TGB1N-125(H) Series Miniature Circuit Breaker

1 Product 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

- 100 — Rated current (A)
- C — Instantaneous trip characteristic type (B/C/D)
- 2P — Number of poles (1P/2P/3P/4P)
- H — Breaking capacity: H: 10kA Not marked: 6kA
- -125 — Frame rated current (A): 125
- 1N — Design code.
- B — Miniature Circuit Breaker
- TG — Enterprise code

3 Product parameters

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

Table 1

Product name	TGB1N-125	TGB1N-125H
Standards	IEC60947-2	
Certificate	CE	
Electrical characteristics		
Number of poles	1P、2P、3P、4P	1P、2P、3P、4P
Rated frequency (Hz)	50/60	50/60
Frame rated current (A) Inm	125	125
Rated current (A) Ie	63、80、100、125	63、80、100、125
Rated voltage (V) Ue	AC230(1P) AC400(2P、3P、4P)	AC230(1P) AC400(2P、3P、4P)
Rated insulation voltage (V) Ui	690	690
Rated impulse withstand voltage (kV) Uimp	4	4
Rated short-circuit breaking capacity (kA) Ics	6	7.5
Rated short-circuit breaking capacity (kA) Icn	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 level	3	3
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	10000	10000
Mechanical life	20000	20000
Protection grade	IP20	IP20
Normal operation conditions and installation characteristics		
Ambient temperature	-35℃～+70℃	-35℃～+70℃
Installation site altitude	≤2000m	≤2000m
Terminals	Fixed with screws	Fixed with screws

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Table 1, continued

Product name	TGB1N-125	TGB1N-125H
Maximum wiring capacity (mm²)	50	50
Maximum limit torque (Nm)	3.5	3.5
Installation category	Class III	Class III
Installation method	35mm standard rail	35mm standard rail
Incoming method	Upper and lower	Up and down

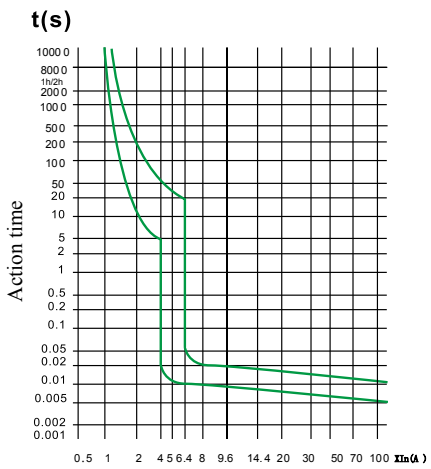
3.2 Action characteristics of circuit breaker overcurrent release (see Table 2)

Table 2

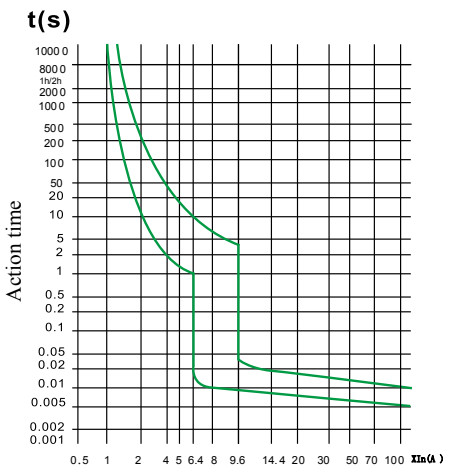
No.	Test current (A)	Start state	Set time		Expected result	Remarks
			In≤63A	In>63A		
a	1.05In	Cold state	t≥1h	t≥2h	Not trip	
	1.3In	Immediately after 1.05In test	t < 1h	t < 2h	trip	The current rises to the specified value within 5s stably
b	(B)Ii:4In	Cold state	t≥0.2s		Not trip	Turn on the auxiliary switch for making current
	(C)Ii:6.4In					
	(D)Ii:9.6In					
c	(B)Ii:6In		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℃ without load before the test.

3.3 Protection characteristic curve of circuit breaker



B Type protection characteristic curve



C Type protection characteristic curve

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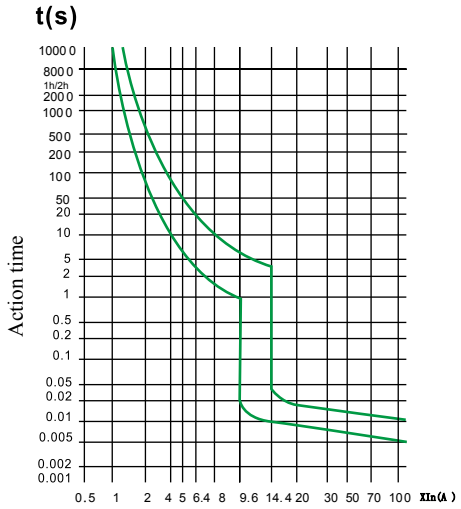


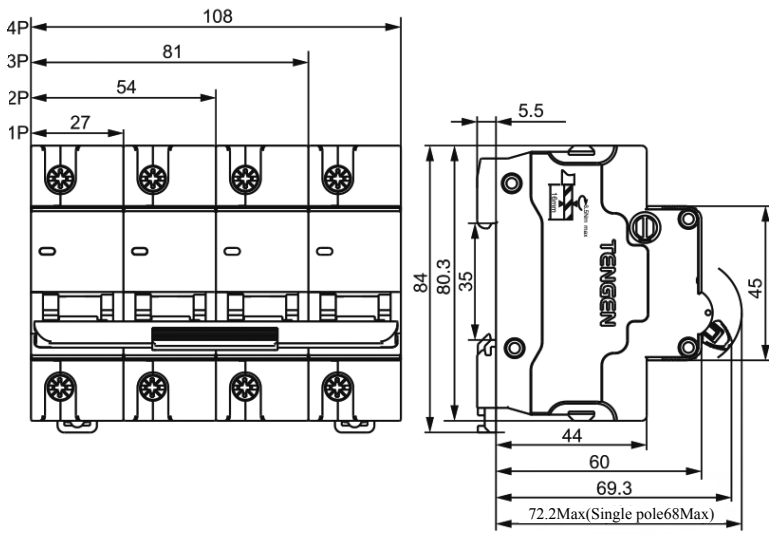
D Type protection characteristic curve

3.4 Wiring: Suitable for wire connection of 50mm2 and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque 3.5N·m.

Table 3

Rated current (A)	Wire cross area (mm²)
63	16
80	25
100	35
125	50

4 Installation dimensions



5 Order information

5.1 Please specify the product model, specification, rated current, number of poles, and order quantity when ordering.

5.2 Order example: TGB1N-125 miniature circuit breaker, C-type instantaneous release, rated current 100A, two poles, 1000 sets.
Specified as: TGB1N-125 2P C100 1000 units