

# DT Panel Protector (F), 120 kA



The nVent ERICO DTX120 Series of Surge Protective Devices (SPD) features North American and Worldwide standards compliance and provides premium protection against damaging transients and surge currents, particularly in IEC Class I & Class II and UL Type 1 & Type 2 locations. The innovative design allows for installation on the line or load of the service panels and removes the need for circuit breakers (B Version Only). With a 120 kA per phase surge rating, DTX120 is well suited for category C locations. It is typically used in applications including service entrances, distribution, branch panels, MCC, lighting panels, HVAC, and more. The nVent ERICO DTX120 also features a NEMA®-4X enclosure rating, making it suitable for outdoor applications.

## CERTIFICATIONS



## FEATURES

Excellent clamping and low UL voltage protection ratings

Features relay alarming for power/phase loss and status of SPD health

Design allows for easy removal and replacement of surge modules via lever assist

RS-485 Interface Standard

Up to 53 dB attenuation (10 kHz to 100 MHz)

10 Year Warranty

## SPECIFICATIONS

| Catalog Number              | DTX120F12024 OSP | DTX120F12024 OHD | DTX120F208Y | DTX120F240D | DTX120F480D | DTX120F480Y |
|-----------------------------|------------------|------------------|-------------|-------------|-------------|-------------|
| Nominal System Voltage (Un) | 120/240 V        | 120/240 V        | 120/208 V   | 240 VAC     | 480 V       | 277/480 V   |

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|-----------------------------------------|----------------------|---------------------|---------------------|------------------|------------------|---------------------|
| Distribution System                     | 1Ph 3W+G             | 3PhΔ 4W+G           | 3Ph 4W+G            | 3PhΔ 3W+G        | 3PhΔ 3W+G        | 3Ph 4W+G            |
| Max Continuous Operating Voltage (Uc)   | 150/300 VAC          | 150/275 VAC         | 150/300 VAC         | 275 VAC          | 510 VAC          | 350/700 VAC         |
| Max Discharge Current (Imax), Per Phase | 120kA 8/20 μs        | 120kA 8/20 μs       | 120kA 8/20 μs       | 120kA 8/20 μs    | 120kA 8/20 μs    | 120kA 8/20 μs       |
| Impulse Current (Iimp), Per Mode        | 12.5kA 10/350 μs     | 12.5kA 10/350 μs    | 12.5kA 10/350 μs    | 12.5kA 10/350 μs | 12.5kA 10/350 μs | 12.5kA 10/350 μs    |
| Filtering                               | -29 dB @ 100 kHz     | -29 dB @ 100 kHz    | -29 dB @ 100 kHz    | -29 dB @ 100 kHz | -29 dB @ 100 kHz | -29 dB @ 100 kHz    |
| Frequency                               | 50 - 60 Hz           | 50 - 60 Hz          | 50 - 60 Hz          | 50 - 60 Hz       | 50 - 60 Hz       | 50 - 60 Hz          |
| Voltage Protection Rating (VPR), L-G    | 700V                 | 1200V               | 700V                | 1000V            | 1800V            | 1200V               |
| Voltage Protection Rating (VPR), L-L    | 1000V                | 1500V               | 1200V               | 1000V            | 1800V            | 2000V               |
| Voltage Protection Rating (VPR), L-N    | 700V                 | 800V                | 700V                |                  |                  | 1200V               |
| Voltage Protection Rating (VPR), N-G    | 700V                 | 1500V               | 600V                |                  |                  | 1200V               |
| Protection Modes                        | L-PE<br>L-PE<br>N-PE | L-N<br>L-PE<br>N-PE | L-N<br>L-PE<br>N-PE | L-PE             | L-PE             | L-N<br>L-PE<br>N-PE |
| Short Circuit Current Rating (SCCR)     | 200kA                | 200kA               | 200kA               | 200kA            | 200kA            | 200kA               |
| Nominal Discharge Current (In), IEC     | 40kA 8/20 μs         | 40kA 8/20 μs        | 40kA 8/20 μs        | 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        | 20kA 8/20 μs     | 20kA 8/20 μs     | 20kA 8/20 μs        |

