

TGB1N-125(H) Series, 6(10)KA MCB

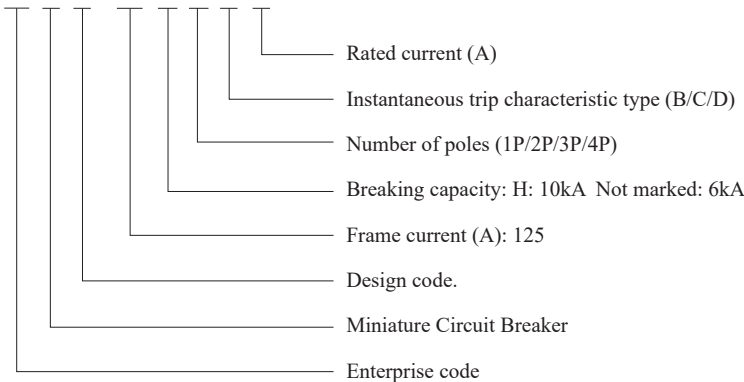


1 Overview

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) Inm	125	125
Rated current (A) In	63, 80, 100, 125	63, 80, 100, 125
Rated voltage (V) Ue	AC230(1P, 2P) AC400(2P, 3P, 4P)	AC230(1P, 2P) 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) Icu	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 MN1: Undervoltage release MNs1: Overvoltage 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 MN1: Undervoltage release MNs1: Overvoltage release
Mechanical properties		
Electrical life (times)	6000 ($I_n \leq 100A$) 4000 ($I_n = 125A$)	6000 ($I_n \leq 100A$) 4000 ($I_n = 125A$)
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	$\leq 2,000$ meters	$\leq 2,000$ meters
Terminals	Fixed with screws	Fixed with screws
Maximum wiring capacity (mm ²)	50	50
Maximum limit torque (N•m)	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
Rated ambient air temperature	50°C	

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

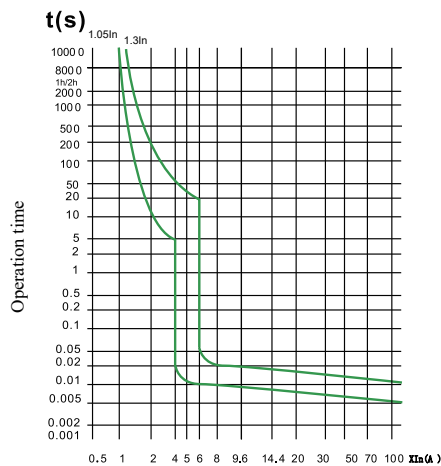
Table 2

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

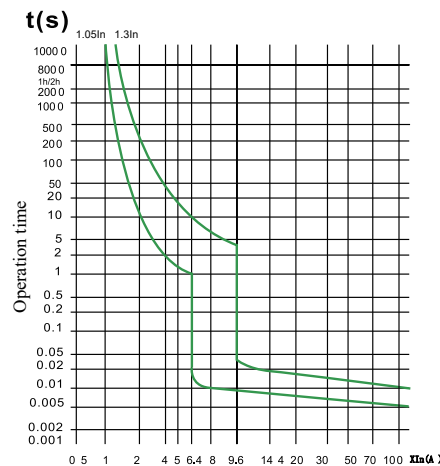
Note: The cold state refers to the temperature 30°C without load before the test.

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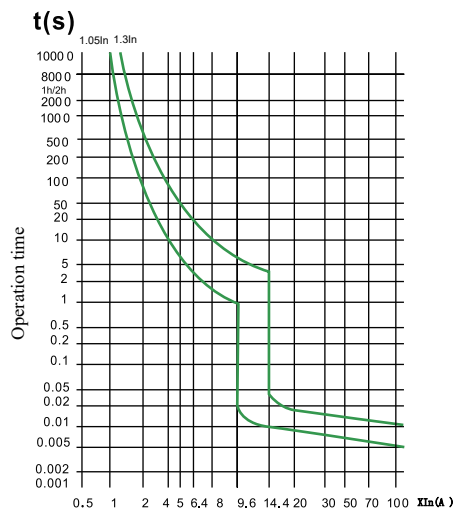
3.3 Protection characteristic curve of circuit breaker



B type protection characteristic curve



C type protection characteristic curve



D type protection characteristic curve

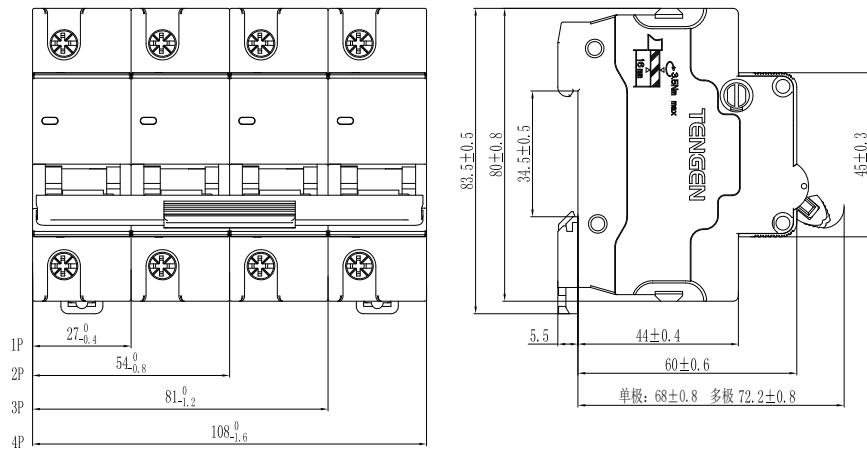
3.4 Wiring: Suitable for wire connection of 50mm^2 and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque $3.5\text{N}\cdot\text{m}$.

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

- 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, 1,000 sets.
Specified as: TGB1N-125 2P C100 1,000 units