

WattNet-1

Single-Phase Power Monitor

Quick Start Guide

Safety Handling

WARNING: Failure to follow these safety notices could result in fire, electric shock, other injuries, or damage to the Power monitor and other property. Read all the safety notices below before using the Power monitor.

- Avoid high humidity or extreme temperatures.
- Avoid long exposure to direct sunlight or strong ultraviolet light.
- Do not drop or expose the unit to intense vibration.
- Do not disassemble or try to repair the unit on your own.
- Do not expose the unit or its accessories to flammable liquids, gases or other explosives.

Technical Specifications

Wireless Connectivity

Wi-Fi	<ul style="list-style-type: none">• 802.11 B/G/N20/N40@2.4GHz
BLE	<ul style="list-style-type: none">• Bluetooth 4.2 Low Energy
RF Characteristics	<ul style="list-style-type: none">• Operating frequency: 2.4GHz• Internal antenna

Physical Specifications

Operating Voltage	<ul style="list-style-type: none">• 90~250 Vac 50/60 Hz
Calibrated Metering Accuracy	<ul style="list-style-type: none">• $\leq 100W$ (Within $\pm 2W$)• $> 100W$ (Within $\pm 2\%$)
Reporting Cycle	<ul style="list-style-type: none">• Every 15 seconds
Operating environment	<ul style="list-style-type: none">• Temperature: $-20\text{ }^{\circ}\text{C} \sim +55\text{ }^{\circ}\text{C}$• Humidity: $\leq 90\%$ non-condensing
Dimension	<ul style="list-style-type: none">• 51.6(L) x 23.3(W) x 46(H) mm

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Welcome



WattNet-1 Power monitor helps you monitor the amount of electricity usage in your facility by connecting the clamp on to the power cable. It can also measure Voltage, Current, Power Factor, Active Power.

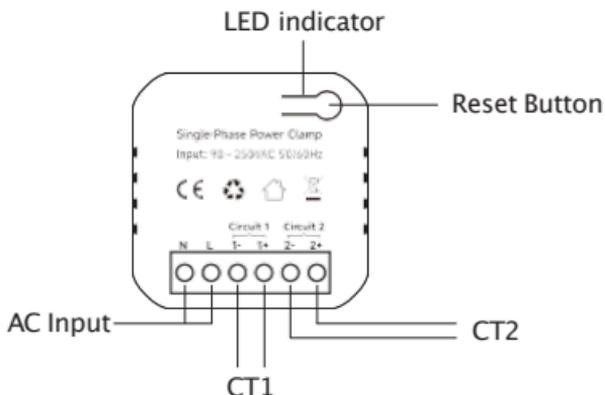
This guide will provide you with an overview of the product and help you get through the initial setup to installation.

Features:

- Tuya compliant
- Support automation with other Tuya devices
- Single phase electricity compatible
- Measures real-time Energy Usage, Voltage, Current, Power Factor, Active Power and frequency.
- Support Energy Production measurement
- Usage trends by day, week, month

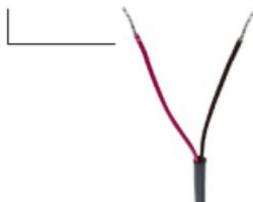
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Get to know your device



CT: Current
Transformer

AC input cable



Clamp

Mounting bracket



Reset Button

- **Reset.** Press and hold the reset button for 5 seconds until the LED indicator flashes Red 3 times quickly to clear the Wi-Fi information (energy data will not be cleared). After that, the LED indicator will blink Green and wait for pairing.

Note: If you want to clear the energy data, please delete the device and wipe data on the app then add it again.

LED indicator

The LED status gives the following information of the power monitor:

LED Status	What it means
Green LED blinking	Wait for pairing
Green LED solid on	Device has connected with cloud.
Red LED solid on	Device is connected to the router, but failed to connect to the cloud.
Red LED blinking	Wi-Fi has been configured, but failed to connect to router.

3 Installation

Important safety information!

- The power monitor must be installed and serviced only by a qualified electrical personnel.
- Do not touch the terminals of the device during testing.
- Turn off all the power supply for this equipment before installing.
- Make sure that the power supply is off before connecting or disconnecting it to an auxiliary device.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before applying power to the equipment.

Failure to follow these instructions will result in death or serious injury.

