

Compact Single Pole SPD SafeBloc B(R) 25 (1+0) TCG

Class I • Class II • Type 1 • Type 2

25 kA Series



Location of Use: Main Distribution Boards
 Network Systems: TN-S, TN-C, TT (only L-N)
 Mode of Protection: L-PE, N-PE, L-PEN, L-N
 Surge Ratings: $I_{imp} = 25 \text{ kA (10/350 } \mu\text{s)}$
 $I_n = 25 \text{ kA (8/20 } \mu\text{s)}$
 IEC/EN Category: Class I, II / Type 1, 2
 Protective Elements: High Energy MOV and GDT
 Safety: High TOV Immunity
 Leakage Current: No Leakage Current
 Housing: Compact Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

SafeBloc B(R) 25/xxx (1+0) TCG

150

275

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	120V	230V
Maximum Continuous Operating Voltage (AC)	U_c	150V	275V
Nominal Discharge Current (8/20 μs)	I_n	25 kA	
Maximum Discharge Current (8/20 μs)	I_{max}	100 kA	
Impulse Discharge Current (10/350 μs)	I_{imp}	25 kA	
Specific Energy	W/R	156 kJ/ Ω	
Charge	Q	12.5 As	
Voltage Protection Level	U_p	< 1.2 kV	< 1.5 kV
Response Time	t_A	< 25 ns	
Back-Up Fuse (if mains > 250 A)		250 A gG	
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA	
TOV withstand 5s	U_T	228V	438V
Number of Ports		1	

Mechanical & Environmental

Temperature Range	T_a	-40 °C to +85 °C	
Permissible Humidity	RH	5%...95%	
Terminal Screw Torque	M_{max}	3.0 Nm	
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)	
Mounting		35 mm DIN Rail, EN 60715	
Degree of Protection		IP 20	
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0	
Thermal Protection		Yes	
Fault Indication		Red Flag	
Remote Contacts (RC)		Optional	
RC Switching Capacity		AC: 250V/0.5A; 125V/3A	
RC Terminal Cross Section (max)		1.5 mm ²	
RC Terminal Screw Torque	M_{max}	0.25 Nm	

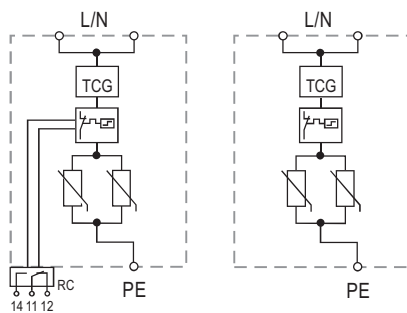
Order Information

Order Code		150	275
SAFELOC B 25/xxx (1+0) TCG		54.0537	54.0539
SAFELOC BR 25/xxx (1+0) TCG (with remote contacts)		54.0538	54.0540

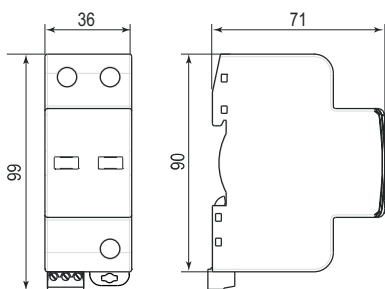
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- RC Remote Contacts Optional
- TCG Thermal Control Function with No Leakage



Dimensions & Packaging [mm]



Dimensions & Packaging		
SafeBloc B 25/xxx (1+0) TCG	150	275
Single Unit Weight	275g	325g
Single Unit DIN 43880 Dimension	2 TE	
Packaging Dimensions (H × W × L)	109 × 77 × 42mm	
Minimum Order Quantity	7 Units	
SafeBloc BR 25/xxx (1+0) TCG	150	275
Single Unit Weight	280g	330g
Single Unit DIN 43880 Dimension	2 TE	
Packaging Dimensions (H × W × L)	109 × 77 × 42mm	
Minimum Order Quantity	7 Units	

Applicable connection configurations can be found on pages 56-57..

