



DZ47Z-63H

DC Circuit Breaker

New Direction
New Selection

DC Miniature Circuit Breaker

DZ47Z-63H

Product Introduction

DZ47Z-63H series DC miniature circuit breakers are mainly used for photovoltaic, generator and other lines with rated DC voltage of 100V-1000V, and can also be used for battery lines with DC voltage of 36-150V, as overload and short circuit protection of DC lines and infrequent line conversion. The maximum working current of the circuit breaker is 63A. The circuit breaker consists of a plastic shell, an operating mechanism, a contact arc extinguishing system, a tripping mechanism, etc. The non-polar design allows the upper and lower wiring to be swapped without affecting the protection performance. The interior uses red copper (red copper) as the main conductor, and composite silver contacts are used to extend the service life of the tripping structure. The unique arc extinguishing system design ensures efficient DC arc extinguishing. The shell is made of highly flame-retardant and high-strength special plastics, which are resistant to high voltage, corrosion, strong impact resistance and light weight. This product complies with GB10963.2 and IEC60947-2 standards.



Model Meaning

DZ47Z-63H-2P-C63A-DC100-250V

Model

Poles

Trip curve

Rated current

Rated voltage

Normal Working Conditions

- Ambient air temperature: - 35°C ~+70°C
- The relative humidity of the air is not greater than 95%
- The inclination to the vertical plane does not exceed 5°
- Where there is no significant shaking or impact vibration
- In a medium with no explosion hazard, and there are no gases and dust (including conductive dust) in the medium that can corrode metal and destroy insulation.

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Technical Parameters

Product model	DZ47Z-63H
Electrical characteristics	
Poles	Non-polarized 2P
Rated current I_e (A)	6, 10, 16, 20, 25, 32, 40, 50, 63, other currents can be customized
Rated voltage U_e (V)	DC100-250, DC260-500, DC510-1000
Rated insulation voltage U_i (V)	1200
Rated withstand impulse voltage U_{imp} (kV)	6
Rated breaking capacity I_{cu} (kA)	6
Tripping mode	Thermal magnetic trip
Tripping curve	C curve (5 I_n -10 I_n) 8.5 I_n (250V), 8.3 I_n (500V), 8 I_n (1000V)
Pollution level	2
Protection function	Overload protection, short circuit protection
Isolation function	Have
Mechanical characteristics	
Mechanical life (times)	20000
Electrical life (times)	6000
Protection level	IP20 (direct installation), >IP40 (installed in the distribution box)
Vibration resistance (IEC/EN 60068-2-6)	Where there is no significant vibration or shock
Resistance to moisture and heat (IEC 60068-2)	Category 2, 28 cycles, When the temperature is 55° C, the relative humidity is 90%~96% When the temperature is 25° C, the relative humidity is 95%~100%
Reference ambient temperature	30°C
Operating ambient temperature	-35°C -+70°C
Storage temperature	-40°C -+85°C
Installation characteristics	
Terminal Blocks	Tunnel terminal blocks

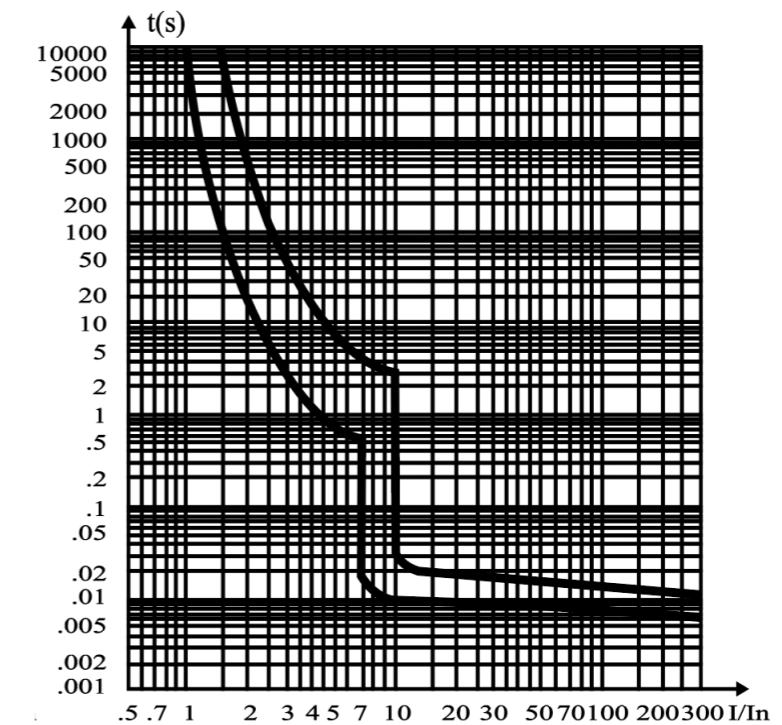
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Technical Parameters

