



PTE160 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 — 160 kA per phase; 80 kA per mode
- ANSI/IEEE C62.41 Location Categories — A, B and C
- Application — High 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 mm²) stranded wire
- Weight — 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

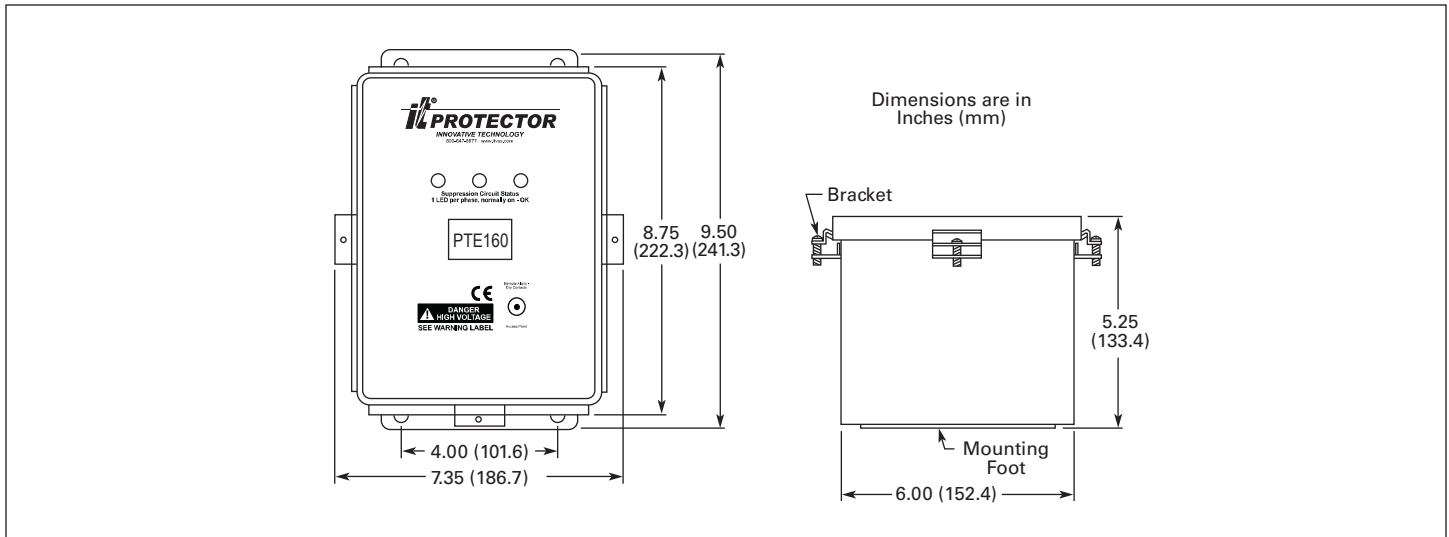
Note: For applications utilizing a ground fault circuit interrupting (GFCI) main breaker, please use the PTX model.

- 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 = 20kA)
- Maximum 40 dB EMI/RFI attenuation per Mil-Std-220 at a 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)
- Integrated Circuit Breaker with External Disconnect (-CD suffix)

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



Performance Data

ANSI/IEEE C62.41-1991 Measured Limited Voltage* UL SVR

PTE160	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	250 390	— 240	550 580	— 530	1030 1210	— 1130	400 400	— 400	600 700	— 600
1P201	Single-Phase 2w+grnd	200, 208, 220, 230, 240, 277	320	480 520	— 90	990 1060	— 960	1580 1840	— 1650	800 800	— 800	1000 1000	— 1000
1S101	Split-Phase 3w+grnd	100/200, 110/220, 120/240, 127/254	150/300	250 390	280 240	550 580	910 530	1030 1210	1340 1130	400 400	800 400	600 700	900 600
3Y101	3-Phase Y/Star 4w+grnd	100/175, 110/190, 120/208, 127/220	150/300	250 390	280 240	550 580	910 530	1030 1210	1340 1130	400 400	800 400	600 700	900 600
3Y201	3-Phase Y/Star 4w+grnd	220/380, 230/400, 240/415, 277/480	320/640	480 520	830 90	990 1060	1700 960	1580 1840	2310 1650	800 800	1500 800	1000 1000	1800 1000
3Y300	3-Phase Y/Star 4w+grnd	305/525, 347/600	420/840	580 620	1020 100	1220 1280	2140 1190	1770 1880	2680 1760	1000 1000	2000 1000	1200 1500	2500 1200
3D101	3-Phase Δ (Hi-Leg) 4w+grnd	120/240	150/320	250 290 380	380 90 430	580 970 990	930 830 980	1390 1630 1840	1550 1500 1640	400 400 800	800 400 800	600 600 1000	900 600 1000
NN201	3-Phase Δ 3w+grnd	200, 208, 220, 230, 240	320	— 670	410 —	— 970	950 —	— 1440	1490 —	— 800	800 —	— 1000	1200 —
NN400	3-Phase Δ 3w+grnd	380, 400, 415, 440, 480	550	— 1280	770 —	— 1750	1730 —	— 2390	2390 —	1500 1500	— —	1800 1800	— —
NN501	3-Phase Δ 3w+grnd	525, 600	750	— 1650	970 —	— 2130	2160 —	— 2990	2890 —	— 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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