



*PTX400/PTE400 Protectors*

**Introduction**

Since 1980, Eaton’s Innovative Technology has provided Surge Protective Devices (SPDs) to power quality equipment users around the world. Whatever your electrical surge protection need may be, Eaton’s Innovative Technology has a Surge Protective Device to fill it!

**General Features**

- Peak Surge Current — 400 kA per phase; 200 kA per mode
- ANSI/IEEE C62.41 Location Categories — B and C
- Application — High Exposure Level, industrial applications including: large service entrances, large distribution panels, and large individual equipment disconnects
- Warranty — 20-Year Free Replacement
- Unit Listings — UL® 1449 Second Edition, cUL®, UL® 1283 filter
- Manufacturer Qualifications — ISO® 9001:1994 Quality System Certification BSI FM 30833

**Mechanical and Electrical Features**

- Enclosure — Powder Coated Steel, weatherproof; NEMA® Type 4 (IP66), meets or exceeds Type 12, 13 & 3R ratings
- Mounting — Internally threaded fittings and multi-point mounting feet
- Connection — All connections: box terminal #14-1/0 (2.5 – 50 mm<sup>2</sup>) wire size
- Weight — ≈32 lbs (14.5 kg)

- Operating Temperature — -40°F (-40°C) to +185°F (85°C)
- Protection Modes — All Mode L-N, L-L (normal mode), L-G, N-G (common mode)
- Input Power Frequency — 47– 420 Hz (47–64 Hz with ATN® option and/or S.M.A.R.T. option)
- Response Time — PTX: ≤1 nanosecond, PTE Active: <1 nanosecond
- Capacitance — Up to 15 µF per mode (up to 10 µF per mode with ATN® option)

**Note:** For applications where earth leakage current may be of concern, please utilize PTX models.

- Diagnostics — LED indicators, 1 green per phase, normally on. Remote Alarm Form C (Volt Free), NO or NC contacts
  - Contact rating 60 W, or 125 Vac @ 0.5 Amp, or 30 Vdc @ 1 Amp
  - Internal terminal strips and weatherproof fitting
  - Optional S.M.A.R.T. (surge counter and phase loss indicator with audible alarm)
- Circuit Interrupt Requirement — Reference installation instructions for details

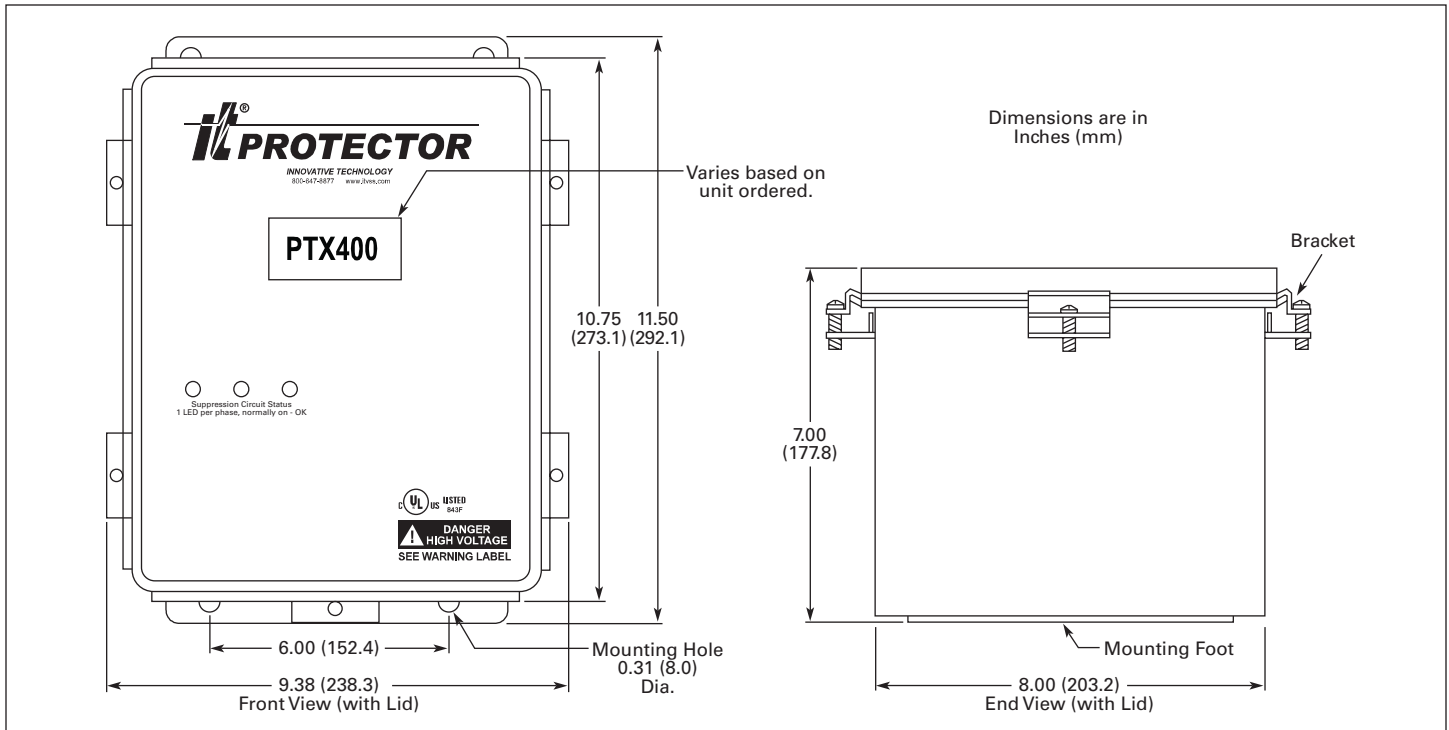
**Maximum EMI/RFI Attenuation – Mil-Std-220**

