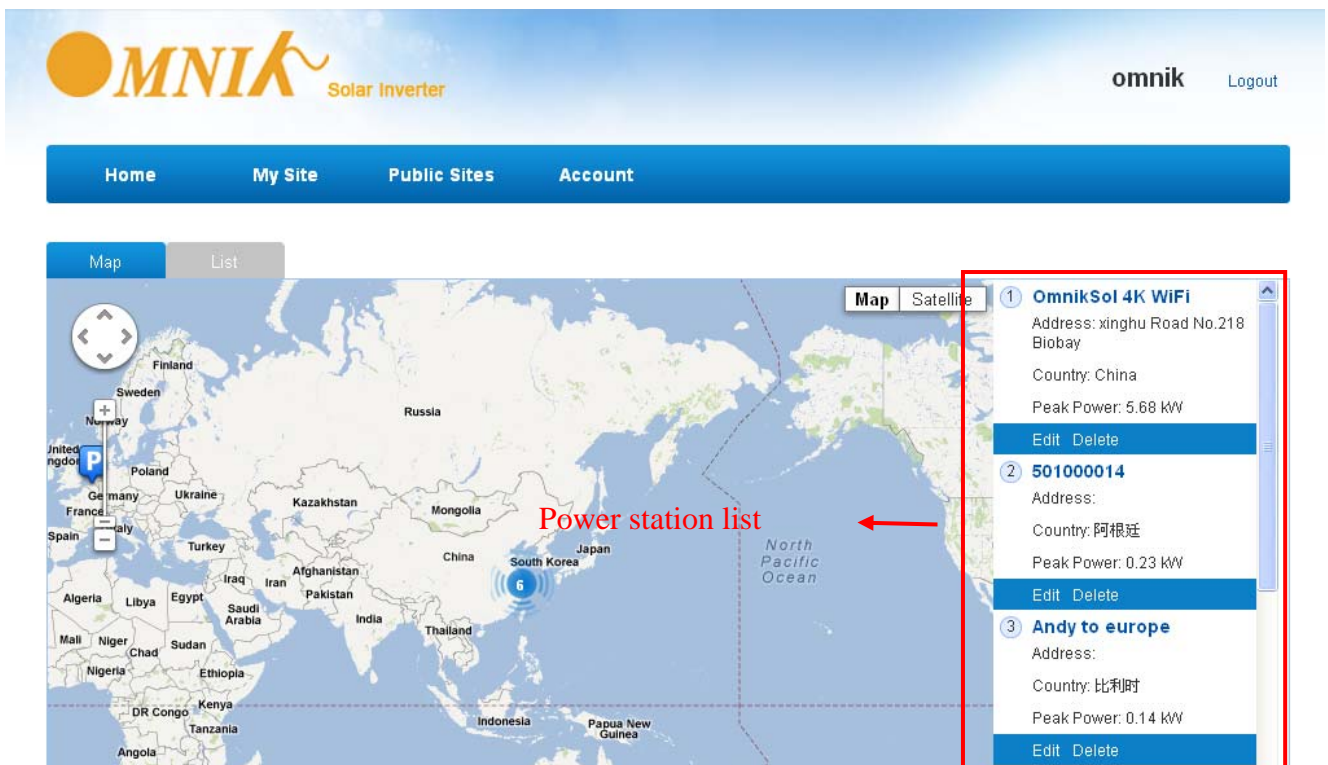
## 10. Login the PV monitoring system to manage the power station

After the successful register and account activation, open the login interface as below picture 9-1, input the correct email and code and enter the PV monitoring system, then you can monitor and manage the power station.

