MICRO INVERTER

Green Energy
Smart Inverter **Expert**

WVC-1600
USER MANUAL

WVC series communication type intelligence Micro grid-connected inverter

- Maximum power point tracking
- Adaptive voltage/frequency
- Reverse power transmission
- Internal high precision meter
- I / O, fully isolated
- App monitoring system
- No installation, no maintenance
- Forward full-bridge topology

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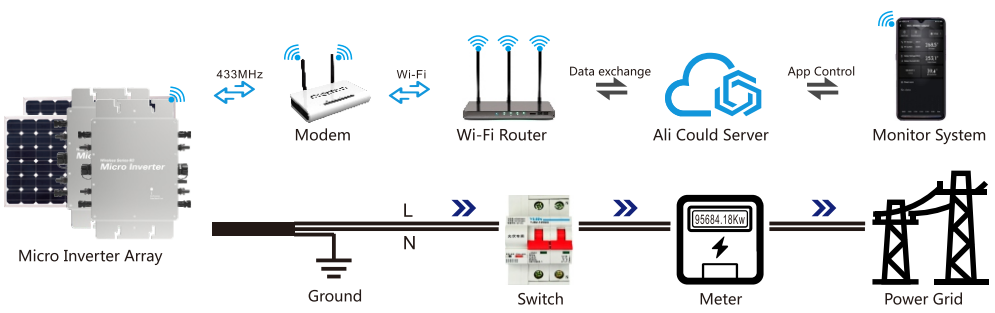
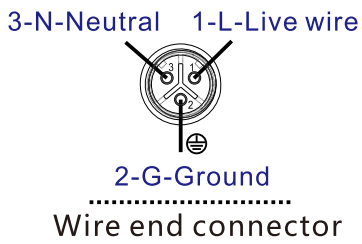
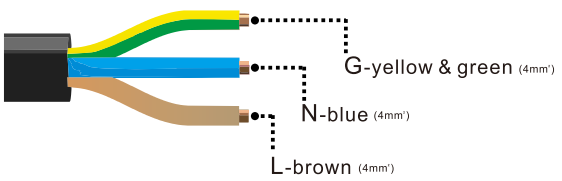
model	WVC-1600	
Recommend use panels	4*500Watt	
Output voltage mode	120/230V Auto switch	
PV Open circuit voltage	30-54VOC	
Operating voltage range	22-60V	
Starting voltage range	22-60V	
short-circuit current	4*18A	
Maximum working current	4*16A	
Output parameters	**@120V**	**@230V**
Output peak power	1600Watt	1600Watt
Rated output power	1550Watt	1550Watt
Output current	13.3A	6.95A
AC voltage range	80-160VAC	180-280VAC
AC frequency range	48-51Hz/58-61Hz	48-51Hz/58-61Hz
Power factor	>95%	>95%
Number of branch connections.	3PCS (Single)	6PCS (Single)
Output efficiency	**@120V**	**@230V**
Static MPPT efficiency	99.5%	99.5%
Max output efficiency	95%	95%
Loss of power at night	<0.5W	<0.5W
Total current harmonics	<5%	<5%
Appearance and technical features		
Temperature range	-40°C to +65°C	
Size (L×W×H)	370mm×300mm×41.6mm	
Net amount	3.0kg	
Waterproof grade	Ip65 NEMA3R	
Heat dissipation mode	Self-cooling	
Communication mode	433MHz	
Power transmission mode	Reverse transmission,Load priority	
monitoring system	APP	
Electromagnetic Detection	EN61000-6-1:2007 EN6100-6-3:2007+A1:2011+AC:2012	
Power Grid standard	EN50549-1、EN 50549-2、NBR 16149:2013、UL1741	
Power grid detection	IEC/EN 62109-1、IEC/EN 62109-2、IEC 62116、IEEE 1547	
Certificate	CE , ETL , Patented technology	
Packing weight		
Specifications	Each (Packing)	Box (4PCS)
weight	4.0KG	16.5KG
Size	430×375×140mm	430×405×380mm

System diagram



Description of the connector and cable core of the micro inverter





Note: You can purchase a professionally customized AC bus with a T-type connector. Use this AC bus as the AC bus for each branch. Connect it hand in hand to form a modular micro-inverter branch wiring system.

LED indicator function of micro inverter

1.Red light is on---The micro-inverter is powered on, the red light is on, and the equipment is ready to work;
2.Red light flashes----The micro-inverter is fully prepared and enters the delayed startup state;
3.Flashing green------MPPTMaximum power point search status;
4.Green light is on----MPPTMaximum power point locked state;
5.The green light turns red----a.Island protection; b. Frequency protection; c. AC over/under-voltage protection; d. DC voltage over and under voltage protection; e. fault; f. software shutdown;

Normal working indicator flashing process:
Connect the micro-inverter to the AC and DC terminals, and then turn on the power → the red light will be on for 3 seconds → the red light will flash for 30 seconds → the green light will flash quickly (MPPT maximum power point search)→ The green light is on, (MPPT lock).

