

# Surge Protective Devices (SPDs)

Complete Surge Protection Solutions for Industrial, Commercial and Residential Applications



# UL 1449 3rd Edition: Why is this so important?

UL 1449 is Underwriters Laboratories' safety and performance standard for surge protection equipment. In 2009, this Standard was revised to the 3rd Edition. In addition to some nomenclature changes, there were two very important objectives for revising the UL 1449 Standard: to harmonize with the International standards for surge protective equipment (IEC 61643-1) and to modify performance tests to better simulate real world exposure.

Changes incorporated within UL 1449 3rd Edition provide three significant enhancements for customers of surge products.

- The first enhancement to the standard is the addition of secondary surge arresters which are typically mounted outdoors and prior to service entrance equipment. The addition of surge arresters to UL 1449 ensures that line side devices (surge arresters) will be manufactured with safety related protection similar to load side devices.
- The second enhancement includes the addition of a Nominal Discharge Current Rating ( $I_{Nc}$ ). The nominal discharge current test allows users to compare a surge protective device's durability (or ability to survive a lightning strike) under a UL regulated test. The UL regulated test provides for a fair and accurate competitive environment.
- The third change is related to the Voltage Protection Rating (VPR). The past test was called surge voltage rating (SVR). The requirements of the SVR test were too weak to exercise many of the surge products in a way that would show how well they are performing. The new VPR test is performed at 3000 Amps as opposed to 500 Amps and surge products must show improved performance to obtain recommended VPR levels of surge protection.

## New Descriptive Terminology

Article 285 of the NEC title has been updated to be consistent with UL and IEEE. The term Transient Voltage Surge Suppressor (TVSS) is being replaced by Surge Protective Devices (SPDs). The requirements for SPDs were changed and they are now identified by Type 1, 2, 3, or 4 depending upon where the SPD will be incorporated within the power distribution system.

**Type 1 SPDs:** Also called Surge Arresters or Secondary Surge Arresters. These devices are referred to as a Type 1 SPD due to its location within the power distribution system. This is typically on the supply side of the service disconnect overcurrent device (main service panel).

**Type 2 SPDs:** Typically service entrance SPD panels or branch circuit SPD panels that are connected on the load side of the service disconnect overcurrent device (main service panel).

**Type 3 SPDs:** Typically surge receptacles or cord connected point-of-use devices. They are permitted to be installed anywhere on the load side of a branch circuit up to the equipment served, provided the connection is a minimum of 10m (30ft.) from the service panel. Note: If the distance is less than 10m, a Type 2 SPD (or a Type 3 SPD tested to Type 2 requirements) must be used.

**Type 4 SPDs:** UL Recognized Components.





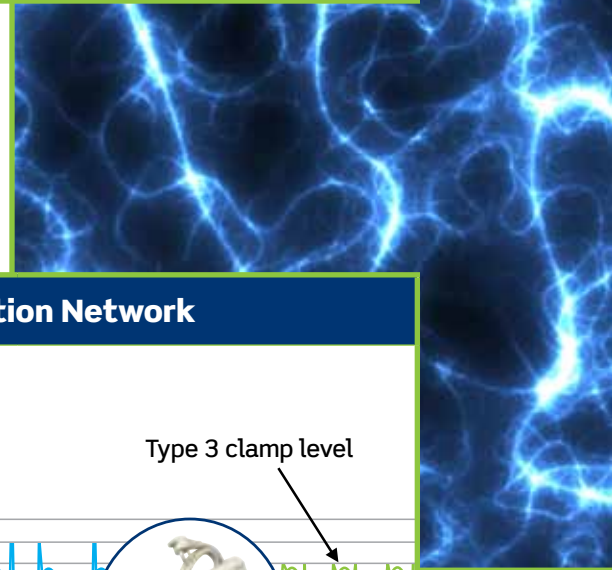
# Table of Contents

UL 1449 3rd Edition: Why is this so important?.....	2
Surge Protection Network Implementation.....	4
Type 1 Surge Protective Devices.....	5
50240-MSA, 51120-3R and 55000 Series Surge Arresters .....	6
Type 2 Surge Protective Devices.....	9
Product Line Overview .....	10
74000/75000 Series Modular Panels .....	11
52000/57000 Series Modular Panels.....	13
37000/47000 Series Non-Modular Panels.....	17
32000/42000 and 51120 Series Non-Modular Panels.....	19
51110 Series Residential Panels .....	23
Type 3 Surge Protective Devices.....	25
Surge Receptacles .....	26
5100/5300 Series Surge Strips.....	29
S1000/S2000 Series Surge Strips.....	31
3500 Series Wall-Mount Plug-In Surge Protectors.....	33
Type 4 Surge Protective Devices.....	35
51000 Series Point-of-Use Surge Modules.....	36
3800 Series Wired-In Surge Modules.....	37
DIN-Rail Mount Receptacles .....	40
Low Voltage Surge Protective Devices.....	41
3800 Series Low Voltage DC Power Surge Modules.....	42
3400/3800 Series Low Voltage DC Data Surge Modules .....	44
Technical Reference Materials .....	47
Electrical Systems .....	48
Glossary.....	49
Product Warranties.....	50



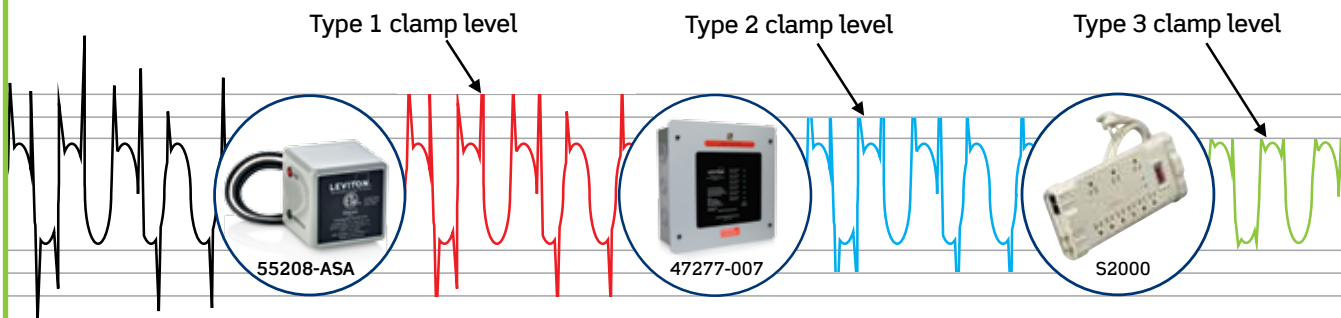
# Surge Protection Network

In order to achieve optimum protection for your equipment, it is essential to utilize a distributed approach to surge suppression. That is, you'll need to install surge protective devices (SPDs) that knock down high-energy transients at the building entrance and/or sub-panel so that they're manageable for the smaller SPDs that protect PCs and other equipment at point-of-use. Leviton offers a comprehensive selection of devices that will allow you to implement the most effective surge protection network possible.



## How To Implement An Effective Surge Protection Network

### SURGE PROTECTIVE DEVICES



#### SURGE PROTECTIVE DEVICE PERFORMANCE

##### TYPE 1

Typically mounted on the line side of the main service entrance. Protects against external surges caused by lightning or utility capacitor bank switching.

##### TYPE 2

Typically serves a branch circuit and protects against residual lightning energy, motor driven surges and other internally generated surges.

##### TYPE 3

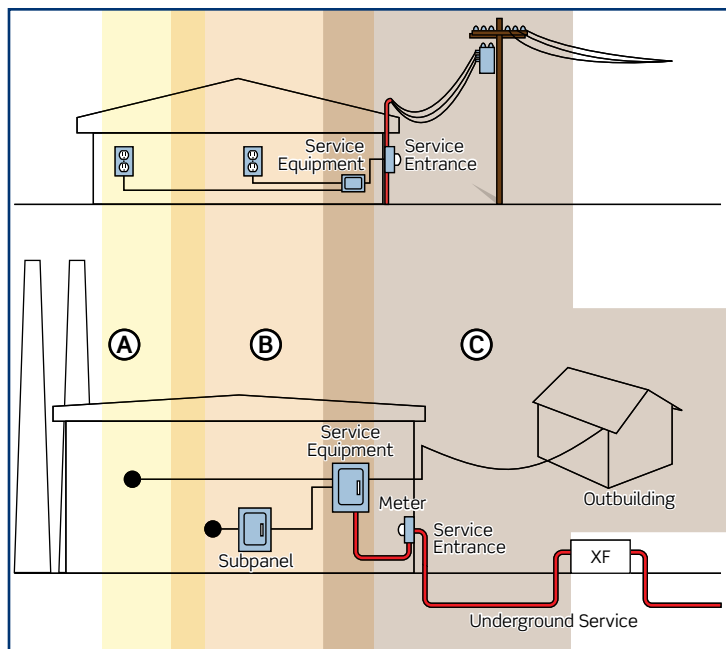
Typically used at the protected equipment. Provides point-of-use protection, easily replaceable and it provides the last line of defense against a lightning strike.

## Standardization

The SPD Types (Type 1, 2, 3, 4) are the UL, NEC and IEEE attempt to harmonize with the IEC 61643-1 standard that uses Class 1, 2, 3 designators. The sole reason that UL did not use Class 1, 2 and 3 is that North, Central & South America lean towards the IEEE documents, which use an  $8 \times 20\mu s$  surge waveform instead of the  $10 \times 350\mu s$  surge waveform, as it more accurately reflects the conditions experienced during a lightning strike. Since the test is different, the name had to be different.

The drawing below identifies category A, B and C as defined in the IEEE Trilogy of Standards. Category C ranges from the transformer secondary to just inside the building entrance. Category B includes all of the branch or sub-panels and Category A includes the receptacles and point-of-use devices such as cord-connected or plug-in surge devices.

Note: There is purposeful overlap between the categories as it is not a demarcation line but a transition. The figure below is from IEEE C62.41.2 which is the Recommended Practice on Characterization of Surges in Low-Voltage (1000V and Less) AC Power Circuits.





## Type 1 Surge Protective Devices

Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service equipment overcurrent device, as well as the load side, including watt-hour meter socket enclosures and intended to be installed without an external overcurrent protective device.



## Type 1 Surge Protective Devices

Leviton's Type 1 Surge Protective Devices protect against lightning strikes entering into main service panels or electrical equipment with high exposure to lightning, such as farming irrigation systems and pumps used in oil/petrochemical applications.



50240-MSA

### Meter Socket Surge Arrester Adapter 50240 Surge Protective Devices

- Designed for 120/240 volt single-phase ringless or ring-type meters
- Rugged housing constructed of high-impact, non-conductive fiberglass-reinforced polycarbonate
- Featuring spring-loaded, high-pressure copper-plated contacts for maximum conductivity
- Limited Lifetime Product Warranty
- Connected equipment coverage up to \$10,000\*

\*Certain restrictions apply

### Ordering Information

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per mode
55240-ASA	Secondary Surge Arrester	120/240 Single Phase	50kA
55208-ASA	Secondary Surge Arrester	120/208 3Ø WYE, 240V 3Ø Delta	50kA
55480-ASA	Secondary Surge Arrester	277/480 3Ø WYE, 480V 3Ø Delta	50kA
50240-MSA	Meter Socket Surge Arrester	120/240 Single Phase	50kA
51120-3R	Panel Mount Surge Arrester	120/240 Single Phase	50kA



51120-3R

55208-ASA

### 55000 Series and 51120-3R Surge Protective Devices

- Features a low VPR to ensure protection of sensitive electronic devices including LCD TVs, and computers
- NEMA Type 3R enclosure for indoor or outdoor use
- Limited Lifetime Product Warranty

#### 55000 Series

- Internal DIN rail module provides for easy replacement
- Provided with #10 AWG stranded, 18 in. long pigtail leads
- 55240-ASA features connected equipment coverage up to \$10,000
- May also be used in Type 2 applications

#### 51120-3R

- Rugged housing constructed of high-impact, non-conductive fiberglass-reinforced polycarbonate rated for outdoor use
- Provided with #12 AWG stranded, 28 in. long cord
- Connected equipment coverage up to \$25,000\*
- May also be used in Type 2 applications





## Specifications for: 55000 Series, 51120-3R and 50240-MSA Surge Protective Devices

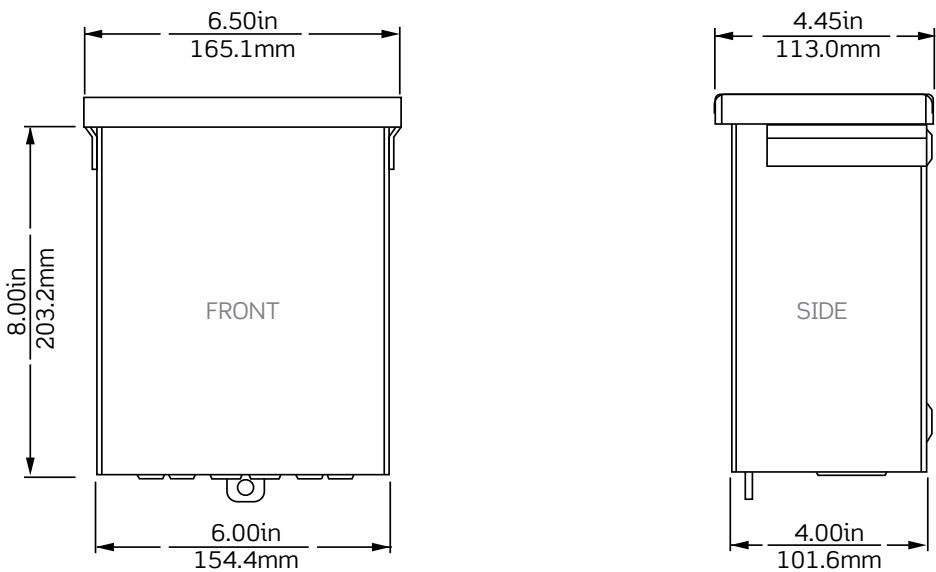
Catalog Number	55240-ASA	55208-ASA	55480-ASA	51120-3R	50240-MSA
Electrical Specifications					
Voltage	120/240V Single Phase	120/208V 3Ø WYE, 240V 3Ø Delta	277/480V 3Ø WYE, 480V 3Ø Delta	120/240V Single Phase	120/240V Single Phase
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Surge Technology	TPMOV	TPMOV	TPMOV	TPMOV	TPMOV's
Amperage	—	—	—	—	200A* *
Performance Data					
Maximum Continuous Operating Voltage (MCOV)	150V	150V	320V	150V(L-N)/300V(L-L)	150V
Nominal Discharge Rating (I <sub>n</sub> )	20kA	20kA	20kA	20kA	20kA
Maximum Surge Current, Per Mode (Per Phase)	50kA (50kA)	50kA (50kA)	50kA (50kA)	50kA (50kA)	50kA (50kA)
Voltage Protection Rating (VPR) (Clamping)	600V(L-N)/800V(L-L)	600V(L-N)/800V(L-L)	800V(L-N)/700V(L-L)	500V(L-N)/800V(L-L)	600V(L1-N)/500V (L2-N)/ 400V (L1-L2)
Mechanical Specifications					
Enclosure Type	NEMA 3R			NEMA 3R	NEMA 3R
Connection Type	Parallel Connection: Hardwired via 10AWG wire			Parallel Connection: Hardwired via 12AWG wire	Meter Base Connection: Hardwired Neutral
Diagnostics	Protection Status LEDs & Audible Alarm			Protection Status LEDs	Protection Status LEDs
Environmental Specifications					
Flammability	Rated V-2 per UL 94				Rated V-2 per UL 94
Operating Temperature	-10°C to 60°C				-40°C to 60°C
Storage Temperature	-20°C to 85°C				-50°C to 85°C
Material Specifications					
Enclosure	Polycarbonate with UV Inhibitors			Powder Coated Steel Outer Enclosure; Polycarbonate Module Enclosure	Fiberglass Reinforced Polycarbonate
Contacts	—			—	Copper
Standards & Certifications					
Agency Certification	ETL Certified to be in compliance with UL 1449 3rd edition Type 1 Device				
National Electric Code (NEC)	285				
ANSI/IEEE Category C	C-62.11, C-62.41 & C-62.45				
Warranty					
Product Warranty	Limited Lifetime	Limited Lifetime	Limited Lifetime	Limited Lifetime	Limited Lifetime
Connected Equipment Coverage	Up to \$10,000*	Up to \$10,000*	Up to \$10,000*	Up to \$25,000*	Up to \$10,000*

\* As part of the True Whole House Surge Protection Warranty

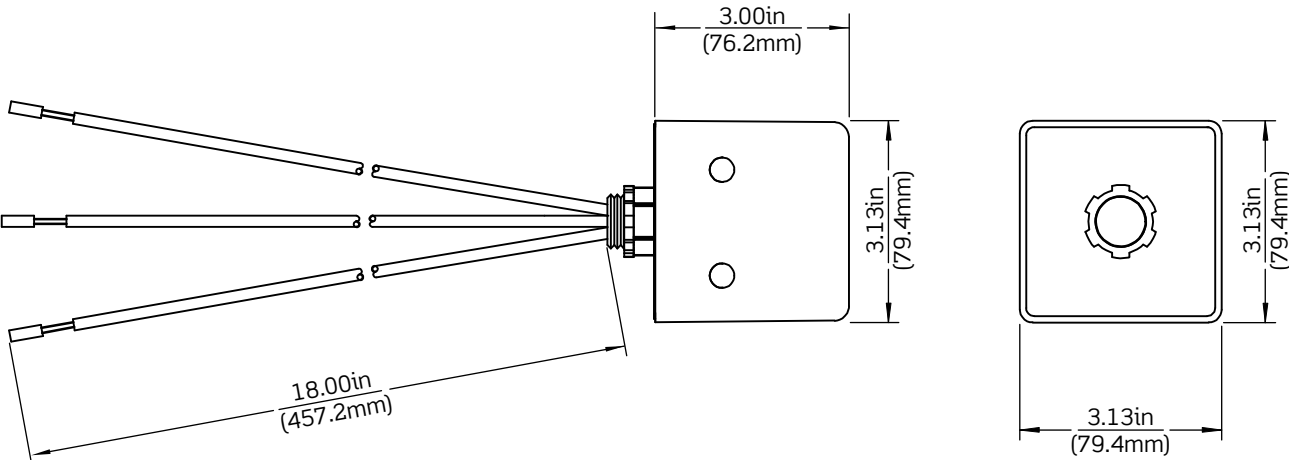
\*\* 200 Amp only when using Murray Cat. No. RH173CRF meter socket; otherwise 175 Amp

Dimensions for: 51120-3R, 55000 Series and 50240-MSA Surge Protective Devices

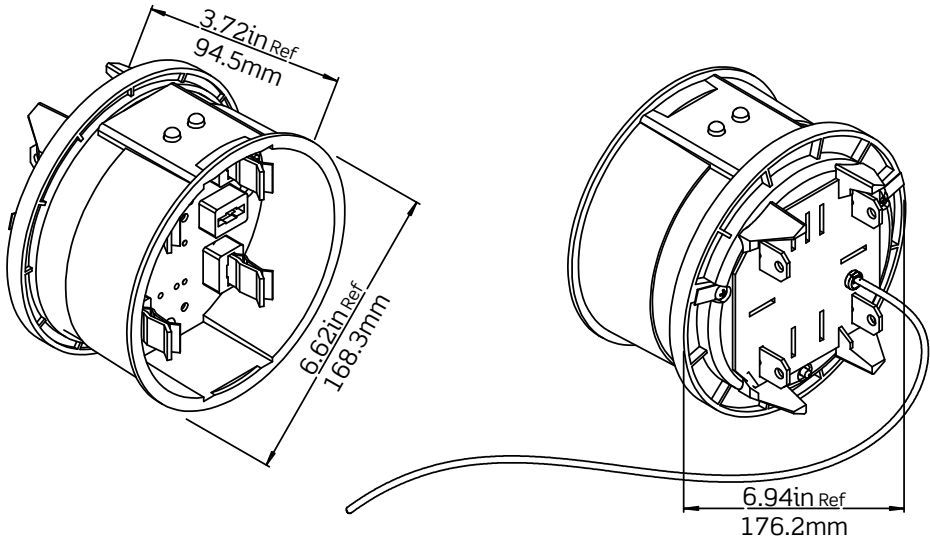
51120-3R



55000 Series



Typical for 50240-MSA







## Type 2 Surge Protective Devices

Permanently connected SPDs intended for installation on the load side of the service equipment overcurrent device; including SPDs located at the branch panel.



