

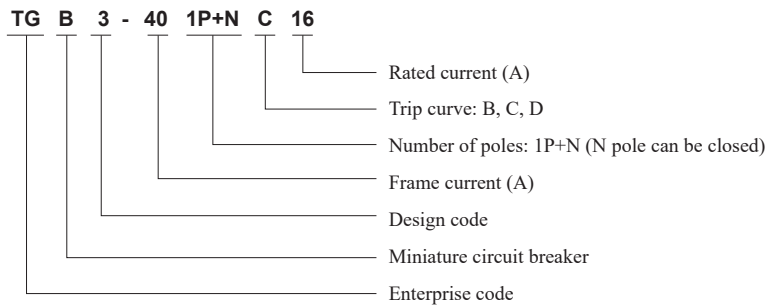
TGB3-40 Series, 6KA DPN MCB



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)	Inm	40
Rated current (A)	In	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 run short circuit breaking capacity (kA) Ics		6
Rated short circuit capacity (kA) Icn		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.

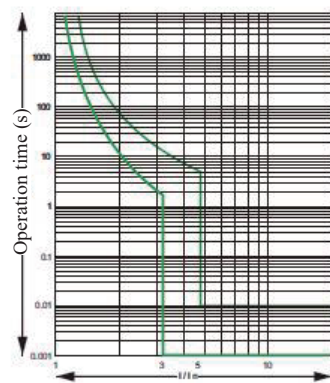
3.3 Operation properties of overcurrent release of circuit breaker (see Table 2)

Table 2

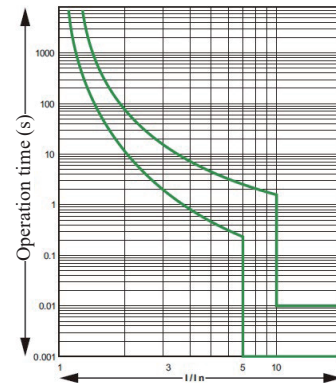
No.	Test current (A)	Starting state	Test current (A)	Specified time	Expected results	Remarks
a	All specifications	Cold state	$1.13I_n$	$t \leq 1h$	Non trip	
b	All specifications	After test a)	$1.45I_n$	$t < 1h$	Trip	Current rises to the specified value within 5s after Item a)
c	≤ 32	Cold	$2.55I_n$	$1s < t < 60s$	Trip	
	> 32			$1s < t < 120s$	Trip	
d	All specifications	Cold state	$3I_n$ (curve B)	$t \leq 0.1s$	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.

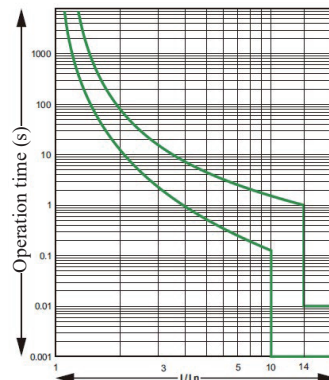
3.4 Circuit breaker protection characteristic curve



B type protection characteristic curve



C type protection characteristic curve



D type protection characteristic curve

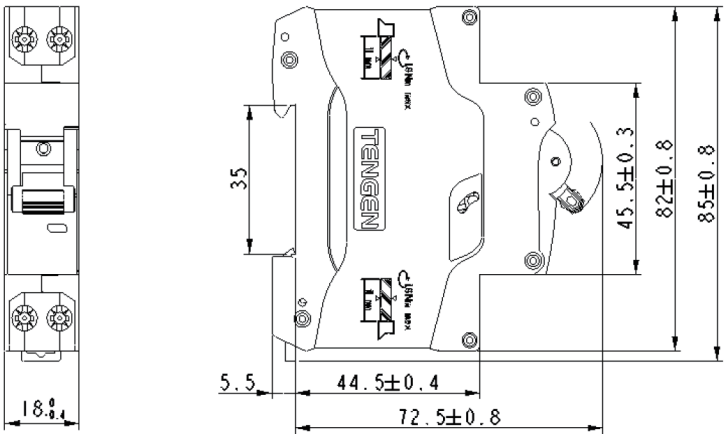
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3.5 Wiring: Suitable for connection of wire of 10mm² and below (see Table 3), the wiring method is connection with screws according to the torque 1.2N.m

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