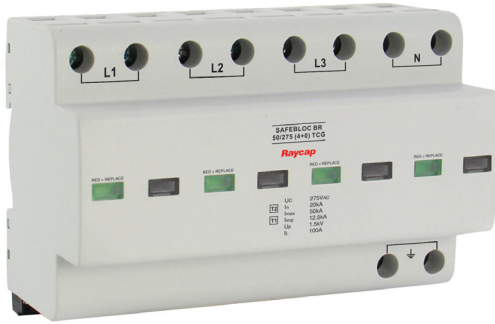


Lightning and Overvoltage Protection  
**SafeBloc B(R) 50 (4+0) TCG**  
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S  
 Mode of Protection: L - PE, N - PE  
 IEC/EN Category: Class I+II / Type 1+2  
 Safety: High TOV Immunity  
 Technology: Hybrid  
 Leakage Current Free: Yes  
 Housing: Compact Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

**Technical Data**

**SafeBloc B(R) 50/xxx (4+0) TCG** **150** **275\***

IEC 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 $\mu$ s)	$I_n$		20kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$		50kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$		12.5kA
Total Discharge Current (10/350 $\mu$ s)	$I_{total}$		50kA
Specific Energy	W/R		39 kJ/ $\Omega$
Charge	Q		6.25 As
Voltage Protection Level	$U_p$	< 1.2kV	< 1.5kV
Response Time	$t_A$		< 25 ns
Overcurrent Protection (max)			250 A gG
Short-Circuit Current Rating (AC)	$I_{SCCR}$		50kA
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 <sup>2</sup> (Solid, Stranded) / 25mm <sup>2</sup> (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/0.5 A; 125V/3 A	
RC Terminal Cross Section (max)		1.5mm <sup>2</sup> (Solid) / 16 AWG (Solid)	
RC Terminal Screw Torque	$M_{max}$	2.2 lbf-in [0.25 Nm]	

**Order Information**

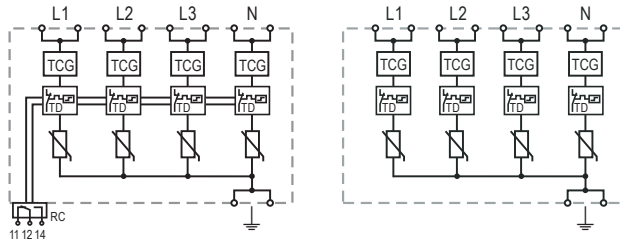
Order Code	150	275*
SafeBloc B 50/xxx (4+0) TCG	54.0519	54.0521
SafeBloc BR 50/xxx (4+0) TCG (with remote contacts)	54.0520	54.0522

\*OVE Certified

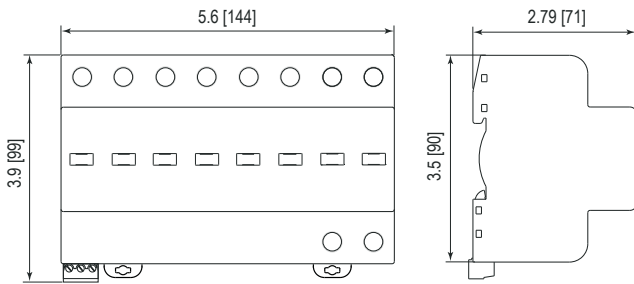
Internal Configuration

Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- PE PE Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TCG Thermal Control Function with No Leakage
- TD Thermal Disconnect



Complete Unit



Single Unit Dimensions & Packaging

		150	275*
<b>SafeBloc B 50/xxx (4+0) TCG</b>			
Weight	pounds [grams]	1.763 [800]	2.204 [1000]
DIN 43880 Dimension		8 TE / 5.66" [144]	
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]	
Standard Order Quantity		2 Units	
<b>SafeBloc BR 50/xxx (4+0) TCG</b>			
Weight	pounds [grams]	1.796 [815]	2.237 [1015]
DIN 43880 Dimension		8 TE / 5.66" [144]	
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]	
Standard Order Quantity		2 Units	

inches  
[mm]

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

