

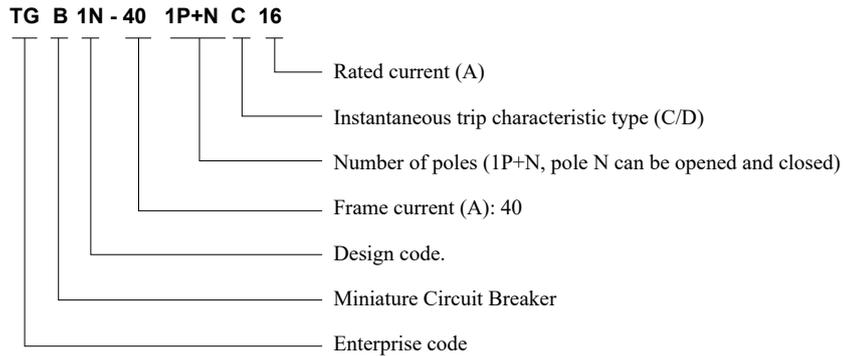


TGB1N-40 Series, 4.5KA DPN Miniature Circuit Breaker

1 Overview

TGB1N-40 miniature circuit breakers (hereinafter referred to as circuit breakers) are mainly used in the AC 50/60Hz power line facilities and electrical equipment in households and similar places with rated voltage 230V, and rated current up to 40A for overload and short-circuit protection, and suitable for infrequent breaking and making operation, especially suitable for industrial and commercial lighting distribution systems.

2 Type Designation



3 Technical Parameters

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

Table 1

Product name		TGB1N-40
Standard		IEC/EN60898-1
Certificate		TUV、CE、CB
Electrical characteristics		
Number of poles		1P+N (N pole can be opened and closed)
Rated frequency (Hz)		50/60
Frame current (A)	Inm	40
Rated current (A)	Ie	6、10、16、20、25、32、40
Rated voltage (V)	Ue	AC230
Rated insulation voltage (V)	Ui	500
Rated impulse withstand voltage (kV)	Uimp	4
Rated short-circuit breaking capacity (kA)	Ics	4.5
Rated short-circuit breaking capacity (kA)	Icn	4.5
Instantaneous trip characteristics		C(5In ~ 10In) D(10In ~ 14In)
Trip form		Thermal magnetic trip
Pollution degree		2
Electrical and mechanical accessories		-
Mechanical properties		
Storage Temperature		10,000
Mechanical life		20,000 times
Protection grade		IP20
Normal operation conditions and installation features		
Ambient temperature		-35°C ~ +70°C
Installation site altitude		≤ 2,000 meters
Terminals		Fixed with screw
Maximum wiring capacity (mm ²)		10
Maximum limit torque (Nm)		1.5
Installation category		Class II, III
Installation method		TH35-7.5 standard rail
Incoming method		Top inlet and bottom inlet

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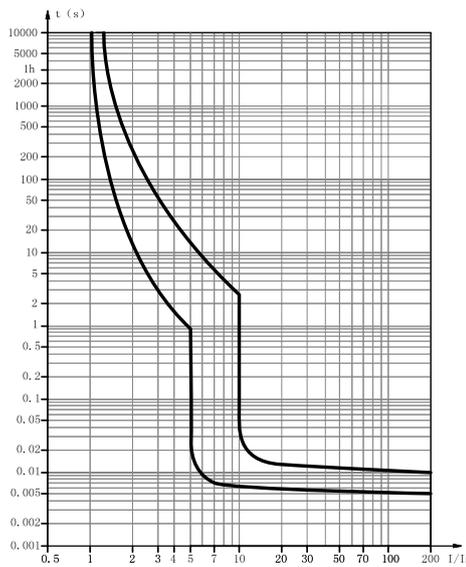
3.2 Action characteristics of circuit breaker overcurrent release (see Table 2)

