



DZ47s-80, DZ47s-80H
Miniature Circuit Breaker

NAVIGATOR
Series

User Manual



Please carefully read this User Manual before installing and operating the product, and keep this manual properly for future reference

Safety Notice

Make sure to read this manual carefully before installation, operation, maintenance and inspection, and correctly install and use this product according to the manual.

Danger:

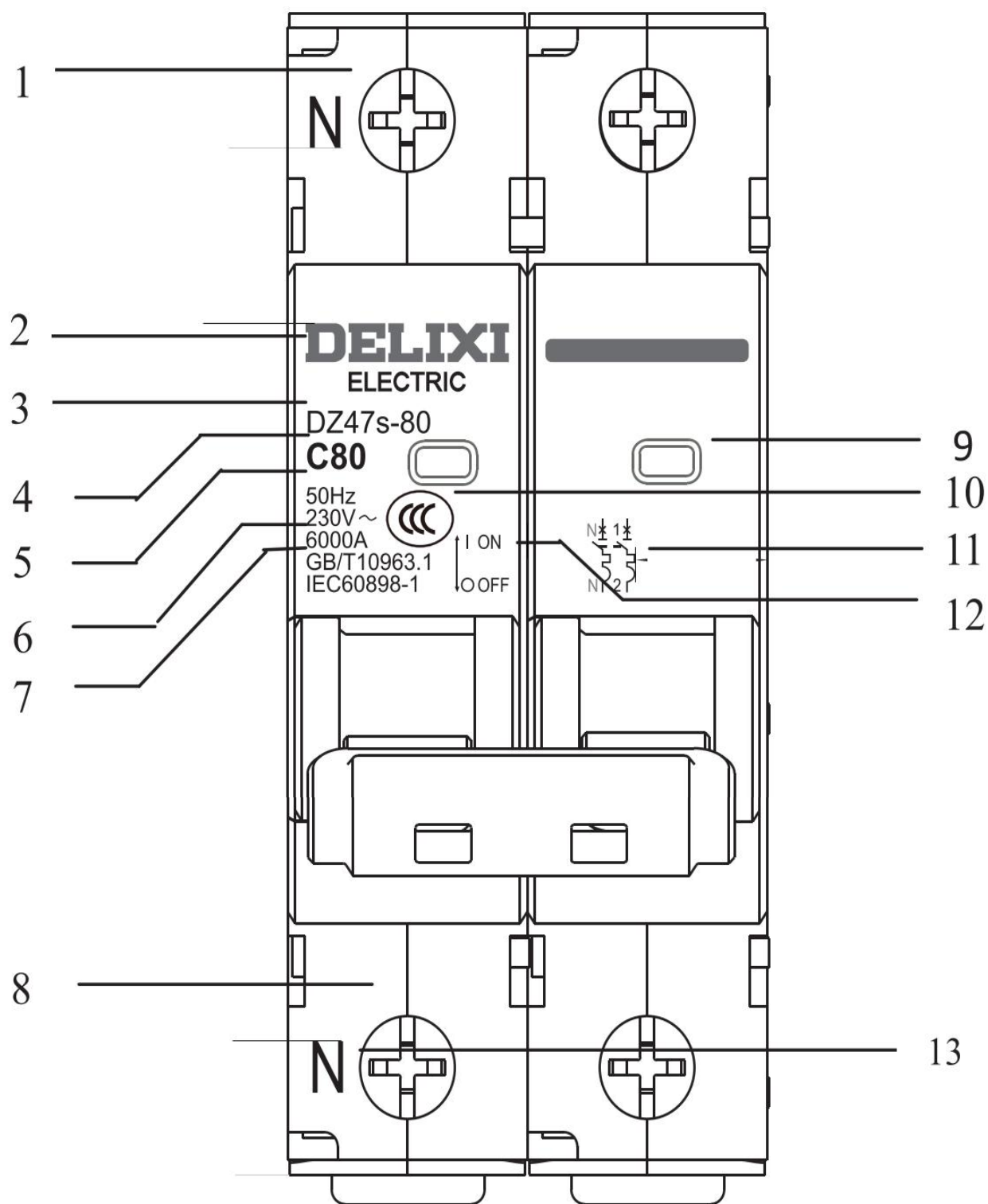
- Do not operate the breaker with wet hands;
- Never touch the conductive parts in use;
- Make sure that the product is de-energized during maintenance and care;
- Do not test the product by means of short circuit;

Attention:

- The installation, repair and maintenance shall be implemented by qualified personnel;
 - All features of the product have been set when delivery, do not disassemble or modulate the product at your own discretion;
 - Before use, make sure that the working voltage, rated current, frequency and features of the product meet the working requirements;
 - To prevent interphase short circuit, the bare wire or copper busbar at the terminal shall be insulated;
 - Stop using and contact the supplier immediately in case of any damage or abnormal sound during unpacking;
 - Make proper disposal of industrial wastes for end-of-life products.
- Thank you for your cooperation.

