WIFI

Single Phase
Smart Meter

USER MANUAL

Ver.002911

1. General Description

Single phase type multi-function smart energy meter is designed to measure single phase two wire AC active energy and variable parameter. The meter have WIFI communication, it can use APP for remote reading and control on/off. its data communication rules obey the requirement of WIFI 802.11b/g/n. It is a long life meter with the advantage of high stability , high over load capability , low power loss and small volume .

The meter should be installed in suitable environment with ambient temperature range between -25℃～+55℃,the relative humidity less than 75% and temperature limits between and-40℃～+70℃·

The meter is manufactured complying with international standard IEC62052-11 on "Electricity metering equipment (AC) General requirements tests and test conditions" and IEC62053-21 on "Static meters for active energy (classes 1 and 2)".

2.Specification and Technical Parameters

2.1Specification

Meter type	**WIFI**
Rate frequency	50 or 60 Hz
Rated current	5(65)A
Rate voltage	120V / 220V / 230V /240V
Limits voltage range	90～300V
kWh accuracy	Class 1
R.M.S accuracy	Class 0.5
Current circuit	<1.5VA
Voltage circuit	<2W/8VA
Starting current	0.004Ib (20mA)
LCD	999999.9 kWh
WIFI	802.11b/g/n ,only support 2.4GHz network , not support 5GHz network
Operation temperature	-25 ~70℃

3.Basic Features

3.1 Measuring positive & negative active energy with negative energy accumulated into positive energy,.
3.2 The meter also display real voltage , real current , real active power , real power factor , real frequency
3.3 Pulse LED indicates working of meter，Pulse output with optical coupling isolation
3.4 Measuring active energy without calibration under long term operation
3.5 display step by step with button
3.6 APP only can read total energy kWh ,real current、 voltage、 active power and can remote control on/off
3.7 It has timing control function , it can set value from APP
3.8 Hour/Day/Month/Year history active energy consumption tracking by **APP**
3.9 Prepayment function ,if balance used up, it will cut off automatic. This function can be on/off by APP.
3.10 It compatible with **TUYA** saas system
3.11 Voice control on/off function
3.12 Energy data can store on memory chip when power off ,it also still measure energy meter when lose **WIFI** connection, and it will update the energy on **APP** when connect **WIFI** again!

4.Working principles

Single phase voltage and current are sampled from respective sampling circuit and transformed into suitable signal, which is carried into integrated circuit , then the meter output pulse signal in positive appropriation to measured power to drive LCD counter to realize energy measurement. The meter has energy pulse output for testing with pulse width of 80+20ms

6. Usage

6.1 schematic diagram

WIFI led indication, if you push the setting button last 10s , WIFI led will flash 1s interval after the LCD display " ᵢₙᵢᵗ " .It means the meter enter into the status of waiting for WIFI distribution network. If WIFI alwasy light on means the meter connect the WIFI successfully.

Impulse led indication: it will flash with different speed according the current load of the meter

Relay led indication: the led light off means relay switch on, the led on means relay switch off .

Setting and down button: you can push this button to check the different data display,if you push the setting button last10s,meter will enter into the status of waiting for WIFI distribution network .if you want to reset status of WIFI distribution network, you also can push the setting button last 10s.

6.2 Installation The meter can be installed on a 35 mm DIN rail

6.2.1 The meter can not installed and used until it is checked goods and sealed before delivery

6.2.2 The meter should be install in the water proof box indoor or outdoor . the meter's box should be fixed on strong and flame-resistant wall with a recommended height of about 1.8 m , where there is no corrosive gas around .

6.2.3 The meter should be install fully in accordance with connection diagram on the terminal cover, it is better to use copper as the leading wire for connection. All screws should be tightened.

