

EPD120/240TDFL Primary Protection Device

Features

- Transient Discriminating Technology helps ensure safe operation during abnormal over-voltage events
- Parallel hybrid TVSS technology
- Aggregate surge rating exceeds 200kA, providing a high level of service entrance protection and long operational life
- UL 1283 Listed sine wave filter for RFI/EMI attenuation
- Low let-through voltage
- Status indicators
- UL® 1449 Edition 2 Listed TVSS
- 5 year limited warranty



Detailed Specifications for ERICO's EPD120/240TDFL

Lightning transients and surges are a major cause of expensive electronic equipment failure and system disruption. The EPD family of Surge Protection Devices (SPD) offer economical and reliable protection from power transients with the convenience of easy installation.

EPDs are expressly designed for the railways unique electrical, mechanical and environmental requirements. Optimized design exceeds the let-through voltage requirements specified by AREMASM (600V, Cat. C1).

The EPD120/240TDFL utilizes ERICO's patented Transient Discriminating (TD) technology, which meets the safety standards

of UL 1449 Edition 2 and is designed to provide a superior life by eliminating the common temporary over-voltage failure mode of most SPDs.

Installation is simplified by the preconfigured connecting leads. Optimal protection is achieved by connecting the EPD nipple directly to the electrical panel to be protected and connecting flying leads to a 30A two-pole breaker.

The hybrid design incorporates an efficient sine wave tracking filter, which provides efficient noise attenuation to ensure even the most sensitive equipment is protected from noise and transient activity.

EPD120/240TDFL Primary Protection Device

SPECIFICATIONS

Operation:

| | |
|-----------------------------------|----------------|
| Model | EPD120/240TDFL |
| Nominal Voltage Un | 120/240V |
| Distribution System | 1Ph 3W+G |
| Max. Cont. Operating Voltage Uc | 150V |
| Max. Permissible Abnormal Voltage | 240V |
| Frequency | 50/60Hz |

Protection:

| | |
|----------------------------------|--|
| Aggregate Surge Rating | 206kA 8/20 μ s |
| Surge Life | >1,000 ANSI®/IEEE® C1, 6kV/3kA impulses |
| Protection Modes | All modes protected via L-N & L-G |
| Technology | TD technology with EMI/RFI filter |
| Short Circuit Current Rating Isc | 200kAIC with Class J fuse, 22kAIC with circuit breaker |

Performance:

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|-----------------------------------|---------------|
| Voltage Protection Level Up (L-N) | |
| @ Cat A1, 200A 100kHz | 110V |
| @ 500A, 8/20 μ s (UL SVR) | 400V |
| @ Cat B3, 3kA 8/20 μ s | 450V |
| @ 10kA 8/20 μ s | 600V (Static) |
| @ 20kA 8/20 μ s | 870V (Static) |

Filtering:

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|-------------------|-------|
| Filtering @100kHz | -40dB |
|-------------------|-------|

Indication:

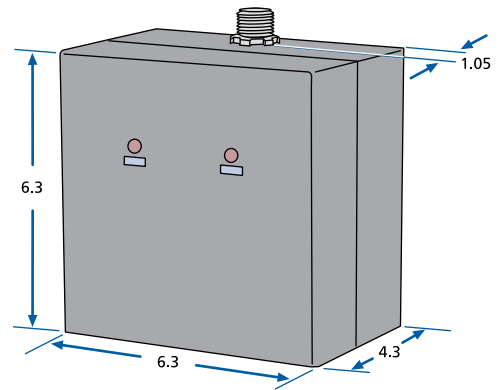
| | |
|--------|---------------------------------|
| Status | LED status indication per phase |
|--------|---------------------------------|

Physical Data:

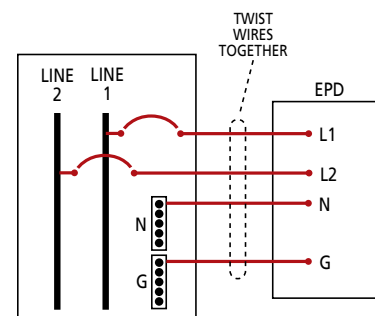
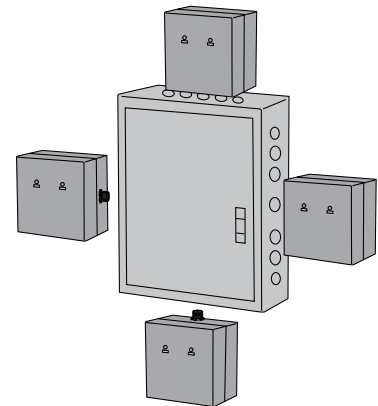
| | |
|--------------|---|
| Dimensions | 6.3" x 6.3" x 4.3" (160 mm x 160 mm x 109 mm) approx. |
| Weight | 6 lb (2.7 kg) approx. |
| Enclosure | 18 gauge powder coated steel (NEMA®-1) |
| Connection | 24" of #12AWG (600 mm of 3.3 mm ²) flying leads Conduit nuts and self tapping mounting screws supplied |
| Mounting | 1/2" straight nipple |
| Back-up Fuse | <=30A |
| Temperature | -40° C to +70° C (-40° F to +158° F) |
| Humidity | 0 to 90% |
| Warranty | 5 years |

Test Standards:

| | |
|---------------------|---|
| Approvals | cULus® (UL® 1449) cULus (UL 1283) |
| Surge Rated to Meet | AREMA SM requirements ANSI/IEEE C62.41.1 Cat A, Cat B, Cat C ANSI/IEEE C62.41.2 Scenario II, Exposure 2, 50kA 8/20 μ s |



INSTALLATION



Install the EPD120/240TDFL TVSS unit as close to the electrical service panel or Load Center as possible. The 1/2 inch nipple allows for a direct connection to the Load Center. Connect the EPD unit to a 30A two-pole circuit breaker. For optimum performance, it is important to keep wires short (<12 inches) and avoid sharp bends.

ORDERING INFORMATION

| Part Number | Description |
|----------------|-------------------------------------|
| EPD120/240TDFL | Primary TVSS protector for 120/240V |

Due to a policy of continual product development, specifications are subject to change without notice.

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WARNING
ERICO products shall be installed and used only as indicated in ERICO's product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your ERICO customer service representative. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.

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