

# MICRO INVERTER



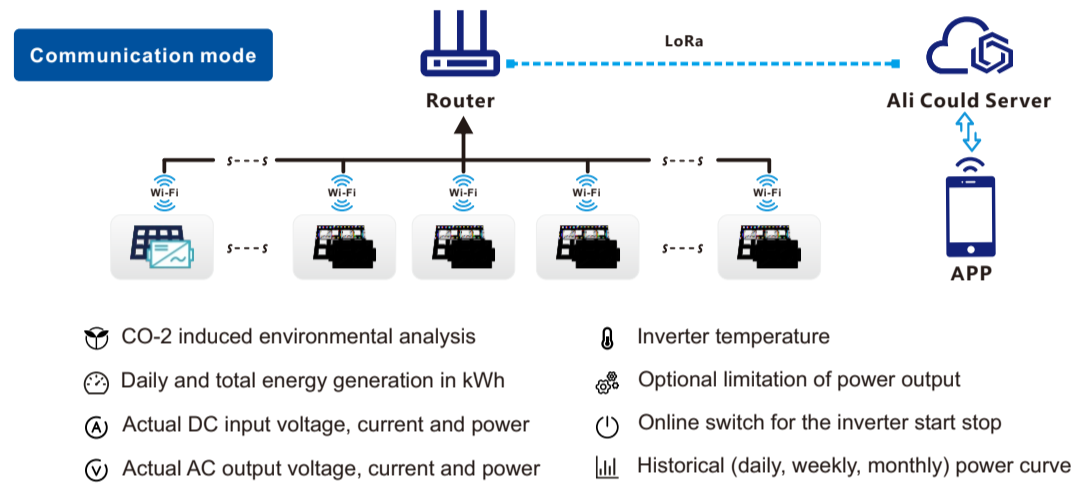
**WVC-400(Life)**

**USER MANUAL**

..... Green Energy **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

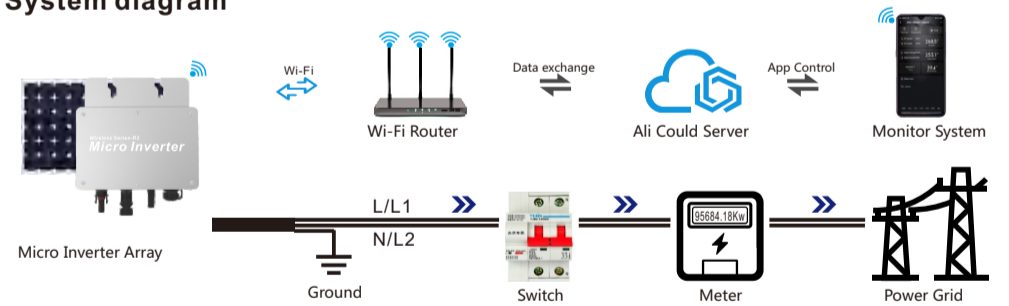


|                                          |                                                   |                  |
|------------------------------------------|---------------------------------------------------|------------------|
| <b>model</b>                             | <b>WVC-400</b>                                    |                  |
| Recommend use panels                     | 1*475Watt                                         |                  |
| Output voltage mode                      | 120/230V Auto switch                              |                  |
| PV Open circuit voltage                  | 33-60VDC                                          |                  |
| Operating voltage range                  | 22-60V                                            |                  |
| Starting voltage range                   | 22-60V                                            |                  |
| short-circuit current                    | 18A                                               |                  |
| Maximum working current                  | 16A                                               |                  |
| <b>Output parameters</b>                 | <b>@120V</b>                                      | <b>@230V</b>     |
| Output peak power                        | 400Watt                                           | 400Watt          |
| Rated output power                       | 380Watt                                           | 380Watt          |
| Output current                           | 3.33A                                             | 1.73A            |
| AC voltage range                         | 85-160VAC                                         | 180-265VAC       |
| AC frequency range                       | 48-51Hz/58-61Hz                                   | 48-51Hz/58-61Hz  |
| Power factor                             | >95%                                              | >95%             |
| Number of branch connections.            | 15PCS ( Single )                                  | 25PCS ( Single ) |
| <b>Output efficiency</b>                 | <b>@120V</b>                                      | <b>@230V</b>     |
| 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%              |
| <b>Appearance and technical features</b> |                                                   |                  |
| Temperature range                        | -20°C to +50°C                                    |                  |
| Size ( L×W×H )                           | 165mm×176mm×38mm                                  |                  |
| Net amount                               | 0.82kg                                            |                  |
| Waterproof grade                         | Ip65 NEMA3R                                       |                  |
| Heat dissipation mode                    | Self-cooling                                      |                  |
| Communication mode                       | Wi-Fi                                             |                  |
| 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, CEC, ETL                                      |                  |
| <b>Packing weight</b>                    |                                                   |                  |
| Specifications                           | Each ( Packing )                                  | Box ( 15PCS )    |
| weight                                   | 1.28 KG                                           | 19.5 KG          |
| Size                                     | 245×202×60mm                                      | 450×395×345mm    |

