

WIFI module configuration manual

I: Introduction

Wireless WIFI function has been installed on solar inverter. Inverter can connect to wireless router through inside WIFI module. This module can receive inverter data and send them to users' phone or laptop, which is convenient to users to monitor their inverters.

II: Inverter Appearance



WIFI module has been installed inside of the inverter. Above picture shows WIFI antenna.

III: WIFI Module Configuration

Make sure the WIFI module has been installed in your inverter. Configuration can be started after inverter connects to mains.

Prepare wireless equipment, laptop, pad or phone.

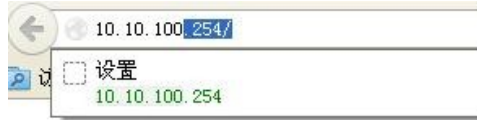
3.1 Computer wireless network settings

After opening the computer's wireless network settings page, Set the wireless connection to obtain an IP address and DNS server address automatically and then view the wireless network, refresh the wireless network, find module WIFI signal and connect. WIFI module doesn't have default password, the user can be set in the settings page after logging in. Details will be described below.

3.2 WIFI Parameter settings

Open browser and input URL: 10.10.100.254 then input user name and password. Both defaults are: admin.

Tip: Supported browser: IE8+, Chrome 15+, Firefox 10+



Input WIFI module IP address



Input User and Password

3.2.1 System information

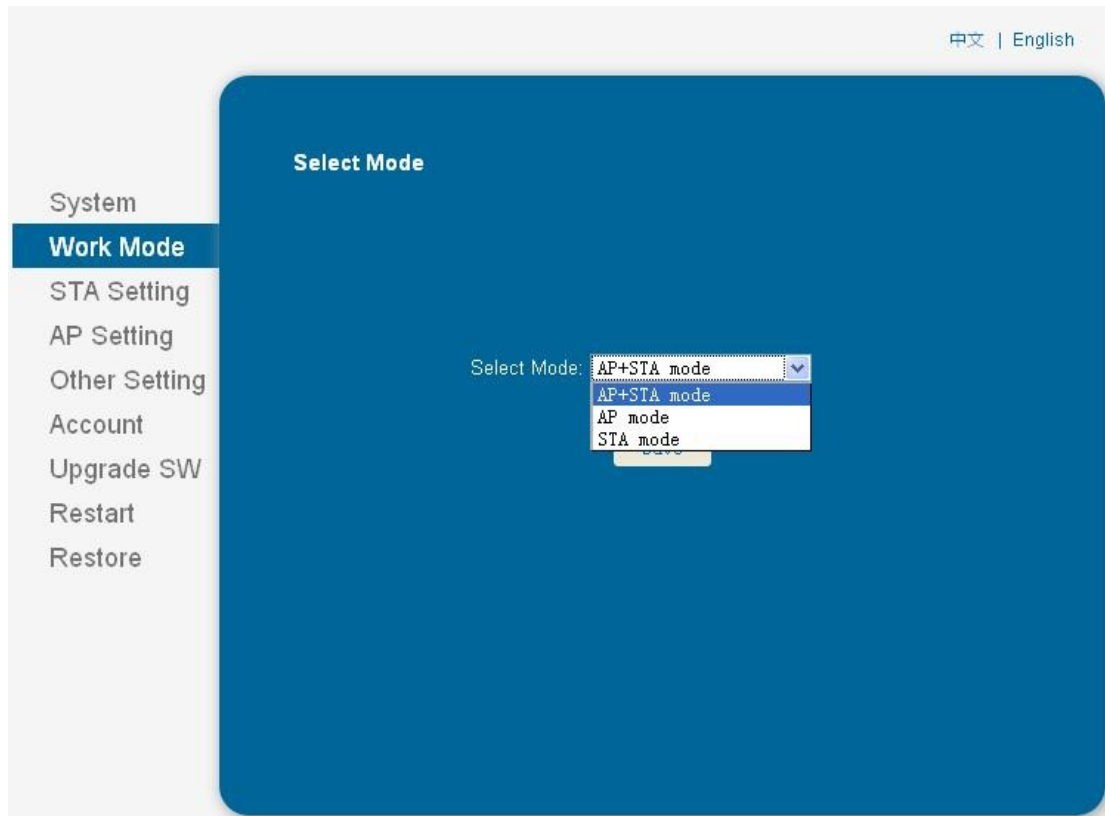
中文 | English

MID	east
Software Version	V1.0.04a
WiFi Work Mode	APSTA
AP mode	
SSID	HF-EAST
IP Address	10.10.100.254
MAC Address	ACCF233B65F9
STA Mode	
Router SSID	TP-LINK_idbk
Signal Strength	11%
IP Address	192.168.20.107
MAC Address	ACCF233B65F8

System information

After enter system interface, you can view WIFI module parameter configuration.

3.3.2 Work mode settings



- There are AP mode, STA mode, AP+STA mode inside WIFI module.
- AP mode: WIFI module as access point, other WIFI equipment connects to it;
- STA mode: WIFI module as Station, which will connect to other WIFI routers.
- AP+STA mode: WIFI module can connect to other WIFI router WIFI routers and send WIFI signal itself as well. User can connect to this module to configure parameter after login inside website through phone or laptop.
- AP+STA mode is recommended.

3.3.3 Collector fast settings in STA Setting

Click “Scan” to search router which you want to connect

中文 | English

System
Work Mode
STA Setting
AP Setting
Other Setting
Account
Upgrade SW
Restart
Restore

Network Name (SSID)
Note: case sensitive
TP-LINK_idbk Scan

Encryption Method
WPA2PSK

Encryption Algorithm
AES

Password
●●●●●●●●
 Show passwords

Obtain an IP address automatically
Enable

IP Address
192.168.20.107

Subnet Mask
255.255.255.0

Gateway Address
192.168.20.1

DNS Server Address
202.96.128.166

Save

Select your wireless network and click “OK”.

中文 | English

System
Work Mode
STA Setting
AP Setting
Other Setting
Account
Upgrade SW
Restart
Restore

