

Compact Multi-pole SPD SafeBloc B(R) 100 (3+1) TCG

Class I • Class II • Type 1 • Type 2

25 kA Series



Location of Use: Main Distribution Boards
 Network Systems: TT
 Mode of Protection: L-N, N-PE
 Surge Ratings: $I_{imp} = 25 \text{ kA}/100 \text{ kA}$ (10/350 μs)
 $I_n = 25 \text{ kA}/100 \text{ kA}$ (8/20 μs)
 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) 100/xxx (3+1) TCG

275

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 μs)	(L-N)/(N-PE) I_n	25 kA/100 kA
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}	100 kA/100 kA
Impulse Discharge Current (10/350 μs)	(L-N)/(N-PE) I_{imp}	25 kA/100 kA
Total Discharge Current (10/350 μs)	I_{total}	100 kA
Specific Energy	(L-N)/(N-PE) W/R	156 kJ/ Ω /2.5 MJ/ Ω
Charge	(L-N)/(N-PE) Q	12.5 As/50 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 _{RMS}
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns
Back-Up Fuse (if mains > 250 A)		250 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA
TOV withstand 5s	(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 °C to +85 °C
Permissible Humidity	RH	5%...95%
Terminal Screw Torque	M_{max}	3.0 Nm
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)
Mounting		35 mm DIN Rail, EN 60715
Degree of Protection		IP 20
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	(L-N)/(N-PE)	Yes/No
Fault Indication		Red Flag/No
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/0.5 A; 125V/3 A
RC Terminal Cross Section (max)		1.5 mm ²
RC Terminal Screw Torque	M_{max}	0.25 Nm

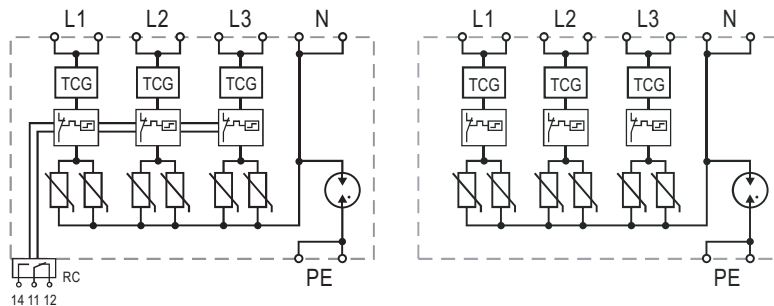
Order Information

Order Code	275
SAFELOC B 100/xxx (3+1) TCG	54.0570
SAFELOC BR 100/xxx (3+1) TCG (with remote contacts)	54.0571

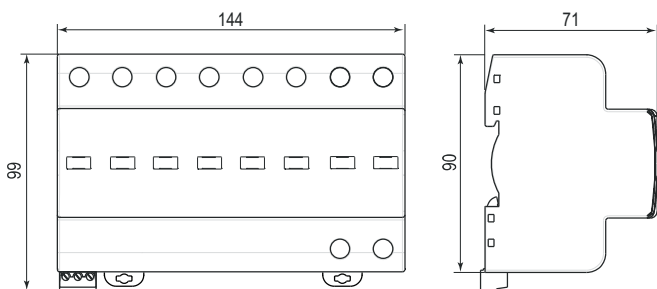
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- RC Remote Contacts Optional
- TCG Thermal Control Function with No Leakage



Dimensions & Packaging [mm]



Dimensions & Packaging	
SafeBloc B 100/xxx (3+1) TCG	275
Single Unit Weight	1135g
Single Unit DIN 43880 Dimension	8 TE
Packaging Dimensions (H×W×L)	109 × 77 × 148mm
Minimum Order Quantity	2 Units
SafeBloc B(R) 100/xxx (3+1) TCG	275
Single Unit Weight	1150g
Single Unit DIN 43880 Dimension	8 TE
Packaging Dimensions (H×W×L)	109 × 77 × 148mm
Minimum Order Quantity	2 Units

Applicable connection configurations can be found on page 55.