Table 2

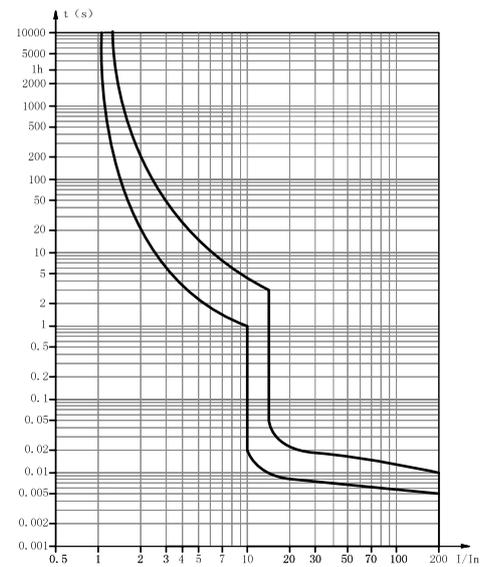
Instantaneous trip type	Test current (A)	Start state	Specified time	Expected results	Remarks
Type c, Type c	1.13I _n	Cold state	t ≤ 1h	Not trip	
	1.45I _n	Followed by 1.13I _n test	t < 1h	trip	The current rises to the specified value within 5s
	2.55I _n	Cold state	1s < t < 60s (I _n ≤ 32A) 1s < t < 120s (I _n > 32A)	trip	
Type c	5I _n	Cold state	t ≤ 0.1s	Not trip	Turn on the auxiliary switch
	10I _n	Cold state	t < 0.1s	trip	
Type d	10I _n	Cold state	t ≤ 0.1s	Not trip	Turn on the auxiliary switch
	14I _n	Cold state	t < 0.1s	trip	

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

3.3 Protection characteristic curve of circuit breaker



C type protection characteristic curve



D type protection characteristic curve

3.4 Wiring: Suitable for wire connection of 10mm² and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque 1.5N·m.

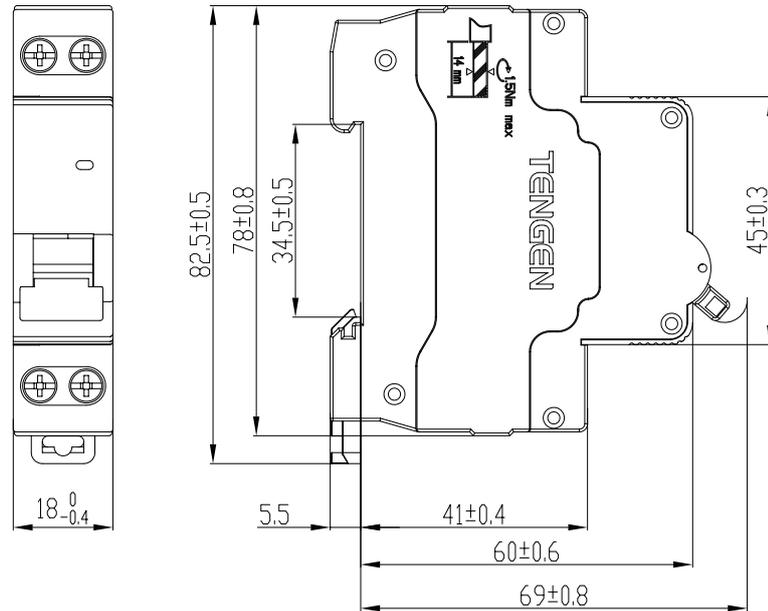
Table 3

Rated current (A)	Wire cross area (mm ²)
6	1
10	1.5
16 ~ 20	2.5
25	4
32	6
40	10

Modular Devices

TGB1N-40 Series, 4.5KA DPN Miniature Circuit Breaker

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-40 miniature circuit breaker, C-type instantaneous release, rated current 32A, 1,000 units.
Specified as: TGB1N-40 1P+N C32 1,000 units