Please select your current wireless network

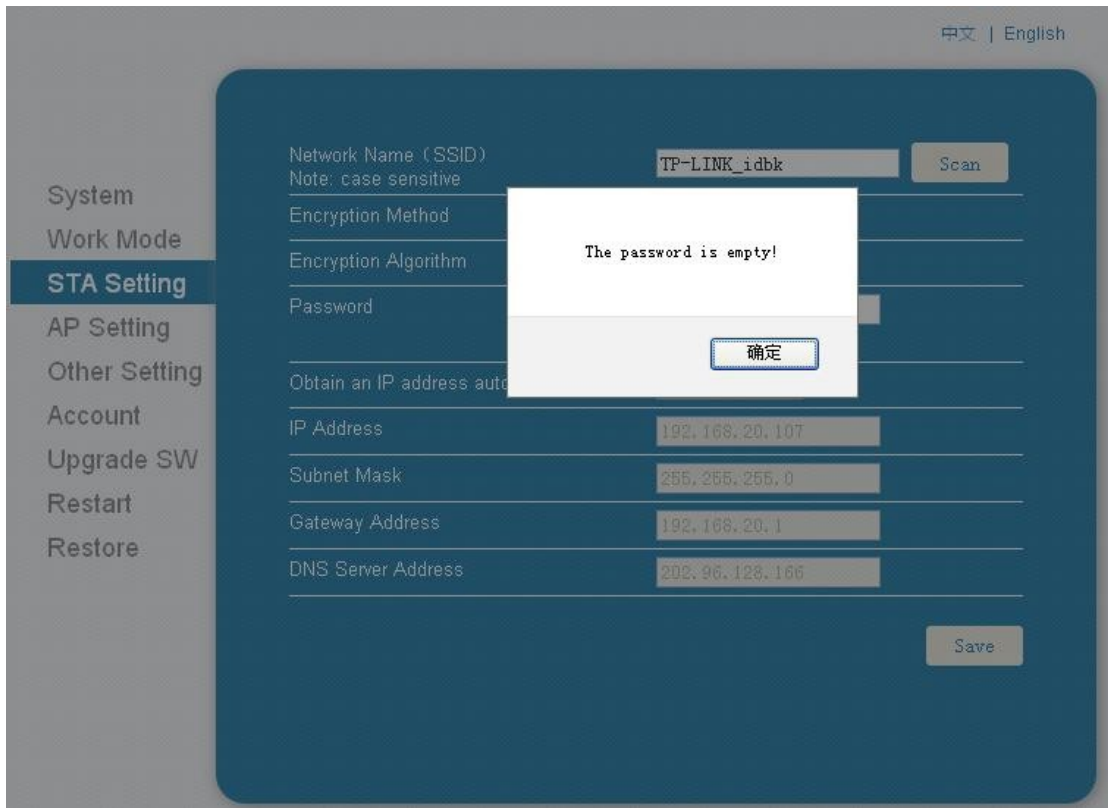
Site Survey

	SSID	BSSID	RSSI	Channel
<input checked="" type="radio"/>	TP-LINK_idbk	5C:63:BF:E2:67:22	72	6
<input type="radio"/>	HF-LPB100	AC:CF:23:41:3D:37	59	6
<input type="radio"/>	TP-LINK_FB5756	D8:15:D:FB:57:56	0	6

OK Refresh

If you can't find your needed wireless network, click “refresh” and try again.

