

# RTBN Rail Transient Barrier



## FEATURES

Surge module easily snaps into place

Mechanical flag will protrude to indicate the module needs to be replaced

Thermal disconnect releases the indicator when the device reaches end-of-life, disconnecting itself from the circuit to prevent it from becoming a short or shunt

Surge module attaches to the base with a latching mechanism that easily locks the device into place, preventing the module from disconnecting during service

Integration of GDT (gas discharge tube) technology and MOV (metal oxide varistors), a combination that delivers consistency and the capability to protect against fast spikes

Screw-less cage clamp terminal allows for easy connection, solid or stranded wires are simply pushed in to lock into place, reducing installation time by as much as 75%

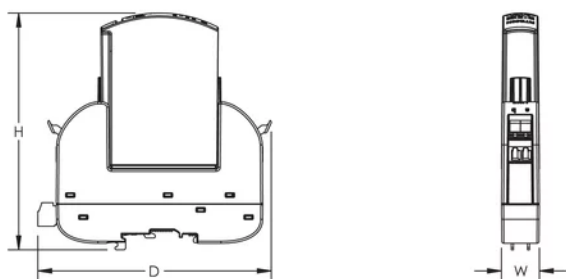
DIN rail grounding connection eliminates the need for extra grounding wires

## SPECIFICATIONS

| Catalog Number                        | RTB12N            | RTB130N            | RTB30N            | RTB50N            |
|---------------------------------------|-------------------|--------------------|-------------------|-------------------|
| Nominal System Voltage (Un)           | 12 VDC<br>9 VAC   | 130 VDC<br>110 VAC | 30 VDC<br>21 VAC  | 50 VDC<br>35 VAC  |
| Max Continuous Operating Voltage (Uc) | 18 VDC<br>12 VAC  | 170 VDC<br>130 VAC | 33 VDC<br>23 VAC  | 65 VDC<br>50 VAC  |
| Max Discharge Current (Imax)          | 40kA 8/20 $\mu$ s | 40kA 8/20 $\mu$ s  | 40kA 8/20 $\mu$ s | 40kA 8/20 $\mu$ s |
| Rated Load Current (IL)               | 15A               | 15A                | 15A               | 15A               |

| Catalog Number                  | RTB12N                                                                                                      | RTB130N                                                                                                     | RTB30N                                                                                                      | RTB50N                                                                                                      |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Voltage Protection Rating (VPR) | 65 V @ 3 kA L-L<br>245 V @ 3 kA L+L-PE                                                                      | 530 V @ 3 kA L-L<br>495 V @ 3 kA L+L-PE                                                                     | 105 V @ 3 kA L-L<br>245 V @ 3 kA L+L-PE                                                                     | 230 V @ 3 kA L-L<br>245 V @ 3 kA L+L-PE                                                                     |
| Loop Resistance                 | 900 $\mu\Omega$                                                                                             | 900 $\mu\Omega$                                                                                             | 900 $\mu\Omega$                                                                                             | 900 $\mu\Omega$                                                                                             |
| Mounting                        | 35 mm top hat DIN rail<br>G type DIN rail                                                                   | 35 mm top hat DIN rail<br>G type DIN rail                                                                   | 35 mm top hat DIN rail<br>G type DIN rail                                                                   | 35 mm top hat DIN rail<br>G type DIN rail                                                                   |
| Protection Modes                | L-L<br>L+L-PE                                                                                               | L-L<br>L+L-PE                                                                                               | L-L<br>L+L-PE                                                                                               | L-L<br>L+L-PE                                                                                               |
| Status Indication               | Mechanical flag<br>Remote Contacts                                                                          | Mechanical flag<br>Remote Contacts                                                                          | Mechanical flag<br>Remote Contacts                                                                          | Mechanical flag<br>Remote Contacts                                                                          |
| Connection, Solid               | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  |
| Connection, Stranded            | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  | 0.75 - 2.5 mm <sup>2</sup>                                                                                  |
| Enclosure Material              | UL® 94V-0<br>Thermoplastic                                                                                  | UL® 94V-0<br>Thermoplastic                                                                                  | UL® 94V-0<br>Thermoplastic                                                                                  | UL® 94V-0<br>Thermoplastic                                                                                  |
| Enclosure Rating                | IP 20                                                                                                       | IP 20                                                                                                       | IP 20                                                                                                       | IP 20                                                                                                       |
| Temperature                     | -40 to 85 °C                                                                                                | -40 to 85 °C                                                                                                | -40 to 85 °C                                                                                                | -40 to 85 °C                                                                                                |
| Depth (D)                       | 107mm                                                                                                       | 107mm                                                                                                       | 107mm                                                                                                       | 107mm                                                                                                       |
| Height (H)                      | 109 mm                                                                                                      | 109 mm                                                                                                      | 109 mm                                                                                                      | 109 mm                                                                                                      |
| Width (W)                       | 18 mm                                                                                                       | 18 mm                                                                                                       | 18 mm                                                                                                       | 18 mm                                                                                                       |
| Unit Weight                     | 0.1 kg                                                                                                      | 0.1 kg                                                                                                      | 0.1 kg                                                                                                      | 0.1 kg                                                                                                      |
| Complies With                   | AREMA® C&S Manual<br>Parts 11.5.1, 11.3.2,<br>14.1.2<br>ANSI®/IEEE®<br>C62.41.2-2002 Cat A,<br>Cat B, Cat C | AREMA® C&S Manual<br>Parts 11.5.1, 11.3.2,<br>14.1.2<br>ANSI®/IEEE®<br>C62.41.2-2002 Cat A,<br>Cat B, Cat C | AREMA® C&S Manual<br>Parts 11.5.1, 11.3.2,<br>14.1.2<br>ANSI®/IEEE®<br>C62.41.2-2002 Cat A,<br>Cat B, Cat C | AREMA® C&S Manual<br>Parts 11.5.1, 11.3.2,<br>14.1.2<br>ANSI®/IEEE®<br>C62.41.2-2002 Cat A,<br>Cat B, Cat C |
| Color                           | Red                                                                                                         | Yellow                                                                                                      | Black                                                                                                       | Purple                                                                                                      |
| Replacement Module              | RTBN12M                                                                                                     | RTBN130M                                                                                                    | RTBN30M                                                                                                     | RTBN50M                                                                                                     |

## DIAGRAMS



**WARNING**

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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