



System Shield

Facility Wide Power Protection Program




Applications for SPD


The System Shield provides you with field proven solutions to surge protection problems. It protects all electrical and electronic equipment, from heavy duty motors, sensitive computer-based controllers, load equipment, office equipment and commercial & industrial manufacturing systems.

Type 2 or Type 3 

PTX 080 Sub panels
PTE 080 Sensitive Large Load
PTE 048 Sensitive Small Load


Type 1 

Before service disconnect

Type 2 

After service disconnect

PTX 080	200-799 AMPS
PTX 160	800-1999 AMPS
PTX 300	2000-3900 AMPS
PTX 400	Over 4000 AMPS

Type 3 or Type 4 

PTE 048 Sensitive Small Load

Model Number Key:

	PTE	160	3Y101	CD	Options
Model					
Peak Surge Capacity					
Voltage Codes					
<i>*Call for voltage codes.</i>					
				CD	Breaker Disconnect
				C	Breaker Only
				PEM	Power Event Monitor
				SD	Smart Diagnostics

***Standard Features on all Panel Mount Units:**

- Type 2, I_n 20KA
- All Mode Protection
- 20 Year Full Replacement Warranty
- Redundant multi-stage hybrid circuitry
- EMI/RFI Attenuation
- UL 1449 3rd Edition



The **Comprehensive Solution** To Surge Protection Devices, Generated Damage, Downtime & Lost Opportunity



For more information about our service plans and support services contact us at:
877-393-1223
1207 S. 75th Street, Omaha, NE 68124



www.p3-inc.com



P3 is the industry's trusted and respected critical power, cooling and energy solutions provider.

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Quality service where & when you need it!

System wide surge protection that provides maximum protection for equipment and systems while reducing downtime, maintenance and repair costs

Internally Generated Transients

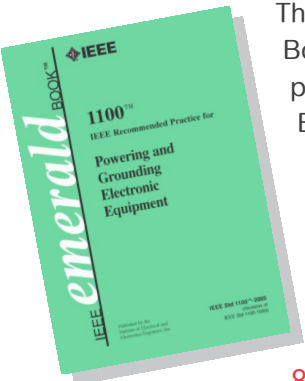
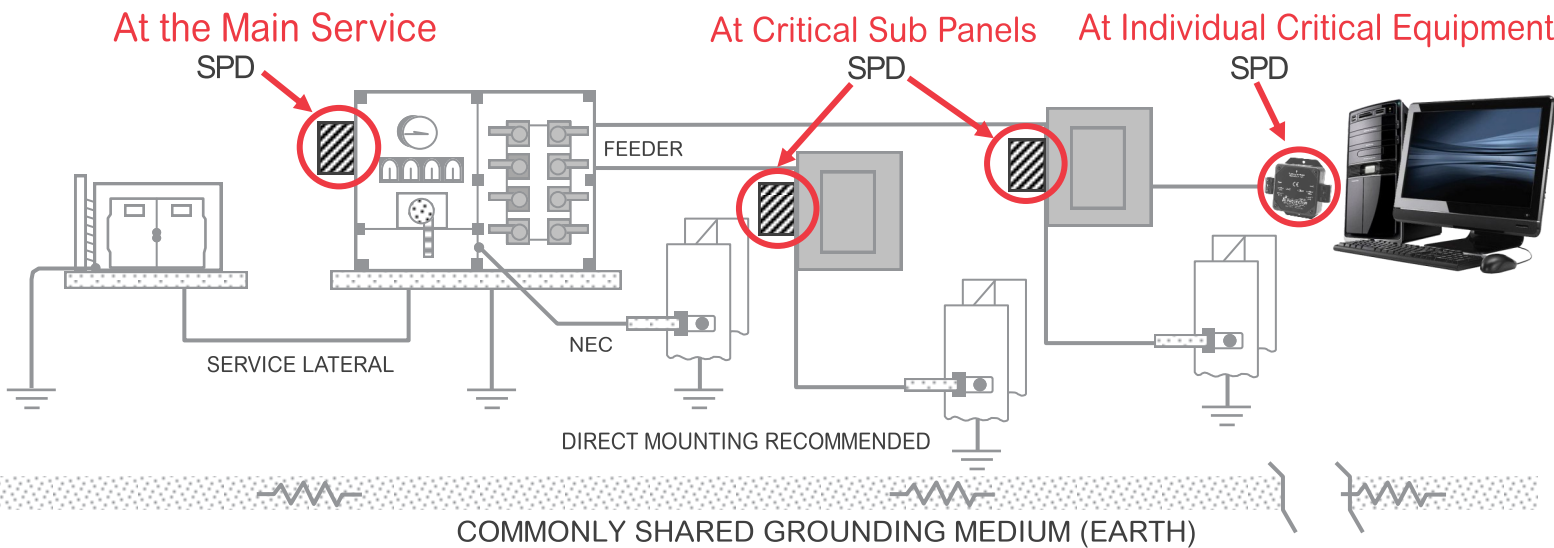
Up to 80% of transients are generated from internal sources causing:

