

NB8-125 Moulded Case Circuit Breaker

User Instruction

生产用图

0ZTD.463.1541.EN
02

受控

2024年06月14日

浙江正泰电器股份有限公司

Jun, 2024

设计文件名称	使用说明书	0ZTD.463.1541.EN	
产品型号、名称	NB8-125 Moulded Case Circuit Breaker	版本	02
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0  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.
- 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.

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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 XF9J.

2 Normal use, installation, transportation and storage conditions

2.1 Conditions of use

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

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□ and Table 2 if the reference temperature is +50□.

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

coefficient \ temperature °C	-35	-20	-10	0	10	20	30	40	50	60	70
Rated current A											
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	-35	-20	-10	0	10	20	30	40	50	60	70
Rated current A											
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

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- 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

4 Installation dimensions (as shown in Figure 1 below)

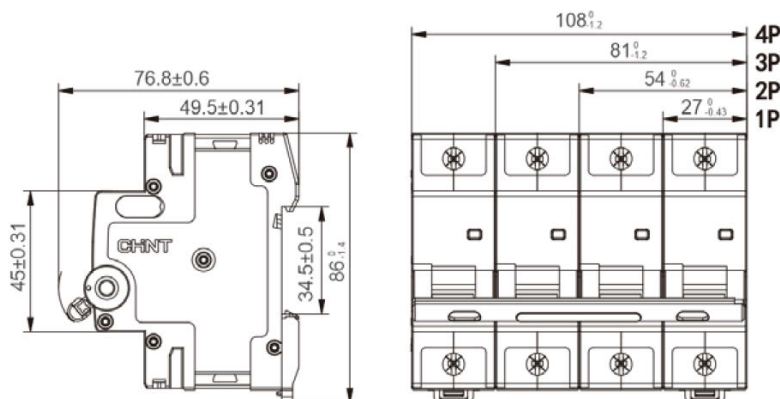


Figure 1 NB8-125 Appearance and Installation Dimensions

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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.

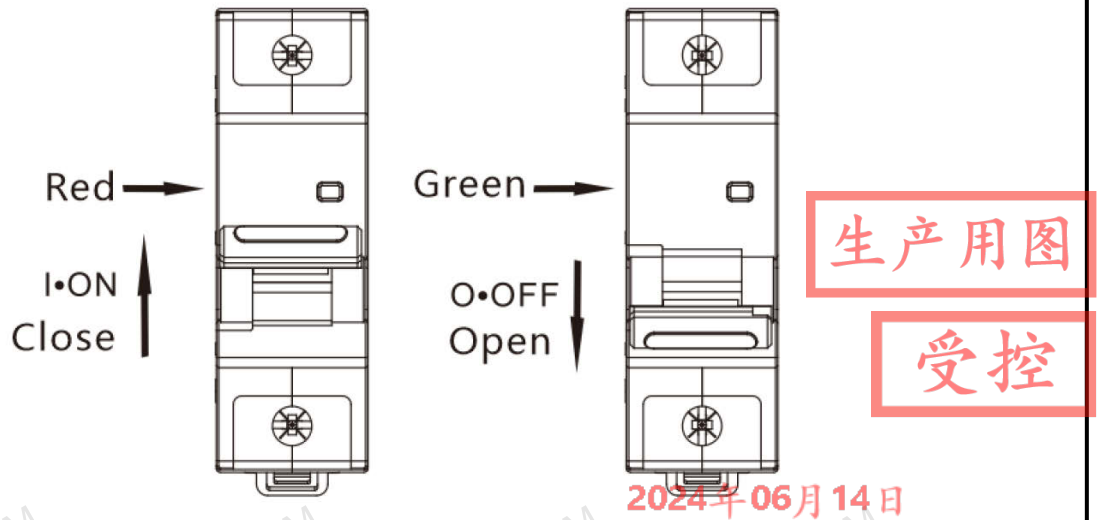


Figure 2 NB8-125 Closed and open states indicate Installation, commissioning and operation