Maximum wiring capacity	2.5N.m
Maximum wiring capacity	25mm ²
Installation	Standard DIN rail (35mm width), panel bracket installation
Accessory	MX (shunt release), OF (auxiliary contact), SD (alarm contact)

Tripping Curve



C type thermal/electromagnetic tripping characteristic curve

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Overcurrent Protection Characteristics

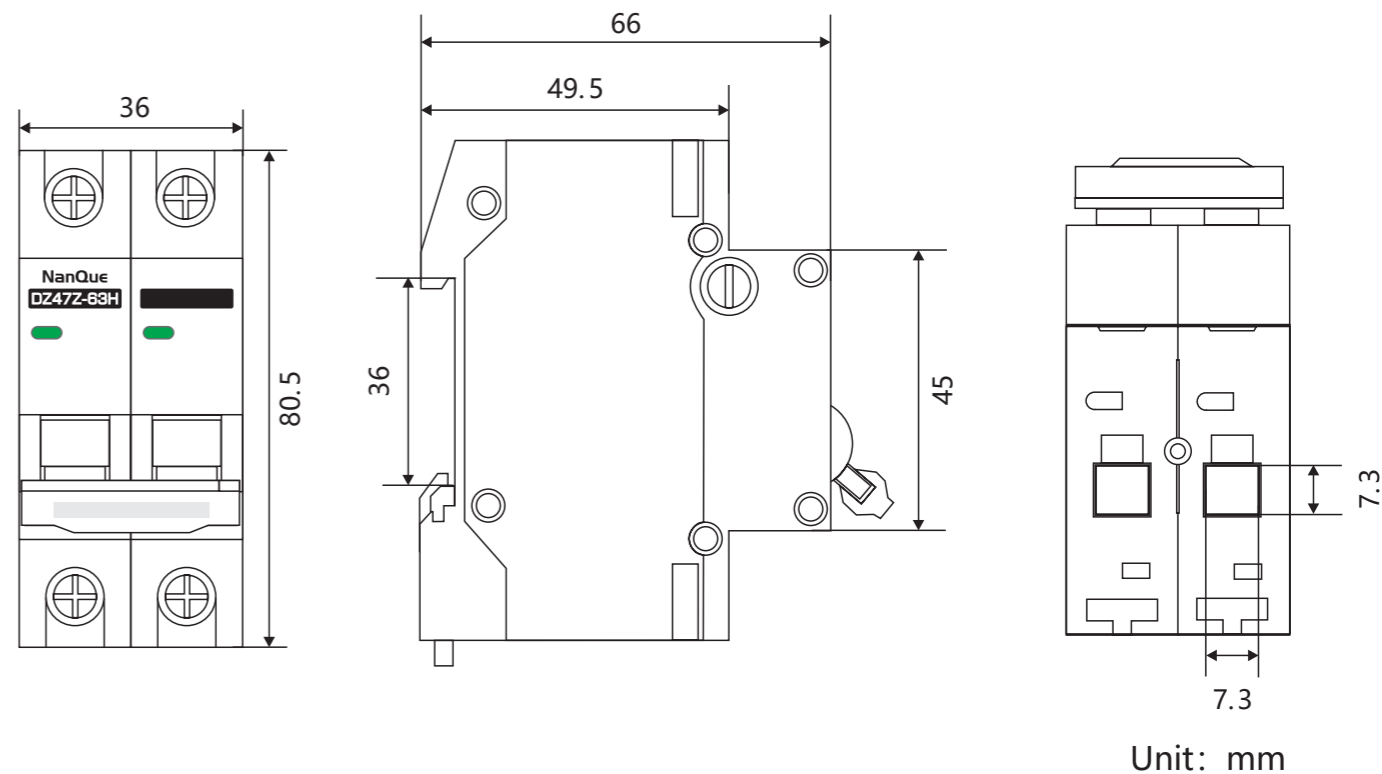
Rated current	Rated current In A	Test current A	Starting State	Start time	Expected Results	Notes	Reference temperature
$I_n=8.5I_n$	≤ 63	$1.05I_n$	Cold	$t \leq 1h$	No tripping	-	$+30^\circ C$
$I_n=8.5I_n$		$1.3I_n$	Immediate test	$t < 1h$	Trip	The current rises to a certain value within 5s	
$I_n=8.5I_n$		$8.5I_n * 80\%$	Cold	$t < 0.2s$	No tripping	Close the auxiliary switch and turn on the power	
$I_n=8.5I_n$		$8.5I_n * 120\%$			Trip		