## Quick Reference – Type 2 Surge Protective Devices

Catalog Number	Max Surge Current, Per Mode (Per Phase)	Nominal Discharge Current (In)	Replaceable Modules	Enclosure	Surge Counter	Noise Filtering
<b>120V and 120/240V, Single-Phase</b>						
52120-M1	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52120-M2	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52120-CM2	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
52120-M2H	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
32120-1	80kA (80kA)	3kA	No	Type 3R	No	Yes
42120-1	80kA (80kA)	3kA	No	Type 3R	No	Yes
51110-1	48kA (96kA)	3kA	No	Type 4X	No	No
51110-PTC	48kA (96kA)	3kA	No	Type 1	No	No
<b>120/208V, Three-Phase WYE</b>						
75120-7M3	320kA (640kA)	10kA	Yes	Type 12	Yes	Yes
74120-7M3	200kA (400kA)	10kA	Yes	Type 12	Yes	Yes
47120-7	200kA (400kA)	10kA	No	Type 1	No	Yes
47120-4X7	200kA (400kA)	10kA	No	Type 4X	No	Yes
57120-M3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
57120-CM3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
52120-M3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52120-CM3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
52120-7M3	100kA (200kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52120-7C3	100kA (200kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
37120-7	100kA (200kA)	5kA	No	Type 1	No	Yes
<b>120/208V, Three-Phase WYE or 208V, Three-Phase Delta or 220V, Three-Phase Delta</b>						
32120-DY3	80kA (80kA)	3kA	No	Type 3R	No	Yes
42120-DY3	80kA (80kA)	3kA	No	Type 3R	No	Yes
<b>120/240/120V, Three-Phase Hi-leg Split Phase Delta</b>						
52412-DS3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
32412-DS3	80kA (80kA)	3kA	No	Type 3R	No	Yes
42412-DS3	80kA (80kA)	3kA	No	Type 3R	No	Yes
<b>220/380V, Three-Phase WYE or 277/480V, Three-Phase WYE or 240V, Three-Phase Delta or 480V, Three-Phase Delta</b>						
32277-DY3	80kA (80kA)	3kA	No	Type 3R	No	Yes
42277-DY3	80kA (80kA)	3kA	No	Type 3R	No	Yes
<b>240V, Three-Phase Delta</b>						
57240-DM3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52240-DM3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
<b>277/480V, Three-Phase WYE</b>						
75277-7M3	320kA (640kA)	10kA	Yes	Type 12	Yes	Yes
74277-7M3	200kA (400kA)	10kA	Yes	Type 12	Yes	Yes
47277-7	200kA (400kA)	10kA	No	Type 1	No	Yes
47277-4X7	200kA (400kA)	10kA	No	Type 4X	No	Yes
57277-M3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
57277-CM3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
52277-M3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52277-CM3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
52277-7M3	100kA (200kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52277-7C3	100kA (200kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	Yes	Yes
37277-7	100kA (200kA)	5kA	No	Type 1	No	Yes
<b>480V, Three-Phase Delta</b>						
57480-DM3	150kA (150kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
52480-DM3	100kA (100kA)	10kA/20kA <sup>1</sup>	Yes	Type 12	No	Yes
<b>347/600V, Three-Phase WYE or 600V, Three-Phase Delta</b>						
32347-DY3	80kA (80kA)	---	No	Type 3R	No	Yes
42347-DY3	80kA (80kA)	---	No	Type 3R	No	Yes
<b>347/600V, Three-Phase WYE</b>						
57347-M3	150kA (150kA)	---	Yes	Type 12	No	Yes
<b>600V, Three-Phase Delta</b>						
57600-DM3	150kA (150kA)	---	Yes	Type 12	No	Yes

N/A: not applicable as these units do not have line-to-ground (L-G) surge protection

<sup>1</sup>I<sub>N</sub> = 10 kA when protected by a circuit breaker rated 30 A, min. (b) Volts, minimum 10 kA AIC. I<sub>N</sub> = 20 kA when protected by a Square D Circuit Breaker Cat. No. QOB330A rated 30 A, min. 120/240 Volts, minimum 10 kA AIC or any Circuit Breaker rated 30A, (b) volts, minimum AIC 14kA. (b) Nominal System Voltage, where (b) = nominal system voltage.

## Type 2 Modular Surge Protective Devices

Leviton's 74000 and 75000 Series panel mounted surge protective devices provide seven-mode protection in WYE-configured, 3-phase AC systems. Designed for most industrial and commercial environments with critical operations, these panels offer complete protection at the building entrance and distribution panel.



### 74000 / 75000 Series for 3-Phase Applications

- Protection for up to 200,000 amps (74000 Series) or up to 320,000 amps (75000 Series) of surge current per mode
- Seven-Mode protection provides improved performance and longevity
- Real-time diagnostics monitor power and suppression status for each phase and provide both LED indicators and audible alarm
- User-replaceable plug-in modules eliminate the need to replace the entire surge panel following a damaging surge event
- Surge event history—including surge magnitude, time, and date for each surge event—can be viewed on an easy-to-read display or downloaded for storage
- Equipped with dry contacts for remote monitoring
- NEMA Type 12 enclosure resists dirt, dust and light splashing water
- Limited lifetime product warranty with free replacement modules\*

\*Certain restrictions apply

### Ordering Information

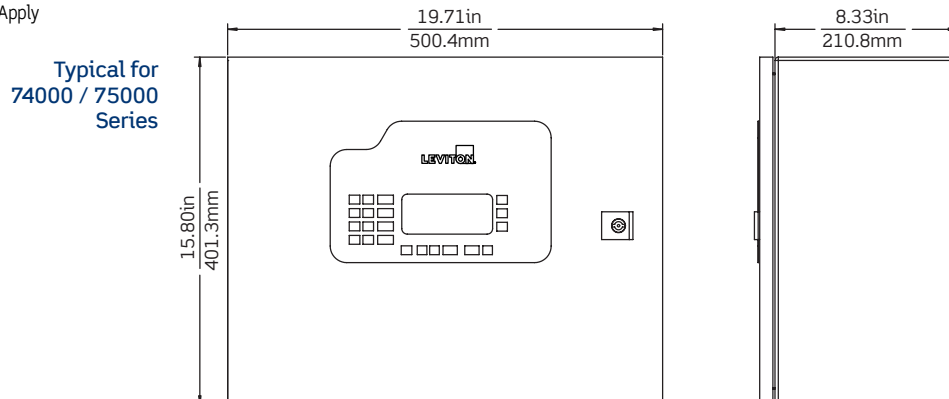
Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)	Replacement Modules
74120-7M3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	200kA (400kA)	HC120-M40 (7)
74277-7M3	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	200kA (400kA)	HC277-M40 (7)
75120-7M3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	320kA (640kA)	HC120-M53 (7)
75277-7M3	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	320kA (640kA)	HC277-M53 (7)



## Specifications and Dimensions for: 74000 / 75000 Series

Catalog Number	74120-7M3	74277-7M3	75120-7M3	75277-7M3	
Electrical Specifications					
Voltage	120/208 VAC 3-phase WYE	277/480 VAC 3-phase WYE	120/208 VAC 3-phase WYE	277/480 VAC 3-phase WYE	
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	
Surge Technology	40mm MOV	40mm MOV	53mm MOV	53mm MOV	
Recommended Circuit Breaker Rating	30A, 120V	30A, 277V	30A, 120V	30A, 277V	
Performance Data					
Nominal Discharge Rating (I <sub>N</sub> )		10kA			
Maximum Continuous Operating Voltage (MCOV)	L-L	300	640	300	640
	L-N	150	320	150	320
	L-G	150	320	150	320
	N-G	150	320	150	320
Voltage Protection Rating (VPR)	L-L	1200	2000	1500	2000
	L-N	700	1200	800	1200
	L-G	800	1200	800	1200
	N-G	500	1000	600	1000
Maximum Surge Current, Per Mode (Per Phase)		200kA (400kA)		320kA (640kA)	
Protection Mode		7 Mode			
Short Circuit Current Rating (SCCR)		10kA			
EMI/RFI Noise Rejection		-40dB (@ 5K-100MHz)			
Diagnostics		Real Time Protection status LEDs & Audible Alarm, Surge Counter, Downloadable event history log; shows magnitude, duration of spike			
Remote Monitoring		Dry Contact Leads-N.O./N.C. Form C Rated at 7Amps @ 240VAC or 30VDC			
Mechanical Specifications					
Connection Type		Parallel-Hardwire Using Terminal Block: Accepts up to #6 AWG			
Environmental Specifications					
Operating Temperature		-10°C to 60°C			
Storage Temperature		-20°C to 85°C			
Flammability		Rated V-2 per UL 94			
Relative Humidity		5% to 95% non-condensing			
Standards & Certifications					
Enclosure Type		NEMA 12 Steel Enclosure			
Agency Certification		cULus 1449 3rd Edition Listed Type 2			
ANSI/IEEE Category A, B & C		C-62.41 & C-62.45			
Warranty					
Product Warranty		Limited Lifetime			
Replacement Module Warranty		Limited Lifetime*			

\*Certain Restrictions Apply





## Type 2 Modular Surge Protective Devices

Leviton's 52000 and 57000 Series panel mounted surge protective devices provide a good mix of value, performance, and features for main service or branch panel applications in industrial, commercial and residential environments. The parallel-operated design ensures continuous power even if surge protection is disabled. They feature indicator lights, a status relay and audible alarm for monitoring power and surge suppression, and replaceable surge modules for simplified maintenance after a destructive surge event.



52120-M2



57277-CM3

### 52000 and 57000 Series Service/Branch Panel Protection

- Protection for up to 100,000 amps (52000 Series) or 150,000 amps (57000 Series) of surge current per mode
- Redundant surge modules for mission critical applications
- Easily replaceable surge modules
- AC Sine Wave tracking provides enhanced EMI/RFI filtering
- NEMA Type 12 enclosure resists dirt, dust and light splashing water
- Models available with Surge Counter
- Limited lifetime product warranty with free replacement modules\*

\*Certain restrictions apply

## Ordering Information

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)	Replacement Modules
52120-M1	2-Mode Surge Protection Panel	120 Single-phase, 2-wire + gnd	100kA (100kA)	(1) 2120, (1) 8120-GN
52120-M2	3-Mode Surge Protection Panel	120/240 Single-phase, 3-wire + gnd	100kA (100kA)	(2) 2120, (1) 8120-GN
52120-CM2	3-Mode Surge Protection Panel, with Surge Event Counter	120/240 Single-phase, 3-wire + gnd	100kA (100kA)	(2) 2120, (1) 8120-GN
52120-M2H	3-Mode Surge Protection Panel, DHC & X10 compatible	120/240 Single-phase, 3-wire + gnd	100kA (100kA)	(2) 2120-M2H, (1) 8120-GN
52120-M3	4-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100kA (100kA)	(3) 2120, (1) 8120-GN
52120-CM3	4-Mode Surge Protection Panel, with Surge Event Counter	120/208 3Ø WYE, 4-wire + gnd	100kA (200kA)	(3) 2120, (1) 8120-GN
52120-7M3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100kA (200kA)	(3) 120-7M3, (1) 8120-GN
52120-7C3	7-Mode Surge Protection Panel, with Surge Event Counter	120/208 3Ø WYE, 4-wire + gnd	100kA (100kA)	(3) 120-7M3, (1) 8120-GN
52240-DM3	3-Mode Surge Protection Panel	240 3Ø Delta, 3-wire + gnd	100kA (100kA)	(3) 2240
52277-M3	4-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100kA (100kA)	(3) 2277, (1) 8320-GN
52277-CM3	4-Mode Surge Protection Panel, with Surge Event Counter	277/480 3Ø WYE, 4-wire + gnd	100kA (100kA)	(3) 2277, (1) 8320-GN
52277-7M3	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100kA (200kA)	(3) 277-7M3, (1) 8320-GN
52277-7C3	7-Mode Surge Protection Panel, with Surge Event Counter	277/480 3Ø WYE, 4-wire + gnd	100kA (200kA)	(3) 277-7M3, (1) 8320-GN
52480-DM3	3-Mode Surge Protection Panel	480 3Ø Delta, 3-wire + gnd	100kA (100kA)	(3) 2480
52412-DS3	4-Mode Surge Protection Panel	120/240/120 Split Phase Delta, 4-wire + gnd	100kA (100kA)	(2) 2120, (1) 2412, (1) 8120-GN
57120-M3	4-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	150kA (150kA)	(3) 7120, (1) 8120-GN
57120-CM3	4-Mode Surge Protection Panel, with Surge Event Counter	120/208 3Ø WYE, 4-wire + gnd	150kA (150kA)	(3) 7120, (1) 8120-GN
57240-DM3	3-Mode Surge Protection Panel	240 3Ø Delta, 3-wire + gnd	150kA (150kA)	(3) 7240
57277-M3	4-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	150kA (150kA)	(3) 7277, (1) 8320-GN
57277-CM3	4-Mode Surge Protection Panel, with Surge Event Counter	277/480 3Ø WYE, 4-wire + gnd	150kA (150kA)	(3) 7277, (1) 8320-GN
57480-DM3	3-Mode Surge Protection Panel	480 3Ø Delta, 3-wire + gnd	150kA (150kA)	(3) 7480
57347-M3	4-Mode Surge Protection Panel	347/600 3Ø WYE, 4-wire + gnd	150kA (150kA)	(3) 7347, (1) 8385-GN
57600-DM3	4-Mode Surge Protection Panel	600 3Ø Delta, 3-wire + gnd	150kA (150kA)	(3) 7600



## Specifications for: 57000 Series

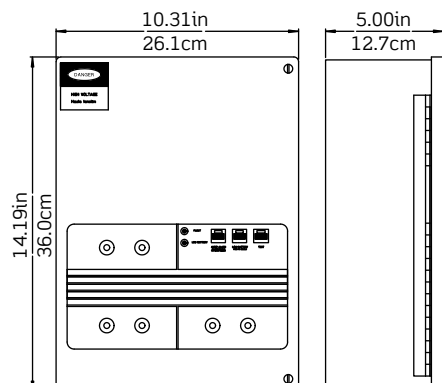
Catalog Number		57120-M3 57120-CM3	57240-DM3	57277-M3 57277-CM3	57480-DM3	57347-M3	57600-DM3
Electrical Specifications							
Voltage		120/208VAC 3-phase WYE	240VAC 3-phase Delta	277/480VAC 3-phase WYE	480VAC 3-phase Delta	347/600VAC 3-phase WYE	600VAC 3-phase Delta
Frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Surge Technology		40mm MOV Design	40mm MOV Design	40mm MOV Design	40mm MOV Design	40mm MOV Design	40mm MOV Design
Recommended Circuit Breaker Rating		30A, 120V	30A, 240V	30A, 277V	30A, 480V	30A, 600V	30A, 600V
Performance Data							
Nominal Discharge Rating (I <sub>n</sub> )		10/20 kA <sup>1</sup>	10/20 kA <sup>1</sup>	10/20 kA <sup>1</sup>	10/20 kA <sup>1</sup>	N/A	N/A
Maximum Continuous Operating Voltage (MCOV)	L-N	150V	—	320V	—	390V	385V
	L-G	300V	—	640V	—	—	—
	N-G	150V	—	320V	—	—	—
	L-L	300V	320V	640V	640V	680V	680V
Voltage Protection Rating (VPR)	L-N	1000V	—	1500V	—	1500V <sup>2</sup>	1000V <sup>2</sup>
	L-G	1500V	—	2500V	—	—	—
	N-G	800V	—	1200V	—	1000V <sup>2</sup>	1000V <sup>2</sup>
	L-L	1500V	1500V	2500V	2000V	2000V <sup>2</sup>	2000V <sup>2</sup>
Maximum Surge Current, Per Mode (Per Phase)		150kA (150kA)	150kA (150kA)	150kA (150kA)	150kA (150kA)	150kA (150kA)	150kA (150kA)
Protection Mode		4 Mode	3 Mode	4 Mode	3 Mode	4 Mode	4 Mode
Short Circuit Current Rating (SCCR)		100kA	100kA	100kA	100kA	100kA	100kA
EMI/RFI Noise Rejection		-20 to -40dB ( @ 1.5K-1.2MHz)					
Mechanical Specifications							
Connection Type		Parallel-hardwired, feed-through dual wire terminal block: Accepts up to #3 AWG wire					
Diagnostics		Real Time Protection status LEDs & Audible Alarm					
Remote Monitoring		Dry Contacts-N.O./N.C. Form C Rated at 7Amps @ 240VAC or 30VDC					
Environmental Specifications							
Enclosure Type		NEMA 12 Steel Enclosure					
Operating Temperature		-20°C to 60°C					
Storage Temperature		-20°C to 85°C					
Flammability		Rated V-2 per UL 94					
Relative Humidity		5% to 95% non-condensing					
Standards & Certifications							
Agency Certification		UL 1449 3rd Edition Listed and CSA C22.2 Certified Type 2				CSA C22.2 Certified	
ANSI/IEEE Category A, B & C		C-62.41 & C-62.45				C-62.41 & C-62.45	
Warranty							
Product Warranty		Limited Lifetime					
Replacement Module Warranty		Limited Lifetime*					

<sup>1</sup> $I_n$  = 10 kA when protected by a circuit breaker rated 30 A, min. (b) Volts, minimum 10 kA AIC.  $I_n$  = 20 kA when protected by a Square D Circuit Breaker Cat. No. QOB330A rated 30 A, min. 120/240 Volts, minimum 10 kA AIC or any Circuit Breaker rated 30A, (b) volts, minimum AIC 14kA. (b) Nominal System Voltage, where (b) = nominal system voltage.

