

# Surge Protection Devices (SPD)

## TPS3 External or Wall Mounted SPDs

### TPS3 03

TPS3 03 is a UL 1449 3rd Edition, cUL 50 kA Type 1 (Type 2 cUL) compact Surge Protective Device. For cUL applications, the TPS3 03 can be used as a secondary surge or lightning arrester alternative when installed on the load side of the main disconnect.

#### TPS3 03 Key Features

- UL 1449 3rd Edition, cUL Listed
- Type 1 (Type 2 cUL) Rated SPD
- 50kA Per Phase Surge Current
- 20kA  $I_n$  (Most models)
- 200kA SCCR (Most models)
- UL 96A Lightning Protection Master Labeling compliant (@ 20kA)
- Every MOV is monitored
- Mounting – Chase Nippled, bracket, or DIN RAIL
- Standard compact NEMA 4X polycarbonate enclosure
- Modes of Protection: L-N or L-G and L-L
- Standard Monitoring: LED Indicator
- Dimensions: 3.25" x 3.25" x 3.3" (82.6 mm x 82.6 mm x 83.8 mm)
- Weight: 2 lb. (0.9 kg)
- 2 Year Product Warranty

#### Available Options:

- Dry contacts & audible alarm (option "D")

### TPS3 09

TPS3 09 is a UL 1449 3rd Edition, cUL 100kA Type 1 (Type 2 cUL) compact multi-mode surge protective device that can be installed on either the line or load side of the electrical service.

#### TPS3 09 Key Features

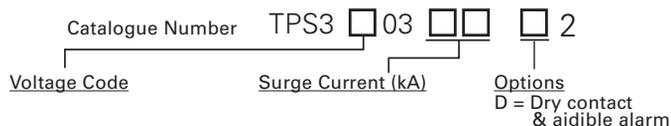
- UL 1449 3rd Edition, cUL Listed
- Type 1 (Type 2 cUL) Rated SPD
- 100kA Per Phase Surge Current
- 20kA  $I_n$  (Most models)
- 200kA SCCR (Most models)
- UL 96A Lightning Protection Master Labeling compliant (@ 20kA)
- Every MOV is monitored, including N-G
- Mounting: External or Wall Mounted
- Standard compact NEMA 4X polycarbonate enclosure
- Modes of Protection: L-N, L-G, N-G, and L-L
- Standard Monitoring: LED Indicators
- Dimensions: 8" x 3" x 3" (203 mm x 76 mm x 76 mm)
- Weight: 3 lb. (1.4 kg)
- 10 Year Product Warranty

#### Available Options:

- Dry contacts & audible alarm (option "D")
- Extended indicator light (option "E")
- Internal mounting in P1, P2 Panels (option "I"), requires TPS9IKITP1 or TPS9IKITP2 mounting bracket accessory.



#### Ordering Information



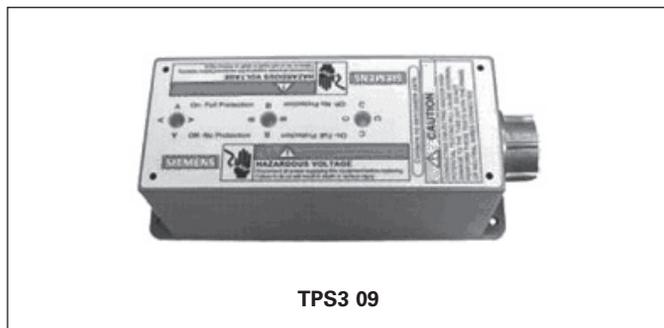
- A = 120/240V, 1Ø, 3W
- B = 120/240V, 3Ø, 4W
- C = 120/208V, 3Ø, 4W
- D = 240V, 3Ø, 3W
- E = 277/480V, 3Ø, 4W
- F = 480V, 3Ø, 3W
- G = 600V, 3Ø, 3W
- K = 380/220V, 3Ø, 4W
- L = 600/347V, 3Ø, 4W

05 = 50kA per phase

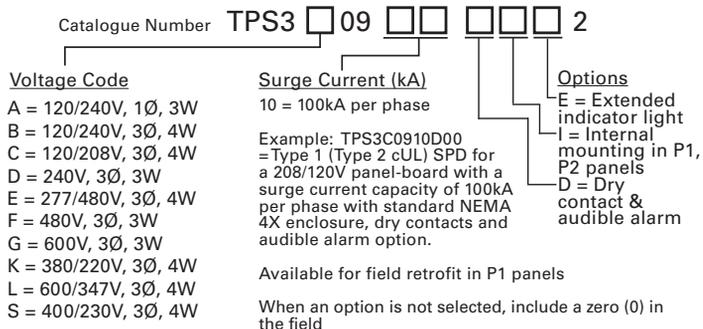
Example - TPS3C0305D = Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 50kA per phase, in a standard NEMA 4X enclosure with dry contacts and audible alarm option.

