



■ Quick Selection Chart

EHB5	63	DC	2	C	63	OF
Design Code	Shell frame grade	DC	Poles	Type of decoupling	Rated voltage	Electrical accessories
Miniature Circuit Breaker	63	direct current (D.C.)	1P 2P 3P 4P	C D	1P-DC125V/250V 2P-DC250V/500V 3P-DC300V/750V 4P-DC500V/1000V	Auxiliary contact: OFArm contact:SD

■ Normal operating conditions and installation conditions

- ◆ The upper limit of ambient air temperature should not exceed +40°C, the lower limit should not be lower than -5°C, and the 24h average temperature should not exceed +35°C; and
- ◆ The altitude of the installation place should not exceed 2000m.
- ◆ The relative humidity of the atmosphere should not exceed 50% when the ambient air temperature is +40° C. Higher relative humidity is permitted at lower temperatures, e.g. up to 90% when the temperature is +20°C. Special measures should be taken against occasional condensation on the product due to temperature changes.
- ◆ When wiring, the positive pole of the power supply end must be connected to the positive pole of the circuit breaker, and the negative pole must be connected to the negative pole of the circuit breaker, and the reverse connection is not allowed.
- ◆ Pollution level: Class 2.
- ◆ Installation conditions: Installation in the place without significant shock, vibration, no dangerous (explosive) medium.
- ◆ Installation method: TH35-7.5 mounting rail is used to install.
- ◆ Installation category: II, III, level.

■ Product Classification

- According to the number of poles: 1P, 2P, 3P, 4P.
- According to the form of instantaneous disconnecting current, there are: C type (8 inches 20%), D type (12 inches 20%). According to the rated current, there are: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A and 63A;
- According to the rated current, there are: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A and 63A.
- By rated operating voltage: 125V/250VDC (1P), 250V/500V DC (2P), 300V/750VDC (3P), 500V/1000VDC (4P).

■ Scope of application and use

Product Overview EHB5-63DC series small DC circuit breaker EHB5-63DC small DC circuit breaker (hereinafter referred to as circuit breaker) is mainly used for the protection of power distribution lines with DC rated working voltage not exceeding 1000V, DC rated breaking capacity not exceeding 63A, and rated short-circuit breaking capacity not exceeding 6000A, as the line infrequently connected, divided and converted. EHB5-63DC series small DC circuit breaker (hereinafter referred to as circuit breaker) is mainly used for DC rated working voltage not exceeding 1000V, DC rated current not exceeding 63A, rated short-circuit breaking capacity not exceeding 6000A protection of power distribution line, as the line infrequently connected, divided and converted, with overload, short-circuit protection function. Meanwhile, it has powerful auxiliary function module, such as auxiliary contact, contact with alarm indication. EHB5-63DC series circuit breaker is a circuit breaker with high current limiting ability and high reliability developed by Northland Electric specifically for the telecommunication industry. It is mainly used in the power distribution system of host cabinet, power cabinet, distribution cabinet and outdoor cabinet in the telecommunication industry.

The product conforms to:GB/T14048.2 standard.

■ Main technical data

Overcurrent disconnecting characteristics: The overcurrent disconnecting characteristics of the circuit breaker under normal installation conditions and reference ambient temperature (30-35)°C are in accordance with the provisions of Table 1. The rated short-circuit breaking capacity of the circuit breaker is shown in Table 2.

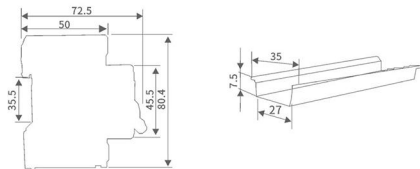
Type of decoupling	Test current I <sub>n</sub>	Appointed time	Expected results	Starting state	footnote
C-type	8In × 80%	t ≤ 0.2s	No disconnect	Cold	Close the auxiliary switch and turn on the power
	8In × 120%	t < 0.2s	Disconnect		
D-type	12In × 80%	t ≤ 0.2s	No disconnect	Cold	
	12In × 120%	t < 0.2s	Disconnect		
C/D-type	1.05In	t ≤ 1h	No disconnect	Cold	----
	1.3In	t < 1h	Disconnect	Hot state	Current rises to specified value within 5S

Type of decoupling	Rated current A	Rated short-circuit breaking capacity A
C/D Type	6 ≤ In ≤ 63	6000(1P 250V, 2P 500V, 3P 750V, 4P 1000V) 10000(1P 125V, 2P 250V, 3P 300V, 4P 500V)

Mechanical and Electrical Life:  
 Circuit breaker under the specified rated voltage, connecting and breaking the rated current, power factor of 0.85 ~ 0.9, with a frequency test of 120 times (>32A) or 240 times (<32A) of operation cycle per hour, its mechanical and electrical life is 10,000 times, the electrical life of DC 1500 times. Structure and working principle.  
 The circuit breaker consists of contact system, arc extinguishing system, electromagnetic system, disconnecting mechanism, operating mechanism and shell. Circuit breaker working principle: under normal operating conditions, trigger the operating mechanism, at this time, the release mechanism locking, moving, static contacts contact, so that the power supply is connected. When the line is overloaded, the electromagnetic system of the bimetallic sheet deformation, push the locking mechanism to make the mechanism debut, the dynamic contacts disconnect cut off the power supply. When the line is short-circuited, the electromagnetic system sucks the iron core, and the top bar of the iron core pushes the latch to make the mechanism debut, and completes the breaking protection function of the circuit breaker.

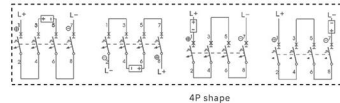
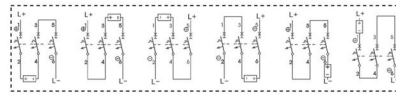
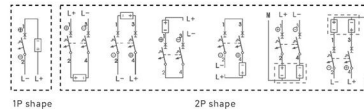
■ Overall dimensions and mounting dimensions

The external dimensions and mounting dimensions of the circuit breaker are shown in Figure 1.



Size	1P	2P	3P	4P
L(mm)	18 <sup>±0.5</sup>	36 <sup>±0.5</sup>	54 <sup>±0.5</sup>	72 <sup>±0.5</sup>

■ DC Wiring Diagram



Wiring Diagram Description:  
 1. L +: power positive, L -: power negative  
 2. +: circuit breaker positive, -: circuit breaker negative.  
 3. ■: load.  
 4. DC power supply usually: L-grounding, positive and negative power system in the polarity M grounding.

■ Installation and Adjustment

The following should be noted before the circuit breaker is installed.  
 a) Check the circuit breaker to make sure that it is intact and flexible in operation.  
 b) Check that the contents of the circuit breaker's markings are compatible with the actual conditions of use.  
 Circuit breakers should be installed with attention to the markings on the terminal.  
 The rectifying current cannot be adjusted by itself and no maintenance is required.  
 The circuit breaker is mounted using the mounting rails shown in Figure 3.

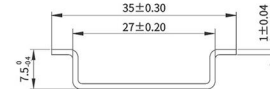


Figure 3. Mounting rail dimensions

■ Ordering Information

When ordering a circuit breaker, specify the following:  
 1) product model and specifications; 2) number of poles of the circuit breaker; 3) rated current; 4) type of release; 5) quantity ordered.  
 Example: Order EHB5-63DC miniature circuit breaker with rated current 32A, 1P, C type, 1000 sets.  
 Should be written as small circuit breaker EHB5DC-63C321P, 1000 sets.