<sup>2</sup>Surge Voltage Rating (SVR)

\*Certain restrictions apply

Typical for  
57000 & 52000  
Series



## Specifications for: 52000 Series

Catalog Number	52120-M1	52120-M2 52120-CM2	52120-M2H	52120-M3 52120-CM3	52120-7M3 52120-7C3	52240-DM3	52277-M3 52277-CM3	52277-7M3 52277-7C3	52480-DM3	52412-DS3	
Electrical Specifications											
Voltage	120VAC	120/ 240VAC	120/ 240VAC	120/ 208VAC 3-phase WYE	120/ 208VAC 3-phase WYE	240VAC 3-phase Delta	277/ 480VAC 3-phase WYE	277/ 480VAC 3-phase WYE	480VAC 3-phase Delta	120/240/ 120VAC 3-phase Hi-Leg Delta	
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	
Surge Technology	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	
Recommended Circuit Breaker Rating	30A, 120V	30A, 120/240V	30A, 120/240V	30A, 120/208V	30A, 120/208V	30A, 240V	30A, 277/480V	30A, 277/480V	30A, 480V	30A, 120/240V	
Performance Data											
Maximum Continuous Operating Voltage (MCOV)	L-N	150V	150V	150V	150V	150V	—	320V	320V	—	L-N:150V H-N:320V
	L-G	300V	300V	300V	300V	150V	—	640V	320V	—	L-G:300V H-G:470V
	N-G	150V	150V	150V	150V	150V	—	320V	320V	—	150V
	L-L	—	300V	300V	300V	300V	320V	640V	640V	550V	L-L:300V H-L:470V
Voltage Protection Rating (VPR)	L-N	1000V	1000V	1000V	1000V	1000V	—	1500V	1500V	—	L-N:1000V H-N:1500V
	L-G	1500V	1500V	900V	1500V	1200V	—	2500V	1500V	—	L-G:1500V H-G:2000V
	N-G	700V	700V	700V	700V	700V	—	1200V	1200V	—	700V
	L-L	—	1500V	1500V	1500V	1500V	1500V	2500V	2500V	2000V	L-L:1500V H-L:2500V
Protection Mode	2 Mode	3 Mode	3 Mode	4 Mode	7 Mode	3 Mode	4 Mode	7 Mode	3 Mode	4 Mode	
Maximum Surge Current, Per Mode (Per Phase)	100kA (100kA)	100kA (100kA)	100kA (100kA)	100kA (100kA)	100kA (200kA)	100kA (100kA)	100kA (100kA)	100kA (200kA)	100kA (100kA)	100kA (100kA)	
Short Circuit Current Rating (SCCR)	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	
Nominal Discharge Rating (I <sub>n</sub> )	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	10kA/20kA <sup>1</sup>	
EMI/RFI Noise Rejection	-20dB to -40dB (50KHz-10MHz)										
Diagnostics	Real Time Protection status LEDs & Audible Alarm										
Remote Monitoring	Dry Contacts-N.O./N.C. Form C Rated at 7Amps @ 240VAC or 30VDC										
Mechanical Specifications											
Connection Type	Parallel-hardwired, feed-through dual wire terminal block: Accepts up to #3 AWG wire										
Environmental Specifications											
Enclosure Type	NEMA 12 Enclosure										
Operating Temperature	-20°C to 60°C										
Storage Temperature	-20°C to 85°C										
Flammability	Rated V-2 per UL 94										
Relative Humidity	5% to 95% non-condensing										
Standards & Certifications											
Agency Rating	UL 1449 3rd Edition Listed and CSA C22.2 Certified Type 2										
ANSI/IEEE Category A, B & C	C-62.41 & C-62.45										
Warranty											
Product Warranty	Limited Lifetime										
Replacement Module Warranty	Limited Lifetime*										

<sup>1</sup> $I_{n1}$  = 10 kA when protected by a circuit breaker rated 30 A, min. (b) Volts, minimum 10 kA AIC.  $I_{n1}$  = 20 kA when protected by a Square D Circuit Breaker Cat.

No. QOB330A rated 30 A, min. 120/240 Volts, minimum 10 kA AIC or any Circuit Breaker rated 30A, (b) volts, minimum AIC 14kA. (b) Nominal System Voltage, where (b) = nominal system voltage.

\*Certain restrictions apply



## Type 2 Non-Modular Surge Protective Devices

Leviton's 37000 and 47000 Series panel mounted surge protective devices provide seven-mode protection in WYE-configured, 3-phase AC systems. These devices are designed for installation at the service entrance, at branch panels, or as dedicated transient surge protection for critical equipment.



47277-7



37120-7

### 37000 and 47000 Series for Commercial and Industrial Applications

- Protection for up to 100,000 amps (37000 Series) or 200,000 amps (47000 Series) of surge current per mode
- Models available in NEMA Type 1 enclosures for indoor applications and Type 4X enclosures (47000 series only) for outdoor applications
- Seven-Mode Protection (each phase to neutral, each phase to ground and neutral to ground)
- Real-time diagnostics monitor power and suppression status for each phase and provide both LED indicators and audible alarm
- Equipped with dry contacts for remote monitoring
- Limited lifetime product warranty

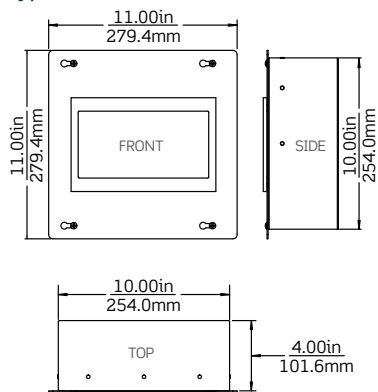
### Ordering Information

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)
37120-7	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100kA (200kA)
37277-7	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100kA (200kA)
47120-7	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	200kA (400kA)
47120-4X7	7-Mode Surge Protection Panel in Type 4X enclosure	120/208 3Ø WYE, 4-wire + gnd	200kA (400kA)
47277-7	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	200kA (400kA)
47277-4X7	7-Mode Surge Protection Panel in Type 4X enclosure	277/480 3Ø WYE, 4-wire + gnd	200kA (400kA)

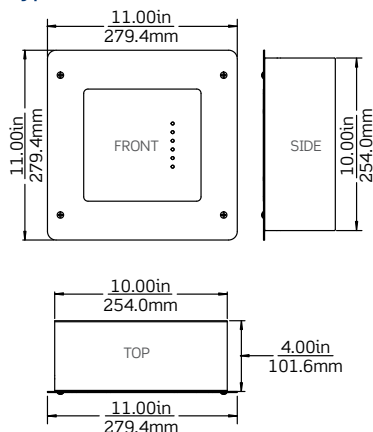
## Specifications and Dimensions for: 37000 and 47000 Series

Catalog Number	37120-7	37277-7	47120-7	47120-4X7	47277-7	47277-4X7
Electrical Specifications						
Voltage	120/208 VAC 3-phase WYE	277/480 VAC 3-phase WYE	120/208 VAC 3-phase WYE	120/208 VAC 3-phase WYE	277/480 VAC 3-phase WYE	277/480 VAC 3-phase WYE
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Surge Technology	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV	40mm MOV
Recommended Circuit Breaker Rating	30A, 120/208V	30A, 277/480V	30A, 120/208V	30A, 120/208V	30A, 277/480V	30A, 277/480V
Performance Data						
Nominal Discharge Rating (I <sub>N</sub> )	5kA	5kA	10kA	10kA	10kA	10kA
Maximum Continuous Operating Voltage (MCOV)	L-L	280	640	280	280	640
	L-N	140	320	140	140	320
	L-G	140	320	140	140	320
	N-G	130	300	130	130	300
Voltage Protection Rating (VPR)	L-L	1200	2000	1000	1000	1800
	L-N	800	1200	700	700	1200
	L-G	900	1500	900	900	1500
	N-G	700	1200	700	700	1200
Maximum Surge Current, Per Mode (Per Phase)	100kA (200kA)	100kA (200kA)	200kA (400kA)	200kA (400kA)	200kA (400kA)	200kA (400kA)
Short Circuit Current Rating (SCCR)Protection Modes	10kA	10kA	10kA	10kA	10kA	10kA
Protection Mode	7 Mode					
Noise Filtering	-40dB @ 10K – 10MHz					
Diagnostics	Real Time Protection status LEDs & Audible Alarm					
Mechanical Specifications						
Connection Type	Hardwire Using Terminal Block: Accepts up to #6 AWG wire					
Environmental Specifications						
Enclosure Rating	NEMA Type 1	NEMA Type 1	NEMA Type 1	NEMA Type 4x	NEMA Type 1	NEMA Type 4x
Operating Temperature	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
Storage Temperature	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C
Flammability	Rated V-2 per UL 94					
Relative Humidity	5% to 95% non-condensing					
Material Specifications						
Enclosure	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel	Fiberglass	Powder Coated Steel	Fiberglass
Standards & Certifications						
Agency Certification	cULus 1449 3rd Edition Listed Type 2					
ANSI/IEEE Category A, B & C	C-62.41 & C-62.45					
Warranty						
Product Warranty	Limited Lifetime					

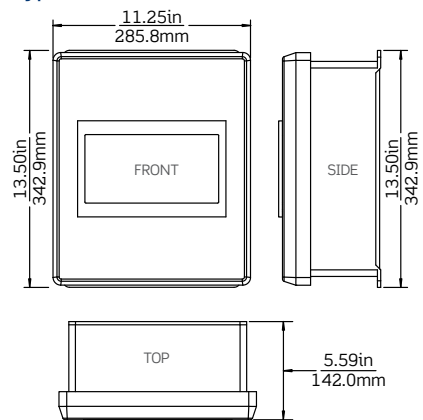
Typical for 37120-7 & 37277-7



Typical for 47277-4X7



Typical for 47120-4X7



## Type 2 Non-Modular Surge Protective Devices

One of our most popular series, Leviton's 32000 and 42000 surge protection panels provide protection for up to 80kA of surge current per mode. They feature noise filtering, visual and audible indication of surge protection status and dry contacts for remote monitoring, all in a compact enclosure.



**42120-1  
with 42001-FMC  
Flush Mount Collar**

**42120-1**



### 32000 and 42000 Series Panel Mount Surge Protective Device

- 32000 Series features reduced noise filtering for optimum compatibility with Leviton's Decora Home Control and X10 communication network devices
- 42000 Series incorporates enhanced noise filtering and sine wave tracking for superior protection
- Three-phase models can be wired for either WYE or Delta AC systems
- Equipped with indicator lights and audible alarm for monitoring power and surge suppression status
- NEMA Type 3R enclosure for indoor/outdoor applications
- Optional flush mount collar available (42001-FMC)
- Limited lifetime product warranty

### Ordering Information

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)
32120-1	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	80kA (80kA)
32120-DY3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd; 208 3Ø Delta, 3-wire + gnd; 220 3Ø Delta, 3-wire + gnd	80kA (80kA)
32277-DY3	7-Mode Surge Protection Panel	220/380 3Ø WYE, 4-wire + gnd; 277/480 3Ø WYE, 4-wire + gnd; 240 3Ø Delta, 3-wire + gnd; 480 3Ø Delta, 3-wire + gnd	80kA (80kA)
32412-DS3	7-Mode Surge Protection Panel	120/240/120 3Ø Hi-leg Split Phase Delta, 4-wire + gnd	80kA (80kA)
42120-1	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	80kA (80kA)
42120-DY3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd; 208 3Ø Delta, 3-wire + gnd; 220 3Ø Delta, 3-wire + gnd	80kA (80kA)
42277-DY3	7-Mode Surge Protection Panel	220/380 3Ø WYE, 4-wire + gnd; 277/480 3Ø WYE, 4-wire + gnd; 240 3Ø Delta, 3-wire + gnd; 480 3Ø Delta, 3-wire + gnd	80kA (80kA)
42412-DS3	7-Mode Surge Protection Panel	120/240/120 3Ø Hi-leg Split Phase Delta, 4-wire + gnd	80kA (80kA)
32347-DY3	4-mode Surge Protection Panel	347/600 3Ø WYE, 4-wire + gnd or 3Ø Delta, 3-wire + gnd	80kA (80kA)
42347-DY3	4-mode Surge Protection Panel	347/600 3Ø WYE, 4-wire + gnd or 3Ø Delta, 3-wire + gnd	80kA (80kA)
42001-FMC	Flush Mount Collar for all 32000 and 42000 Series Panels	—	—

## Type 2 Surge Protective Devices

Leviton's 51120 Series panel mount surge protective devices are designed for use in homes and apartment buildings at the service entrance, electrical utility meter, or other branch panel locations. They are also ideal for use in pumping stations, radio towers and light commercial buildings where protection from high-energy, high-voltage transients is desired.



51120-1



### 51120 Series Panel Mount Surge Protective Devices

- Single high-energy solid-state semiconductor surge suppression circuitry per phase
- Real-time diagnostic visual indicator shows power and suppression status for each protected phase
- Standard J-Box enclosure with pre-punched standard knock-outs can be easily surface mounted in typical frame construction
- Feature a low VPR to ensure protection of sensitive electronic devices including LCD TVs, PDAs and computers
- Compatible with Leviton Decora Home Controls
- Limited Lifetime Product Warranty
- Connected equipment coverage up to \$25,000 for the 51120-1

### Ordering Information

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)
51120-1	2-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	50kA (50kA)
51120-3	3-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	50kA (50kA)



# Specifications for: 32000/42000, 51120-1 and 51120-3

Catalog Number	51120-1	51120-3	32120-1 42120-1	32120-DY3 42120-DY3	32277-DY3 42277-DY3	32412-DS3 42412-DS3	32347-DY3 42347-DY3	
Electrical Specifications								
Voltage	120/240V AC, Single-Phase	120/208V AC, 3-Phase WYE	120V/240V Single Phase	120V/208V 3Ø WYE, 208V 3Ø Delta, 220V 3Ø Delta	277V/480V 3Ø WYE, 220V/380V 3Ø WYE, 240V 3Ø Delta, 480V 3Ø Delta	120V/240V/120V 3Ø Hi-leg Delta	347V/600V 3Ø WYE, 600V 3Ø Delta	
Surge Technology	40mm MOV design	40mm MOV design	40mm MOV design	40mm MOV design	40mm MOV design	40mm MOV design	40mm MOV design	
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	
Recommended Circuit Breaker Rating	20A, 120/24V	20A, 120/208V	20A, 120/240V	30A, 120/208V	30A, 277/480V	30A, 120/240V	30A, 347/600V	
EMI/RFI Noise Rejection	-6dB to -28dB (@100KHz to 100MHz)	-6dB to -28dB (@100KHz to 100MHz)	32000 Series: -20 to -40dB (@ 1.5K-1.2MHz)					
			42000 Series: -30 to -40dB (@ 10K-10MHz)					
Performance Data								
Maximum Continuous Operating Voltage (MCOV)	L-N	150V	150V	150V	150V	320V	150V	385V
	L-G	—	—	300V	300V	640V	300V	—
	N-G	—	—	150V	150V	320V	150V	—
	L-L	300V	300V	254V	254V	552V	254V	770V
Voltage Protection Rating (VPR)	L-N	800V	800V	800V	700V	1200V	800V	1200V²
	L-G	—	—	1200V	1200V	2000V	1200V	—
	N-G	—	—	700V	700V	1200V	700V	1000V²
	L-L	1200V	1200V	1000V	1000V	1800V	1000V	2000V²
Nominal Discharge Rating (I <sub>n</sub> )	3kA	3kA	3kA	3kA	3kA	3kA	N/A	
Maximum Surge Current, Per Mode (Per Phase)	50kA (50kA)	50kA (50kA)	80kA (80kA)	80kA (80kA)	80kA (80kA)	80kA (80kA)	80kA (80kA)	
Short Circuit Current Rating	10kA	10kA	100kA	100kA	100kA	100kA	100kA	
Mechanical Specifications								
Connection Type	Parallel - Hardwired via 12AWG wire							
Diagnostics	Protection status LEDs		Real Time Protection status LEDs & Audible Alarm					
Remote Monitoring	—		Dry Contact Leads -N.O./N.C. Form C Rated at 7Amps @ 240VAC or 30VDC					
Environmental Specifications								
Enclosure type	NEMA 1		NEMA 3R Steel Enclosure					
Flammability	Rated V-2 per UL 94**							
Operating Temperature	-10°C to 60°C							
Storage Temperature	-20°C to 85°C							
Relative Humidity	5% to 95% non-condensing							
Material Specifications								
Outer Enclosure	Powder Coated Steel							
Standards & Certifications								
Agency Certification	cULus 1449 3rd Edition Listed Type 2						CSA C22.2 Certified	
ANSI/IEEE Category A, B & C	C-62.41 & C-62.45							
Warranty								
Product Warranty	Limited Lifetime							
Connected Equipment Coverage	Up to \$25,000*	—						

