

# DT2 DIN Rail Surge Protection Class II, 1+0 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

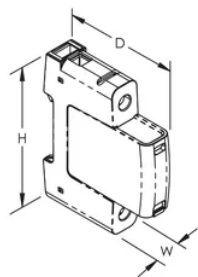
## SPECIFICATIONS

| Catalog Number                        | DT27510R | DT215010R | DT230010R | DT235010R | DT255010R | DT275010R |
|---------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|
| Nominal System Voltage (Un)           | 60 V     | 120 V     | 240 V     | 277 V     | 480 V     | 600 V     |
| Max Continuous Operating Voltage (Uc) | 75 V     | 150 V     | 300 V     | 350 V     | 550 V     | 750 V     |

| CatalogNumber                             | DT27510R                       | DT215010R                      | DT230010R                      | DT235010R                      | DT255010R                           | DT275010R                      |
|-------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------|--------------------------------|
| Nominal Discharge Current (In), IEC       | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                        | 20kA 8/20 µs                   |
| Max Discharge Current (Imax), IEC         | 50kA 8/20 µs                   | 50kA 8/20 µs                   | 50kA 8/20 µs                   | 50kA 8/20 µs                   | 50kA 8/20 µs                        | 35kA 8/20 µs                   |
| Voltage Protection Level (Up)             | 800V                           | 1250V                          | 1500V                          | 1750V                          | 2500V                               | 3400V                          |
| Back-Up Fuse @ Isccr                      | 250 A @ 50 kA<br>315 A @ 25 kA | 250 A @ 50 kA<br>315 A @ 25 kA | 250 A @ 50 kA<br>315 A @ 25 kA | 250 A @ 50 kA<br>315 A @ 25 kA | 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                     | 50 - 60 Hz                     | 50 - 60 Hz                     | 50 - 60 Hz                          | 50 - 60 Hz                     |
| Response Time                             | 25 ns Max                      | 25 ns Max                      | 25 ns Max                      | 25 ns Max                      | 25 ns Max                           | 25 ns Max                      |
| Protection Modes                          | L-PE<br>N-PE<br>L-N<br>L-PEN   | L-PE<br>N-PE<br>L-N<br>L-PEN   | L-PE<br>N-PE<br>L-N<br>L-PEN   | L-PE<br>N-PE<br>L-N<br>L-PEN   | L-PE<br>N-PE (TN-S)<br>L-PEN<br>L-N | L-N<br>L-PE<br>L-PEN<br>N-PE   |
| Short Circuit Current Rating (Isccr)      | 25kA<br>50kA                   | 25kA<br>50kA                   | 25kA<br>50kA                   | 25kA<br>50kA                   | 25kA<br>50kA                        | 25kA<br>50kA                   |
| Temporary Over Voltage 120 min (Ut/mode)  | 114 V Withstand                | 229 V Safe Fail                | 442 V Safe Fail                | 529 V Safe Fail                | 915 V Safe Fail                     | 1143 V Safe Fail               |
| Temporary Over Voltage Withstand 5 s (Ut) | 114V                           | 229V                           | 337V                           | 403V                           | 697V                                | 871V                           |
| Nominal Discharge Current (In), UL        | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                   | 20kA 8/20 µs                        | 20kA 8/20 µs                   |
| Short Circuit Current Rating (SCCR)       | 100kA                          | 200kA                          | 150kA                          | 200kA                          | 200kA                               | 200kA                          |
| Voltage Protection Rating (VPR)           | 330V                           | 700V                           | 900V                           | 1000V                          | 2000V                               | 2500V                          |
| Technology                                | Thermal Disconnect             | Thermal Disconnect             | Thermal Disconnect             | Thermal Disconnect             | Thermal Disconnect                  | Thermal Disconnect             |
| Connection, Solid                         | 35 mm² Max                     | 35 mm² Max                     | 35 mm² Max                     | 35 mm² Max                     | 35 mm² Max                          | 35 mm² Max                     |
| Connection, Stranded                      | 25 mm² Max                     | 25 mm² Max                     | 25 mm² Max                     | 25 mm² Max                     | 25 mm² Max                          | 25 mm² Max                     |