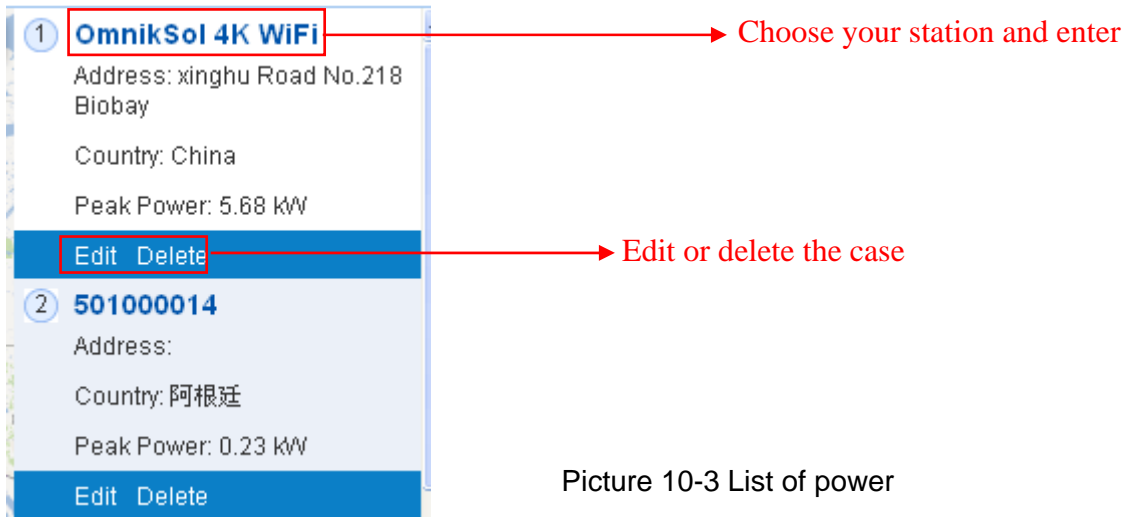


Picture 10-1

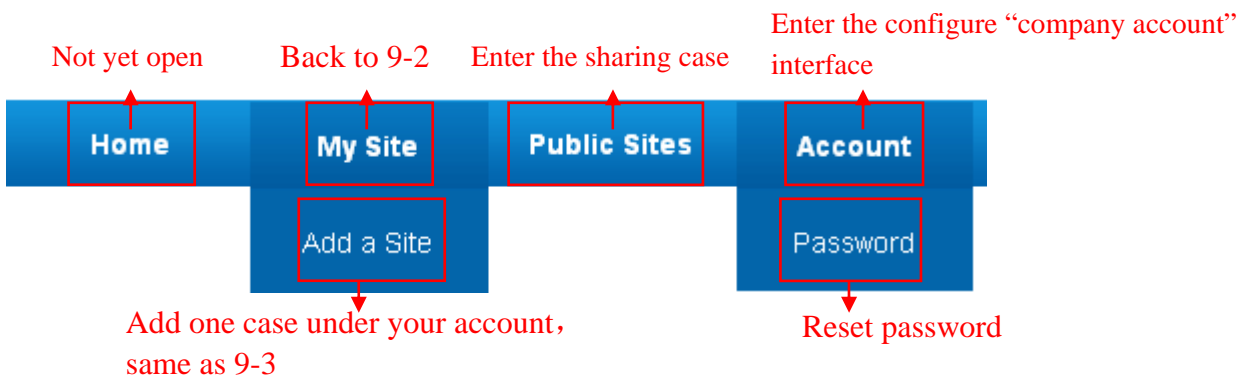
### 10.1 "Owner" User Interface



Picture 10-2



Picture 10-3 List of power



Picture 10-4 navigation bar


Home
My Site
Public Sites
Account

OmnikSol 4K WiFi


Overview
RealTime
History
Alert
System

523 Clearance of Rain 64-75F | 
 524 Clearance of Rain 63-72F | 
 525 Clearance of Rain 61-72F
Alert: 563 Items

Site Image



Location



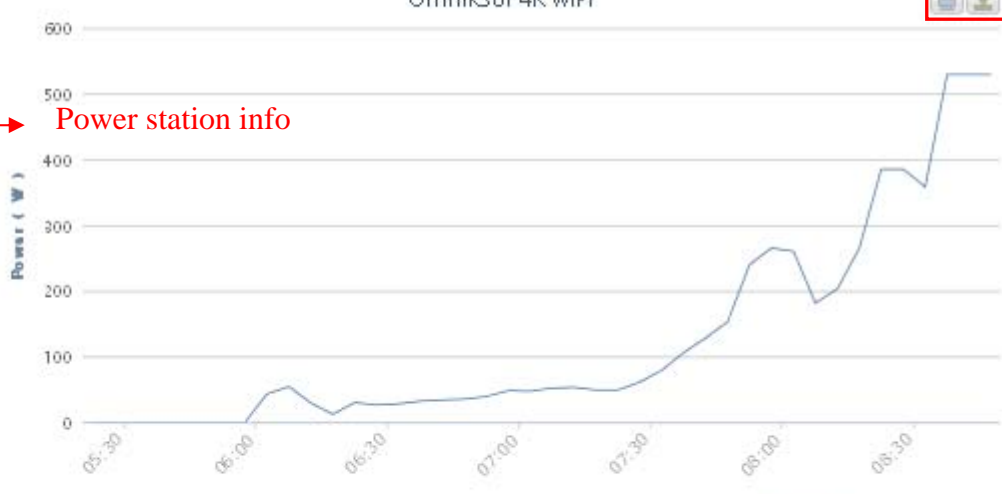
Site Profile

- Installed Capacity 2 kW
- Inverter 三合一
- Panel 38

Power Now	Today Energy	Monthly Energy	Yearly Energy	Total Energy
0.00 kW	0.30 kWh	105.81 kWh	1675.28 kWh	1730.6 kWh