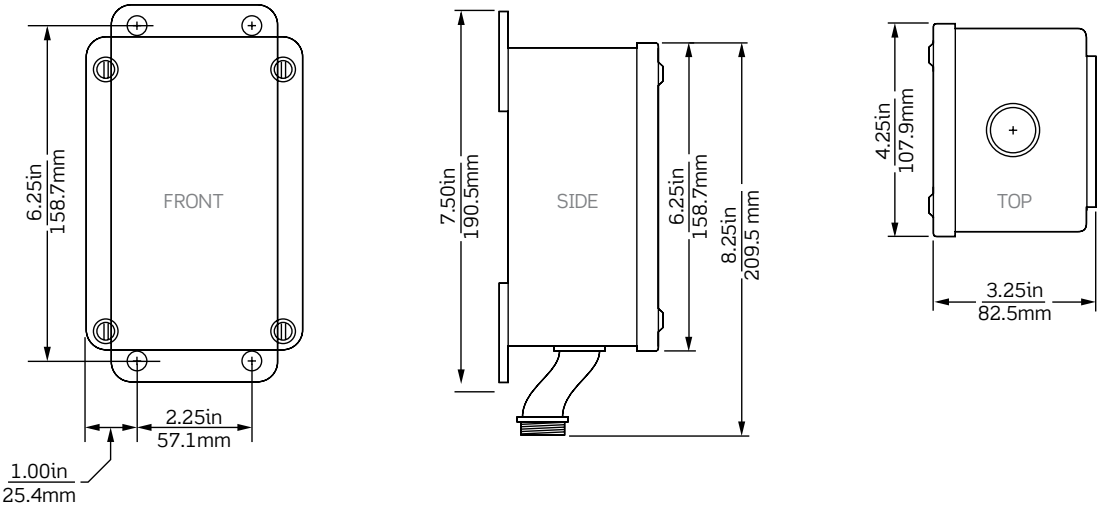
\* As part of the True Whole House Surge Protection Warranty

\*\* Flammability rating applies to module only

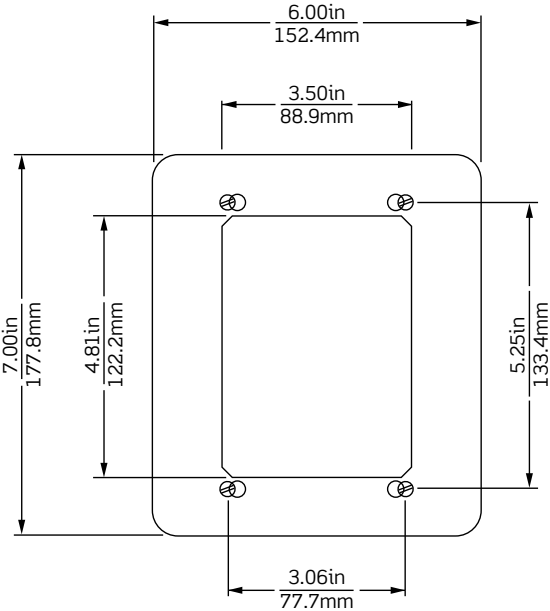
<sup>2</sup>Surge Voltage Rating (SVR)

Dimensions for: 32000/42000 Series, 51120-1 and 51120-3

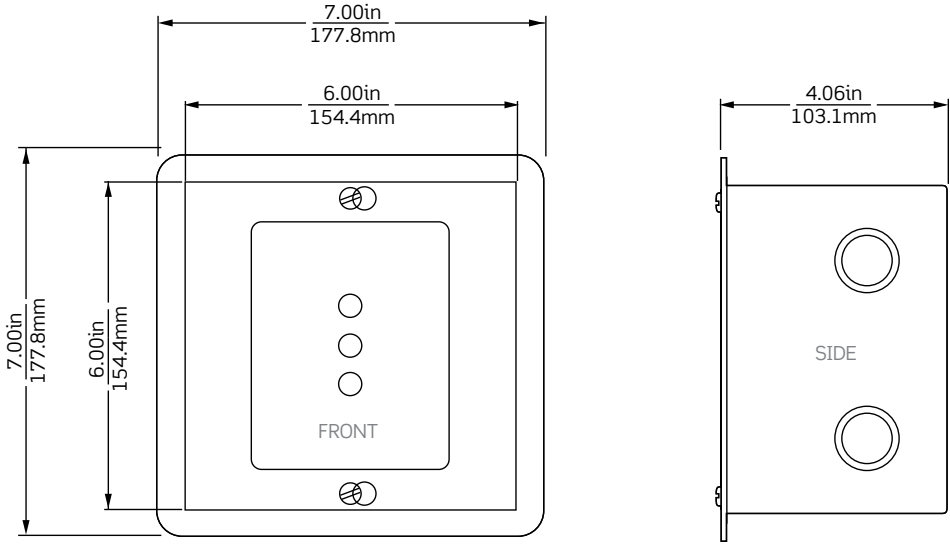
Typical for  
32000 / 42000  
Series



42001-FMC



51120-1 &  
51120-3



## Type 2 Surge Protective Devices

Leviton's 51110 Series Residential Surge Protection Panels are designed for mounting at the service entrance in homes, apartments and condominiums. They offer advanced surge protection for modern electronics and appliances, reducing the risk of damage from spikes and surges entering the property through AC power lines. The 51110-PTC also offers protection from surges coming through telephone and cable TV/satellite feeds.



51110-PTC



51110-1

### 51110 Series Panel Mount Surge Protective Devices

- Real-time diagnostic visual indicator shows power and suppression status for each protected phase
- UL1449 3rd Edition rated
- DHC Power Line Carrier compatible
- 150 maximum continuous operating voltage (MOV) rating allows for tolerance to line voltage swells
- 51110-PTC model provides 4-wire telephone/fax/modem protection using hardwired screw terminations and dual CATV/satellite feed surge protection using Type "F" Connectors
- 10-year limited warranty

### Ordering Information

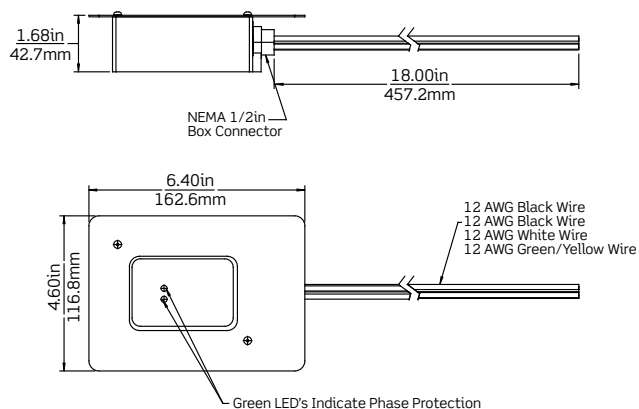
Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)
51110-1	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	48kA (96kA)
51110-PTC	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd with 4-wire telephone and dual CATV/satellite coax,	48kA (96kA)

## Specifications for: 51110 Series

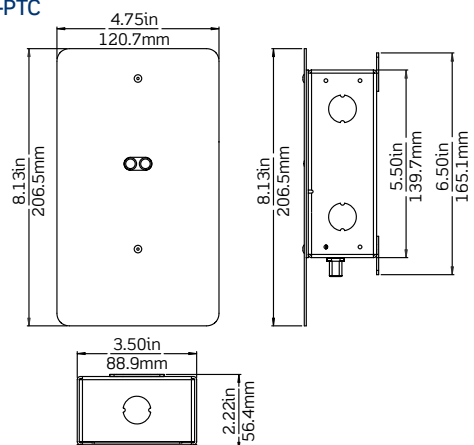
Catalog Number	51110-1	51110-PTC
<b>Electrical Specifications</b>		
Voltage	120/240V AC, Single-Phase	120/240V AC, Single-Phase
Surge Technology	MOV	MOV
Frequency	50/60Hz	50/60Hz
EMI/RFI Noise Rejection	-6dB to -28dB (@100KHz to 100MHz)	-6dB to -28dB (@100KHz to 100MHz)
Recommended Circuit Breaker Rating	30A, 120/240V	30A, 120/240V
<b>Performance Data</b>		
Maximum Continuous Operating Voltage (MCOV)	L-N	150V
	L-G	150V
	N-G	150V
	L-L	300V
Voltage Protection Rating (VPR)	L-N	600V
	L-G	600V
	N-G	600V
	L-L	1000V
Nominal Discharge Rating ( $I_n$ )	3kA	3kA
Maximum Surge Current, Per Mode (Per Phase)	48kA (96kA)	48kA (96kA)
Short Circuit Current Rating	10kA	10kA
<b>Mechanical Specifications</b>		
Connection Type	Hardwired Parallel Connection	Hardwired Parallel Connection
Diagnostics	Protection status LEDs	Protection status LEDs
<b>Environmental Specifications</b>		
Enclosure type	NEMA 4X	NEMA 1
Flammability	Rated V-2 per UL 94**	Rated V-2 per UL 94**
Operating Temperature	-10°C to 60°C	-10°C to 60°C
Storage Temperature	-20°C to 85°C	-20°C to 85°C
Relative Humidity	5% to 95% non-condensing	5% to 95% non-condensing
<b>Material Specifications</b>		
Outer Enclosure	Vinyl	Powder Coated Steel
<b>Standards &amp; Certifications</b>		
Agency Certification	cULus 1449 3rd Edition Listed Type 2	cULus 1449 3rd Edition Listed Type 2
ANSI/IEEE Category A, B & C	C-62.41 & C-62.45	C-62.41 & C-62.45
<b>Warranty</b>		
Product Warranty	10-year Limited	10-year Limited

\*\* Flammability rating applies to module only

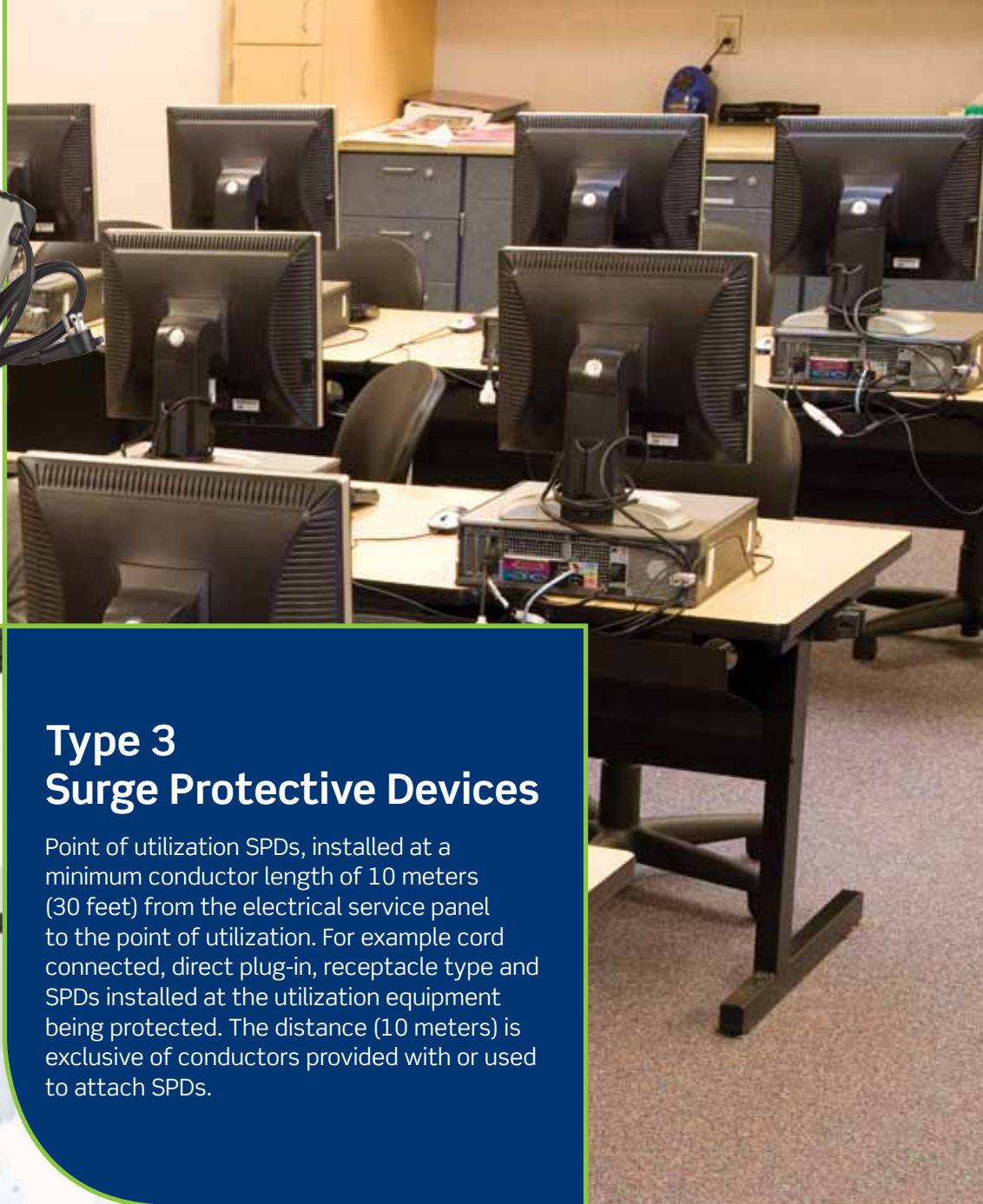
### 51110-1



### 51110-PTC







## Type 3 Surge Protective Devices

Point of utilization SPDs, installed at a minimum conductor length of 10 meters (30 feet) from the electrical service panel to the point of utilization. For example cord connected, direct plug-in, receptacle type and SPDs installed at the utilization equipment being protected. The distance (10 meters) is exclusive of conductors provided with or used to attach SPDs.



## Type 3 Surge Protective Devices

Leviton offers the broadest selection of surge protective receptacles in the industry. The low cost of these receptacles, combined with their ease of installation, means they can be placed anywhere you have a standard electrical outlet. So with a small investment, you have the assurance that your equipment is well protected, whether it's a heart monitor in the emergency room, a computer in your office, or the big screen TV in your living room.



Steve May/one for French Associates, Architects.



### Tamper-Resistant Surge Protective Receptacles

- Available in 15A, 125V and 20A, 125V ratings
- Tamper-Resistant versions have a shutter mechanism that prevents incidental contact with energized contacts
- Indicator light provides visual indication that equipment is being protected
- Single, Duplex and 4-in-1 versions
- EMI/RFI Noise Filtering
- Available audible alarm for hidden locations (can be silenced)
- Wide variety of color options aid in identifying different types of equipment or applications
- Back and side-wired design with durable metal mounting strap
- Point-of-use protection for up to 18,000 amps of surge current total

## Ordering Information

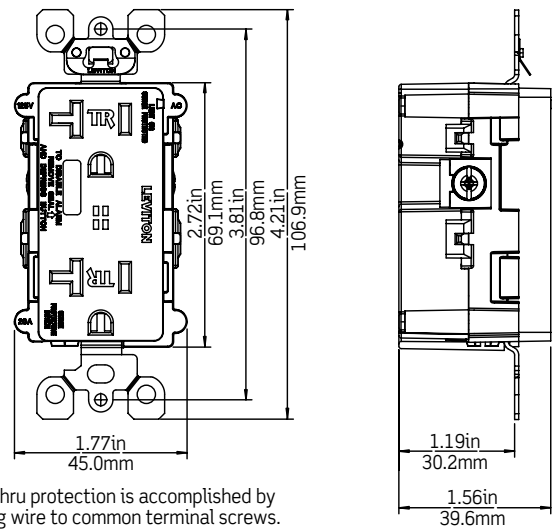
Commercial / Industrial Grade											
Decora® TR Surge Protective Receptacles											
Amp.	Outlet Configuration	Color									Features
		Brown	Ivory	White	Gray	Red	Blue	Black	Orange	Lt. Almond	
15A	Duplex	T5280	T5280-I	T5280-W	T5280-GY	—	T5280-B	T5280-E	—	T5280-T	■
15A	Duplex	—	T7280-I	T7280-W	—	—	T7280-B	T7280-E	—	T7280-T	■
15A	Duplex	—	T8280-I	T8280-W	—	T8280-R	T8280-B	—	—	T8280-T	■
20A	Duplex	T5380	T5380-I	T5380-W	T5380-GY	—	T5380-B	T5380-E	—	—	■
20A	Duplex	—	T7380-I	T7380-W	—	—	T7380-B	T7380-E	—	—	■
20A	Duplex	—	T8380-I	T8380-W	T8380-GY	T8380-R	T8380-B	—	—	—	■
Decora® Surge Protective Receptacles											
15A	Duplex	5280	5280-I	5280-W	5280-GY	—	5280-B	—	—	5280-T	■
20A	Duplex	5380	5380-I	5380-W	5380-GY	—	5380-B	—	—	—	■
15A	Duplex	5280-IG	5280-IGI	5280-IGW	—	—	5280-IGB	—	5280-IGO	—	▼ ■
20A	Duplex	5380-IG	5380-IGI	5380-IGW	5380-IGG	—	5380-IGB	—	5380-IGO	—	▼ ■
15A	Duplex	—	7280-I	7280-W	—	—	7280-B	—	—	7280-T	■
20A	Duplex	—	7380-I	7380-W	—	—	7380-B	—	—	—	■
4-IN-1 Surge Protective Receptacles											
15A	Four-In-One	—	5480-I	5480-W	5480-GY	5480-R	5480-BU	—	—	—	■
20A	Four-In-One	—	5490-I	5490-W	5490-GY	—	5490-BU	—	—	—	■
15A	Four-In-One	—	—	—	—	—	—	—	5480-IG	—	▼ ■
20A	Four-In-One	—	5490-IGI	—	—	—	5490-IGB	—	5490-IG	—	▼ ■
Hospital Grade											
Decora® Surge Protective Receptacles											
Amp.	Outlet Configuration	Color									Features
		Brown	Ivory	White	Gray	Red	Blue	Black	Orange	Lt. Almond	
15A	Duplex	8280	8280-I	8280-W	—	8280-R	8280-B	—	—	8280-T	■       ●
20A	Duplex	8380	8380-I	8380-W	8380-GY	8380-R	8380-B	—	—	—	■       ●
20A	Single	—	8381-I	—	—	—	—	—	—	—	■       ●
15A	Duplex	—	8280-IGI	8280-IGW	—	—	8280-IGB	—	8280-IGO	—	▼ ■       ●
20A	Duplex	—	8380-IGI	8380-IGW	8380-IGG	—	8380-IGB	—	8380-IGO	—	▼ ■       ●
20A	Single	—	8381-IGI	—	—	—	—	—	—	—	▼ ■       ●
4-IN-1 Surge Protective Receptacles											
15A	Four-In-One	—	8480-I	8480-W	—	8480-R	—	—	—	—	■ ●
20A	Four-In-One	—	8490-I	8490-W	—	8490-R	—	—	—	—	■ ●
15A	Four-In-One	—	8480-IGI	8480-IGW	—	—	8480-IGB	—	—	—	▼ ■ ●
20A	Four-In-One	—	8490-IGI	—	—	—	8490-IGB	—	8490-IG	—	▼ ■ ●

