

SPORTARC 50A CT-WIFI

SPORTARC TUYA Smart WiFi Single-Phase Energy Meter 50A CT-WIFI User Manual

Model: 50A CT-WIFI

1. INTRODUCTION

Thank you for choosing the SPORTARC TUYA Smart WiFi Single-Phase Energy Meter. This device is designed to provide real-time monitoring of your electricity consumption, allowing you to track power, current, voltage, and total energy usage directly through a smartphone application. With its advanced WiFi connectivity, you can remotely monitor your energy usage and make informed decisions to optimize consumption and save costs.

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your energy meter. Please read it thoroughly before installation and keep it for future reference.

2. SAFETY INFORMATION

- **Professional Installation Recommended:** Installation of this device involves electrical wiring. It is strongly recommended that installation be performed by a qualified electrician to ensure safety and compliance with local electrical codes.
- **Disconnect Power:** Always ensure that the main power supply is disconnected before attempting any installation, wiring, or maintenance procedures. Failure to do so can result in electric shock, injury, or death.
- **Voltage and Current Ratings:** Do not exceed the specified voltage (100-240V AC) or current (0.2-63A) ratings of the device.
- **Environmental Conditions:** Operate the device within the specified ambient temperature range of -10°C to 60°C. Avoid exposure to moisture, direct sunlight, or extreme temperatures.
- **Proper Wiring:** Follow the provided wiring diagrams precisely. Incorrect wiring can damage the device or connected appliances and pose a safety hazard.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all items are present and undamaged:

- 1 x SPORTARC TUYA Smart WiFi Energy Meter (Main Unit)
- 1 x Current Transformer (CT) Clamp with cable
- 1 x User Manual (this document)

4. PRODUCT OVERVIEW

The SPORTARC Smart WiFi Energy Meter consists of a main meter unit and a Current Transformer (CT) clamp. The main unit processes the data, connects to your WiFi network, and sends information to the TUYA Smart app. The CT clamp measures the current flowing through the electrical wire.



Image 4.1: Overview of the Smart WiFi Energy Meter and Current Transformer (CT) clamp, showing key dimensions for installation planning.



Image 4.2: Detailed view of the Current Transformer (CT) clamp, which measures electrical current.

5. SETUP AND INSTALLATION

5.1 Mounting the Device

The energy meter is designed for easy installation on a standard 35mm DIN rail (EN 60715). Ensure the mounting location is dry, well-ventilated, and within the specified operating temperature range.

1. Locate a suitable 35mm DIN rail within your electrical panel.
2. Clip the energy meter onto the DIN rail. Ensure it is securely fastened.

5.2 Wiring Instructions

WARNING: Ensure the main power supply is OFF before proceeding with any wiring.

Follow the wiring diagrams carefully. The meter requires connection to both the Live (L) and Neutral (N) lines of your single-phase electrical system, and the CT clamp must be correctly positioned around the Live wire of the circuit you wish to monitor.

1. Connect the Live (L) and Neutral (N) wires from your main power supply to the corresponding terminals on the energy meter.
2. Open the CT clamp and place it around the Live wire of the circuit you intend to monitor. Ensure the arrow on the CT clamp points in the direction of the current flow (towards the load).
3. Connect the small wires from the CT clamp to the designated terminals (usually labeled 1 and 2 or similar) on the energy meter.
4. Double-check all connections for tightness and correctness before restoring power.



Image 5.1: Standard wiring diagram showing connections for Live (L), Neutral (N), and the CT clamp around the load wire.