Software download

Use the mobile phone QR code scanning function to scan the QR code below to download the application (A-1), or download the "Cloud Smart" application (A-2) through the Apple Store or Google Store.

App:Cloud Intelligence

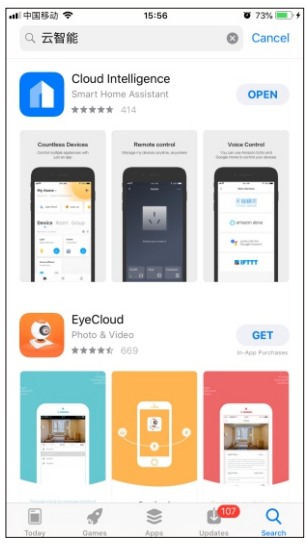
Available on the App Store

GET IT ON Google Play

• Use you Phone to scan QR code,download and install the APP

Support:
Android 5.0 or above
IOS 9.0 or Above

(A-1)

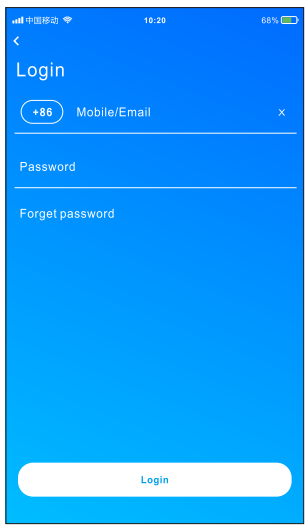


(A-2)

Register & Login

Follow the system prompts to register an account (B-1), and log in to the system (B-2).Users can choose mobile phone/email preferences to register

(B-1)

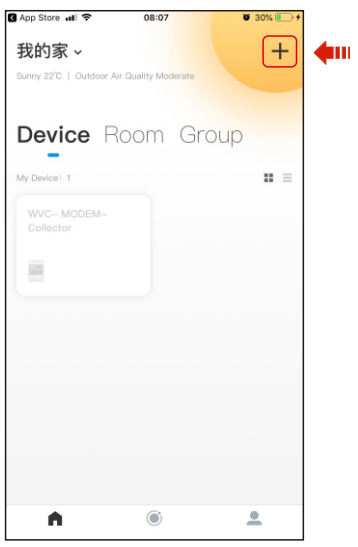


(B-2)

Add Modem

Click the "+" (D-1) in the upper right corner, click the "QR code scan" function button when adding a device page, when the QR code scanning status appears (D-2), please scan the inverter or collector Scan the QR code.

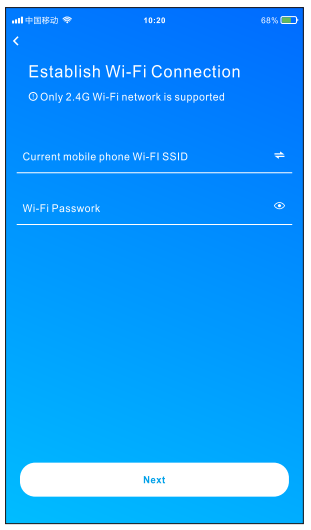
***The inverter QR code is on the front**



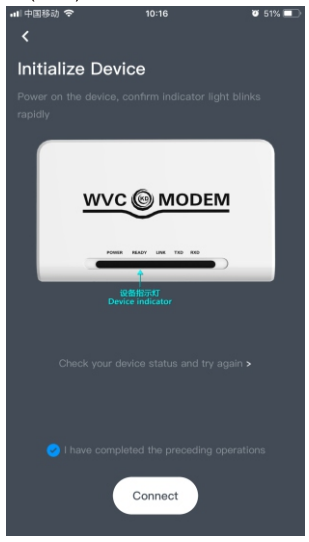
(C-1)

(C-2)

When the Wi-Fi connection page appears, please enter the wifi password currently connected to the mobile phone and click Next (D-1). When the initial device interface appears, press the reset button on the device as prompted to continue the operation (D-2)



(D-1)



(D-2)

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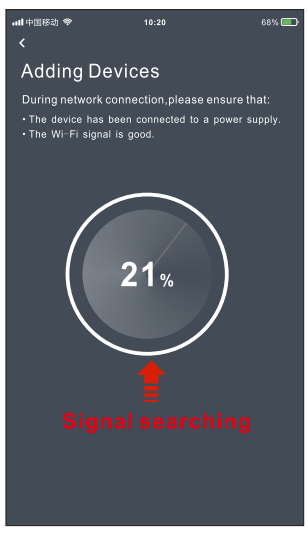
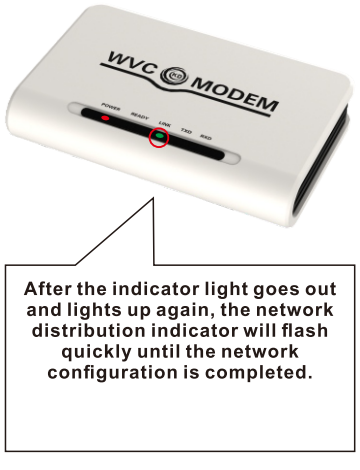
After the Modem is connected to the power supply, short press the reset button on the Modem device and release the button (E-1) when the indicator light is off. At this time, the mobile phone application will send a distribution network signal to enter the distribution network search state (E -2)