Key:	▼ Isolated Ground (IG)	■ Indicator Light
	Audible Alarm	● Hospital Grade

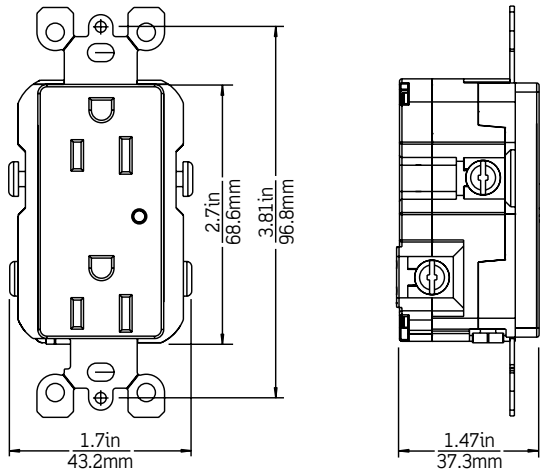


Specifications and Dimensions for: Surge Protective Receptacles

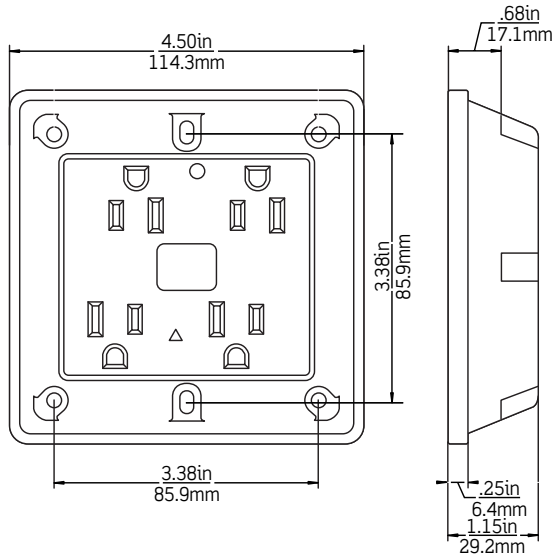
Common to Tamper-Resistant Receptacles



Common to Non-Tamper-Resistant Receptacles



Common to All 4-in-1 Receptacles



Electrical Specifications	
Dielectric Voltage	Withstands 2000V per UL498
Current Limiting	Full Rated Current
Temperature Rise	Max 30C after 250 cycles OL at 200% rated current
Performance Data	
Maximum Continuous Operating Voltage (MCOV)	150V rms
Joules Rating	720
Nominal Discharge Current (I <sub>N</sub> )	3kA (Meets Type 2 & Type 3 Requirements)
Maximum Surge Current, Per Mode	L-N: 18kA, L-G: 9kA, N-G: 9kA
Noise Rejection	-30dB at 500kHz-30MHz
Voltage Protection Rating (VPR)	L-N: 600V, L-G: 700V, N-G: 600V
Short Circuit Current Rating (SCCR)	5kA
Diagnostics	Indicator Light, Audible Alarm (on select versions)
Mechanical Specifications	
Terminal ID	Brass-Hot, Green-Ground, Silver-Neutral
Terminal Accom.	#14-#10 AWG
Product ID	Ratings are permanently marked on device
Terminal Screw Torque Rating	14-16 in lbs.
Environmental Specifications	
Flammability	Rated V-2 per UL 94
Operating Temperature	-40C to 60C
Material Specifications	
Face Material	Nylon
Body Material	Polycarbonate
Line Contacts	Brass Triple-Wipe
Terminal Screws	Brass-Plated Steel
Grounding Screw	Brass-Plated Steel
Yoke	Zinc-Plated Steel
Clamp Nuts	Zinc-Plated Steel
Ground Clips	Brass-Plated Steel
Shutter Mechanism (Tamper Resistant Versions)	Delrin® Acetal
Standards & Certifications	
NEMA	WD-6
ANSI	C-73
Agency Certifications	UL 498, UL 1449 3rd Edition Listed and CSA C22.2 Certified Type 3
NOM	057
Warranty	
Product Warranty	10 Year Limited



## Type 3 Surge Protective Devices

Leviton's 5100 and 5300 Series surge protected power strips offer superior protection for any Commercial, Industrial, or Hospital application. Our Industrial strips feature robust construction, including durable metal housings while our Commercial Grade strips feature a durable thermoplastic housing. They are available in two performance levels to address surge protection needs in a variety of commercial and industrial environments. Our Hospital version strips feature, tamper-resistant hospital grade receptacles.



Left: 5100-PS  
Center: 5300-HT2  
Right: 5100-IPS



### 5100 and 5300 Series, 6-Outlet Surge Protective Strips

- Multi-Line protection (L-N, L-G, N-G)
- 6 surge protected outlets
- LEDs indicate power and protection status
- Onboard resettable circuit breaker
- Limited Lifetime Product Warranty
- Limited Lifetime Connected Equipment Protection Policy

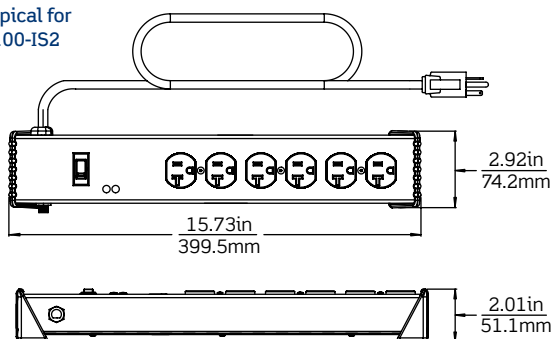
### Ordering Information

Catalog Number	Application	Maximum Input Current	Joules	Alarm	Enclosure	On/Off Switch	Cord Length
5100-PS	Commercial	15 Amp	720	—	ABS Plastic	Yes	6 Feet
5100-S15	Commercial	15 Amp	720	—	ABS Plastic	Yes	15 Feet
5300-PS	Commercial	15 Amp	1520	—	ABS Plastic	Yes	6 Feet
5300-S15	Commercial	15 Amp	1520	—	ABS Plastic	Yes	15 Feet
5100-IPS	Industrial	15 Amp	1330	Audible at Protection Loss	Steel	Yes	6 Feet
5100-IS2	Industrial	20 Amp	900	Audible at Protection Loss	Steel	Yes	6 Feet
5300-IPS	Industrial	15 Amp	1330	Audible at Protection Loss	Steel	Yes	6 Feet
5300-H15	Hospital	15 Amp	952	—	Steel	No	15 Feet
5300-HTS	Hospital	15 Amp	952	—	Steel	No	6 Feet
5300-HT2	Hospital	20 Amp	952	—	Steel	No	6 Feet

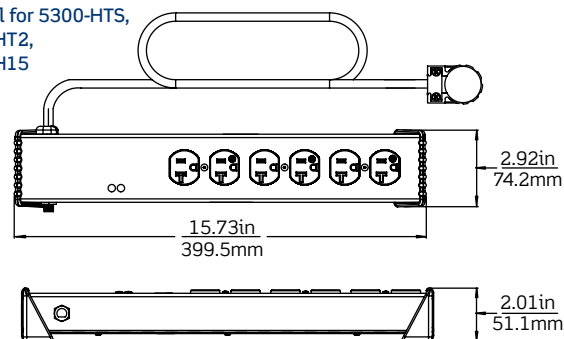
## Specifications and Dimensions for: 5100 & 5300 Series Surge Strips

Catalog Number	5100-IPS	5100-IS2	5300-IPS	5300-H15	5300-HTS	5300-HT2	5100-PS 5100-S15	5300-PS 5300-S15
Series	Industrial/Hospital						Commercial	
Electrical Specifications								
Current	15A	20A	15A	15A	15A	20A	15A	15A
Voltage	125VAC	125VAC	125VAC	125VAC	125VAC	125VAC	125VAC	125VAC
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Surge Technology	MOV	MOV	MOV	MOV	MOV	MOV	MOV	MOV
Performance Data								
Maximum Continuous Operating Voltage (MCOV)	150V	150V	130V	150V	150V	150V	150V	130V
Joules	1330J	900J	1330J	952J	952J	952J	720J	1520J
Maximum Surge Current, Per Mode (L-N)	84kA	45kA	84kA	51kA	51kA	51kA	36kA	96kA
Noise Filtering	-5 to -25dB (@500K-100MHz)	-6 to -40dB (@50K-100MHz)	-6 to -40dB (@50K-100MHz)	-6 to -40dB (@50K-100MHz)	-6 to -40dB (@50K-100MHz)	-6 to -40dB (@50K-100MHz)	-5 to -25dB (@500K-100MHz)	-6 to -40dB (@50K-100MHz)
Voltage Protection Rating (VPR)	L-N	600V	600V	500V	500V	500V	500V	500V
	L-G	600V	700V	600V	700V	700V	600V	600V
	N-G	600V	700V	600V	700V	700V	700V	500V
Material Specifications								
Enclosure	Powder Coated Steel						ABS	
Standards & Certifications								
Agency Certification	cULus 1449 3rd Edition Listed Type 3							
ANSI/IEEE Category A,B & C	C62.41.1, C62.41.2 & C62.45							
Warranty								
Product Warranty	Lifetime Limited							

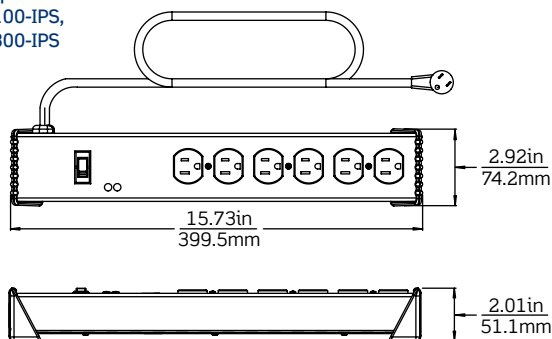
Typical for  
5100-IS2



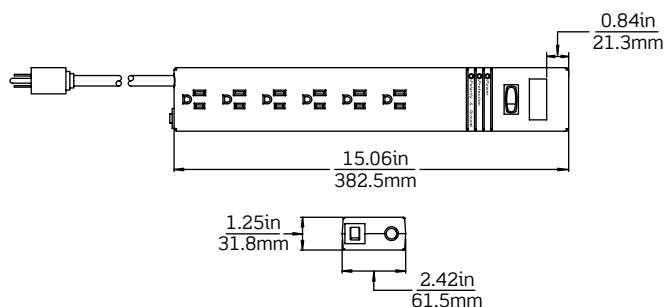
Typical for 5300-HTS,  
5300-HT2,  
5300-H15



Typical for  
5100-IPS,  
5300-IPS



Typical for 5100-PS,  
5100-S15, 5300-PS,  
5300-S15



## Type 3 Surge Protective Devices

Leviton's S1000 and S2000 Series Surge Protected Strips provide superior protection for everyday use in professional work areas and home offices, protecting computers, peripherals and other electronic devices from damaging surges, voltage transients and noise spikes.



S1000-PS



### S1000 and S2000 Series Surge Protective Strips

- Diagnostic LEDs for Surge Protection, Polarity, and Ground
- Resettable circuit breaker and internal fusing circuit protection
- Audible alarm indicates loss of surge protection
- Multi-line protection (L-N, L-G, N-G)
- Velcro straps provided for cord management
- Mounting template provided for easy installation
- Optional Coax and Telco surge protection
- All units feature right angle NEMA 5-15P Plug
- Limited Lifetime Product Warranty and Connected Equipment Protection Policy



S2000-PS

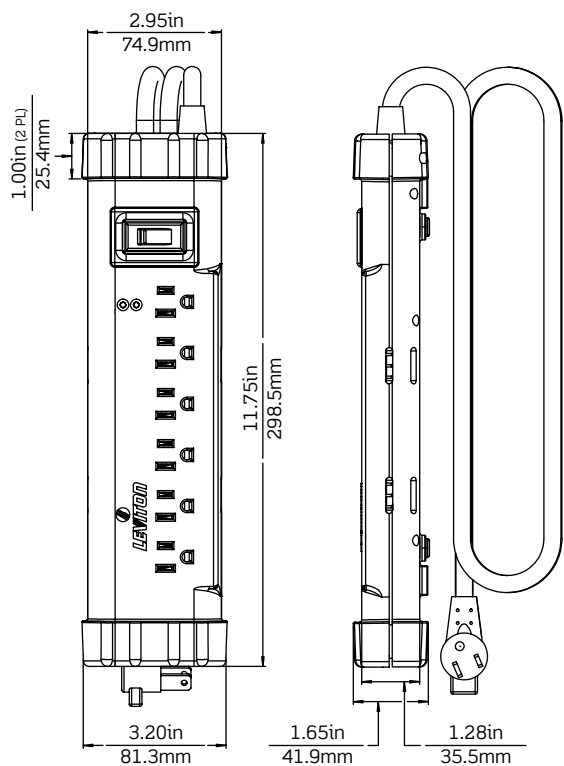
### Ordering Information

Catalog Number	Maximum Input Current	Joules	Data Protection	Enclosure	Number of Outlets	Cord Length
S1000-PS	15 Amp	1010J	—	ABS Plastic	6	6 Feet
S1000-S15	15 Amp	1010J	—	ABS Plastic	6	15 Feet
S1000-PTC	15 Amp	1010J	RJ-11, Coax	ABS Plastic	6	6 Feet
S2000-PS	15 Amp	2020J	—	ABS Plastic	9	6 Feet
S2000-S15	15 Amp	2020J	—	ABS Plastic	9	15 Feet
S2000-PTC	15 Amp	2020J	RJ-45, Coax	ABS Plastic	9	6 Feet

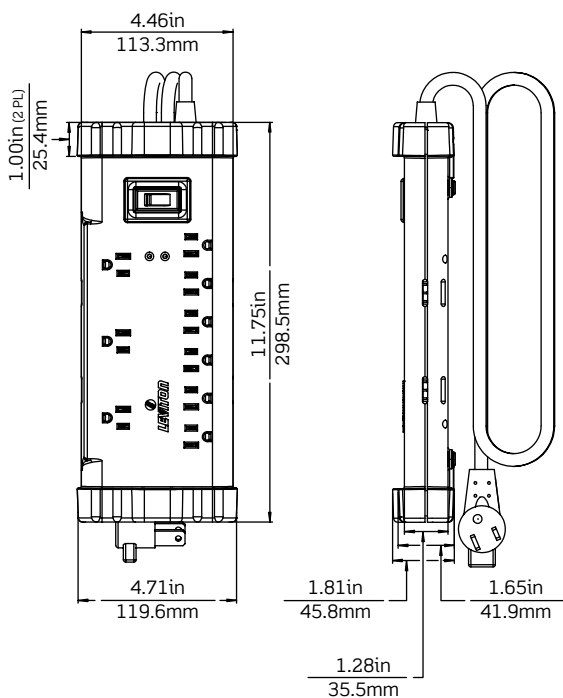
Specifications and Dimensions for: S1000 & S2000 Series Surge Strips

Catalog Number		S1000-PS, S1000-S15, S1000-PTC		S2000-PS, S2000-S15, S2000-PTC	
Electrical Specifications					
Amperage		15A		15A	
Voltage		120V		120V	
Frequency		50/60 Hz		50/60 Hz	
Surge Technology		MOV		MOV	
Performance Data					
Maximum Continuous Operating Voltage (MCOV)		150V		150V	
Joules		1010J		2020J	
Maximum Surge Current, Per Mode (L-N)		25kA		62.5kA	
Voltage Protection Rating (VPR)	L-N	600V		500V	
	L-G	700V		700V	
	N-G	700V		700V	
Noise Filtering		-8dB to -25dB (@100K-100MHz)		-10dB to -20dB (@5M-100MHz)	
Material Specifications					
Enclosure		ABS Plastic			
Standards & Certifications					
Agency Certifications		cULus 1449 3rd Edition Listed Type 3, NOM 057			
ANSI/IEEE Category A, B & C		C-62.41 & C-62.45			
Warranty					
Product Warranty		Limited Lifetime			
Connected Equipment Warranty		Limited Lifetime			

Common to S1000 Series



Common to S2000 Series





## Type 3 Surge Protective Devices

Leviton's Plug-In Surge units plug directly into a standard wall outlet to provide surge protection for up to six devices. They are ideal for immediate surge protection in tight spaces such as behind desks, book cases, sofas, and media equipment.



