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› **Walfront AC220V Smart WiFi Circuit Breaker Miniature Circuit Breaker (2P 100A) User Manual**

Walfront 2P 100A

Walfront AC220V Smart WiFi Circuit Breaker (2P 100A) User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Walfront AC220V Smart WiFi Circuit Breaker, model 2P 100A. This device is designed to provide overcurrent protection and remote control capabilities for electrical circuits via a mobile application. Please read this manual thoroughly before use and retain it for future reference.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Always disconnect power before working with electrical circuits.

- Ensure the main power supply is disconnected before attempting any installation, wiring, or maintenance procedures.
- Verify that the voltage and current ratings of the circuit breaker match your electrical system requirements.
- The device features a PA66-DSM flame-retardant shell for enhanced safety.
- Do not operate the circuit breaker if it appears damaged or malfunctioning.
- Adhere to all local and national electrical codes and regulations during installation.

3. PRODUCT OVERVIEW

3.1 Key Features

- **Stable WiFi Connectivity:** Features a built-in WiFi antenna for reliable signal reception and transmission, minimizing interference.
- **APP Remote Control:** Enables remote switching (ON/OFF) of connected appliances via a mobile phone application.
- **Enhanced Service Life:** Designed with an impulse withstand voltage of 6000V to improve equipment longevity, even under overvoltage conditions.
- **Robust Performance:** Undergoes rigorous electromagnetic interference, fast transient pulse group

immunity, and electrostatic discharge tests to ensure integrity.

- **Safety Lock Design:** Includes a specially designed inspection safety lock for secure circuit inspection and maintenance.

3.2 Components

The Walfront Smart WiFi Circuit Breaker consists of the following main components:

- **Input Terminals:** Connect to the main power supply.
- **Output Terminals:** Connect to the load circuit.
- **ON/OFF Switches:** Manual control levers for circuit activation and deactivation.
- **WiFi Indicator:** Displays the status of the WiFi connection.
- **Safety Lock Mechanism:** Prevents accidental closing of the circuit during maintenance.

Figure 1: Front view of the Walfront Smart WiFi Circuit Breaker, showing input/output terminals and manual switches.
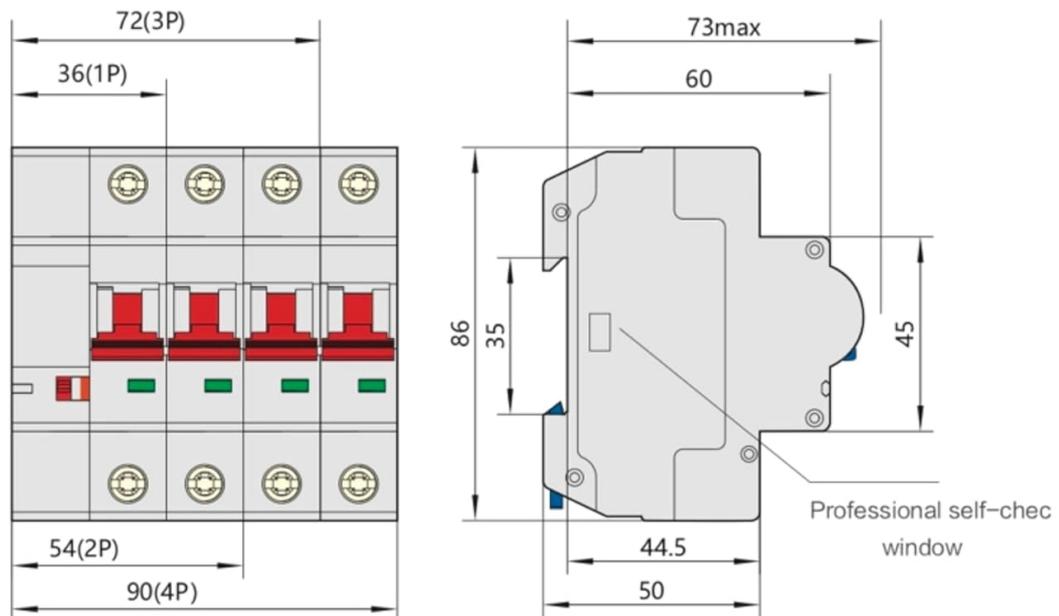
Installation Size

Figure 2: Detailed view of the circuit breaker, highlighting input and output connections, and the ON/OFF indicators.

4. SETUP AND INSTALLATION

IMPORTANT: Ensure all power is disconnected at the main breaker before proceeding with installation.

4.1 Mounting

The Walfront Smart WiFi Circuit Breaker is designed for panel mounting. Secure the device firmly within an appropriate electrical panel or enclosure.

Circuit Breaker
Powerful and professional cloud server

Figure 3: Installation size diagram, providing dimensions for mounting the circuit breaker (e.g., 72mm for 3P, 54mm for 2P).

