

# Modular TDX Panel Protector, 300 kA



## CERTIFICATIONS



## FEATURES

Transient Discriminating (TD) Technology provides increased service life

Modular design allows easy replacement of surge modules

Built-in features include TD Technology, thermal protection, short circuit current cartridge fusing and a surge counter

Status indication flag per mode, voltage presence LEDs, audible alarm and voltage-free contacts providing remote status monitoring

300 kA 8/20  $\mu$ s maximum surge rating provides protection suitable for service entrance, main-distribution panels and highly exposed applications

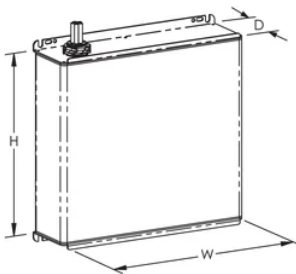
## SPECIFICATIONS

| Catalog Number                        | TDX300S120/240 | TDX300S120/208 | TDX300S277/480 | TDX300S277/480T                   |
|---------------------------------------|----------------|----------------|----------------|-----------------------------------|
| Nominal System Voltage (Un)           | 120/240 V      | 120/208 V      | 277/480 V      | 277/480 V                         |
| Distribution System                   | 1Ph 3W+G       | 3Ph 4W+G       | 3Ph 4W+G       | 3Ph 4W+G (suitable for TT system) |
| Max Continuous Operating Voltage (Uc) | 170/276 VAC    | 170/276 VAC    | 320/550 VAC    | 320/550 VAC                       |

| Catalog Number                          | TDX300S120/240                                                                     | TDX300S120/208                                                                     | TDX300S277/480                                                                     | TDX300S277/480T                                                                    |
|-----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Stand-off Voltage                       | 240/480 V                                                                          | 240/415 V                                                                          | 480/831 V                                                                          | 480/831 V                                                                          |
| Frequency                               | 50 - 60 Hz                                                                         | 50 - 60 Hz                                                                         | 50 - 60 Hz                                                                         | 50 - 60 Hz                                                                         |
| Short Circuit Current Rating (SCCR)     | 200kA                                                                              | 200kA                                                                              | 200kA                                                                              | 200kA                                                                              |
| Nominal Discharge Current (In), IEC     | 40kA 8/20 $\mu$ s                                                                  | 40kA 8/20 $\mu$ s                                                                  | 40kA 8/20 $\mu$ s                                                                  | 40kA 8/20 $\mu$ s                                                                  |
| Nominal Discharge Current (In), UL      | 20kA 8/20 $\mu$ s                                                                  | 20kA 8/20 $\mu$ s                                                                  | 20kA 8/20 $\mu$ s                                                                  | 20kA 8/20 $\mu$ s                                                                  |
| Max Discharge Current (Imax), Per Phase | 300kA 8/20 $\mu$ s                                                                 | 300kA 8/20 $\mu$ s                                                                 | 300kA 8/20 $\mu$ s                                                                 | 300kA 8/20 $\mu$ s                                                                 |
| Impulse Current (Iimp), Per Mode        | 25kA 10/350 $\mu$ s                                                                | 25kA 10/350 $\mu$ s                                                                | 25kA 10/350 $\mu$ s                                                                | 25kA 10/350 $\mu$ s                                                                |
| Voltage Protection Rating (VPR), L-N    | 800 V @ 3 kA                                                                       | 800 V @ 3 kA                                                                       | 1200 V @ 3 kA                                                                      | 1200 V @ 3 kA                                                                      |
| Protection Modes                        | L-N<br>L-PE<br>N-PE                                                                | L-N<br>L-PE<br>N-PE                                                                | L-N<br>L-PE<br>N-PE                                                                | L-N<br>N-PE                                                                        |
| Status Indication                       | LED<br>Mechanical flag<br>Audible alarm                                            | LED<br>Mechanical flag<br>Audible alarm                                            | LED<br>Mechanical flag<br>Audible alarm                                            | LED<br>Mechanical flag<br>Audible alarm                                            |
| Surge Counter                           | Yes                                                                                | Yes                                                                                | Yes                                                                                | Yes                                                                                |
| Technology                              | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing |
| Remote Contacts                         | Yes                                                                                | Yes                                                                                | Yes                                                                                | Yes                                                                                |
| Lead Length                             | 762mm                                                                              | 762mm                                                                              | 762mm                                                                              | 762mm                                                                              |
| Lead Size                               | 5.26 mm <sup>2</sup>                                                               | 5.26 mm <sup>2</sup>                                                               | 5.26 mm <sup>2</sup>                                                               | 5.26 mm <sup>2</sup>                                                               |
| Ground Lead Length                      | 914mm                                                                              | 914mm                                                                              | 914mm                                                                              | 914mm                                                                              |
| Temperature                             | -40 to 80 °C                                                                       | -40 to 80 °C                                                                       | -40 to 80 °C                                                                       | -40 to 80 °C                                                                       |
| Enclosure Material                      | Metal                                                                              | Metal                                                                              | Metal                                                                              | Metal                                                                              |
| Enclosure Rating                        | IP 20<br>NEMA®-12/3R                                                               | IP 20<br>NEMA®-12/3R                                                               | IP 20<br>NEMA®-12/3R                                                               | IP 20<br>NEMA®-12/3R                                                               |
| Mounting                                | 3/4" straight nipple                                                               | 3/4" straight nipple                                                               | 3/4" straight nipple                                                               | 3/4" straight nipple                                                               |
| Depth (D)                               | 83mm                                                                               | 83mm                                                                               | 83mm                                                                               | 83mm                                                                               |
| Height (H)                              | 260 mm                                                                             | 260 mm                                                                             | 260 mm                                                                             | 260 mm                                                                             |
| Width (W)                               | 257 mm                                                                             | 257 mm                                                                             | 257 mm                                                                             | 257 mm                                                                             |
| Unit Weight                             | 5.9 kg                                                                             | 5.9 kg                                                                             | 5.9 kg                                                                             | 5.9 kg                                                                             |

| Catalog Number        | TDX300S120/240                                                                                                                      | TDX300S120/208                                                                                                                      | TDX300S277/480                                                                                                                      | TDX300S277/480T                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Certification Details | UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                                                                                          | UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                                                                                          | UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                                                                                          | UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                                                                                          |
| Complies With         | ANSI®/IEEE®<br>C62.41.2-2002<br>Scenario II, Exposure 3,<br>100 kA 8/20 µs, 10 kA<br>10/350 µs<br>IEC® 61643-1 Class I,<br>Class II | ANSI®/IEEE®<br>C62.41.2-2002<br>Scenario II, Exposure 3,<br>100 kA 8/20 µs, 10 kA<br>10/350 µs<br>IEC® 61643-1 Class I,<br>Class II | ANSI®/IEEE®<br>C62.41.2-2002<br>Scenario II, Exposure 3,<br>100 kA 8/20 µs, 10 kA<br>10/350 µs<br>IEC® 61643-1 Class I,<br>Class II | ANSI®/IEEE®<br>C62.41.2-2002<br>Scenario II, Exposure 3,<br>100 kA 8/20 µs, 10 kA<br>10/350 µs<br>IEC® 61643-1 Class I,<br>Class II |
| Replacement Module    | TDS150M150                                                                                                                          | TDS150M150                                                                                                                          | TDS150M277                                                                                                                          | TDS150M277<br>SGD125M                                                                                                               |

## 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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