### 3500 Series Wall-Mount Surge Protectors

- 6 surge protected outlets
- Noise filtering for reduced EMI
- Multi-line protection (L-N, LG, and N-G)
- Illuminated LED confirms surge protection; audible alarm at protection loss
- Available in standard, telecommunications and CATV versions
- 10-Year Limited Product Warranty / Lifetime Limited Connected Equipment Warranty



3500-P



3500-PC



3500-PT

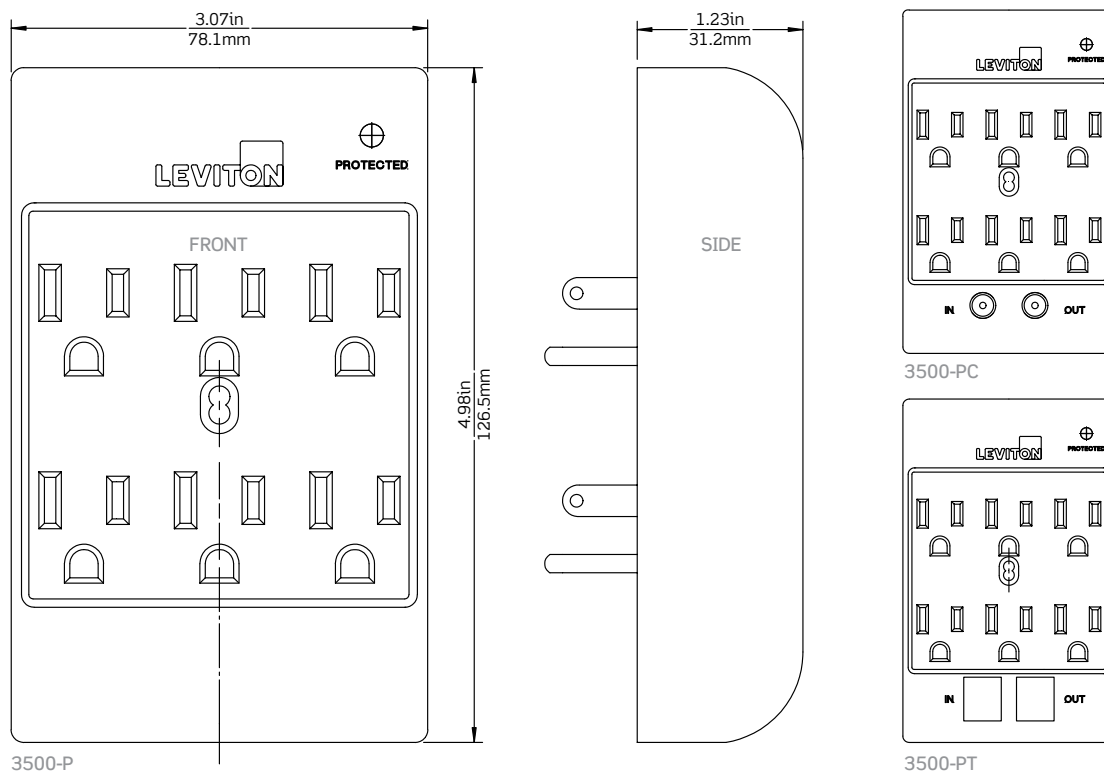
### Ordering Information

Catalog Number	Data Line Protection
3500-P	None
3500-PC	Coax
3500-PT	Telco

## Specifications and Dimensions for: 3500 Series Wall-Mount Surge Protectors

Catalog Number		3500-P	3500-PC	3500-PT
Electrical Specifications				
Current		15A	15A	15A
Voltage		120V	120V	120V
Frequency		50/60Hz	50/60Hz	50/60Hz
Surge Technology		MOV	MOV	MOV
Performance Data				
Maximum Continuous Operating Voltage (MCOV)		130	130	130
Joules		570	570	570
Maximum Surge Current, Per Mode		36kA	36kA	36kA
Noise Filtering		-10 to -45dB (@50KHz to 100MHz)	-10 to -45dB (@50KHz to 100MHz)	-10 to -45dB (@50KHz to 100MHz)
Voltage Protection Rating (VPR)	L-N	600V	600V	600V
	L-G	700V	700V	700V
	N-G	700V	700V	700V
Material Specifications				
Enclosure		ABS Plastic	ABS Plastic	ABS Plastic
Standards and Certifications				
Agency Certification		cULus 1449 3rd Edition Listed Type 3		
ANSI/IEEE Category A,B & C		C-62.41 & C-62.45		
Warranty				
Product Warranty		10 Year Limited		
Connected Equipment Warranty		Limited Lifetime		

### Common to 3500 Series





## Type 4 Surge Protective Devices

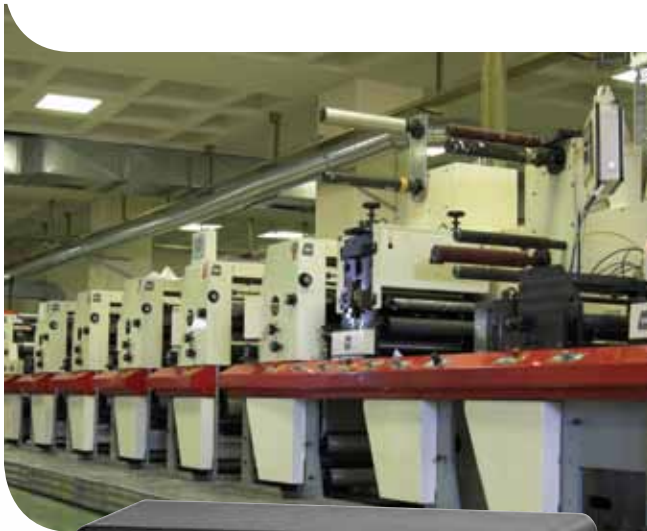
Component Assemblies - Component assembly consisting of one or more Type 5 components — discrete component surge suppressors, such as MOVs that may be mounted on a PWB, connected by its leads or provided within an enclosure with mounting means and wiring terminations — together with a disconnect (integral or external).





## Type 4 Surge Protective Devices

Leviton's 51000 Series Surge Protective Devices provide point-of-use surge protection for industrial applications such as factory automation servo motors, drives and PLCs. Available in models with maximum load currents of 5 to 16 amps and in both wall-mounted and DIN rail mounted configurations.



51005-DIN



51020-DIN

### 51000 Series UL Recognized Components

- Protection for up to 52,000 amps of surge current per mode
- Tested to ANSI/IEEE C62.41 and C62.45 standards for category A & B applications
- Type 4 Surge Protected Devices (SPD) evaluated for use in Type 3 SPD applications
- C Sinewave Tracking provides enhanced EMI/RFI filtering
- Visual and Audible Alarms if surge protection is lost
- Dry contacts for remote monitoring
- Manufactured to ISO 9001 standards
- 10-year Limited Product Warranty

### Ordering Information

Catalog Number	Description	Amperage	Voltage Rating	Joules	MCOV	Enclosure
51005-DIN	Single-phase, 2-Wire + Ground, DIN-rail mounted	5 Amp	120VAC	672J	150V	Polycarbonate
51005-WM	Single-phase, 2-Wire + Ground	5 Amp	120VAC	672J	150V	Polycarbonate
51010-DIN	Single-phase, 2-Wire + Ground, DIN-rail mounted	10 Amp	120VAC	672J	150V	Polycarbonate
51010-WM	Single-phase, 2-Wire + Ground	10 Amp	120VAC	672J	150V	Polycarbonate
51015-WM	Single-phase, 2-Wire + Ground	15 Amp	120VAC	1360J	150V	Extruded Aluminum
51020-DIN	Single-phase, 2-Wire + Ground, DIN-rail mounted	16 Amp	120VAC	1360J	150V	Extruded Aluminum
51020-WM	Single-phase, 2-Wire + Ground	16 Amp	120VAC	1360J	150V	Extruded Aluminum
51240-DIN	Single-phase, 2-Wire + Ground, DIN-rail mounted	16 Amp	240VAC	2600J	270V	Extruded Aluminum
51240-WM	Single-phase, 2-Wire + Ground	16 Amp	240VAC	2600J	270V	Extruded Aluminum



## Type 4 Surge Protective Devices

Leviton's 3800 Series surge protective devices are designed to provide wired-in surge protection for devices in industrial and commercial equipment cabinets. These devices are suitable for 125V AC applications. Available in standard equipment or DIN Rail mount with terminal block for connections, or standard equipment mount with 6" long wire leads for termination and remote LED.



### 3800 Series UL Recognized Components

- MOV-based suppression circuitry provides optimum clamping
- Type 4 Surge Protected Devices (SPD) evaluated for use in Type 2 SPD applications
- Tested to ANSI/IEEE C62.41 and C62.45 standards for category A & B applications
- Terminal-Block accepts 14 AWG or 12 AWG conductors
- Manufactured to ISO 9001 standards
- 10-year Limited Product Warranty

### Ordering Information

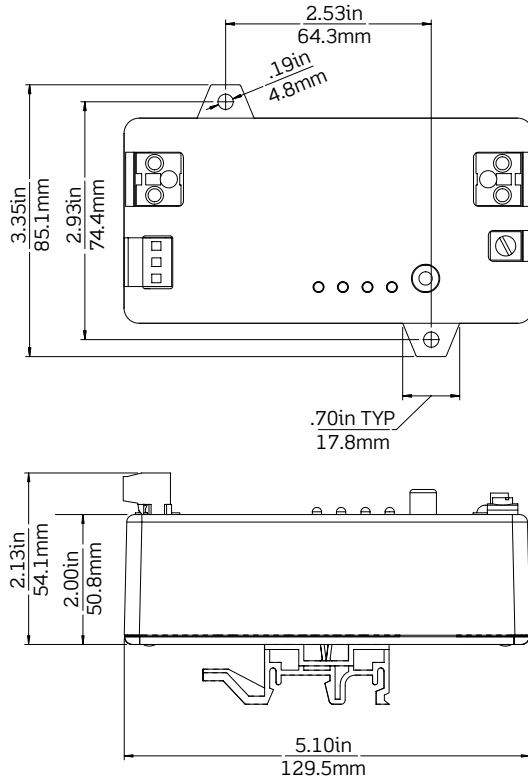
Catalog Number	Description
3800-DIN	Terminal Block Connection, DIN-rail mounted
3800-WM	Terminal Block Connection
3800-OEM	Pigtail Connection w/ 6" leads

## Specifications for: 3800 & 51000 Series

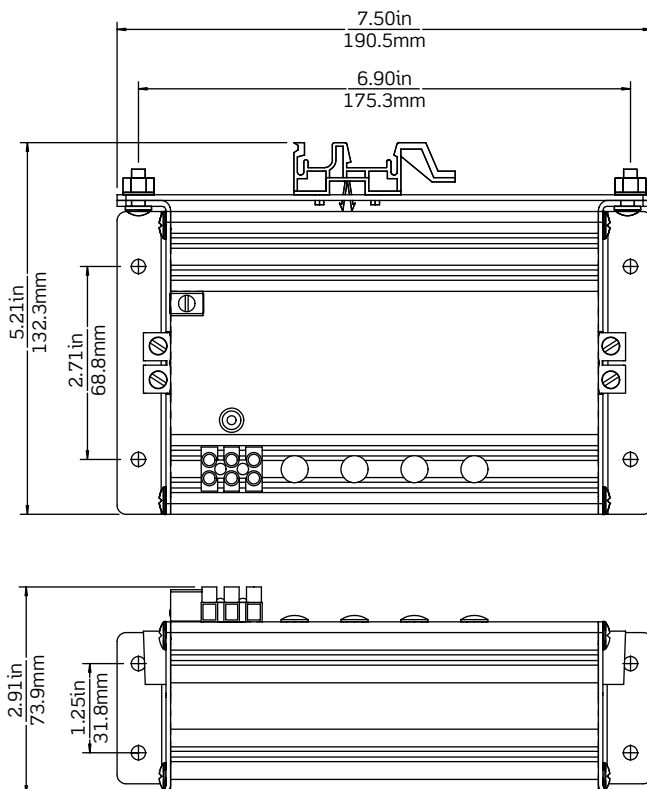
Catalog Number		51005-DIN 51005-WM	51010-DIN 51010-WM	51015-WM	51020-DIN 51020-WM	51240-DIN 51240-WM	3800-DIN 3800-WM 3800-OEM
Electrical Specifications							
Amperage		5 Amp	10 Amp	15 Amp	16 Amp	16 Amp	N/A
Voltage		120VAC	120VAC	120VAC	120VAC	240VAC	125V AC
Frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Surge Technology		MOV	MOV	MOV	MOV	MOV	MOV
Performance Data							
Maximum Continuous Operating Voltage (MCOV)		150V	150V	150V	150V	270V	130V
Joules		672J	672J	1360J	1360J	2600J	600J
Nominal Discharge Current (I <sub>N</sub> )		N/A	N/A	N/A	N/A	N/A	3kA
Maximum Surge Current, Per Phase		L-N: 26kA, L-G: 13kA (39kA)	L-N: 26kA, L-G: 13kA (39kA)	L-N: 48kA, L-G: 24kA (72kA)	L-N: 48kA, L-G: 24kA (72kA)	L-N: 40kA, L-G: 20kA (60kA)	L-N: 24kA, L-G: 12kA (36kA)
Voltage Protection Rating (VPR)	L-L	—	—	—	—	700V	—
	L-N	500V	500V	400V	400V	—	700V
	L-G	600V	600V	500V	500V	800V	700V
	N-G	500V	500V	500V	500V	—	600V
Noise Filtering		-20dB to -40dB (@50K-100MHz)	-20dB to -40dB (@50K-100MHz)	-20dB to -40dB (@50K-100MHz)	-20dB to -40dB (@50K-100MHz)	-20dB to -40dB (@50K-100MHz)	-10dB to -15dB (@100K-100MHz)
Protection Mode		3 Mode	3 Mode	3 Mode	3 Mode	3 Mode	3 Mode
Material Specifications							
Enclosure		51015, 51020 & 51240 Extruded Aluminum; 51005 and 51010 Polycarbonate housing					Polycarbonate
Connection Type		Hard wired; 51005 and 51010 accommodate 12 to 20 AWG wire; 51015, 51020 and 51240 accommodate 8 to 12 AWG wire					-DIN and -WM models: terminal block - accommodates 12 or 14 awg wire -OEM model: 6" pigtails
Diagnostics		Indicator lights and sound alarm for loss of protection					Indicator lights and sound alarm for loss of protection
Remote Monitoring		Rated 0.46 A, 150VAC or 1A, 30Vdc Dry contact					—
Environmental Specifications							
Operating Temperature		-10°C to 60°C					14°F to 140°F/ -10°C to 60°C
Storage Temperature		-20°C to 85°C					-4°F to 185°F/ -20°C to 85°C
Flammability		Polycarbonate enclosures (51005 and 51010) - V-2 rated					Rated V-0 per UL 94
Relative Humidity		5% to 95% (non-condensing)					Condensing: 5% to 95%
Standards & Certifications							
Agency Certification		cURus 1449 3rd Edition Listed Type 3 Recognized Components					UL & CSA Recognized Components
ANSI/IEEE Category A & B		C-62.41 & C-62.45					C-62.41 & C-62.45
NOM		N/A					ETL Certified to NOM-001
Warranty							
Product Warranty		10-Year Limited					10-Year Limited

## Dimensions for: 3800 & 51000 Series

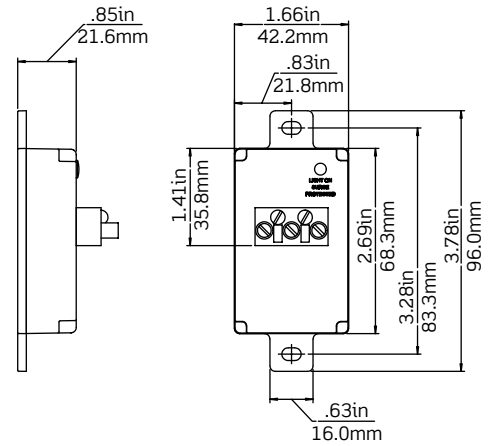
### Catalog Number 51010-DIN



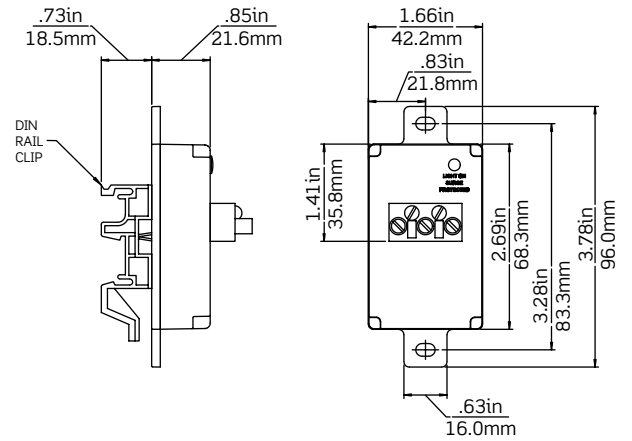
### Catalog Number 51020-WM



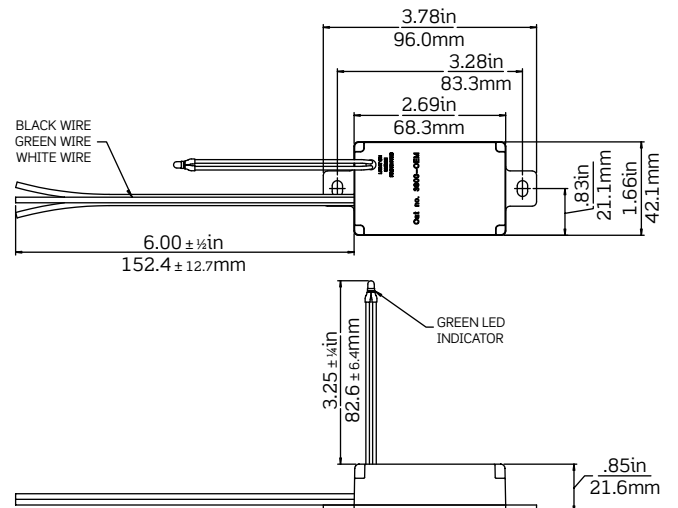
### Catalog Number 3800-WM



### Catalog Number 3800-DIN



### Catalog Number 3800-OEM



## DIN-Rail Mount Receptacles

The DIN-Rail Series provide mounting in equipment cabinets where convenient plug-in surge protection is needed. Available in 120V single and duplex outlet configurations.