- Cumulative damage
- Premature equipment failure
- Data losses & system resets
- Downtime, lost business & Opportunities

As businesses become more complex, they increase their investment in micro-electronics, ultra high-speed processors and automation. To protect these investments, Surge Protective Devices (SPDs) have taken center stage as an invaluable asset, keeping equipment and systems up while reducing downtime, maintenance and repair costs.

Eaton continues to lead the worldwide surge suppression industry with new, innovative SPDs, responsive customer service and the most comprehensive system-wide protection plan available. From service entrance to individual load circuits, the I.T. System Shield provides integrated suppression for all electronic and electrical equipment and systems. Through strategic placement of SPDs within the power system, coordinated protection is put into place to effectively close all the paths that damaging transients may take to mission-critical equipment.

Quality service & solutions from trained & trusted professionals.



This coordinated approach is supported by the Emerald Book (IEEE Std. 1100-2005), a definitive reference published by the Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI) which states,

“It is recommended that additional (SPDs) be applied to downstream electrical switchboards and panel boards if they support electronic load equipment.”

8.4.2.5 Surge Protective Device Considerations

NOTE: It is recommended practice that all SPDs have a means to disconnect them for service. Locating the SPD external to the switchboard or panelboard allows the disconnecting means to be located inside the switchboard or panelboard and does not require access to the switchboard or panelboard interior when servicing the SPD.

As pointed out in IEEE PC62.72™..., when an SPD is located inside switchboards or panelboards, there is a concern that failure of the SPD can cause collateral damage to the switchboard or panelboard, including compromising the insulation system with subsequent L-L and L-G faults.

Externally Generated Transients

At least 20% of transients are generated from external sources. They can cause:

- Catastrophic equipment failure
- Immediate operation shutdown
- Long-term disruption of business
- Expensive equipment repair & replacement costs

8.6.3 Service Entrance Surge Protection

Facilities housing electronic load equipment of any type should have service entrances equipped with effective lightning protection in the form of listed Category “C” SPDs, as specified in IEEE Std C62.41. Care should be taken to assure that the method used for the installation of SPD device equipment does not cause a degradation of its current-diverting and voltage-clamping abilities.

8.6.4 Premise Electrical System Surge Protection

In addition to SPDs installed in the service entrance equipment, it is recommended that additional SPDs of listed Category “B” or Category “A”, as specified in IEEE Std C62.41, be applied to downstream electrical switchboards and panelboards, and panelboards on the secondary of separately derived systems if they support communications, information technology, signaling, television, or other form of electronic load equipment.



UL 1449 3rd Edition Specifications:	SPD Type	k I _n	Peak Surge Capacity	Warranty
Line side of Meter:	Type I SPD	20k I _n	~	~
Main Service Entrance:	Type 2 SPD	20k I _n	200 - 400k amps	20 year
MCC's & Distribution Panels:	Type 2 SPD	20k I _n	<120k amps	20 year
Branch Panels:	Type 2 SPD	10k I _n	>120k amps	20 year

Transient Sources

