

TGBG-63DC Series, 6KA DC Miniature Circuit Breaker

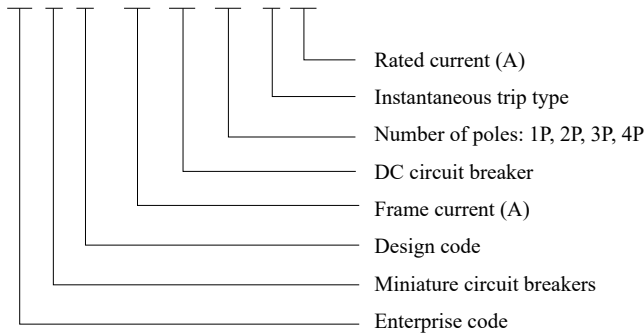


1 Overview

TGBG-63DC DC miniature circuit breaker (hereinafter referred to as circuit breaker) is used in the DC system with the rated voltage DC250V/DC300V (1P outline), DC500V/DC600V (2P outline), DC750V/DC900V (3P outline), DC1000V/DC1200V (4P outline), and with the rated current up to 63A for overload and short circuit protection, and it is also used for infrequent on-off operation. The products are suitable for DC system applications such as communication equipment and photovoltaic systems.

2 Type Designation

TG B G - 63 DC 2P C 63



3 Technical Parameters

3.1 Main technical parameters (see Table 1)

Table 1

Product name		TGBG-63DC	
Standard		GB/T14048.2 IEC/EN60947-2	
Product certification		CQC, self-declaration, CE	
Electrical characteristics			
Number of poles		1P, 2P, 3P, 4P	
Frame current (A)	Inm	63	
Rated current (A)	In	1,2,3,4,5,6,10,16,20,25,32,40,50,63	
Rated voltage (V)	Ue	DC250V(1P) DC500V(2P) DC750V(3P) DC1000V(4P)	DC300V(1P) DC600V(2P) DC900V(3P) DC1200V(4P)
Rated insulation voltage (V) Ui		1200	
Rated impulse withstand voltage (kV) Uimp		6	4.5
Rated run short circuit breaking capacity (kA) Ics		6	4.5
Rated impulse withstand voltage(kV) Uimp		6	
Rated short circuit capability (kA) Icu		6	
Instantaneous trip characteristics		Thermal magnetic trip	
Trip form		(B)Ii: 5.5In(1±20%) (C)Ii: 8.5In(1±20%)	
Pollution degree		2	
Electrical and mechanical auxiliaries		MX: Shunt release OF: Aux. contact SD: Alarm contact MX+OF: Shunt + aux. release MV: Overvoltage release MN: Undervoltage release MV+MN: Overvoltage and undervoltage release MNS: No-voltage release	

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Table 1, Continued

Product name	TGBG-63DC
Mechanical characteristics	
Electrical life (times)	1500
Mechanical life (times)	20000
Protection grade	IP20
Indicator window	Contact state indicaotr
Normal operating conditions and installation characteristics	
Ambient temperature	-35°C~+70°C
Installation altitude	Not exceed 2000m
Wiring terminal	Screw-pressed
Max. wiring capacity	^{25mm²}
Max. ultimate torque N.m	2.5
Installation category	Class II, Class III
Installation method	TH35-7.5 standard rail
Inlet method	See 3.5 Wiring Diagram

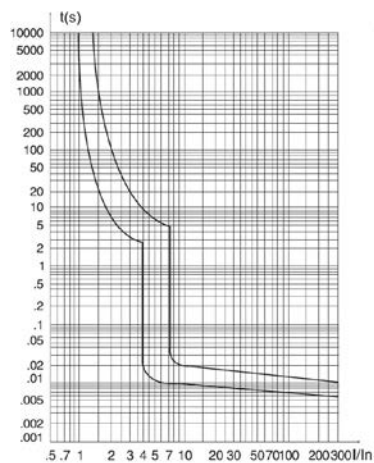
3.2 Operating characteristics of the overcurrent release of the circuit breaker (see Table 2)

Table 2

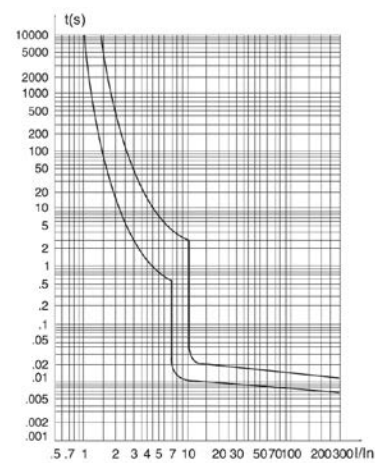
No.	Instantaneous trip type	Test current	Start state	Trip or no trip limit time	Expected result	Remarks
a	Type B Type C	1.05I _n	Cold state	$t \geq 1h$	No trip	
b		1.3I _n	1.05I _n test followed	$t < 1h$	Trip	Current rises to the specified value stably within 5s
c	Type B	4.4I _n	Cold state	$t \leq 0.2s$	No trip	Turn on aux. switch to power on the current
		6.6I _n	Cold state	$t < 0.2s$	Trip	
D	Type C	6.8I _n	Cold state	$t \leq 0.2s$	No trip	Turn on aux. switch to power on the current
		10.2I _n	Cold state	$t < 0.2s$	Trip	

Note: "Cold state" means no load before test at a reference temperature of +30°C.

