TGL1N-80(H) Series Residual Current Circuit Breaker, Electromagnetic A-S/AC-S Type

1 Overview

TGL1N-80 series residual current circuit breaker is used in AC 50/60Hz circuit with rated voltage AC230V/240V(2P), AC400V/415V(4P), and with rated current up to 80A. It can quickly cut off the power supply in a short time in case of personal electric shock or when the leakage current of the power grid exceeds the specified value for safety protection of people and electrical equipment and is used for infrequent conversion of the line and for infrequent startup of the motor. This product is suitable for various places such as industries, commercial purposes, and high-rise residential buildings.

2 Type Designation

TG L 1N - 80 H / 2P AC 80 30mA

- 30mA: Rated residual action current: 10mA (AC type In≤32A) 30mA 100mA 300mA
- 80: Rated current (A)
- AC: Rated residual operating current working type: AC type A type S Type
- 2P: Number of poles (2P, 4P)
- H: Rated limited short-circuit current capacity: None: standard type H: high breaking capacity
- 80: Frame rated current (A)
- 1N: Design code.
- L: Residual current circuit breaker
- TG: Enterprise code

3 Technical Parameters

3.1 Basic parameters

Table 1

Product name	TGL1N-80	TGL1N-80H
Standard	IEC/EN 61008-1	
Product certificate	TUV, CE, CB	
Electrical characteristics		
Rated voltage (Ue)	AC230V/240V(2P), AC400V/415V(4P)	
Rated frequency (Hz)	50/60Hz	
Rated current (Ie)	16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A	
Rated residual operating current IΔn)	10mA (AC type In≤32A), 30mA, 100mA, 300mA (A, AC type)	
Rated operating current type	AC type, A type, A-S type, AC-S type	
Rated operating current time (t)	Common type t≤0.1S, S type0.1S<t≤0.5S;	
Rated residual making and breaking capacity (IΔm)	IΔm=Im=1000A	
Rated limit short circuit current (Inc)	Inc=IΔc=6000A	Inc=IΔc=10000A
Number of poles	2P, 4P	
Rated insulation voltage (Ui)	690V	
Rated impulse withstand voltage (Uimp)	4kV	
Leakage release type	Electromagnetic type	
Pollution degree	2	

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Table 1, continued

Product name	TGL1N-80	TGL1N-80H
Mechanical properties		
Electrical life	2000 times	
Mechanical life	4000 times	
Protection grade	IP20	
Normal working conditions and installation characteristics		
Ambient temperature	-25℃~ +70℃	
Installation altitude	Not exceed 2000m	
Wiring terminal	Pressed via screw	
Max. wiring capacity (mm^2)	35	
Max. ultimate torque (N.m)	3.0	
Installation category	Class II, Class III	
Installation method	TH35-7.5 standard rail	
Inlet method	Top and bottom	

3.2 Rated residual current action breaking time

3.2.1 The breaking time of A and AC type AC residual current (effective value) is shown in Table 2

Table 2

Model	IΔn	Max. breaking time of RCCB at the residual current (s)					
		IΔn	2IΔn	5IΔn	0,25A	5A, 200A, 500A	
General type	<30mA	0,1	0,08	/	0,04	0,04	Max. breaking time
	30mA	0,1	0,08	/	0,04	0,04	
	>30mA	0,1	0,08	0,04	/	0,04	
S type	>30mA	0,5	0,2	0,15	/	0,15	Max. breaking time
		0,13	0,06	0,05	/	0,04	Min. non-drive time

3.3 Wiring: Suitable for wire connection of 35mm^2 and below (see Table 3). The wiring method is that the wire is fixed with screws according to the tightening torque 3N•m.

Table 3

Rated current (A)	Sectional area of wire (mm^2)
16~20	2,5
25	4
32	6
40	10
50~63	16
80	25

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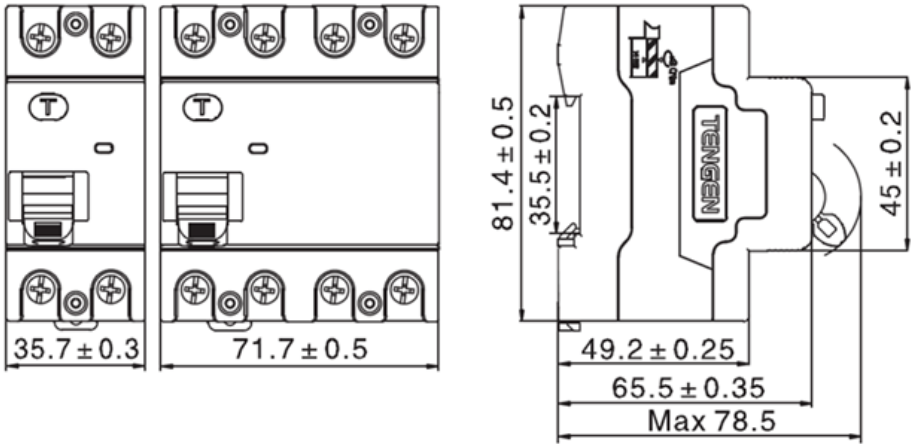
4 Outline and Installation Dimensions



5 Ordering Notice

Please specify the following items when ordering:

5.1 Product name, such as TGL1N-80 series residual current operated circuit breaker

5.2 The number of poles of the product, such as 2P;

5.3 The rated current of the product, such as 32A;

5.4 The rated residual operating current of the product, such as 30mA;

5.5 Working status of DC component, AC type;

5.6 The number of products, such as 100 pcs;

5.7 Order example: TGL1N-80 2P 32A 30mA AC, 100 pcs.