1 kHz	10 kHz	100 kHz	1 MHz	10 MHz	Maximum Attenuation Frequency
3 dB	21 dB	40 dB	22 dB	6 dB	40 dB @ 108 kHz

**Optional Features and Equipment**

- Active Tracking Network (ATN®) — PTE models
- Audible Alarm, Surge Counter and Phase Loss Monitor (S.M.A.R.T.) — (-SD suffix)
- Stainless Steel, Type 4X enclosure — (-SS suffix) (contact factory, minimum quantities apply)
- Fused Disconnect — (-D suffix) (See web site for current field drawings)

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## Performance Data

### ANSI/IEEE C62.41-1991 Measured Limiting Voltage \*

### UL SVR

PTX400 PTE400	System Config	Nominal System Voltage	MCOV	PTE Models A1 Ring Wave 2 kV, 67 A 180° Phase Angle				PTE Models A1 Ring Wave 2 kV, 67 A 90° Phase Angle				ALL Models B3/C1 Impulse 6 kV, 3 kA 90° Phase Angle				ALL Models C3 Impulse 20 kV, 10 kA 90° Phase Angle				UL 1449-2 Suppressed Voltage Ratings	
				L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G	L-N L-G HiL-N	L-L N-G HiL-G				
1P201	Single-Phase 2w+grnd	200, 208, 220, 230, 240, 277	320	70 120	— 90	450 500	— 90	890 950	— 900	1370 1360	— 1370	700 700	— 700								
1S101	Split-Phase 3w+grnd	100/200, 110/220, 120/240, 127/254	150/300	60 100	80 90	220 260	350 90	490 530	830 500	900 1090	1270 1150	400 400	700 400								
3Y101	3-Phase Y/Star 4w+grnd	100/175, 110/190, 120/208, 127/220	150/300	60 100	80 90	220 260	350 90	490 530	830 500	900 1090	1270 1150	400 400	700 400								
3Y201	3-Phase Y/Star 4w+grnd	220/380, 230/400, 240/415, 277/480	320/640	70 120	120 90	450 500	820 90	890 950	1630 900	1320 1360	2270 1370	700 700	1500 700								
3Y300	3-Phase Y/Star 4w+grnd	305/525, 347/600	420/840	70 130	120 90	520 570	910 90	1090 1150	2040 1050	1490 1630	2480 1680	1000 1000	1800 1000								
3D101	3-Phase Δ (Hi-Leg) 4w+grnd	120/240	150/300	60 100 70	80 90 120	220 260 450	350 90 500	490 530 890	830 900 950	900 1090 1370	1270 1150 1320	400 400 700	1500 400 700								
NN201	3-Phase Δ 3w+grnd	200, 208, 220, 230, 240	320	— 530	100 —	— 650	420 —	— 880	860 —	— 1370	1270 —	— 700	700 —								
NN400	3-Phase Δ 3w+grnd	380, 400, 415, 440, 480	580	— 830	100 —	— 1090	730 —	— 1490	1490 —	— 2120	2070 —	— 1200	— —								
NN501	3-Phase Δ 3w+grnd	525, 600	750	— 1110	100 —	— 1420	970 —	— 910	1870 —	— 2620	2470 —	— 1800	1800 —								

\* Test environment: All tests performed with 6" lead length, positive polarity. Voltages are peak ±10%. Measurements are taken from zero reference per NEMA LS-1.

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