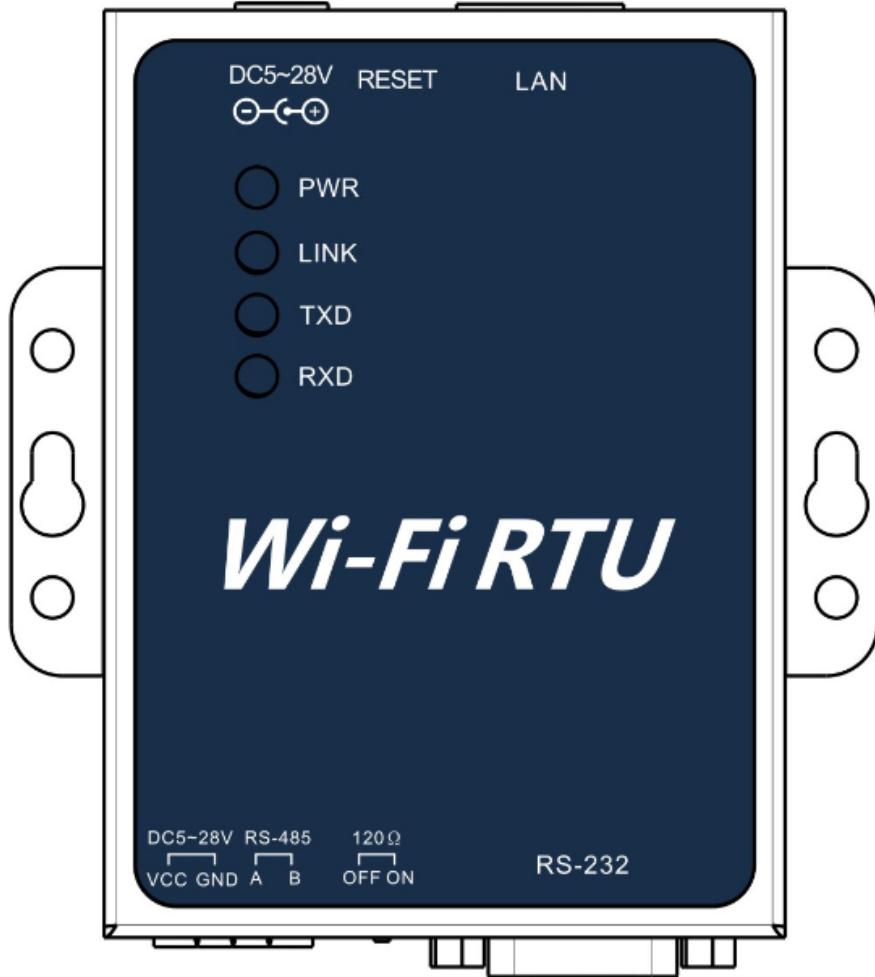


Wi-Fi RTU

user's manual

Version	Updated Content	Updated by	Approved By	Date	Note
1.0	The first version released	Kevin Yuan	Mencius	2016-12-3	

1 Product structure diagram



Product specification

Category	Entries	Parameters
General Parameter s	Size(Length/Width/Height)	90*66*26mm
	Weight	187g
	Protection class	IP21
	Rated voltage	DC5V~28V
	Maximum current	200mA(5V)

The user manual

	Operating temperature	-30°C ~ +85°C
	Storage temperature	-40°C ~ +90°C
External Interface	Serial port	RS485 or RS232 , used for communication
	Wi-Fi	1pcs , 2.4GHz, 802.11 b/g/n , AP+STA
	Antenna interface	Wi-Fi Onboard(External antenna can be selected)
Hardware part	Data input	RS485 /RS232
	Data output	Wi-Fi
	Serial port Baud rate	9600bps
	Delay time	1.5s
	Software watchdog	Available
Wi-Fi part	Wireless standard	802.11 b/g/n
	Frequency range	2.4GHz
	Antenna gain	>2.5 dBi
	Data rate	11Mbps@11b, 54Mbps@11g, 72Mbps@11n
	Hardware encryption	WEP , WPA/WPA2
	Communication distance	100M(Open environment)
	Working mode	AP(Wireless access point) mode; AP+STA(Coexistence mode)
	Built-in server language	Chinese, English
Software part	Supported application protocols	Modbus-RTU
	Supported network	Modbus-TCP

The user manual

	protocols	
	Driver support	Wi-Fi
	Connect function	Support APP connection, monitoring, parameter setting
Other	The number of connected devices	1pcs
	Warranty	2 years
	Authentication	CE, ROHS

