

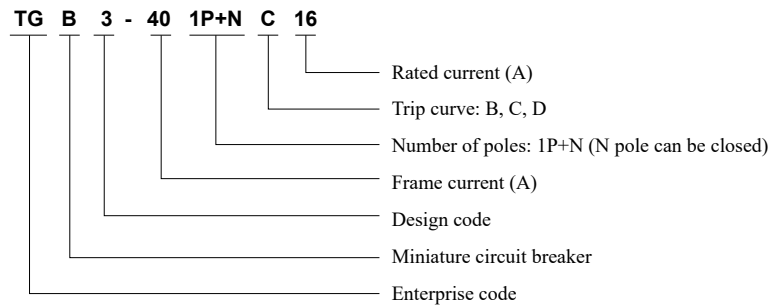
TGB3-40 Series, 6KA DPN Miniature Circuit Breaker



1 Overview

TGB3-40 miniature circuit breaker is suitable for AC 50/60Hz power line facilities and electrical equipment with rated voltage 230V and with rated current up to 40A in buildings and similar sites for overload and short-circuit protection. It is also used for infrequent ON/OFF operation, especially for civil and commercial lighting distribution system.

2 Type Designation



3 Technical Parameters

3.1 Main technical parameters (see Table 1)

Table 1

Product name	TGB3-40
Standard	IEC60898-1
Certification	CE, CB
Electrical characteristics	
Number of poles	1P+N (N pole can be closed)
Rated frequency (Hz)	50/60
Frame current (A) I_{nm}	40
Rated current (A) I_e	6, 10, 16, 20, 25, 32, 40
Rated voltage (V) U_e	AC230
Rated insulation voltage (V) U_i	500
Rated impulse withstand voltage (kV) U_{imp}	4
Rated run short circuit breaking capacity (kA) I_{cs}	6
Rated short circuit capacity (kA) I_{cn}	6
Instantaneous trip characteristics	B,C,D
Trip form	Thermomagnetic trip
Pollution degree	2
Electrical and mechanical accessories	-
Mechanical properties	
Electrical life	10,000 times
Mechanical life	20,000 times
Protection grade	IP20
Indication window	Contact status indication
Operation conditions	
Ambient temperature	-35°C - +70°C
Installation site altitude	Not exceed 2,000 meters
Wiring terminal	Wired with screws
Maximum wiring capacity	10 mm ²
Maximum ultimate torque	1.8
Installation category	Class II, III
Installation method	TH35-7.5 steel mounting rail
Incoming method	Top and bottom

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3.2 Structure features: This product is a two-pole (1P+N) circuit breaker with an overcurrent release installed on the phase line rather than the neutral pole. Compared with the common DZ47 series 2-pole circuit breaker, this product has advantages of small size, light weight, artistic appearance, and low price, suitable for power distribution system in residential buildings.

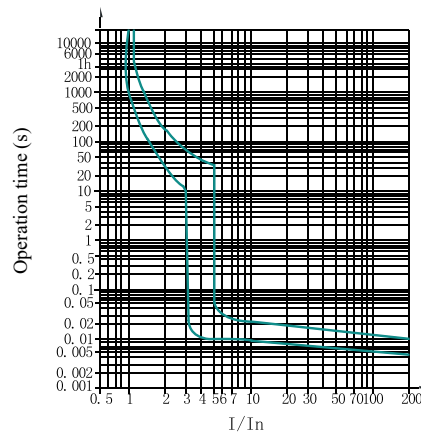
3.3 Operation properties of overcurrent release of circuit breaker (see Table 2)

Table 2

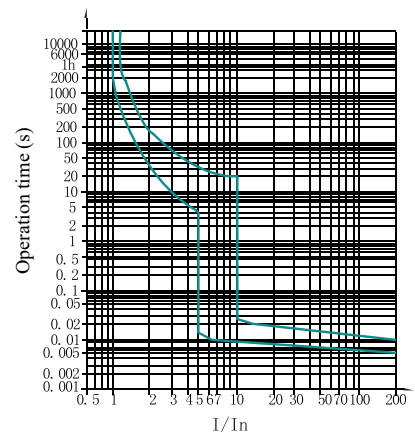
No.	Test current (A)	Starting state	Test current (A)	Specified time	Expected results	Remarks
a	All specifications	Cold state	1.13I _n	t ≤ 1h	Non trip	
b	All specifications	After test a)	1.45I _n	t < 1h	Trip	Current rises to the specified value within 5s after Item a)
c	≤ 32	Cold	2.55I _n	1s < t < 60s	Trip	
	> 32			1s < t < 120s	Trip	
d	All specifications	Cold state	3I _n (curve B)	t ≤ 0.1s	Non trip	Turn on the auxiliary switch for current making
			5I _n (curve C)			
			10I _n (curve e D)			
e	All specifications	Cold state	5I _n (curve B)	t < 0.1s	Trip	Turn on the auxiliary switch for current making
			10I _n (curve C)			
			14I _n (curve D)			

Note: Cold state refers to 30°C without load before test.

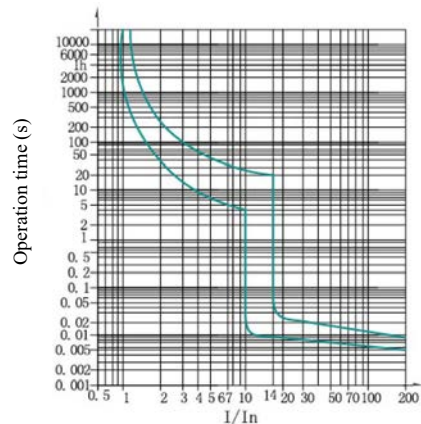
3.4 Circuit breaker protection characteristic curve



B type protection characteristic curve



C type protection characteristic curve



D type protection characteristic curve

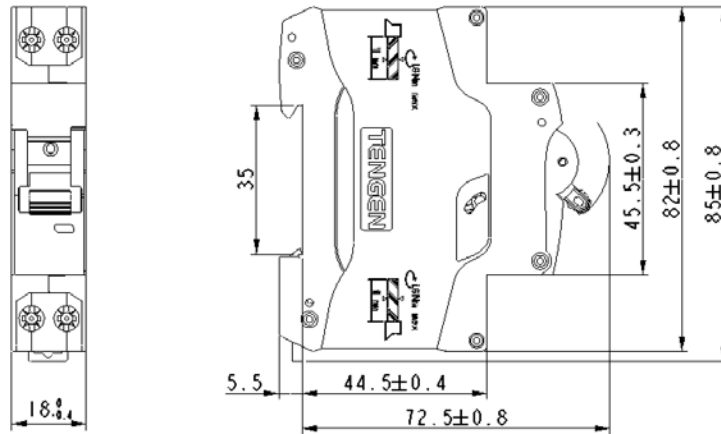
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3.5 Wiring: Suitable for connection of wire of 10mm² and below (see Table 3), the wiring method is connection with screws according to the torque 1.2N.m

Table 3

Rated current In (A)	Nominal section area of copper wire (mm ²)
6	1
10	1.5
16, 20	2.5
25	4
32	6
40	10

4 Outline and Installation Dimensions



5 Order Notice

5.1 Please specify the model and specification of product, instantaneous release type and rated current, number of poles, and order quantity.

5.2 Order example: TGB3-40 miniature circuit breaker, C type instantaneous release, rated current 32A, 1,000 pcs

Please specify: TGB3-40 C32 1,000 pcs