4.2 Wiring

1. Connect the AC220V main power supply wires to the 'INPUT' terminals of the circuit breaker.
2. Connect the load circuit wires to the 'OUTPUT' terminals of the circuit breaker.
3. Ensure all connections are secure and properly insulated.
4. Double-check all wiring for correctness before restoring power.

4.3 WiFi Pairing

To enable remote control functionality, the circuit breaker must be paired with the mobile application.

1. Download the designated mobile application (refer to the packaging or product documentation for app name).
2. Ensure your mobile device is connected to a 2.4GHz WiFi network.
3. Power on the circuit breaker. The WiFi indicator light will typically flash, indicating pairing mode.
4. Open the mobile application and follow the on-screen instructions to add a new device.
5. Confirm successful pairing when the WiFi indicator light becomes solid.

MECHANICAL LOCK

The circuit breaker is equipped with an anti-mis-closing mechanism, and under the following original position conditions, the opening and closing operations can be controlled under normal control.

When the anti-misclosing mechanism is in the pull-out position, the circuit breaker will remain in the open position, and the circuit breaker cannot be closed at this time.

When the anti-misclosure mechanism needs to be reset to the original position, please operate as shown in the figure below.
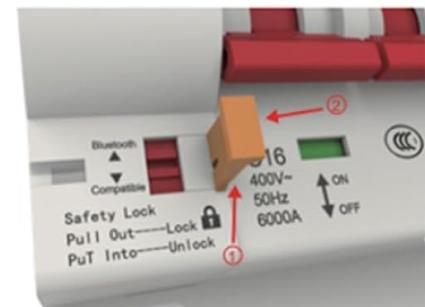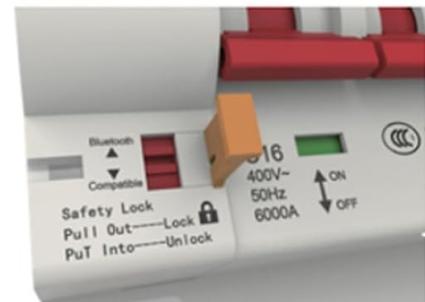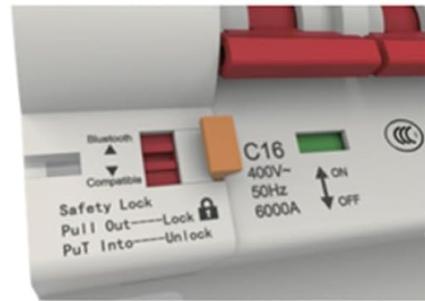
Figure 4: The circuit breaker being controlled remotely via a mobile application on a smartphone.

5. OPERATION

5.1 Manual Operation

- To turn the circuit ON, push the manual switch lever(s) upwards to the 'ON' position.
- To turn the circuit OFF, pull the manual switch lever(s) downwards to the 'OFF' position.

5.2 Remote Control via APP

Once paired, you can control the circuit breaker remotely using the mobile application:

1. Open the mobile application on your smartphone.
2. Select the Walfront Smart WiFi Circuit Breaker from your device list.
3. Use the virtual ON/OFF button within the app to switch the circuit remotely.

5.3 Overcurrent Trip Mechanism

The circuit breaker is equipped with an overcurrent trip mechanism. In the event of an overcurrent condition, the breaker will automatically trip to the 'OFF' position, protecting the circuit from damage. To reset after a trip,

resolve the overcurrent cause, then manually switch the breaker back to the 'ON' position.

