

Compact Multi-pole SPD
SafeBloc B(R) 50 (3+1) TCG
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TT
 Mode of Protection: L-N, N-PE
 Surge Ratings: $I_{imp} = 12.5 \text{ kA} / 50 \text{ kA} (10/350 \mu\text{s})$
 $I_n = 20 \text{ kA} / 50 \text{ kA} (8/20 \mu\text{s})$
 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) 50/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 | 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} | 50 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 | < 1.5 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 / 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) |
| | | 35mm ² (Solid, Stranded) / 25mm ² (Flexible) |
| 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 | (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] |

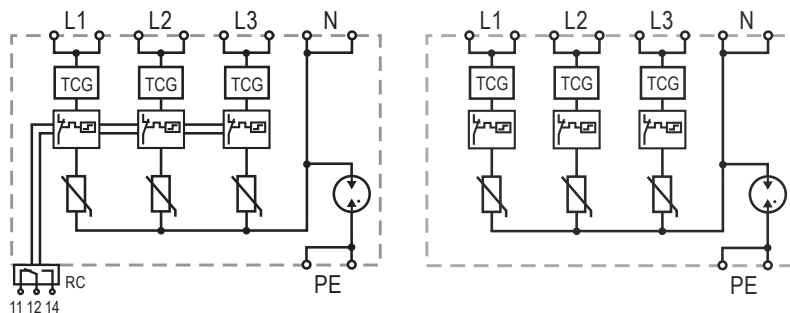
Order Information

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

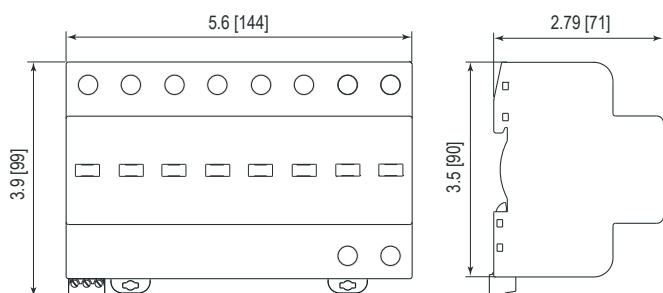
Internal Configuration

Legend

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



Dimensions & Packaging [mm]



Dimensions & Packaging

| SafeBloc B 50/xxx (3+1) TCG | | 275 |
|---------------------------------|----------------|------------------------------------|
| Single Unit Weight | pounds [grams] | 1.984 [900] |
| Single Unit DIN 43880 Dimension | | 8 TE |
| Packaging Dimensions (H×W×L) | | 4.2 × 3 × 5.8" [109 × 77 × 148 mm] |
| Minimum Order Quantity | | 2 Units |
| SafeBloc BR 50/xxx (3+1) TCG | | 275 |
| Single Unit Weight | pounds [grams] | 2.006 [910] |
| Single Unit DIN 43880 Dimension | | 8 TE |
| Packaging Dimensions (H×W×L) | | 4.2 × 3 × 5.8" [109 × 77 × 148 mm] |
| Minimum Order Quantity | | 2 Units |

inches
[mm]

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

