

**TECHNICAL
APPLICATION
NOTE**

2020 National Electrical Code® (NEC) Updates 230.67 Surge Protection

Article 230.67 of the 2020 National Electrical Code® (NEC) now requires all services supplying dwelling units to be provided with a surge protective device (SPD), as an integral part of equipment or located immediately adjacent. The SPD must be a Type 1 or Type 2 SPD. This requirement applies to residential service equipment being replaced as well.



NEC Article: 230.67 Surge Protection

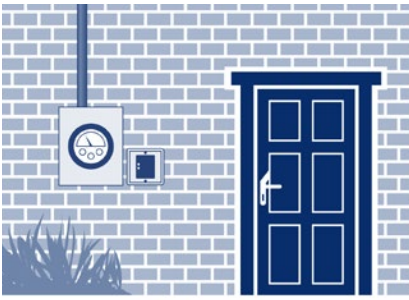
- (A) *Surge-Protective Device. All services supplying dwelling units shall be provided with a surge-protective device (SPD).*
- (B) *Location. The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.*
Exception: The SPD shall not be required to be located in the service equipment as required in (B) if located at each next level distribution equipment downstream toward the load.
- (C) *Type. The SPD shall be a Type 1 or Type 2 SPD.*
- (D) *Replacement. Where service equipment is replaced, all of the requirements of this section shall apply.*



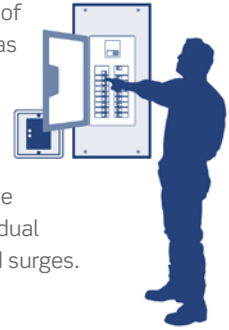
Surge protective devices (SPDs) protect electrical equipment from damaging power surges. Different types of SPDs are designed for different applications and they are broken down by numbered category types.

* As per the NEC, a dwelling unit is a single unit, providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, cooking, and sanitation.





Type 1 SPDs: Intended for installation between the secondary side of the service transformer and the line side of the service equipment, as well as the load side. Protect against external surges caused by lightning or utility capacitor bank switching. Type 1 devices can automatically be used in Type 2 applications.



Type 2 SPDs: Intended for installation on the load side of the service equipment. Generally serve a branch circuit and protect against residual lightning energy, motor driven surges and other internally generated surges.

COMPLY WITH 2020 NEC ARTICLE 230.67

LSPD1*, LSPD2*, LSPD1-T*, LSPD2-T*

SURGE PROTECTIVE CIRCUIT BREAKERS (For use only with Leviton Load Center Panels)

- An easy-to-read LED indicator light displays protection status and also remains lit, even after a breaker is tripped
- Designed for easy in-panel installation and provides effective surge protection for the entire home
- Even when the breaker trips, surge protection is still provided
- Type 1



51120-1

- Featuring real-time diagnostic visual indicators that show power and suppression status for each protected phase
- NEMA 1 Enclosure
- Type 2



51110-SRG

- Designed for mounting at the service entrance in homes, apartments and condominiums
- NEMA Type 4X housing for indoor and outdoor installations
- Type 2



Ordering Guide: Surge Protective Circuit Breakers

Catalog Number	Description	Max Amp Rating	Voltage (V AC) Configuration	Max Surge Current
LSPD1*	(2) 1-Pole Hydraulic Magnetic Circuit Breakers	15 A	120/240	25 kA
LSPD2*	(2) 1-Pole Hydraulic Magnetic Circuit Breakers	20 A	120/240	25 kA
LSPD1-T*	(2) 1-Pole Thermal Magnetic Circuit Breakers	15 A	120/240	25 kA
LSPD2-T*	(2) 1-Pole Thermal Magnetic Circuit Breakers	20 A	120/240	25 kA

* Includes 2 basic 15A or 20A 1-pole circuit breakers. When tripped, it still provides surge protection for the panel.

Ordering Guide: 51120-1, 51120-3R and 51110-SRG

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per mode (Per Phase)
51120-1	Indoor Panel Mount Surge Protection Panel – Metal Enclosure, Type 2	120/240	50 kA (50 kA)
51110-SRG	Indoor/Outdoor Panel Mount Surge Protection Panel – Type 2	120/240	48 kA (96 kA)

NOTE: For complete surge protection, a Type 3 SPD is recommended at point of use to protect against internally created power anomalies.

Visit leviton.com/surge for more details.

Visit our Website at:

leviton.com/surge

email: commercial@leviton.com

Q-1285A

100721

Leviton Manufacturing Co., Inc.

201 N Service Rd, Melville, NY 11747

Telephone: 1-800-323-8920 • FAX: 1-800-832-9538

Tech Line: 1-800-824-3005 (M-F 8AM-10PM; Sat 9AM-7PM; Sun 9AM-5PM)

© 2021 Leviton Manufacturing Co., Inc. All rights reserved.

