

TGB1N-125(H) Series, 6(10)KA Miniature Circuit Breaker

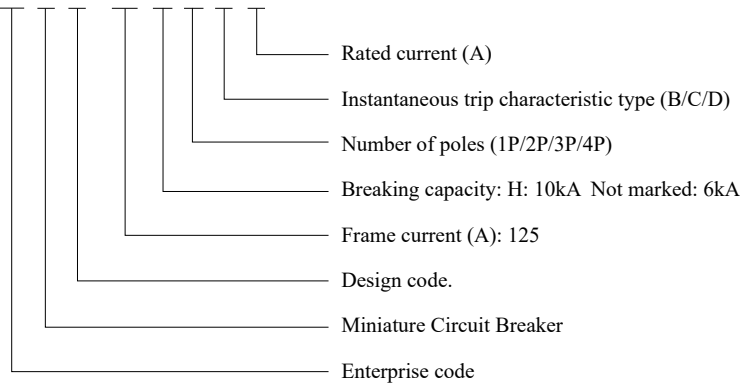


1 Overview

TGB1N-125(H) miniature circuit breaker (hereinafter referred to as circuit breaker) is mainly used in the AC 50/60Hz line with rated working voltage 230V/400V and rated current 125A and below for overload, short circuit, and isolation protection, and suitable for infrequent power-on and power-off of electrical devices and lighting lines.

2 Type Designation

TG B 1N -125 H 2P C 100



3 Technical Parameters

3.1 The main technical parameters of the product (see Table 1)

Table 1

Product name	TGB1N-125	TGB1N-125H
Standard	IEC/EN60947-2	
Certificate	CE CB TUV	
Electrical characteristics		
Number of poles	1P、2P、3P、4P	1P、2P、3P、4P
Rated frequency (Hz)	50/60	50/60
Frame current (A) I_{nm}	125	125
Rated current (A) I_e	63、80、100、125	63、80、100、125
Rated voltage (V) U_e	AC230(1P) AC400(2P、3P、4P)	AC230(1P) AC400(2P、3P、4P)
Rated insulation voltage (V) U_i	690	690
Rated impulse withstand voltage (kV) U_{imp}	4	4
Rated short-circuit breaking capacity (kA) I_{cs}	6	7.5
Rated short-circuit breaking capacity (kA) I_{cu}	6	10
Instantaneous trip characteristics	B(5In±20%) C(8In±20%) D(12In±20%)	B(5In±20%) C(8In±20%) D(12In±20%)
Trip form	Thermal magnetic trip	Thermal magnetic trip
Pollution degree	3	3

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Table 1, continued

Product name	TGB1N-125	TGB1N-125H
Electrical and mechanical accessories	MX1: Shunt release OF1: Auxiliary contact SD1: Alarm contact MX+OF1: Shunt release + auxiliary contact MV1: Overvoltage release MV+MN1: Overvoltage and undervoltage release	MX1: Shunt release OF1: Auxiliary contact SD1: Alarm contact MX+OF1: Shunt release + auxiliary contact MV1: Overvoltage release MV+MN1: Overvoltage and undervoltage release
Mechanical properties		
Electrical life (times)	6000 (In ≤ 100A) 4000(In=125A)	6000 (In ≤ 100A) 4000(In=125A)
Mechanical life (times)	20,000 times	20,000 times
Protection grade	IP20	IP20
Normal operation conditions and installation characteristics		
Ambient temperature	-35°C ~ +70°C	-35°C ~ +70°C
Installation site altitude	≤2,000 meters	≤2,000 meters
Terminals	Fixed with screws	Fixed with screws
Maximum wiring capacity (mm ²)	50	50
Maximum limit torque (Nm)	3.5	3.5
Installation category	Class III	Class III
Installation method	TH35-7.5 standard rail	TH35-7.5 standard rail
Incoming method	Top inlet and bottom inlet	Up and down

