The surge breakdown

Surges are high-energy, short-duration voltage events. Also referred to as transients, impulses or spikes, these electrical disturbances can damage or destroy sensitive microprocessor-based equipment. While seemingly innocent, these events can wreak serious havoc on inadequately protected facilities.

80% of surges are INTERNALLY generated

20% come from EXTERNAL sources

The most common source is internal devices powering on and off. These devices include:

- Motors
- Transformers
- Fluorescent lighting ballasts
- Photocopiers
- Light dimmers
- Variable frequency drives...and more

They can also be generated externally by events like lightning, grid switching or electrical equipment in adjacent buildings.

For more information, visit Eaton.com/SPD

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Surge protection
Protect your equipment resources and investments

What is surge?
• A high rising voltage condition on one or more phases lasting 2 milliseconds or less

Why do you need surge protection?
• The 2017 NEC® requires surge protection in seven different sections (see SA158003EN for more information)
• Protect against catastrophic equipment damage caused by high-energy surges
• Protect microprocessors found in almost every piece of equipment from surge damage
• Lower maintenance costs by extending the life of power supplies, lighting ballasts and other components that are degraded over time by surges
• Stop premature aging of critical equipment due to the cumulative damage caused by low-level surges
• Surge devices are self-sacrificing devices that act as a pressure relief valve by shunting high voltages directly to ground
• Having a strategy to protect against the damage caused by surges isn’t a luxury—it’s a necessity

Why use an RSPF on your panelboard or switchboard?
• Easy to install RSPF during regular maintenance
• RSPF solution makes proactive equipment protection simple
• Minimal labor makes RSPF cost-effective
• Reduce your facility maintenance costs
• Listed to UL® 1449 4th edition safety standard

Superior performance, meeting stringent industry standards
• Low let-through voltage protects connected equipment
• Rugged design can withstand repeated high-current surge events
• High short-circuit current rating allows unit to be installed in any system
• Voltage-specific ratings to match RSPD to your system

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Integrated surge protective devices provide superior retrofit surge protection

RSP Series unit installed in a panelboard, provides optimum surge protection without the need for an additional enclosure.

Easy to install (same as MCCB).

Mounting a surge device directly to the panelboard’s bus bars provides the best possible protection by minimizing the let-through voltage.

Only integrated, retrofit product on the market
• Includes known benefits of integrated surge
• 40% improvement in performance over side mount or hardwired devices
• Integrated device alleviates potential for installation error that can negatively effect performance
• The RSPF can be installed in any Eaton, Cutler-Hammer brand or Westinghouse panel that has space for three-pole FD frame circuit breaker