Srutueo Tuya Smart ZigBee Energy Meter 80A

User Manual: Tuya Smart ZigBee Energy Meter 80A

Model: Tuya Smart ZigBee Energy Meter 80A

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Srutueo Tuya Smart ZigBee Energy Meter 80A. This device is designed to monitor electrical parameters such as KWh, voltage, current, and power consumption for both 110V and 240V systems. It integrates with the Tuya Smart or Smart Life application for remote monitoring and control.

2. PRODUCT OVERVIEW

The Srutueo Smart ZigBee Energy Meter consists of the main meter unit and an external Current Transformer (CT) clamp. The meter unit processes the data, while the CT clamp measures the current flowing through the monitored circuit.

Figure 2.1: Srutueo Tuya Smart ZigBee Energy Meter and Current Transformer (CT) Clamp. The meter unit has input terminals for L, N, S1, and S2, indicating connections for live, neutral, and the CT clamp.

Figure 2.2: Close-up view of the Current Transformer (CT) Clamp. This component is designed to be clamped around a live wire to measure current non-invasively.

3. SPECIFICATIONS

Parameter	Value
Communication Protocol	ZigBee
App Compatibility	Tuya Smart, Smart Life
Measure Range	0.2-80A
Voltage Range	100-240V AC

Ambient Temperature Range	-10°C to 50°C
Wireless Frequency	WiFi 2.4Ghz (for ZigBee gateway connection)
Material	Plastic
Dimensions	Approximately 4.33 x 3.94 x 1.57 inches
Weight	Approximately 4 ounces

4. SETUP AND INSTALLATION

4.1 Safety Precautions

- Ensure power is disconnected from the circuit before installation to prevent electric shock.
- Installation should be performed by a qualified electrician if you are not familiar with electrical wiring.
- Do not exceed the maximum rated current of 80A.

4.2 Wiring Diagram

Follow the diagram below for correct wiring. The meter requires a live (L) and neutral (N) connection for power. The CT clamp wires (S1, S2) connect to the corresponding terminals on the meter. The CT clamp should be installed around the live wire of the load you wish to monitor.
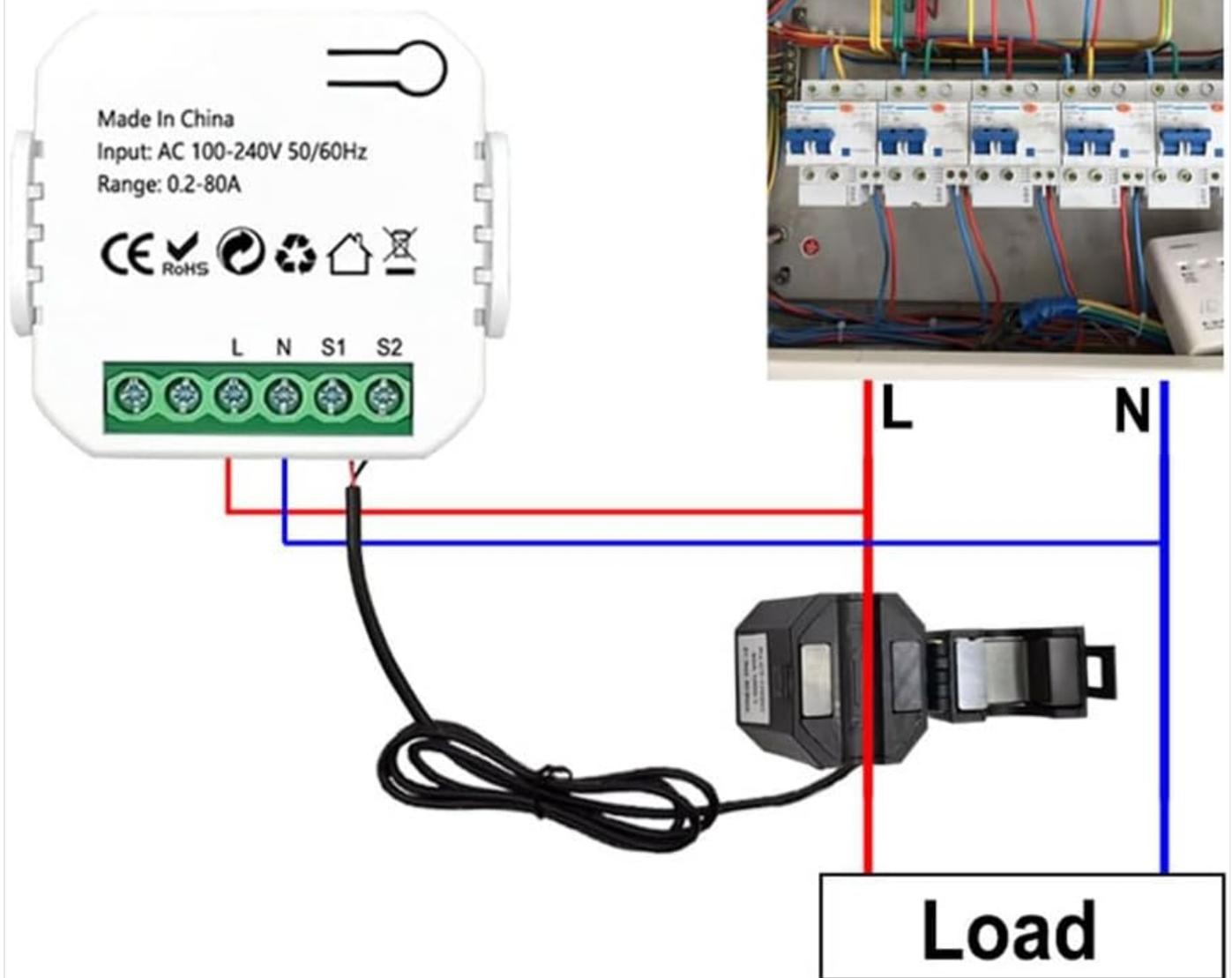
Wiring Diagram

