Ali Cloud System IoT platform

WVC MODEM

POWER READY LINK TXD RXD

WVC-Modem
USER MANUAL

----------- Green Energy
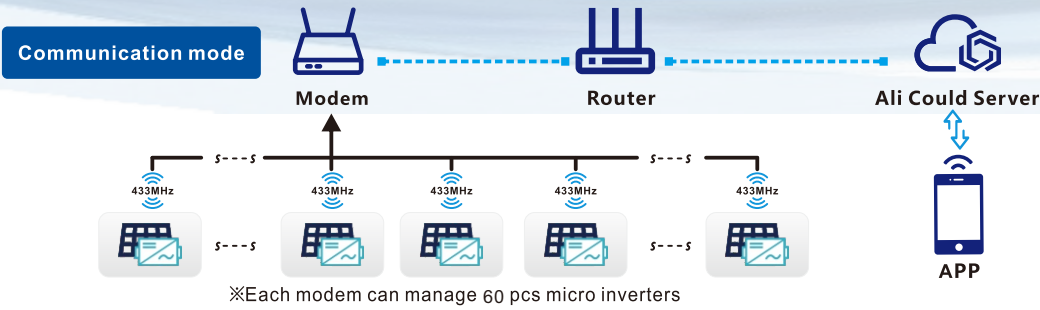----------- Smart Inverter **Expert**

IoT Monitoring Platform
Smart mobile "core" life

- CO-2 induced environmental analysis
- Daily and total energy generation in kWh
- Actual DC input voltage, current and power
- Actual AC output voltage, current and power
- Inverter temperature
- Historical (daily, weekly, monthly) power curve
- Power losses due to weather induced effects
- Optional limitation of power output
- Online switch for the inverter start stop

Download on the **App Store**
ANDROID APP ON **Google Play**

Communication mode

Modem   Router   Ali Could Server
APP

433MHz 433MHz 433MHz 433MHz 433MHz

※Each modem can manage 60 pcs micro inverters

- CO-2 induced environmental analysis
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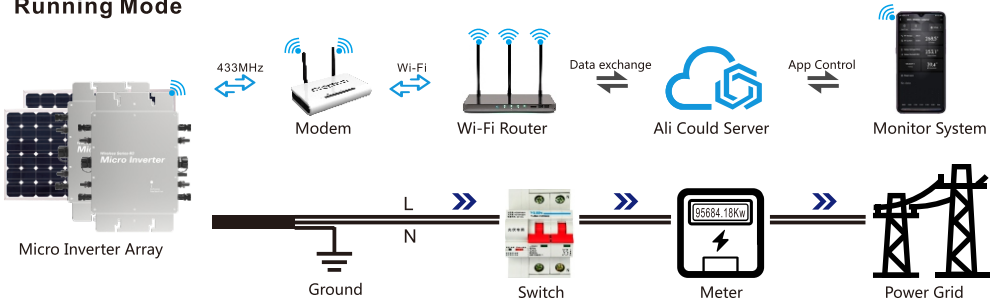- Historical (daily, weekly, monthly) power curve

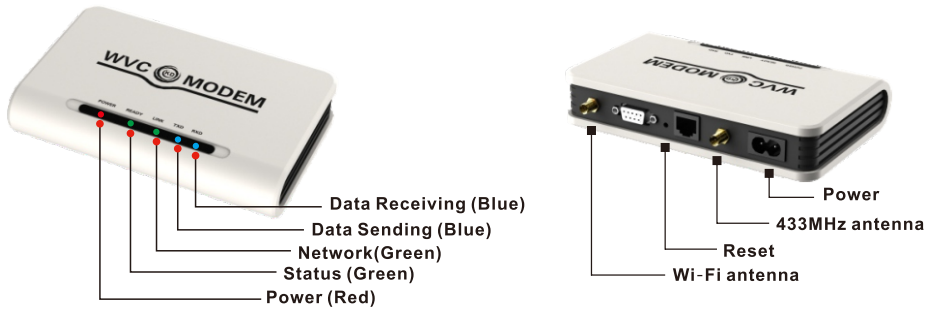---

Modem intelligent distribution network description
(Iot Model)

WVC MODEM

Data Collector WVC-MODEM

Parameter	
Input Voltage range	automatic shift 120/230V
Input frequency range	50/60Hz
Max Output Power	10Watt
G.W.	0.35KG
Size	160×100×32mm
Communication mode	433MHz+WIFI
Transmission distance	1000M(open range)
Waterproof	IP23

