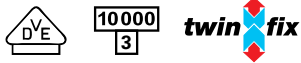


MINIATURE CIRCUIT BREAKERS T PRODUCT RANGE

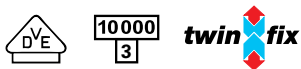
10 kA B, C and D characteristic acc. to IEC 60898-1

10 kA K and Z characteristic acc. to IEC 60947-2



RATED CURRENT I_n A	CHARACTERISTIC					WEIGHT g/EACH	PACKING UNIT
	B ITEM NO.	C ITEM NO.	D ITEM NO.	K ITEM NO.	Z ITEM NO.		

1-pole							
0.3		C0.3T1	D0.3T1	K0.3T1	Z0.3T1	120	12
0.5		C0.5T1	D0.5T1	K0.5T1	Z0.5T1	120	12
0.8		C0.8T1	D0.8T1	K0.8T1	Z0.8T1	120	12
1	B1T1	C1T1	D1T1	K1T1	Z1T1	120	12
1.6		C1.6T1	D1.6T1	K1.6T1	Z1.6T1	120	12
2	B2T1	C2T1	D2T1	K2T1	Z2T1	120	12
2.5		C2.5T1	D2.5T1	K2.5T1	Z2.5T1	120	12
3	B3T1	C3T1	D3T1	K3T1	Z3T1	120	12
3.5		C3.5T1	D3.5T1	K3.5T1	Z3.5T1	120	12
4	B4T1	C4T1	D4T1	K4T1	Z4T1	120	12
5	B5T1	C5T1	D5T1	K5T1	Z5T1	120	12
6	B6T1	C6T1	D6T1	K6T1	Z6T1	120	12
8		C8T1	D8T1	K8T1	Z8T1	120	12
10	B10T1	C10T1	D10T1	K10T1	Z10T1	120	12
13	B13T1	C13T1	D13T1	K13T1	Z13T1	120	12
16	B16T1	C16T1	D16T1	K16T1	Z16T1	120	12
20	B20T1	C20T1	D20T1	K20T1	Z20T1	120	12
25	B25T1	C25T1	D25T1	K25T1	Z25T1	120	12
32	B32T1	C32T1	D32T1	K32T1	Z32T1	120	12
40	B40T1	C40T1	D40T1	K40T1		125	12
50	B50T1	C50T1	D50T1 *	K50T1		135	12
63	B63T1	C63T1	D63T1 *	K63T1		135	12



1-pole with switched neutral							
0.3		C0.3T8	D0.3T8	K0.3T8		240	6
0.5		C0.5T8	D0.5T8	K0.5T8		240	6
0.8		C0.8T8	D0.8T8	K0.8T8		240	6
1	B1T8	C1T8	D1T8	K1T8		240	6
1.6		C1.6T8	D1.6T8	K1.6T8		240	6
2	B2T8	C2T8	D2T8	K2T8		240	6
2.5		C2.5T8	D2.5T8	K2.5T8		240	6
3	B3T8	C3T8	D3T8	K3T8		240	6
3.5		C3.5T8	D3.5T8	K3.5T8		240	6
4	B4T8	C4T8	D4T8	K4T8		240	6
5	B5T8	C5T8	D5T8	K5T8		240	6
6	B6T8	C6T8	D6T8	K6T8		240	6
8		C8T8	D8T8	K8T8		240	6
10	B10T8	C10T8	D10T8	K10T8		240	6
13	B13T8	C13T8	D13T8	K13T8		240	6
16	B16T8	C16T8	D16T8	K16T8		240	6
20	B20T8	C20T8	D20T8	K20T8		240	6
25	B25T8	C25T8	D25T8	K25T8		240	6
32	B32T8	C32T8	D32T8	K32T8		240	6
40	B40T8	C40T8	D40T8	K40T8		250	6
50	B50T8	C50T8	D50T8 *	K50T8		270	6
63	B63T8	C63T8	D63T8 *	K63T8		270	6

* only in 6 kA available

MINIATURE CIRCUIT BREAKERS T PRODUCT RANGE

10 kA B, C and D characteristic acc. to IEC 60898-1

10 kA K and Z characteristic acc. to IEC 60947-2



RATED CURRENT I_n A	CHARACTERISTIC					WEIGHT g/EACH	PACKING UNIT
	B ITEM NO.	C ITEM NO.	D ITEM NO.	K ITEM NO.	Z ITEM NO.		

