CZKE DZ30LE-32

CZKE DZ30LE-32 Residual Current Circuit Breaker User Manual

Model: DZ30LE-32 | Type: 1P+N | Rated Voltage: 230V

1. Introduction

This manual provides essential information for the safe installation, operation, and maintenance of the CZKE DZ30LE-32 Residual Current Circuit Breaker (RCBO/MCB). This device is designed to provide protection against overcurrent, short circuits, and earth leakage faults in electrical systems. Please read this manual thoroughly before installation and retain it for future reference.

2. Safety Information

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified electricians in accordance with all local and national electrical codes.

- Always disconnect power at the main supply before installing or servicing the circuit breaker.
- Ensure proper grounding.
- Do not operate the device if it appears damaged.
- Verify correct wiring connections before restoring power.

3. Product Overview

The CZKE DZ30LE-32 is a miniature circuit breaker with integrated residual current protection, suitable for various applications including solar panel grid systems and hybrid solar/wind systems. It offers reliable protection for line overload and short circuits, as well as protection against hazardous earth leakage currents.

Key Features:

- Combined overcurrent, short circuit, and residual current protection.
- Fast closing mechanism for enhanced load operation and extended service life.

- Simple and convenient to use.
- Available in various rated currents: 6A, 10A, 16A, 20A, 25A, 32A.

Component Identification:

