

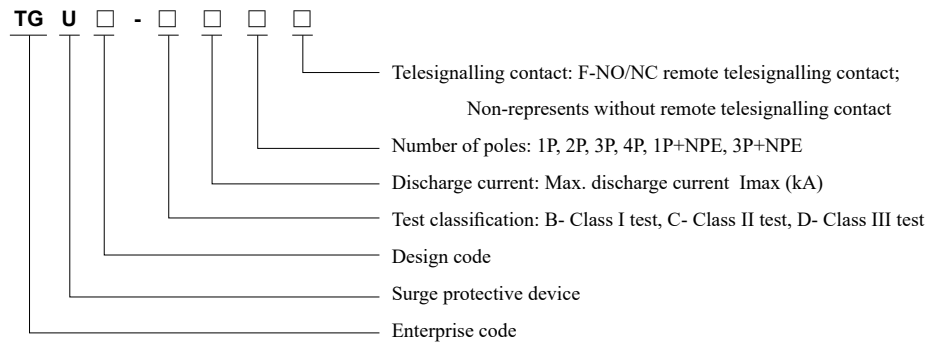
TGU3 Series Surge Protective Device



1 Overview

TGU3 series surge protective device (hereinafter referred to as SPD) has various protection modes such as phase-to-phase, phase-to-earth, phase-to-neutral, neutral-to-earth, and their combinations; it is suitable for AC 50/60Hz TT, IT, TN-S, and TN-C-S power supply system (or communication system) with voltage 380V and below for protection of indirect thunder and lightning, direct thunder and lightning or other instantaneous overvoltage and overcurrent surge for more effective electricity safety.

2 Product Naming Rules



3 Technical Parameters

Product model	TGU3-C160	TGU3-C120	TGU3-C100	TGU3-C80	TGU3-C60	TGU3-C40	TGU3-C20	TGU3-B25	TGU3-B15
Standard	IEC 61643.1								
Electrical specification									
Number of poles	1P、2P、3P、4P		1P、1P+N、2P、3P、3P+N、4P				1P、2P、3P、4P		
Rated frequency (Hz)	50-60								
Grid operational voltage U_n (V)	220/380								
Max. Continuous operating current U_c (V)	385							385	
Voltage protection grade U_p (kV)	≤3.5	≤3.0	≤2.5	≤2.3	≤2.0	≤1.8	≤1.5	≤2.2	≤1.8
Max. Discharge current I_{max} (kA)	160	120	100	80	60	40	20	Imp25	Imp15
Nominal discharge current I_n (kA)	100	70	60	40	30	20	10	30	20
Response time T_a (ns)	100	100	25	25	25	25	25	100	100
L/N recommended diameter of connecting wire (mm)	25,35	16,25	16,25	16,25	16,25	10,16	10,16	25	16
PE recommended diameter of connecting wire (mm)	35	25,35	25,35	25,35	25,35	25	25	35	25
Matched fuse or circuit breaker(A)	63,125	63,100	63,100	32,63	32,63	25,32	16,25	63,125	32,63
Protection grade	B	B	B	B	B	C	D	B	B
Test grade	Class II test (8/20 μs)							Class I (10/350 μs)	
Normal working conditions and installation features									
Ambinet temperature	Normal range -5°C~+40°C, Limit range -40°C~+70°C								
Installation altitude	Not exceed 2,000 meters								
Wiring terminal	Crimped with screws								
Max. wiring capacity	Soft wire 2.5~16mm ² , Hard wire 2.5~25mm ²								
Installation method	TH35-7.5 steel mounting rail								
Remarks:	1. Common modes: 1P, 2P, 3P, 4P; TGU3-C (20-100) contains common products 1P+NPE and 3P+NPE; 2. 1P and 3P are suitable for power supply grounding system such as TN-C and IT; 3. 2P and 4P (1P+N, 3P+N) are suitable for power supply systems such as TT, TN-S, and IT; 4. Telesignalling contact: No telesignalling contact function is provided for common products; Telesignalling contact function can be available if required (except for TGU3-B model).								

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4 Outline and Installation Dimensions

4.1 Outline and installation dimension drawings of TGU3-C (10-60) are shown in Fig. 1 and Fig. 2:

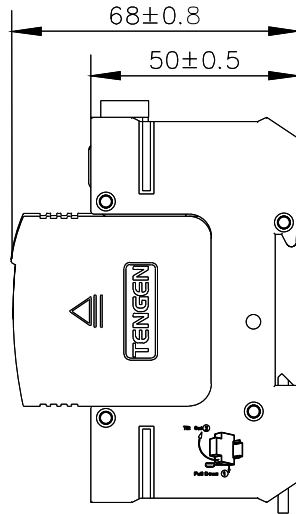


Fig. 1

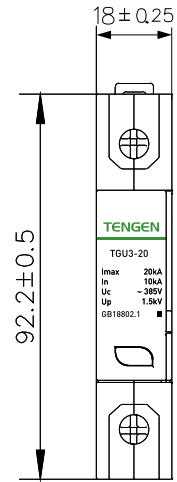


Fig. 2

4.2 Outline and installation dimension drawings of TGU3-C (80-160) and TGU3-B (15-25) are shown in Fig. 3 and Fig. 4:

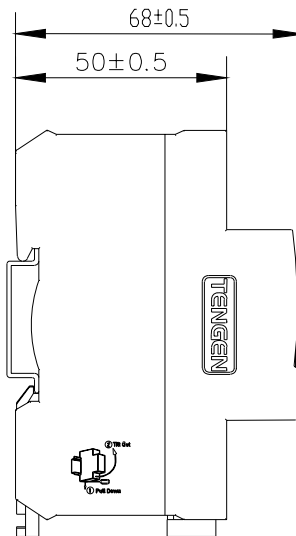


Fig. 3

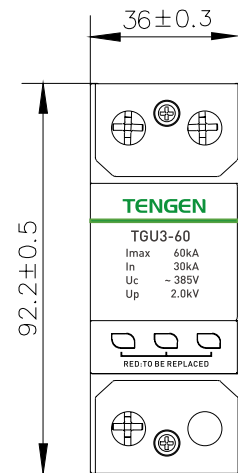


Fig. 4

Notes: (1) The width for 1P shown in Fig. 1 and Fig. 2 is 18mm; the dimensions of 2P, 3P, and 4P are 36mm, 54mm, and 72mm respectively;

(2) The width for 1P shown in Fig. 3 and Fig. 4 is 36mm; the dimensions of 2P, 3P, and 4P are 72mm, 108mm, and 144mm respectively.

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5 Ordering Notice

- 5.1 Please refer to the Table 1 for technical parameters for model selection when ordering.
- 5.2 Please specify when ordering:
 - 5.2.1 SPD name and type: such as TGU3;
 - 5.2.2 Nominal discharge current and max. discharge current or max. impulse current of SPD: such as I_n 10KA/ I_{max} 20KA or I_n 25KA/ I_{imp} 25KA;
 - 5.2.3 Max. continuous operating current of SPD (I_c): such as I_c 385V;
 - 5.2.4 Voltage protection grade and number of poles: Such as U_p 1.5KV 1P;
 - 5.2.5 Telesignalling function provided or not (no telesignalling function available for common products) and order quantity, such as with telesignalling function, 100 pcs;
- 5.3 Order example: such as surge protective device TGU3-C20 10KA/20KA 385V 1P (with telesignalling function) UP1.5KV, 100 pcs;
- 5.4 Our company can design and manufacture various special matching surge protective devices and lighting power distribution box for different industries.