2 Install Wi-Fi RTU and Set Parameters

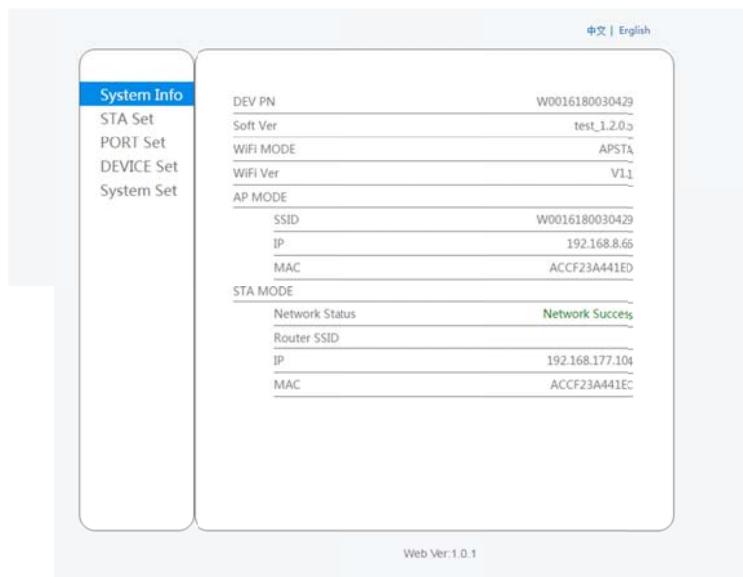
2.1 Install Wi-Fi RTU

Use RS-485 cable to connect the Wi-Fi RTU and the equipment. And use RS-485 cable or adaptor to supply power. The PWR light will be blue when it works.

2.2 Set Parameters

2.2.1 Enter the Web Server into Wi-Fi RTU Setting

Use computer with wireless network adapter to connect the Wi-Fi AP (The Access is the PN number, Password is 12345678). Start the web browser and enter default IP address "192.168.8.66" to get the login interface (the default user name and password is admin).



2.2.2 Set the network parameter

Click on "STA Set" to set the network parameter. You can use the Searching to get AP access nearby, and then put the password. You can also change the name

The user manual

of AP access of Wi-Fi RTU.

Router Setting
Network Name(SSID)
Note: case sensitive
Scan
Encryption Method: WPA2PSK
Encryption Algorithm: AES
Password Show Wrds
Obtain an IP address automatically: Enable
IP Address: 192.168.177.104
Subnet Mask: 255.255.255.0
Gateway Address: 192.168.177.1
DNS Server Address: 10.10.100.254
Save
Wi-Fi AP Setting
AP SSID: W001618000429
Save
Web Ver:1.0.1

2.2.3 Set the device address parameter

Click on "Device Set" to set the device address parameter.

Device address setting
Equipment Model: 0x0212
Address: 3
Confirm: Device Online
Setting
*Notes
Reset the device model and the communication address after the restart to take effect!
Web Ver:1.0.1

2.2.4 Restart the Wi-Fi RTU from System Set

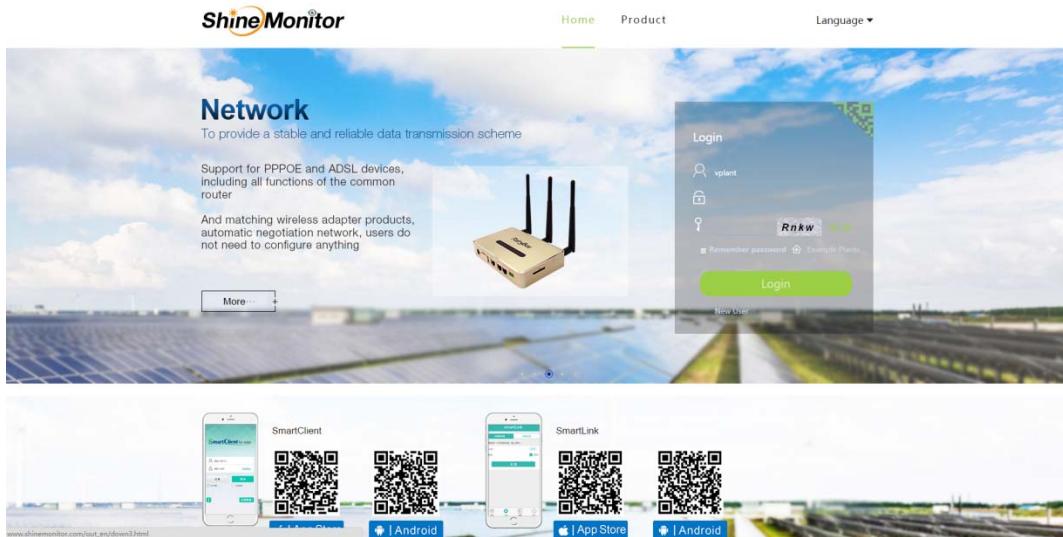
2.2.5 Check the setting

Check the device connect status or and the network connect status from "Device Set" and "Network Set".

