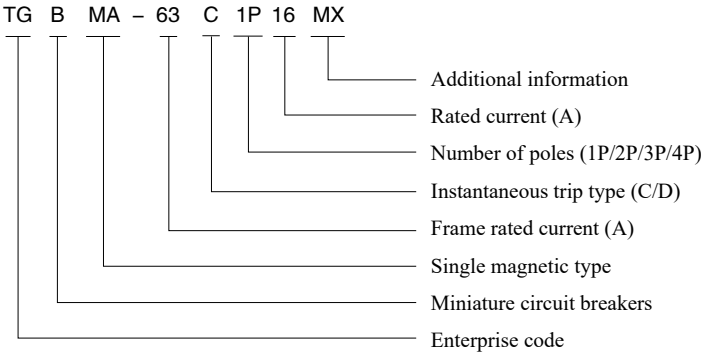
TGBMA Series, 6kA Single Magnetic MCB

1 Overview

TGBMA Series, 6kA Single Magnetic MCB (hereinafter referred to as circuit breaker) is primarily used in the AC 50Hz/60Hz power distribution network with rated current 1A to 63A and with rated voltage 230V or 400V, suitable for some areas such as medical IT power distribution system, motor protection and building fire protection system for power distribution at the low voltage terminal; as a short circuit protection switch, it can work together with the thermal relay or motor starter to realize overload protection.

2 Type Designation



3 Technical Parameters

3.1 Main Technical Parameters (See Table 1)

Table 1

Product model	TGBMA-63
Standard	IEC60947-2
Electrical characteristics	
Number of poles	1P, 2P, 3P, 4P
Rated frequency (Hz)	50/60
Frame rated 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	AC230/400（1P）, AC230（2P） AC400（2P, 3P, 4P）
Rated insulation voltage (V) Ui	690
Rated impulse withstand voltage (kV) Uimp	6
Rated operating short-circuit breaking capacity (kA) Ics	6
Rated limit short-circuit breaking capacity (kA) Icu	6
Instantaneous trip characteristic	C(8In±20%) D(12In±20%)
Trip form	Magnetic trip
Pollution degree	Level 3
Electrical and mechanical accessories	MX: Shunt release 0F: Aux. contact SD: Alarm contact MX+OF: Shunt + Aux. release MV: Overvoltage release MN: Undervoltage release MV+MN: Over/undervoltage release MNS: Voltage loss release LMI: Interlocking accessory
Mechanical properties	
Electrical life	10000
Mechanical life	20000

TGBMA Series, 6kA Single Magnetic MCB

续表 1

Product model	TGBMA-63
Protection grade	IP20
Normal working conditions and installation characteristics	
Ambient temperature	-35℃ ～ +70℃
Installation altitude	Not exceed 2000m
Terminal block	Screw-pressed
Max. wiring capacity	25mm²
Max. limit torque	2.5N·m
Installation category	Class II, Class III
Installation method	TH35-7.5 (1.0) Standard rail
Inlet method	Top and bottom

3.2 Operation performance of the circuit breaker overcurrent release

Table 2

Instantaneous trip type	Test current	Starting state	Trip or no-trip limit time	Expected results	Remarks
Type C	6.4In	Cold state	t≥0.2s	No trip	Turn on the aux. switch to power on the current
	9.6In	Cold state	t<0.2s	Trip	
Type D	9.6In	Cold state	t≥0.2s	No trip	Turn on the aux. switch to power on the current
	14.4In	Cold state	t<0.2s	Trip	

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

3.3 Protection characteristic curve of circuit breaker

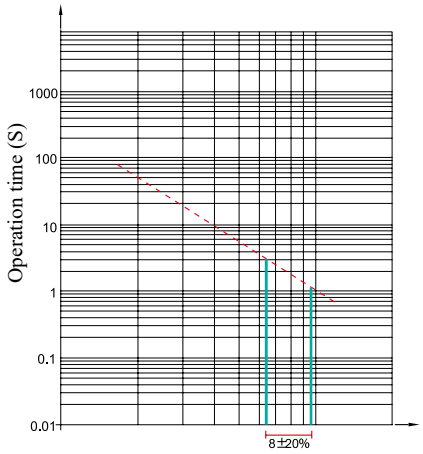


Fig. 1. C type protection characteristic curve

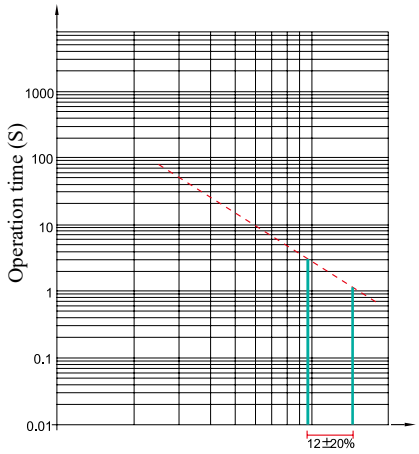


Fig. 2 D type protection characteristic curve

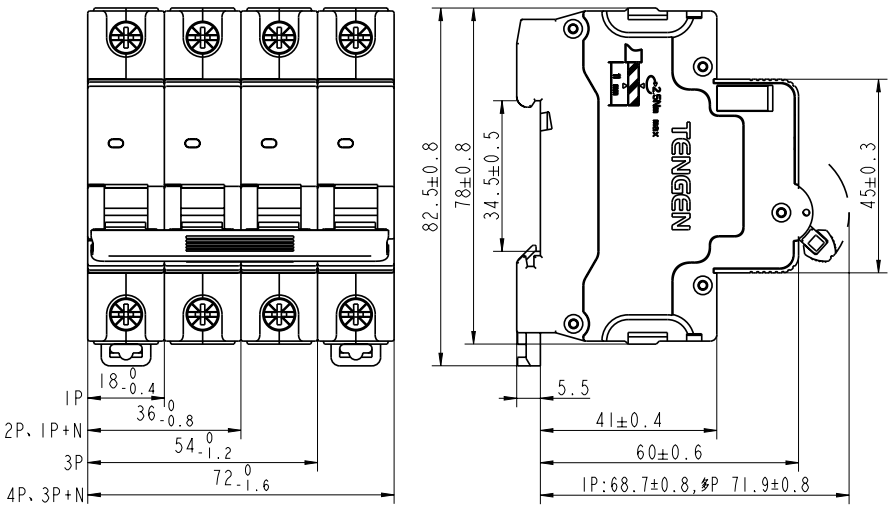
3.4 Wiring: It is suitable for copper wire connection of 25mm2 and below (see Table 3); the wire is tightened with screws, and the torque is 2.5N·m

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

TGBMA Series, 6kA Single Magnetic MCB

4 Outline and Installation Dimensions



5 Ordering Notice

5.1 Product model and name, such as TGBMA-63D single magnetic circuit breaker;
5.2 Number of poles, such as: 3P;
5.3 Instantaneously trip type, such as: D type;
5.4 Rated current of the product, such as: 40A;
5.5 Qty., such as 1000 units;
5.6 Ordering example: TGBMA-63D 3P 40A, 1000 units.