

DZ158LE-100
Residual Current Operated
Circuit Breaker

User Instruction

Safety Warning

- ① Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden. It is strictly prohibited to operate the product with wet hands.
- ② You are prohibited from touching the conductive part when the product is operating.
- ③ When the product is being installed or maintained, the power must be switched off.
- ④ Adequate space and safety distance should be maintained around the place where the product is installed.
- ⑤ Do not install the product at places where gas media can cause metal corrosion and insulation damage.
- ⑥ The product must be installed with standard wires and connected to a power source and loads that meet the requirements.
- ⑦ In order to avoid dangerous accidents, the product must be installed and fixed in strict accordance with the requirements of the instructions for use.
- ⑧ When testing the product's operating characteristics, a special tester with qualified measurement should be used. It is strictly prohibited to directly test the insulation resistance at output end of the product, or test the performance of the product by the direct contact of the hot wire against the grounding device or the direct short circuit of the hot wire and the neutral wire.
- ⑨ The product cannot protect against the danger of electric shock caused by touching both wires of the protected circuit at the same time;

- 10 The protection features of the product are set by the manufacturer. It is not allowed to disassemble or adjust the circuit breaker at will.
- 11 The product must be wired and installed by qualified personnel and be checked regularly.
- 12 **Reverse wiring is forbidden. Please carry out the wiring correctly in strict accordance with the wiring diagram. It is strictly prohibited to reverse the live wire and the neutral wire.**

1 Purpose of Use

The DZ158LE-100 residual current operated circuit breaker is applicable to circuits with frequency of AC 50 Hz, rated voltage up to 240/415V and rated current up to 100 A. It provides overload, short circuit and leakage protection, and can also be used for infrequent switching of the circuit under normal circumstances.

2 Key Technical Parameters

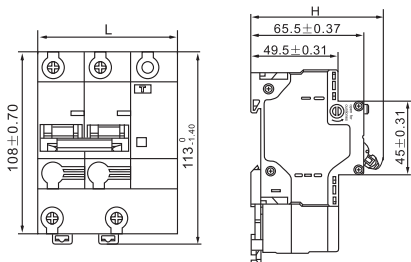
Table 1 Key Technical Parameters

No.	Parameter or performance	Parameter value or performance value
1	Rated Working voltage (U_e)	1P+N, 2P: AC 230V/240V 3P, 3P+N, 4P: AC 400V/415V
2	Rated current (I_n)	63A, 80A, 100A
3	Rated residual operating current ($I_{\Delta n}$)	0.03A, 0.1A, 0.3A
4	Rated limit short-circuit breaking capacity (I_{cu})	6kA
5	Altitude	$\leq 2000\text{m}$
6	Pollution level	Level 3
7	Protection level	IP20
8	Installation category	Class III

3 Installation

1. Installation dimensions

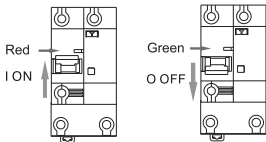
Unit:mm



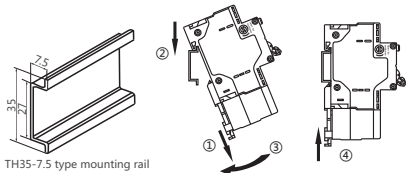
Unit:mm

Number of poles	1P+N	2P	3P	3P+N	4P
L (mm)	$54 \begin{smallmatrix} 0 \\ -0.74 \end{smallmatrix}$	$81 \begin{smallmatrix} 0 \\ -0.87 \end{smallmatrix}$	$108 \begin{smallmatrix} 0 \\ -1.40 \end{smallmatrix}$	$108 \begin{smallmatrix} 0 \\ -1.40 \end{smallmatrix}$	$135 \begin{smallmatrix} 0 \\ -1.60 \end{smallmatrix}$
H (mm)	$73.5 \begin{smallmatrix} 0 \\ -1.20 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.20 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.20 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.20 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.20 \end{smallmatrix}$

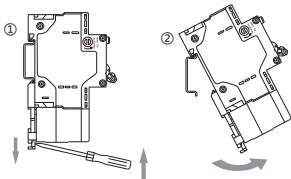
2. On-off indication



3. Installation



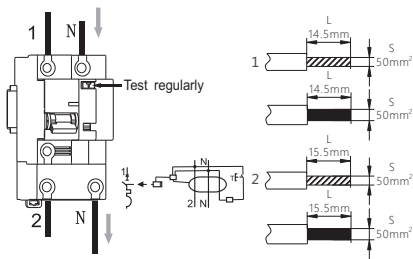
4. Disassembly



5. Wiring: Suitable for copper wire or busbar connection. See Table 2 for wire connection

Table 2 Copper wire cross-sectional area

Rated current I_n (A)	Copper wire cross-sectional area S (mm ²)
63	16
80	25
100	35



Note: Before powering on the product, check whether the wiring is correct and verify the flexibility of the handle action.

4 Maintenance

- Check the circuit breaker on a regular basis during operation;
- After the circuit breaker cuts off the overload or short-circuit current and the residual current, the fault should be eliminated before closing the circuit breaker.

Table 3 Examples of fault analysis and elimination

Symptoms	Cause analysis	Troubleshooting methods and precautions
Handle cannot be closed	Short circuit or large residual current exists in the circuit.	Check the circuit, and operate after troubleshooting.
Frequent switching	I. The circuit load current does not match the rated current of the circuit breaker, and there is an overload current; II. Residual current in the circuit is within the operating range of the circuit breaker.	I. Check the circuit, and operate after troubleshooting; II. Use a circuit breaker with a larger rated current or rated residual operating current.
The product does not work when the test button is pressed	I. Poor terminal contact; II. Button disabled.	I. Tighten the wiring screws; II. Replace the product.
Terminal temperature is too high	I. Terminal not tightened; II. The cross-sectional area of the selected wire is too small.	I. Tighten the wiring screws; II. Use a wire with the right cross-sectional area.

5 Environmental Protection

In order to protect the environment, the product or product parts should be disposed of according to the industrial waste treatment process, or be sent to the recycling station for assortment, dismantling and recycling according to local regulations.

CHINT

QC PASS

DZ158LE-100
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Circuit Breaker
IEC/EN 60947-2

Check 12

Test date: Please see The packing

ZHEJIANG CHINT ELECTRICS CO.,LTD.

CHNT

CHINT ELECTRICS

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Residual Current Operated
Circuit Breaker
User Instruction

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