Input password.

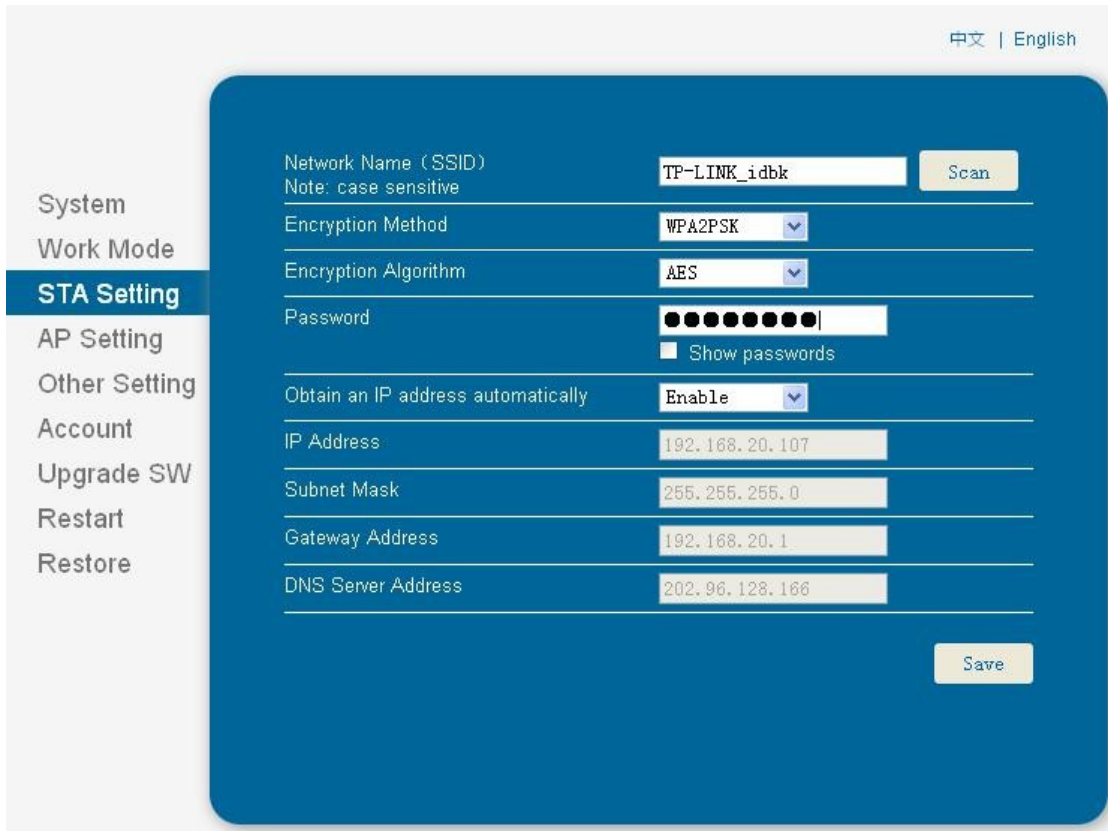


The screenshot shows the 'STA Setting' page in a web interface. The left sidebar contains a menu with options: System, Work Mode, STA Setting (highlighted), AP Setting, Other Setting, Account, Upgrade SW, Restart, and Restore. The main content area has a dark blue background and contains the following fields:

