



DELIXI[®]
ELECTRIC
德力西电气

DZ47TR

User manual



☐ Before installing and using the product,
please read the instruction manual
carefully and keep it properly for use.

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:

- Do not 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;
- Do not test the product by short circuit.



Notice:

- Installation, maintenance and maintenance should be operated by professionally qualified personnel; The features of the product have been set before delivery, and can not be disassembled or adjusted at will in use;
- Before use, please confirm whether the working voltage, rated current, frequency and characteristics of the product meet the working requirements;
- When connecting cables to the product, the incoming cable is connected from the top and the outgoing cable is connected from the bottom. After the wire is inserted into the wiring hole, tighten the wiring screws to ensure that the wire is not loose or pulled out, and that the bare copper wire tip is not exposed outside the wiring end.
- This product cannot protect against the danger of electric shock caused by simultaneous contact with two lines of the protected circuit;
- This product protection level IP20 does not have the dust-proof function, when used in dusty occasions, please install in a better sealed terminal box;
- 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;
- If the product is damaged or abnormal when unpacking, stop using it immediately and contact the supplier.

Main uses and scope of application

catalogue

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1 Main uses and scope of application

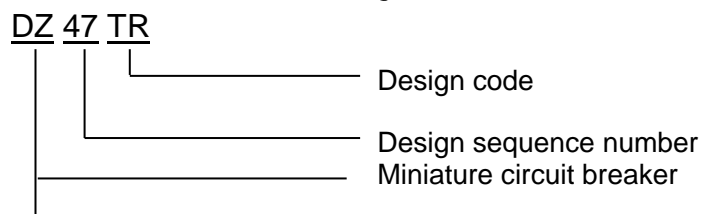
DZ47TR miniature circuit breaker (hereinafter referred to as DZ47TR) is a kind of overload and short circuit double protection of the current limiting type high break miniature circuit breaker, which is suitable for AC 50Hz, rated voltage 230V/400V, rated current to 63A and below the circuit, it is mainly used in the civil residential power distribution system for line overload, short circuit protection. The structural design of the circuit breaker can make the protection pole and the neutral pole close at the same time, so that the residential electricity consumption can be safe and reliable.

2 Product features, models and meanings

2.1 Product characteristics

- a) overload protection;
- b) Short circuit protection;
- c) Various current specifications.

2.2 Product model and meaning



3 Normal working conditions and installation conditions

a) Ambient air temperature:

The upper limit of ambient air temperature shall not exceed $+60^{\circ}\text{C}$, the lower limit shall not be lower than -20°C , and the average temperature shall not exceed $+35^{\circ}\text{C}$ within 24 hours;

b) Altitude:

The elevation of the installation site shall not exceed 2000m;

c) Atmospheric conditions:

When the temperature is $+60^{\circ}\text{C}$, the relative humidity of the air does not exceed 50%; Allow a relatively large relative humidity at a lower temperature, such as at $+20^{\circ}\text{C}$, the relative humidity does not exceed 90%, and special protective measures should be taken for condensation occasionally caused by temperature changes;

d) Installation conditions:

The external magnetic field near the installation site of the circuit breaker should not exceed 5 times the earth magnetic field in any direction; Installed in a medium without explosion risk, and the medium is free of gas and dust enough to corrode metal and destroy insulation;

Install in a place where there is no significant shock vibration and no rain or snow attack;

e) Pollution level: Level 2;

f) Installation category: Class II, Class III;

- g) Protection level: IP20 (IP40 installed in distribution box, distribution cabinet or box);
- h) The product allows reverse wiring;
- i) For products with N poles, when wiring, the neutral line must be connected to the pole marked with N.

4 Technical Features

4.1 Sort

- a) According to the type of trip: Type C, type D;
- b) According to the number of product poles:
1P, 2P, 3P, 4P;
- c) According to rated current points: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A.

4.2 Main technical parameters

- a) See Table 1 for the main technical parameters

Trip type	Rated current I_n A	Poles	Rated voltage U_e V	Rated breaking capacity I_{cn} A
Type C	6、10、16、20、25、32、40、50、63	1	230/400	C6-C40:6000; C50-C63:4500
		2、3、4	400	
Type D	6、10、16、20、25、32、40、50、63	1	230/400	D6-D63 :4500
		2、3、4	400	

4.3 Main technical parameters

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

Release type	Rated current In A	Test current A	Initial state	Start time	Expected result	Attachment	Reference temperature
C、D	≤63	1.13In	Cold state	t≤1h	Non-trip	—————	+30 ₀ ⁺⁵ ℃
C、D	≤63	1.45In	Immediate test	t<1h	Trip	The current is within 5s	
C、D	≤32	2.55In	Cold state	1s<t<60s	Trip	Rise to the <u>specified value</u>	
C、D	>32			1s<t<120s			
C	≤63	5In	Cold state	t≤0.1s	Non-trip	Closing auxiliary switch Power on	
D		10In					
C	≤63	10In	Cold state	t<0.1s	Trip	Closing auxiliary switch Power on	
D		14In					

