

Compact Single Pole SPD
SafeBloc B(R) 12.5 (1+0) TCG
 Class I • Class II • Type 1 • Type 2



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: $I_{imp} = 12.5 \text{ kA (10/350}\mu\text{s)}$
 $I_n = 20 \text{ kA (8/20}\mu\text{s)}$
 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) 12.5/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		20 kA
Maximum Discharge Current (8/20 μs)	I_{max}		50 kA
Impulse Discharge Current (10/350 μs)	I_{imp}		12.5 kA
Specific Energy	W/R		39 kJ/ Ω
Charge	Q		6.25 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 °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		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]	

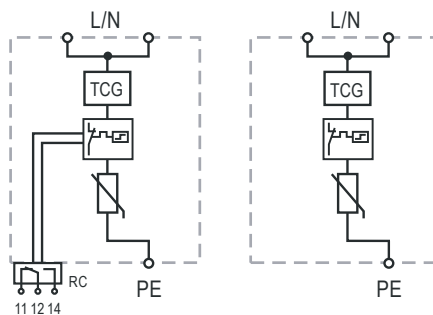
Order Information

Order Code		150	275
SafeBloc B 12.5/xxx (1+0) TCG		54.0500	54.0502
SafeBloc BR 12.5/xxx (1+0) TCG (with remote contacts)		54.0501	54.0503

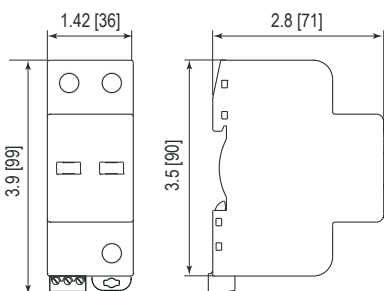
Internal Configuration

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 12.5/xxx (1+0) TCG		
	150	275
Single Unit Weight pounds [grams]	.385 [175]	.451 [205]
Single Unit DIN 43880 Dimension	2 TE	
Packaging Dimensions (H x W x L)	4.2 x 3 x 1.6" [109 x 77 x 42 mm]	
Minimum Order Quantity	7 Units	
SafeBloc BR 12.5/xxx (1+0) TCG		
	150	275
Single Unit Weight pounds [grams]	.396 [180]	.462 [210]
Single Unit DIN 43880 Dimension	2 TE	
Packaging Dimensions (H x W x L)	4.2 x 3 x 1.6" [109 x 77 x 42 mm]	
Minimum Order Quantity	7 Units	

inches
[mm]

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

