

SAFETEC B(R) 12.5 TCG



- **Category IEC / EN:** Class I, II / Type 1, 2
- **Location of use:** Main distribution boards
- **Network systems:** TN-S, TN- C, IT, TT (only L-N)
- **Protection modes:** L/N-PE, L-PEN, L-N
- **Protective elements:** High energy MOV and GDT
- **Surge discharge rating:** $I_{imp} = 12.5kA$
- **Safety:** TOV withstand
- **Leakage current:** NO leakage current (TCG)
- **Housing:** Compact design
- **Complies with:** IEC 61643-11:2011, EN 61643-11:2012;



Technical data

Type	SAFETEC B(R) 12.5/xxx TCG		
	150	275	440

● **Electrical characteristics**

Nominal AC voltage	U_o	120V 50/60Hz	230V 50/60Hz	400V 50/60Hz
Max. continuous operating voltage (AC/DC)	U_c	150/200V	275/350V	440/580V
Nominal discharge current (8/20)	I_n		12.5kA	
Max. discharge current (8/20)	I_{max}		50kA	
Impulse current (10/350)	I_{imp}		12.5kA	
Total discharge current (10/350)	I_{total}		12.5kA	
Specific energy	W/R		39kJ/Ω	
Charge	Q		6.25As	
Protection level	U_p	< 0.65kV	< 1.1kV	< 1.6kV
Residual voltage at 5kA (8/20)	U_{res}	< 0.55kV	< 0.8kV	< 1.4kV
Follow current	I_{ri}		NO	
Response time	t_A		< 25ns	
Thermal protection			YES	
Back-up fuse (if mains > 160A)			160A gG/gL	
Short-circuit current rating	I_{scCR}		25kA/50Hz	
TOV withstand 5s	U_T	174V	335V	580V
TOV withstand 120min	U_T	228V	438V	765V
Number of ports			1	

● **Mechanical characteristics**

Temperature range	T_a	- 40°C + 70°C		
Permissible humidity	RH	5%...95%		
Terminal screw torque	M_{max}	3.0Nm		
Conductor cross section		35mm ² (solid) / 25mm ² (stranded)		
AWG conductor cross section		2 AWG (solid) / 3 AWG (stranded)		
Mounting		35mm DIN rail, EN 60715		
Degree of protection		IP 20		
Housing material		thermoplastic; extinguishing degree UL 94 V-0		
Indication of thermal disconnecter operation		red flag		
Remote contacts (RC)		YES		
Contact ratings		AC: 250V/0.5A; 125V/3A		
Terminal cross section		max. 1.5mm ²		
Remote terminal torque		0.25Nm		

Ordering information

U_c	150	275	440
Ordering code SAFETEC B 12.5/xxx TCG	54.0146	54.0148	54.0150
Ordering code SAFETEC BR 12.5/xxx TCG (with remote contacts)	54.0147	54.0149	54.0151

SAFETUBE B 50



- **Category IEC / EN:** Class I, II / Type 1, 2
- **Location of use:** Main distribution boards
- **Network system:** TT
- **Protection modes:** N - PE
- **Protective element:** High energy GDT
- **Surge discharge rating:** $I_{imp} = 50kA$
- **Housing:** Compact design
- **Complies with:** IEC 61643-11:2011, EN 61643-11:2012;



Technical data

Type	SAFETUBE B 50
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● **Electrical characteristics**

Nominal AC voltage	U_o	230V 50/60Hz
Max. continuous operating voltage (AC/DC)	U_c	255V
Nominal discharge current (8/20)	I_n	50kA
Max. discharge current (8/20)	I_{max}	100kA
Impulse current (10/350)	I_{imp}	50kA
Total discharge current (10/350)	I_{total}	50kA
Specific energy	W/R	625kJ/Ω
Charge	Q	25As
Protection level	U_p	< 1.5kV
Follow current	I_{fi}	100A _{RMS}
Response time	t_A	< 100ns
TOV withstand 200ms	U_T	1200V/300A
Number of ports		1

● **Mechanical characteristics**

Temperature range	T_a	- 40°C + 70°C
Permissible humidity	RH	5%...95%
Terminal screw torque	M_{max}	3.0Nm
Conductor cross section		35mm ² (solid) / 25mm ² (stranded)
AWG conductor cross section		2 AWG (solid) / 3 AWG (stranded)
Mounting		35mm DIN rail, EN 60715
Degree of protection		IP 20
Housing material		thermoplastic; extinguishing degree UL 94 V-0

Ordering information

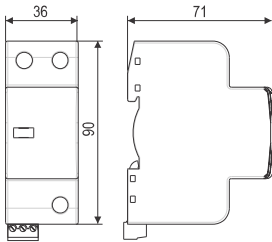
I_{imp}	50
Ordering code SAFETUBE B 50	54.0006

Dimensions, Internal configuration, Weight and Packaging

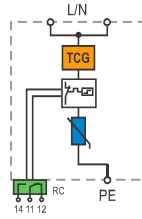


SAFETEC B(R) 12.5/xxx TCG

Dimensions



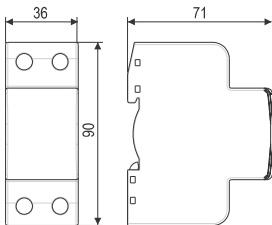
Internal configuration



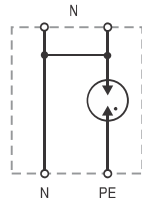
SAFETEC B 12.5/xxx TCG	150	275	440
Dimensions DIN 43880		2TE	
Weight per unit	175g	205g	255g
SAFETEC BR 12.5/xxx TCG	150	275	440
Dimensions DIN 43880		2TE	
Weight per unit	180g	210g	260g
Packaging dimensions (single unit)	109 x 76.5 x 41.5mm		
Min. packaging quantity	7 pcs.		

SAFETUBE B 50

Dimensions



Internal configuration



SAFETUBE B 50			
Dimensions DIN 43880		2TE	
Weight per unit		180g	
Packaging dimensions (single unit)	109 x 76.5 x 41.5mm		
Min. packaging quantity	7 pcs.		