



*PTE080 Protector*

## Introduction

Since 1980, Eaton 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 Innovative Technology has a Surge Protective Device to fill it!

## General Features

- Peak Surge Current — 80 kA per phase; 40 kA per mode
- ANSI/IEEE C62.41 Location Categories — A, B and C
- 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
- Agency Listings — Compliant to UL® 1449 4th Edition as Type 1\* and Type 2 SPD and UL 1283
- Manufacturer Qualifications — ISO® 9001:1994 Quality System Certification BSI FM 30833
- The Protector Series products are produced in the USA and conform to ARRA requirements.

## Mechanical and Electrical Features

- Enclosure — Powder Coated Steel, weatherproof; NEMA® Type 4 (IP66)
- Connection — #10 (6 mm<sup>2</sup>) stranded wire
- Weight —
  - <240 V ≈7 lbs (3 kg)
  - 240 V & above ≈12 lbs (5.5 kg)
- Operating Temperature — -40 to 185°F (-40 to 85°C)
- Protection Modes — All Mode L-N, L-L (normal mode), L-G, N-G (common mode)
- Input Power Frequency — 47 – 64 Hz
- Response Time — <1 nanosecond

**Note:** For applications utilizing a ground fault circuit interrupting (GFCI) main breaker, please use the PTX model.

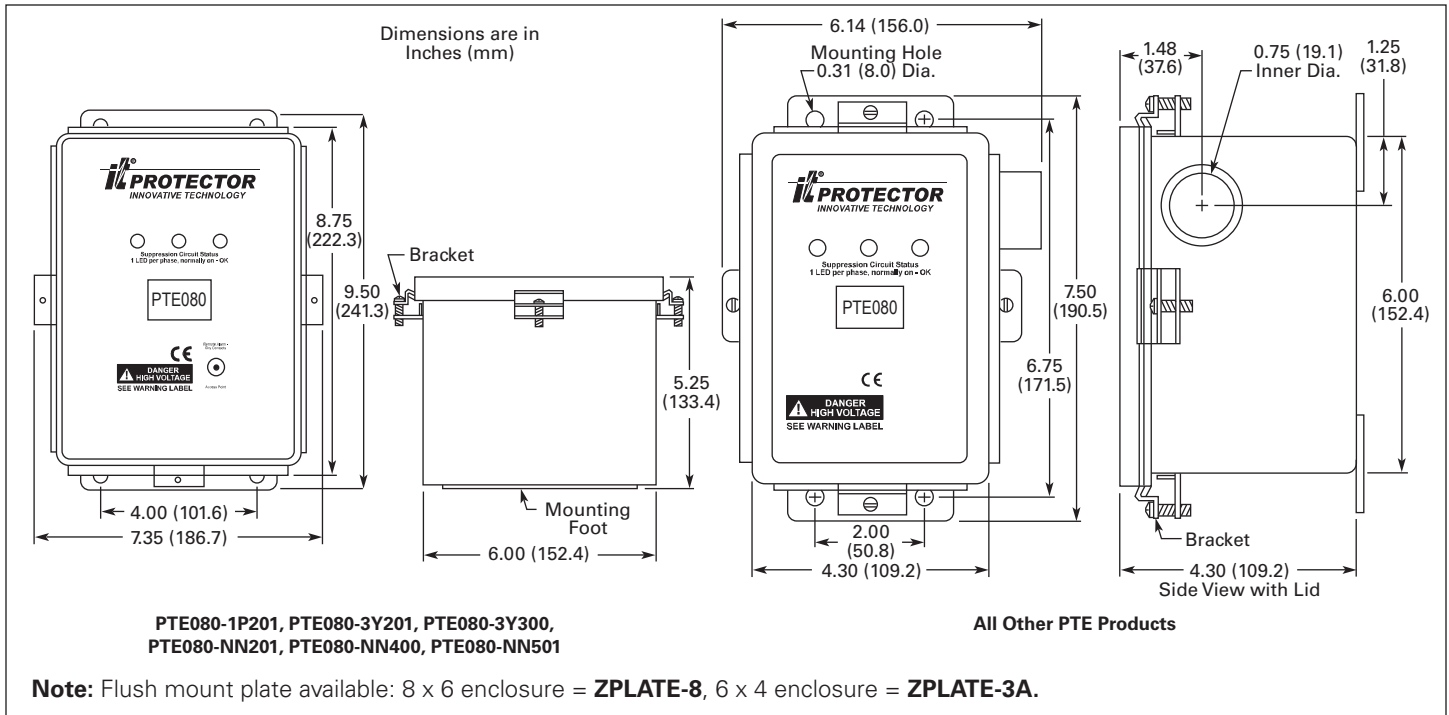
- Diagnostics — LED indicators, 1 per phase, normally on
- Remote Alarm Form C (Volt Free) relay, contact rating 60 W, or 125 Vac @ 0.5 Amp, or 30 Vdc @ 1 Amp
- Overcurrent Protection Device Requirement — Reference installation instructions for details
- Nominal Discharge current ( $I_n = 10\text{kA}$ )
- Maximum 40 dB EMI/RFI attenuation per Mil-Std-220 in range of 100 kHz to 400 kHz
- Active Tracking Network (ATN®)
- Short Circuit Current Rating (SCCR) 200kA