5.2 Installation

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

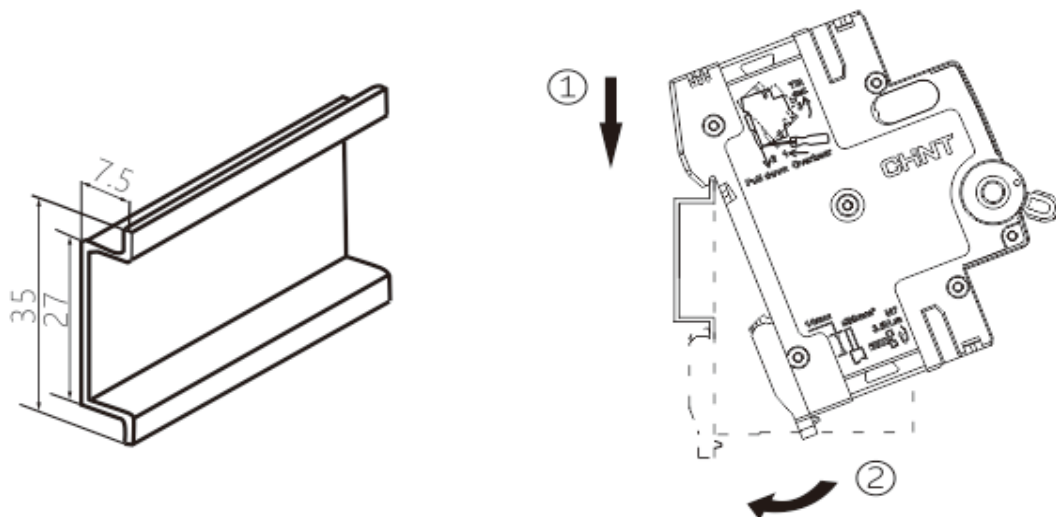


Figure 3 NB8-125 Installation Schematic

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5.3 Disassemble as shown in Figure 4 below.

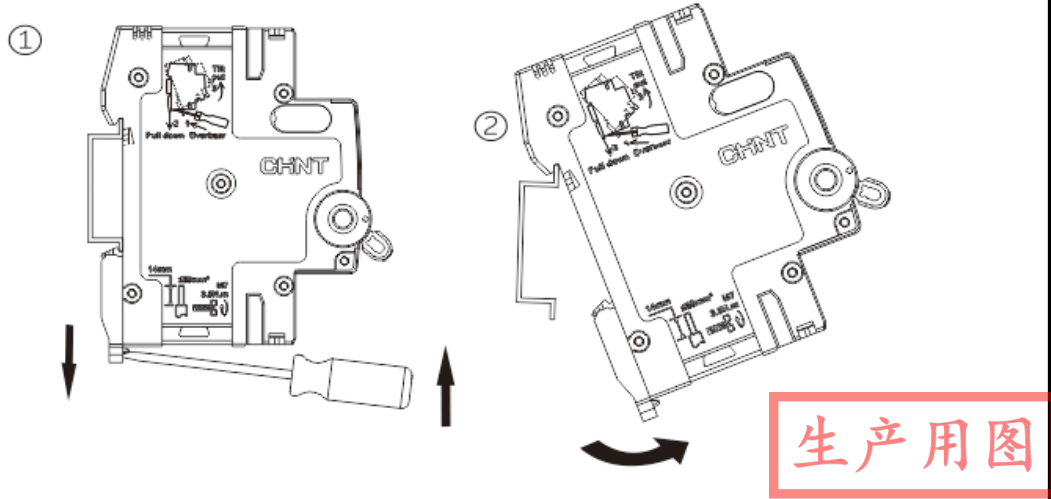


Figure 4 NB8-125 Disassembly Schematic

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 I_n (A)	Copper conductor cross-sectional area mm^2
80	25
100	35
125	50

