

# Modular TDX Panel Protector, 100 kA with Surge Counter



## 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 and short circuit current fusing

Compact NEMA®-4 enclosure design can be flush mounted or installed in a small space

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

100 kA 8/20  $\mu$ s maximum surge rating provides protection suitable for main-distribution panels and an extended operational life



## SPECIFICATIONS

Table 1/2

| Catalog Number        | TDX100S120240D | TDX100S277480T | TDX100S347600 |
|-----------------------|----------------|----------------|---------------|
| Service Configuration | Delta          |                |               |

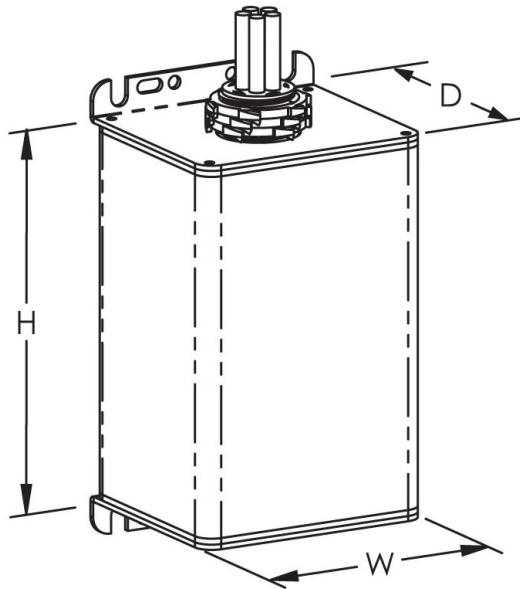
| Catalog Number                          | TDX100S120240D                                                                                       | TDX100S277480T                                                                                       | TDX100S347600                                                                                        |
|-----------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Nominal System Voltage (Un)             | 120/240 V                                                                                            | 277/480 V                                                                                            | 347/600 V                                                                                            |
| Distribution System                     | 3PhΔ 4W+G                                                                                            | 3Ph 4W+G (suitable for TT system)                                                                    | 3Ph 4W+G                                                                                             |
| Max Continuous Operating Voltage (Uc)   | 170/276 VAC                                                                                          | 320/550 VAC                                                                                          | 550/1100 VAC                                                                                         |
| Stand-off Voltage                       | 240/415 VAC                                                                                          | 480/831 VAC                                                                                          | 790/1370 VAC                                                                                         |
| Frequency                               | 50 - 60 Hz                                                                                           | 50 - 60 Hz                                                                                           | 50 - 60 Hz                                                                                           |
| Short Circuit Current Rating (SCCR)     | 200kA                                                                                                | 200kA                                                                                                | 200kA                                                                                                |
| Nominal Discharge Current (In), IEC     | 40kA 8/20 μs                                                                                         | 40kA 8/20 μs                                                                                         | 40kA 8/20 μs                                                                                         |
| Nominal Discharge Current (In), UL      | 20kA 8/20 μs                                                                                         | 20kA 8/20 μs                                                                                         | 20kA 8/20 μs                                                                                         |
| Max Discharge Current (Imax), Per Phase | 100kA 8/20 μs                                                                                        | 100kA 8/20 μs                                                                                        | 100kA 8/20 μs                                                                                        |
| Impulse Current (Iimp), Per Mode        | 12.5kA 10/350 μs                                                                                     | 12.5kA 10/350 μs                                                                                     | 12.5kA 10/350 μs                                                                                     |
| Voltage Protection Rating (VPR), L-L    |                                                                                                      | 25                                                                                                   |                                                                                                      |
| Voltage Protection Rating (VPR), L-N    | 600 V @ 3 kA<br>1200 V @ 20 kA                                                                       | 1200 V @ 3 kA<br>1800 V @ 20 kA                                                                      | 1800 V @ 3 kA<br>2600 V @ 20 kA                                                                      |
| Protection Modes                        | L-N<br>L-PE<br>N-PE                                                                                  | L-N<br>N-PE                                                                                          | L-N<br>L-PE<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                                                              |
| Surge Counter                           | Yes                                                                                                  | Yes                                                                                                  | Yes                                                                                                  |
| Technology                              | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing<br>EMI/RFI filter | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing<br>EMI/RFI filter | TD technology with thermal disconnect<br>Over-current replaceable cartridge fusing<br>EMI/RFI filter |
| Remote Contacts                         | Yes                                                                                                  | Yes                                                                                                  | Yes                                                                                                  |
| Lead Length                             | 762mm                                                                                                | 762mm                                                                                                | 762mm                                                                                                |

