

## Commercial Series

# HOW TO PROTECT YOUR BUSINESS AGAINST POWER SURGES

Power surges are very common and can affect a range of electronic equipment, from computers and printers to alarm systems and computer servers. After experiencing a power surge, unprotected equipment could potentially never turn on again—which could lead to loss of important information, business downtime, and a potential loss of revenue. Help protect your business from a power surge with these steps.



A surge suppressor, or surge protector, like the one pictured above can protect equipment from electrical surge damage.

## What is a power surge?

A brief burst of energy caused by a sudden change in the electrical conditions of a circuit, caused by events such as problems in the local power system, internal facility events, and lightning.



## 1 Surge Protection System

Contact your local electric power company to install a surge protection system where the external power is supplied to the business. Surge protection systems regulate the voltage supplied to an electric device either by blocking or diverting voltages above a certain threshold safely to the ground. This serves as whole-building protection.

## 2 Uninterruptible Power Supply

Provide an uninterruptible power supply (UPS) for computer systems to supply immediate emergency power if the building's main power source fails. A UPS is a backup battery that will provide power for a short period of time so work can be saved and equipment can be properly shut down.

## Lightning Protection Systems

In addition to preventing fire, a lightning protection system protects a building from direct lightning strikes, which can cause power surges, and is part of a comprehensive surge protection system. For more information, visit the Lightning Protection Institute website at [lightning.org](http://lightning.org).



## 3 Surge Suppressors

Add surge suppressors to the power connection of individual pieces of sensitive equipment and to any communications lines (e.g., phone cords, Internet cables, coaxial cables, etc.). Surge suppressors, also called surge protectors, can be found at your local big-box or hardware store, but be careful not to confuse a surge suppressor with a power strip. While both allow you to plug in multiple electronic devices, a power strip does not protect against power surges.

### SELECTING A SURGE SUPPRESSOR

- Choose a product with the following features and information on the product packaging.
- Look for the terms Transient Voltage Surge Suppressor or meets UL 1449, which is the minimum performance standard for surge suppressors.
- Select a suppressor with an indicator light, which will alert you that the product is working properly.
- Locate the number of Joules, the amount of energy the suppressor can dissipate, which typically measures from 200 up to several thousand. The higher the number, the better.
- Find the clamping voltage, the voltage at which the suppressor will conduct the electricity to ground. They typically rate at 330 volts; do not get a surge suppressor with higher than 400 volts.
- Choose a suppressor that has a response time of less than 1 nanosecond; this is the amount of time the suppressor is delayed until it activates.

Power surges are inevitable, but these preventative measures can help minimize the risk to your business. For more information, visit [DisasterSafety.org/ibhs/commercial-power-surges](http://DisasterSafety.org/ibhs/commercial-power-surges).