DEWIN QCDYXYBXI-DEW9904801ZQ

DEWIN Tuya WiFi Smart Circuit Breaker (40A) User Manual

Model: QCDYXYBXI-DEW9904801ZQ | Brand: DEWIN

1. Introduction

The DEWIN Tuya WiFi Smart Circuit Breaker is designed for intelligent control and monitoring of electrical circuits in smart home environments. This device allows remote management of power, real-time energy consumption tracking, and provides multiple layers of electrical protection. It is compatible with standard DIN rails for easy integration into existing electrical panels.

Key Features:

- **Remote Control:** Manage device ON/OFF status via the Tuya mobile application.
- **Real-time Monitoring:** Track current, voltage, power, and energy consumption (daily, monthly, yearly).
- **Multi-Protection:** Includes overvoltage, undervoltage, overload, overcurrent, and overtemperature protection.
- **Timer Function:** Schedule power ON/OFF times for automated operation.
- **LED Indicator:** Blue LED display provides clear operational status at a glance.
- **DIN Rail Compatibility:** Suitable for most DIN rail applications.

2. Safety Information

WARNING: Electrical installation should only be performed by qualified personnel. Always disconnect power at the main circuit breaker before installation or maintenance to prevent electric shock.

- Ensure the device is installed in a dry, well-ventilated area, away from direct sunlight, high temperatures, and corrosive environments.
- Verify that the rated voltage and current of the circuit breaker match your electrical system requirements.

- Do not attempt to repair or modify the device. Contact qualified service personnel for any issues.
- Ensure all wiring connections are secure and correctly terminated to prevent loose connections and potential hazards.

3. Package Contents

Please check the package for the following items:

- 1 x DEWIN Tuya WiFi Smart Circuit Breaker (40A)
- 1 x User Manual

4. Technical Specifications

Parameter	Value
Material	ABS
Rated Voltage Range	90-240 V
Number of Poles	1P+N (Neutral conductor cannot be opened or closed independently)
Rated Current	Adjustable 1-40 A
Maximum Overload Current	63 A (3-10s)
Communication Method	Tuya WiFi
Operating Temperature	-25 °C to 70 °C
Short-circuit Resistance	500 A
Electrical Life	≥ 10,000 cycles
Mechanical Life	≥ 100,000 cycles
Overvoltage Protection	250-300 V (Standard: 280 V)
Undervoltage Protection	80-200 V (Standard: 165 V)
Overload Protection	1-63 A (Standard: 50 A)
Overtemperature Protection	0-120 °C (Standard: 80 °C)
Overpower Protection	50 W – 11 kW (Default: Closed)
Model Number	QCDYXYBXI-DEW9904801ZQ
Dimensions (L x W x H)	7.62 x 5.08 x 2.54 cm
Weight	110 g
Mounting Type	DIN Rail Mount

5. Installation

The DEWIN Smart Circuit Breaker is designed for DIN rail mounting. Ensure all power is disconnected before proceeding with installation.

1. **Power Disconnection:** Turn off the main power supply to your electrical panel before starting any installation work.
2. **Mounting:** Clip the circuit breaker onto a standard 35mm DIN rail in your electrical distribution box. Ensure it is securely fastened.
3. **Wiring:** Connect the live (L) and neutral (N) wires to the appropriate terminals on the circuit breaker. The device is 1P+N, meaning it controls one live wire and one neutral wire. Refer to the wiring diagram for correct connections.
4. **Load Connection:** Connect the load wires (to your appliances or circuit) to the output terminals of the circuit breaker.
5. **Verify Connections:** Double-check all wiring to ensure proper and secure connections.
6. **Restore Power:** Once installation is complete and verified, restore power to the electrical panel.



Figure 1: Wiring Diagram for DEWIN Smart Circuit Breaker. This image illustrates the correct connection points for the live (L) and neutral (N) input and output wires, along with the internal circuit representation.


Power
1
Wi Fi
tuya
DEWIN
DEWS9-W
230V~
50/60Hz
W V A
~ 63A KW.H
Status HL
-25
CE



Figure 2: Front view of the DEWIN Smart Circuit Breaker. This image highlights the main power button, the blue LED signal light, and the terminal screws for electrical connections.

6. App Setup and Pairing

To utilize the smart features of your DEWIN Circuit Breaker, you need to pair it with the Tuya Smart or Smart Life mobile application.