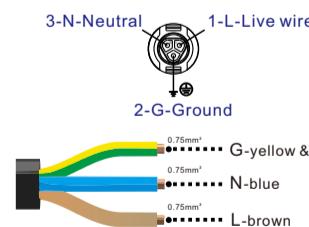
### Detailed



### System diagram



#### With N wire connection (Single phase 120/230V)



#### No N wire connection (Single phase 120V)



**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.



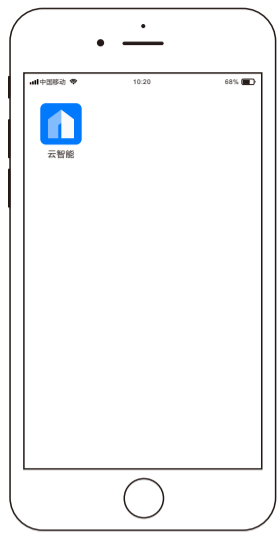
**When the inverter is not started/shutdown and has been connected to the grid, the status of the LED indicators is as follows**

- 1) When the inverter is not working ----- Red light is always on
- 2) When the inverter is in working state ----- Blue light flashes (MPPT is locked to a long light state)



**When the inverter is not started/shutdown and is not connected to the grid, the LED indicator status is as follows**

- 1) When the inverter is not working ----- Red light flashes
- 2) When the inverter is in working state ----- Blue light flashes (MPPT is locked in a long light state), and the red light flashes once every three seconds



# 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



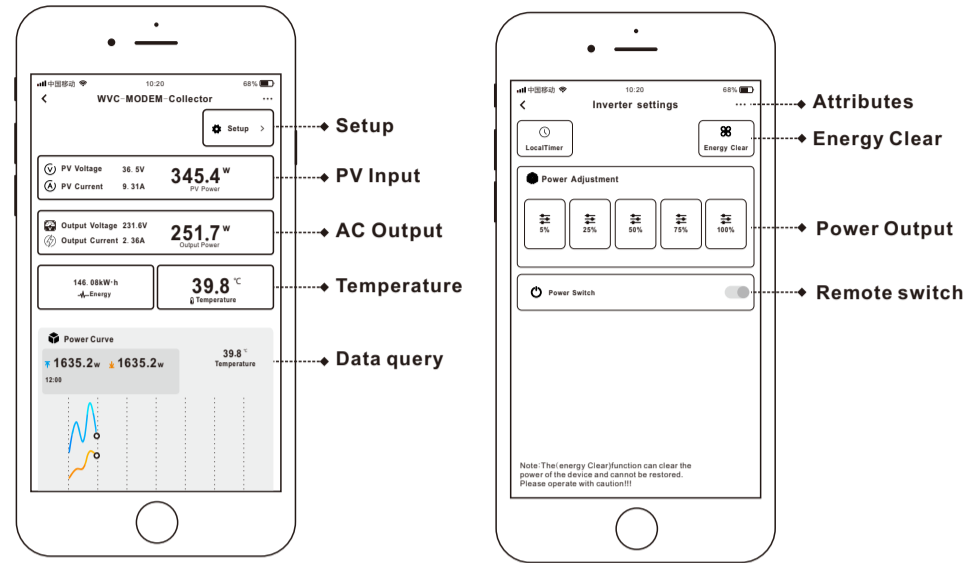
## Note

Please strictly observe the following installation conditions

- Connect the communication antenna on the inverter;
- Install the inverter in a place where the Wifi signal is well covered;
- The connected Wi-Fi network needs to be in 2.4G communication mode;
- If the WiFi signal cannot effectively cover the inverter, an additional WiFi signal booster can be installed;
- Turn on the Bluetooth of the mobile phone;

## Features

Smart APP can realize real-time data transmission with the cooperation of Alibaba Cloud IoT. Through 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.