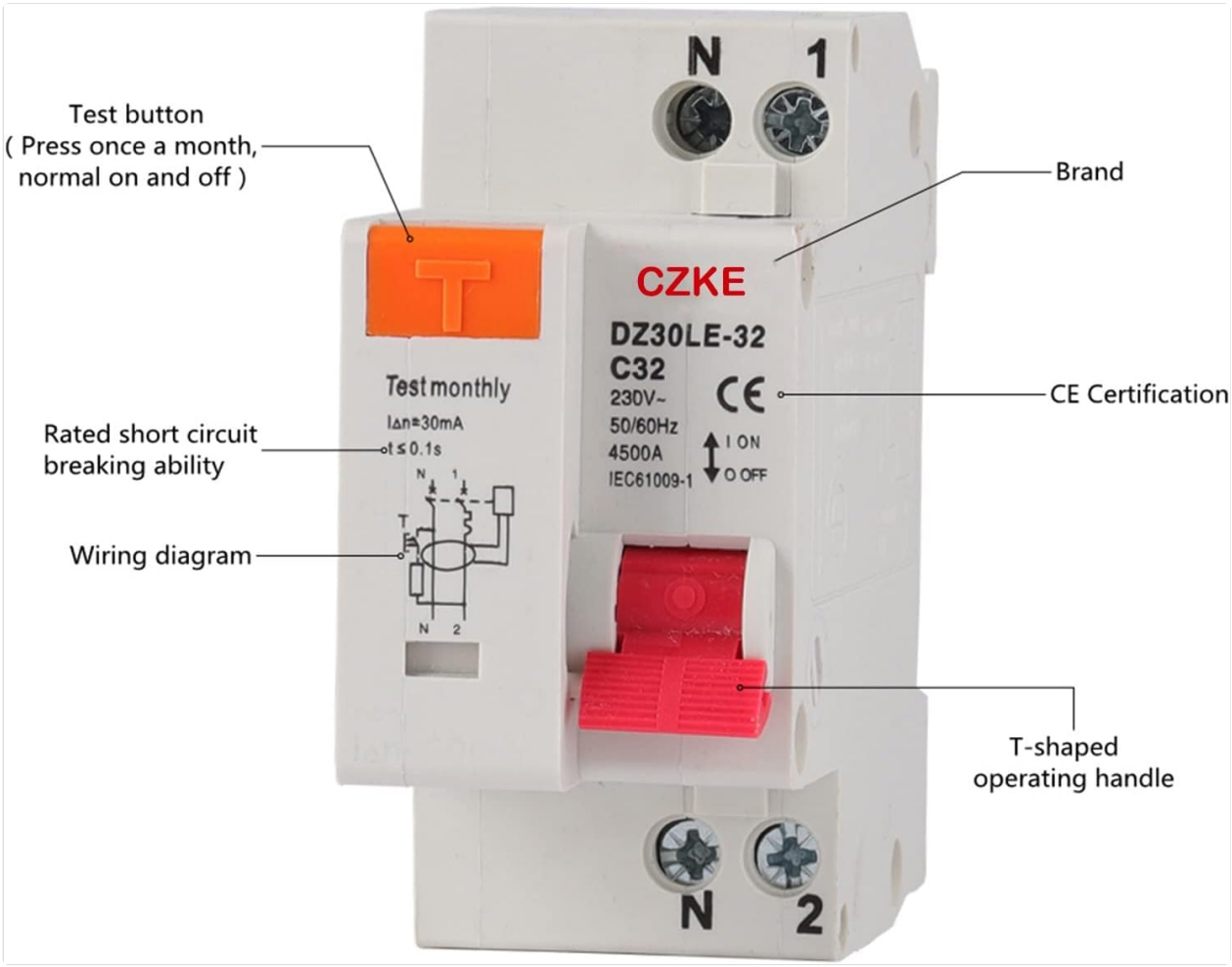

Image 1: Front view of the CZKE DZ30LE-32 Residual Current Circuit Breaker with key components labeled. Labels include the 'N' and '1' terminals, 'Test button' (for monthly testing), 'Brand' (CZKE), 'CE Certification' mark, 'Rated short circuit breaking ability', 'Wiring diagram', and the 'T-shaped operating handle' for ON/OFF control. The 'N' and '2' terminals are also visible at the bottom.

4. Specifications

Specification	Value
Model	DZ30LE-32
Poles	1P+N
Rated Voltage	230V
Rated Current (In)	6A, 10A, 16A, 20A, 25A, 32A (variant dependent)
Rated Residual Operating Current	30mA
Rated Residual Non-Operating Current	15mA
Residual Current Off-Time	t ≤ 0.1s
Short Circuit Capacity	4500A
Circuit Breaker Type	Standard
Mounting Type	Panel Mount (DIN Rail)
Item Weight	Approximately 1.76 pounds (0.8 kg)

Dimensions:

