

5.4 Suitable for copper wire connection. See Table 3 for wire selection, and the wiring mode and stripping length are shown in Figure 5 below.

Table 4 Requirements for cross-sectional area of copper wire	
The rated current In(A)	Copper conductor cross-sectional area mm ²
80	25
100	35
125	50

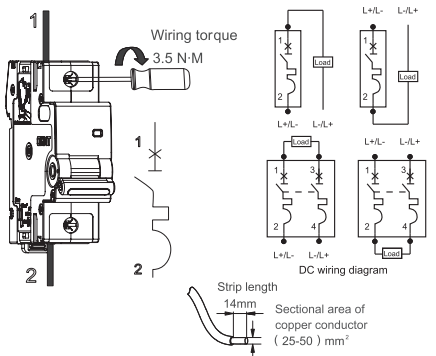


Figure 5 NB8-125 Connection Mode

Note: Check whether the wiring is correct before powering on, and verify the flexibility of the handle.

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6 Maintenance

When the circuit breaker is running, it should be checked regularly. After the circuit breaker breaks the overload or short-circuit current, the fault should be eliminated before switching on.

7 Fault analysis and elimination

Table 5 Examples of troubleshooting

Fault phenomenon	cause analysis	Exclusion method
Handle cannot be closed.	Is there a short circuit phenomenon at the load end?	trouble clearing
	Operating mechanism fails.	Replace products
	The rated current of the circuit breaker does not match the load current.	Replace product specifications
High temperature	Screws are not pressing wires or loose.	Tighten the wiring screws
	The selected conductor cross-sectional area is too small.	Replace wire specifications.
Short-circuit failure	The selected circuit breaker does not match the working conditions of the load.	Replace product specifications
	Wire stripping is too short.	Re-stripping
No electricity	Wire stripping is too short.	Re-stripping
	Screws are not pressing wires or loose.	Tighten the wiring screws.

8 Warranty period, environmental protection and other legal provisions

8.1 Warranty period

Under normal storage and transportation conditions, and the product packaging or product itself is in good condition, the warranty period of the product is 36 months from the date of production.

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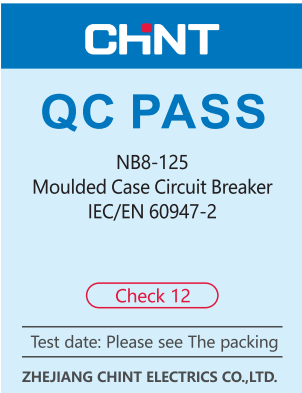
The following situations are not covered by the warranty:

- 1) Damage caused by improper use, storage and maintenance of users;
- 2) Damage caused by non-company-appointed institutions or personnel, or self-disassembly and repair;
- 3) The product exceeds the warranty period;
- 4) Damage caused by force majeure.

8.2 environmental protection

In order to protect the environment, when this product or its components are scrapped, please properly handle them as industrial wastes; Or to the recycling station for classification, dismantling, recycling, etc. according to the relevant regulations of the state.

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CHINT ELECTRICS

NB8-125
Moulded Case Circuit Breaker
User Instruction

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Standard: IEC/EN 60947-2

(NO:2024.06)



NB8-125
Moulded Case Circuit Breaker
User Instruction

Safety Warning

- 1) It is forbidden to install the product in an environment containing flammable and explosive gases and wet condensation, and it is forbidden to operate the product with wet hands.
- 2) When the product is working, it is forbidden to touch the conductive parts of the product.
- 3) It is strictly forbidden to test the product performance by directly touching the grounding device with the live wire or directly short-circuiting the live wire and the zero wire.
- 4) When installing, repairing and maintaining the product, it is necessary to ensure that the line is powered off.
- 5) The protective characteristics of the product are set by the manufacturer, and it is not allowed to disassemble or adjust at will.
- 6) The products must be wired and installed by qualified personnel and checked regularly.
- 7) It is forbidden to play with products or packages.
- 8) Foreign substances should be prevented from falling into the product.
- 9) Do not install in the place where gas medium can corrode metal and damage insulation.
- 10) When the product is installed and used, the wiring screws should be tightened, and the wires are not easy to loosen and pull out. The wires should be selected in strict accordance with the requirements, and the qualified power supply and load should be matched.

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- 11) This product can't protect people from electric shock and power imbalance.

- 12) This product is not suitable for direct starting fans, motors, electric heating equipment, capacitor cabinets and other high-sensitivity and high-capacity loads.