| CatalogNumber                        | DTX120F12024<br>OSP                                                                                                            | DTX120F12024<br>OHD                                                                                                            | DTX120F208Y                                                                                                                    | DTX120F240D                                                                                                                    | DTX120F480D                                                                                                                    | DTX120F480Y                                                                                                                    |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Voltage Protection Level (Up), IEC   | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              | 1200 V @ 20 kA<br>3000 V @ 100 kA                                                                                              |
| Short Circuit Current Rating (Iscrr) | 50kA                                                                                                                           | 50kA                                                                                                                           | 50kA                                                                                                                           | 50kA                                                                                                                           | 50kA                                                                                                                           | 50kA                                                                                                                           |
| Temperature                          | -40 to 80 °C                                                                                                                   | -40 to 80 °C                                                                                                                   | -40 to 80 °C                                                                                                                   | -40 to 80 °C                                                                                                                   | -40 to 80 °C                                                                                                                   | -40 to 80 °C                                                                                                                   |
| Enclosure Material                   | Metal with PC Lid                                                                                                              | Metal with PC Lid                                                                                                              | Metal with PC Lid                                                                                                              | Metal with PC Lid                                                                                                              | Metal with PC Lid                                                                                                              | Metal with PC Lid                                                                                                              |
| Enclosure Rating                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     | NEMA®-4X<br>UL® 50E Type 4                                                                                                     |
| Lead Size                            | 2.5 - 16 mm <sup>2</sup>                                                                                                       | 2.5 - 16 mm <sup>2</sup>                                                                                                       | 2.5 - 16 mm <sup>2</sup>                                                                                                       | 2.5 - 16 mm <sup>2</sup>                                                                                                       | 2.5 - 16 mm <sup>2</sup>                                                                                                       | 2.5 - 16 mm <sup>2</sup>                                                                                                       |
| Mounting                             | 4 Screw Locations                                                                                                              | 4 Screw Locations                                                                                                              | 4 Screw Locations                                                                                                              | 4 Screw Locations                                                                                                              | 4 Screw Locations                                                                                                              | 4 Screw Locations                                                                                                              |
| Remote Contact Switching Capacity    | 2.0 A @ 240 V                                                                                                                  | 2.0 A @ 240 V                                                                                                                  | 2.0 A @ 240 V                                                                                                                  | 2.0 A @ 240 V                                                                                                                  | 2.0 A @ 240 V                                                                                                                  | 2.0 A @ 240 V                                                                                                                  |
| Remote Contacts                      | Yes (Form C)                                                                                                                   | Yes (Form C)                                                                                                                   | Yes (Form C)                                                                                                                   | Yes (Form C)                                                                                                                   | Yes (Form C)                                                                                                                   | Yes (Form C)                                                                                                                   |
| Status Indication                    | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable | Audible alarm with silence switch<br>Dual color status LED<br>Mechanical flag<br>OLED Display<br>Surge/TOV Counter, Resettable |
| Technology                           | Hybrid technology utilizing thermal disconnects                                                                                | Hybrid technology utilizing thermal disconnects                                                                                | Hybrid technology utilizing thermal disconnects                                                                                | Hybrid technology utilizing thermal disconnects                                                                                | Hybrid technology utilizing thermal disconnects                                                                                | Hybrid technology utilizing thermal disconnects                                                                                |
| Certification Details                | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       | CSA C22.2 No. 269.2<br>UL® 1283<br>Edition 7<br>UL® 1449<br>Edition 5 Type 2, 20 kA Mode                                       |

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complies With         | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II | ANSI®/IEEE®<br>C62.41.1-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.41.2-2002<br>Cat A, Cat B,<br>Cat C<br>ANSI®/IEEE®<br>C62.45-2002<br>Cat A, Cat B,<br>Cat C<br>EN 61643-11<br>Type 2<br>IEC® 61643-11<br>Class II |
| Depth (D)             | 98.3mm                                                                                                                                                                                                                         | 98.3mm                                                                                                                                                                                                                         | 98.3mm                                                                                                                                                                                                                         | 98.3mm                                                                                                                                                                                                                         | 98.3mm                                                                                                                                                                                                                         | 98.3mm                                                                                                                                                                                                                         |
| Height (H)            | 330.7 mm                                                                                                                                                                                                                       | 330.7 mm                                                                                                                                                                                                                       | 330.7 mm                                                                                                                                                                                                                       | 330.7 mm                                                                                                                                                                                                                       | 330.7 mm                                                                                                                                                                                                                       | 330.7 mm                                                                                                                                                                                                                       |
| Width (W)             | 101.6 mm                                                                                                                                                                                                                       | 101.6 mm                                                                                                                                                                                                                       | 101.6 mm                                                                                                                                                                                                                       | 101.6 mm                                                                                                                                                                                                                       | 101.6 mm                                                                                                                                                                                                                       | 101.6 mm                                                                                                                                                                                                                       |
| Unit Weight           | 2.9 kg                                                                                                                                                                                                                         | 2.7 kg                                                                                                                                                                                                                         | 2.86 kg                                                                                                                                                                                                                        | 2.79 kg                                                                                                                                                                                                                        | 2.88 kg                                                                                                                                                                                                                        | 3.08 kg                                                                                                                                                                                                                        |
| Replacement<br>Module | DT2180DTXM<br>DT2275DTXM                                                                                                                                                                                                       | DT2180DTXM<br>DT2275DTXM                                                                                                                                                                                                       | DT2150DTXM                                                                                                                                                                                                                     | DT2275DTXM                                                                                                                                                                                                                     | DT2510DTXM                                                                                                                                                                                                                     | DT2350M                                                                                                                                                                                                                        |

## ADDITIONAL PRODUCT DETAILS

Optional Flush Plate and Side Mount Kits available: DTX120FP & DTX120SM

## 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.

#### North America

+1.800.753.9221

Option 1 – Customer Care

Option 2 – Technical

Support

#### Europe

Netherlands:

+31 800-0200135

France:

+33 800 901 793

#### Europe

Germany:

800 1890272

Other Countries:

+31 13 5835404

#### APAC

Shanghai:

+ 86 21 2412 1618/19

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