Rated Current Temperature Correction Coefficient Table

Rated Current (A) \ Temp ($^\circ C$)	-30	-20	-10	0	10	20	30	40	50	60	70
6	7.59	7.35	7.1	6.84	6.57	6.29	6	5.69	5.37	5.02	4.65
10	13.63	13.09	12.54	11.95	11.34	10.69	10	9.26	8.45	7.56	6.55
16	20.44	19.77	19.07	18.35	17.60	16.82	16	15.13	14.22	13.23	12.17
20	25.3	24.49	23.66	22.8	21.91	20.98	20	18.97	17.89	16.73	15.49
25	31.74	30.72	29.67	28.57	27.43	26.24	25	23.69	22.3	20.82	19.23
32	40.48	39.19	37.89	36.49	35.05	33.56	32	30.36	28.62	26.77	24.79
40	50.89	49.24	47.54	45.77	43.93	42.01	40	37.88	35.64	33.24	30.66
50	64.00	61.89	59.70	57.43	55.06	52.59	50	47.27	44.36	41.26	37.9
63	82.09	79.22	76.26	73.17	69.94	66.56	63	59.22	55.19	50.84	46.08

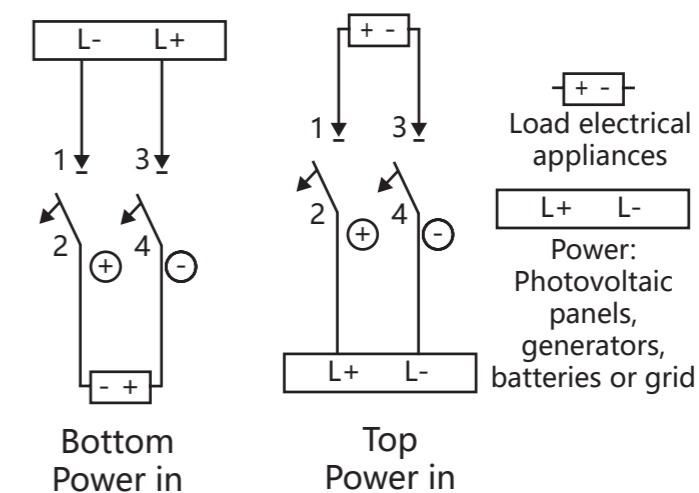
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Product Size



Wiring Method

2P
Non-polarized wiring,
top and bottom,
left and right,
can be exchanged

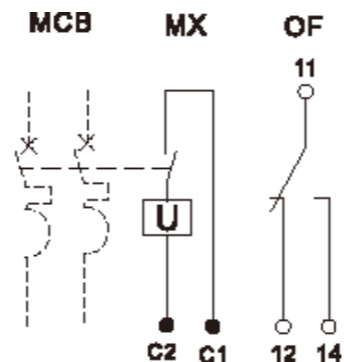
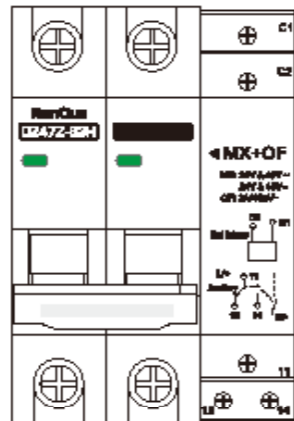


Note:
 1, L+ power supply positive pole, L- power supply negative pole
 2, ⊕ circuit breaker positive pole, ⊖ circuit breaker negative pole

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Optional Accessories



MX-OF
Shunt release + auxiliary device

Working principle: by inputting the corresponding voltage and current, the circuit breaker can be remotely controlled to open and close, and the circuit breaker switch opening and closing status can be fed back;

MX control voltage: the control voltage can be ACDC24V, ACDC110V, ACDC220V, etc.;

Note: when controlling MX with DC, avoid connecting the constant current of the power supply directly to the feedback circuit OF to avoid burning the feedback indicating elements, such as indicator lights. At the same time, it is necessary to pay attention to whether the indicator light requires positive and negative polarity or no polarity.