Running Mode

433MHz   Wi-Fi   Data exchange   App Control

Modem   Wi-Fi Router   Ali Could Server   Monitor System

Micro Inverter Array

Ground   Switch   Meter   Power Grid

L   N   95684.18Kw

Modem indicator & button

WVC MODEM

- Data Receiving (Blue)
- Data Sending (Blue)
- Network(Green)
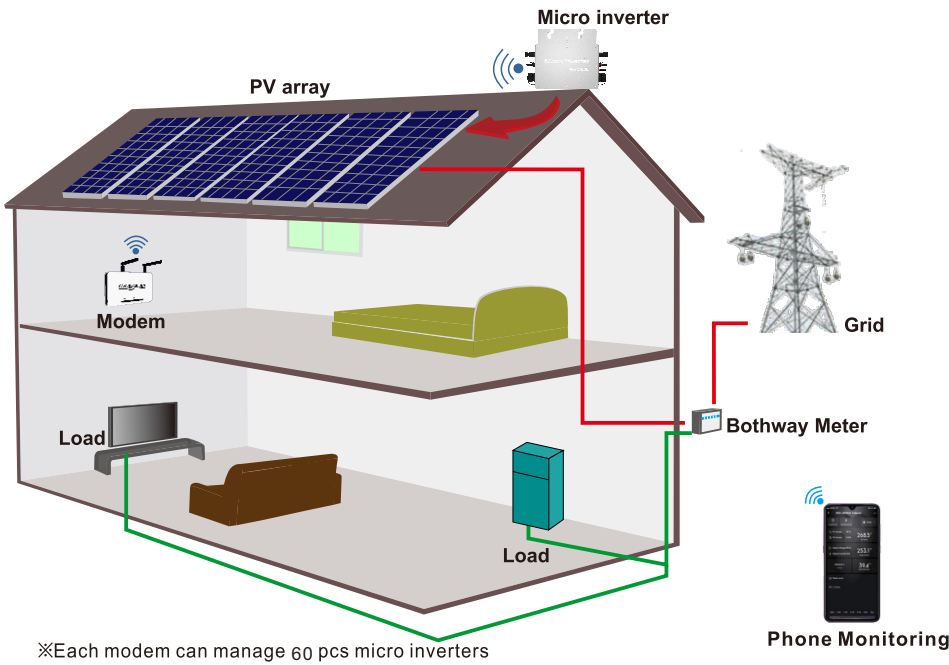- Status (Green)
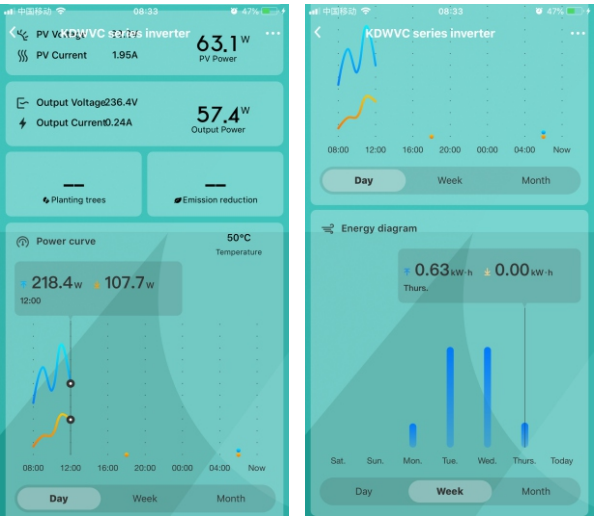- Power (Red)

- Power
- 433MHz antenna
- Reset
- Wi-Fi antenna

Ready to work:
1. Install the "Cloud Smart" mobile application on your smartphone
2. A wireless router that can log in to the Internet normally

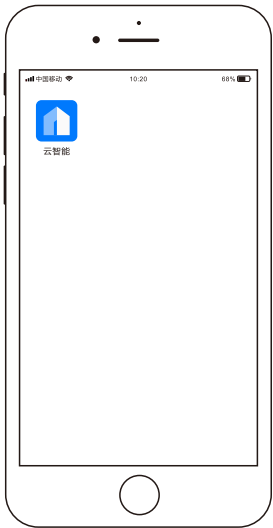## System communication transmission diagram

Micro inverter

PV array

Modem

Load

Load

Grid

Bothway Meter

Phone Monitoring

※Each modem can manage 60 pcs micro inverters

Ali-Cloud System   Intelligent Monitoring platform

KDWVC series inverter
PV Voltage265.4V   63.1W   PV Power
PV Current   1.95A
Output Voltage236.4V   57.4W   Output Power
Output Current0.24A
Planting trees   Emission reduction
Power curve   50°C   Temperature
218.4W   107.7W
Day   Week   Month

KDWVC series inverter
Energy diagram
0.63kw-h   0.00kw-h
Thurs.
Day   Week   Month

The KDM photovoltaic monitoring system supports a full range of WVC micro-inverters. Through the access of the Alibaba Cloud IOT platform, users can establish different application scenarios. Its high-speed, safe and stable communication mode makes the KDM remote monitoring system, users The remote power station management can be easily realized by just using the APP application on the mobile phone.