5.4 Mechanical Lock for Safety

The circuit breaker includes an anti-misclosing mechanism and a safety lock feature. This mechanism ensures that the circuit breaker remains in the open (OFF) position when the safety lock is engaged, preventing accidental closure during maintenance or repair.
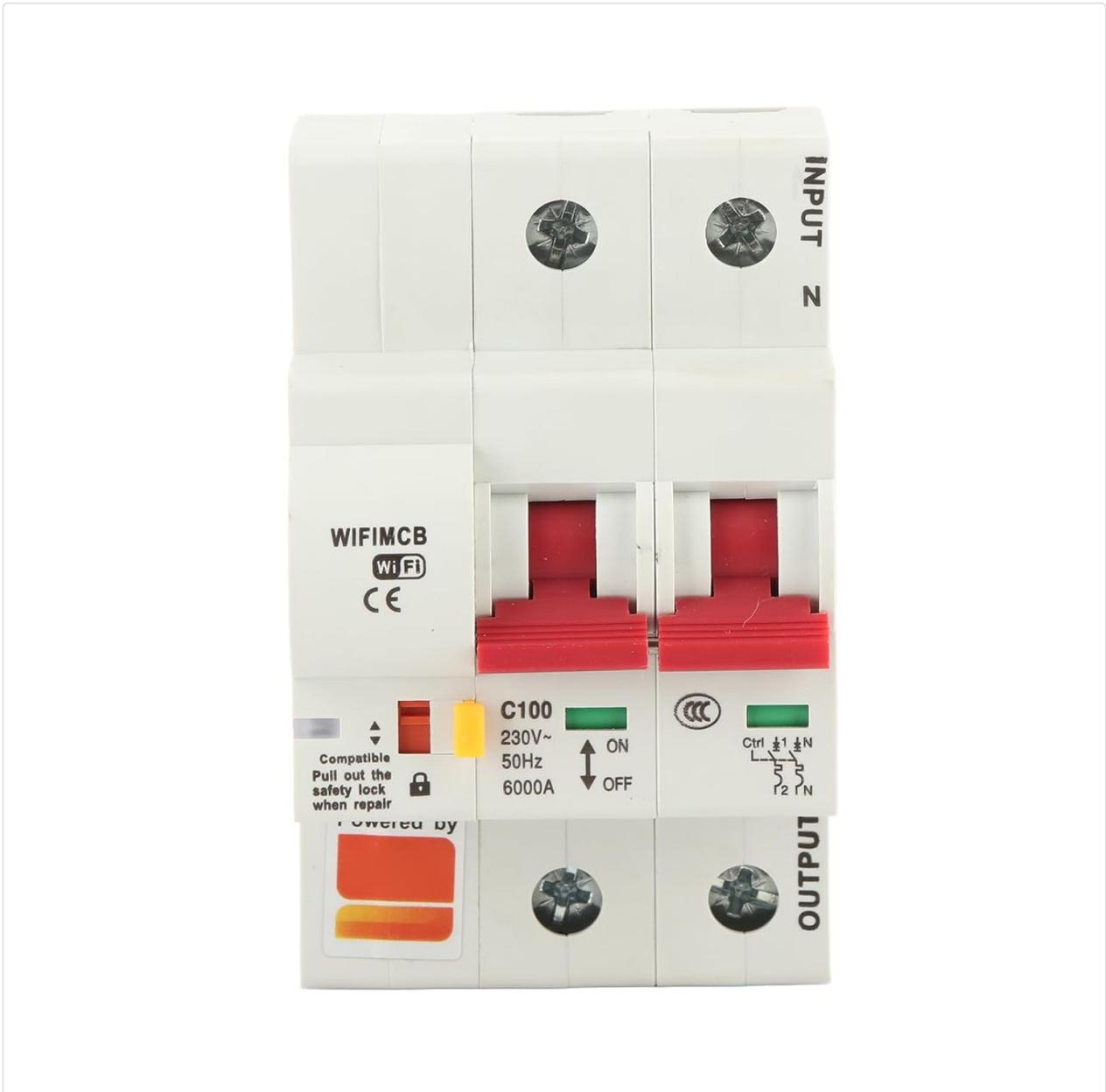

Figure 5: Illustration of the mechanical lock mechanism. Pulling out the safety lock keeps the breaker in the open position. Pushing it in unlocks the mechanism.

To engage the safety lock: Pull out the designated safety lock tab. The circuit breaker will then remain open and cannot be closed. To disengage and reset: Push the safety lock tab back into its original position.

6. MAINTENANCE

- Regularly inspect the circuit breaker for any signs of physical damage, loose connections, or discoloration.
- Keep the device clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquid cleaners.
- Ensure proper ventilation around the circuit breaker to prevent overheating.

- If any issues are detected, disconnect power immediately and consult a qualified electrician.

7. TROUBLESHOOTING

7.1 Circuit Breaker Does Not Turn On

- Check if the main power supply is active.
- Ensure the safety lock mechanism is disengaged.
- Verify that there is no overcurrent or short circuit in the connected load.

7.2 WiFi Connection Issues

- Ensure the circuit breaker is powered on and the WiFi indicator is flashing (for pairing) or solid (for connected).
- Verify your mobile device is connected to a 2.4GHz WiFi network.
- Check the distance between the circuit breaker and your WiFi router. Move closer if necessary.
- Restart your WiFi router and attempt pairing again.
- Confirm the correct WiFi password is being entered in the app.

7.3 Circuit Breaker Trips Frequently

- An overcurrent condition is likely present. Reduce the load connected to the circuit.
- Inspect the wiring for any short circuits or damaged insulation.
- If the issue persists after reducing the load and checking wiring, the circuit breaker may be faulty or incorrectly rated for the application. Consult a qualified electrician.

8. SPECIFICATIONS

Specification	Value
Item Model Number	2P 100A
Brand	Walfront
Material	PA66-DSM flame retardant shell
Number of Poles	2
Current Rating	100 Amps
Control Level Voltage	AC220V
Rated Voltage	AC230V
Control Mode	Working mode, pairing mode
Start Method	WiFi mobile phone APP remote switch
Trip Method	Overcurrent trip
Mounting Type	Panel Mount
Product Dimensions	0.39 x 0.39 x 0.39 inches

Specification	Value
Weight	12.52 ounces

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the product packaging or contact Walfront customer service directly. Keep your purchase receipt for warranty claims.