


**DELIXI**  
ELECTRIC

**DZ47P**

MINIATURE CIRCUIT BREAKER

**Pilot**  
**NAVIGATOR**

Instruction manual



Please read the instructions carefully  
before installing and using the product  
And keep properly, reserve

# DZ47P miniature circuit breaker

## Instruction manual

### Safety notification

Before installation, operation operation maintenance and inspection, please read this manual carefully, and install and use this product accurately according to the content in the manual.

#### Danger:

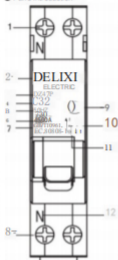
- It is strictly prohibited to operate the circuit breaker with wet hands; In use do not touch the conductive part;
- Maintenance and maintenance must ensure that the product is not live;
- It is strictly prohibited to test the product by short circuit;

#### Look out:

- Installation maintenance and maintenance should be operated by professionally qualified personnel;
- The characteristics of the product have been set at the factory, and can not be disassembled or adjusted at will in use;
- Before use, please confirm whether the rated voltage rated current frequency and characteristics of the product meet the working requirements;
- In order to prevent short circuit between phases the exposed wire or copper bus should be insulated;
- If the product is damaged or abnormal sound when unpacking, stop using immediately and contact the supplier;
- This product is not suitable for frequent motor start, electric heating equipment, capacitor cabinet, high inductive, high capacitance load and high temperature environment and other special occasions;
- When the product is scrapped, please do a good job of product waste treatment, thank you for your cooperation.

## Know DZ47P miniature circuit breaker

### ● Pane introduction



### Instructions:

- 1- Power end
- 2- Company trademark
- 3- Product model
- 4- Current specifications (trip type + rated current)
- 5- Frequency and rated voltage
- 6- Breaking ability
- 7- Meets the standard
- 8- Load end
- 9- Certification mark
- 10- V-mg diagram
- 11- Close the disconnect indicator
- 12- N pole indication

## Normal conditions of use, installation and transportation

### Normal use and installation conditions

(1) The upper limit of ambient air temperature does not exceed  $+60^{\circ}\text{C}$ , the lower limit does not exceed  $20^{\circ}\text{C}$ , and in 24 hours.

The average internal temperature does not exceed  $+35$ ;

(2) The elevation of the installation site does not exceed 2000m.

(3) When the temperature is  $+40$ , the relative humidity of the air does not exceed 50%; Allow at lower temperatures.

Large relative humidity, such as at  $+20^{\circ}\text{C}$ , the relative humidity does not exceed 90% due to temperature.

Special protective measures should be taken for condensation occasionally caused by degree changes.

(4) The external magnetic field near the installation site of the circuit breaker should not exceed 5 times the geomagnetic field in any direction;

(5) Installed in a medium without explosion risk, and the medium is not enough to corrode metal and destroy insulation

Gas and dust;

(6) Installed in a place without significant impact vibration and without rain and snow attack

(7) Pollution level: Level 2;

(8) Installation category: Class II, Class I;

(9) Should be installed in the distribution box, distribution cabinet or box;

(10) The product allows reverse wiring;

(11) When wiring, the neutral line must be connected to the pole marked with N.

Normal storage and transportation conditions

(1) The lower limit of temperature is not less than  $-40^{\circ}\text{C}$ , and the upper limit is not more than  $+70^{\circ}\text{C}$ ;

(2) The relative humidity (25%) does not exceed 95%;

(3) The product should be handled lightly during transportation and should not be put upside down, and should try to avoid violent collisions.

Main technical performance parameters

Circuit breaker main technical parameters are shown in Table 1

Table 1 Main technical parameters

Trip type	Rated current In A	Poles	Rated voltage U <sub>e</sub> V	Rated breaking capacity I <sub>cn</sub>
Type C	6, 10, 16, 20, 25, 32, 40	1P+N	230	4500A
Type D	6, 10, 16, 20, 25, 32, 40	1P+N	230	4500A

● The over-current protection characteristics of circuit breakers are shown in Table 2

Table 2 Overcurrent protection characteristics of circuit breakers

Trip type	Rated current I <sub>n</sub> /A	Test current A	Initial state	Start time	Expected result	Notes appended to a book	Reference temperature
C/D	$\leq 63$	1.13I <sub>n</sub>	Cold state	t <sub>th</sub>	non-trip	---	$+30^{+5}_{0}$ °C
C/D	$\leq 63$	1.45I <sub>n</sub>	Immediate test	t < 1h	trip	TC-Curve rises to the specified value W <sub>0.45</sub>	
C/D	$\leq 32\text{A}$	2.55I <sub>n</sub>	Cold state	1S < t < 60s	trip	---	
C/D	> 32A			1S t < 120s		---	
C	$\leq 63$	5I <sub>n</sub>	Gold state	t <sub>0.1s</sub>	non-trip	Turn on the auxiliary switch (turn off)	
D	$\leq 63$	10I <sub>n</sub>					
C	$\leq 63$	10I <sub>n</sub>	Cold state	t < 0.1s	trip	Turn on the auxiliary switch to hold in	
D	$\leq 63$	14I <sub>n</sub>					