5 Appearance and installation dimensions

Appearance and installation dimensions

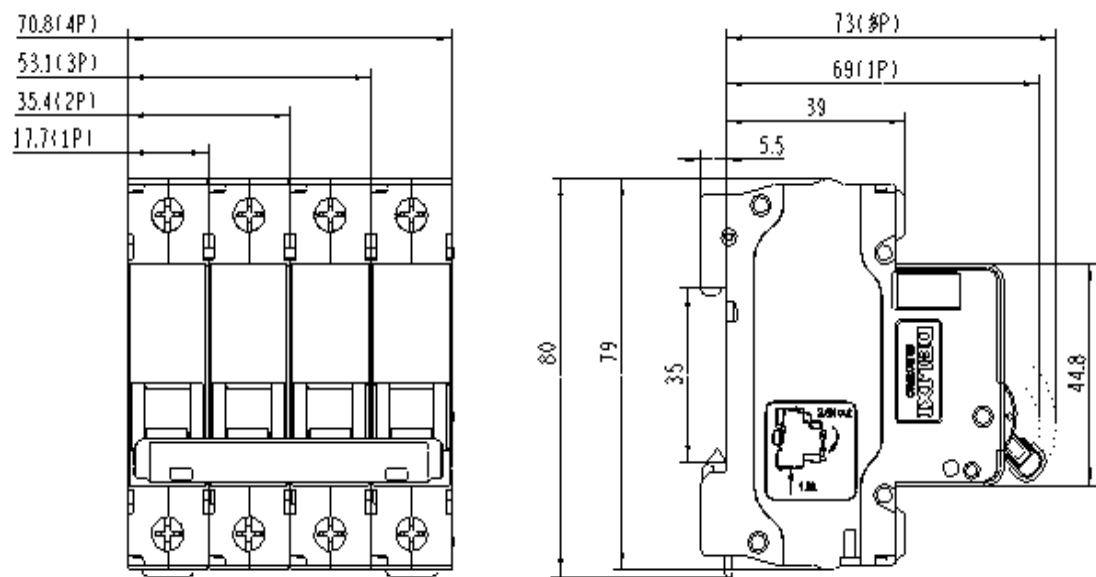


Figure1 Appearance and installation dimensions

6 Installation and Use (Maintenance)

- Check whether the product mark is consistent with the conditions used before installation;
- According to the product label, the incoming end and the outgoing end are correctly connected (the load current should be less than the rated current value of the product);
- The N pole cannot be connected incorrectly, and the connection must be reliable, otherwise the protector cannot work normally;
- Refer to Table 3 for cross-sectional area of link wires;

Table 3 Cross-sectional area and rated current of connecting wires

Rated current A	6	10	16、20	25	32	40、50	63
Wire cross-sectional area mm ²	1	1.5	2.5	4	6	10	16

- When the protector product is selected and used, it shall be installed in parallel with the small circuit breaker of the same specification;
- The tightening torque is 2.0N·m.
- When the ambient temperature changes, its rated current value shall be corrected accordingly. The temperature correction coefficients are shown in Table 4.

Table 4 Rated current temperature correction coefficient table

Rated current A	Rated current correction value A								
	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃
6	7.33	7.05	6.84	6.62	6.30	6	5.64	5.42	5.06
10	12.25	11.87	11.64	11.15	10.62	10	9.30	8.96	8.48
16	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47
20	24.35	23.68	22.82	22.47	21.20	20	18.80	17.85	16.78
25	30.52	29.61	28.78	28.09	26.50	25	23.25	22.52	21.02
32	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84
40	48.85	47.13	46.32	45.80	42.80	40	36.80	36.21	33.5
50	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36
63	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93

8 Unpack and check

After opening the box, the user must check whether the product is intact, whether the exposed metal is 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.

9 Company 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:

- a) Due to improper use, maintenance and storage;
- b) Self-modification or improper maintenance;
- c) Damaged after purchase due to fall and installation process;
- d) Force majeure such as earthquake, fire, lightning strike, abnormal voltage and secondary disasters.

If you have any questions, please contact the distributor or our customer service department. Customer service hotline;

The 400-826-8008



**Certificate of
conformity**

Name: Miniature circuit breaker

Model: DZ47TR

This product is allowed
to leave factory after passing
inspection.

Executive standard: GB/T10963.1

Inspector: 检 50

德力西电气有限公司
DELIXI ELECTRIC LTD

Factory date: See inner box label

DELIXI ELECTRIC LTD

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www.delixi-electric.com This manual is from the first
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