About DZ47s-80, DZ47s-80H Miniature Circuit Breaker

● Panel Introduction



Legends:

- | | | |
|--|-------------------------------|---------------------------------|
| 1 Power supply terminal | 2 Company trademark | 3 Product model |
| 4 Current specification (tripping type, rated current) | 5 Frequency and rated voltage | |
| 6 Breaking capacity | 7 Reference standard | 8 Load terminal |
| 9 Contact indication | | |
| 10 Certification mark | 11 Wiring diagram | 12 ON-OFF indication |
| | | 13 N pole identification (1P+N) |

Conditions of Normal Use

Installation and Transportation

Conditions of normal use and installation

- (1) The ambient temperature ranges between -20°C and $+60^{\circ}\text{C}$ with average value in 24h not exceeding $+35^{\circ}\text{C}$;
- (2) Altitude: $\leq 2000\text{m}$;
- (3) The relative humidity should not exceed 50% at a maximum temperature of $+40^{\circ}\text{C}$; the relative humidity is allowed to increase while under lower temperature, for instance 90% for temperature $+20^{\circ}\text{C}$, but should take condensation into consideration when temperature is changed.
- (4) The external magnetic field near the installation site of the residual current circuit breaker shall not exceed 5 times the geomagnetic field in any direction;
- (5) It shall be installed in medium free of explosion risk and gas or dust that may cause metal corrosion or damage to insulation;
- (6) It shall be installed in places where there is no shock and vibration, or rain and snow either;
- (7) Pollution class: 2;
- (8) Installation category: II & III;
- (9) It shall be installed in distribution box, distribution cabinet or box;
- (10) Negative wiring is allowed for the product;
- (11) For products with N pole, the phase line shall be connected to the pole with the indication N.

Conditions of normal storage and transportation

- (1) Temperature range: -40°C - $+70^{\circ}\text{C}$;
- (2) Relative humidity (At 25°C): $\leq 95\%$;
- (3) The product shall be handled with care during transportation without upside down. Avoid violent collision.

Main Specifications and Technical Parameters

- Main technical parameters are listed in Table 1

Table 1 Main technical parameters

Trip type	Rated current I_n A	Pole	Rated voltage U_e V	Breaking capacity I_{cn} A
C	80	1	230	4.5kA
		1+N/2		6kA
		2		10kA

- The protection characteristics of the overcurrent release are listed in Table 2

Table 2 Protection characteristics of the overcurrent release

Type of overcurrent instantaneous release	Rated current I_n A	Test current A	Start state	Test time	Expected result	Remarks	Reference temperature
C	80	$1.13I_n$	Cold state	$t \leq 2h$	Not-trip	--	$+30^{+5}_0^\circ\text{C}$
C		$1.45I_n$	Followed by test	$t < 2h$	Trip	The current rises to the specified value within 5s	
C		$2.55I_n$	Cold state	$1s < t < 120s$	Trip	--	
C		$5I_n$	Cold state	$t \leq 0.1s$	Not-trip	Turn on the auxiliary switch to supply power	
C		$10I_n$	Cold state	$t < 0.1s$	Trip	Turn on the auxiliary switch to supply power	

- Other technical parameters

(1) Rated impulse withstand voltage (U_{imp}): 4kV;

