

ETL1-63B RESIDUAL CURRENT CIRCUIT BREAKER

Usage Manual

Load Standard: IEC/EN 61008-1, IEC/EN 62423
Thank you for choosing ETEK Series Residual Current Circuit Breaker. please read this User Manual carefully before installing and using the device and keep it properly for future reference.

Safety Notice

Make sure to read this manual carefully before installation, operation, maintenance and inspection, and correctly install and use this product according to the manual.

⚠ Danger:

- Do not operate the breaker with wet hands;
- Never touch the conductive parts in use;
- Make sure that the product is de-energized during maintenance and care;
- Do not test the product by means of short circuit;

⚠ Attention:

- The installation, repair and maintenance shall be implemented by qualified personnel;
- All features of the product have been set when delivery, do not disassemble or modulate the product at your own discretion;
- Before use, make sure that the working voltage, rated current, frequency and features of the product meet the working requirements;
- To prevent interphase short circuit, the bare wire or copper busbar at the terminal shall be insulated;
- Stop using and contact the supplier immediately in case of any damage or abnormal sound during unpacking;
- Make proper disposal of industrial wastes for end-of-life products. Thank you for your cooperation.

Conditions of Normal Use

Installation and Transportation

Conditions of normal use and installation

- (1) The ambient temperature ranges between -5°C and +40°C with average value in 24h not exceeding +35°C;
- (2) Altitude: ≤2000m;
- (3) The relative humidity of the atmosphere does not exceed 50% at the highest ambient temperature +40°C, and a higher relative humidity is allowed at lower temperatures, such as 90% at 20°C. Protective measures shall be taken for condensation occasionally occurred due to temperature changes.
- (4) The installation position shall be vertical, and the inclination angle at each direction shall not exceed 10°.
- (5) It shall be installed in medium free of explosion risk and gas or dust that may cause metal corrosion or damage to insulation;
- (6) It shall be installed in places where there is no shock and vibration, or rain and snow either;
- (7) Pollution class: 2;
- (8) Installation category: II & III;
- (9) It shall be installed in distribution box, distribution cabinet or box;
- (10) Negative wiring is allowed for the product;
- (11) For products with N pole, the phase line shall be connected to the pole with the indication N.

Conditions of normal storage and transportation

- (1) Temperature range: -25°C - +70°C;
- (2) Relative humidity: ≤95%;
- (3) The product shall be handled with care during transportation without upside down. Avoid violent collision.

Main Technical and Performance Parameters

Main technical parameters of the circuit breaker

Model No.	Type	In (A)	Number of Poles	Rated Voltage U _e	Rated Breaking Capacity	I _{Δn} (mA)	Standard
ETL1-63B	B	16,25,32, 40,63	1P+N 3P+N	230(240)V 400(415)V	10000A	30, 100, 300	IEC/EN 61008-1 IEC/EN 62423

TECHNICAL SPECIFICATIONS (TYPE B)

Detectable wave form

B class
 Tripping is ensured for sinusoidal AC residual currents, pulsed DC residual currents, alternating residual sinusoidal currents up to 1000Hz, pulsating direct residual currents and for smooth direct residual currents, whether applied suddenly or increasing slowly.

Surge current proof



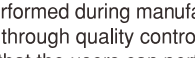
RCCB's surge capacity.
 Not tripping at standardized 8/20μs surge-current waves acc. to VDE 0432 Part 2 with surge current values of up to 250A.

Pulsating direct current sensitive



They react to AC and pulsating DC fault current which reach 0 or almost 0 within one time period of the mains frequency.

Type B

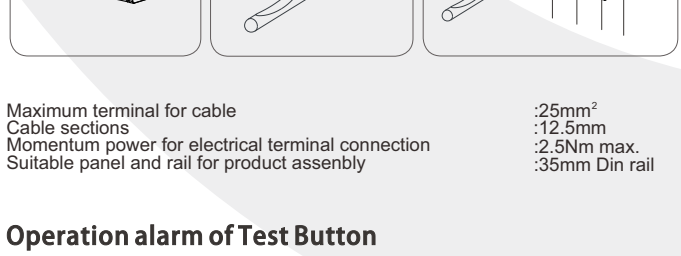


PRODUCT ASSEMBLY

- Product calibrating and programming are performed during manufacturing and each product is offered to sales after a through quality control. There are no maintenance or programming tasks that the users can perform.

⚠ WARNING

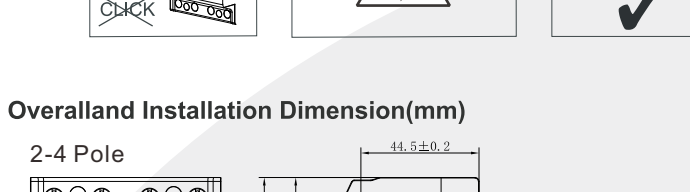
- Ensure that the power is cut off before the assembly of the products.
- Connection and assembly of the electrical devices should be carried out only by the technical personnel having certificate of competency.



Maximum terminal for cable
 Cable sections
 Momentum power for electrical terminal connection
 Suitable panel and rail for product assembly

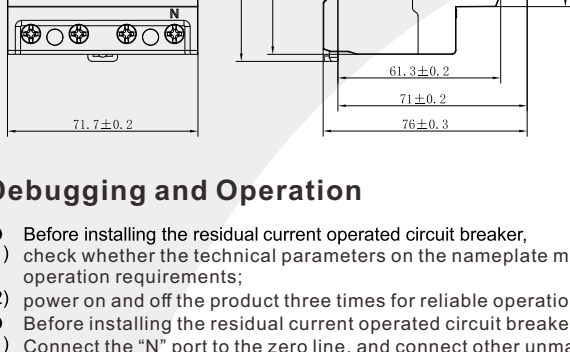
:25mm²
 :12.5mm
 :2.5Nm max.
 :35mm Din rail

Operation alarm of Test Button



Overall Installation Dimension(mm)

2-4 Pole



Debugging and Operation

- Before installing the residual current operated circuit breaker,
 - (1) check whether the technical parameters on the nameplate meet the operation requirements;
 - (2) power on and off the product three times for reliable operation or blockage.
- Before installing the residual current operated circuit breaker,
 - (1) Connect the "N" port to the zero line, and connect other unmarked ports to the live line.
- After installing the residual current operated circuit breaker:
 - (1) Test the circuit breaker three times with test button, and check it for reliable operation;
 - (2) Turn on and off the switch three times under load, and check it for misoperation.

Maintenance and care

- (1) The installation, repair and maintenance shall be implemented by qualified personnel;
- (2) It must be ensured that the product is de-energized;
- (3) Maintenance and care shall be conducted once a year under normal operation condition. The details of maintenance and care are shown in table 3.

Table 3 Maintenance and care

Item	Content
Appearance	Free of dust and condensation. Clean, if any. With no damage No change of color for the shell and connecting terminal
Wiring terminal connection	Tighten according to the torque stipulated in table 3 and ensure it does not loosen.
Handle closing/opening operation	Operation shall be smooth and flexible

Unpacking Inspection

After unpacking, the user must check whether the product is intact, whether the exposed metal is rusty and whether the product is defective due to improper transportation or custody. In case of above phenomenon, do not use the product and timely contact the supplier.

