

NB1-63DC  
DC Circuit Breaker

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# User Instruction

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## Safety Warning

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- 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 It is strictly prohibited to test the performance of the product by the direct contact of the live wire against the grounding device or the direct short circuit of the live wire and the neutral wire.
- ④ When the product is being installed or maintained, the power must be switched off.
- ⑤ The protection features of the product are set by the manufacturer. It is not allowed to open or adjust the circuit breaker at will.
- ⑥ The product must be wired and installed by qualified personnel and be checked regularly.
- ⑦ It is prohibited to let children play with the product or the package.
- ⑧ Prevent foreign objects from falling into the product.
- ⑨ Do not install the product in places where gaseous media can corrode metals and damage insulation.
- ⑩ Tighten the wiring screws when installing the product to prevent wires from loose or being pulled out. Select wires strictly according to instructions and connect them to proper power supply and load.

- 11 The product cannot protect people from electric shock or against power imbalances.
- 12 **When installing, strictly follow the "+" and "-" polarities marked on the product. The polarities cannot be reversed.**

## 1 Purpose of Use

The NB1-63DC DC circuit breaker is applicable to circuits with rated current up to 63 A and rated voltage up to 1000 V. It provides overload and short circuit protection, and can also be used for infrequent switching of the circuit under normal circumstances.

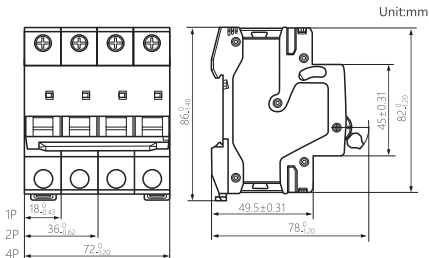
## 2 Key Technical Parameters

Table 1 Key Technical Parameters

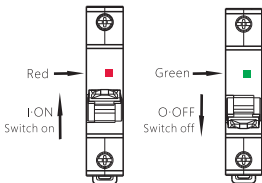
|  |  |
|--|--|
| Altitude                                     | ≤ 2,000m                                   |
| Pollution level                              | Level 3                                    |
| Installation category                        | Class III                                  |
| Rated voltage $U_e(V)$                       | 1P: DC 250V<br>2P: DC 500V<br>4P: DC 1000V |
| Rated short-circuit capacity $I_{cu}=I_{cs}$ | 6000A                                      |
| Enclosure protection class                   | IP20                                       |
| Number of poles                              | 1P, 2P, 4P                                 |

### 3 Installation

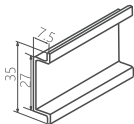
#### 1. Overall and mounting dimensions



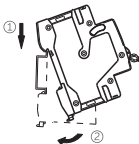
#### 2. On-off indication



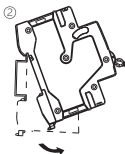
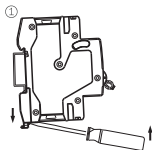
### 3. Installation



TH35-7.5 type mounting rail



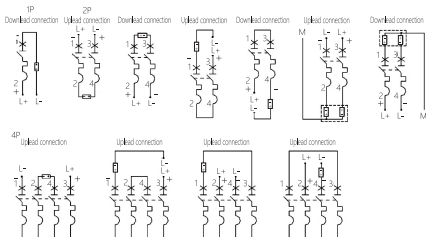
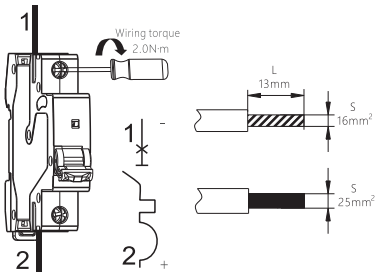
### 4. Disassembly



### 5. Wiring: copper wires only

Table 2 Copper wire cross-sectional area

| Rated current In (A) | Copper wire cross-sectional area mm <sup>2</sup> |
|----------------------|--|
| 1-6                  | 1  |
| 10                   | 1.5  |
| 13, 16, 20           | 2.5  |
| 25                   | 4  |
| 32                   | 6  |
| 40, 50               | 10   |
| 63                   | 16   |



- Notice: 1. L+: Positive pole of power supply, L-: Negative pole of power supply;  
 2. +: Positive pole of circuit breaker, -: Negative pole of circuit breaker;  
 3. : Load;  
 4. The DC power supply is usually 'L-' grounded, the pole 'M' of the positive and negative power supply system is grounded.

## 4 Maintenance

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

**Table 3 Analysis and troubleshooting of common faults**

| Phenomenon   | Cause analysis   | Troubleshooting method                        |
|--|--|---|
| The handle cannot close the circuit breaker                  | Short circuit at load end  | Eliminate the fault                           |
|  | Fault occurs to the operating mechanism.                                       | Replace the product                           |
|  | The rated current of the circuit breaker does not match the load current       | Replace with product of proper specifications |
| Temperature is too high.                                     | The wire is loose or not properly fixed by wiring screws.                      | Tighten the wiring screws                     |
|  | The cross-sectional area of the selected wire is too small                     | Replace with wire of proper specifications    |
| The circuit breaker does not break when short circuit occurs | The selected circuit breaker does not match the working conditions of the load | Replace with product of proper specifications |
| No power   | The wire strip length is too short.  | Re-strip the wire                             |
|  | The wire is loose or not properly fixed by wiring screws.                      | Tighten the wiring screws                     |

## 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.



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**CHINT**

**QC PASS**

NB1-63DC  
DC Circuit Breaker  
IEC/EN 60947-2

Check 12

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Test date: Please see The packing

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**ZHEJIANG CHINT ELECTRICS CO.,LTD.**

**CHINT**

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**NB1-63DC**  
**DC Circuit Breaker**  
**User Instruction**

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