Whole Home Surge Protection

Homes today are in more need of whole house surge protection than before. Due to the advanced electronics, appliances, heating, lighting and high-tech entertainment centers, the average home has a huge investment in electronic equipment. AC (alternating current) surges are not caused by lightning only. Besides adverse weather conditions, something as simple as electric motor activity within a building (air conditioners, elevators, copiers, printers and refrigerators, for instance) can cause power fluctuations. Surge protectors extend the lifetime of sensitive electronic equipment by protecting it against harmful power surges and overvoltage problems.

Whole House Surge Protection

When looking for whole house surge protection devices keep the following in mind. Most homes with 120-volt service can be adequately protected with a maximum 80kA-rated surge protector. Chances are a home is not going to see large spikes. Homes with subpanels should have added protection of about half the kA rating of the main unit. therefore, it is strongly recommended you contact an electrician for a recommendation and estimate.

Layered Surge Protection

Layered protection can help If an appliance or device sends a surge through a circuit that's shared among other devices and not dedicated, then those other outlets could be susceptible to a surge. Which is why you don't want it just at the electrical panel. Surge protection should be layered in the house to be at both the electrical service to protect the whole home and at the point of use to protect sensitive electronics.

Choose quality surge protection strips for inside your home. Not every power strip is a surge protector. While a power strip just splits your outlet into multiple ports, a surge protector is designed to protect your computer, TV, and other electronics against power surges and any interference or noise on your power line. You should look for the words surge protection, fused strip, or interrupter switch. If it says power strip on it, it most likely does not offer surge protection.

There are five major points to consider when buying a surge protector. They are:

Buy the right number of ports. Don't just assume that every surge protector is six or eight ports. Buying the right number of ports will make sure you don't have to daisy chain surge protectors and loose the protection you thought you were getting.

Consider what you will plug into the surge protector. You can go all out and buy the best you can afford, but you'll save some money by buying a surge protector appropriate for the equipment you'll use it with. Your TV and home entertainment center will call for a more robust surge protector than the lamp and phone charger on a nightstand.

Check for the UL seal, and make sure it's a "transient voltage surge suppressor." Making sure that the surge protector you're planning to buy is both certified by Underwriter's Laboratories, and at least meets their UL 1449 standards (required for the label "transient voltage surge suppressor,") will make sure the surge protector you take home will actually protect the equipment you plug into it.

Check the surge protector's energy absorption rating, and its "clamping voltage." The absorption rating is, as the name implies, how much energy it can absorb before it fails. You'll want something at least 6-700 joules or higher. (Higher is better here.) The clamping voltage is the voltage that will trigger the surge protector—or essentially when the surge protector wakes up and starts absorbing energy. Look for something around 400 V or less. Lower is better here. Finally, see if response time is listed in the product details—it's good to know, and lower is better.

Check the warranty. Some surge protectors warranty the devices connected to it for some amount of damages if a power surge does get through. Check to see what's covered (and what isn't), and how you can file a warranty claim if the surge protector fails.