## Optional Features and Equipment

- 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)
- Integrated Circuit Breaker (-C suffix)
- Integrate Circuit Breaker with External Disconnect (-CD suffix)

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\* UL 1449 4th Edition Type 1 products available only with options -C and -CD.



## Performance Data

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

PTE080	System Config	Nominal System Voltage	MCOV	ALL 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		UL 1449-3 Voltage Protection Rating	
				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	220 260	— 200	530 540	— 510	940 1060	— 980	400 400	— 400	600 600	— 600
1P201	Single-Phase 2w+grnd	200, 208, 220, 230, 240, 277	320	450 500	— 260	1000 1040	— 940	1530 1640	— 1440	800 800	— 800	1000 1000	— 1000
1S101	Split-Phase 3w+grnd	100/200, 110/220, 120/240, 127/254	150/300	220 260	360 200	530 540	910 510	940 1060	1270 980	400 400	800 400	600 600	900 600
3Y101	3-Phase Y/Star 4w+grnd	100/175, 110/190, 120/208, 127/220	150/300	220 260	360 200	530 540	910 510	940 1060	1270 980	400 400	800 400	600 600	900 600
3Y201	3-Phase Y/Star 4w+grnd	220/380, 230/400, 240/415, 277/480	320/640	450 500	760 260	100 1040	1730 940	1530 1640	2250 1400	800 800	1500 800	1000 1000	1800 1000
3Y300	3-Phase Y/Star 4w+grnd	305/525, 347/600	420/840	540 600	930 280	1410 1510	2510 1390	1980 2210	3160 2030	1000 1000	2000 1000	1200 1500	2500 1500
3D101	3-Phase Δ (Hi-Leg) 4w+grnd	120/240	150/320	220 260 450	360 260 500	530 540 1000	910 940 1040	940 1060 1530	1270 1440 1640	400 400 800	1500 400 800	600 600 1000	900 600 1000
NN201	3-Phase Δ 3w+grnd	200, 208, 220, 230, 240	320	— 700	390 —	— 1000	980 —	— 1750	1640 —	— 800	800 —	— 1200	1000 —
NN400	3-Phase Δ 3w+grnd	380, 400, 415, 440, 480	550	— 1300	750 —	— 1710	1680 —	— 2420	2360 —	— 1500	1500 —	— 1800	1800 —
NN501	3-Phase Δ 3w+grnd	525, 600	750	— 1500	900 —	— 2050	2030 —	— 2780	2690 —	— 2000	2000 —	— 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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