## The product comes with accessories

The circuit breaker is equipped with 6 different accessories, including: OF auxiliary contact, MX+OF shunt release, SD alarm contact, MV overvoltage release, MN undervoltage release, and MVMN overvoltage and undervoltage release. All accessories are installed on the left side of the product.

## Installation, use and maintenance

### ● Circuit breaker installation should:

- (1) Check whether the technical parameters on the pad printing mark meet the requirements of use;
- (2) Before the user uses the 500V megohm meter to check the pole and pole of the circuit breaker (except for the single pole). The insulation resistance between the pole and the shell, the pole and the installation guide rail, and the inlet and outlet ends should not be Less than 5MQ, if the insulation resistance is less than 5MQ, the product can not be used, should contact the supplier, timely replacement;
- (3) The circuit breaker is closed and divided into several times to check whether the circuit breaker operating mechanism is stuck and whether the mechanism is reliable;
- (4) The baseline temperature of this series of circuit breakers is +30+5 degrees Celsius, multiple circuit breakers are installed in the sealed box at the same time, the box temperature increases correspondingly, and the use current is 0.8In;
- (5) The cross-sectional area of the connecting conductor should be compatible with the rated current of the circuit breaker, as shown in Table 3;

Table 3 Rated current and cross-sectional area of connecting wires

Rated current A	6	10	16,20	25	32	40
Conductor cross-sectional area mm <sup>2</sup>	1	1.5	2.5	4	6	10
Cable tightening torque N.m	Both the power and load ends are 1.5					

- (6) This series of circuit breakers for rail installation, suitable for TH35-7.5 steel installation rail; (7) When the ambient temperature changes, its rated current value is corrected accordingly. The temperature correction coefficients are shown in Table 4.

Table 4 Rated current temperature correction coefficient table

Rated current (A)	Temperature(°C)								
	-20	-10	0	10	20	30	40	50	60
6	7.35	7.10	6.84	6.57	6.29	6	5.69	5.37	5.02
10	13.09	12.54	11.95	11.34	10.69	10	9.26	8.45	7.56
16	19.77	19.07	18.35	17.60	16.82	16	15.13	14.22	13.23
20	24.49	23.66	22.80	21.91	20.98	20	18.97	17.89	16.73
25	30.72	29.67	28.57	27.43	26.24	25	23.69	22.30	20.82
32	39.19	37.86	36.49	35.05	33.56	32	30.36	28.62	26.77
40	49.24	47.54	45.77	43.93	42.01	40	37.88	35.64	33.24

## ● Maintenance and maintenance:

- (1) Maintenance and maintenance must be operated by professionally qualified personnel;
- (2) Must ensure that the product is not charged;
- (3) Maintain and maintain once a year under normal operating conditions, and the maintenance contents are shown in Table 5.

Item	Content
Appearance	No dust, no condensation, if necessary to clean No damage The color of the shell and terminal does not change
Terminal connection	Tighten according to torque in Table 3, and do not loosen
Handle closing/opening operation	Operation should be flexible

## Unpacking inspection

After opening the box, the user must check whether the product is intact, whether the exposed metal parts are rusty, whether the product is defective due to poor transportation and storage, if the above phenomenon, the product can not be used, please contact the supplier in time to solve.

## Corporate commitment

Under the premise that the user complies with the use and storage conditions and the product seal is intact, the company is responsible for free repair or replacement if the product is damaged or cannot be used normally due to manufacturing quality problems within thirty-six months from the date of production. If the warranty period is exceeded, repair shall be paid. However, if the damage is caused by the following circumstances, paid repair will be made even within the warranty period:

- (1) Improper use, maintenance or storage;
- (2) Self-modification or improper maintenance;
- (3) Damaged due to fall and installation after purchase;
- (4) Earthquake, fire, lightning strike, abnormal voltage and secondary disasters and other force majeure.

If you have any questions, please contact the distributor or our customer service department. Customer service hotline: 400-826-8008

## Order instructions

Users need to specify when ordering:

- a) The name, model and specification of the circuit breaker;
- b) Rated current and number of poles of circuit breaker;
- c) Quantity.

Example: DZ47P1P+N circuit breaker, type C, rated current 20A, quantity 1000 sets. It should be written as: DZ47P/1P+N,C20,1000 sets.