When an option is not selected, include a zero (0) in the field.

Available Accessories: Ordered Separately  
RMSIE - Remote monitor



#### Ordering Information



- A = 120/240V, 1Ø, 3W
- B = 120/240V, 3Ø, 4W
- C = 120/208V, 3Ø, 4W
- D = 240V, 3Ø, 3W
- E = 277/480V, 3Ø, 4W
- F = 480V, 3Ø, 3W
- G = 600V, 3Ø, 3W
- K = 380/220V, 3Ø, 4W
- L = 600/347V, 3Ø, 4W
- S = 400/230V, 3Ø, 4W

10 = 100kA per phase

Example: TPS3C0910D00 = Type 1 (Type 2 cUL) SPD for a 208/120V panel-board with a surge current capacity of 100kA per phase with standard NEMA 4X enclosure, dry contacts and audible alarm option.

Available for field retrofit in P1 panels

When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately

- RMSIE = Remote monitor
- FMKITC = Flush mount plate
- TPS9IKITP1 = Mounting bracket for installation in P1 panels
- TPS9IKITP2 = Mounting bracket for installation in P2 panels

# Surge Protection Devices (SPD)

## TPS3 External or Wall Mounted SPDs

### TPS3 11

TPS3 11 is a UL 1449 3rd Edition, cUL Multi-mode Type 1 (Type 2 cUL) Surge Protective Device with a per phase surge current capacity that can be increased to 200kA. In addition, this unit provides UL 1283 EMI/RFI filtering (Sine Wave Tracking) that will condition low energy L-N coupled noise.

Standard monitoring includes protection status Ground Integrity Monitoring or (GIM) diagnostic indicators. Complete protection is intact when the status indicators are illuminated. When protection is lost, the status indicator will extinguish and the red service light will illuminate.

Ground Integrity Monitoring or (GIM) diagnostics monitor the health of the electrical system's neutral to ground bond. If voltage is seen across neutral and ground, the phase indicators will remain illuminated while the red service light begins to flash, alerting the end user that the electrical system grounding needs to be checked. This feature can be remotely monitored when the optional dry contacts are included.

#### TPS3 11 Key Features

- UL 1449 3rd Edition, cUL and UL 1283 Listed
- Type 1 (Type 2 cUL) Rated SPD
- 100, 150, 200kA Per Phase Surge Current
- 20kA  $I_n$  (Most models)
- 200kA SCCR (Most models)
- UL 96A Lightning Protection Master Labeling compliant (@ 20kA)
- Every MOV is monitored, including N-G
- Mounting: External or Wall Mounted
- Standard NEMA 4X polycarbonate enclosure (UL 746C (f1), UL 94-5VA)
- Modes of Protection: L-N, L-G, N-G, and LL
- Standard Monitoring: LED Indicators and Ground Integrity

#### Monitoring diagnostics

- Wire size: #8 AWG to #10 AWG
- Dimensions: 6" x 6" x 4" (152 mm x 152 mm x 102 mm)
- Weight: 5 lb. (2.27 kg)
- 10 Year Product Warranty

#### Available Options:

- Dry contacts & audible alarm (option "D")



TPS3 11

#### Ordering Information

Catalogue Number TPS3  11    2

##### Voltage Code

- A = 120/240V, 1Ø, 3W
- B = 120/240V, 3Ø, 4W
- C = 120/208V, 3Ø, 4W
- D = 240V, 3Ø, 3W
- E = 277/480V, 3Ø, 4W
- F = 480V, 3Ø, 3W
- G = 600V, 3Ø, 3W
- K = 380/220V, 3Ø, 4W
- L = 600/347V, 3Ø, 4W
- S = 400/230V, 3Ø, 4W

##### Surge Current (kA)

- 10 = 100kA per phase
- 15 = 150kA per phase
- 20 = 200kA per phase

##### Options

- D = Dry Contacts & audible alarm

Example: TPS3C1110D = Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 100kA per phase, in a standard NEMA 4X enclosure with dry contacts and audible alarm option