1. **Download App:** Download and install the "Tuya Smart" or "Smart Life" app from your smartphone's app store (Google Play Store for Android or Apple App Store for iOS).
2. **Register/Login:** Open the app and register for a new account or log in if you already have one.
3. **Enter Pairing Mode:** With the circuit breaker powered on, press and hold the physical button on the device for approximately 5-10 seconds until the blue LED indicator light flashes rapidly. This indicates the device is in pairing mode.
4. **Add Device:** In the Tuya app, tap the "+" icon in the top right corner to add a new device. The app may automatically detect the device. If not, select "Electrical" > "Breaker" or "Smart Meter" from the device list.
5. **Connect to Wi-Fi:** Follow the on-screen prompts to connect the device to your 2.4GHz Wi-Fi network. Enter your Wi-Fi password when requested.
6. **Confirmation:** Once successfully paired, the blue LED indicator will stop flashing rapidly and remain steadily lit. The device will appear in your app's device list.



Figure 3: LED Indicator Light Description. This image details the meaning of different flashing patterns and states of the blue LED light, indicating network configuration or connection status.

LED Indicator Light Description:

- **Blue light flashes quickly:** Network configuration status (pairing mode).
- **Blue light stays on:** Network connection status (successfully connected).
- **No blue light:** Not connected to the network.
- **Blue light flashes slowly:** Network abnormality, reconnect the network.

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7. Operation

After successful pairing, you can control and monitor your circuit breaker using the Tuya Smart / Smart Life app.

7.1 Remote ON/OFF Control

From the app's main device interface, you can tap the power icon to remotely turn the circuit breaker ON or OFF. The device's physical button also allows manual control.

7.2 Real-time Energy Monitoring

The app provides real-time data on your electrical consumption. Navigate to the "Smart Meter" section within the device interface to view:

- Current Voltage (V)
- Current (A)
- Real Power (W)
- Total Consumption (kWh) - viewable by day, month, or year.
- Temperature of the device.



Figure 4: Real-time Power Consumption Monitoring. This image displays the Tuya app interface, showing live readings for voltage, current, power, and accumulated energy consumption, along with device temperature.

7.3 Timer Function

Set schedules for automatic power ON/OFF:

1. In the app, select the "Timing" or "Schedule" option for your device.
2. Tap "Add" to create a new schedule.
3. Set the desired time, repeat days, and whether the switch should turn ON or OFF.

4. Save the schedule.

7.4 Protection Settings

The circuit breaker offers various protection features. You can adjust some parameters via the app:

1. Access the device settings in the app.
2. Navigate to "Function" or "Parameter" settings.
3. Adjust thresholds for overvoltage, undervoltage, overload current, overpower, and overtemperature protection as needed.
4. Ensure settings are within safe operating limits for your connected devices.

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8. Maintenance

- **Cleaning:** Periodically clean the exterior of the device with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect the wiring connections for any signs of loosening or damage. Ensure the device is free from dust and debris.
- **Firmware Updates:** Check the Tuya app periodically for any available firmware updates for your device to ensure optimal performance and security.

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9. Troubleshooting

Problem	Possible Cause	Solution
Device not powering on	No power supply; incorrect wiring; device fault.	Check main power supply. Verify wiring connections. If problem persists, contact support.
Unable to pair with app	Incorrect Wi-Fi password; 5GHz Wi-Fi network; device not in pairing mode; weak Wi-Fi signal.	Ensure correct 2.4GHz Wi-Fi password. Put device into rapid flashing pairing mode. Move device closer to router.
Device offline in app	Wi-Fi disconnected; power outage; router issues.	Check Wi-Fi connection and router status. Restart the circuit breaker. Re-pair if necessary.
Protection trip (e.g., overload)	Connected load exceeds set limits; short circuit; fault in connected appliance.	Reduce load or check connected appliances for faults. Reset the breaker manually or via app after resolving the issue.
Inaccurate energy readings	Possible calibration issue or temporary glitch.	Restart the device. If the issue persists, contact DEWIN support.

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10. Warranty and Support

This DEWIN product comes with a standard return policy of 30 days from the date of purchase. For specific warranty details, please refer to the terms and conditions provided at the point of purchase or contact your retailer.

Customer Support:

For technical assistance, troubleshooting, or warranty inquiries, please contact DEWIN customer support through your purchase platform or the official DEWIN website. Please have your model number (QCDYXYBXI-DEW9904801ZQ) and purchase information ready when contacting support.

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