Figure 4.1: Wiring diagram showing connections for the energy meter. The L and N terminals connect to the main power supply, and the S1/S2 terminals connect to the CT clamp, which encircles the live wire of the load.

1. Connect the Live (L) wire from your power source to the 'L' terminal on the meter.

2. Connect the Neutral (N) wire from your power source to the 'N' terminal on the meter.

3. Connect the red wire of the CT clamp to the 'S1' terminal on the meter.

4. Connect the black wire of the CT clamp to the 'S2' terminal on the meter.

5. Open the CT clamp and place it around the live wire of the electrical load you intend to monitor. Ensure the clamp is securely closed.

4.3 App Installation and Pairing

This device requires a ZigBee gateway (not included) and the Tuya Smart or Smart Life app for full functionality.

1. Download the "Tuya Smart" or "Smart Life" app from your mobile device's app store (Google Play Store for Android, Apple App Store for iOS).

2. Register or log in to your account.

3. Ensure your ZigBee gateway is powered on and connected to your home Wi-Fi network.

4. In the app, tap '+' to add a new device. Select "Add Device" and then choose the appropriate ZigBee device category (e.g., "Energy Meter" or "Sensor").

5. Follow the on-screen instructions to put the energy meter into pairing mode (refer to the device's specific pairing button/procedure if available, typically a long press of a reset button).