2-pole							
0.3		C0.3T2	D0.3T2	K0.3T2	Z0.3T2	240	6
0.5		C0.5T2	D0.5T2	K0.5T2	Z0.5T2	240	6
0.8		C0.8T2	D0.8T2	K0.8T2	Z0.8T2	240	6
1	B1T2	C1T2	D1T2	K1T2	Z1T2	240	6
1.6		C1.6T2	D1.6T2	K1.6T2	Z1.6T2	240	6
2	B2T2	C2T2	D2T2	K2T2	Z2T2	240	6
2.5		C2.5T2	D2.5T2	K2.5T2	Z2.5T2	240	6
3	B3T2	C3T2	D3T2	K3T2	Z3T2	240	6
3.5		C3.5T2	D3.5T2	K3.5T2	Z3.5T2	240	6
4	B4T2	C4T2	D4T2	K4T2	Z4T2	240	6
5	B5T2	C5T2	D5T2	K5T2	Z5T2	240	6
6	B6T2	C6T2	D6T2	K6T2	Z6T2	240	6
8		C8T2	D8T2	K8T2	Z8T2	240	6
10	B10T2	C10T2	D10T2	K10T2	Z10T2	240	6
13	B13T2	C13T2	D13T2	K13T2	Z13T2	240	6
16	B16T2	C16T2	D16T2	K16T2	Z16T2	240	6
20	B20T2	C20T2	D20T2	K20T2	Z20T2	240	6
25	B25T2	C25T2	D25T2	K25T2	Z25T2	240	6
32	B32T2	C32T2	D32T2	K32T2	Z32T2	240	6
40	B40T2	C40T2	D40T2	K40T2		250	6
50	B50T2	C50T2	D50T2 *	K50T2		270	6
63	B63T2	C63T2	D63T2 *	K63T2		270	6



3-pole							
0.3		C0.3T3	D0.3T3	K0.3T3	Z0.3T3	360	4
0.5		C0.5T3	D0.5T3	K0.5T3	Z0.5T3	360	4
0.8		C0.8T3	D0.8T3	K0.8T3	Z0.8T3	360	4
1	B1T3	C1T3	D1T3	K1T3	Z1T3	360	4
1.6		C1.6T3	D1.6T3	K1.6T3	Z1.6T3	360	4
2	B2T3	C2T3	D2T3	K2T3	Z2T3	360	4
2.5		C2.5T3	D2.5T3	K2.5T3	Z2.5T3	360	4
3	B3T3	C3T3	D3T3	K3T3	Z3T3	360	4
3.5		C3.5T3	D3.5T3	K3.5T3	Z3.5T3	360	4
4	B4T3	C4T3	D4T3	K4T3	Z4T3	360	4
5	B5T3	C5T3	D5T3	K5T3	Z5T3	360	4
6	B6T3	C6T3	D6T3	K6T3	Z6T3	360	4
8		C8T3	D8T3	K8T3	Z8T3	360	4
10	B10T3	C10T3	D10T3	K10T3	Z10T3	360	4
13	B13T3	C13T3	D13T3	K13T3	Z13T3	360	4
16	B16T3	C16T3	D16T3	K16T3	Z16T3	360	4
20	B20T3	C20T3	D20T3	K20T3	Z20T3	360	4
25	B25T3	C25T3	D25T3	K25T3	Z25T3	360	4
32	B32T3	C32T3	D32T3	K32T3	Z32T3	360	4
40	B40T3	C40T3	D40T3	K40T3		375	4
50	B50T3	C50T3	D50T3 *	K50T3		405	4
63	B63T3	C63T3	D63T3 *	K63T3		405	4

* only in 6 kA available

MINIATURE CIRCUIT BREAKERS T PRODUCT RANGE

10 kA B, C and D characteristic acc. to IEC 60898-1

10 kA K and Z characteristic acc. to IEC 60947-2



RATED CURRENT I_n A	CHARACTERISTIC					WEIGHT g / EACH	PACKING UNIT
	B ITEM NO.	C ITEM NO.	D ITEM NO.	K ITEM NO.	Z ITEM NO.		

