

# Compact Single Pole SPD for Wind Turbine Systems

**25kA Series**

## SafeBloc B(R) 25 (1+0) WT TCG

**Class I • Class II • Type 1 • Type 2**



**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:**  $I_{imp} = 25 \text{ kA}$  (10/350 $\mu\text{s}$ )  
 $I_n = 25 \text{ kA}$  (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) 25/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 $\mu\text{s}$ )	$I_n$	25 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	80 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	25 kA
Specific Energy	W/R	156 kJ/ $\Omega$
Charge	Q	12.5 As
Voltage Protection Level	$U_p$	< 3.0 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 <sup>2</sup> (solid) / 25 mm <sup>2</sup> (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/0.5A; 125V/3A
RC Terminal Cross Section (max)		1.5 mm <sup>2</sup>
RC Terminal Screw Torque	$M_{max}$	0.25 Nm

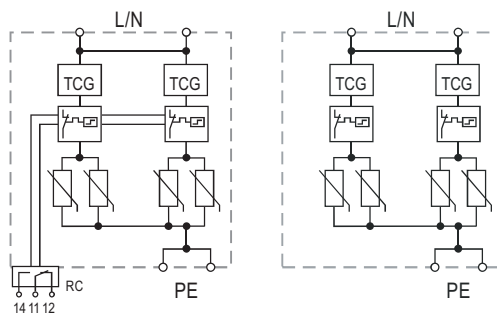
#### Order Information

Order Code		<b>750</b>
SAFELOC B 25/xxx (1+0) WT TCG		54.0594
SAFELOC BR 25/xxx (1+0) WT TCG (with remote contacts)		54.0595

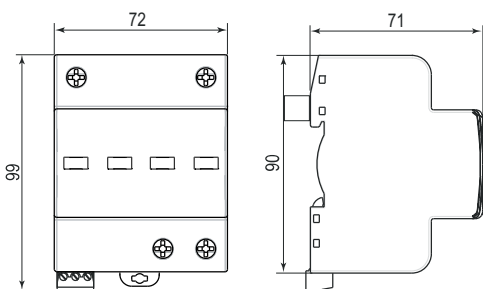
Internal Configuration

Legend

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



Dimensions & Packaging [mm]



Dimensions & Packaging	
<b>SafeBloc B 25/xxx (1+0) WT TCG</b>	<b>750</b>
Single Unit Weight	800 g
Single Unit DIN 43880 Dimension	4 TE
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm
Minimum Order Quantity	3 Units
<b>SafeBloc BR 25/xxx (1+0) WT TCG</b>	<b>750</b>
Single Unit Weight	810 g
Single Unit DIN 43880 Dimension	4 TE
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm
Minimum Order Quantity	3 Units

Applicable connection configurations can be found on page 58.

