

Compact Single Pole SPD for Wind Turbine Systems
SafeBloc B(R) 12.5 (1+0) WT TCG
 Class I • Class II • Type 1 • Type 2

12.5 kA Series



Location of Use: Main Distribution Boards
 Network Systems: TN-S, TN-C, TT (only L-N)
 Mode of Protection: L-PE, N-PE, L-PEN, L-N
 Surge Ratings: $I_{imp} = 12.5 \text{ kA (10/350}\mu\text{s)}$
 $I_n = 12.5 \text{ kA (8/20}\mu\text{s)}$
 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) 12.5/xxx (1+0) WT TCG

750

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	600V
Maximum Continuous Operating Voltage (AC)	U_c	750V
Nominal Discharge Current (8/20 μs)	I_n	12.5 kA
Maximum Discharge Current (8/20 μs)	I_{max}	40 kA
Impulse Discharge Current (10/350 μs)	I_{imp}	12.5 kA
Specific Energy	W/R	39 kJ/ Ω
Charge	Q	6.25 As
Voltage Protection Level	U_p	< 2.6 kV
Response Time	t_A	< 25 ns
Back-Up Fuse (if mains > 250 A)		250 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA
TOV withstand 5s	U_T	1000V
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		Yes
Fault Indication		Red Flag
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

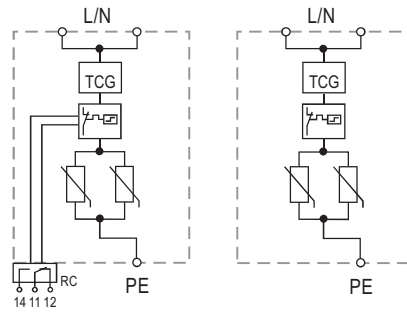
Order Information

Order Code	750
SAFELOC B 12.5/xxx WT TCG	54.0590
SAFELOC BR 12.5/xxx WT TCG (with remote contacts)	54.0591

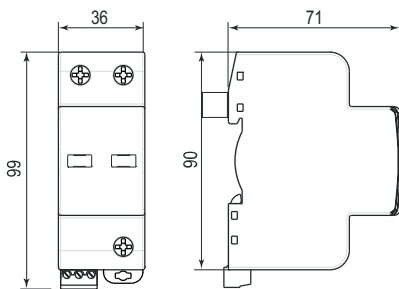
Internal Configuration

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 12.5/xxx (1+0) WT TCG	750
Single Unit Weight	435 g
Single Unit DIN 43880 Dimension	2 TE
Packaging Dimensions (H x W x L)	109 x 77 x 42 mm
Minimum Order Quantity	7 Units
SafeBloc BR 12.5/xxx (1+0) WT TCG	750
Single Unit Weight	440 g
Single Unit DIN 43880 Dimension	2 TE
Packaging Dimensions (H x W x L)	109 x 77 x 42 mm
Minimum Order Quantity	7 Units

Applicable connection configurations can be found on page 58.