### Single or Duplex Receptacles

- Provide MOV-based normal mode and common mode L-N, LG, NG surge protection
- Hospital Grade Receptacle ensures a secure plug-to-receptacle connection (3880-DIN only)
- LED indicator light goes off when surge protection is lost
- Audible alarm with disable/quiet switch also indicates loss of surge protection (3880-DIN only)
- Outlet continues to provide power to connected load in the event of a loss of protection

Catalog Number	3880-DIN	3801-DIN
<b>Electrical Specifications</b>		
Amps	15A	10A
Volts	120V AC	120V AC
Dielectric Voltage	Withstands 2000V per UL498	Withstands 2000V per UL498
Current Limiting	Full Rated Current	Full Rated Current
Temperature Rise	Max 30C after 250 cycles OL at 200% rated current	Max 30C after 250 cycles OL at 200% rated current
<b>Performance Data</b>		
Maximum Continuous Operating Voltage (MCOV)	150V	150V
Joules Rating	560	560
Nominal Discharge Current ( $I_n$ )	3kA	NA
Maximum Surge Current, Per Mode (Per Phase)	9kA (18kA)	9kA (18kA)
Noise Rejection	-20db to -40dB	-20db to -40dB
Voltage Protection Rating (VPR)	L-N: 500V, L-G: 600V, N-G: 600V	L-N: 500V, L-G: 600V, N-G: 600V
Short Circuit Current Rating (SCCR)	NA	NA
Diagnostics	Indicator Light, Audible Alarm	Indicator Light
Protection Modes	3	3
<b>Mechanical Specifications</b>		
Terminal Accom.	#12-#18 AWG	#20-#16 AWG
<b>Environmental Specifications</b>		
Flammability	94V-2	94V-2
Operating Temperature	-10C to 60C	-10C to 60C
Storage Temperature	-20C to 85C	-20C to 85C
<b>Material Specifications</b>		
Face Material	Polycarbonate	Polycarbonate
Body Material	Polycarbonate	Polycarbonate
Line Contacts	Nickel-plated brass	Brass
<b>Standards &amp; Certifications</b>		
NEMA	WD-6	WD-6
ANSI	C-73	C-73
Agency Certifications	UL 498, UL 1449 3rd Edition Recognized Component	UL 498, cURus 1449 3rd Edition Listed
NOM	57	57
<b>Warranty</b>		
Product Warrant	10-Year Limited	

### Ordering Information

Catalog Number	Description
3880-DIN	Hospital Grade Surge Protected Duplex Receptacle, Single-phase, DIN-rail mount
3801-DIN	Surge Protected Single Receptacle, Single-phase, DIN-rail mount





## Low-Voltage (DC) Surge Protection Modules



## Low Voltage (DC) Power Surge Protective Modules

Leviton's 3800 Series DC surge protective devices are designed for mounting in standard equipment cabinets where surge suppression is desired for the enclosed equipment. Compact black-box styling coordinates with other mounted equipment. The MOV-based suppression circuitry provides optimum clamping. Available in standard equipment mount and DIN-rail mount configurations.



3848-WM



3848-DIN



3848-OEM

### 3800 Series UL Recognized Components

- MOV-based suppression circuitry provides optimum clamping
- Wired-in equipment cabinet surge protection for 12V, 24V and 48V DC applications
- Terminal Block connections for 22AWG to 14AWG conductors
- Manufactured to ISO 9001:2000 standards
- 10-year Limited Product Warranty

### Ordering Information

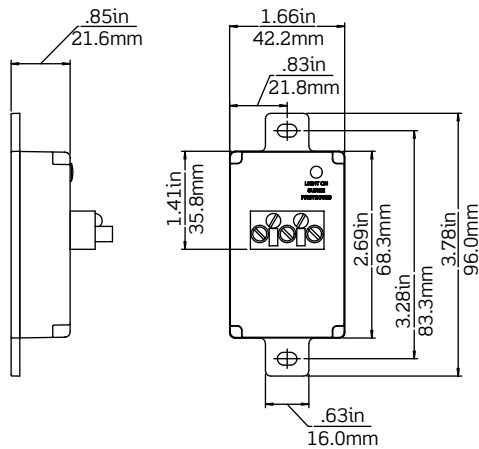
Catalog Number	Voltage Rating	Connection
3812-DIN	12V DC	Terminal Block, DIN-Rail Mount
3824-DIN	24V DC	Terminal Block, DIN-Rail Mount
3824-WM	24V DC	Terminal Block, Standard Equipment Mount
3848-DIN	48V DC	Terminal Block, DIN-Rail Mount
3848-WM	48V DC	Terminal Block, Standard Equipment Mount
3848-OEM	48V DC	Pigtail Connection, Standard Equipment Mount



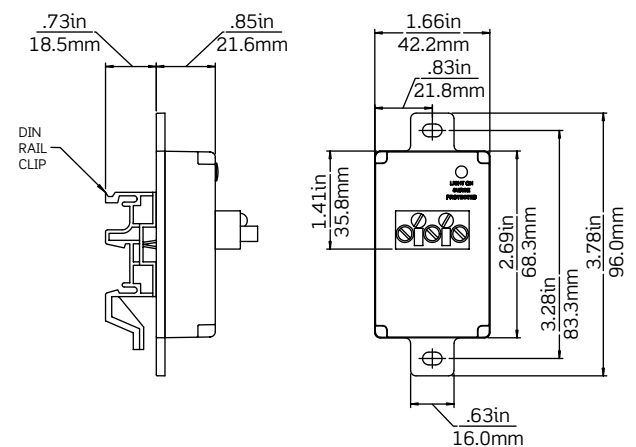
## Dimensions and Specifications for: 3800 Low Voltage Power Series

Catalog Number	3812-DIN	3824-DIN 3824-WM	3848-DIN 3848-WM 3838-OEM™
Performance Data			
Maximum DC Operating Voltage	13.2VDC	26.4VDC	52.8V
Breakdown Voltage 100V/μsec	14.7 – 19.8 V	33.1 – 38.2 V	51.8 – 71.8 V
Maximum Surge Current 10 x 1000μsec	10A	10A	10A
Maximum Capacitance	4.8μf	4.8μf	4.8μf
UL497B Clamping	21V	37V	71V
Material Specifications			
Case Material	Polycarbonate		
DIN-Rail Material	Polycarbonate		
Environmental Specifications			
Operating Temperature	-10°C to 60°C		
Storage Temperature	-20°C to 85°C		
Relative Humidity	20% - 90% non-condensing		
Altitude	15,000 ft		
Standards & Certifications			
UL	497B		
CSA	C22.2		
Warranty			
Product Warranty	10-Year Limited		

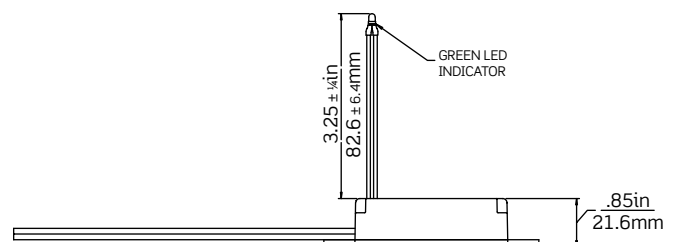
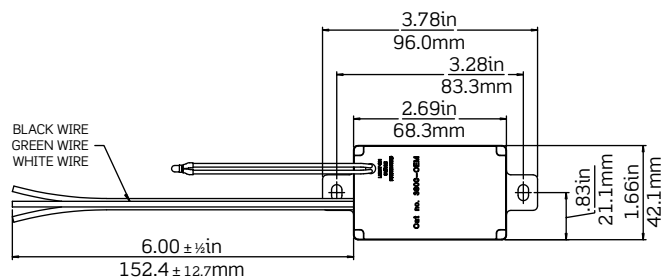
Catalog Number  
38xx-WM



Catalog Number  
38xx-DIN



Catalog Number  
38xx-OEM



## Low-Voltage (DC) Data Line Surge Protection Modules

Leviton's 3400/3800 Series surge protection modules are designed to provide application-specific surge protection for factory automation and industrial control devices. They are available in various DC voltage configurations, connection types and mounting styles.



**3861-ETH**

**3863-DEV**



**3420-35**

**3803-485**

### 3400/3800 Series Modules

- Designed for mounting in standard equipment cabinets
- Wired-in surge protection for PLCs and other data networking devices
- Withstands surges at PLC devices in harsh industrial and high EMI environments
- Low clamping voltage
- Manufactured to ISO 9001:2000 standards
- 10-Year Limited Product Warranty

### Ordering Information

Catalog Number	Description	Voltage Rating	Application
3420-9	SPD with 3-Pin Header Connector, Surface Mount	9.6V DC	Devices operating on Allen-Bradley 4-20ma Signal Loop networks and other related protocols, 9V
3420-35	SPD with 3-Pin Header Connector, Surface Mount	38.5V DC	Devices operating on Allen-Bradley 4-20ma Signal Loop networks and other related protocols, 35V
3803-485	SPD with 6-Pin Header Connector, Surface Mount	9.6V DC	Devices operating on Allen-Bradley DH-485 networks and other related protocols
3803-DHP	SPD with 3-Pin Header Connector, Surface Mount	9.6V DC	Devices operating on Allen-Bradley "Blue Hose" networks and other related protocols
3803-MOD	SPD with 3-Pin Header Connector, Surface Mount	9.6V DC	Devices operating on Modbus and Modbus Plus networks and other related protocols
3860-GEF	SPD with 4-Position Terminal Block, Surface & DIN-Rail Mount	100V DC	Devices operating on GE Fanuc Control Bus networks and other related protocols
3861-ETH	SPD with RJ-45 Connector, Surface & DIN-rail Mount	19.8V DC	Devices operating on Allen-Bradley Ethernet PLC ports and CAT 3 networks and other related protocols
3862-CON	SPD with BNC Connector, Surface & DIN-Rail Mount	9.18V	Devices operating on Allen-Bradley ControlNet networks, CCTV and other related protocols
3863-DEV	SPD with 5-Pin Header Connector, Surface & DIN-Rail Mount	19.8V DC	Devices operating on DeviceNet networks and other related protocols

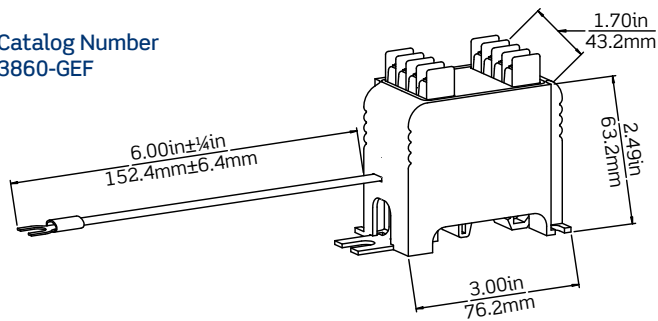


## Specifications for: 3400/3800 Series Low Voltage Data Line Surge Protection Modules

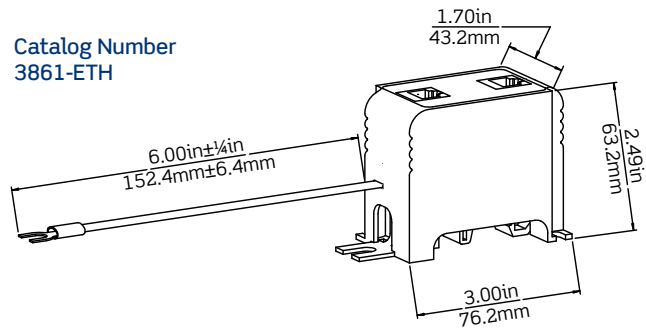
Catalog Number	3420-9	3420-35	3803-485	3803-DHP	3803-MOD	3860-GEF	3861-ETH	3862-CON	3863-DEV
Performance Data									
Maximum DC Operating Voltage	(-)4.5 to 4.5	30VDC (V+ to G)	(-)4.5 to 4.5	(-)4.5 to 4.5	(-)4.5 to 4.5	100.4VDC (L-G) 16.4VDC (L-Shield)	19.8VDC (L-G) 5.6VDC (L-L)	9.18VDC (L-G) 9.18VDC (L-Shield)	19.8VDC (L-G) 5.6VDC (L-L)
Clamping Voltage	12Vpk	48Vpk	12Vpk	12Vpk	12Vpk	205.4Vpk (L-G) 60.7Vpk (L-Shield)	119Vpk (L-G) 56Vpk (L-L)	62.4Vpk (L-G) 36.8Vpk (L-Shield)	119Vpk (L-G) 56Vpk (L-L)
Maximum Surge Current	1kA	1kA	1kA	1kA	1kA	1kA	1kA	1kA	1kA
Maximum Capacitance	53pF (L-G) 53pF (L-L)	53pF (L-G) 53pF (L-L)	53pF (L-G) 53pF (L-L)	14.48pF (L-G) 7.48pF (L-L)	73pF (L-G) 2.2pF (L-L)	20pF (L-G) 20pF (L-L)	20pF (L-G) 20pF (L-L)	30pF (L-L)	20pF (L-L)
Material Specifications									
Case Material	ABS	ABS	ABS	ABS	ABS	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Base-Plate Material				Brushed Brass	Brushed Brass	—	—	—	—
DIN-Rail Material	—	—	—	—	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Ground Tab Material	Plated Steel	Plated Steel	Plated Steel	Plated Steel	—	Tin-plated Brass	Tin-plated Brass	Tin-plated Brass	Tin-plated Brass
Environmental Specifications									
Operating Temperature	-40°C to 60°C	-40°C to 60°C	-40°C to 60°C	-40°C to 60°C	-40°C to 60°C	-10°C to 85°C	-10°C to 85°C	-10°C to 85°C	-10°C to 85°C
Storage Temperature	-40°C to 90°C	-40°C to 90°C	-40°C to 90°C	-40°C to 90°C	-40°C to 90°C	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C	-20°C to 85°C
Relative Humidity	0 to 95% Non-Condensing								
Altitude	-1,000ft to 15,000ft								
Standards & Certifications									
UL	497B Listed								
CE	Marked								
Warranty									
Product Warranty	10-Year Limited								

