

YCB1-125


Miniature Circuit Breaker

OPERATION INSTRUCTION

Standard: IEC 60947-2, IEC 60898-1

CNC

Deliver
Power For Better Life

-  Before installing and using this product, please read this manual carefully and pay more attention to safety.

YCB1-125 Series

Miniature Circuit Breaker Instruction

1 General

YCB1-125 miniature circuit breaker(circuitbreaker) is applicable to the circuit with AC50 Hz/60Hz, rated voltage of no more than400 V, and rated current from 63A to 125Afor overload protection and short circuit protection. This product can be applied to various places such as industrial, commercial, tall buildings, and residential houses.

Standard: IEC 60947-2, IEC 60898-1.

2 Operating conditions

2.1 Ambient air temperature $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$ (with daily average $\leq 35^{\circ}\text{C}$)

2.2. Altitude: $\leq 2000\text{m}$.

2.3 Air conditions: At mounting site, relative humidity not exceed 50% at the maximum temperature of $+40^{\circ}\text{C}$. For the wettest month, the maximum relative humidity averaged shall be 90% while the lowest temperature averaged in that month is $+20^{\circ}\text{C}$, special measures should be taken to occurrence of condensation.

2.4 The installation category is III.

2.5 The circuit breaker shall be installed on DIN rail EN 60715(35mm), which shall meet the A1.1 TH 35 -7.5 steel mounting rail requirements.

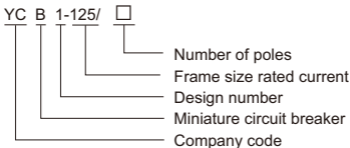
2.6 Pollution grade: 3

2.7 Mounting conditions: inclination between mounting plane and vertical plane not exceed $\pm 5^\circ$.

2.8 The product should locate in the places where there are no obvious impact and shake.

3 Type designation

3.1 Type designation



3.2 The basic specifications and main technical parameters of the circuit breaker are shown in Table 1; The overcurrent protection characteristics are shown in Table 2.

Table 1

Ui	Uimp	Number of poles	Rated frequency Hz	Rated voltage Ue	Rated current In	Thermo-magnetic release characteristic	Rated short circuit breaking capacity Icn
500V	6kV	1P/2P	50/60	AC230V/ 400V	63A, 80A, 100A,	(8~12)In C, D	6kA
		AC400V		125A			

Table 2-1 IEC 60947-2

Test	Rated current	Test current	Initial status	Time limit for tripping or not tripping	Expected result	Remarks
a	63A	1.05I _n	cold state	t ≥ 1h (I _n ≤ 63A) t ≥ 2h (I _n > 63A)	Not tripping	current increase steadily within 5s
b		1.30I _n	Right after test number a	t < 1h (I _n ≤ 63A) t < 2h (I _n > 63A)	Tripping	
c	100A	8I _n	cold state	t ≥ 0.2s	Not tripping	Turn on the power supply by closing the auxiliary switch
d	125A					12I _n

Note: The terminology "Cold state" means that the test is performed at the base calibration temperature with no load prior to the test.

3.3 Mechanical and Electrical life

Electrical life: 1500 times

Mechanical life: 8000 times

3.4 Wire connection

Before installation, check whether technical parameter of the circuit breaker is in conformity with user's requirement.

The conductor of power supply shall be connected to the up terminal of circuit breaker. During installation, the tightening torque is max 3.5~5N·m. The sectional area of connecting wire can refer to Table 3.

Table 2-2 IEC 60898-1

Test	Type	Test current	Initial status	Time limit for tripping or not tripping	Expected result	Testing environment temperature	Remarks
a	C, D	1.13In	Cold state	$t \leq 1h (I_n \leq 63A)$	Not tripping	30°C ~ 35°C	current increase steadily within 5s
				$t \leq 2h (I_n > 63A)$			
b	C, D	1.45In	Right after test number a	$t \leq 1h (I_n \leq 63A)$	Tripping	30°C ~ 35°C	
				$t \leq 2h (I_n > 63A)$			
c	C D	2.55In	Cold state	$1s < t < 60s$ ($I_n \leq 32A$)	Tripping	30°C ~ 35°C	
				$1s < t < 120s$ ($I_n > 32A$)			
d	C D	3In 5In 10In	Cold state	$t \leq 0.1s$	Not tripping	30°C ~ 35°C	Turn on the power supply by closing the auxiliary switch
e	C D	5In 10In 14In	Cold state	$t < 0.1s$	Tripping	30°C ~ 35°C	

Note: The terminology "Cold state" means that the test is performed at the base calibration temperature with no load prior to the test.

Table 3

Rated current In A	Conductor cross section S mm ²
63	16
80	25
100	35
125	50

4 Overall and mounting dimensions(mm)

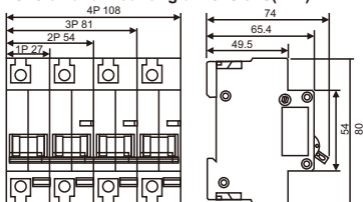


Fig.1 overall and mounting dimensions

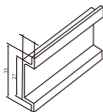


Fig.2 DIN rail IH35-7.5 dimensions

5 Ordering instruction

5.1 When ordering, the customer shall indicate the product type, tripping curve, rated current, number of poles, accessories and quantity of the circuit breaker. For example: YCB1-125 3P100A 1000pcs.

5.2 Customers can negotiate separately if you have special requirements .



CERTIFICATE

Product Model: YCB1-125

Standard : IEC 60947-2, IEC 60898-1

Inspector : **CNC004**

Production date: Printed on the product
or package.

This product is qualified according
to the delivery inspection

A vertical red bar containing the white text 'CNC'.

YCB1-125 series

CNC ELECTRIC

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