

Lightning and Overvoltage Protection
SafeBloc B(R) 50/440 (1+1)
 Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: 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) 50/xxx (1+1)

440

IEC Electrical

Nominal AC Voltage (50/60 Hz)	U_o / U_n	400V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	440V
	(N-PE) U_c	440V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_n	25 kA / 100 kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	100 kA / 100 kA
Impulse Discharge Current (10/350 μ s)	(L-N)/(N-PE) I_{imp}	25 kA / 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	< 2.5 kV / < 2.5 kV
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A _{RMS}
Response Time	t_A	< 100 ns
Overcurrent Protection (max)		250 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA
TOV Withstand 120min	(L-N) U_T	762V
TOV withstand 200ms	(N-PE) U_T	1200V / 300A
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 (built-in)
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]

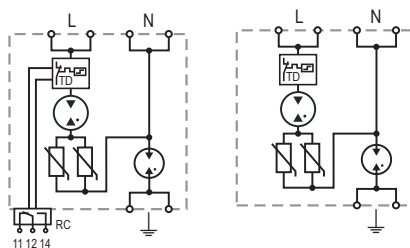
Order Information

Order Code	440
SafeBloc B 50/xxx (1+1)	54.0566
SafeBloc BR 50/xxx (1+1) (with remote contacts)	54.0567

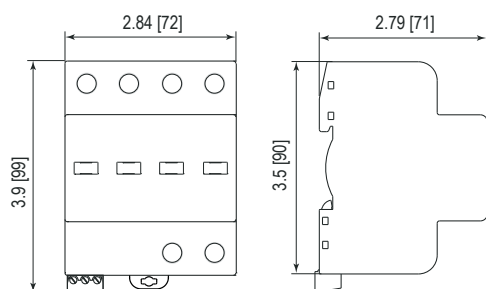
Internal Configuration

Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⏏ PE Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



Complete Unit



Single Unit Dimensions & Packaging

SafeBloc B 50/xxx (1+1)		440
Weight	pounds [grams]	1.089 [494]
DIN 43880 Dimension		4 TE / 2.84" [72]
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]
Standard Order Quantity		3 Units
SafeBloc B(R) 50/xxx (1+1)		440
Weight	pounds [grams]	1.135 [515]
DIN 43880 Dimension		4 TE / 2.84" [72]
Packaging Dimensions (H x W x L)		3.1 x 4.4 x 11.7" [79 x 112 x 298 mm]
Standard Order Quantity		3 Units

inches
[mm]

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