At the same time, the smart cloud APP has a built-in view table function, which allows users to simplify statistics according to query methods such as day, month, and year. Provides a powerful way for users to analyze data

DOWNLOAD
Cloud Intelligence APP

Please use the QR code to scan and install the "Cloud Intelligence" client application,System version: Android 5.0, IOS 9 and above

Available on the **App Store**

GET IT ON **Google Play**

Note

a) Connect the two communication antennas on the collector (Modem) as required;
b) Place the collector in an appropriate location to ensure that the wifi signal source can be received normally and   Form a good communication distance with the inverter;
c) The connected Wi-Fi network needs to be in 2.4G communication mode;
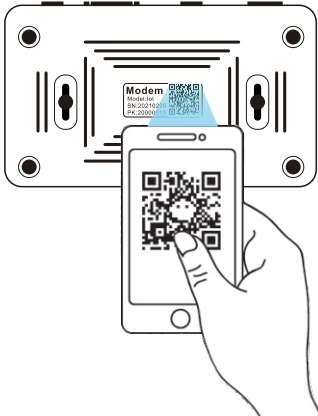d) Please reset the collector for the first use;

Reset operation

Press and hold the reset button for more than 5 seconds, and Reday will go out and light up again after 5 seconds.
Release the button at this time, and the device will complete the reset.

1 Add device

Open the intelligent monitoring software "Cloud Intelligence" APP to log in Account, click the "+" icon in the upper right corner to start adding.

*If a device has been created under the current account,(You can click on the device icon below to enter the details page for query or operation)
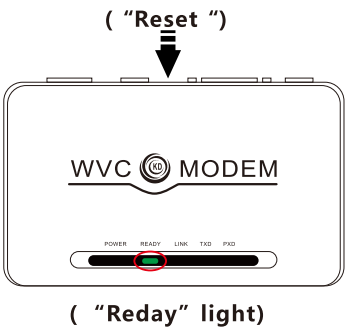
2 Entry equipment

When the smart APP changes to the QR code scanning state, scan the QR code label at the bottom of the Modem. At this time, the APP will automatically collect the body code of the Modem,and automatically jump to the Wi-Fi connection page, and enter the current Wi-Fi Click Next after the password;
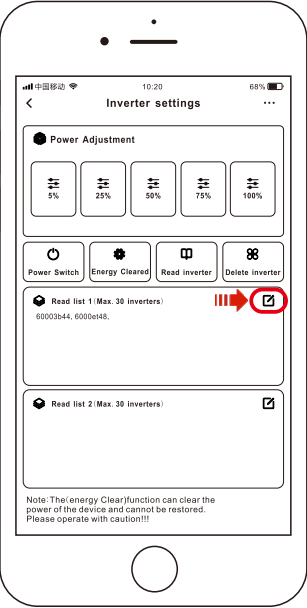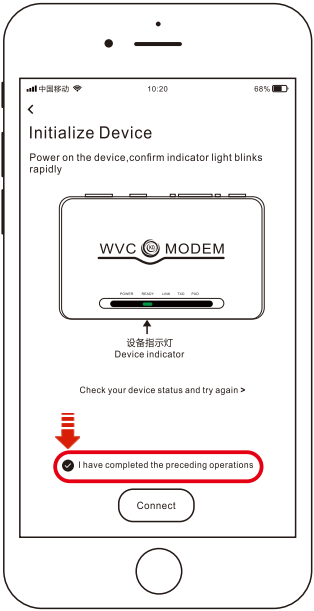
3 Start distribution network

Connect the Modem to the power supply as required, and quickly press the "Reset" button. When the "Reday" indicator turns from a long on state to a fast flashing state, the Modem will enter the network distribution state;

("Reset ")

WVC MODEM

POWER READY LINK TXD PXD

("Reday" light)

