CITEL

SURGE PROTECTORS

FOR

AC Power
DC Power
Dataline
High Frequency Coaxial



citel.us

CITEL,



the global solutions provider.

Since 1937, Citel has been an innovator in the field of Surge Protection. Today, Citel is a global leader in the development of reliable and adapted Surge Mitigation Solutions for critical applications.

Citel is unique as a manufacturer of Surge Protective Components (SPCs), Surge Protective Devices (SPDs), and coordinated protection systems.

- **Over 1 billion lines protected**
- **Local support in over 200 countries**
- **High current R&D laboratories at your disposal**

THREAT

$26B in Losses due to Power Surges

Today's increased reliance on very sensitive electronics and processes make surge protection an important discussion topic in order to avoid catastrophic business losses. The Insurance Institute for Business & Home Safety study found that $26 billion dollars was lost due to non-lightning power surges. In addition, there are about 25 million lightning strikes in the US each year that cause between $650M to $1B in losses according to the Insurance Information Institute, State Farm©.

1. Direct Strike



2. Earth Potential Rise



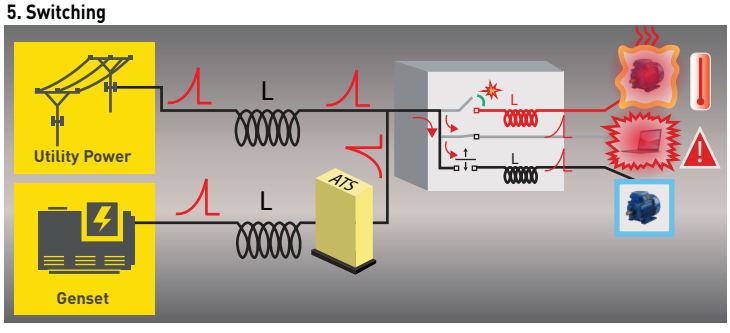
3. Strike on Overhead Lines



4. Coupling



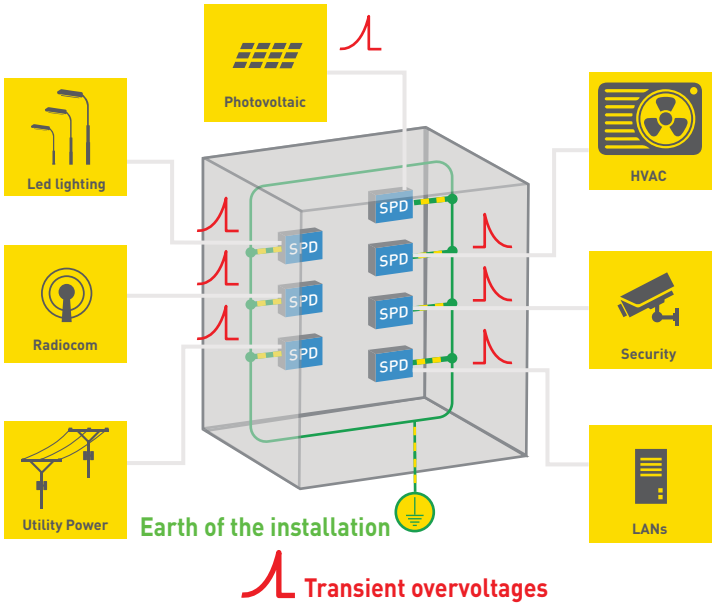
5. Switching



SOLUTION

Global Surge Mitigation Concept

Our philosophy is simple – determine your risk and evaluate every line (power or signal) for vulnerabilities. We call this "The Box Concept." It works equally well for a single piece of equipment or an entire facility. Once you have determined your "boxes", it is simple to develop a coordinated protection scheme to eliminate all threats from lightning and switching surges.



