



TGB3Z-63(H)

Series AC and DC Circuit Breaker

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1 Overview

TGB3Z-63(H) series circuit breaker are primarily used in low-voltage terminal power distribution systems in many fields such as industry, construction, new energy, communication and infrastructure construction. The product has the functions of overload, short circuit protection and isolation.

The product complies with the standards: GB/T 14048.2, IEC/EN 60947-2.

2 Working Environmental Conditions

- Altitude: Not exceed 2000m;
- Ambient air temperature: $-35^{\circ}\text{C}\sim+70^{\circ}\text{C}$; the mean temperature within 24h does not exceed $+40^{\circ}\text{C}$;
- Atmospheric conditions: The relative humidity of the air does not exceed 50% at a maximum temperature of $+40^{\circ}\text{C}$. Higher relative humidity can be allowed at lower temperatures, for example, the relative humidity is 90% at $+20^{\circ}\text{C}$.

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3 Type Designation

TG	B	3	Z	-	☐	☐	☐	☐	☐
①	②	③	④	⑤	⑥	⑦	⑧	⑨	
①	Enterprise code								
②	Circuit breakers								
③	Design No.								
④	Derived code		Z: AC and DC universal						
⑤	Frame current (A)		63						
⑥	Breaking capacity		Default: 6kA H: 10kA						
⑦	Number of poles		1P, 1P+N, 2P, 3P, 3P+N, 4P						
⑧	Trip characteristics		Type B Type C Type D						
⑨	Rated current		1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63						

4 Technical Parameters

Table 1

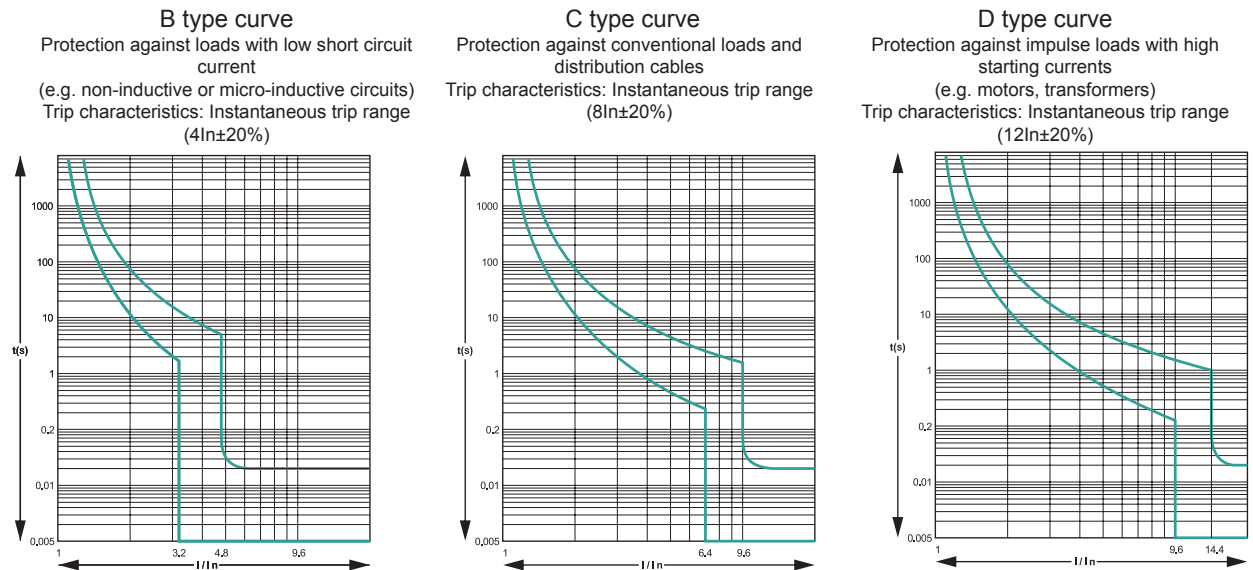
Model	TGB3Z-63	TGB3Z-63H
Standard	GB/T 14048.2 IEC/EN 60947-2	GB/T 14048.2 IEC/EN 60947-2
Product certification	CCC, TUV, CE, CB	CCC, TUV, CE, CB
Frame current (A)	63	63
Number of poles	1P, 1P+N, 2P, 3P, 3P+N, 4P	1P, 1P+N, 2P, 3P, 3P+N, 4P
Rated current In (A)	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63
Rated voltage Ue (V)	AC: AC220/230/240V(1P, 1P+N), AC380/400/415V(2P, 3P, 3P+N, 4P) DC: DC60/110/125V(1P), DC125/220/250V(2P), DC330/375V(3P), DC440/500V(4P)	AC: AC220/230/240V(1P, 1P+N), AC380/400/415V(2P, 3P, 3P+N, 4P) DC: DC60/110/125V(1P), DC125/220/250V(2P), DC330/375V(3P), DC440/500V(4P)
Rated insulation voltage Ui (V)	690	690
Rated impulse withstand voltage Uimp (kV)	6	6
Rated limit short-circuit breaking capacity Icu (kA)	6	10
Rated operating short-circuit breaking capacity Ics (kA)	6	7.5
Trip type	Thermal magnetic trip	Thermal magnetic trip

