

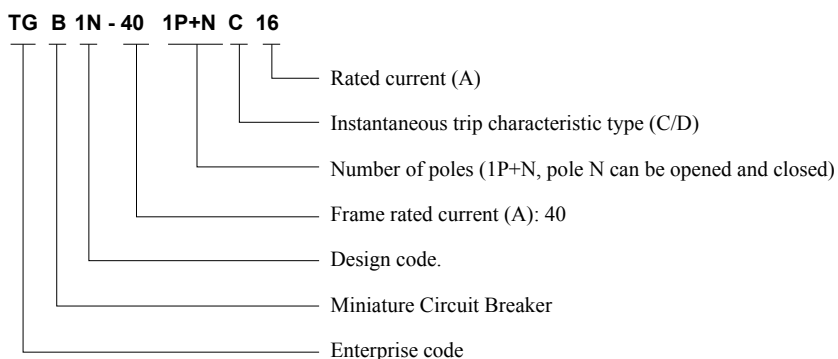


## TGB1N-40 Series Miniature Circuit Breaker

### 1 Product 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 Product parameters

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

Table 1

Product name		TGB1N-40
Standards		IEC60898-1
Certificate		CE
Electrical characteristics		
Number of poles		1P+N (N pole can be opened and closed)
Rated frequency (Hz)		50/60
Frame rated 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 level		2
Electrical and mechanical accessories		-
Mechanical properties		
Electrical life		10000
Mechanical life		20000
Protection grade		IP20
Normal operation conditions and installation features		
Ambient temperature		-35℃ ~ +70℃
Installation site altitude		≤ 2000m
Terminals		Fixed with screw
Maximum wiring capacity (mm <sup>2</sup> )		10
Maximum limit torque (Nm)		1.5
Installation category		Class II, III
Installation method		35mm standard rail
Incoming method		Upper and lower

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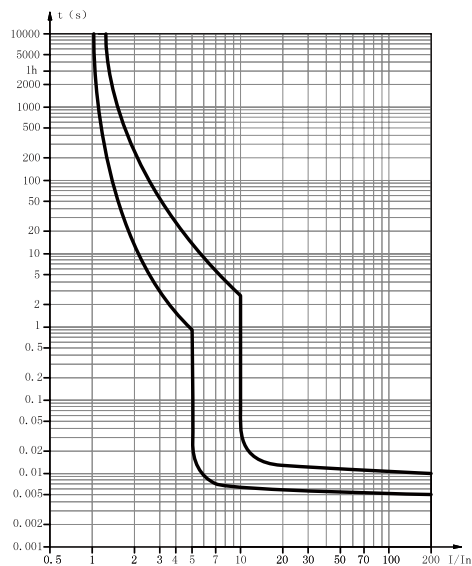
### 3.2 Action characteristics of circuit breaker overcurrent release (see Table 2)

Table 2

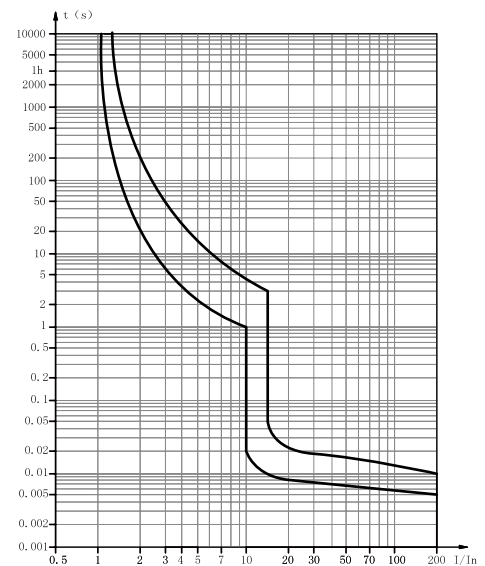
No.	Test current (A)	Start state	Specified time	Expected results	Remarks
a	1.13I <sub>n</sub>	Cold state	t ≤ 1h	Not trip	The current rises to the specified value within 5s
	1.45I <sub>n</sub>	Followed by 1.1.3I <sub>n</sub> test	t < 1h	trip	
	2.55I <sub>n</sub>	Cold state	1s < t < 60s (I <sub>n</sub> ≤ 32A) 1s < t < 120s (I <sub>n</sub> > 32A)	trip	
b	5I <sub>n</sub>	Cold state	t ≤ 0.1s	Not trip	Turn on the auxiliary switch for making current
	10I <sub>n</sub>	Cold state	t < 0.1s	trip	
c	10I <sub>n</sub>	Cold state	t ≤ 0.1s	Not trip	Turn on the auxiliary switch for making current
	14I <sub>n</sub>	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

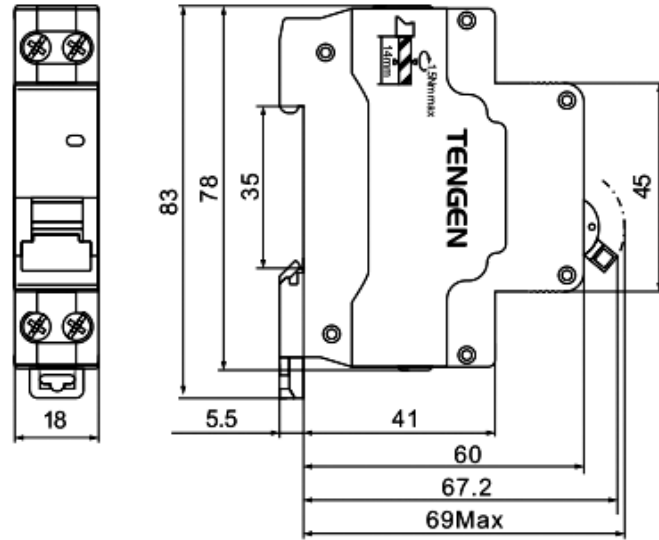
### 3.4 Wiring: Suitable for wire connection of 10mm<sup>2</sup> and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque 1.5N·m.

Table 3

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

## TGB1N-40 Series Miniature Circuit Breaker

### 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-40 miniature circuit breaker, C-type instantaneous release, rated current 32A, 1000 units.  
Specified as: TGB1N-40 1P+N C32 1000 units