3-pole with switched neutral							
0.3		C0.3T9	D0.3T9	K0.3T9		480	3
0.5		C0.5T9	D0.5T9	K0.5T9		480	3
0.8		C0.8T9	D0.8T9	K0.8T9		480	3
1	B1T9	C1T9	D1T9	K1T9		480	3
1.6		C1.6T9	D1.6T9	K1.6T9		480	3
2	B2T9	C2T9	D2T9	K2T9		480	3
2.5		C2.5T9	D2.5T9	K2.5T9		480	3
3	B3T9	C3T9	D3T9	K3T9		480	3
3.5		C3.5T9	D3.5T9	K3.5T9		480	3
4	B4T9	C4T9	D4T9	K4T9		480	3
5	B5T9	C5T9	D5T9	K5T9		480	3
6	B6T9	C6T9	D6T9	K6T9		480	3
8		C8T9	D8T9	K8T9		480	3
10	B10T9	C10T9	D10T9	K10T9		480	3
13	B13T9	C13T9	D13T9	K13T9		480	3
16	B16T9	C16T9	D16T9	K16T9		480	3
20	B20T9	C20T9	D20T9	K20T9		480	3
25	B25T9	C25T9	D25T9	K25T9		480	3
32	B32T9	C32T9	D32T9	K32T9		480	3
40	B40T9	C40T9	D40T9	K40T9		500	3
50	B50T9	C50T9	D50T9 *	K50T9		540	3
63	B63T9	C63T9	D63T9 *	K63T9		540	3



4-pole							
0.3		C0.3T4	D0.3T4	K0.3T4		480	3
0.5		C0.5T4	D0.5T4	K0.5T4		480	3
0.8		C0.8T4	D0.8T4	K0.8T4		480	3
1	B1T4	C1T4	D1T4	K1T4		480	3
1.6		C1.6T4	D1.6T4	K1.6T4		480	3
2	B2T4	C2T4	D2T4	K2T4		480	3
2.5		C2.5T4	D2.5T4	K2.5T4		480	3
3	B3T4	C3T4	D3T4	K3T4		480	3
3.5		C3.5T4	D3.5T4	K3.5T4		480	3
4	B4T4	C4T4	D4T4	K4T4		480	3
5	B5T4	C5T4	D5T4	K5T4		480	3
6	B6T4	C6T4	D6T4	K6T4		480	3
8		C8T4	D8T4	K8T4		480	3
10	B10T4	C10T4	D10T4	K10T4		480	3
13	B13T4	C13T4	D13T4	K13T4		480	3
16	B16T4	C16T4	D16T4	K16T4		480	3
20	B20T4	C20T4	D20T4	K20T4		480	3
25	B25T4	C25T4	D25T4	K25T4		480	3
32	B32T4	C32T4	D32T4	K32T4		480	3
40	B40T4	C40T4	D40T4	K40T4		500	3
50	B50T4	C50T4	D50T4 *	K50T4		540	3
63	B63T4	C63T4	D63T4 *	K63T4		540	3

* only in 6 kA available

MINIATURE CIRCUIT BREAKERS S, SL AND T PRODUCT RANGES

Technical Data

Characteristic	B	C	D	K	Z	
Application	Wiring protection	Wiring protection Device protection	Wiring protection Power circuits Transformers Motors	Wiring protection Power circuits Transformers Motors	Wiring protection Semiconductor protection High impedance	
Number of poles						
Product range „S“	1-2		-	-	-	
Product range „SL“	1	-	-	-	-	
Product range „T“	1 - 4; 1 + N; 3 + N				1 - 3	
Standards short circuit withstand rating	IEC 60898-1, DIN EN 60898-1, VDE 0641-11			IEC 60947-2, DIN EN 60947-2, VDE 0660-101		
Product range „S“	6 kA	6 kA	-	-	-	
Product range „SL“	6 kA	-	-	-	-	
Product range „T“	10 kA	10 kA	10 kA	10 kA	10 kA	
Current limiting class	3	3				
Max. back-up fuse	Fuse according to DIN VDE 0636 125 A operating class gL/gG					
Rated AC voltage	230 / 400 V					
Rated DC voltage L/R = 4 ms	1-pole 60 V, 2-pole 125 V in serial connection of both poles					
Rated current range I _n						
Product range „S“	6 - 32 A	6 - 32 A	-	-	-	
Product range „SL“	16 A	-	-	-	-	
Product range „T“	1 - 32 A	6 - 32 A	0,3 - 63 A	0.3 - 63 A	0.3 - 32 A	
Test currents	Thermal not tripping I ₁ (A) > 1 h	1.13 x I _n	1.13 x I _n	1.13 x I _n	1.05 x I _n	1.05 x I _n
	Thermal tripping I ₂ (A) < 1 h	1.45 x I _n	1.45 x I _n	1.45 x I _n	1.2 x I _n	1.35 x I _n
	Electromagnetic not tripping I ₄ (A) > 0,1 s	3 x I _n	5 x I _n	10 x I _n	8 x I _n	2 x I _n
	Electromagnetic tripping I ₅ (A) < 0,1 s	5 x I _n	10 x I _n	20 x I _n	12 x I _n	3 x I _n
Reference calibration temperature of the thermal tripping	30°C + 5°C			20°C + 5°C		
	Influence of the ambient temperature on the thermal tripping: Decrease of the current values with higher ambient temperature and increase with lower temperatures of approximately 5% per 10°C difference in temperature					
Frequency range of the electromagnetic trip	16 ² / ₃ to 60 Hz With higher frequencies, the electromagnetic tripping values increase by approximately a factor of 1.1 at 100 Hz; 1.2 at 200 Hz; 1.3 at 300 Hz; 1.4 at 400 Hz; 1.5 for DC					
Ambient temperature	-25°C to +55°C					
Storage temperature	-40°C to +70°C					
Device depth acc. to DIN 43880	68 mm					
Mechanical endurance	20,000 switching cycles (20,000 ON / 20,000 OFF)					
Protection cover	Finger safe and safe to back of hand according to DIN EN 50274/ VDE0660-514, BGV A3					
Insulation group according to DIN VDE 0110	C at 250 V AC B at 400 V AC					
Degree of protection according to EN / IEC 60529	IP20					
Installation position	any					
Mounting	DIN-rail according to DIN EN 60715 35 mm					
Lockability	The handle can be secured against manual switching in the on and off position by a lead seal					
Climatic resistance	Humid heat constant according to DIN IEC 60068-2-78 Humid heat cycle according to DIN EN 60068-2-30					
Vibration resistance	> 15 g according to DIN EN 60068-2-59 during a load with I ₁					
Resistance to mechanical shocks	25g 11ms					