When an option is not selected, include a zero (0) in the field

#### Available Accessories: Ordered Separately

- RMSIE = Remote monitor
- FMKITC = Flush mount plate

# Surge Protection Devices (SPD)

## TPS3 External or Wall Mounted SPDs

### TPS3 12 and TPS3 L12 (True or Discrete 10-Mode)

TPS3 12 is a UL 1449 3rd Edition, cUL replaceable module, multi-mode Type 1 (Type 2 cUL) Surge Protective Device with a per phase surge current capacity that can be increased to 500kA (TPS3 L12 to 450kA). For mission critical or high profile applications, our TPS3 L12 "True" or "Discrete" 10-mode style SPD provides the "Just in Case" assurance of directly connected L-L MOVs.

Both TPS3 12 and TPS3 L12 include UL 1283 EMI/RFI filtering (Sine Wave Tracking) that will condition low energy L-N coupled noise.

Standard monitoring includes protection status Ground Integrity Monitoring or (GIM) diagnostic indicators. Complete protection is intact when the status indicators are illuminated. When protection is lost, the status indicator will extinguish and the red service light will illuminate.

Ground Integrity Monitoring or (GIM) diagnostics monitor the health of the electrical system's neutral to ground bond. If voltage is seen across neutral and ground, the phase indicators will remain illuminated while the red service light begins to flash, alerting the end user that the electrical system grounding needs to be checked. This feature can be remotely monitored when the optional dry contacts are included.

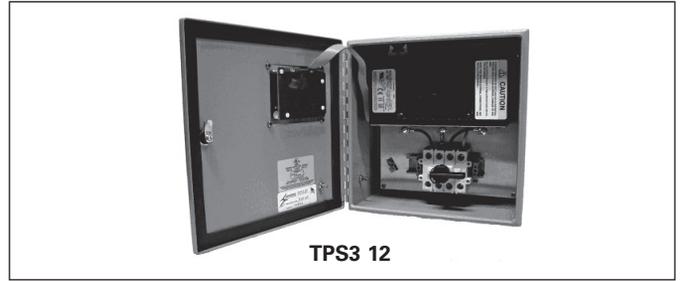
#### TPS3 12 and TPS3 L12 Key Features

- UL 1449 3rd Edition, cUL and UL 1283 Listed
- Type 1 (Type 2 cUL) Rated SPD
- TPS3 12: 100 – 500kA Per Phase Surge Current
- TPS3 L12: 150, 300, 450kA Phase Surge Current
- 20kA  $I_n$  (Most models)
- 200kA SCCR (Most models)
- UL 96A Lightning Protection Master Labeling compliant (@ 20kA)
- Every MOV is monitored, including N-G
- Mounting: External or Wall Mounted
- Standard NEMA 1/12/3R/04 ANSI 61 steel enclosure
- TPS3 12 Modes of Protection – L-N, L-G, N-G, and L-L
- TPS3 L12 Modes of Protection – L-N, L-G, N-G, and L-L (directly connected L-L elements)
- Standard Monitoring:
  - LED Indicators
  - Ground Integrity Monitoring diagnostics
  - Dry contacts
  - Audible alarm with silence switch and test button
- Wire size: #8 AWG to 1/0
- Dimensions: 12" x 12" x 7" (305 mm x 305 mm x 178 mm)\*
- Weight: 20 lb. (9.07 kg)\*
- 10 Year Product Warranty