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Model	TGB3Z-63	TGB3Z-63H
Instantaneous trip characteristics (In)	AC: B: 4±20% C: 8±20% D: 12±20% DC: B: 5.5±20% C: 11±20% D: 17±20%	AC: B: 4±20% C: 8±20% D: 12±20% DC: B: 5.5±20% C: 11±20% D: 17±20%
Pollution degree	3	3
Protection grade	IP20	IP20
Mechanical life	20,000 times	20,000 times
Electrical life	10,000 times	10,000 times
Ambinet temp.	-35°C~+70°C	-35°C~+70°C
Altitude of installation site	≤2000m	≤2000m
Max. wiring capacity (mm ²)	25	25
Max. limit torque (N.m)	2.5	2.5
Installation category	Class II, III	Class II, III
Installation method	TH35-7.5 standard rail	TH35-7.5 standard rail
Accessories	OF3: Aux. contact SD3: Alarm contact OF + OF3: Dual aux. integrated contact SD + SD3: Aux. and alarm integrated contact MX3: Shunt release MX + OF3: Shunt aux. release MV3: Overvoltage release MN3: Undervoltage release MV + MN3: Overvoltage / Undervoltage release MNs3: Undervoltage release	OF3: Aux. contact SD3: Alarm contact OF + OF3: Dual aux. integrated contact SD + SD3: Aux. and alarm integrated contact MX3: Shunt release MX + OF3: Shunt aux. release MV3: Overvoltage release MN3: Undervoltage release MV + MN3: Overvoltage / Undervoltage release MNs3: Undervoltage release