- Network Name (SSID): TP-LINK_idbk (Note: case sensitive)
- Encryption Method: (empty)
- Encryption Algorithm: (empty)
- Password: (empty)
- Obtain an IP address automatically: (empty)
- IP Address: 192.168.20.107
- Subnet Mask: 255.255.255.0
- Gateway Address: 192.168.20.1
- DNS Server Address: 202.96.128.166

A white dialog box is centered over the form with the text "The password is empty!" and a button labeled "确定" (OK). A "Save" button is visible at the bottom right of the form area.

After input, click "Save".

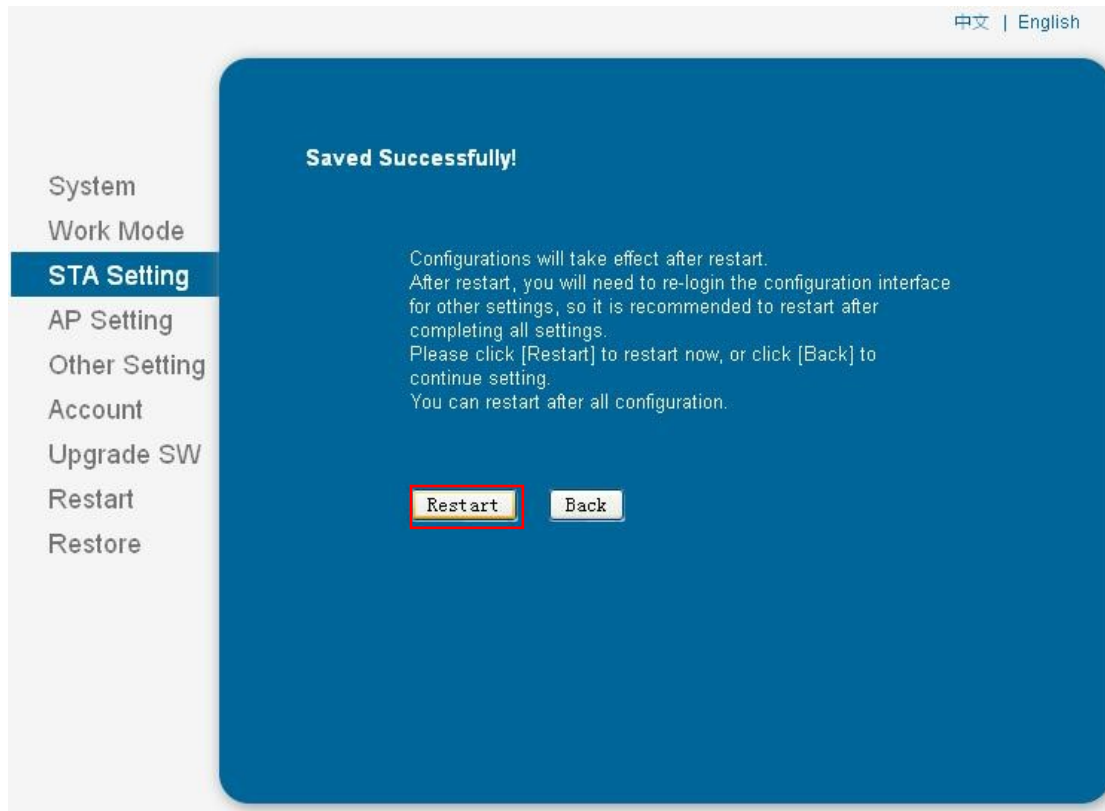


The screenshot shows the 'STA Setting' page after successful saving. The left sidebar is the same as in the previous image. The main content area now has a blue background and the following fields:

- Network Name (SSID): TP-LINK_idbk (Note: case sensitive)
- Encryption Method: WPA2PSK
- Encryption Algorithm: AES
- Password: (masked with 10 dots, with a "Show passwords" checkbox below it)
- Obtain an IP address automatically: Enable
- IP Address: 192.168.20.107
- Subnet Mask: 255.255.255.0
- Gateway Address: 192.168.20.1
- DNS Server Address: 202.96.128.166

A "Save" button is visible at the bottom right of the form area.