MINIATURE CIRCUIT BREAKERS S, SL AND T PRODUCT RANGES

Technical Data

Additional performance features of the T product range – short circuit withstand rating according to IEC 60947-2, DIN EN 60947-2

Characteristic	B, C, D, K, Z		
1-pole	0.3 - 40 A	254/440 V	10 kA
2-pole / 3-pole	0.3 - 40 A	440 V	10 kA
Characteristic	B, C		
1-pole	0.3 - 20 A	230/400 V	20 kA

Conductor cross sections product ranges S and T

Type of conductor *)	Box terminal bottom		Box terminal top	
	max.	min.	max.	min.
Single wire	35 mm ²	0.5 mm ²	25 mm ²	0.5 mm ²
Multiple wire	35 mm ²	1.5 mm ²	25 mm ²	1.5 mm ²
Stranded wire	25 mm ²	1 mm ²	16 mm ²	1 mm ²
Stranded wire with ferrule	16 mm ²	0.5 mm ²	16 mm ²	0.5 mm ²
Busbar cable lug	Up to 3 mm thickness		Up to 3 mm thickness	
Combined, conductor and busbar or cable lug	Up to 35 mm ² and up to 2 mm thickness		Up to 25 mm ² and up to 2 mm thickness	
Torque	max. 2.5 Nm			

Conductor cross sections product SL Range

Type of conductor *)	Box terminal bottom		Box terminal top	
	max.	min.	max.	min.
Single wire	35 mm ²	0,5 mm ²	4 mm ²	1 mm ²
Multiple wire	35 mm ²	1,5 mm ²	4 mm ²	1,5 mm ²
Stranded wire	25 mm ²	1 mm ²	4 mm ²	1 mm ²
Stranded wire with ferrule	16 mm ²	0,5 mm ²	2,5 mm ²	1 mm ²
Busbar cable lug	Up to 3 mm thickness		-	
Combined, conductor and busbar or cable lug	Up to 35 mm ² and Up to 2 mm thickness		-	
Torque	max. 2,5 Nm			

* stripped length 12 - 14 mm

The following characteristics can be chosen:

- B characteristic for wiring protection
- C characteristic for device protection with higher starting current inrush
- D characteristic for the protection of power circuits, motors and transformers
- K characteristic for the protection of power circuits, motors and transformers
- Z characteristic for semiconductor protection at high impedances

No. of Poles	S Range		SL Range	T Range					
	1	3	1	1	2	3	4	1+N	3+N
B-characteristic	•	•	•	•	•	•	•	•	•
C-characteristic	•	•		•	•	•	•	•	•
D-characteristic				•	•	•	•	•	•
K-characteristic				•	•	•	•	•	•
Z-characteristic				•	•	•			