3.2 Action characteristics of circuit breaker overcurrent release (see Table 2)

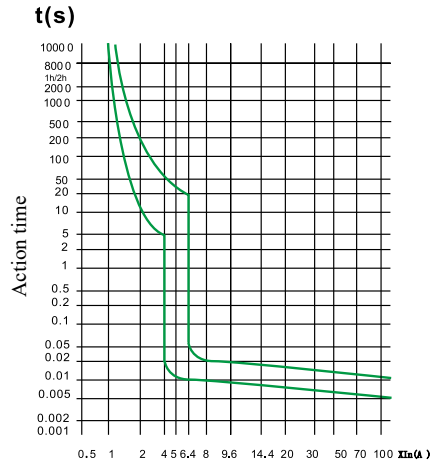
Table 2

No.	Test current (A)	Start state	Set time		Expected result	Remarks
			In≤63A	In>63A		
a	1.05In	Cold state	≥1h	≥2h	Not trip	
	1.3In	Immediately after 1.05In test	t < 1h	t < 2h	trip	The current rises to the specified value within 5s stably
b	(B)Ii:4In	Cold state	≥0.2s		Not trip	Turn on the auxiliary switch for making current
	(C)Ii:6.4In					
	(D)Ii:9.6In					
c	(B)Ii:6In	Cold state	t < 0.2s		trip	Turn on the auxiliary switch for making current
	(C)Ii:9.6In					
	(D)Ii:14.4In					

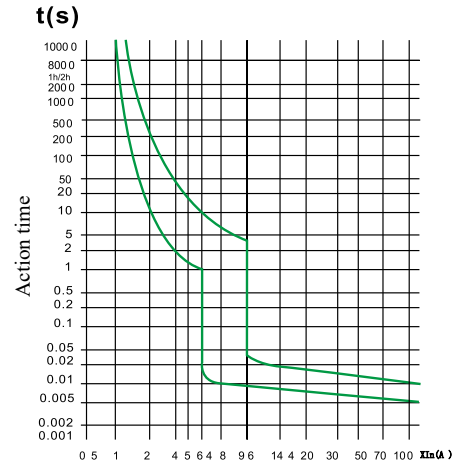
Note: The cold state refers to the temperature 30°C without load before the test.

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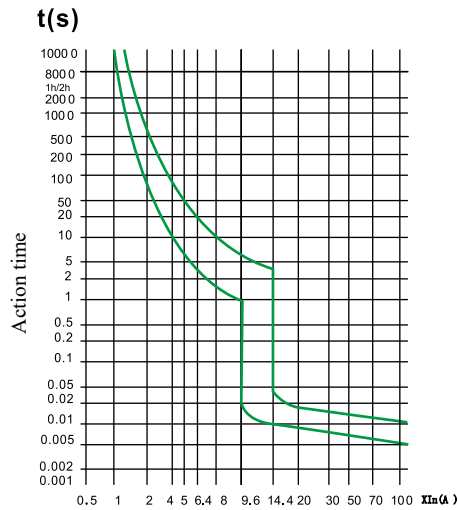
3.3 Protection characteristic curve of circuit breaker



B Type protection characteristic curve



C Type protection characteristic curve



D Type protection characteristic curve

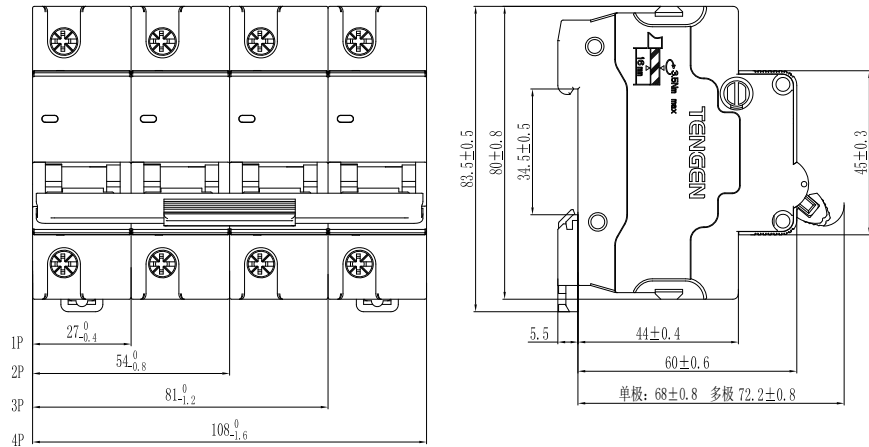
3.4 Wiring: Suitable for wire connection of 50mm^2 and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque $3.5\text{N}\cdot\text{m}$.

Table 3

Rated current (A)	Wire cross area (mm^2)
63	16
80	25
100	35
125	50

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4 Outline and Installation Dimensions



5 Ordering Notice

- Please specify the product model, specification, rated current, number of poles, and order quantity when ordering.
- Order example: TGB1N-125 miniature circuit breaker, C-type instantaneous release, rated current 100A, two poles, 1,000 sets.
Specified as: TGB1N-125 2P C100 1,000 units