

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

**25kA Series**



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

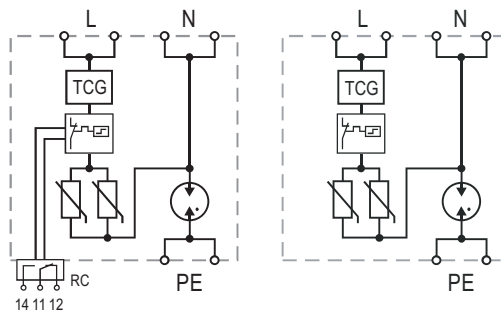
**Technical Data**

SafeBloc B(R) 50/xxx (1+1) TCG		150	275
<b>Electrical</b>			
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 $\mu\text{s}$ )	(L-N)/(N-PE) $I_n$	25 kA / 50 kA	
Maximum Discharge Current (8/20 $\mu\text{s}$ )	(L-N)/(N-PE) $I_{max}$	100 kA / 100 kA	
Impulse Discharge Current (10/350 $\mu\text{s}$ )	(L-N)/(N-PE) $I_{imp}$	25 kA / 50 kA	
Total Discharge Current (10/350 $\mu\text{s}$ )	$I_{total}$	50 kA	
Specific Energy	(L-N)/(N-PE) W/R	156 kJ/ $\Omega$ / 625 kJ/ $\Omega$	
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 <sub>RMS</sub>	
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 / 300A	
Number of Ports		1	
<b>Mechanical &amp; Environmental</b>			
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 <sup>2</sup> (solid) / 25 mm <sup>2</sup> (stranded)	
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/0.5 A; 125V/3 A	
RC Terminal Cross Section (max)		1.5 mm <sup>2</sup>	
RC Terminal Screw Torque	$M_{max}$	0.25 Nm	
<b>Order Information</b>			
Order Code		150	275
SAFELOC B 50/xxx (1+1) TCG		54.0562	54.0564
SAFELOC BR 50/xxx (1+1) TCG (with remote contacts)		54.0563	54.0565

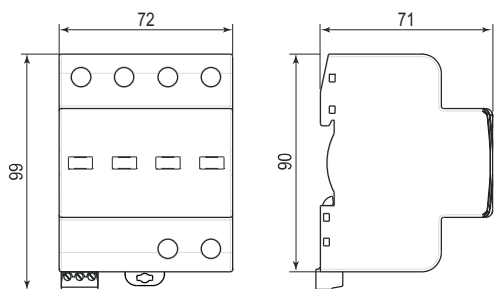
Internal Configuration

Legend

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



Dimensions & Packaging [mm]



Dimensions & Packaging		
<b>SafeBloc B 50/xxx (1+1) TCG</b>	<b>150</b>	<b>275</b>
Single Unit Weight	475g	515g
Single Unit DIN 43880 Dimension	4 TE	
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm	
Minimum Order Quantity	3 Units	
<b>SafeBloc BR 50/xxx (1+1) TCG</b>	<b>150</b>	<b>275</b>
Single Unit Weight	485g	525g
Single Unit DIN 43880 Dimension	4 TE	
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm	
Minimum Order Quantity	3 Units	

Applicable connection configurations can be found on page 55.