6.2.4 Diagram for installation dimension (mm)
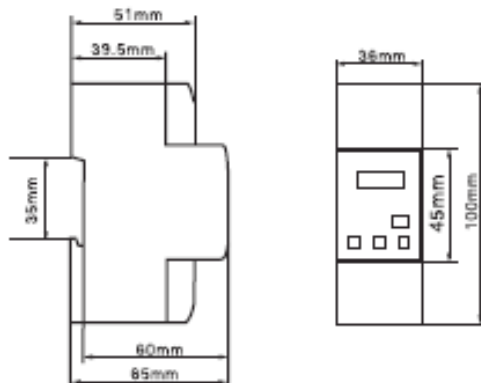
6.2.5 Connection diagram

(Normal wire connection)
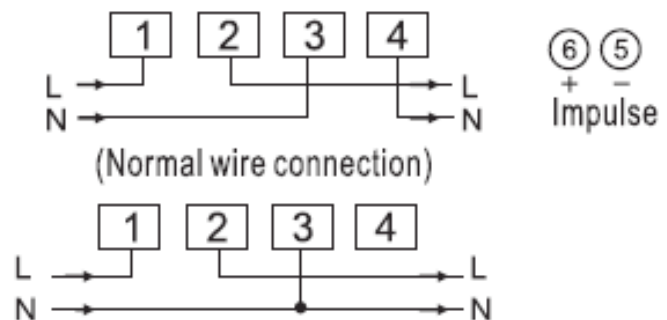
7. Warranty period

Within 12 months from the day of selling and provided that users operate correctly according to the requirement of the user's manual , if the meter doesn't reach its technical specification. It can be repaired or replaced in free f charge by the manufacturer .

8. Display item

	INFORMATION	LCD DISPLAY		INFORMATION	LCD DISPLAY
01	Impulse imp/kWh	C 0000	07	Real voltage V	U 000.0
02	Total energy kWh	000000.0	08	Real active power W	P00000.0
03	Positve kWh	000000	09	Real reactive power Var	900000.0
04	Reverse kWh	-000000	10	Power factor COSΦ	P ʳ 0.00
05	Balance kWh	E0000.00	11	Real frequency Hz	ʳ 00.00
06	Real current A	1 000.00			

"SMART LIFE" software instruction

1. Please download the "SMART LIFE" software from google play or app store


2. Meter input power

When the meter power on , you can push the setting button last 5 s, meter enter into the status of waiting for WIFI distribution network and the WIFI led will flash 1s interval . its means meter enter into the status of waiting for WIFI distribution network .

3. Add device

Please check firstly that your telephone have connected the available WIFI network , then click the "add device " button .

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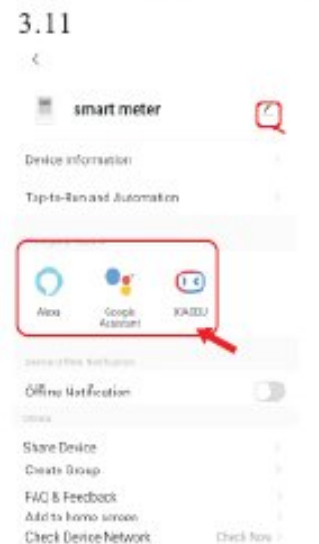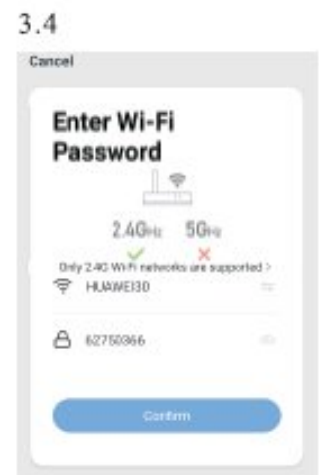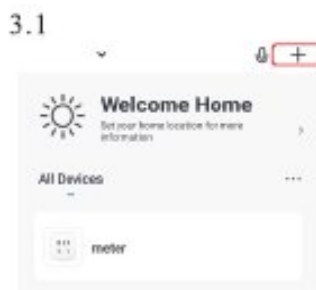
If device connect successfully ,you can realize remote control on/off , timer control and delay time control , and read the energy /current/ voltage/active power and history energy. you also can change the device name and share the device to others. If closed the prepayment function ,the balance energy will reset zero.

Note: WIFI meter is only support 2.4GHz network , not support 5GHz network
Note: If you need zigbee type energy meter ,please contract with our factory .

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