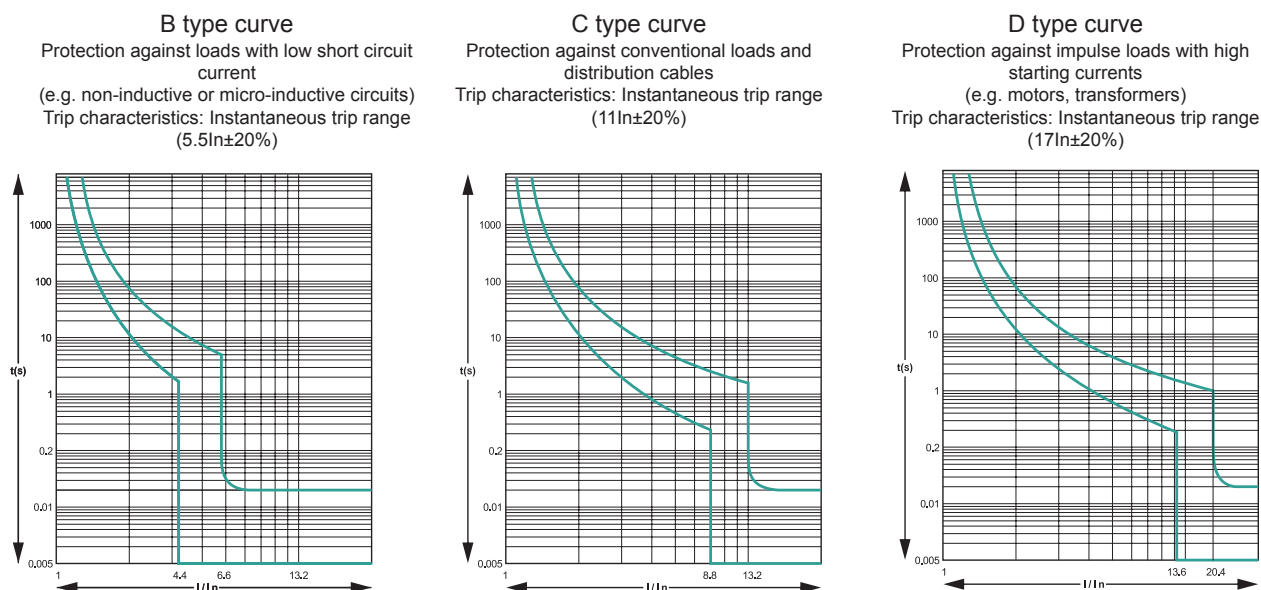
5 Characteristic Curves

5.1 TGB3Z-63 and TGB3Z-63H Product Trip Curve (AC voltage)



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5.2 TGB3Z-63 and TGB3Z-63H Product Trip Curve (DC voltage)



6 Temperature Correction Factors Table

TGB3Z-63, TGB3Z-63H Temperature Correction Factors Table

Rated current A	Correction current A											
	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C	15°C	20°C
1	1.27	1.25	1.23	1.21	1.19	1.17	1.15	1.13	1.10	1.08	1.06	1.05
2	2.41	2.38	2.35	2.32	2.29	2.26	2.23	2.2	2.17	2.13	2.10	2.07
3	3.89	3.83	3.76	3.7	3.64	3.57	3.50	3.44	3.37	3.30	3.22	3.14
4	4.84	4.81	4.75	4.68	4.62	4.55	4.49	4.42	4.35	4.29	4.22	4.15
5	6.35	6.25	6.15	6.05	5.95	5.85	5.75	5.65	5.50	5.40	5.30	5.25
6	7.70	7.58	7.46	7.34	7.21	7.09	6.96	6.83	6.70	6.56	6.42	6.27
10	13.89	13.62	13.35	13.07	12.81	12.53	12.23	11.93	11.63	11.33	11.01	10.67
16	20.78	20.43	20.08	19.75	19.40	19.05	18.70	18.33	17.96	17.58	17.20	16.80
20	25.67	25.28	24.88	24.47	24.06	23.64	23.22	22.78	22.34	21.89	21.43	20.96
25	32.21	31.72	31.22	30.70	30.18	29.65	29.10	28.55	27.98	27.41	26.82	26.22
32	41.04	40.46	39.82	39.17	38.51	37.84	37.15	36.47	35.75	35.03	34.30	33.54
40	51.63	50.86	50.04	49.21	48.37	47.51	46.63	45.74	44.83	43.90	42.95	41.98
50	64.92	63.97	62.92	61.86	60.77	59.67	58.54	57.40	56.23	55.05	53.81	52.56
63	83.48	82.06	80.64	79.19	77.72	76.22	74.70	73.14	71.54	69.91	68.24	66.53

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Rated current A	Correction current A									
	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
1	1.02	1	0.97	0.94	0.91	0.89	0.86	0.83	0.80	0.77
2	2.03	2	1.96	1.93	1.89	1.86	1.82	1.78	1.74	1.70
3	3.06	3	2.92	2.84	2.76	2.67	2.58	2.49	2.38	2.27
4	4.07	4	3.93	3.85	3.77	3.69	3.61	3.53	3.44	3.36
5	5.10	5	4.85	4.70	4.55	4.45	4.30	4.15	4.00	3.85
6	6.14	6	5.84	5.68	5.52	5.36	5.19	4.01	4.83	4.64
10	10.34	10	9.63	9.24	8.85	8.45	8.01	7.55	7.06	6.55
16	16.40	16	15.55	15.11	14.66	14.20	13.71	13.21	12.70	12.15
20	20.47	20	19.47	18.95	18.42	17.87	17.30	16.71	16.10	15.47
25	25.61	25	24.33	23.67	23.00	22.28	21.56	20.80	20.02	19.21
32	32.77	32	31.17	30.34	29.48	28.60	27.69	26.75	25.78	24.77
40	40.99	40	38.93	37.85	36.75	35.61	34.43	33.21	31.95	30.63
50	51.28	50	47.82	46.24	44.81	43.33	41.81	40.23	38.58	35.77
63	64.78	63	60.11	58.19	56.21	54.16	52.03	49.81	47.50	43.05

6 Outline and Installation Dimensions

TGB3Z-63, TGB3Z-63H Outline Dimensions