After Saved successfully, click "Restart".



Notice: Settings only can be effect after restart.

After restart, re-enter system settings interface, click system and you can view set up parameter.

System	MID	east
Work Mode	Software Version	V1.0.04a
STA Setting	WiFi Work Mode	APSTA
AP Setting	AP mode	
Other Setting	SSID	HF-EAST
Account	IP Address	10.10.100.254
Upgrade SW	MAC Address	ACCF233B65F9
Restart	STA Mode	
Restore	Router SSID	TP-LINK_idbk
	Signal Strength	11%
	IP Address	192.168.20.107
	MAC Address	ACCF233B65F8

- After network settings, AP STA mode will take effect. Router information will show in STA mode column;
- Router SSID: Name of connected router;
- Signal Strength: connected router's signal strength;
- IP address: WIFI module's IP address, automatically assigned by router. When WIFI module pairs corresponding RS485 communication address inverter well, often off the router is not recommended. It will change the WIFI module IP address, which will cause inverter not correspond. When such a situation occurs, it should be re-login WIFI module, view the IP address.
- MAC address: The MAC address of this WIFI module.

WIFI module configuration on cell phone (Android, IOS)

3.3.4 connect solar inverter through mobile phone

Notice:inverter wifi hotspot in AP modular support connect only one phone in the same time.

There is no password in AP modular by default,suggest set password in the method below:In the area “Wireless AP Security Setting”,select “Encryption Mode” to WPA2-PSK,in the “Password” column,input the password then click “save” button.The graph is as below:

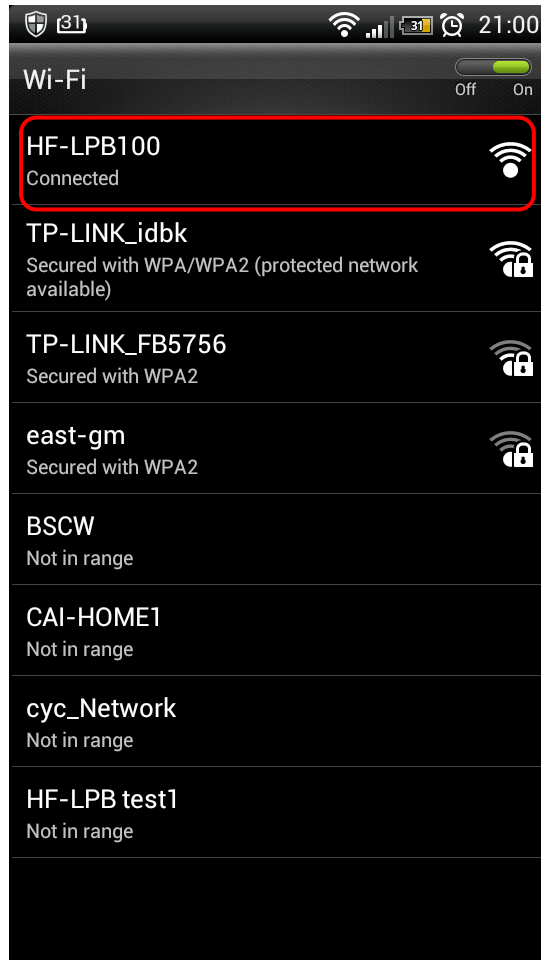
The screenshot displays the 'Wireless AP Setting' web interface. On the left is a sidebar with navigation options: System, Work Mode, STA Setting, AP Setting (highlighted), Other Setting, Account, Upgrade SW, Restart, and Restore. The main content area is titled 'Wireless AP Setting' and includes the following fields and options:

