

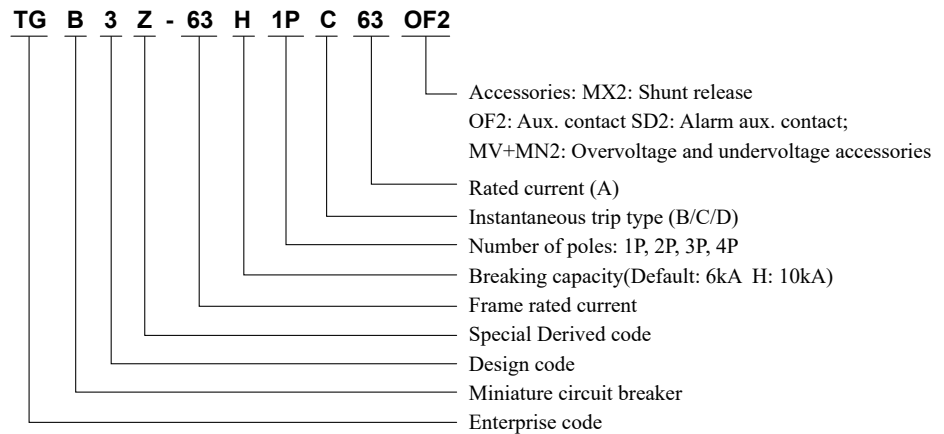


## TGB3Z-63(H) Series, 6(10)KA Miniature Circuit Breaker

### 1 Overview

TGB3Z-63(H) miniature circuit breaker (hereinafter referred to as circuit breaker) is primarily suitable for AC 50/60Hz power line facilities and electrical equipment with rated voltage 230/400V and with rated current up to 63A in construction and similar applications for overload and short circuit protection, and is also used for infrequent ON/OFF operations, especially suitable for industrial power distribution system.

### 2 Type Designation



### 3 Technical Parameters

#### 3.1 Main technical parameters (see Table 1)

**Table 1**

Product name	TGB3Z-63	TGB3Z-63H
Standard	IEC60947-2	IEC60947-2
Product certification	CB, CE, RoHS	CB, CE, RoHS
<b>Electrical features</b>		
Number of poles	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P
Rated frequency (Hz)	50/60	50/60
Frame current (A) $I_{nm}$	63	63
Rated current (A) $I_n$	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63
Rated voltage (V) $U_e$	AC230 (1P), AC400 (2P, 3P, 4P) DC80 (1P), DC125 (2P)	AC230 (1P), AC400 (2P, 3P, 4P) DC80 (1P), DC125 (2P)
Rated insulation voltage (V) $U_i$	690	690
Rated impulse withstand voltage (kV) $U_{imp}$	6	6
Rated operating short-circuit breaking capacity (kA) $I_{cs}$	6	7.5
Rated ultimate short-circuit breaking capacity (kA) $I_{cu}$	6	10
Instantaneous trip feature	B, C, D	B, C, D
Trip mode	Thermal magnetic trip	Thermal magnetic trip
Pollution degree	3	3
Electrical and mechanical accessories	MV+MN2 (overvoltage), OF2 (aux.), SD2 (alarm), MX2 (shunt)	MV+MN2 (overvoltage), OF2 (aux.), SD2 (alarm), MX2 (shunt)

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**Table 1, Continued**

Product name	TGB3Z-63	TGB3Z-63H
Electrical features		
Electrical life (times)	10000	10000
Mechanical life (times)	20000	20000
Protection grade	IP20	IP20
Indicator window	Contact state indicator	Contact state indicator
Normal working conditions and installation features		
Ambient temperature	-35°C~+70°C	-35°C~+70°C
Installation altitude	Not exceed 2000m	Not exceed 2000m
Terminal block	Screw press-connected	Screw press-connected
Max. wiring capacity	25mm <sup>2</sup>	25mm <sup>2</sup>
Max. limit torque Nm	2.5	2.5
Installation category	Class II, III	Class II, III
Installation method	TH35-7.5 standard rail	TH35-7.5 standard rail
Incoming method	Top and bottom	Top and bottom

### 4 Product Parameters

4.1 The main performance indicators are shown in Table2

**Table 2**

Rated current $I_n$ (A)	Number of poles	Rated voltage $U_e$ (V)	Frequency (Hz)	Instantaneous trip type	Rated short-circuit capacity
1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63	1	AC:230 DC:80	50 or 60	B type: $4I_n \pm 20\%$ C type: $8I_n \pm 20\%$ D type: $12I_n \pm 20\%$	AC: TGB3Z-63 $I_{cs}=I_{cu}=6kA$ ; TGB3Z-63H $I_{cs}=7.5kA$ $I_{cu}=10kA$ . DC: TGB3Z-63 $I_{cs}=I_{cu}=6kA$ ; TGB3Z-63H $I_{cs}=I_{cu}=10kA$ .
	2	AC:400 DC:125			
	3	AC:400			
	4				

