

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



Location of Use: Main Distribution Boards
 Network Systems: TT
 Mode of Protection: L-N, N-PE
 Surge Ratings: $I_{imp} = 25\text{ kA} / 50\text{ kA} (10/350\mu\text{s})$
 $I_n = 25\text{ kA} / 50\text{ kA} (8/20\mu\text{s})$
 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 (1+1) TCG

150

275

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	120V	230V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	150V	275V
	(N-PE) U_c		255V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n	25 kA / 50 kA	
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}	100 kA / 100 kA	
Impulse Discharge Current (10/350 μs)	(L-N)/(N-PE) I_{imp}	25 kA / 50 kA	
Total Discharge Current (10/350 μs)	I_{total}	50 kA	
Specific Energy	(L-N)/(N-PE) W/R	156 kJ/ Ω / 625 kJ/ Ω	
Charge	(L-N)/(N-PE) Q	12.5 As / 25 As	
Voltage Protection Level	(L-N)/(N-PE) U_p	< 1.2 kV / 1.5 kV	< 1.5 kV / 1.5 kV
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A _{RMS}	
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns	
Back-Up Fuse (if mains > 250 A)		250 A gG	
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA	
TOV withstand 5s	(L-N) U_T	228V	438V
TOV withstand 200ms	(N-PE) U_T	1200V / 300 A	
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	
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0	
Thermal Protection	(L-N)/(N-PE)	Yes/No	
Fault Indication	(L-N)/(N-PE)	Red Flag/No	
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]	

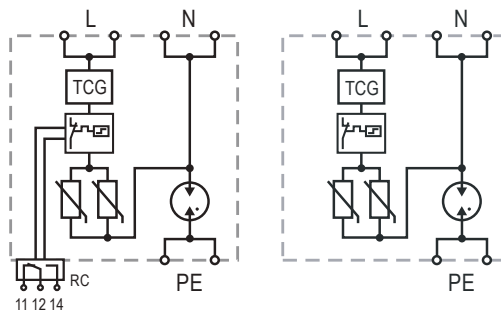
Order Information

Order Code		150	275
SafeBloc B 50/xxx (1+1) TCG		54.0562	54.0564
SafeBloc BR 50/xxx (1+1) TCG (with remote contacts)		54.0563	54.0565

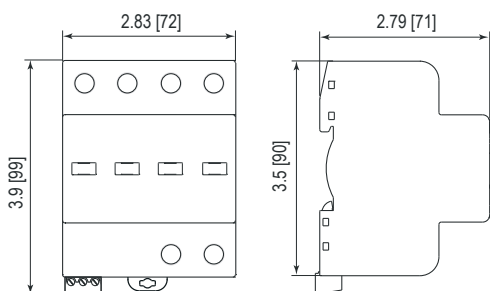
Internal Configuration

Legend

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



Dimensions & Packaging [mm]



Dimensions & Packaging

		150	275
SafeBloc B 50/xxx (1+1) TCG			
Single Unit Weight	pounds [grams]	1.047 [475]	1.135 [515]
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 80 mm]	
Minimum Order Quantity		3 Units	
SafeBloc BR 50/xxx (1+1) TCG			
Single Unit Weight	pounds [grams]	1.069 [485]	1.157 [525]
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 80 mm]	
Minimum Order Quantity		3 Units	

inches
[mm]

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