(E-1)

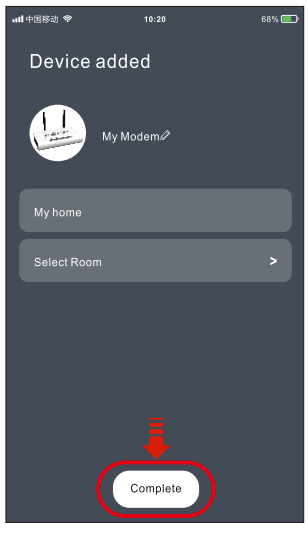


(E-2)

During the network distribution process, the indicator will change from fast flashing to slow flashing (F-1). When the collector completes the network configuration, click Finish (F-2)
*An error was encountered during the adding process, please re-execute the above steps



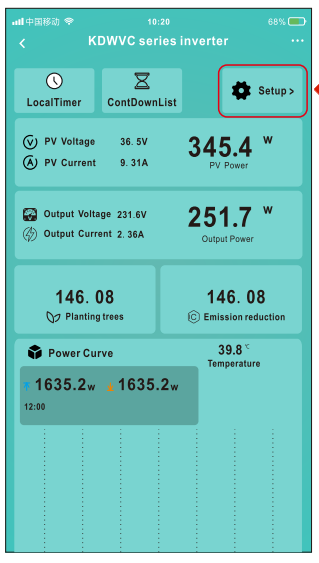
(F-1)



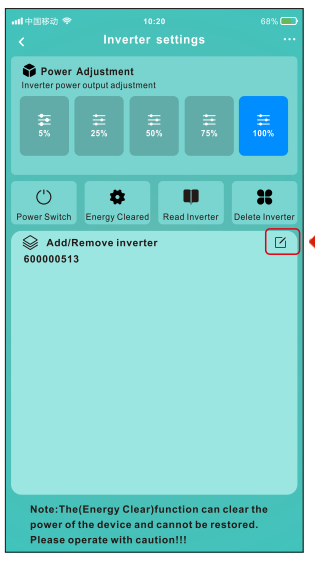
(F-2)

Add Inverter

Click "Setup" on the main interface of the collector to enter (G-1) to the Add Inverter page and enter the ID on the inverter into the inverter list (G-2)



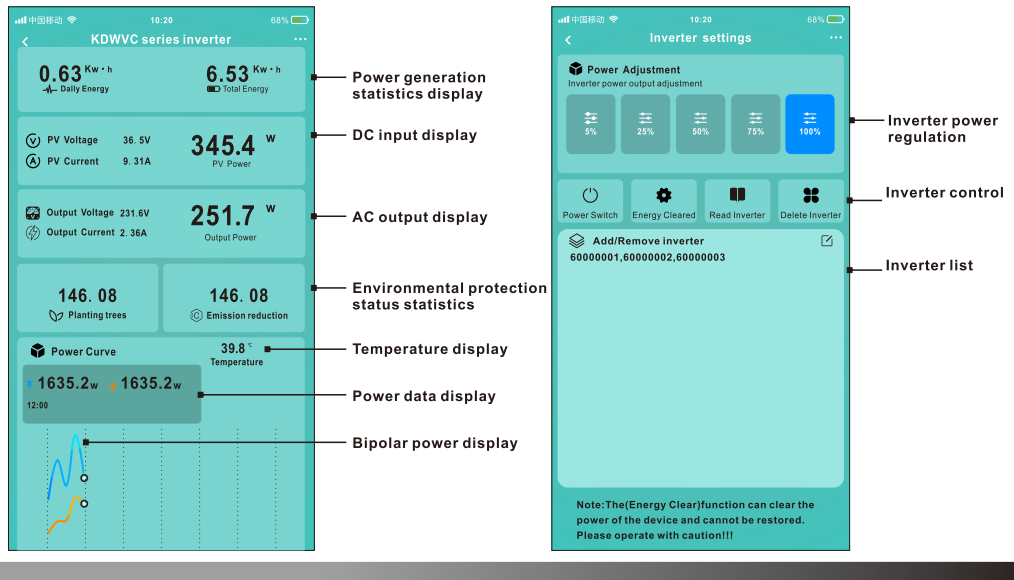
(G-1)



(G-2)

Function & display

The KDM "Cloud Intelligence" application can effectively provide users with high-speed, stable and secure data storage and rapid response functions of the device through the server platform of Alibaba Cloud.Using the characteristics of the Internet of Things allows users to DIY their own smart power station system according to their preferences.



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