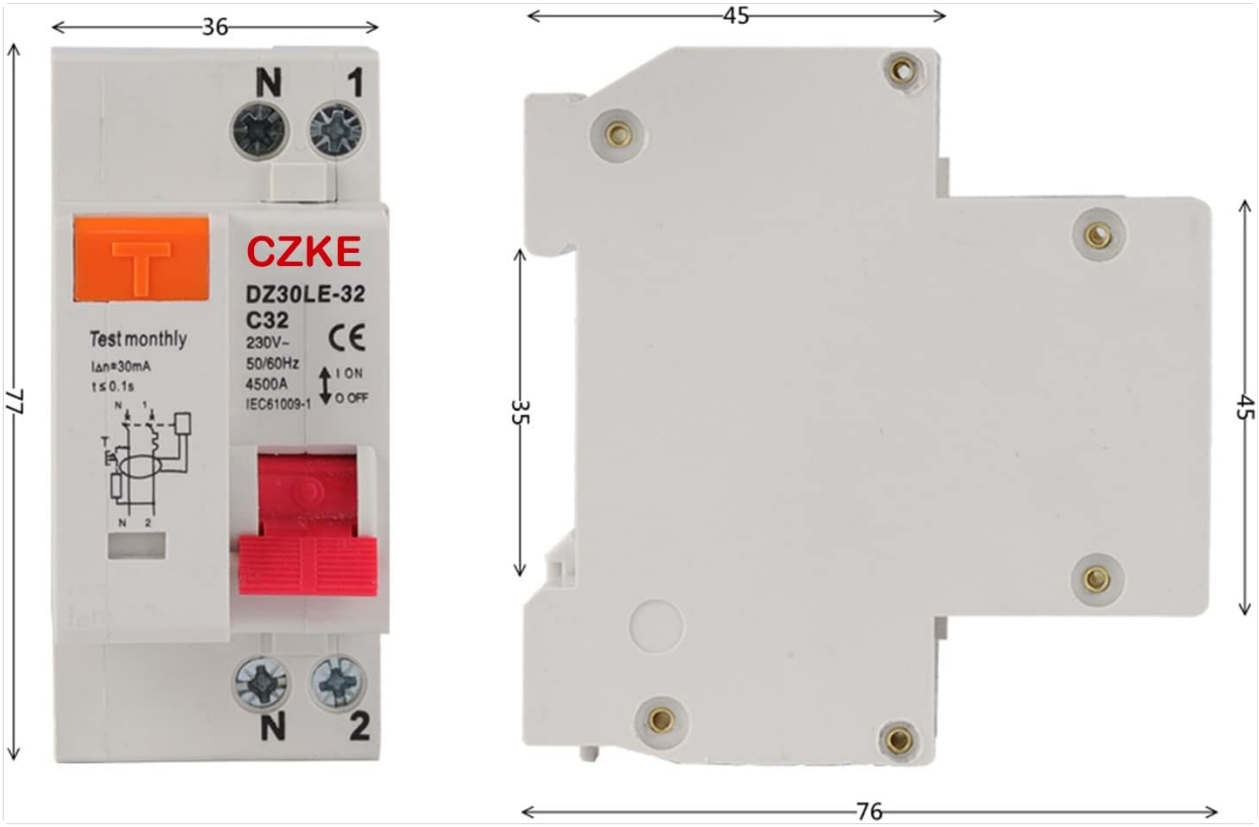

Image 2: Side and front view dimensions of the CZKE DZ30LE-32 Residual Current Circuit Breaker. The front width is approximately 36mm, height 77mm. The side depth is approximately 76mm, with a mounting height of 45mm and total width of 45mm.

5. Setup and Installation

The DZ30LE-32 is designed for DIN rail mounting. Ensure the mounting surface is stable and secure.

Installation Steps:

1. **Power Disconnection:** Before starting, ensure that the main power supply to the circuit is completely disconnected and locked out.
2. **Mounting:** Attach the circuit breaker securely onto a standard DIN rail. The device features a clip mechanism for easy installation and removal.