- Network Mode:** 11bgn
- Network Name (SSID):** HF-EAST
- Module MAC Address:** ACCF233B65F9
- Select Channel:** Auto-select
- Wireless AP Security Setting:**
 - Encryption Mode:** WPA2-PSK
 - WPA Encryption:** TKIP, AES (selected), TKIPAES
 - Password:** [Redacted]
 - Show Passwords
- Network Parameters Setting:**
 - IP Address (DHCP Gateway Setting):** 10.10.100.254
 - Subnet Mask:** 255.255.255.0
 - DHCP Server:** Enable

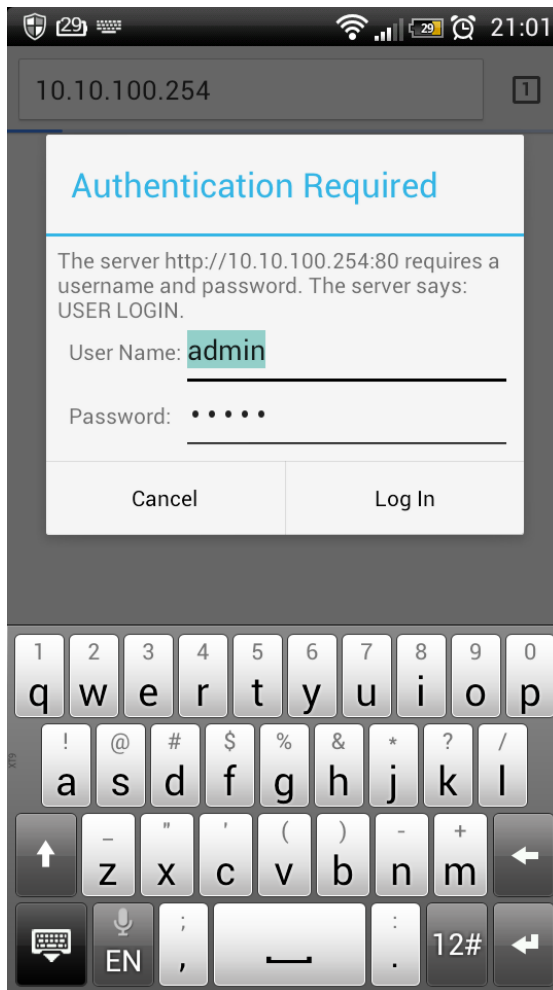
Each section has a 'Save' button. The top right corner shows language options: 中文 | English.

3.4 connect solar inverter through wireless router

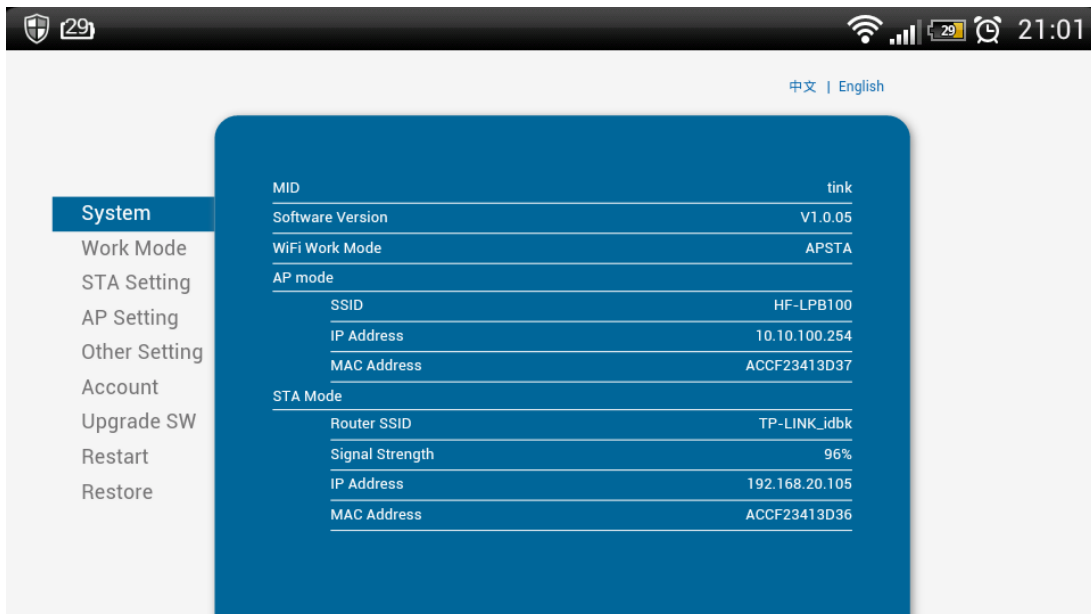
First, turn on cell phone WIFI function, search WIFI signal, HF-LPB100 and connect;