Get started:

Please make sure the main power in your facility is off before installing

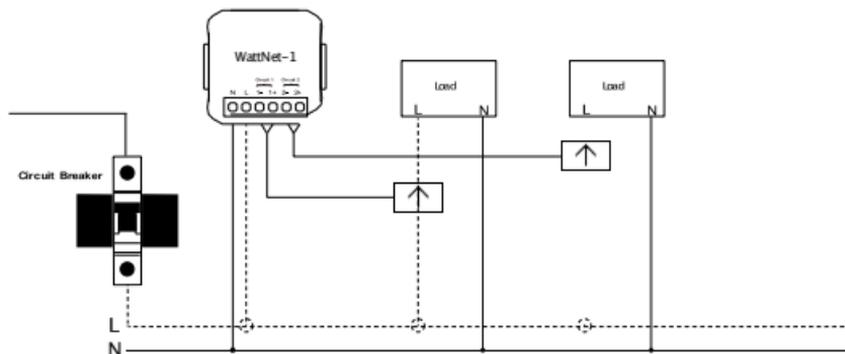
1. Open the clamp to see the arrow (P1→P2) or (K→L) or you can find it on the sticker on the outside of the clamp. This is the direction of CT. The CT support bi-directional sensing. If the direction of the CT is opposite to the direction of the current, the power will be negative.



2. Connect AC Input cable to a socket near the Electrical Box to power on the Power monitor according to the wiring diagram. And apply the CT on the electric cable and ensure the direction of CT is correct when installing in different scenarios:

- To measure energy consumption

The arrow on the clamp should face to the correct direction of the electricity current flows like CT1 in the wiring diagram. In this case, the power will be positive, and the energy consumption will be accumulated.

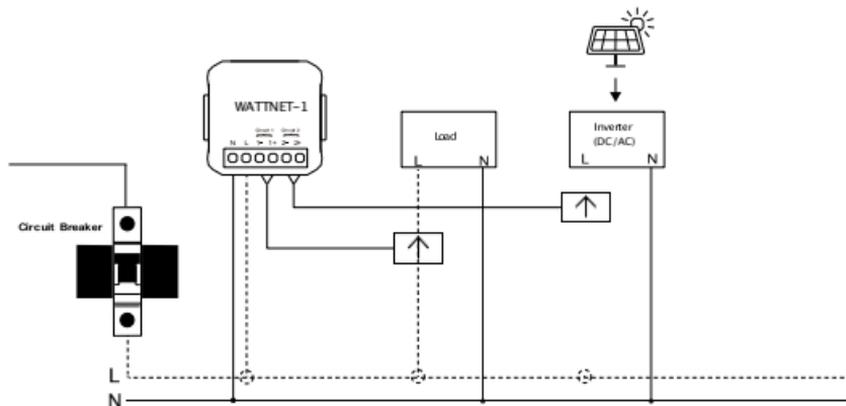


Wiring diagram

Note: When installing, please ensure that the circuit measured by CT is in the same phase as the circuit powered by WATTNET-1.

- **To measure energy generation**

The arrow on the clamp should face to Inverter like CT2 in the wiring diagram. In this case, the direction of the current is opposite to that of the CT. The power will be negative, and the energy generation will be accumulated.

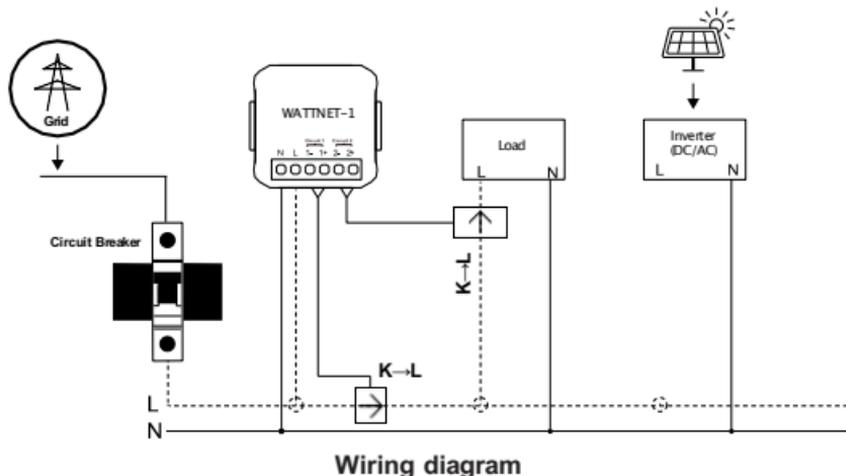


Wiring diagram

Note: When installing, please ensure that the circuit measured by CT is in the same phase as the circuit powered by WATTNET-1.

- To measure 'From Grid' or 'To Grid'

To monitor how much energy is pulling from and sending back from the grid, install the CT on the leads coming from your mains like the CT1 below. **Note:** When installing, please ensure that the circuit measured by CT is in the same phase as the circuit powered by WATTNET-1.



For CT1:

If the measured current direction is $K \rightarrow L$, the energy consumption is accumulated as 'From Grid' energy.

If the measured current direction is $L \rightarrow K$, the energy generation is accumulated as 'To Grid' energy.