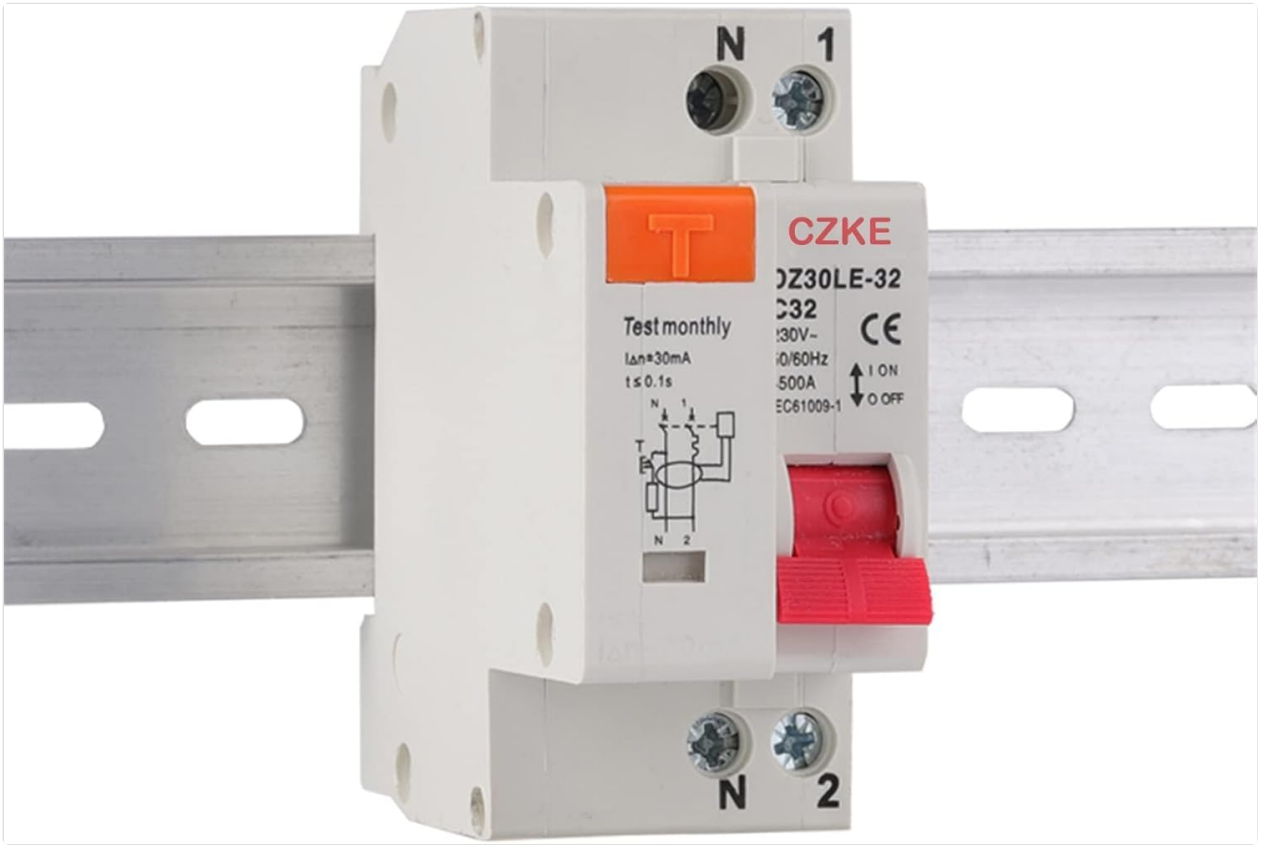

Image 3: The CZKE DZ30LE-32 Residual Current Circuit Breaker shown mounted on a standard DIN rail, illustrating its typical installation environment.

Image 4: Side view of the circuit breaker, highlighting the integrated clip mechanism used for securing the device onto a DIN rail. This view also shows the auxiliary contacts area.

3. **Wiring:** Refer to the wiring diagram printed on the device (see Image 1). Connect the incoming live (L) and neutral (N) wires to the top terminals (N and 1). Connect the outgoing live (L) and neutral (N) wires to the bottom terminals (N and 2). Ensure all connections are tight and secure.
4. **Verification:** Double-check all wiring for correctness and security.
5. **Restore Power:** Once installation is complete and verified, restore power to the main supply.

Image 5: Bottom view of the circuit breaker, showing the auxiliary contact access and general mounting instructions in French, indicating how to 'ouvrir pour basculer' (open to tilt) and 'soulever' (lift) for installation/removal.

6. Operating Instructions

Turning On/Off:

- To turn the circuit breaker **ON**, push the T-shaped operating handle (red switch) upwards to the 'ON' position.
- To turn the circuit breaker **OFF**, push the T-shaped operating handle (red switch) downwards to the 'OFF' position.

Test Button:

The orange 'Test monthly' button is used to verify the functionality of the residual current protection mechanism. Pressing this button simulates an earth leakage fault, causing the circuit breaker to trip.

7. Maintenance

Regular maintenance ensures the continued safe operation of your circuit breaker.

- **Monthly Test:** Press the orange 'Test monthly' button once a month. The circuit breaker should trip immediately. If it does not trip, the device may be faulty and should be replaced by a qualified electrician.

After testing, reset the circuit breaker by pushing the operating handle back to the 'ON' position.

- **Visual Inspection:** Periodically inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** Keep the device clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquids or abrasive cleaners.

8. Troubleshooting

- **Circuit Breaker Trips Frequently:**
  - *Possible Cause:* Overload, short circuit, or earth leakage fault.
  - *Solution:* Disconnect all appliances from the circuit. Reset the breaker. If it trips again, there may be a fault in the wiring or a permanent appliance fault. Consult a qualified electrician.
- **Circuit Breaker Does Not Reset:**
  - *Possible Cause:* Persistent fault or internal damage.
  - *Solution:* Ensure all loads are disconnected. If it still does not reset, do not force it. The device may be damaged or a severe fault exists. Consult a qualified electrician.
- **Test Button Does Not Trip Breaker:**
  - *Possible Cause:* Faulty residual current protection mechanism.
  - *Solution:* The device is not providing earth leakage protection. It must be replaced immediately by a qualified electrician.

9. Warranty and Support

For warranty information or technical support, please refer to the documentation provided at the point of purchase or contact CZKE customer service through their official channels. Keep your purchase receipt as proof of purchase.