Second, after connect WIFI, open cell phone browser, and input: 10.10.100.254, enter to input user name and password. Default: admin. Login homepage and you can configured WIFI module parameter, same way as above.



Input WIFI module IP address, user name and password



Main interface

IV: Software Using

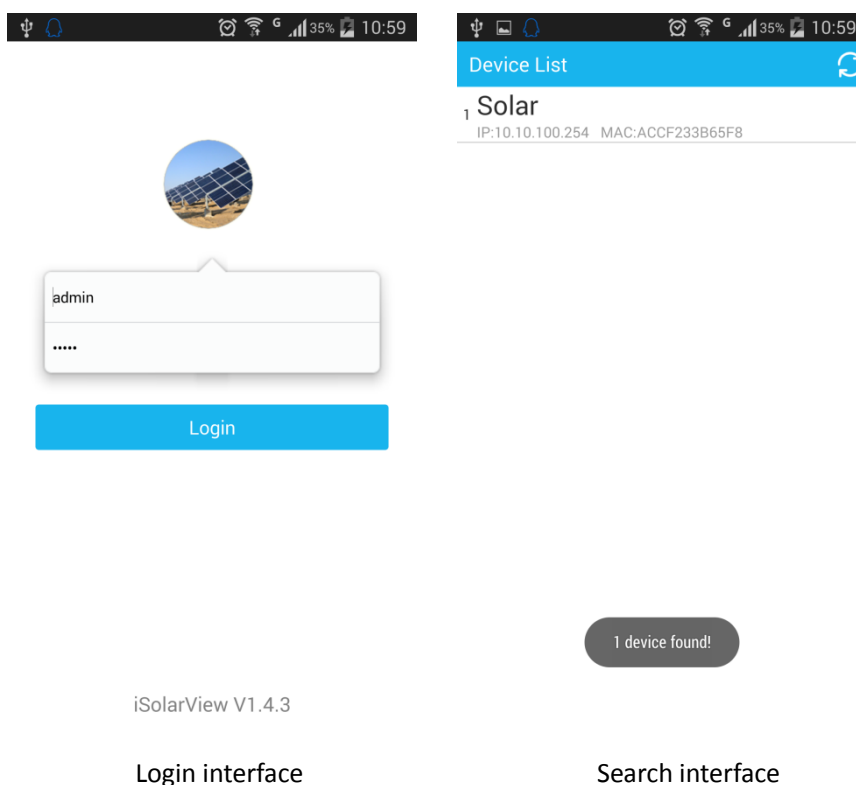
After finish above settings, inverter inside WIFI module will connect to WIFI router automatically. Now user can install solar monitoring software on PC or cell phone. Software can be downloaded at: www.idbksoft.com.

4.1 PC Software User Manual

Please refer 《iSmartsolar LPV manual》 .