4.2 The tripping characteristics are shown in Table3

**Table 3**

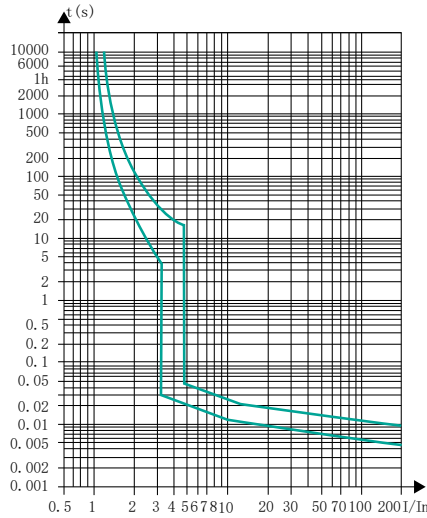
Test	Release form	Rated current of release $I_n$ (A)	Test current	Start state	Trip and no trip limit time	Expected result	Remarks
a	B, C, D	$\leq 63$	$1.05 I_n$	Cold state	$t \geq 1h$	No-trip	
b	B, C, D	$\leq 63$	$1.3 I_n$	Follow test a	$t < 1h$	trip	The current rises to the specified value smoothly within 5s
c	B	$\leq 63$	$4I_n \pm 20\%$	Cold state	$t \leq 0.2s$	Trip	Close the auxiliary switch to turn on the power
	C		$8I_n \pm 20\%$				
	D		$12I_n \pm 20\%$				

Note: Cold state refers to the no load applied before test at the 30°C temperature.

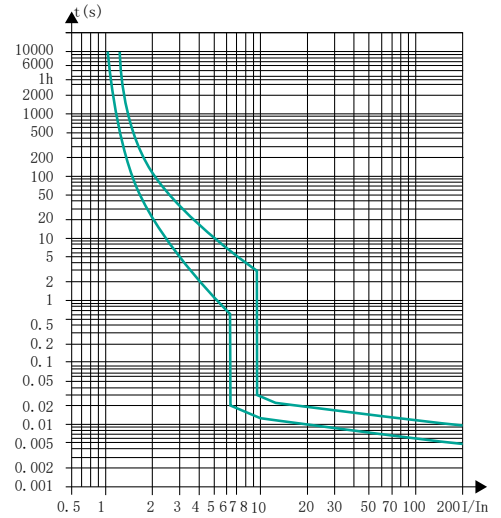
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### 4.3 Protection characteristic curve of circuit breaker

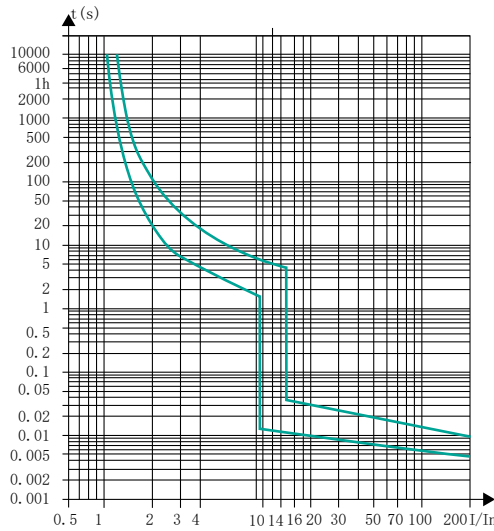
Modular Devices



**B type: Thermal/Electromagnetic characteristic protection curve**



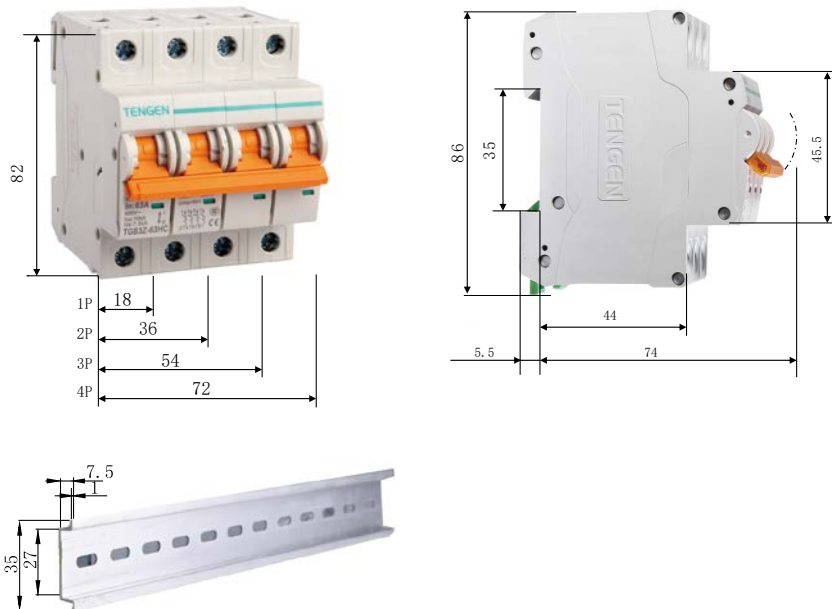
**C type: Thermal/Electromagnetic characteristic protection curve**



**D type: Thermal / electric magnetic characteristic protection curve**

## TGB3Z-63(H) Series, 6(10)KA Miniature Circuit Breaker

### 5 Outline and Installation Dimensions



### 6 Ordering Notice

Please specify the following items when ordering:

- 5.1 Product name, such as TGB3Z-63H miniature circuit breaker;
- 5.2 Product instantaneous trip type, such as type C;
- 5.3 Number of poles: such as 2P;
- 5.4 Rated current, such as 32A;
- 5.5 Qty: such as 100 units
- 5.6 Order example: TGB3Z-63HC 2P 33A, 100 units.