\*Other NEMA ratings may increase enclosure size and weight

#### Available Options:

- Internal rotary disconnect
- Thru-door disconnect
- Surge counter



TPS3 12

#### Ordering Information

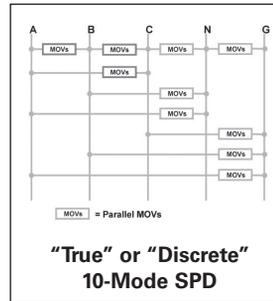
Catalogue Number				TPS3	<input type="checkbox"/>	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
<b>Voltage Code</b>	<b>Surge Current (kA)</b>			<b>Enclosure</b>			<b>Options</b>					
A = 120/240V, 1Ø, 3W	10 = 100kA per phase			0 = Standard NEMA			D = Internal rotary disconnect					
B = 120/240V, 3Ø, 4W	15 = 150kA per phase			1/12/3R/4 Steel			T = Thru-door disconnect					
C = 120/208V, 3Ø, 4W	20 = 200kA per phase			V = NEMA 4X non-metallic			X = Surge Counter					
D = 240V*, 3Ø, 3W	25 = 250kA per phase			S = NEMA 4X stainless steel								
E = 277/480V, 3Ø, 4W	30 = 300kA per phase			F = NEMA 1 flush mount								
F = 480V**, 3Ø, 3W	40 = 400kA per phase			P = NEMA 1 screwcover pullbox with extended display on 6ft cable for line side mounting in SWBD/SWGR								
G = 600V**, 3Ø, 3W	50 = 500kA per phase											
K = 380/220V, 3Ø, 4W												
L = 600/347V, 3Ø, 4W												
S = 400/230V, 3Ø, 4W												

Example: TPS3C12100XD = Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 100kA per phase, in a standard NEMA 1/12/3R/4 enclosure with a surge counter and internal rotary disconnect option

When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately  
- RMSIE = Remote monitor

Notes:  
\* Not available in 500kA  
\*\* Available in 100kA, 150kA, 200kA, 250kA only



TPS3 L12

#### Ordering Information

Catalogue Number				TPS3	<input type="checkbox"/>	L12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
<b>Voltage Code</b>	<b>Surge Current (kA)</b>			<b>Enclosure</b>			<b>Options</b>					
A = 120/240V, 1Ø, 3W	15 = 150kA per phase			0 = Standard NEMA			D = Internal rotary disconnect					
B = 120/240V, 3Ø, 4W	30 = 300kA per phase			1/12/3R/4 Steel			T = Thru-door disconnect					
C = 120/208V, 3Ø, 4W	45 = 450kA per phase			V = NEMA 4X non-metallic			X = Surge Counter					
E = 277/480V, 3Ø, 4W				S = NEMA 4X stainless steel								
F = 480V**, 3Ø, 3W				F = NEMA 1 flush mount								
K = 380/220V, 3Ø, 4W				P = NEMA 1 screwcover pullbox with extended display on 6ft cable for line side mounting in SWBD/SWGR								
S = 400/230V, 3Ø, 4W												

Example: TPS3C12100XD = Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 100kA per phase, in a standard NEMA 1/12/3R/4 enclosure with a surge counter and internal rotary disconnect option

When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately

# Surge Protection Devices (SPD)

## TPS3 External or Wall Mounted SPDs

### TPS3 15 and TPS3 L15 (True or Discrete 10-Mode)

TPS3 15 is a UL 1449 3rd Edition, cUL dual replaceable module, multi-mode Type 1 (Type 2 cUL) Surge Protective Device with a per phase surge current capacity that can be increased to 1000kA (TPS3 L15 to 900kA). For mission critical or high profile applications, our TPS3 L15 "True" or "Discrete" 10-mode style SPD provides the "Just in Case" assurance of directly connected L-L MOVs.

Both TPS3 15 and TPS3 L15 include UL 1283 EMI/RFI filtering (Sine Wave Tracking) that will condition low energy L-N coupled noise.

Standard monitoring includes protection status Ground Integrity Monitoring or (GIM) diagnostic indicators. Complete protection is intact when the status indicators are illuminated. When protection is lost, the status indicator will extinguish and the red service light will illuminate.

Ground Integrity Monitoring or (GIM) diagnostics monitor the health of the electrical system's neutral to ground bond. If voltage is seen across neutral and ground, the phase indicators will remain illuminated while the red service light begins to flash, alerting the end user that the electrical system grounding needs to be checked. This feature can be remotely monitored when the optional dry contacts are included.

