

# **Whole House Surge Protection**

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Siemens believes today's residential surge protectors come up short when protecting today's modern home filled with smart appliances and electronics.

This is why we developed our FirstSurge™ commercial class total home surge protectors. These electrical system surge protectors are sized for where you live. They will let you know when there is something wrong or when they are worn out.

Based upon thunderstorm frequency, geographic location, and home size, we developed a surge exposure map correlating with FirstSurge™ current capacities known to provide years of protective service for each shaded area.

### Sized For Where You Live

Model	Part Number	Surge Capacity
FirstSurge™ Power	FS060	60,000 A
FirstSurge™ Plus	FS100	100,000 A
FirstSurae™ Pro	FS140	140.000 A



# Know You're Protected: 3 Stage Commerical Grade Notification

When there is a problem, Siemens FirstSurge™ takes the guesswork out of knowing when it is time to be replaced. What will you see and hear when this occurs?

Audible Alarm: Beeps
Green LED(s): Extinguish
Red Service Light: Flashes

## **Ground Reference Monitoring (GRM)**

FirstSurge™ is GRM-equipped notifying you a rare safety hazard exists due to a compromised electrical system neutral to ground bond. What will you see and hear when this occurs?

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Audible Alarm: Beeps
Green LED(s): Remains Lit
Red Service Light: Flashes



#### **Features & Benefits**

- UL 1449 Listed, Type 2, Surge Protective Device (SPD)
- Rated for 120/240 split phase panels up to 400A
- Surge Current Capacities:
  - 60,000 A
  - 100,000 A
  - 140,000 A
- 3 Stage Commercial Grade Notification
- Ground Reference Monitoring (GRM) Installs onto any brand loadcentre
- Type 4 rated outdoor enclosure
- 10 year product and connected equipment warranty\*

## **Installation Instructions:**

FirstSurge™ is a Type 2 SPD. It is suitable for use downstream of the service disconnect. Pre-plan your installation. You need to accomplish the following:

- Meet all national and local codes (NEC® Article 285 and UL 1449 address SPDs).
- Confirm system voltage to SPD voltage (120V SPD will fail instantly on 240V, 277V, etc.).
- Mount SPD as close to panel or equipment as possible to keep leads short. (long leads hurt performance).
- Ensure leads are as short and straight as possible, including neutral and ground.
   Use a breaker position that is close to the SPD and the panel's neutral and ground.
- Recommended breaker size is 20A.
- Make sure system is grounded per NEC® and clear of faults before energizing SPD. (inadvertent system problem may fail SPD).
- Never Hi-Pot test any SPD. (will prematurely fail SPD).

Technical Specifications		
Surge Spike Capacity	FirstSurge™ Power (FS060)       60,000 A         FirstSurge™ Plus (FS100)       100,000 A         FirstSurge™ Pro (FS140)       140,000 A	
Line Voltage	120/240 Split Phase, 50/60 Hz	
UL 1449 4th Ed VPR	L-N: 600 V L-G: 600 V N-G: 600 V L-L: 900 V	
Rated Voltage (MCOV)	150V – L-N, L-G, and N-G; 300V – L-L	
SCCR	100kA	
Response Time	<1 nanosecond	
Enclosure	NEMA 4X Indoor and Outdoor Rated	

Selection Information	
FirstSurge™ Power	FS060
FirstSurge™ Plus	FS100
FirstSurge™ Pro	FS140
FirstSurge™ Flush Mount Kit	XMFMKIT

- Use voltmeter to check voltages and ensure correct SPD. See data sheet for specs and wire-outs.
- 2. Determine mounting location weather resistant equipment may be required.
- If SPD has optional Flush Mount Kit, preplan its installation. See Figure below. (If flush mounting, be careful to not drop SPD into wall).
- 4. Remove power from panel/source. Confirm panel/source is deenergized.
- Identify breaker location and SPD location. Position SPD such that LEDs are best visible. If Flush Mount Kit was ordered, follow Flush Mount instructions and then proceed at #6.
- Mount SPD weather resistant applications require additional sealing, etc. (not included)
  - Remove an appropriately sized knockout from panel.
  - Connect conductors as appropriate, short and straight as possible.
- Label or mark conductors as appropriate (neutral: white, ground: green, energized: black).

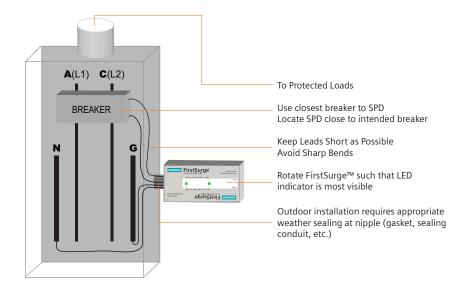
- 8. Make sure system is bonded per NEC® and is clear of hazards or faults before energizing (N-G bonding not per NEC® will fail SPDs: #1 cause of SPD failures).
- Energize and confirm proper operation of green LED indicators. If any connected phase LED does not illuminate, remove power, check all connections and test again. If any connected phase LED still does not illuminate, contact Siemens Technical Support at: 1-888-333-3545.
- 10. The SPD is equipped with an audible alarm which will sound in the event of an alarm condition. This indicates a problem with the SPD which requires further evaluation. There is no test or silence switch. Deenergizing the SPD will silence the alarm.

Siemens Canada Limited 1577 North Service Road East Oakville, ON L6H 0H6

888-333-3545 info@purgethesurge.com

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<sup>\*</sup>See warranty for details