3.3 Protection characteristic curve of circuit breaker



B type thermal / electromagnetic trip curve



C type thermal / electromagnetic trip curve

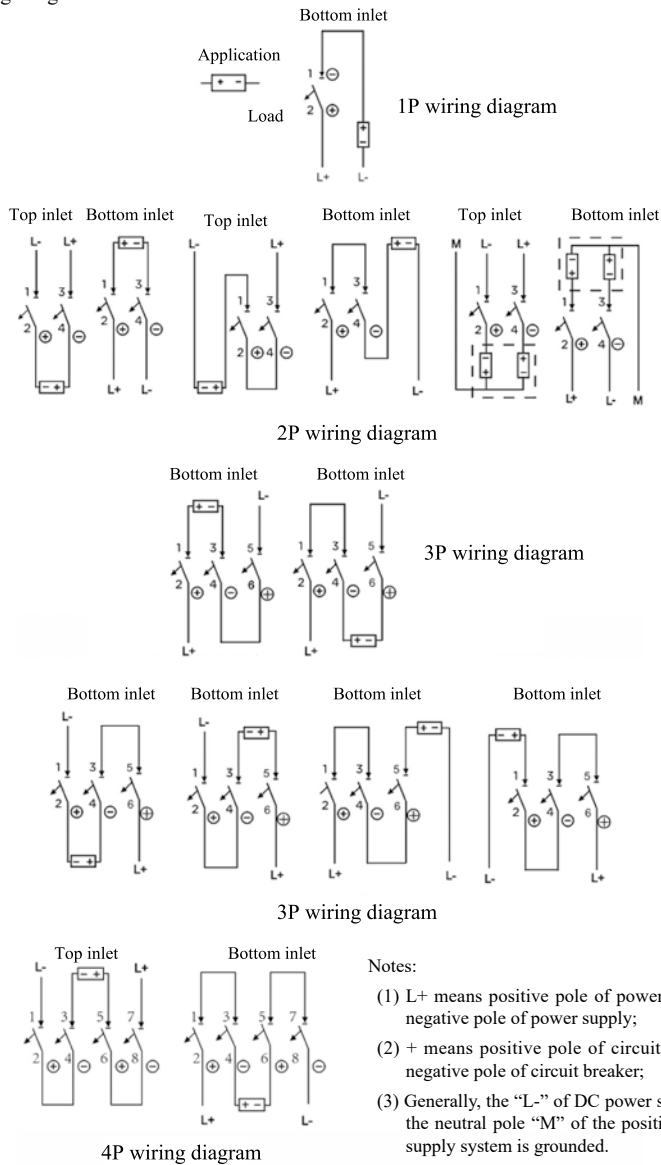
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3.4 Wiring: 16mm² and below wire is used for connection (see Table 3), and screw pressing connection method is used with a torque of 2.5N•m.

Table 3

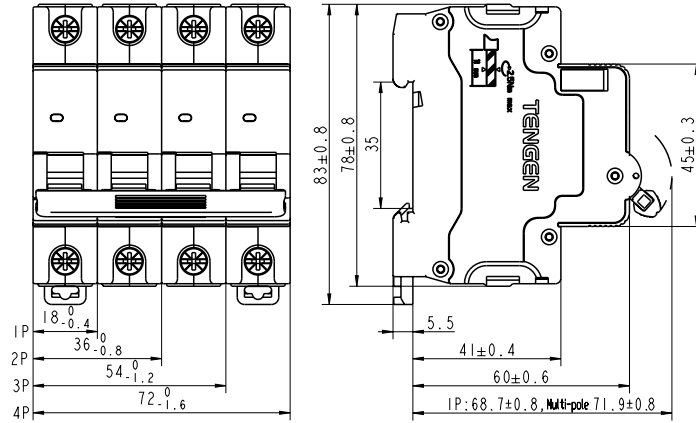
Rated current (A)	Nominal sectional area of copper wire (mm ²)
1~6	1
10	1.5
16~20	2.5
25	4
32	6
40~50	10
63	16

3.5 Wiring Diagram



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4 Outline and Installation Dimensions



5 Ordering Notice

Please specify the following when ordering:

- 5.1 Product name, such as TGBG-63DC miniature circuit breaker;
- 5.2 Number of poles, such as 2P;
- 5.3 Product instantaneous trip type, such as C type;
- 5.4 Product rated current, such as 63A;
- 5.5 Qty., such as 100 units;
- 5.6 Order example: TGBG-63DC 2P C63 100 units.