## Cloud Intelligence APP



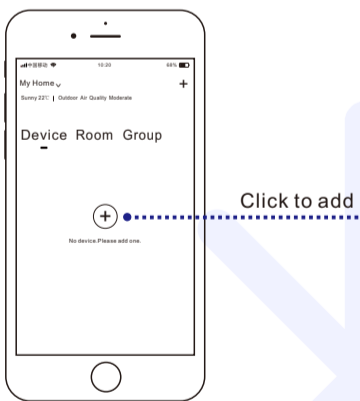
**INTELLIGENT IoT MONITORING MODEM**  
 Number of data collectors per Modem  
 Built-in WiFi IoT data terminal  
 Can be used on any smart device (Android/iOS)

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## Bluetooth Mode

### Setp 1

Turn on the Bluetooth of the mobile phone, click the "+" icon to add the device;



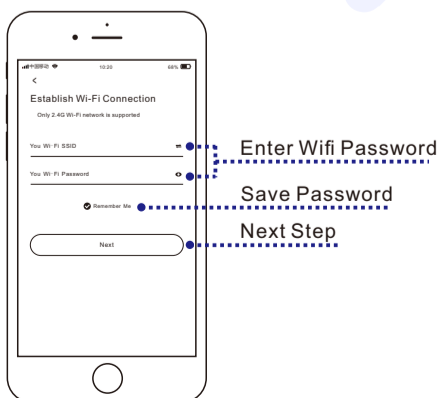
### Setp 2

When the inverter appears on the automatic discovery page, click the "+" sign



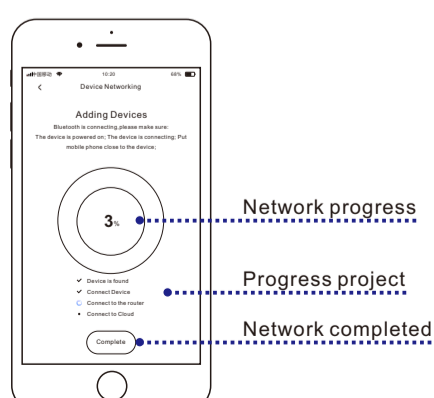
### Setp 3

Select WiFi signal, enter the Wi-Fi password; click Next



### Setp 4

The system will enter the network configuration state



## Wi-Fi Mode

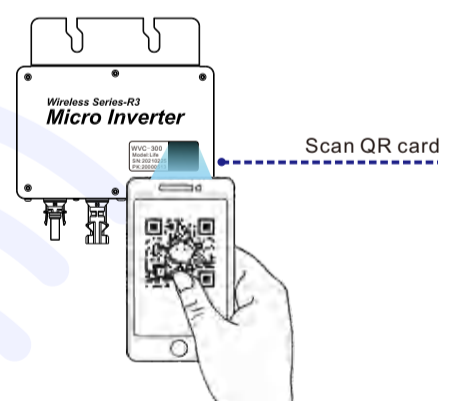
### Setp 1

Bluetooth distribution network fails, you can click to scan the QR code to operate



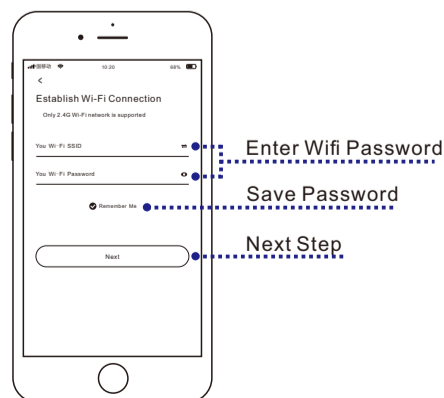
### Setp 2

Scan the QR code on the inverter to activate network operation



### Setp 3

Select WiFi signal, enter the Wi-Fi password; click Next



### Setp 4

The system will enter the network configuration state