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|-----------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Torque (TQ)                       | 4.5 N·m                                                                              | 4.5 N·m                                                                              | 4.5 N·m                                                                              | 4.5 N·m                                                                              | 4.5 N·m                                                                        | 4.5 N·m                                                                              |
| Humidity                          | 5 - 95                                                                               | 5 - 95                                                                               | 5 - 95                                                                               | 5 - 95                                                                               | 5 - 95                                                                         | 5 - 95                                                                               |
| Temperature                       | -35 to 85 °C                                                                         | -35 to 85 °C                                                                         | -35 to 85 °C                                                                         | -35 to 85 °C                                                                         | -35 to 85 °C                                                                   | -35 to 85 °C                                                                         |
| Enclosure Material                | UL® 94V-0 Thermoplastic                                                              | UL® 94V-0 Thermoplastic                                                              | UL® 94V-0 Thermoplastic                                                              | UL® 94V-0 Thermoplastic                                                              | UL® 94V-0 Thermoplastic                                                        | UL® 94V-0 Thermoplastic                                                              |
| Enclosure Rating                  | IP 20                                                                                | IP 20                                                                                | IP 20                                                                                | IP 20                                                                                | IP 20                                                                          | IP 20                                                                                |
| Mounting                          | 35 mm top hat DIN rail                                                               | 35 mm top hat DIN rail                                                               | 35 mm top hat DIN rail                                                               | 35 mm top hat DIN rail                                                               | 35 mm DIN Rail, EN 60715                                                       | 35 mm top hat DIN rail                                                               |
| 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 | 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 | 1 A @ 250 VAC<br>1 A @ 125 V<br>0.5 A @ 48 VDC<br>0.5 A @ 24 V<br>0.5 A @ 12 V | 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                                                                                  | Yes                                                                                  | Yes                                                                                  | Yes                                                                            | Yes                                                                                  |
| Status Indication                 | Mechanical flag                                                                      | Mechanical flag                                                                      | Mechanical flag                                                                      | Mechanical flag                                                                      | Mechanical flag                                                                | Mechanical flag                                                                      |
| Depth (D)                         | 69mm                                                                                 | 69mm                                                                                 | 69mm                                                                                 | 69mm                                                                                 | 69mm                                                                           | 69mm                                                                                 |
| Height (H)                        | 90 mm                                                                                | 90 mm                                                                                | 90 mm                                                                                | 90 mm                                                                                | 90 mm                                                                          | 90 mm                                                                                |
| Width (W)                         | 18 mm                                                                                | 18 mm                                                                                | 18 mm                                                                                | 18 mm                                                                                | 18 mm                                                                          | 18 mm                                                                                |
| Unit Weight                       | 0.12 kg                                                                              | 0.13 kg                                                                              | 0.14 kg                                                                              | 0.14 kg                                                                              | 0.15 kg                                                                        | 0.16 kg                                                                              |
| Certification Details             | UL® 1449 Edition 5 Type 1CA                                                          | UL® 1449 Edition 5 Type 1CA                                                          | UL® 1449 Edition 5 Type 1CA                                                          | UL® 1449 Edition 5 Type 1CA                                                          | UL® 1449 Edition 5 Type 1CA                                                    | UL® 1449 Edition 5 Type 1CA                                                          |
| Complies With                     | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                         | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                         | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                         | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                         | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                   | EN 61643-11 Type 2<br>IEC® 61643-11 Class II                                         |
| Replacement Module                | DT275M                                                                               | DT2150M                                                                              | DT2300M                                                                              | DT2350M                                                                              | DT2550M                                                                        | DT2750M                                                                              |

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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