

Lightning and Overvoltage Protection
SafeBloc B(R) 25 (1+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

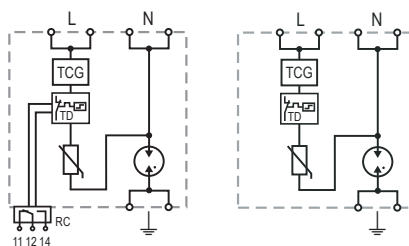
SafeBloc B(R) 25/xxx (1+1) TCG		150	275*
IEC Electrical			
Nominal AC Voltage (50/60 Hz)	U_o	120V	230V
Maximum Continuous Operating Voltage (AC)	(L - N) U_c	150V	275V
	(N - PE) U_c		255V
Nominal Discharge Current (8/20 μ s)	(L - N)/(N - PE) I_n	20 kA / 50 kA	
Maximum Discharge Current (8/20 μ s)	(L - N)/(N - PE) I_{max}	50 kA / 100 kA	
Impulse Discharge Current (10/350 μ s)	(L - N)/(N - PE) I_{imp}	12.5 kA / 50 kA	
Total Discharge Current (10/350 μ s)	I_{total}	25 kA	
Specific Energy	(L - N)/(N - PE) W/R	39 kJ/ Ω / 625 kJ/ Ω	
Charge	(L - N)/(N - PE) Q	6.25 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 _{RMS}	
Response Time	(L - N)/(N - PE) t_A	< 25 ns / < 100 ns	
Thermal Protection	(L - N)/(N - PE)	Yes/No	
Overcurrent Protection (max)		250 A gG	
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA	
TOV Withstand 120min	(L - N) U_T	229V	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 ² (Solid, Stranded) / 25mm ² (Flexible)	
Mounting		35 mm DIN Rail, EN 60715	
Degree of Protection		IP 20 (built-in)	
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0	
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 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 25/xxx (1+1) TCG		54.0525	54.0527
SafeBloc B(R) 25/xxx (1+1) TCG (with remote contacts)		54.0526	54.0528

*OVE Certified

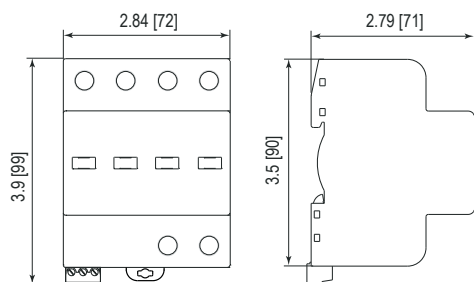
Internal Configuration

Legend

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



Complete Unit



Single Unit Dimensions & Packaging

		150	275*
SafeBloc B 25/xxx (1+1) TCG			
Weight	pounds [grams]	.617 [280]	.694 [315]
DIN 43880 Dimension		4 TE / 2.84" [72]	
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]	
Standard Order Quantity		3 Units	
SafeBloc BR 25/xxx (1+1) TCG			
Weight	pounds [grams]	.628 [285]	.705 [320]
DIN 43880 Dimension		4 TE / 2.84" [72]	
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]	
Standard Order Quantity		3 Units	

inches
[mm]

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