Compact Single Pole SPD
SafeTube B 50
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TT
 Mode of Protection: N-PE
 Surge Ratings: $I_{imp} = 50 \text{ kA (10/350}\mu\text{s)}$
 $I_n = 50 \text{ kA (8/20}\mu\text{s)}$
 IEC/EN Category: Class I, II / Type 1, 2
 Protective Elements: High Energy GDT
 Leakage Current: No Leakage Current
 Housing: Compact Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

SafeTube B 50/xxx

255 V

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	230V
Maximum Continuous Operating Voltage (AC)	U_c	255V
Nominal Discharge Current (8/20 μs)	I_n	50 kA
Maximum Discharge Current (8/20 μs)	I_{max}	100 kA
Impulse Discharge Current (10/350 μs)	I_{imp}	50 kA
Specific Energy	W/R	625 kJ/ Ω
Charge	Q	25 As
Voltage Protection Level	U_p	< 1.5 kV
Follow Current Interrupt Rating	I_{fi}	100 A _{RMS}
Response Time	t_A	< 100 ns
TOV withstand 200ms	U_T	1200V/300 A
Number of Ports		1

Mechanical & Environmental

Temperature Range	T_a	-40 °C to +85 °C
Permissible Humidity	RH	5%...95%
Terminal Screw Torque	M_{max}	3.0 Nm
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)
Mounting		35 mm DIN Rail, EN 60715
Degree of Protection		IP 20
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0

Order Information

Order Code		255
SAFETUBE B 50/xxx		54.0506

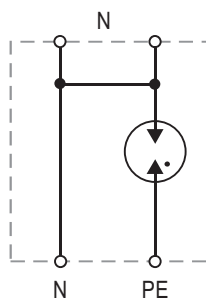
SafeTube B 50

Internal Configuration

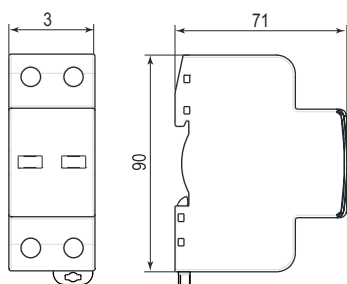
Legend

N Neutral

PE Protective Earth



Dimensions & Packaging [mm]



Dimensions & Packaging

SafeTube B 50/xxx	255
Single Unit Weight	180 g
Single Unit DIN 43880 Dimension	2 TE
Packaging Dimensions (H × W × L)	109 × 77 × 42 mm
Minimum Order Quantity	7 Units

Applicable connection configurations can be found on page 57.

Compact Single Pole SPD
SafeTube B 100
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TT
 Mode of Protection: N-PE
 Surge Ratings: $I_{imp} = 100\text{ kA (10/350}\mu\text{s)}$
 $I_n = 100\text{ kA (8/20}\mu\text{s)}$
 IEC/EN Category: Class I, II / Type 1, 2
 Protective Elements: High Energy GDT
 Leakage Current: No Leakage Current
 Housing: Compact Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

SafeTube B 100/xxx

255

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	230V
Maximum Continuous Operating Voltage (AC)	U_c	255V
Nominal Discharge Current (8/20 μs)	I_n	100 kA
Maximum Discharge Current (8/20 μs)	I_{max}	100 kA
Impulse Discharge Current (10/350 μs)	I_{imp}	100 kA
Specific Energy	W/R	2.5 MJ/ Ω
Charge	Q	50 As
Voltage Protection Level	U_p	< 1.5 kV
Follow Current Interrupt Rating	I_{fi}	100 A _{RMS}
Response Time	t_A	< 100 ns
TOV withstand 200 ms	U_T	1200V/300A
Number of Ports		1

Mechanical & Environmental

Temperature Range	T_a	-40 °C to +85 °C
Permissible Humidity	RH	5%...95%
Terminal Screw Torque	M_{max}	3.0 Nm
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)
Mounting		35 mm DIN Rail, EN 60715
Degree of Protection		IP 20
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0

Order Information

Order Code		255
SAFETUBE B 100/xxx		54.0543

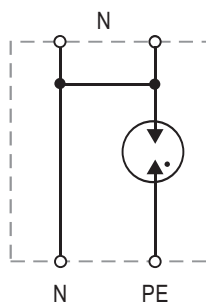
SafeTube B 100

Internal Configuration

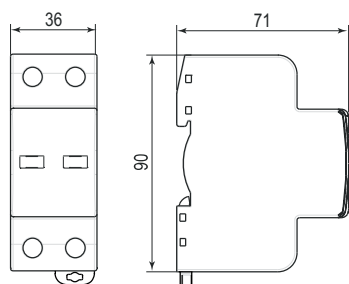
Legend

N Neutral

PE Protective Earth



Dimensions & Packaging [mm]



Dimensions & Packaging

SafeTube B 100/xxx	255
Single Unit Weight	240 g
Single Unit DIN 43880 Dimension	2 TE
Packaging Dimensions (H × W × L)	109 × 77 × 42 mm
Minimum Order Quantity	7 Units

Applicable connection configurations can be found on page 57.