DATA SHEET

Lightning and Overvoltage Protection

SafeBloc B(R) 25 (1+1) TCG

Class I • Class II • Type 1 • Type 2

12.5 kA Series

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	120 V	230 V
Maximum Continuous Operating Voltage (AC)	(L-N)	U_c	150 V	275 V
	(N-PE)	U_c	255 V	
Nominal Discharge Current (8/20 µs)	(L-N)/(N-PE)	I_n	20 kA / 50 kA	
Maximum Discharge Current (8/20 µs)	(L-N)/(N-PE)	I_{max}	50 kA / 100 kA	
Impulse Discharge Current (10/350 µs)	(L-N)/(N-PE)	I_{imp}	12.5 kA / 50 kA	
Total Discharge Current (10/350 µs)		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	229 V	438 V
TOV Withstand 200ms	(N-PE)	U_T	1200 V / 300 A	
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)	
			35mm² (Solid, Stranded) / 25mm² (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: 250 V / 0.5 A; 125 V / 3 A	
RC Terminal Cross Section (max)			1.5mm² (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

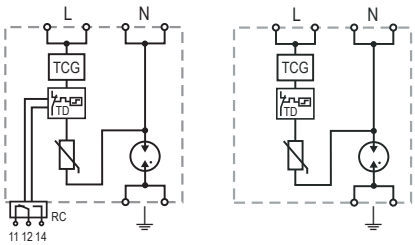
**OVE Certified*

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

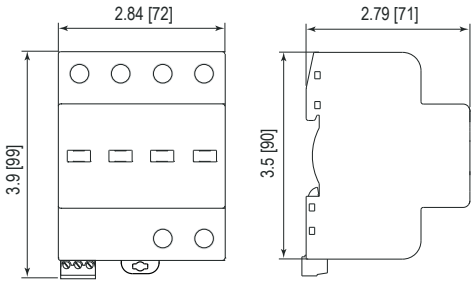
Internal Configuration

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 Disconnector*



Complete Unit



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

inches
[mm]

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RoHS COMPLIANT

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