Connecting Cables

Current	Recommended cable cross-section (mm ²)	Maximum wiring capacity (mm ²)
1-6A	1	25
10A	1.5	
16-20A	2.5	
25A	4	
32A	6	
40-50A	10	
63A	16	

Appendix 1-Product Selection



2P DC100-250V



2P DC260-500V



2P DC510-1000V

Product Model	Poles	Voltage	Current	Order Code	Customized
DZ47Z-63H	2P	DC100-250V	1A	NQPD-0110-2PDCR3001	Yes
	2P	DC100-250V	2A	NQPD-0110-2PDCR3002	Yes
	2P	DC100-250V	3A	NQPD-0110-2PDCR3003	Yes
	2P	DC100-250V	4A	NQPD-0110-2PDCR3004	Yes
	2P	DC100-250V	5A	NQPD-0110-2PDCR3005	Yes
	2P	DC100-250V	6A	NQPD-0110-2PDCR3006	No
	2P	DC100-250V	10A	NQPD-0110-2PDCR3007	No
	2P	DC100-250V	16A	NQPD-0110-2PDCR3008	No
	2P	DC100-250V	20A	NQPD-0110-2PDCR3009	No
	2P	DC100-250V	25A	NQPD-0110-2PDCR3010	No
	2P	DC100-250V	32A	NQPD-0110-2PDCR3011	No
	2P	DC100-250V	40A	NQPD-0110-2PDCR3012	No
	2P	DC100-250V	50A	NQPD-0110-2PDCR3013	No
	2P	DC100-250V	63A	NQPD-0110-2PDCR3014	No
	2P	DC260-500V	1A	NQPD-0110-2PDCR4001	Yes
	2P	DC260-500V	2A	NQPD-0110-2PDCR4002	Yes
	2P	DC260-500V	3A	NQPD-0110-2PDCR4003	Yes
	2P	DC260-500V	4A	NQPD-0110-2PDCR4004	Yes
	2P	DC260-500V	5A	NQPD-0110-2PDCR4005	Yes

Appendix 1-Product Selection

Product Model	Poles	Voltage	Current	Order Code	Customized
	2P	DC260-500V	6A	NQPD-0110-2PDCR4006	No
	2P	DC260-500V	10A	NQPD-0110-2PDCR4007	No
	2P	DC260-500V	16A	NQPD-0110-2PDCR4008	No
	2P	DC260-500V	20A	NQPD-0110-2PDCR4009	No
	2P	DC260-500V	25A	NQPD-0110-2PDCR4010	No
	2P	DC260-500V	32A	NQPD-0110-2PDCR4011	No
	2P	DC260-500V	40A	NQPD-0110-2PDCR4012	No
	2P	DC260-500V	50A	NQPD-0110-2PDCR4013	No
	2P	DC260-500V	63A	NQPD-0110-2PDCR4014	No
	2P	DC510-1000V	1A	NQPD-0110-2PDCR5001	Yes
	2P	DC510-1000V	2A	NQPD-0110-2PDCR5002	Yes
	2P	DC510-1000V	3A	NQPD-0110-2PDCR5003	Yes
	2P	DC510-1000V	4A	NQPD-0110-2PDCR5004	Yes
	2P	DC510-1000V	5A	NQPD-0110-2PDCR5005	Yes
	2P	DC510-1000V	6A	NQPD-0110-2PDCR5006	No
	2P	DC510-1000V	10A	NQPD-0110-2PDCR5007	No
	2P	DC510-1000V	16A	NQPD-0110-2PDCR5008	No
	2P	DC510-1000V	20A	NQPD-0110-2PDCR5009	No
	2P	DC510-1000V	25A	NQPD-0110-2PDCR5010	No
	2P	DC510-1000V	32A	NQPD-0110-2PDCR5011	No
	2P	DC510-1000V	40A	NQPD-0110-2PDCR5012	No
	2P	DC510-1000V	50A	NQPD-0110-2PDCR5013	No
	2P	DC510-1000V	63A	NQPD-0110-2PDCR5014	No