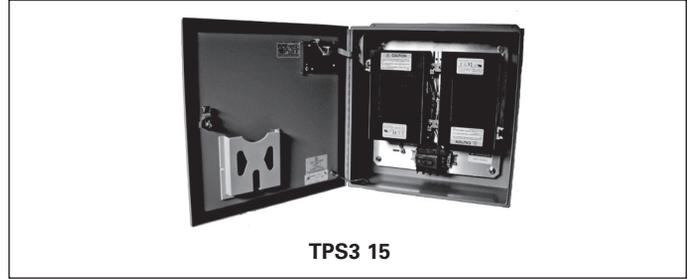
#### TPS3 15 and TPS3 L15 Key Features

- UL 1449 3rd Edition, cUL and UL 1283 Listed
- Type 1 (Type 2 cUL) Rated SPD
- TPS3 15: 600 – 1000kA Per Phase Surge Current (most models)
- TPS3 L15: 600 and 900kA Phase Surge Current
- 20kA  $I_n$  (most models)
- 200kA SCCR (most models)
- UL 96A Lightning Protection Master Labeling compliant (@ 20kA)
- Every MOV is monitored, including N-G
- Mounting: External or Wall Mounted
- Standard NEMA 1/12/3R/04 ANSI 61 steel enclosure
- TPS3 15 Modes of Protection – L-N, L-G, N-G, and L-L
- TPS3 L15 Modes of Protection – L-N, L-G, N-G, and L-L (directly connected L-L elements)
- Internal rotary disconnect switch included
- Standard Monitoring:
  - LED Indicators
  - Ground Integrity Monitoring diagnostics
  - Dry contacts
  - Audible alarm with silence switch and test button
- Wire size: #8 AWG to 1/0
- Dimensions: 20" x 20" x 7" (508 mm x 508 mm x 178 mm)
- Weight: 64 lb. (29 kg) \*
- 10 Year Product Warranty

\*Other NEMA ratings may increase enclosure size and weight

#### Available Options:

- Thru-door disconnect
- Surge counter



TPS3 15

#### Ordering Information

Catalogue Number TPS3  15      2

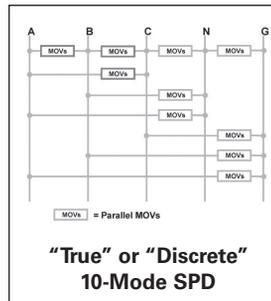
<b>Voltage Code</b>	<b>Surge Current (kA)</b>	<b>Enclosure</b>	<b>Options</b>
A = 120/240V, 1Ø, 3W B = 120/240V, 3Ø, 4W C = 120/208V, 3Ø, 4W D = 240V, 3Ø, 3W E = 277/480V, 3Ø, 4W F = 480V, 3Ø, 3W* G = 600V, 3Ø, 3W** K = 380/220V, 3Ø, 4W L = 600/347V, 3Ø, 4W S = 400/230V, 3Ø, 4W	60 = 600kA per phase 80 = 800kA per phase 1K = 1000kA per phase	0 = Standard NEMA 1/12/3R/4 Steel V = NEMA 4X non-metallic S = NEMA 4X stainless steel F = NEMA 1 flush mount P = NEMA 1 screwcover pullbox with extended display on 5ft cable for line side mounting in SWBD/SWGR	T = Thru-door disconnect X = Surge Counter

Example: TPS3C1560SX0 = Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 600kA per phase, in a NEMA 4X stainless steel enclosure with a surge counter option and standard disconnect switch

When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately  
RMSIE = Remote monitor

\* 600kA or 800kA only  
\*\* 400kA or 500kA only



TPS3 L15

#### Ordering Information

Catalogue Number TPS3  L15      2

<b>Voltage Code</b>	<b>Surge Current (kA)</b>	<b>Enclosure</b>	<b>Options</b>
A = 120/240V, 1Ø, 3W B = 120/240V, 3Ø, 4W C = 120/208V, 3Ø, 4W E = 277/480V, 3Ø, 4W K = 380/220V, 3Ø, 4W S = 400/230V, 3Ø, 4W	60 = 600kA per phase 90 = 900kA per phase	0 = Standard NEMA 1/12/3R/4 Steel V = NEMA 4X non-metallic S = NEMA 4X stainless steel F = NEMA 1 flush mount P = NEMA 1 screwcover pullbox with extended display on 5ft cable for line side mounting in SWBD/SWGR	T = Thru-door disconnect X = Surge Counter

Example: TPS3CL15600X0 = 10 Mode, Type 1 (Type 2 cUL) SPD for a 208/120V application with a surge current capacity of 600kA per phase, in a standard NEMA 1/12/3R/4 enclosure with a surge counter option

When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately  
RMSIE = Remote monitor

# Surge Protection Devices (SPD)

## Power Service Entrance Surge Protection

*Selection*

### FirstSurge™

#### Total Home Protection

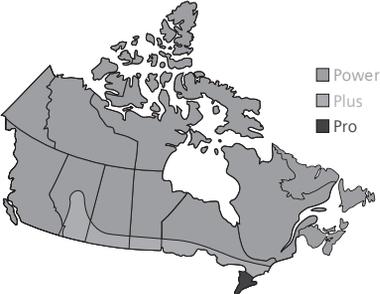
Siemens believes today's residential surge protectors come up short when protecting today's modern home filled with smart appliances and electronics.