4 Mounting

The Power monitor has a mounting bracket for mounting purposes. You can choose the following two mounting methods:

- Use the mounting bracket as template to mark the two holes on the wall for installing screws. Screw the mounting bracket onto the wall according to marked location. Install wall plugs if necessary.
- Sliding the mounting bracket through one end of the Din-Rail if you want to fix on the Din-Rail.

After the bracket is installed, snap the Power monitor onto the bracket.



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Configure Network

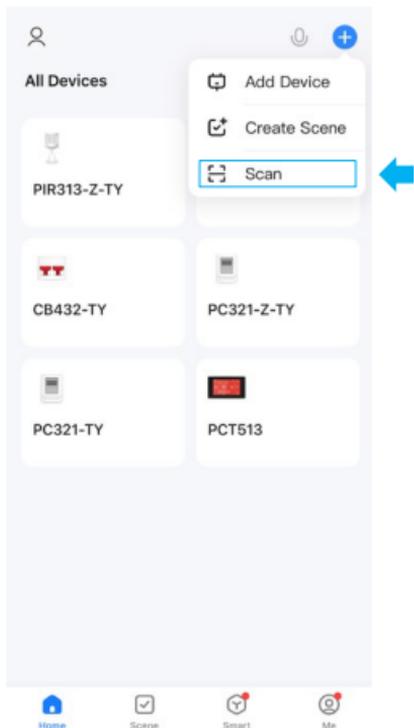
Download App

Please download the application: **Smart Life** from App Store or App Market. Also you can scan below QR code to download and install.



Method 1:

1. Open **Smart Life** app and click the 'Scan' button in the upper right corner of the App Home page.



2. Scan the following QR code to configure the network.



Method 2:

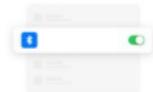
1. Power on the power monitor.
2. Make sure the LED indicator is flashing green. If not, please reset it.
3. Open **Smart Life** app and turn on Bluetooth on your phone.



You are advised to enable Bluetooth.

Enable Bluetooth to add some Wi-Fi devices easily.

Allow Bluetooth
Permission
Enabled ✓



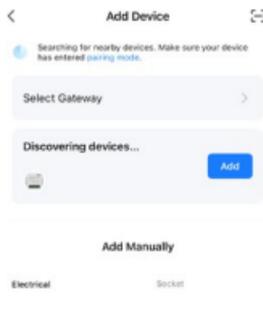
Turn on Bluetooth



4. Open the app and the scanned devices will pop up automatically.



5. If no prompt box pops up automatically, please click the '+' on the top right of the home page to add device. It will search nearby devices.



6. After clicking 'Add', enter your home Wi-Fi account and password (Only support 2.4Ghz Wi-Fi) and wait for it to be added. If it fails, please refer to the FAQ.



6 FAQ

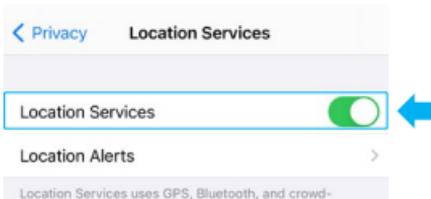
1. Wi-Fi configuration of the device failed

- Confirm the entered router password is correct.
- If you have already upgrade the iOS system to 14, you need to enable the "Local network" of **Smart Life App**.

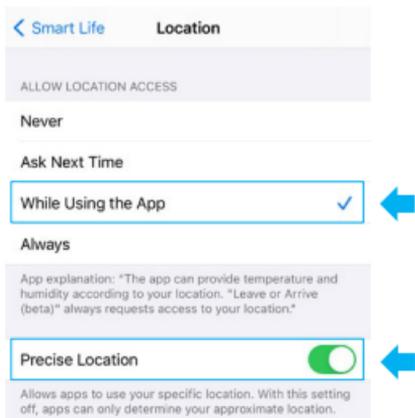


- Confirm that both the location permission of phone system and Smart Life App are enabled.

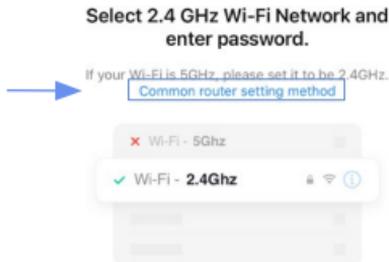
Phone system



Smart Life



- Ensure that the DHCP service is enabled for the router. If not, the IP address will be occupied.
- If your router supports both 2.4Ghz and 5Ghz, please enable the 2.4Ghz channel and add device under 2.4G Wi-Fi channel. You can follow the following step on the App to configure the router.



- If it still does not work, it is recommended to change the router and try again.

2. Device offline

- Confirm whether the Power monitor is powered on.
- Please confirm whether the home Wi-Fi network is normal, or whether the Wi-Fi name and password has been modified:

Put the phone besides your device and make sure they are in the same network environment, try to open a website to judge if the network can be used.

- If there still have problems after the above checking, it is recommended to remove the device or change the router to add it again.