Wiring Diagram

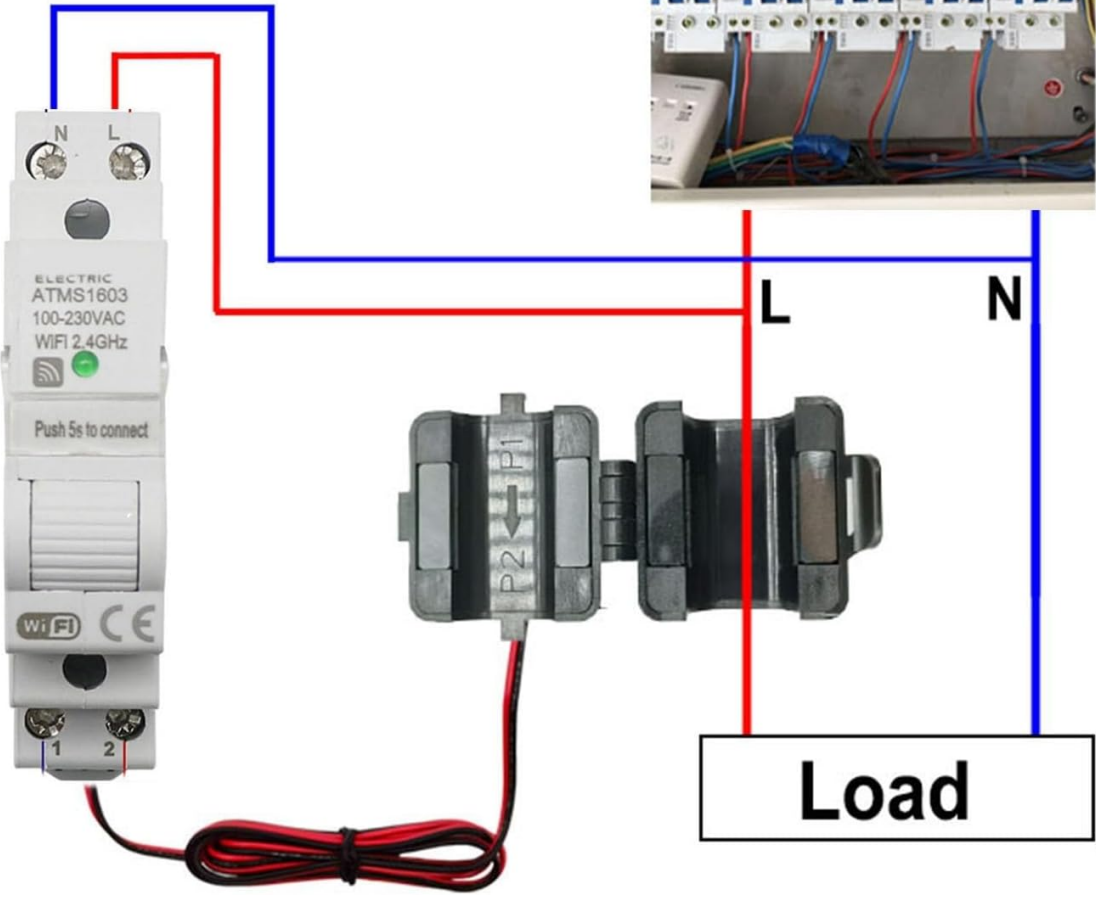


Image 5.2: An alternative wiring example demonstrating the connection of the meter and CT clamp to an appliance circuit.



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Image 5.3: Side view of the meter showing the internal wiring schematic for connecting the CT clamp (terminals 1 and 2) and the main power supply (L and N).

5.3 App Installation and WiFi Connection

1. Download the **TUYA Smart** or **Smart Life** app from your smartphone's app store (iOS or Android).
2. Register or log in to your account.
3. Restore power to the energy meter. The WiFi indicator light on the meter should start blinking.
4. In the app, tap '+' to add a new device. Select 'Electrical Engineer' -> 'Energy Meter (Wi-Fi)'.
5. Follow the on-screen instructions to connect the meter to your 2.4 GHz WiFi network. If the indicator light is not blinking rapidly, press and hold the 'Push 5s to connect' button on the meter for 5 seconds until it blinks rapidly.
6. Once connected, the device will appear in your app, and you can rename it.

6. OPERATING INSTRUCTIONS

Once successfully installed and connected to the TUYA Smart app, you can begin monitoring your electricity consumption in real-time.

6.1 Real-time Monitoring via App

- Open the TUYA Smart app and select your energy meter device.
- The app dashboard will display various real-time data points:
 - **Today's Power (KWh):** Total energy consumed today.
 - **Current (mA):** Instantaneous current flow.
 - **Current Power (W):** Instantaneous power consumption.
 - **Current Voltage (V):** Real-time voltage reading.
 - **Total Electricity Consumption (KWh):** Cumulative energy consumption since installation.
- You can view historical data and trends within the app to analyze your consumption patterns.



Image 6.1: Example of the TUYA Smart app interface showing real-time electricity monitoring data.

7. MAINTENANCE

The SPORTARC Smart WiFi Energy Meter is designed for low maintenance. However, periodic checks can ensure optimal performance and longevity.

- **Cleaning:** Gently wipe the device with a dry, soft cloth. Do not use abrasive cleaners, solvents, or liquids, as these can damage the device.
- **Connection Check:** Periodically, with power disconnected, check that all electrical connections are secure and free from corrosion.
- **Firmware Updates:** Check the TUYA Smart app regularly for any available firmware updates for your device. Updates can improve performance and add new features.
- **Environmental Conditions:** Ensure the device remains within its specified operating temperature and humidity ranges.

8. TROUBLESHOOTING

If you encounter issues with your energy meter, refer to the following common troubleshooting steps:

- **Device Not Powering On:**
 - Check the main power supply to the meter.
 - Verify that the Live (L) and Neutral (N) wires are correctly connected and secure.
- **No WiFi Connection / Offline in App:**
 - Ensure your WiFi router is powered on and functioning correctly.
 - Verify that your WiFi network is 2.4 GHz. The device does not support 5 GHz networks.
 - Check the distance between the meter and your WiFi router. Move them closer if possible.
 - Try resetting the meter's WiFi connection by pressing and holding the 'Push 5s to connect' button for 5 seconds until the indicator blinks rapidly, then re-add it in the app.
 - Restart your WiFi router.
- **Incorrect or No Readings in App:**
 - Ensure the CT clamp is correctly installed around the Live wire of the circuit you want to monitor.
 - Verify that the CT clamp's small wires are securely connected to terminals 1 and 2 on the meter.
 - Check the direction of the arrow on the CT clamp; it should point towards the load.
 - Confirm that there is actual power consumption on the monitored circuit.
- **App Issues:**
 - Ensure your TUYA Smart app is updated to the latest version.
 - Clear the app's cache or reinstall the app.

If problems persist after attempting these steps, please contact customer support.

9. SPECIFICATIONS

Brand	SPORTARC
Model Number	Q7O7TBPZ8986TOUF25LOU0U91MI (50A CT-WIFI variant)

Rated Voltage	100-240V AC, 50/60 Hz
Measurable Current Range	0.2-63A
WiFi Frequency	2.4 GHz (IEEE 802.11 b/g/n)
Mounting	35mm DIN Rail (EN 60715)
Environmental Temperature Range	-10°C to 60°C
Product Dimensions	Approximately 10 x 10 x 5 cm
App Compatibility	TUYA Smart / Smart Life

10. WARRANTY AND SUPPORT

10.1 Warranty Information

For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact your retailer. Warranty periods and coverage may vary based on region and point of sale.

10.2 Customer Support

If you require technical assistance, have questions about the product, or need to report an issue, please contact SPORTARC customer service through their official website or the contact information provided by your retailer.