



PTX048/PTE048 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 — 48 kA per phase; 24 kA per mode
- ANSI/IEEE C62.41 Location Categories — A and B
- Application — Medium to Low Exposure Level, sensitive, mission critical load applications including: distribution panels, branch panels and critical load centers.
- 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 1, 12, 13 & 3R
- Mounting — Internally threaded fittings and mounting flanges
 - PTX & <240 V PTE: 3/4" (19 mm) pre-mounted hub, flush mount plate available
 - ≥240 V PTE: 3/4" (19 mm) installer placed hub

- Connection — #10 (6 mm²) stranded wire
- Weight —
 - PTX & <240 V PTE: ≈7 lbs (3 kg)
 - PTE ≥240 V: ≈12 lbs (5.5 kg)
- Operating Temperature — -40°F (-40°C) to +149°F (65°C)
- Protection Modes — All Mode L-N, L-L (normal mode), L-G, N-G (common mode)
- Input Power Frequency — PTE & all -SD optioned units: 47 – 64 Hz, PTX: 47 – 420 Hz
- Response Time — PTX: ≤1 nanosecond, PTE Active: <1 nanosecond
- Capacitance — PTE: Up to 10 µF per mode

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

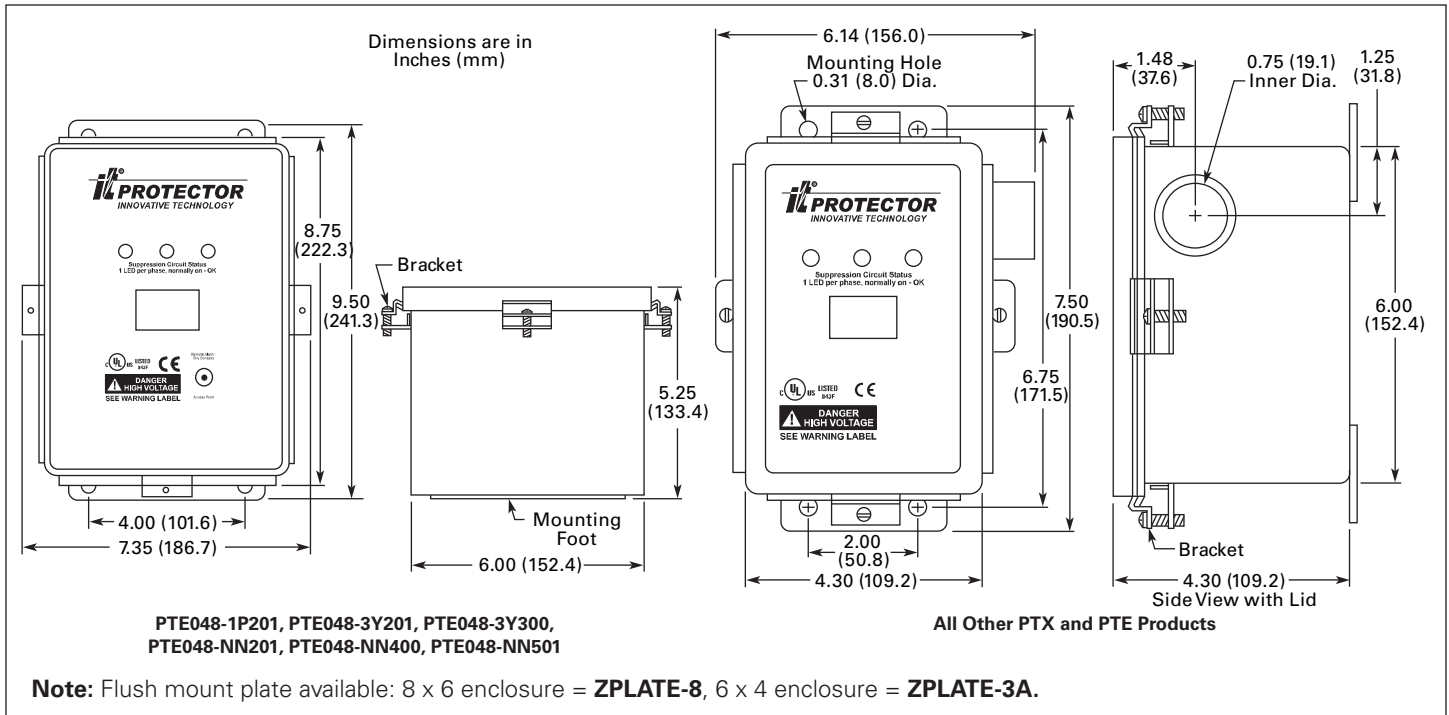
- Diagnostics — LED indicators, 1 per phase, normally on. Remote Alarm Form C (Volt Free), NO or NC contacts
 - Contact rating 60 W, or 125 Vac @ 0.5 Amp, or 30 Vdc @ 1 Amp
 - Internal terminal strips and weatherproof fitting
 - Optional S.M.A.R.T. (surge counter and phase loss indicator with audible 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	20 dB	40 dB	23 dB	7 dB	40 dB @ 115 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 — (-L suffix) (See web site for current field drawings)
- Fused Disconnect — (-D suffix) (See web site for current field drawings)



Performance Data

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

UL SVR

PTX048 PTE048	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				
1P101	Single-Phase 2w+grnd	100, 110, 120, 127	150	60 100	70 —	220 260	360 200	530 540	910 510	940 1060	1270 980	400 400	— 400				
1P201	Single-Phase 2w+grnd	200, 208, 220, 230, 240, 277	320	80 140	— 90	450 500	— 260	1000 1040	— 940	1530 1640	— 1440	800 800	— 800				
1S101	Split-Phase 3w+grnd	100/200, 110/220, 120/240, 127/254	150/300	60 100	70 70	220 260	360 200	530 540	910 510	940 1060	1270 980	400 400	800 400				
3Y101	3-Phase Y/Star 4w+grnd	100/175, 110/190, 120/208, 127/220	150/300	60 100	70 70	220 260	360 200	530 540	910 510	940 1060	1270 980	400 400	800 400				
3Y201	3-Phase Y/Star 4w+grnd	220/380, 230/400, 240/415, 277/480	320/640	80 140	120 90	450 500	760 260	100 1040	1730 940	1530 1640	2250 1400	800 800	1500 800				
3Y300	3-Phase Y/Star 4w+grnd	305/525, 347/600	420/840	90 140	110 100	540 600	930 280	1410 1510	2510 1390	1980 2210	3160 2030	1000 1000	2000 1000				
3D101	3-Phase Δ (Hi-Leg) 4w+grnd	120/240	150/300	60 100 80	70 90 140	220 260 450	360 260 500	530 540 1000	910 940 1040	940 1060 1530	1270 1440 1640	400 400 800	1500 400 800				
NN201	3-Phase Δ 3w+grnd	200, 208, 220, 230, 240	320	— 600	60 —	— 700	390 —	— 1000	980 —	— 1750	1640 —	— 800	800 —				
NN400	3-Phase Δ 3w+grnd	380, 400, 415, 440, 480	580	— 1010	60 —	— 1300	750 —	— 1710	1680 —	— 2420	2360 —	— 1500	1500 —				
NN501	3-Phase Δ 3w+grnd	525, 600	750	— 1260	60 —	— 1500	900 —	— 2050	2030 —	— 2780	2690 —	— 2000	2000 —				

* 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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