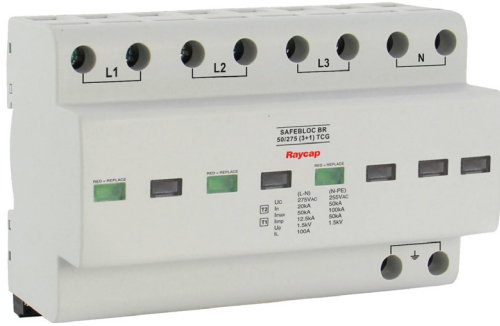


Lightning and Overvoltage Protection  
**SafeBloc B(R) 50 (3+1) TCG**  
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S, TT  
 Mode of Protection: L - N, 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 (3+1) TCG**

**275**

**IEC Electrical**

Nominal AC Voltage (50/60 Hz)	$U_o$	230V
Maximum Continuous Operating Voltage (AC)	(L-N) $U_c$	275V
	(N-PE) $U_c$	255V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20 kA / 50 kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{max}$	50 kA / 100 kA
Impulse Discharge Current (10/350 $\mu$ s)	(L-N)/(N-PE) $I_{imp}$	12.5 kA / 50 kA
Total Discharge Current (10/350 $\mu$ s)	$I_{total}$	50 kA
Specific Energy	(L-N)/(N-PE) W/R	39 kJ/ $\Omega$ / 625 kJ/ $\Omega$
Charge	(L-N)/(N-PE) Q	6.25 As / 25 As
Voltage Protection Level	(L-N)/(N-PE) $U_p$	< 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
Overcurrent Protection (max)		250 A gG
Short-Circuit Current Rating (AC)	$I_{SCCR}$	50 kA
TOV Withstand 120min	(L-N) $U_T$	438V
TOV Withstand 200ms	(N-PE) $U_T$	1200V / 300A
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	(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 <sup>2</sup> (Solid) / 16 AWG (Solid)
RC Terminal Screw Torque	$M_{max}$	2.2 lbf-in [0.25 Nm]

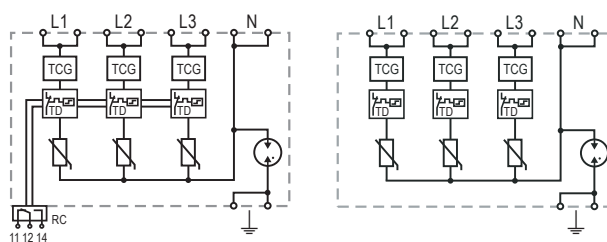
**Order Information**

Order Code	<b>275</b>
SafeBloc B 50/xxx (3+1) TCG	54.0533
SafeBloc B(R) 50/xxx (3+1) TCG (with remote contacts)	54.0534

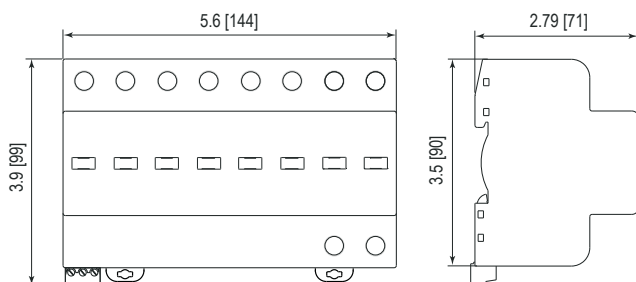
Internal Configuration

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

SafeBloc B 50/xxx (3+1) TCG		275
Weight	pounds [grams]	1.984 [900]
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
SafeBloc BR 50/xxx (3+1) TCG		275
Weight	pounds [grams]	2.006 [910]
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.