Protection characteristics curve of circuit breaker are illustrated in Fig. 1

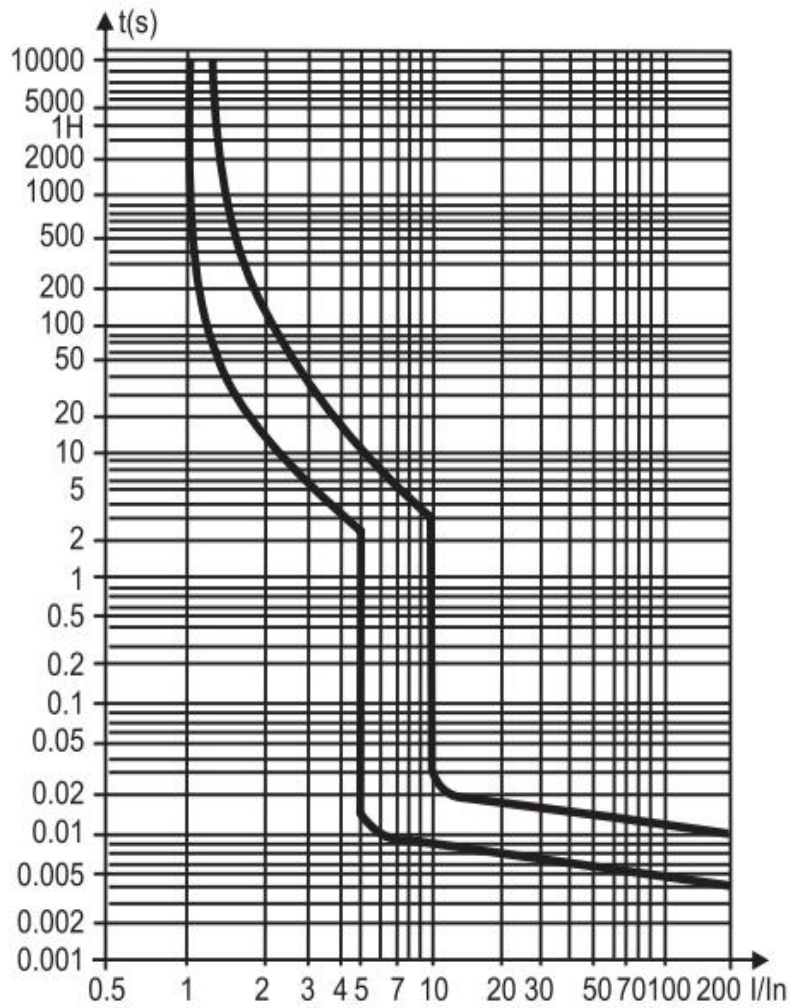


Fig. 1
C type thermal/electromagnetic
trip characteristics curve

Outline and Installation Dimensions

The circuit breaker is installed on the guide rail.

The outline and installation dimensions are shown in Fig. 2.