CITEL provides a wide range of surge protectors adapted to every network: **AC Power, DC Power, Telecom, Data and Coaxial.**

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Surge Protective Devices for AC & DC Power

AC Power Surge Protectors

CITEL offers a broad line of Surge Protective Devices (SPDs) designed for single-phase, split-phase and three-phase AC networks. AC SPDs are available in DIN Rail configurations and can be installed directly into critical equipment or within nearby power panels. Panel Mount/NEMA types are designed to be installed at service entrance, branch or local distribution panels. Surface Mount configurations are meant to be installed in very close proximity to the sensitive equipment that is being protected.



DIN Rail SPDs

DIN Rail AC SPD ranges include the DAC100US and DAC50VGUS. DIN Rail SPDs are installed directly into critical equipment or within a nearby power panel. These ranges feature:

- UL 1449 5th Edition Listed
- UL Types: Open Type 1, Type 2 and Type 4CA
- Imax ratings: 40kA-100kA
- Replaceable modules
- Visual indicators
- Remote contacts
- Protects AC networks up to 690VAC
- VG Technology: CITEL's patented design consisting of MOV and GSG Technologies. For more information go to citel.us.



NEMA Enclosure SPDs

- UL 1449 5th Edition Listed
- Imax ratings: 50kA-450kA
- Available with smart diagnostic and surge counter
- MDS available with surge tolerant disconnect switch
- Application: service entrance or panel protection

Surface Mounted SPDs

- UL 1449 5th Edition Listed or Recognized
- Hybrid MOV and GSG Technologies
- Series or parallel configurations
- Configurations with power + data protection





AUTOMATION



LED LIGHTING
SMART LIGHT POLE



INTELLIGENT TRAFFIC CONTROL

DC Power Surge Protectors

DC Power Surge Protective Devices (SPDs) are designed to be installed near the sensitive equipment that is being protected. CITEL offers SPDs for DC Power, Energy Storage and Photovoltaic applications.

- UL 1449 5th Edition
- UL Types: Open Type 1 and Type 4CA
- DC Ranges 12Vdc-350Vdc
- PV/ESS Ranges 500Vdc-1500Vdc
- Imax ratings: 20kA-70kA
- Replaceable modules
- Visual indicators
- Remote contacts
- VG Technology





WIRELESS



EV CHARGING



SOLAR / ENERGY STORAGE

Surge Protective Devices for Dataline

CITEL offers a wide range of Dataline Surge Protective Devices (SPDs) designed for applications such as Sensors, PZT cameras, SCADA, 4-20mA, Ethernet, Power-over-Ethernet (PoE) and Telecom. Dataline SPDs feature:

- UL 497B Listed
- Network voltages 6V-170V
- GDT-SAD Technology
- Imax up to 20kA 8/20µs
- Indoor/Outdoor options

DIN Rail

DIN Rail Dataline SPDs are designed to be installed inside of an enclosure and in very close proximity to the sensitive equipment that is being protected. The SPD is wired in series or parallel with the load.

Surface Mount

Surface Mount surge protectors are designed to be installed in very close proximity to the sensitive equipment that is being protected. The SPD is wired in series or parallel with the load. Indoor/outdoor ranges available.

Rackmount

Multi-port data line protection for IT networks.
19" rackmount applications compliant to UL 497B.



Surge Protective Devices for Coaxial Lines

CITEL offers a range of RF-Coaxial Surge Protective Devices (SPDs) for outdoor and indoor applications.

RF Coaxial

RF Coaxial SPDs are designed for very harsh environmental conditions. These SPD are available for all frequencies from DC to 7GHz.

P8AX, P8AX-6G Ranges

- UL 497E Listed
- Supports frequencies from DC-7GHz
- Imax 20kA 8/20µs
- DC Pass
- IP67
- Connectors: N, BNC, 716, TNC

PRC Range

- UL 497E Listed
- Quarter Wave Stub
- Imax to 100kA 8/20µs
- Impedance 50 Ohm
- Unlimited life
- No impact to RF signal
- Connectors: N, TNC, 716 connectors



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