

# Compact Multi-pole SPD SafeBloc B(R) 50 (4+0) TCG

Class I • Class II • Type 1 • Type 2

12.5 kA Series



Location of Use: Main Distribution Boards  
 Network Systems: TN-S  
 Mode of Protection: L-PE, N-PE  
 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

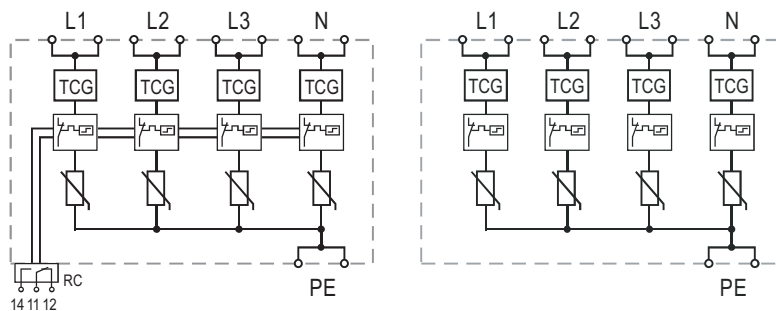
## Technical Data

SafeBloc B(R) 50/xxx (4+0) TCG		150	275
<b>Electrical</b>			
Nominal AC Voltage (50/60 Hz)	$U_o$	120V	230V
Maximum Continuous Operating Voltage (AC)	$U_c$	150V	275V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$		20 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$		50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$		12.5 kA
Total Discharge Current (10/350 $\mu\text{s}$ )	$I_{total}$		50 kA
Specific Energy	W/R		39 kJ/ $\Omega$
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
<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		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 <sup>2</sup>	
RC Terminal Screw Torque	$M_{max}$	0.25 Nm	
<b>Order Information</b>			
Order Code		150	275
SAFELOC B 50/xxx (4+0) TCG		54.0519	54.0521
SAFELOC BR 50/xxx (4+0) TCG (with remote contacts)		54.0520	54.0522

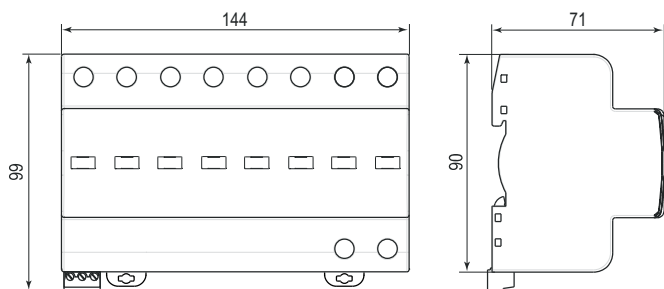
**Internal Configuration**

**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 (4+0) TCG</b>	<b>150</b>	<b>275</b>
Single Unit Weight	800g	1000g
Single Unit DIN 43880 Dimension	8 TE	
Packaging Dimensions (H × W × L)	109 × 77 × 148 mm	
Minimum Order Quantity	2 Units	
<b>SafeBloc BR 50/xxx (4+0) TCG</b>	<b>150</b>	<b>275</b>
Single Unit Weight	815g	1015g
Single Unit DIN 43880 Dimension	8 TE	
Packaging Dimensions (H × W × L)	109 × 77 × 148 mm	
Minimum Order Quantity	2 Units	

Applicable connection configurations can be found on page 54.