Unit: mm

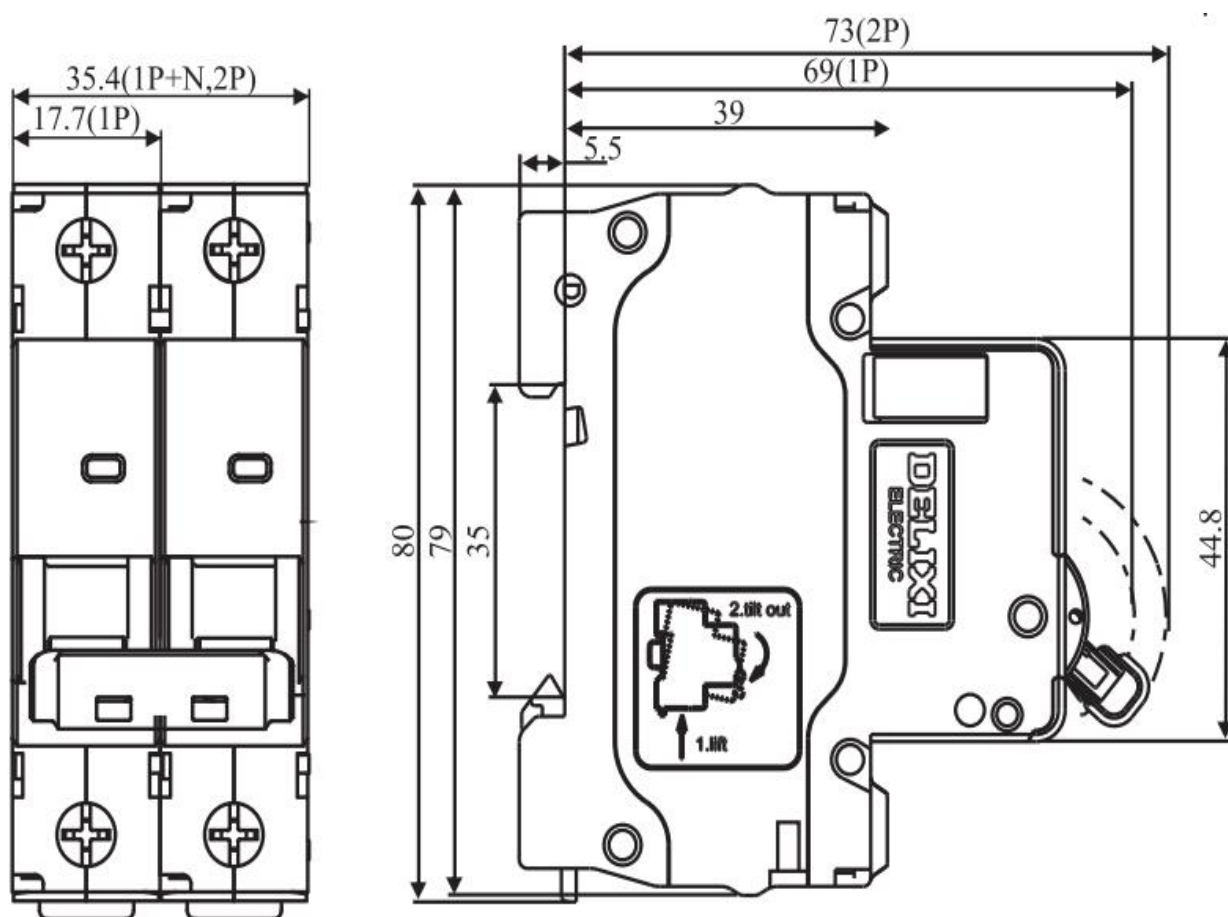


Fig. 2

• Installation and Operation

- (1) Check whether the technical parameters of the product meet the use requirements;
- (2) Before use, users shall check the insulation resistance respectively between the two poles (except for single pole), the pole and the shell, the pole and the mounting rail, the incoming and the outgoing line end with a 500V megohmmeter. Do not use the product if the insulation resistance is below 5MΩ and contact the supplier timely for exchange.
- (3) Close and open the breaker for several times to check whether the operation mechanism is reliable or clamping stagnation exists in the mechanism;
- (4) The reference temperature for the breaker of this series is $+30 \pm 5^{\circ}\text{C}$
- (5) The sectional area of connecting conductor shall fit the rated current of the circuit breaker. See table 3;

Table 3 Rated current and sectional area of the connecting wire

Rated current A	80
Sectional area of wire mm ²	25
Wiring torque N•m	Both the power supply and load are 2.0

- (6) The breaker of this series adopts DIN rail mounting method, for which TH35-7.5 steel DIN rail shall apply.
- (7) When the ambient temperature changes, the rated current shall be corrected accordingly.
For temperature correction coefficient, see table 4.

Table 4 Rated current and temperature correction coefficient table

Rated current (A)	Rated current correction value A										
	-35°C	-20°C	-10°C	0°C	+10°C	+20°C	+30°C	+40°C	+50°C	+60°C	+70°C
80	103.28	96.48	93.42	90.25	86.97	83.56	80.00	76.28	72.36	68.22	63.82

Maintenance and care

- (1)The installation, repair and maintenance shall be implemented by qualified personnel;
- (2)It must be ensured that the product is de-energized;
- (3)Maintenance and care shall be conducted once a year under normal operation condition. The details of maintenance and care are shown in table 5.

Table 5 Maintenance and care

Item	Content
Appearance	Free of dust and condensation. Clean, if any. With no damage No change of color for the shell and connecting terminal
Wiring terminal connection	Tighten according to the torque stipulated in table 3 and ensure it does not loosen.
Handle closing/opening operation	Operation shall be smooth and flexible

Unpacking Inspection

After unpacking, please check whether the product is intact, whether the exposed metal is rusty, and whether the product is defected due to poor transport or storage. If found the above phenomenon, please stop the product, and contact the supplier timely for solution.

Company Commitment

Under the condition that users follow the use and storage conditions and the product are well sealed, within 36 months from the production date, our company will provide repair and replacement service free of charge for any damage or abnormal operation due to poor manufacture quality. A paid repair will be provided if the warranty period expires. For any damage due to one of the following situations, a paid repair will be given even if within the warranty period:

- (1) Improper operation, maintenance, or storage;
- (2) Modified and improper repair without permission;
- (3) Damage due to falling off or found during installation after purchase;
- (4) Force majeure such as earthquakes, fires, lightning strikes, abnormal voltages, and secondary disasters; If you have any question, please contact the dealer or our company's customer service department.

Order Notice

Please specify the following items when ordering:

- 1) Name, model and specification of the miniature circuit breaker;
- 2) Rated current and number of poles of the miniature circuit breaker;
- 3) Qty.

Example : To order DZ47s-80, two poles, C type, rated current 80A, 1000 units.

Please specify: To order DZ47s-80/2P, C80, 1000 units.



Certificate

DELIXI ELECTRIC LTD

Name: Miniature Circuit-Breaker

Model: DZ47s-80, DZ47s-80H

This product passes the inspection and is allowed to be shipped.

Standard: GB/T 10963.1

Inspector: Check 06

Production date: See label on inner box

DELIXI ELECTRIC LTD

Address: Delixi High-Tech Industrial Park, Liushi Town, Yueqing City, Zhejiang P/C: 325604

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