Power
Energy
Real-time power and generated energy

OmnikSol 4K WiFi Print current



From 5/23/2012
Day Week Time

Trees Planted

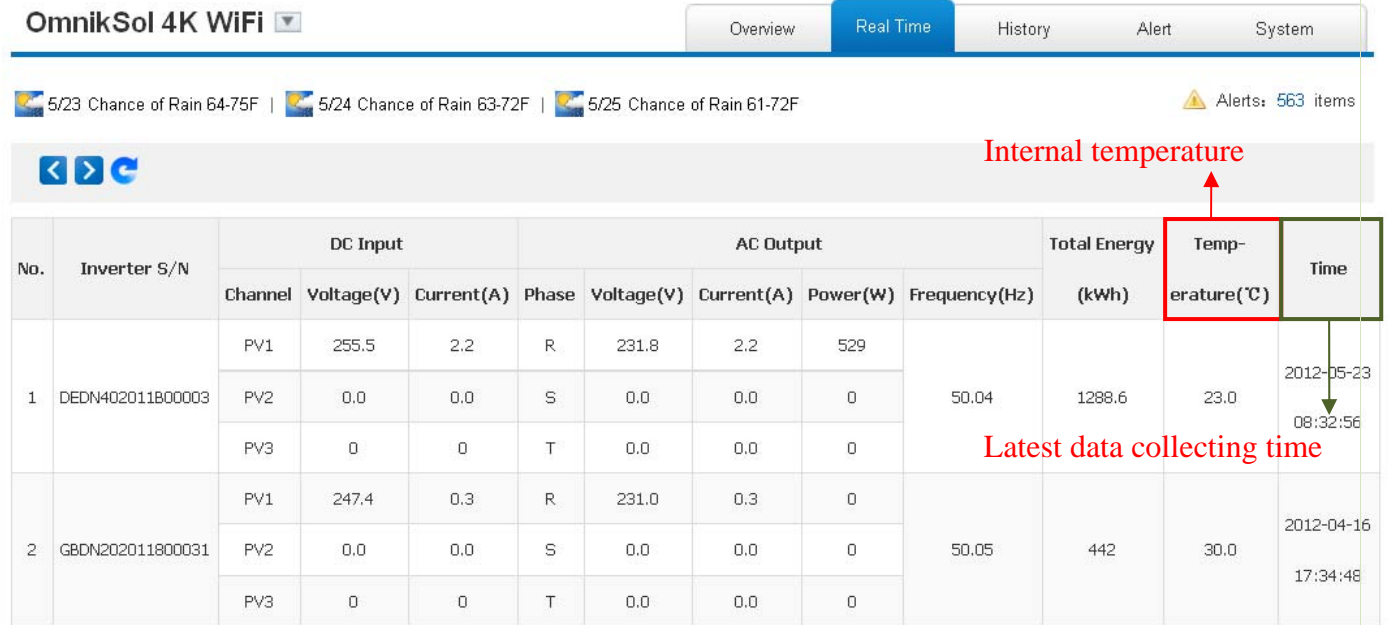
73.55 trees

Carbon Offset

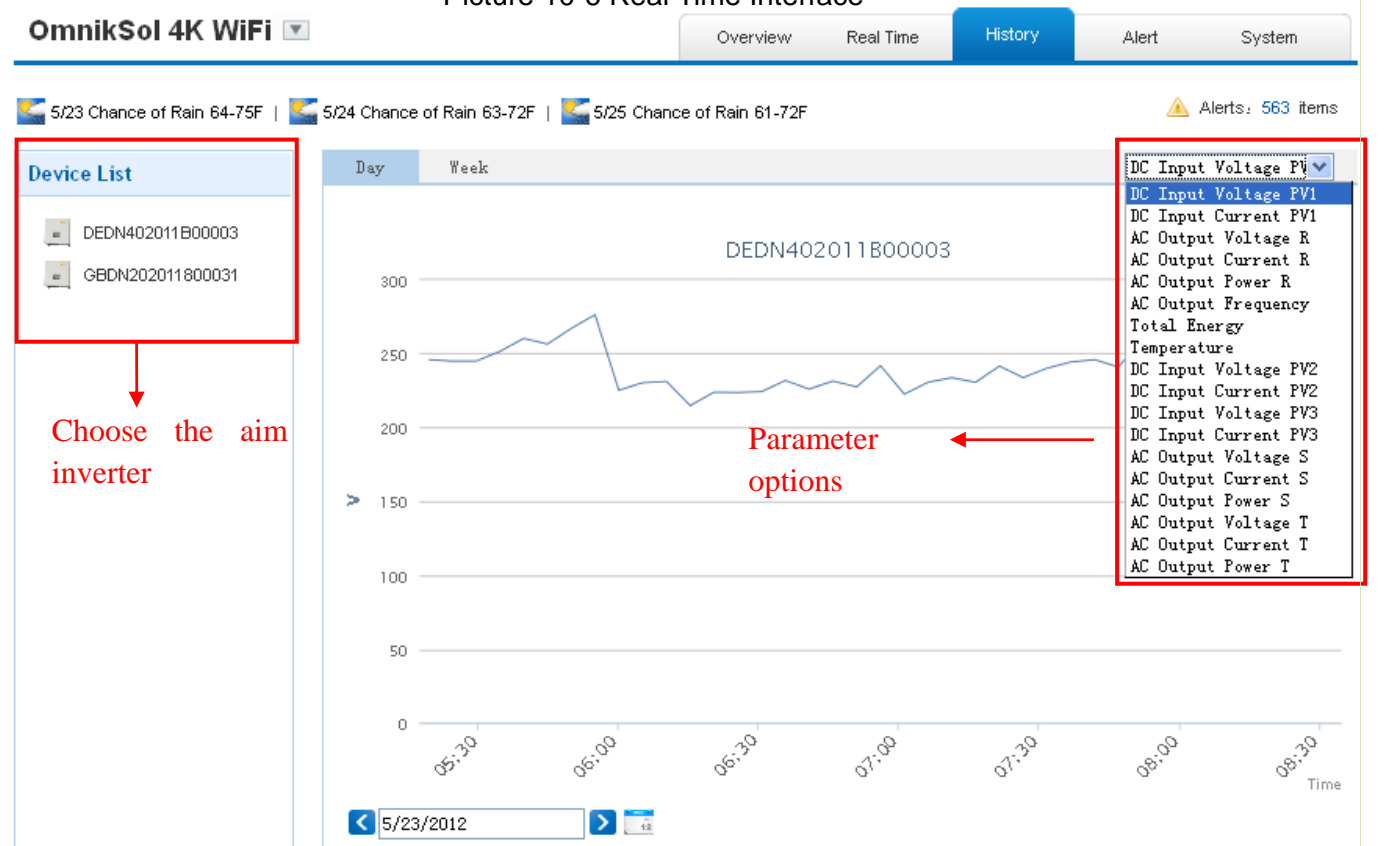
1.73 ton

Energy saving

Picture 10-5 Main interface of power station



Picture 10-6 Real Time Interface



Picture 10-7 History Interface

OmnikSol 4K WiFi

Overview

Real Time

History

**Alert**

System

5/23 Chance of Rain 64-75F | 5/24 Chance of Rain 63-72F | 5/25 Chance of Rain 61-72F

Alerts: 563 items

Select: View All View All Page 1 of 57

Inverter	Inverter Manufacturer	Information	Code	Alert Time	Status	View History
DEDN202011800912	Default	Utility Loss	F09	3/8/2012 16:10:38	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/11/2012 11:9:3	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/13/2012 12:56:36	Unhandled	History
DEDN202011800912	Default	Utility Loss	F09	3/8/2012 16:11:38	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/11/2012 11:14:7	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/13/2012 