

Compact Multi-pole SPD
SafeBloc B(R) 50 (2+0) TCG
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE
 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) 50/xxx (2+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
Total Discharge Current (10/350 μs)	I_{total}		50 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 120min	U_T	229V	438V
Number of Ports			1

Mechanical & Environmental

Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Humidity	RH	5%...95%	
Terminal Screw Torque	M_{max}	26.5 lbf-in [3.0 Nm]	
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35mm ² (Solid, Stranded) / 25mm ² (Flexible)	
Mounting		35 mm DIN Rail, EN 60715	
Degree of Protection		IP 20 (built-in)	
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)		1.5mm ² (Solid) / 16 AWG (Solid)	
RC Terminal Screw Torque	M_{max}	2.2 lbf-in [0.25 Nm]	

Order Information

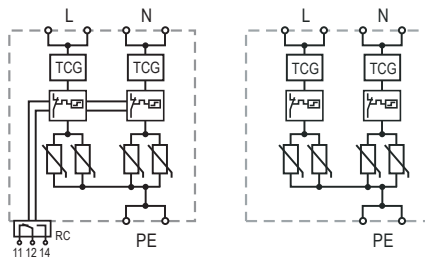
Order Code		150	275
SafeBloc B 50/xxx (2+0) TCG		54.0544	54.0546
SafeBloc BR 50/xxx (2+0) TCG (with remote contacts)		54.0545	54.0547

*OVE Certified

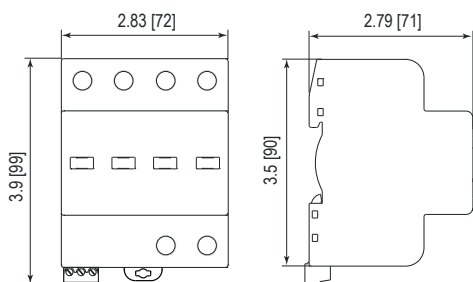
Internal Configuration

Legend

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



Dimensions & Packaging



Dimensions & Packaging			
SafeBloc B 50/xxx (2+0) TCG		150	275
Single Unit Weight	pounds [grams]	1.146 [520]	1.366 [620]
Single Unit DIN 43880 Dimension		4 TE	
Packaging Dimensions (H x W x L)		4.2 x 3 x 3.1" [109 x 77 x 80mm]	
Minimum Order Quantity		3 Units	
SafeBloc BR 50/xxx (2+0) TCG		150	275
Single Unit Weight	pounds [grams]	1.168 [530]	1.388 [630]
Single Unit DIN 43880 Dimension		4 TE	
Packaging Dimensions (H x W x L)		4.2 x 3 x 3.1" [109 x 77 x 80mm]	
Minimum Order Quantity		3 Units	

inches
[mm]

Information contained in this document is subject to change at any time without notice.