## Dimensions for: 3400/3800 Series Surge Protection Modules

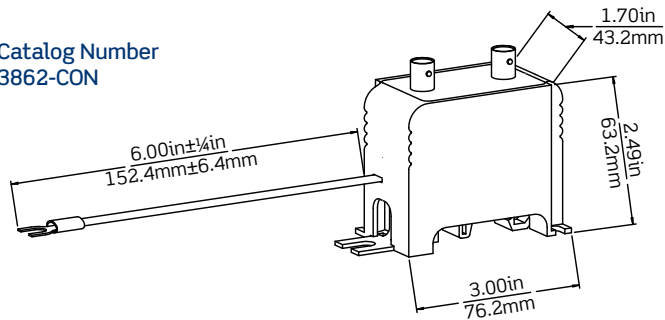
Catalog Number  
3860-GEF



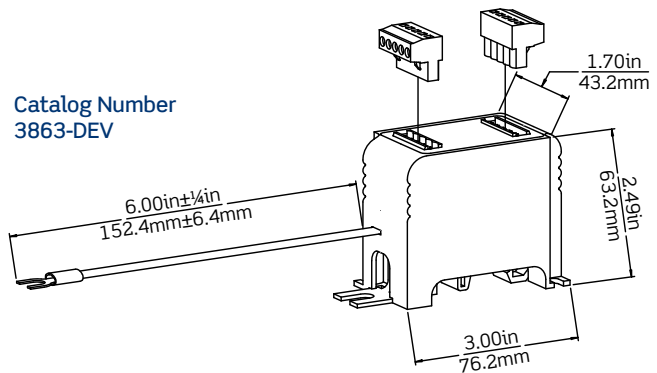
Catalog Number  
3861-ETH



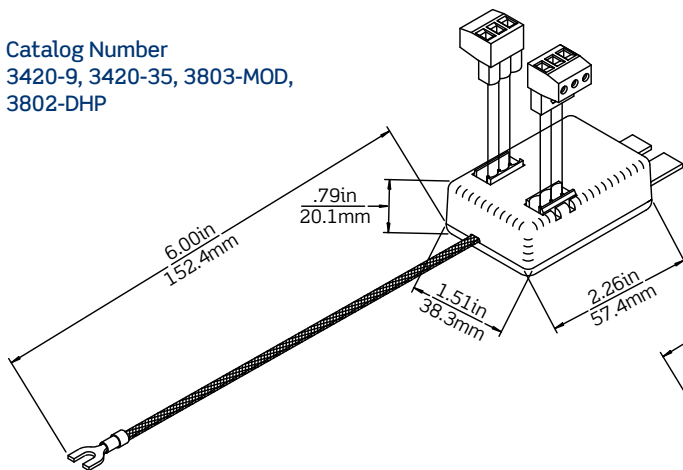
Catalog Number  
3862-CON



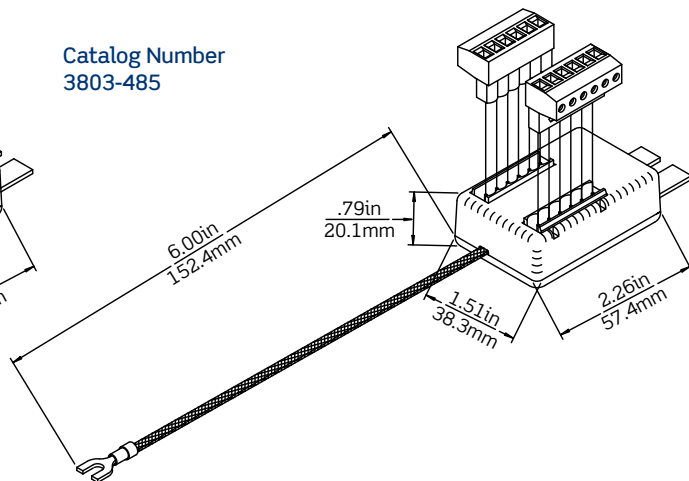
Catalog Number  
3863-DEV



Catalog Number  
3420-9, 3420-35, 3803-MOD,  
3802-DHP



Catalog Number  
3803-485

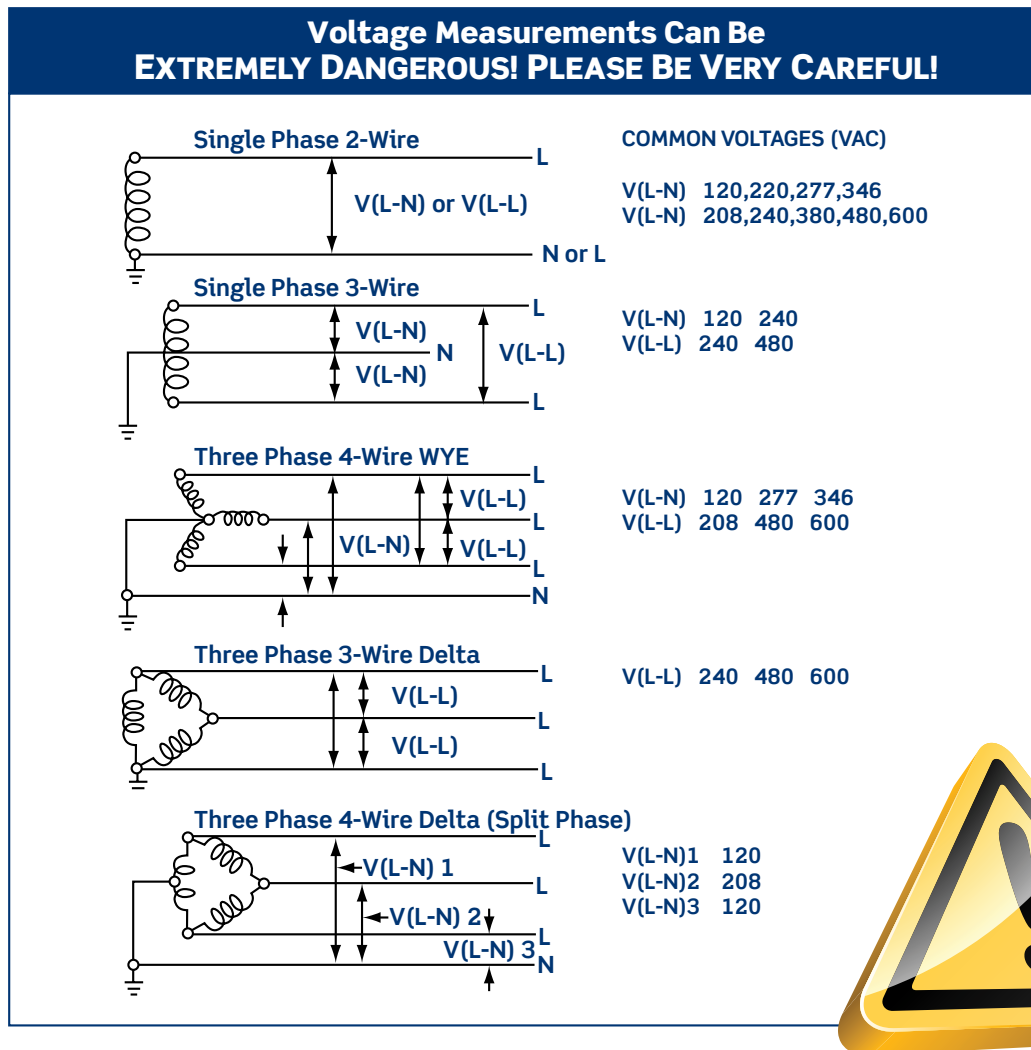




## Accurate Assessment of Electrical Systems

Precise identification of the electrical system is critical in the proper selection and application of the most effective surge protective device. Since SPD performance is directly related to nominal line-voltage parameters, line voltage measurements should always be taken by a qualified electrician before the SPDs are specified and installed. Measurements should be taken even when the electrical system configuration is known.

The figure below shows some common electrical systems used throughout the USA and Canada. Specific systems present in a given facility should be identified by measuring with a voltage meter across each line to neutral, and line to line. The readings should be written down and referred to when ordering the required SPDs.



## Surge Current Capacity

The surge current capacity of an SPD is the maximum surge current the SPD device is capable of surviving on a single impulse basis without suffering degradation of performance of more than 10 percent. It is required to be listed by mode (in kA), since the number and type of components in any SPD may vary by mode. It can also be stated by phase.

## Modes of Protection – Per Mode and Per Phase

A “mode” is a potential path for a surge to be diverted to (e.g. L-N, L-G, N-G). The number of modes depends on the configuration of the electrical system (single phase, 3-phase WYE, 3-phase Delta, etc.). The per-phase rating is the total surge current capacity connected to a given phase conductor.

## Calculating “surge current per phase”

The per-phase rating is the total surge current capacity connected to a given phase conductor. For example in a WYE system, L1-N and L1-G modes are added together because surge current can flow on either parallel path. If the device has only one mode (e.g., L1-G), then the per-phase rating is equal to the per-mode rating because there is no protection on the L1-N mode. The industry standard is to publish surge current “per phase” by summing modes L-N + L-G in a WYE system and L-L + L-G in Delta systems.



### **Clamping Voltage (Also known as Let-Through Voltage)**

The voltage at which a surge suppressor performs its suppression tasks such as diverting (shunt) the surge from line to ground or absorbing the excessive energy.

### **Common Mode**

When relating to SPDs, common mode refers to surge protection components provided between L-G and N-G modes.

### **Maximum Continuous Operating Voltage (MCOV)**

The maximum voltage that can be continuously applied to each mode of the SPD without degradation.

### **Maximum Surge Current Rating**

The maximum 8x20us Surge Current Amps an SPD can withstand 1 time without performance degradation of more than 10%.

### **Nominal Discharge Current ( $I_N$ )**

The peak value of an 8/20  $\mu$ s current waveform, selected by the manufacturer, for which an SPD (Type 1 or Type 2 only) remains functional after 15 surges - Type 1 devices require testing at 10 or 20 kA and Type 2 devices can be tested using a 3, 5, 10 or 20 kA.

### **Normal Mode**

When relating to SPDs, normal mode refers to surge protection components provided between L-L and L-N modes.

### **Per Mode**

A "mode" is a potential path for a surge to be diverted to (such as L-N, L-G, N-G).

### **Per Phase**

The maximum amount of surge current a SPD can shunt to ground during a surge event on one phase.

### **Short Circuit Current Rating (SCCR)**

The suitability of an SPD for use on an AC power circuit that is capable of delivering not more than a declared current at a declared voltage during a short circuit condition.

### **Surge**

A short-duration overvoltage spike or disturbance on the ac power line, having duration of a few milliseconds or less.

### **Suppression Voltage Rating (SVR)**

Term used to define the clamping voltage when subjected to the UL 1449 2nd Edition Measured Limited Voltage Test - this test has proven insufficient to adequately evaluate SPD performance, and has been replaced by the Voltage Protection Rating (VPR).

### **Temporary Overvoltage (TOV)**

An overvoltage on the AC power line that is at a given location of relatively long duration (seconds, even minutes) .

### **Type 1 Surge Protection Device**

Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service equipment overcurrent device, as well as the load side, including watt-hour meter socket enclosures and intended to be installed without an external overcurrent protective device.

### **Type 2 Surge Protection Device**

Permanently connected SPDs intended for installation on the load side of the service equipment over current device; including SPDs located at the branch panel.

### **Type 3 Surge Protection Device**

Point of utilization SPDs, installed at a minimum conductor length of 10 meters (30 feet) from the electrical service panel to the point of utilization, for example cord connected, direct plug-in, receptacle type and SPDs installed at the utilization equipment being protected.

### **Type 4 Surge Protection Device**

Component assembly consisting of one or more Type 5 components together with a disconnect (integral or external) or a means of complying with the limited current tests.

### **Type 5 Surge Protection Device**

Discrete component surge suppressors, such as MOVs that may be mounted on a PWB, connected by its leads or provided within an enclosure with mounting means and wiring terminations.

### **Voltage Protection Rating (VPR)**

The new terminology for what was previously known as clamping voltage, suppression voltage rating (SVR), or let-through voltage. It represents the clamping voltage when subjected to the UL 1449 3rd Edition Measured Limited Voltage Test. This newly modified test is performed at significantly higher currents (6kV @ 3000A vs 6kV 500A) to more accurately reflect real world performance.

## Limited Lifetime Warranty and Exclusions

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use during the lifetime of the product. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if the product is returned prepaid, with proof of purchase date, and a description of the problem to Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 201 North Service Road, Melville, N.Y. 11747. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

## Limited Ten Year Warranty and Exclusions

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for ten years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such ten year period the product is returned prepaid, with proof of purchase date, and a description of the problem to Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 201 North Service Road, Melville, New York 11747. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to ten years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

Product Family	Product Series	Product Warranty
Meter Socket Surge Arrester	50240 Series	Lifetime Limited Product Warranty
Secondary Surge Arrester	55000 Series	Lifetime Limited Product Warranty
Surge Panels	74000 Series	Lifetime Limited Product Warranty
	75000 Series	Lifetime Limited Product Warranty
	57000 Series	Lifetime Limited Product Warranty
	52000 Series	Lifetime Limited Product Warranty
	47000 Series	Lifetime Limited Product Warranty
	37000 Series	Lifetime Limited Product Warranty
	42000 Series	Lifetime Limited Product Warranty
	32000 Series	Lifetime Limited Product Warranty
	51120 Series	Lifetime Limited Product Warranty
	51110 Series	10-Year Limited Product Warranty
Surge Receptacles	5280, 7280, 8280, 8281, 5380, 7380, 8380 & 8381 Series	10-Year Limited Product Warranty
	Four-In-One (5480, 5490, 8480 & 8490 Series)	10-Year Limited Product Warranty
Wall Plug-Ins	3500 Series	10-Year Limited Product Warranty
Surge Strips	S1000 Series	Lifetime Limited Product Warranty
	S2000 Series	Lifetime Limited Product Warranty
	5100 Series	Lifetime Limited Product Warranty
	5300 Series	Lifetime Limited Product Warranty
Surge Modules	51005, 51010, 51015, 51020, 51240 & 3800 Series	10-Year Limited Product Warranty

Product Family	Product Series	Connected Equipment Policy Duration	Connected Equipment Coverage Maximum
Meter Socket Surge Arrester	50240-MSA	Lifetime Limited	\$10,000
Secondary Surge Arrester	55240	Lifetime Limited	\$10,000
Surge Panels	51120-1, 51120-3R	Lifetime Limited	\$25,000
Surge Strips	S1000 Series	Lifetime Limited	\$10,000
	S2000 Series	Lifetime Limited	\$25,000
	5100 Series	Lifetime Limited	\$5,000
	5300 Series	Lifetime Limited	\$25,000
Wall Plug-Ins	5100 Series	Lifetime Limited	\$5,000

# “True Whole House Surge Protection” Limited Warranty

**Service Entrance: Up to \$25,000 for Connected Equipment  
Limited Lifetime Product Replacement**

Lifetime Connected Equipment Protection	
\$25,000	51120-1, 51120-3R, S2000 Series, 5300 Series
\$10,000	50240-MSA, 55240-ASA, S1000 Series
\$5,000	5100 Series, 3500 Series

**This warranty is for the benefit of the original consumer purchaser only and will continue for as long as such original purchaser uses the Leviton Surge Protective Device stated within this warranty program.**

## PRODUCT COVERAGE

Limited Lifetime on materials and workmanship on 5100 series, 5300 series, S1000 series, S2000 series, 3500 series, 50240-MSA, 55240-ASA and 51120-1/-3R surge protective devices. Subject to the provision below, this warranty covers all defects in workmanship or materials in you Leviton SPD. If the SPD is damaged by a power surge and Leviton determines that such damage was caused by the performance failure of the Leviton surge suppressor, Leviton will, at its option, repair or replace the unit.

## CONNECTED EQUIPMENT COVERAGE

The Leviton “True Whole-House Surge Protection” program provides the following connected equipment coverage:

1. Meter Base (50240-MSA) and Surge Arrester (55240-ASA): Maximum coverage per household up to \$10,000 to repair or replace (whichever is less) residential equipment which sustain surge damage. Residential equipment includes: washer, dryer, stove, refrigerator, freezer, dishwasher, microwave oven, LCD or plasma TV, surround sound system, DVD, DVR and Indoor HVAC equipment. This portion of the warranty applies to electro-mechanical components and to any microprocessor components. Coverage is applicable only when the Service Entrance SPD (1) was active and fully functional immediately prior to the claim event, and (2) sustained surge damage as a result of the claim event and (3) is installed within 100 feet of conductor of structure being protected. The Cat. No. 55240-ASA will provide \$1,000 connected equipment for well-pumps.
2. Panel-Mount Service Entrance SPD (51120-1/-3R): Up to \$25,000 to repair or replace (whichever is less) properly connected residential equipment damaged as the result of SPD failure (the SPD must also sustain surge damage).
3. Plug Strips: (a.) S2000 and 5300 Series: Up to 25,000, (b.) S1000 Series: Up to \$10,000, and (c.) 5100 Series: Up to \$5,000 to repair or replace (whichever is less) properly connected residential equipment damaged as the result of SPD failure (the SPD must also sustain surge damage).
4. Plug-In Adapters: Up to \$5,000 to repair or replace (whichever is less) properly connected residential equipment damaged as the result of SPD failure (the SPD must also sustain surge damage).

The above remedy is your exclusive remedy under this warranty, whether based on contract, tort, including negligence or otherwise. Claims must be made within 30 days of damage or loss. Leviton reserves the right to audit the damage site and/or cost of repairs and may require a proof of loss notarized by claimant.

## WHAT IS A “POWER SURGE”?

“Power Surge” means an electrical transient or spike on the AC power or communication lines, including those caused by indirect lighting, against which surge suppressors of this type are generally designed to protect as recognized by industry standards.

## WARRANTY CLAIM PROCEDURES

If any of the SPD products have defects or sustain damage covered by your “True Whole-House Surge Protection” warranty, call Leviton at 1-800-323-8920. To file a claim for power surge damage to connected equipment:

1. Meter Base (50240-MSA) & Surge Arrester (55240-ASA): If Red Light is ON – Call Utility for replacement of unit. Send the damaged Leviton SPD product(s), freight pre-paid, to Leviton Manufacturing for testing and confirmation of damage.
2. Surge Panels (51120-1, 51120-3R): If Red Light is ON – Call an electrician for replacement of unit. Send the damaged Leviton SPD product(s), freight pre-paid, to Leviton Manufacturing for testing and confirmation of damage.
3. Power Strips & Plug-In's: Send the damaged Leviton SPD product(s), freight pre-paid, to Leviton for testing and confirmation of damage.
4. After Leviton confirms SPD damage, have damaged equipment repaired at an authorized service center.
5. Submit receipts along with your claim package to Leviton Manufacturing Co. Inc., 201 North Service Road, Melville, NY 11747, ATTN: CQA
6. Leviton reserves the right to repair or replace equipment at the prorated fair market value of the equipment damaged.

## WHAT DOESN'T THIS WARRANTY COVER?

This warranty will not apply to any defects or damage to the Leviton SPD or any properly connected equipment arising because: (1) The Leviton SPD was tampered with, modified or altered in any way, or (2) the Leviton SPD or the connected equipment was not used under normal operating conditions or in accordance with any labels or instructions. This warranty does not cover any damage to properly connected equipment resulting from a cause other than a “power surge.” This warranty specifically does not cover damage associated with a sustained over-voltage; equipment installed outdoors, vandalism, theft, normal wear and tear, obsolescence, abuse or catastrophic events.

This specifically excludes sprinkler systems and hard-wired security alarm systems. Well-pumps are covered only when a 55240-ASA is installed directly at the equipment.

This warranty does not cover, garage door operators or outdoor equipment including outdoor HVAC units and window-mounted air conditioners.

Leviton disclaims liability for any installation labor, incidental, indirect, special or consequential damages, including, without limitation, lost business profits, loss of data and all freight, mileage, travel time, and insurance charges associated with warranty coverage claims arising out of the sale or use of the Leviton SPD or out of the performance (or failure or delay) of Leviton's warranty. Valid in U.S.A. and Canada.

**Leviton Manufacturing Co., Inc.**

201 N Service Rd, Melville, NY 11747

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

Tech Line (8:30AM-7:00PM E.S.T. Monday-Friday): 1-800-824-3005

**Leviton Manufacturing of Canada, Ltd.**

165 Hymus Blvd, Pointe-Claire, QC H9R 1E9

Telephone: 1-800-469-7890 • Fax: 1-800-563-1853

**Leviton S. de R.L. de C.V.**

Lago Tana 43, Col. Huichapan, Miguel Hidalgo, CP 11290 México DF

Telephone: (+52) 55-5082-1040 • Fax: (+52) 55-5386-1797 • [www.leviton.com.mx](http://www.leviton.com.mx)

**Visit our Website at: [www.leviton.com/industrial](http://www.leviton.com/industrial) email: [industrial@leviton.com](mailto:industrial@leviton.com)**