Table 2/2

| Catalog Number     | TDX100S120240D       | TDX100S277480T       | TDX100S347600        |
|--------------------|----------------------|----------------------|----------------------|
| Lead Size          | 5.26 mm <sup>2</sup> | 5.26 mm <sup>2</sup> | 5.26 mm <sup>2</sup> |
| Ground Lead Length | 914mm                | 914mm                | 914mm                |
| Temperature        | -40 to 80 °C         | -40 to 80 °C         | -40 to 80 °C         |

| Catalog Number        | TDX100S120240D                                                                                                                                                                    | TDX100S277480T                                                                                                                                                                    | TDX100S347600                                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enclosure Material    | Metal                                                                                                                                                                             | Metal                                                                                                                                                                             | Metal                                                                                                                                                                             |
| Enclosure Rating      | IP 65<br>NEMA®-4                                                                                                                                                                  | IP 65<br>NEMA®-4                                                                                                                                                                  | IP 65<br>NEMA®-4                                                                                                                                                                  |
| Mounting              | 3/4" straight nipple                                                                                                                                                              | 3/4" straight nipple                                                                                                                                                              | 3/4" straight nipple                                                                                                                                                              |
| Depth (D)             | 78mm                                                                                                                                                                              | 78mm                                                                                                                                                                              | 78mm                                                                                                                                                                              |
| Height (H)            | 240 mm                                                                                                                                                                            | 240 mm                                                                                                                                                                            | 240 mm                                                                                                                                                                            |
| Width (W)             | 84 mm                                                                                                                                                                             | 84 mm                                                                                                                                                                             | 84 mm                                                                                                                                                                             |
| Unit Weight           | 1.41 kg                                                                                                                                                                           | 1.41 kg                                                                                                                                                                           | 1.41 kg                                                                                                                                                                           |
| Certification Details | UL® 1449 Edition 5 Type 2,<br>20 kA Mode                                                                                                                                          | UL® 1449 Edition 5 Type 2,<br>20 kA Mode                                                                                                                                          | UL® 1449 Edition 5 Type 2,<br>20 kA Mode                                                                                                                                          |
| Complies With         | ANSI®/IEEE® C62.41.2-2002<br>Cat A, Cat B, Cat C<br>ANSI®/IEEE® C62.41.2-2002<br>Scenario II, Exposure 3, 100<br>kA 8/20 µs, 10 kA 10/350 µs<br>IEC® 61643-1 Class I, Class<br>II | ANSI®/IEEE® C62.41.2-2002<br>Cat A, Cat B, Cat C<br>ANSI®/IEEE® C62.41.2-2002<br>Scenario II, Exposure 3, 100<br>kA 8/20 µs, 10 kA 10/350 µs<br>IEC® 61643-1 Class I, Class<br>II | ANSI®/IEEE® C62.41.2-2002<br>Cat A, Cat B, Cat C<br>ANSI®/IEEE® C62.41.2-2002<br>Scenario II, Exposure 3, 100<br>kA 8/20 µs, 10 kA 10/350 µs<br>IEC® 61643-1 Class I, Class<br>II |
| Replacement Module    | TDS150M150<br>TDS150M240                                                                                                                                                          | TDS150M277<br>SGD125M                                                                                                                                                             | TDS150M560                                                                                                                                                                        |

## 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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