6. Once the device is discovered and added, you can rename it and assign it to a room.

5. OPERATING INSTRUCTIONS

5.1 Monitoring Energy Consumption

After successful pairing, you can view real-time and historical energy data through the Tuya Smart or Smart Life app.
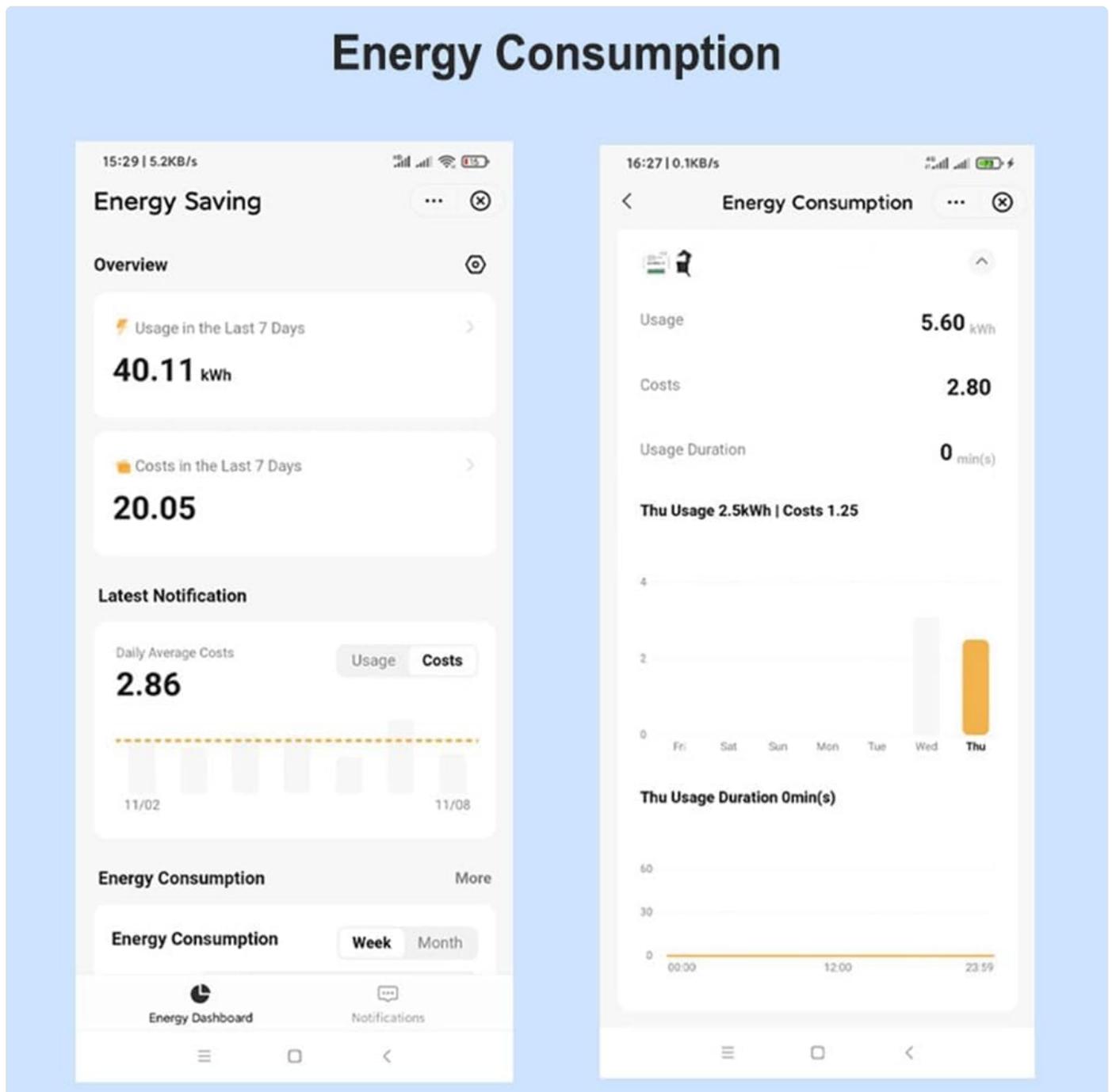