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	Surge Capacity
FirstSurge™ Power	(FS060) 60,000 A
FirstSurge™ Plus	(FS100) 100,000 A
FirstSurge™ Pro	(FS140) 140,000 A



#### Know You're Protected:

##### 3 Stage Commercial Grade Notification

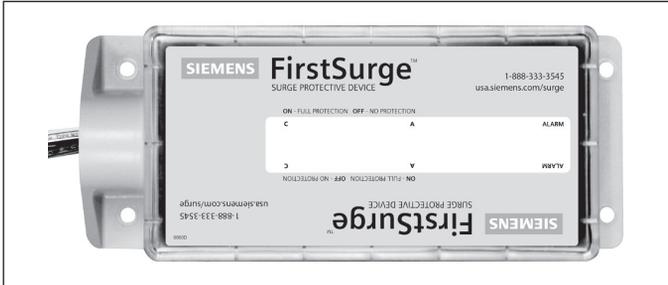
When there is a problem, Siemens FirstSurge™ takes the guesswork out of knowing when it is time to be replaced. What will you see and hear when this occurs?

- 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?

- 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 load center
- Type 4 rated outdoor enclosure
- 10 year product and connected equipment warranty\*

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 3rd 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	
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	

\*See warranty for details

# Surge Protection Devices (SPD)

## Telephone Service Entrance Surge Protection

*Selection*

Siemens FSPHONE is a 2 pair, hardwired surge protector for telephone, DSL or modem connected electronics in residential and light commercial applications. The FSPHONE protects against electrical power surges that can enter through the main telephone connection and is equipped with a failshort device to permanently ground the telephone line in the event of a power cross.

The FSPHONE is designed for indoor applications or can be mounted inside another weatherproof enclosure for outdoor mounting applications.

The FSPHONE4X consists of the FSPHONE plus a weatherproof enclosure to facilitate indoor or outdoor applications. The enclosure is molded of temperature and humidity resistant thermoplastic to resist cracking and discoloration. The cover can be secured with a tie wrap or similar locking device.

For total home protection please use FirstSurge™ to protect your incoming AC Power lines and FSPHONE to protect your incoming telephone line.

### Features & Benefits

- UL listed
- Hardwired Modem/Fax/DSL protection
- Easy to install
- Exceptionally fast response time
- Low insertion loss
- Available with or without enclosure
- 5-Year product warranty\*



Technical Specifications	
Catastrophic Surge Circuit	Yes
Spike Capacity	200 Amps
Let Through Voltage	<270 V
Overcurrent Protection	Yes
Response Time	<1 nanosecond
Enclosure	Yes
Agency Approvals & Warranty	
UL/cUL Listings	497C
Meets Telcordia (formerly Bellcore) GR-974-CORE Requirements for Telecommunications Line Protectors	Yes
Product Warranty	FS140
Catalogue Number	
FSPHONE	2 pair protection module
FSPHONE4X	2 pair protection module & 1 Weatherproof Enclosure

UL Model No. - SATH2

## Coaxial Service Entrance Surge Protection

Siemens FSCATV shields coaxial connected electronics in residential and light commercial applications against electrical transient damage, including lightning, from entering through the main cable connection.

FSCATV includes a section of coaxial cable with female to female splice for line side application. The Siemens warranty covers product defects for 5 years. To have complete protection for your equipment, home, or business, it is important to protect AC power lines and all data lines the equipment is connected through.

### Features & Benefits

- UL Listed
- Rated for CATV, DSS, TV, VCR, and Cable Modem
- Easy to install
- Standard Female to Female F connector
- Low insertion loss
- Automatic recovery
- 5 Year product warranty\*



Technical Specifications	
Frequency Range	DC thru 1.5 GHz
Catastrophic Surge Circuit	Yes
Spike Capacity	5000 Amps, 8/20 μSec
Impedance	75 Ohms
Overcurrent Protection	Yes
Return Loss	30dB @ 1 GHz
Insertion Loss	<0.1dB
Agency Approvals & Warranty	
UL/cUL Listings	497C
Meets IEEE C62.41.1 Requirements	Yes
Product Warranty	FS140
Catalogue Number	
FSCATV	F-Type Inline Coax Protector

UL Model No. - Surgeassure™ SAVFFF

\*See warranty for details