13:1:42	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/11/2012 11:19:10	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/13/2012 13:6:38	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/11/2012 11:24:14	Unhandled	History
GBDN202011800031	Default	Utility Loss	F09	2/13/2012 13:11:42	Unhandled	History

Click, turn to picture 9-7

Picture 10-8 Alert Interfaces

OmnikSol 4K WiFi

Overview

Real Time

History

Alert

**System**

5/23 Chance of Rain 64-75F | 5/24 Chance of Rain 63-72F | 5/25 Chance of Rain 61-72F

Alerts: 563 items

Site Device

The interface same as picture 9-3

Site Name OmnikSol 4K WiFi \*

Upload Image Default.jpg



OK

Picture 10-9 System Setting Interface



5/23 Chance of Rain 64-75F | 5/24 Chance of Rain 63-72F | 5/25 Chance of Rain 61-72F

Alerts: 563 items

Site Device

	Datalogger S/N	Datalogger Name	Manufacturer	Operate
1	601230010		Unfound	Delete Edit
2	300000012	网关1	Unfound	Delete Edit

Add

**Add**

Datalogger S/N

**OK**

Picture 10-10 System Setting Interface

## 11. iPhone & iPad application

After registration of the power station, you can input the key words: Omnik ,solar, inverter, PV, energy ,plant, monitor at the app store, then you can download the Omnik solar (iPhone) and Omnik Solar HD(iPad) at app store.

After the download input your user name and password, then visit your station,(we supply a free demo, for the users who do not register)choose the power station and enter the main interface, then you the daily energy etc. will be displayed. Meanwhile, you can view the relevant date to view the curve as below:



Picture 10-1

1. Log in interface
2. Power station list interface
3. Main interface
4. Daytime curve interface

## 12. Contact

If you have any technical problems about our products , please contact us , you should confirm the follow things before contact us:

- ◆ Device model
- ◆ Data collector serial number
- ◆ The number of connected inverter

Add: Xinghu Road No.218 bioBAY Park A4, Suzhou China

Zip code : 215213

Fax: +86 512 6295 6682

Tel: +86 512 6295 6676

Mail: Sales@omnik-solar.com