1 Main uses and scope of application

NB8-125 series Moulded case circuit breaker conforms to IEC/EN 60947-2 standard. It is suitable for lines with AC rated voltage of 50/60Hz, AC rated voltage of 415V, rated current of 125A; or DC rated voltage of 220V, rated current of 125A, which plays the role of overload and short circuit protection, and can also be used for infrequent switching of the circuit under normal circumstances.

Assemblable accessories include auxiliary contact XF9, shunt tripping device S9, undervoltage tripping device V9, overvoltage tripping device OVT-1 and alarm auxiliary contact XF9).

2 Normal use, installation, transportation and storage conditions

2.1 Conditions of use

—The reference temperature of the circuit breaker is +40°C or +50°C. Working environment temperature:-35°C ~+70°C, and the average working temperature for 24 hours shall not exceed +45°C if the reference temperature is +40°C or +55°C if the reference temperature is +50°C.

When the ambient temperature changes, its rated current value needs to be corrected, and the correction coefficient is shown in Table 1 if the reference temperature is +40°C and Table 2 if the reference temperature is +50°C.

Table 1 Temperature correction coefficient table of rated current value(Tref: +40°C)

coefficient	temperature°C										
Rated current A	-35	-20	-10	0	10	20	30	40	50	60	70
80	1.35	1.28	1.23	1.18	1.13	1.08	1.03	1	0.95	0.9	0.85
100	1.35	1.28	1.23	1.18	1.13	1.08	1.03	1	0.98	0.94	0.9
125	1.35	1.28	1.23	1.18	1.13	1.08	1.03	1	0.95	0.88	0.8

Table 2 Temperature correction coefficient table of rated current value(Tref: +50°C)

coefficient	temperature°C										
Rated current A	-35	-20	-10	0	10	20	30	40	50	60	70
80	1.33	1.27	1.23	1.19	1.15	1.11	1.07	1.03	1	0.95	0.9
100	1.34	1.28	1.24	1.20	1.16	1.12	1.08	1.04	1	0.95	0.9
125	1.34	1.28	1.24	1.20	1.16	1.11	1.07	1.04	1	0.95	0.9

-Altitude: the altitude of the installation site shall not exceed 2000m;

-Pollution Level: degree 3;

-Installation category: Class II and III.

2.2 Installation conditions

Under the conditions of safety warning, the circuit breaker should generally be installed vertically, and there is no obvious shaking, impact and vibration at the installation place.

2.3 Transport and storage conditions

During storage and transportation, the circuit breaker shall not fall or be attacked by rain or corrosive gas.

3 Main technical parameters

Table 3 Main technical parameters

Serial number	Technical parameter	Parameters
1	Rated voltage	1P: AC230V/240V, DC110V 2P: AC400V/415V, DC220V 3P, 4P: AC400V/415V
2	Number of poles	1P, 2P, 3P, 4P
3	Enclosure protection level	IP20B
4	Rated short-circuit capability	10kA
5	Rated insulation voltage	630V

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4 Installation dimensions (as shown in Figure 1 below)

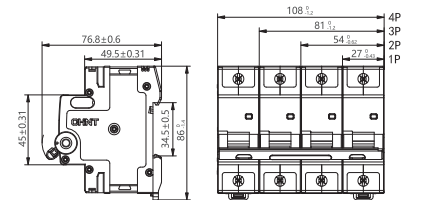


Figure 1 NB8-125 Appearance and Installation Dimensions

5 Commissioning and operation

5.1 Before installation, check whether the circuit breaker signs are consistent with the working conditions used. The indication of the closed and open state of the circuit breaker is shown in Figure 2 below.

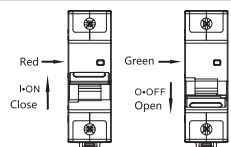


Figure 2 NB8-125 Closed and open states indicate Installation, commissioning and operation

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5.2 Installation

TH35-7.5 steel installation rail is adopted for installation, as shown in Figure 3 below.

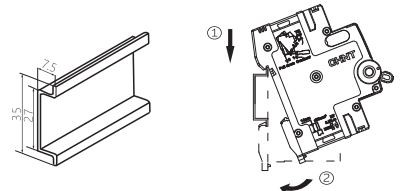


Figure 3 NB8-125 Installation Schematic

5.3 Disassemble as shown in Figure 4 below.

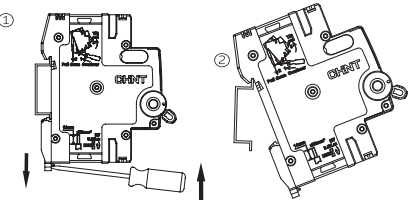


Figure 4 NB8-125 Disassembly Schematic

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