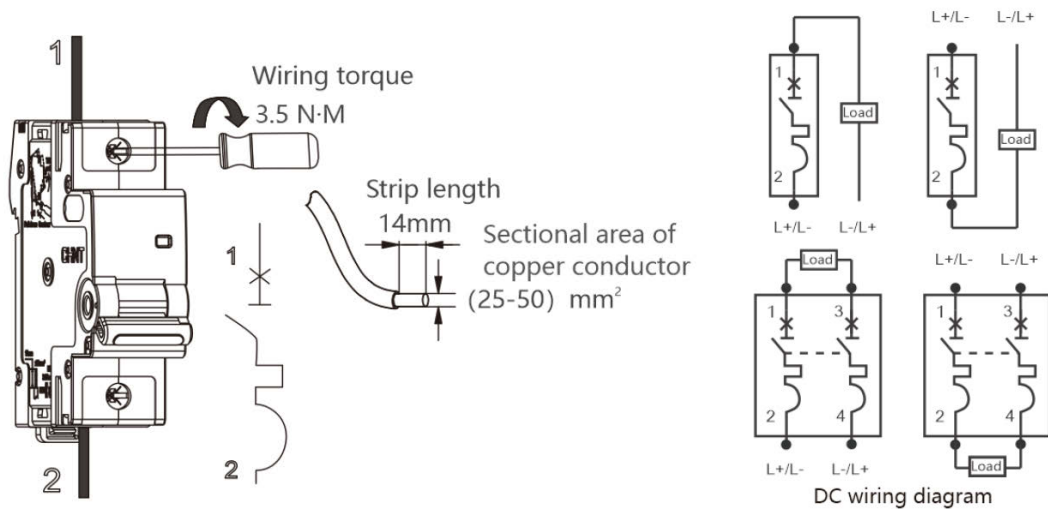


Figure 5 NB8-125 Connection Mode

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

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
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.

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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附件：关于使用说明书排印制方面的说明

附件1 封面

序号	印刷项目	印刷内容	译文	要求说明
1	商标	CHINT	CHINT	品牌管理部提供封面形象，包括如下内容设定在封面的排列位置的版式
2	正泰文化元素	闪电符号	/	
3	版本号	NO:2024.06	NO:2024.06	按产品使用说明书技术文件修订年月确定
4	产品二维码	/	/	空留位置，将来的产品实际维护情况标识
5	产品型号系列	NB8-125	NB8-125	产品单位填写使用说明书实际所涵盖产品系列型号、名称。
	产品名称	塑料外壳式断路器	Moulded Case Circuit Breaker	
6	符合标准号	IEC/EN 60947-2	IEC/EN 60947-2	产品实际所符合的国际标准
7	封面标题	使用说明书	User Instruction	集成系统业务部组织按技术文件代号所标外国语种翻译在本栏目中

附件2 产品合格证

序号	印刷项目	印刷内容	译文	要求说明
1	商标	CHINT		由品牌管理部统一设计
2	标题	QC PASS	QC PASS	市场部与研究院确定样式并翻译
3	产品型号系列	NB8-125		文字描述及格式固定不变，只更新产品所符合的标准号
4	产品名称	塑料外壳式断路器	Moulded Case Circuit Breaker	
5	符合标准号	IEC/EN 60947-2	IEC/EN 60947-2	国际标准
6	检验工号	检验：检 12		按产品成品实际检验员工号
7	检验日期	检验日期：请见包装	Test date: Please see The packing	版式设计时需增加
8	公司名称	浙江正泰电器股份有限公司.	ZHEJIANG CHINT ELECTRICS CO., LTD.	版式设计时需增加

附件3 封底

序号	印刷项目	印刷内容	译文	要求说明
1	商标	CHINT		以下由品牌管理部统一设计
2	产品型号系列	NB8-125		商标下面
3	产品名称	塑料外壳式断路器	Moulded Case Circuit Breaker	
4	封底标题	使用说明书	User Instruction	

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5	生产者（制造商）名称、地址（含邮编、邮箱、网址等）	浙江正泰电器股份有限公司 地址：浙江省乐清市北白象镇正泰工业园正泰路1号 邮编：325603 邮箱： global-sales@chint.com 网址： http://en.chint.com	Zhejiang Chint Electrics Co., Ltd. Add: No.1, CHINT Road, CHINT Industrial Zone, North Baixiang, Yueqing, Zhejiang 325603, P. R. China E-mail: global-sales@chint.com Website: http://en.chint.com	统一总部海外最新信息；由网站传媒与维护权威部门提供
6	企业二维码		/	统一总部海外最新网站二维码；由网站传媒与维护权威部门提供
7	回收标志或禁止随意废弃标志	 	/	

附件4 说明书的幅面尺寸、印刷色彩、装订形式、制作材质的要求

序号	项目	（填写项）要求	要求说明
1	幅面尺寸	正128开（65X92）	分为正16开（185X260）、正32开（130X185）、正64开（92X130）、正128开（65X92）等四种可选
2	印刷色彩	全彩印	封面（含封底、合格证）彩色里黑白、全单色（品蓝）、全彩印等三种可选
3	装订形式	单张折叠本	分为单张折叠本、订装本、胶装本、线装本等四种可选；优先选用折叠式
4	制作材质	60g/m ² 双胶纸	分为折叠式：128开-60 g/m ² 双胶纸，64开以上 70g/m ² 双胶纸；彩印钉装式：64开和 32开-封面 80g/m ² 亚光铜版纸，里页 60g/m ² 双胶纸；16开-封面 128g/m ² 亚光铜版纸，里页 70g/m ² 双胶纸；品蓝单色钉装式：70g/m ² 双胶纸

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