TGBGLB-63 Series RCBO, Electronic B Type

1 Overview

TGBGLB-63 series residual current circuit breaker with overcurrent protection (hereinafter referred to as leakage circuit breaker) is mainly used in AC 50Hz line with rated working voltage 230V/400V and rated current up to 63A. In case of personal electric shock or when the grid leakage exceeds the specified value, the residual current circuit breaker can quickly cut off the power supply in a very short time for protection of the safety of people and electrical equipment, for overload, short circuit, and overvoltage protection and infrequent conversion of the line under normal conditions, especially suitable for industrial and commercial lighting distribution systems.

2 Type Designation

TG B G LB - 63 1P+N C 16 30mA

- 30mA — Rated residual current (mA)
- 16 — Rated current (A)
- C — Instantaneous trip type (C/D)
- 1P+N — Number of poles(1P+N/2P/3P/3P+N/4P)
- 63 — Frame current (A): 63
- LB — B type residual current circuit breaker with overcurrent protection
- G — Design code.
- B — Miniature Circuit Breaker
- TG — Enterprise code

3 Technical Parameters

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

Table 1

Product name		TGBGLB-63
Standard		IEC61009-1
Electrical characteristics		
Number of poles		1P+N, 2P, 3P 3P+N, 4P (N pole is always on)
Rated current (A)	In	6, 10, 16, 20, 25, 32, 40, 50, 63
Rated voltage (V)	Ue	AC230 (1P+N, 2P) AC400 (3P, 3P+N, 4P)
Rated insulation voltage (V)	Ui	690
Rated impulse withstand voltage (kV)	Uimp	4
Rated residual operating current (mA)	IΔn	30, 50, 100, 300
Residual current characteristics		B type
Rated run short circuit breaking capacity (kA)	Ics	6
Rated short circuit breaking capacity (kA)	Icn	6
Instantaneous trip characteristics		C(5In~10In) D(10In~14In)
Mechanical properties		
Electrical life		10,000
Mechanical life		20,000
Pollution degree		2
Protection grade		IP20
Normal operation conditions and installation characteristics		
Ambient temperature		-35°C ～ +70°C
Installation altitude		Not exceed 2000m
Wiring terminal		Pressed with screw
Max. wiring capacity (mm^2)		25
Max. ultimate torque (N.m)		2.5

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Table 1, Continued

Product name	TGBGLB-63
Installation category	Class II, III
Installation method	TH35-7.5 standard rail
Inlet method	Top inlet
Installable accessories	MX: Shunt release OF: Aux. contact SD: Alarm contact MX+OF: Shunt + Aux. release MV: Overvoltage release MN: Undervoltage release MV+MN: Undervoltage release

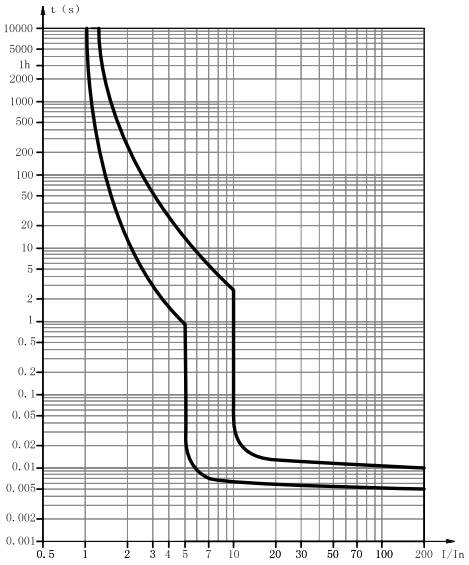
3.2 Action characteristics of circuit breaker overcurrent release (see Table 2)

Table 2

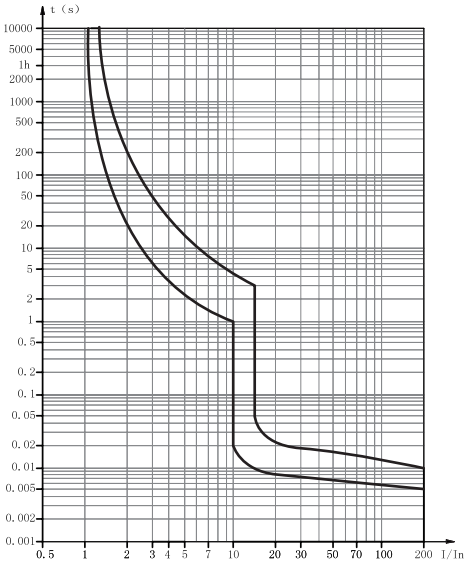
No.	Test current (A)	Start state	Set time	Expected outcome	Remarks
a	1.13In	Cold state	t≤1h	No trip	
	1.45In	Followed by 1.1.3In test	t < 1h	trip	The current rises to the specified value within 5s
	2.55In	Cold state	1s < t < 60s (For In ≤ 32A)	trip	
			1s < t < 120s (For In ≤ 32A)		
b	5In	Cold state	t≤0.1s	No trip	Turn on the auxiliary switch for making current
	10In	Cold state	t < 0.1s	trip	
c	10In	Cold state	t≤0.1s	No trip	Turn on the auxiliary switch for making current
	14In	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

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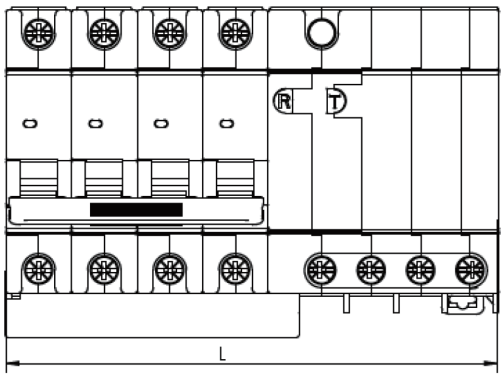
3.4 Wiring: Suitable for wire connection of 25mm² and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque 2.5N·m.

Table 3

Rated current (A)	Cross area of wire (mm²)
6	1
10	1.5
16 ~ 20	2.5
25	4
32	6
40 ~ 50	10
63	16

4 Outline and Installation Dimensions



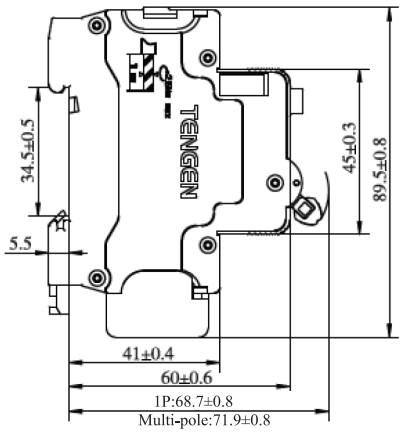


Table 4

Model	Number of poles	L(mm)
TGBGLB-63	1P+N	$54^{+0}_{-1.2}$
TGBGLB-63	2P	$72^{+0}_{-1.6}$
TGBGLB-63	3P	$103.5^{+0}_{-2.3}$
TGBGLB-63	3P+N	$117^{+0}_{-2.6}$
TGBGLB-63	4P	$135^{+0}_{-3.0}$

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5 Ordering Notice

5.1 Product model and name, such as: TGBGLB-63 residual current operated circuit breaker
5.2 Trip type, such as: C type
5.3 Number of poles of product, such as 2P
5.4 Rated current, such as 10A
5.5 Rated residual operating current, such as: 30mA
5.6 Order quantity, such as: 50 units
5.7 Order example: TGBGLB-63 2P C10 30mA, 50 units