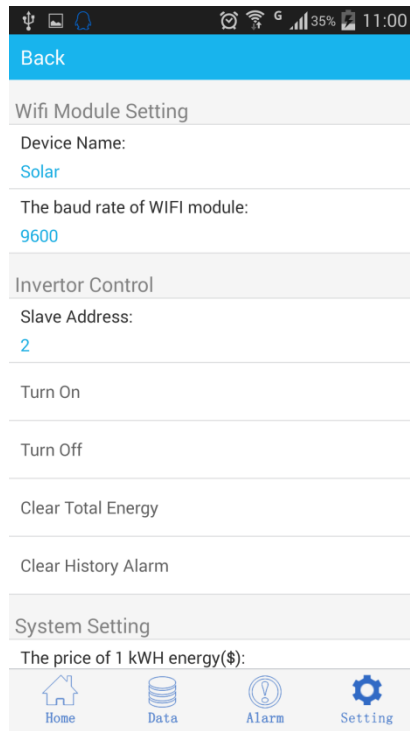
4.2 Cell Phone Software

After install monitoring software APP on cell phone, turn on WIFI function, connect to your router and open the APP. See the picture below, click “Login”. Click cycle arrows on the top right corner to search WIFI equipment and connect it. Several WIFI equipments can be searched.

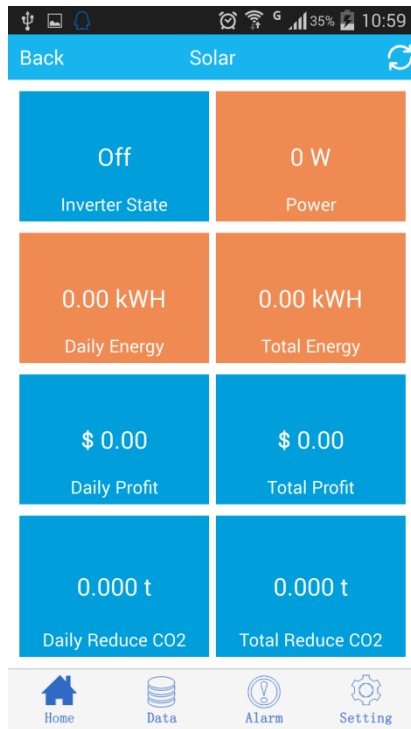


Enter main interface. If the equipment is first connected, system will auto test wifi module baud rate. If system baud rate is not 9600, system will tip you to modify baud rate. You can click Setting label to modify baud rate. By default you need to change system baud rate to 9600. Be careful that the wifi moduler will restart. At that moment System will come back to login page. Perhaps you need wait 10 seconds, system will auto connect to your phone or router.

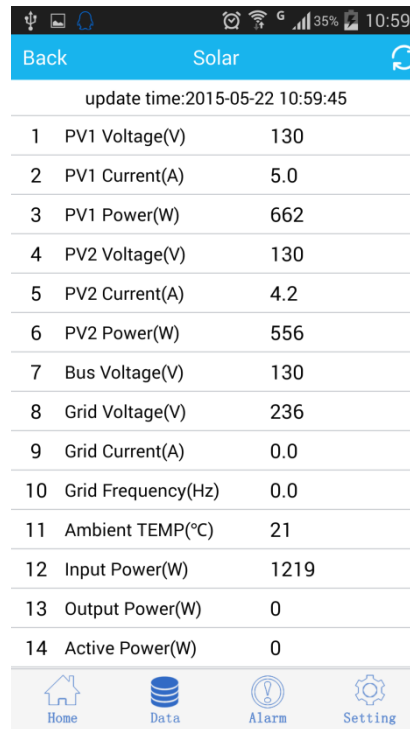
After modefying baud rate, system default device address, also modbus slave address is 1. If inverter actual address is not 1, you also are able to modify address in the Settings interface label. Inverter address can be obtained from inverter display, detail operate method referes to inverter operator handbook. Besides, suggest user input inverter name in device name column, In order to distinguish different inverters. After that, click “submit”. Then you can distinguish different inverter according to the name in device search interface. Below graph is the Setting label page.



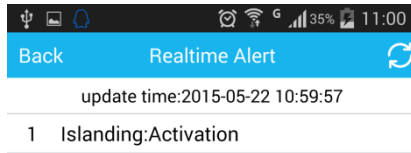
When baud rate and device address are all right,click “Home” or “Data” label, you can view the data from inverters;If the inverter alarms, click “Alarm” label, you can view inverter real and history alarm information.The information is stored in the inverters,at most 10 records.



Home page interface



Data interface



Alarm interface