3 Check Data for the Monitor System

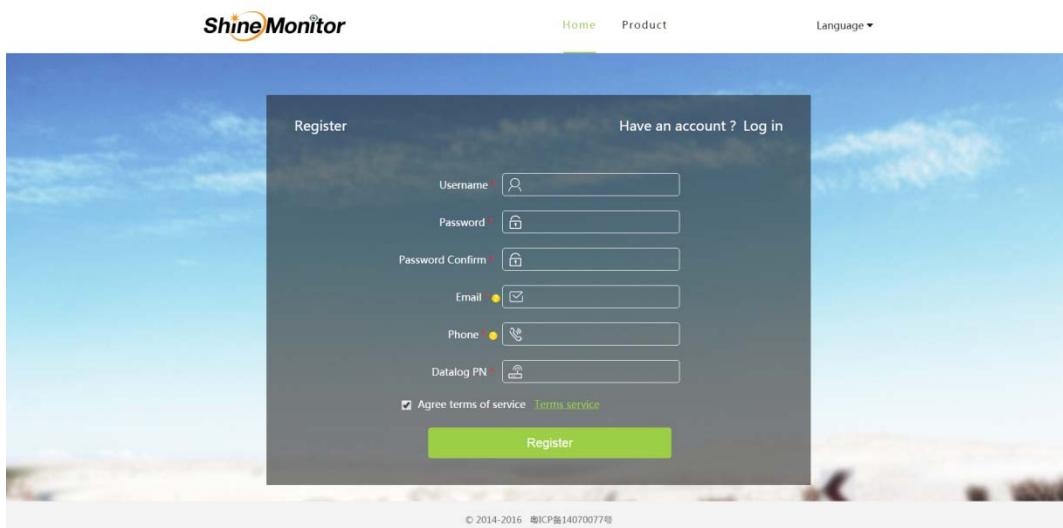
3.1 Enter Monitor System

Enter www.shinemonitor.com in the web browser to get Monitor System.



3.2 Register

Use the PN number to register a new user.



3.3 Check Data

The system has created a plant when register.

The user manual

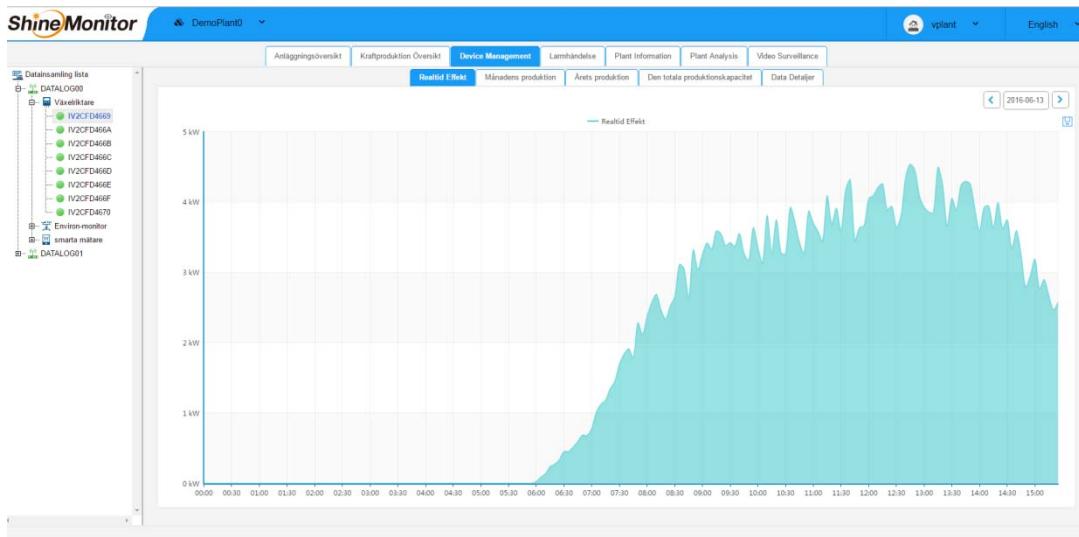
This screenshot shows the ShineMonitor web interface. At the top, there's a header with the logo, language selection (English), and a search bar. Below the header, the main content area has two main sections: 'Anläggning Översikt' (Energy Overview) and 'Anläggningar plats (Google)' (Locations). The Energy Overview section displays various production statistics: Dagens produktion (1.93MWh), Månads produktion (14.52MWh), Årets produktion (119.70MWh), Totala produktion (222.80MWh), resultat (¥249,537.32), Sparat kold utsläpp (49.02t), CO₂-utsläppen (6.91t), and SO₂-utsläpp (5.12t). The Locations section shows a map of China and Japan with two locations marked: 'DemoPlant1' and 'DemoPlant2'. Below these sections is a 'Plants List' section containing three items: 'DemoPlant0', 'DemoPlant1', and 'DemoPlant2'. Each item has a thumbnail, an 'Anläggnings Status' (Status) button (green 'Normal'), and current values for 'Aktuell effekt' (Current Power) and 'Dagens produktion' (Daily Production).

