



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 — Discrete All Mode (10 modes 3-phase Y/Star units): 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 124 VA, 125 Vac and 0.5 Amp or 30 Vdc and 1 Amp
 - Internal terminal strips and weatherproof fitting
 - Optional S.M.A.R.T. (surge counter and phase loss indicator with audible alarm)
- Short Circuit Current Rating — 200 kAIC using 30 Amp Class RK5 fuse (not provided)

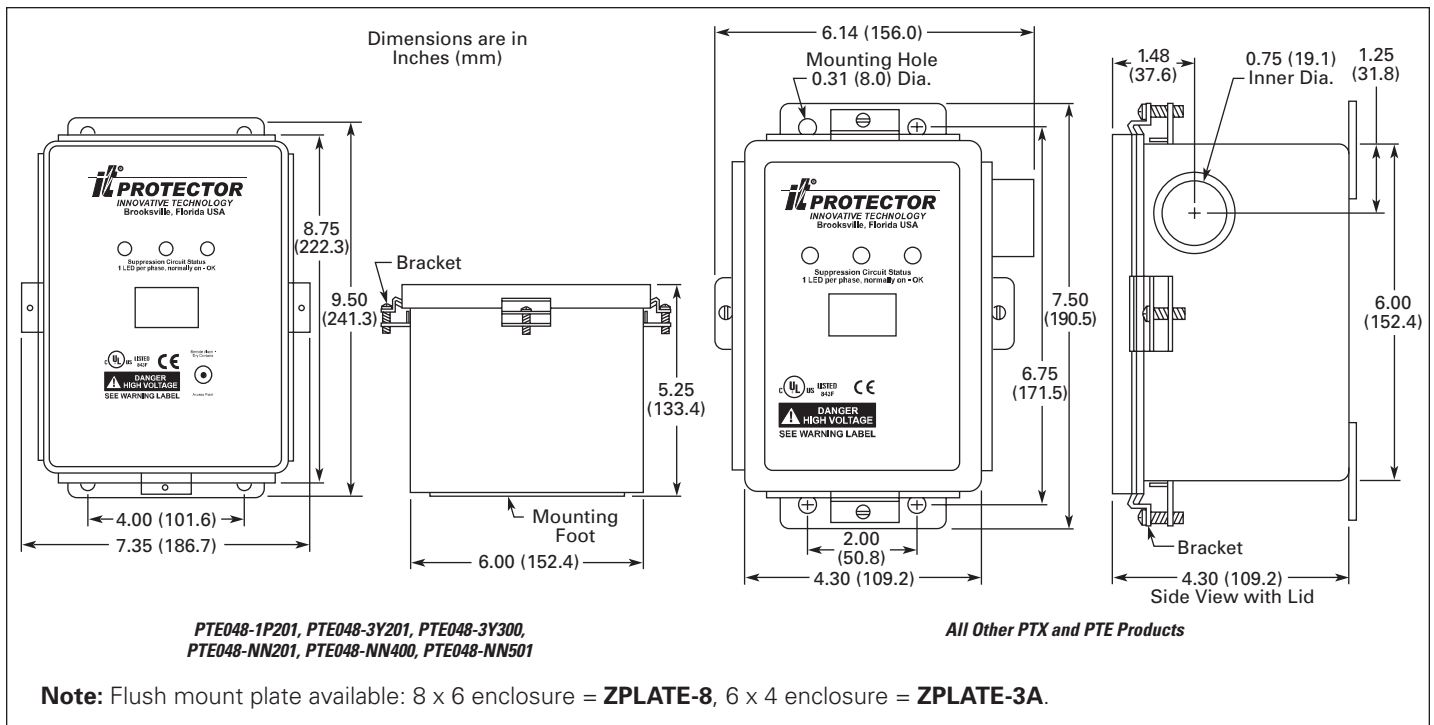
Maximum EMI/RFI Attenuation — Mil-Std-220

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)
- ARM-3 Remote Alarm Module

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Performance Data

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

UL SVR

PTX048 PTE048	System Config	Nominal System Voltage	MCOV	ANSI/IEEE C62.41-1991 Measured Limiting Voltage *						UL SVR			
				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 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	— 90	220 260	— 80	520 550	— 520	830 1000	— 890	400 400	— 400
1P201	Single-Phase 2w+grnd	200, 208, 220, 230, 240, 277	320	90 90	— 90	460 510	— 90	980 1050	— 940	1370 1580	— 1370	800 800	— 800
1S101	Split-Phase 3w+grnd	100/200, 110/220, 120/240, 127/254	150/300	60 100	90 60	220 260	380 80	520 550	900 520	830 1000	1240 890	400 400	700 400
3Y101	3-Phase Y/Star 4w+grnd	100/175, 110/190, 120/208, 127/220	150/300	60 100	90 60	220 260	380 80	520 550	900 520	830 1000	1240 890	400 400	700 400
3Y201	3-Phase Y/Star 4w+grnd	220/380, 230/400, 240/415, 277/480	320/640	70 120	100 70	460 510	850 90	980 1050	1640 940	1370 1580	2060 1370	800 800	1500 800
3Y300	3-Phase Y/Star 4w+grnd	305/525, 347/600	460/920	70 120	90 70	550 610	1000 70	1250 1320	2110 1210	1680 1880	2570 1700	1000 1000	2000 1000
3D101	3-Phase Δ (Hi-Leg) 4w+grnd	120/240	150/300	50 90 50	70 70 90	210 260 380	410 70 420	520 1000 980	950 970 1020	1030 1480 1430	1400 1360 1590	400 400 800	1500 400 800
NN201	3-Phase Δ 3w+grnd	200, 208, 220, 230, 240	320	— 590	70 —	— 760	390 —	— 850	860 —	— 1420	1260 —	— 800	— —
NN400	3-Phase Δ 3w+grnd	380, 400, 415, 440, 480	580	— 1100	60 —	— 1220	770 —	— 1840	1990 —	— 2130	2120 —	— 1500	1500 —
NN501	3-Phase Δ 3w+grnd	525, 600	680	— 1100	40 —	— 1470	950 —	— 2040	2090 —	— 2640	2670 —	— 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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