

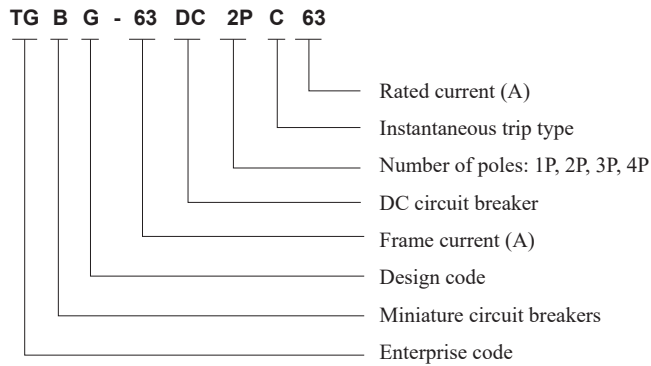
TGBG-63DC Series, 6KA DC MCB



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



3 Technical Parameters

3.1 Main technical parameters (see Table 1)

Table 1

| Product name | | TGBG-63DC | |
|--|-----|---|---|
| Standard | | IEC/EN60947-2 | |
| Product certification | | 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 | |
| Rated run short circuit breaking capacity (kA) Ics | | 6 | 4.5 |
| Rated short circuit capability (kA) Icu | | 6 | 4.5 |
| 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 | |
| Mechanical characteristics | | | |

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Table 1, Continued

| Product name | TGBG-63DC |
|--|-------------------------|
| 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 |

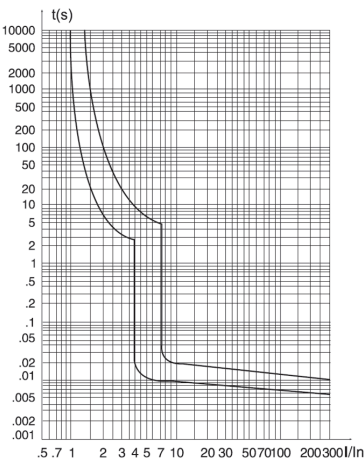
3.2 Operating characteristics of the overcurrent release of the circuit breaker (see Table 2)

Table 2

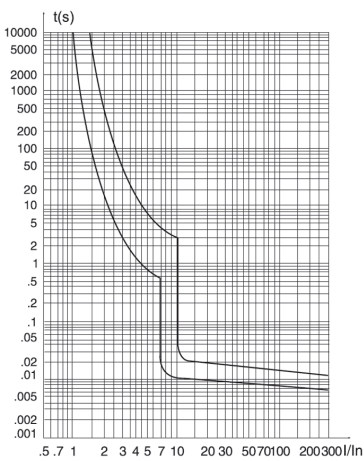
| No. | Instantaneous trip type | Test current | Start state | Trip or no trip limit time | Expected result | Remarks |
|-----|-------------------------|--------------------|----------------------------------|----------------------------|-----------------|---|
| a | Type B Type C | 1.05I _n | Cold state | t≥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≤0.2s | No trip | Turn on aux. switch to power on the current |
| d | | 6.6I _n | Cold state | t < 0.2s | Trip | |
| e | Type C | 6.8I _n | Cold state | t≤0.2s | No trip | Turn on aux. switch to power on the current |
| f | | 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

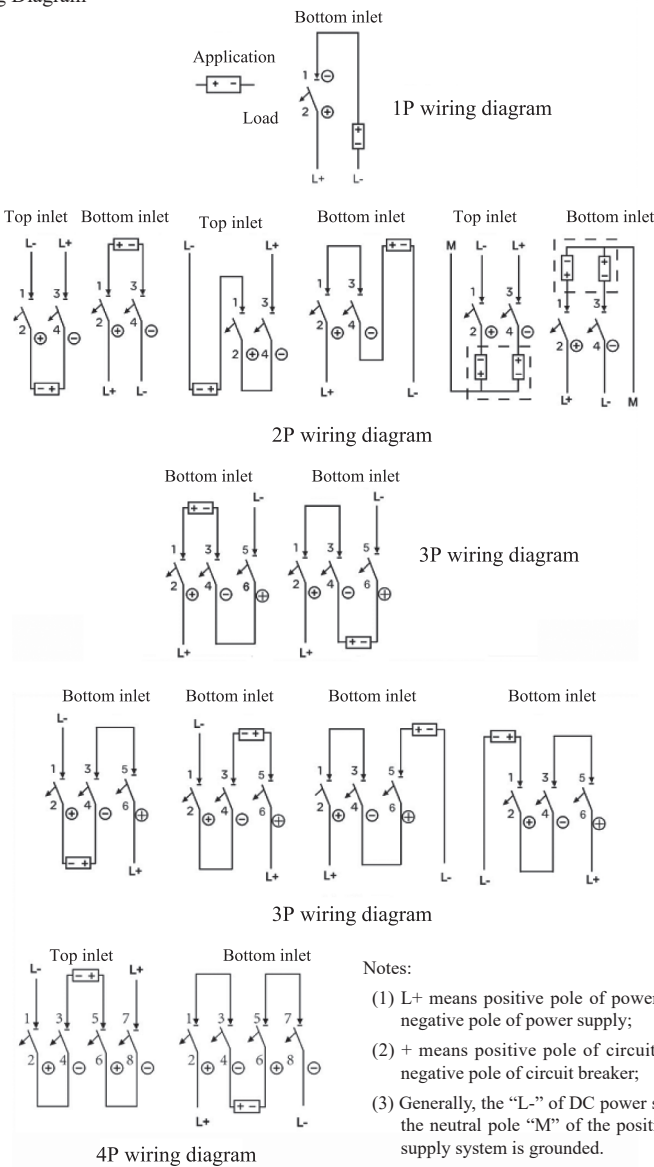
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3.4 Wiring: 25mm² and below wire is used for connection (see Table 3), and screw pressing connection method is used with a torque of 2.5N•m.

Table 3

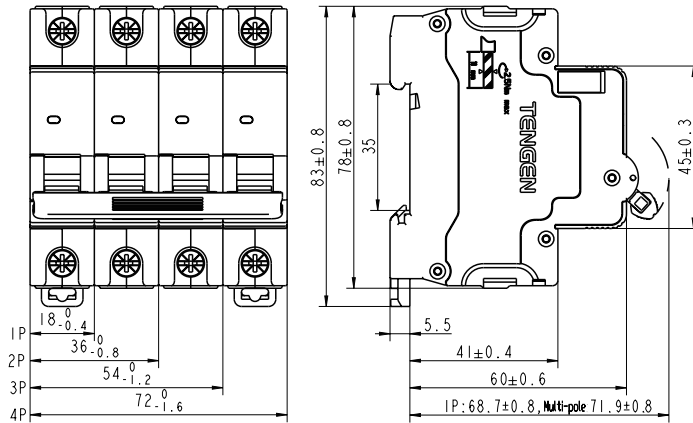
| Rated current (A) | Nominal sectional area of copper wire (mm ²) |
|-------------------|--|
| 1~6 | 1 |
| 10 | 1.5 |
| 16~20 | 2.5 |
| 25 | 4 |
| 32 | 6 |
| 40~50 | 10 |
| 63 | 16 |

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.