

5 Tips to Stay Compliant with NEC Surge Protection Regulations



While surge protection may not always be the primary focus during the planning or renovation of electrical systems, it presents electricians and suppliers with a valuable opportunity. Making an informed recommendation for surge protection with each sale can build profits while increasing customer satisfaction and retention. And while big margins coupled with high demand are reason enough to recommend surge protection with each electrical install, it may also be required by the National Electrical Code (NEC).



Every three years, committees of the NFPA (National Fire Protection Association) update their recommendations for the NEC. New requirements specifically relating to surge protection have emerged in both the 2020 and 2023 NEC iterations, changing the imperative for electrical installers and raising demand for surge protective devices (SPDs) among distributors. Failure to comply with NEC codes can be costly, endangering people and property, resulting in expensive fees, or requiring retrofits. Follow these tips to ensure you stay compliant with all the new and existing NEC surge protection requirements:

1. Know Your Codes – The most significant surge protection update to the NEC came in 2020 with the introduction of Section 230.67. Section 230.67 (A) stipulates that all electrical services supplying dwellings must have a Type 1 or Type 2 surge protection device (SPD) installed at or near the service entrance and are required when an existing service is replaced. In the 2023 NEC, Section 230.67 was updated to also require surge protection for services supplying dormitories, hotel and motel guest rooms, and specified areas of nursing homes and limited-care facilities. Similar code language was added in Section 215.15 for feeders, and Section 225.42 which covers outside branch circuits and feeders. NEC 2023 also introduced Section 409.70, which requires the placement of an SPD to be internal or immediately adjacent to control panels that support personnel protection. To read each NEC code in full, visit [NFPA.org](https://www.nfpa.org).





2. Know Your SPD Type – NEC Section 230.67 specifies two types of SPDs and mandates the use of at least one of them for residential electrical service. Type 1 SPDs can be installed before the main disconnect in the load center, at the meter enclosure or on the load side of the main circuit breaker. Type 2 SPDs can only be installed on the load side of the main disconnect, attached directly to a circuit breaker. Often, new construction

will install Type 1 surge protectors, while renovations will install Type 2 surge protectors, but both types will satisfy the new requirements. There is another type of SPD commonly in use called Type 3 SPDs; these are also installed on the load side, but closer to actual equipment or devices, such as surge protected power strips. Type 3 SPDs are not required by NEC 2020 or 2023, but as part of current best practices can still help protect sensitive electronic equipment with an additional layer of protection.

3. Ensure Ongoing Monitoring – Installing surge protection as mandated under NEC is not only required, but when a power surge leads to equipment failure or damage, customers are quick to blame the installer. Therefore, you and your customer should be aware that surge protection devices do and will deteriorate over time, eventually requiring replacement. Since there is no average lifespan for a surge protector, it is important to inspect SPDs regularly to verify they are still functional. There are many ways to identify when your surge protector has reached end of life depending on the type and model of SPD being used (e.g., visual indicators, audible alarms, or dry contact communications). To ensure that sensitive systems remain protected, implement a periodic review of all the installed surge protection systems and replace any unit(s) that are no longer functioning.

4. Follow NEC Guidelines Regardless of Local Adoption Status – Despite the NFPA's prominent role in establishing guidelines for electrical safety, NEC does not set federal or state law. States must officially adopt NEC standards themselves, making nationwide adoption a bit of a patchwork. To further complicate the matter, adoption of NEC updates most often happens at the state level through an official electrical board. However, in some states, adoption is left to counties or municipalities, which can put some residents at greater risk than people living in an adjacent county. Because of this it is recommended that when it comes to protecting equipment from electrical surges, following NEC guidelines regardless of local adoption status is the smartest course of action. The only way to stop a voltage surge is through proper installation of SPDs.



5. Choose the Right Surge Protection Partner – For a distributor and installer, the best provider is one who can provide support along with the resources you need to increase your sales and revenue with surge protective devices. For your customers, it is important to know that the products they are purchasing were made in the USA. This is an indicator of quality that can be highly significant and even make the difference that leads to a purchase. They can also recognize the difference in quality between products which are available to all consumers at big-box retailers, and those that are sold only through professional distributors. Working with an experienced and proven manufacturer of surge protection solutions ensures you will receive the knowledge, tools, and confidence to effectively offer the best solutions.

DITEK offers the surge protection solutions you need to maintain NEC compliance. With a variety of Type 1-3 SPDs available immediately from stock and made in the USA, DITEK is the gold standard in quality surge protection for the commercial and residential electrical market. DITEK delivers reliable surge protection products that your customers can count on to protect their electrical systems and infrastructure, and that you can rely on to help grow your business.



To learn more about NEC surge protection requirements and how your customers and your business can benefit visit our [Electrical Suppliers' Guide to Surge Protection](#).