4 Initialize the device

After completing the network configuration of the modem, return to the phone initialization device operation page,check the "I have completed the above operations" below and click the "start connection" button, then the page will jump to the signal search page and the Link on the modem The indicator light will become a fast flashing state. When a WiFi signal is found,the indicator light will flash slowly until the network configuration is completed, and the indicator light will return to a steady state. The page jumps to the completion page, please click "Finish"

Initialize Device
Power on the device, confirm indicator light blinks rapidly

WVC MODEM

设备指示灯
Device indicator

Check your device status and try again >

I have completed the preceding operations

Connect

5 Add inverter

When the initialization is completed, please click the "Settings" menu in the upper right corner, find the inverter list item on the setting page, click the "Edit" button, and fill in the 8-digit code on the inverter to complete the inverter Add to.
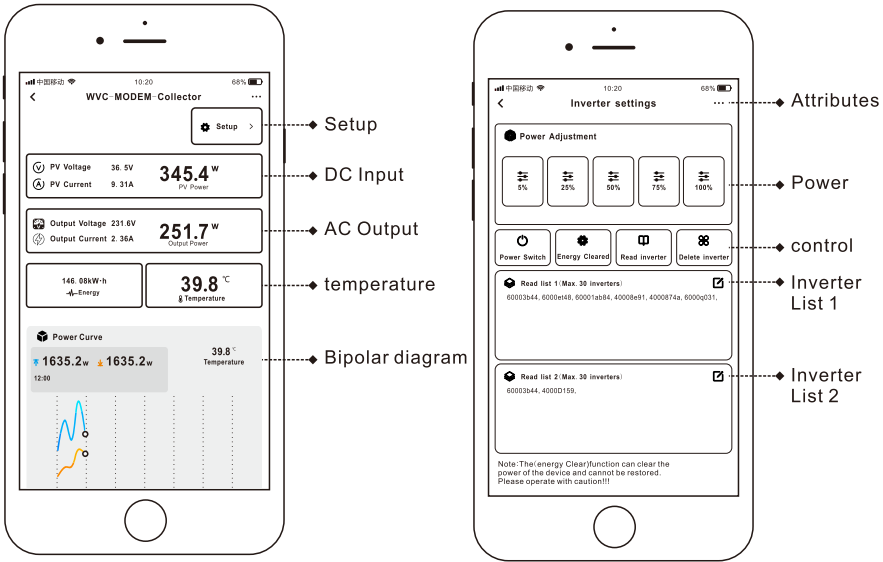
Rmark :

1. When multiple inverters need to be added, theIn the English state, "," comma separated and ended. Such as: 60001234, 6000E312,
2. Each Modem can monitor 60 inverters at the same time;3. A total of 2 lists, each list can be filled with 30 inverter codes;

HELP Features

Smart APP can realize real-time data transmission with the cooperation of Alibaba Cloud IoTThrough graphs and graphic displays in time, users can understand the operation of the power station. The user can monitor the operation and adjust the output power function of the system.

WVC·MODEM·Collector

Setup

| PV Voltage | 36.5V | 345.4 W | Setup |
| PV Current | 9.31A | PV Power | DC Input |

| Output Voltage | 231.6V | 251.7 W | AC Output |
| Output Current | 2.36A | Output Power | |

| 146.08kW·h | 39.8 ℃ | temperature |
| Energy | Temperature | |

Power Curve

1635.2 w 1635.2 w   39.8 ℃ Bipolar diagram
Temperature

Inverter settings

Power Adjustment

5% 25% 50% 75% 100%   → Power

Power Switch Energy Cleared Read inverter Delete inverter → control

Read list 1:Max. 30 inverters: → Inverter List 1
6000344, 6000e668, 60001ab84, 6000be91, 4000874a, 6000q231,

Read list 2:Max. 30 inverters: → Inverter List 2
6000344, 40000159,

Note:The! energy Clear function can clear the power of the device and cannot be restored. Please operate with caution!!!

→ Attributes

INTELLIGENT Iot MONITORING MODEM
Number of data collectors per Modem
Built-in WiFi IoT data terminal
Can be used on any smart device (Android/iOS)

● CO-2 induced environmental analysis
● Daily and total energy generation in kWh
● Actual DC input voltage, current and power
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Inverter settings

Power Adjustment

5% 25% 50% 75% 100%

Power Switch Energy Cleared Read inverter Delete inverter

Read list 1:Max. 30 inverters:
60003344, 6000e668,

Read list 2:Max. 30 inverters:

Note:The! energy Clear function can clear the power of the device and cannot be restored. Please operate with caution!!!