

# Lightning and Overvoltage Protection

## ProBloc B(R) 50 (2+0)

### Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S  
 Mode of Protection: L - PE, N - PE  
 IEC/EN Category: Class I+II / Type 1+2  
 Housing: Compact Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

### ProBloc B(R) 50/xxx (2+0)

|                                            |             | 150      | 275*             | 320*     |
|--------------------------------------------|-------------|----------|------------------|----------|
| <b>IEC Electrical</b>                      |             |          |                  |          |
| Nominal AC Voltage (50/60 Hz)              | $U_o$       | 120V     | 230V             | 230V     |
| Maximum Continuous Operating Voltage (AC)  | $U_c$       | 150V     | 275V             | 320V     |
| Nominal Discharge Current (8/20 $\mu$ s)   | $I_n$       |          | 25 kA            |          |
| Maximum Discharge Current (8/20 $\mu$ s)   | $I_{max}$   |          | 100 kA           |          |
| Impulse Discharge Current (10/350 $\mu$ s) | $I_{imp}$   |          | 25 kA            |          |
| Total Discharge Current (10/350 $\mu$ s)   | $I_{total}$ |          | 50 kA            |          |
| Specific Energy                            | W/R         |          | 156 kJ/ $\Omega$ |          |
| Charge                                     | Q           |          | 12.5 As          |          |
| Voltage Protection Level                   | $U_p$       | < 1.0 kV | < 1.5 kV         | < 1.5 kV |
| Response Time                              | $t_A$       |          | < 25 ns          |          |
| Overcurrent Protection (max)               |             |          | 250 A gG         |          |
| Short-Circuit Current Rating (AC)          | $I_{SCCR}$  |          | 50 kA            |          |
| TOV Withstand 5s                           | $U_T$       | 174V     | 334V             | 334V     |
| TOV Safe Fail 120min                       | $U_T$       | 229V     | 438V             | 438V     |
| 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)<br>35mm <sup>2</sup> (Solid, Stranded) / 25mm <sup>2</sup> (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              |           | 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) |           | 1.5mm <sup>2</sup> (Solid) / 16 AWG (Solid)                                                                      |  |  |
| RC Terminal Screw Torque        | $M_{max}$ | 2.2 lbf-in [0.25 Nm]                                                                                             |  |  |

### Order Information

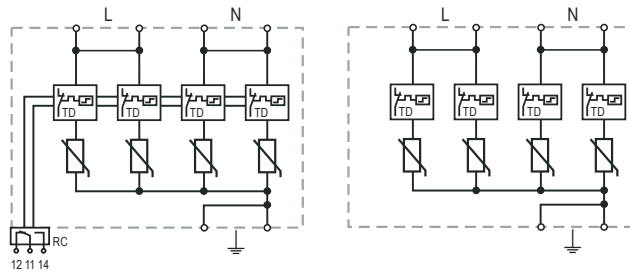
| Order Code                                     | 150     | 275*    | 320*    |
|------------------------------------------------|---------|---------|---------|
| ProBloc B 50/xxx (2+0)                         | 56.0572 | 56.0574 | 56.0576 |
| ProBloc BR 50/xxx (2+0) (with remote contacts) | 56.0573 | 56.0575 | 56.0577 |

\*OVE Certified

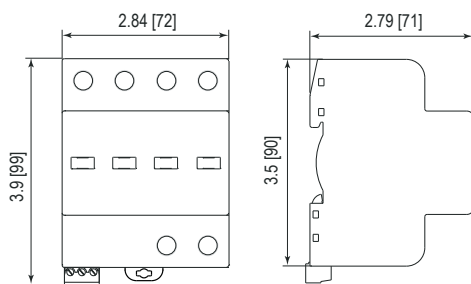
## Internal Configuration

## Legend

|                                                                                   |                                     |
|-----------------------------------------------------------------------------------|-------------------------------------|
| <i>L</i>                                                                          | Line Conductor Terminal             |
| <i>N</i>                                                                          | Neutral Conductor Terminal          |
|  | PE Conductor Terminal               |
| <i>RC</i>                                                                         | Remote Contacts Terminal (Optional) |
| <i>TD</i>                                                                         | Thermal Disconnect                  |



## Complete Unit



## Single Unit Dimensions &amp; Packaging

| <b>ProBloc B 50/xxx (2+0)</b>    |        | <b>150</b>                            | <b>275*</b> | <b>320*</b> |
|----------------------------------|--------|---------------------------------------|-------------|-------------|
| Weight                           | pounds | 1.014                                 | 1.234       | 1.234       |
|                                  | grams  | 460                                   | 560         | 560         |
| 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                               |             |             |
| <b>ProBloc BR 50/xxx (2+0)</b>   |        | <b>150</b>                            | <b>275*</b> | <b>320*</b> |
| Weight                           | pounds | 1.036                                 | 1.256       | 1.256       |
|                                  | grams  | 470                                   | 570         | 570         |
| 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.