Clink on one plant to view the detail data of it, including energy output, device status, warnings etc.

This screenshot shows the ShineMonitor web interface for 'DemoPlant0'. The top navigation bar includes the logo, plant selection ('DemoPlant0'), language ('English'), and a search bar. Below the header, the 'Anläggning Översikt' (Energy Overview) section shows production statistics: Dagens produktion (1.02MWh), Månads produktion (7.34MWh), Årets produktion (63.91MWh), Totala produktion (117.25MWh), resultat (¥131,318.23), CO₂-utsläppen (3.63t), omgivningstemperatur (19°C), and solförs tillstånd (3.8kW/m²). To the right is a graph titled 'Realtid Effekt' (Real-time Power) showing power output over time from 00:00 to 14:00. Below the energy overview are five boxes representing different devices: Data PIN (2), Växelrikare (16), Environ-monitor (2), smarta mätare (2), and Combiner-box (0). Each box displays the count of each status: Normal, Standby, Offline, Warning, and Error.

Check the real-time output power and detail data from "Device Management".

The user manual



3.4 Creating new Plant

Create a new plant for the Home page of System if needed.

The screenshot shows the ShineMonitor software interface with the Plant Information tab selected. The form is divided into several sections: 1. Installation information (Anläggningsnamn: DemoPlant0, installationstid: 2015-08-17, Nominal effekt: 80 kW, Design företag: empty), 2. Anläggnings läge (Country: 中国, Province/State: empty, City: empty, Adress: empty, Tidzoner: GMT +08:00 Beijing,Chengdu,Hong Kong, Urumqi, Kuala Lumpur,Singapore, Longitude: 113.928467, Latitude: 22.583399), 3. Inkomst formel (1 kWh) (Reavärster: 1.12, valutor: RMB(¥), Sparad kol (kg): 0.22, Koldioxidutslipp (kg): 0.031, Utsläppen av svaveldioxid (kg): 0.023), and 4. Anläggning översikt (Anläggnings bilder: empty file input field). There is also a preview image of a building under construction.

3.5 Add new Data Connector

Add new Data Connector from Device setting if needed.

The user manual

The screenshot shows the ShineMonitor software interface. At the top, there is a navigation bar with tabs: Anläggningsöversikt, Kraftproduktion Översikt, Device Management, Lärmmedels-, Plant Information, Plant Analysis, and Video Surveillance. The Device Management tab is currently selected.

The main area displays a table titled "Datainsamling av ägda anläggningar" (Data collection of owned installations). The table has columns: data log PIN-kod (data log PIN code), data log name, Datainsamlingsstatus (Data collection status), Datainsamlings frekvens (er) (Data collection frequency (er)), Heartbeat -intervall (er) (Heartbeat interval (er)), Tidzon (Time zone), and Operation(Modify/Delete/Detach/Upgrade) (Operation(Modify/Delete/Detach/Upgrade)). There are two entries in the table:

data log PIN-kod	data log name	Datainsamlingsstatus	Datainsamlings frekvens (er)	Heartbeat -intervall (er)	Tidzon	Operation(Modify/Delete/Detach/Upgrade)
AS120101000516	DATALOG00	Normal	300	30	E	
AS120101000571	DATALOG01	Normal	300	30	E	

A modal dialog is open in the center of the screen, titled "Lägg till mer datamängd" (Add more data set). It contains fields for "data log PIN-kod" (data log PIN code) and "data log name". Below the fields are two buttons: "Avsluta" (Cancel) and "bekräfta" (Confirm).

4 Attention

- 4.1 The Web Server of Wi-Fi RTU needs to load the first web and then to load the second one, Please do not refresh the web frequently.
- 4.2 The web of the Monitor System can not support the version under IE9, please use IE9 or above IE9, or Chome.