Figure 5.1: App interface displaying energy consumption overview, including daily average costs and usage over time.
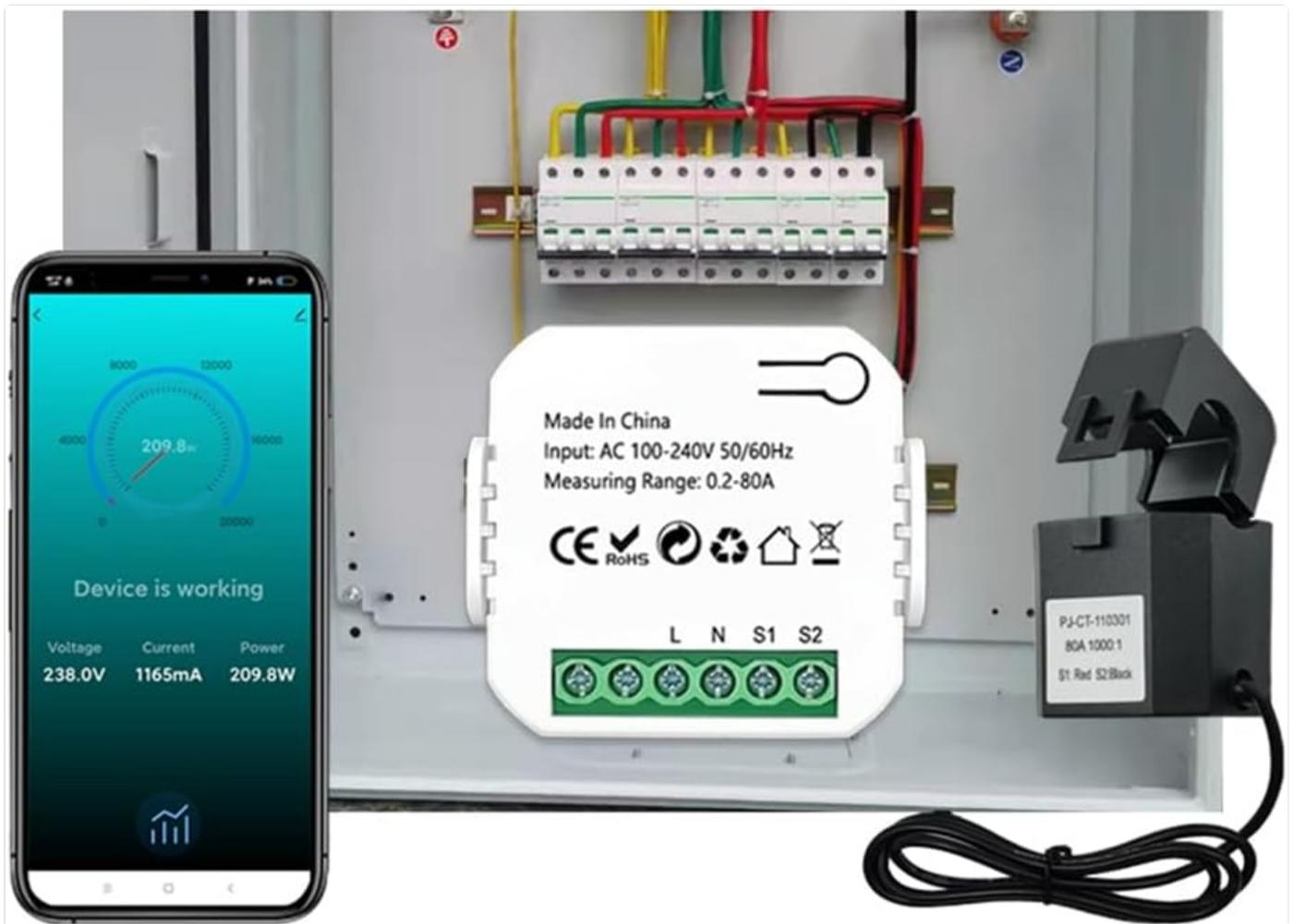
Figure 5.2: App interface showing real-time readings for voltage, current, and power consumption of the monitored circuit.

- Open the Tuya Smart or Smart Life app.

- Select your energy meter device from the device list.

- The main screen will display real-time voltage, current, and power readings.

- Navigate through tabs or sections to view historical data, daily/weekly/monthly consumption, and energy cost estimates.

5.2 Creating Smart Scenes (Automation)

The app allows you to create automated scenes based on the energy meter's readings, integrating with other smart devices.

Figure 5.3: App interface for creating smart scenes. This allows setting conditions (e.g., power exceeding a threshold) to trigger actions (e.g., turning off a smart breaker).

- In the app, go to the "Smart" or "Automation" section.
- Tap to create a new "Scene" or "Automation".
- Set a condition (e.g., "When power exceeds 2000W").
- Set an action (e.g., "Turn off Smart Breaker").
- Save the scene. This allows for automatic control of appliances based on energy consumption.

6. MAINTENANCE

The Srutueo Smart ZigBee Energy Meter is designed for low maintenance. Follow these guidelines to ensure optimal performance:

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Environment:** Ensure the device is installed in a dry environment, away from direct sunlight, excessive heat, or moisture. The ambient temperature range is -10°C to 50°C.
- **Firmware Updates:** Periodically check the Tuya Smart/Smart Life app for any available firmware updates for the device to ensure it has the latest features and security patches.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device not appearing in app / Cannot pair	- Not in pairing mode. - ZigBee gateway not connected or too far. - Incorrect app selected.	- Ensure the device is in pairing mode (refer to device instructions for specific button press). - Verify ZigBee gateway is online and within range. - Use "Tuya Smart" or "Smart Life" app.
No data or incorrect readings in app	- CT clamp not correctly installed. - Wiring issues. - Device not powered.	- Check if the CT clamp is securely closed around the live wire. - Verify all wiring connections (L, N, S1, S2) are correct and secure. - Ensure the meter unit is receiving power (100-240V AC).
App shows device offline	- ZigBee gateway offline or disconnected. - Poor ZigBee signal. - Power outage to the meter.	- Check the status of your ZigBee gateway and home Wi-Fi. - Relocate the gateway closer to the meter or use a ZigBee repeater. - Verify the meter is powered on.

8. WARRANTY AND SUPPORT

For warranty information or technical support, please contact the manufacturer, Srutueo, or your point of purchase. Keep your purchase receipt as proof of purchase.

Manufacturer: Srutueo

For further assistance, please visit the official Srutueo website or contact their customer service.