

# DT1 DIN Rail Surge Protection Class I+II 12.5 kA, 1+1 Mode



## CERTIFICATIONS



## FEATURES

Compact, yet high surge rated pluggable design, using minimum DIN rail width

External back-up fuse is not required up to 315 A (IEC only)

Retaining clip ensures enhanced vibration and shock resistance performance

Red/Green status indication and change-over contacts standard for remote monitoring

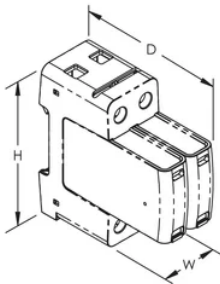
## SPECIFICATIONS

| Catalog Number                            | DT17511R               | DT130011R               |
|-------------------------------------------|------------------------|-------------------------|
| Nominal System Voltage (Un)               | 60 V                   | 240 V                   |
| Max Continuous Operating Voltage (Uc)     | 305 V N-PE<br>75 V L-N | 300 V L-N<br>305 V N-PE |
| Nominal Discharge Current (In), IEC, L-N  | 20kA 8/20 $\mu$ s      | 20kA 8/20 $\mu$ s       |
| Nominal Discharge Current (In), IEC, N-PE | 50kA 8/20 $\mu$ s      | 50kA 8/20 $\mu$ s       |

| Catalog Number                                                  | DT17511R                       | DT130011R                      |
|-----------------------------------------------------------------|--------------------------------|--------------------------------|
| Max Discharge Current (I <sub>max</sub> ), IEC, L-N             | 50kA 8/20 µs                   | 50kA 8/20 µs                   |
| Max Discharge Current (I <sub>max</sub> ), IEC, N-PE            | 100kA 8/20 µs                  | 100kA 8/20 µs                  |
| Impulse Current (I <sub>imp</sub> ), L-N                        | 12.5kA 10/350 µs               | 12.5kA 10/350 µs               |
| Impulse Current (I <sub>imp</sub> ), N-PE                       | 50kA 10/350 µs                 | 50kA 10/350 µs                 |
| Voltage Protection Level (Up), L-N                              | 700V                           | 1400V                          |
| Voltage Protection Level (Up), N-PE                             | 1500V                          | 1500V                          |
| Back-Up Fuse @ I <sub>sc</sub> cr                               | 250 A @ 50 kA<br>315 A @ 25 kA | 250 A @ 50 kA<br>315 A @ 25 kA |
| Frequency                                                       | 50 - 60 Hz                     | 50 - 60 Hz                     |
| Response Time, L-N                                              | 25 ns Max                      | 25 ns Max                      |
| Response Time, N-PE                                             | 100 ns Max                     | 100 ns Max                     |
| Short Circuit Current Rating (I <sub>sc</sub> cr)               | 25kA<br>50kA                   | 25kA<br>50kA                   |
| Protection Modes                                                | L-N<br>N-PE                    | L-N<br>N-PE                    |
| Temporary Over Voltage 120 min (U <sub>t</sub> /mode), L-N      | 114 V Withstand                | 442 V Safe Fail                |
| Temporary Over Voltage Withstand 200 ms (U <sub>t</sub> ), N-PE | 1200V                          | 1200V                          |
| Temporary Over Voltage Withstand 5 s (U <sub>t</sub> ), L-N     | 114V                           | 337V                           |
| Nominal Discharge Current (I <sub>n</sub> ), UL                 | 20kA 8/20 µs                   | 20kA 8/20 µs                   |
| Replacement Module                                              | DT175M                         | DT1300M<br>SGT150M             |
| Voltage Protection Rating (VPR), L-N                            | 330V                           | 900V                           |
| Voltage Protection Rating (VPR), N-PE                           | 1500V                          | 1500V                          |
| Short Circuit Current Rating (SCCR)                             | 100kA                          | 150kA                          |
| Technology                                                      | Thermal Disconnect             | Thermal Disconnect             |
| Connection, Solid                                               | 35 mm <sup>2</sup> Max         | 35 mm <sup>2</sup> Max         |
| Connection, Stranded                                            | 25 mm <sup>2</sup> Max         | 25 mm <sup>2</sup> Max         |
| Torque (TQ)                                                     | 4.5 N·m                        | 4.5 N·m                        |
| Humidity                                                        | 5 - 95                         | 5 - 95                         |
| Temperature                                                     | -35 to 85 °C                   | -35 to 85 °C                   |
| Enclosure Material                                              | UL® 94V-0 Thermoplastic        | UL® 94V-0 Thermoplastic        |
| Enclosure Rating                                                | IP 20                          | IP 20                          |
| Mounting                                                        | 35 mm top hat DIN rail         | 35 mm top hat DIN rail         |

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|-----------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Remote Contact Switching Capacity | 1 A @ 250 VAC<br>1 A @ 125 VAC<br>0.5 A @ 48 VDC<br>0.5 A @ 24 VDC<br>0.5 A @ 12 VDC | 1 A @ 250 VAC<br>1 A @ 125 VAC<br>0.5 A @ 48 VDC<br>0.5 A @ 24 VDC<br>0.5 A @ 12 VDC |
| Remote Contacts                   | Yes                                                                                  | Yes                                                                                  |
| Status Indication                 | Mechanical flag                                                                      | Mechanical flag                                                                      |
| Depth (D)                         | 92mm                                                                                 | 92mm                                                                                 |
| Height (H)                        | 90 mm                                                                                | 90 mm                                                                                |
| Width (W)                         | 36 mm                                                                                | 36 mm                                                                                |
| Unit Weight                       | 0.32 kg                                                                              | 0.34 kg                                                                              |
| Certification Details             | UL® 1449 Edition 5 Type 1CA                                                          | UL® 1449 Edition 5 Type 1CA                                                          |
| Complies With                     | EN 61643-11 Type 1, Type 2<br>IEC® 61643-11 Class I, Class II                        | EN 61643-11 Type 1, Type 2<br>IEC® 61643-11 Class I, Class II                        |

## 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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