

Industrial, Commercial  
and Residential

# Surge Protective Devices (SPDs)

GETTING THE RIGHT PROTECTION

FOR: 120/208V WYE OR  
208Y OR 220V DELTA  
Frequency: 50/60 Hz  
Type 2, In: 3KA, SCCR: 100KA  
MCOV: L-N/N-G: 150V, L-L: 254V, L-G: 300V

**LEVITON**

Surge Protective Device

CAT. NO.  
32120-DY3

UL 1449 VPR RATING:  
700Vpk L-N  
700Vpk N-G  
1000Vpk L-L  
1200Vpk L-G

LINE 1

LINE 2

LINE 3

PROTECTION STATUS

GREEN LIGHT OUT / FLASHING RED LIGHT  
AUDIBLE BEEP = CIRCUIT DAMAGE,  
REPLACE IMMEDIATELY

FAULT

Enclosure Type NEMA 3R

FOR WIRING SEE INSTALLATION INSTRUCTION

# Surge Protective Devices



Some basic definitions of device types may be found on the back cover of this document. For additional product details, including technical specifications, warranty information, and literature, please visit [leviton.com/surge](http://leviton.com/surge).

## TYPE 1 SURGE PROTECTIVE DEVICES

### Surge Protective Circuit Breakers

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



### 55000 Series

- NEMA Type 3R enclosure for indoor or outdoor use
- Provided with #10 AWG stranded, 18 in. long pigtail leads



## TYPE 2 SURGE PROTECTIVE DEVICES

### 51120-3R

- Standard J-Box enclosure with pre-punched standard knock-outs can be easily surface mounted in typical frame construction
- Provided with #12 AWG stranded, 28 in. long cord



### 51110 Panel Mount

- UL1449 Edition rated
- Compatible with home automation systems
- 150 maximum continuous operating voltage (MOV) rating allows for tolerance to line voltage swells



### Ordering Guide: Surge Protective Circuit Breakers

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

### Ordering Guide: 55000 Series, 51120-3R and 51110-SRG

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per mode (Per Phase)
55240-ASA	Type 1 — Module	120/240 Single Phase	50 kA (100 kA)
55208-ASA	Type 1 — Module	120/208 3Ø WYE, 240V 3Ø Delta	50 kA (100 kA)
55480-ASA	Type 1 — Module	277/480 3Ø WYE, 480V 3Ø Delta	50 kA (100 kA)
51120-3R	Type 2 — Panel Mount	120/240 Single Phase	50 kA (100 kA)
51110-SRG	Type 2 — 4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	48 kA (96 kA)

## TYPE 2 SURGE PROTECTIVE DEVICES

### 51120 Series Panel Mount

#### NON-MODULAR

- 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 and computers



### 32000 and 42000 Series Panel Mount

#### NON-MODULAR

- 32000 Series features reduced noise filtering for optimum compatibility with home controls
- 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
- NEMA Type 3R enclosure for indoor/outdoor applications



### 37000 and 47000 Series Panel Mount

#### NON-MODULAR

- Protection for up to 100,000 amps (37000 Series) or 200,000 amps (47000 Series) of surge current per mode
- 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



#### Ordering Guide: 37000, 47000, 32000, 42000 and 51120 Series

Catalog Number	Description	Voltage (V AC) Configuration	Max Surge Current, Per Mode (Per Phase)
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	80 kA (80 kA)
32120-1	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	80 kA (80 kA)
37120-7	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100 kA (200 kA)
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	80 kA (80 kA)
32412-DS3	7-Mode Surge Protection Panel	120/240/120 3Ø Hi-leg Split Phase Delta, 4-wire + gnd	80 kA (80 kA)
37277-7	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100 kA (200 kA)
42001-FMC	Flush Mount Collar for all 32000 and 42000 Series Panels	—	—
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	80 kA (80 kA)
42120-1	4-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	80 kA (80 kA)
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	80 kA (80 kA)
42412-DS3	7-Mode Surge Protection Panel	120/240/120 3Ø Hi-leg Split Phase Delta, 4-wire + gnd	80 kA (80 kA)
47120-7	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	200 kA (400 kA)
47120-4X7	7-Mode Surge Protection Panel in Type 4X enclosure	120/208 3Ø WYE, 4-wire + gnd	200 kA (400 kA)
47277-7	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	200 kA (400 kA)
47277-4X7	7-Mode Surge Protection Panel in Type 4X enclosure	277/480 3Ø WYE, 4-wire + gnd	200 kA (400 kA)
51120-1	2-Mode Surge Protection Panel	120/240 Single-phase, 2-wire + gnd	50 kA (50 kA)
51120-3	3-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	50 kA (50 kA)

## TYPE 2 SURGE PROTECTIVE DEVICES



### 52000 and 57000 Series Panel Mount MODULAR

- Parallel-operated design ensures continuous power even if surge protection is disabled
- Protection for up to 100,000 amps (52000 Series) or 150,000 amps (57000 Series) of surge current per mode
- NEMA Type 12 enclosure resists dirt, dust and light splashing water

#### Ordering Guide: 52000 and 57000 Series

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 (200kA)	(1) 2120, (1) 8120-GN
52120-M2	3-Mode Surge Protection Panel	120/240 Single-phase, 3-wire + gnd	100 kA (200 kA)	(2) 2120, (1) 8120-GN
52120-M2H	3-Mode Surge Protection Panel, DHC & X10 compatible	120/240 Single-phase, 3-wire + gnd	100 kA (200 kA)	(2) 2120-M2H, (1) 8120-GN
52120-M3	4-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100 kA (200 kA)	(3) 2120, (1) 8120-GN
52120-7M3	7-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	100 kA (200 kA)	(3) 120-7M3, (1) 8120-GN
52120-7MS	7-Mode Surge Protection Panel with Integral Disconnect Switch	120/208 3Ø WYE, 4-wire + gnd	100 kA (200 kA)	(3) 120-7M3, (1) 8120-GN
52240-DM3	3-Mode Surge Protection Panel	240 3Ø Delta, 3-wire + gnd	100kA (200kA)	(3) 2240
52277-M3	4-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100kA (200kA)	(3) 2277, (1) 8320-GN
52277-7M3	7-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	100 kA (200 kA)	(3) 277-7M3, (1) 8320-GN
52277-7MS	7-Mode Surge Protection Panel with Integral Disconnect Switch	277/480 3Ø WYE, 4-wire + gnd	100 kA (200 kA)	(3) 277-7M3, (1) 8320-GN
52480-DM3	3-Mode Surge Protection Panel	480 3Ø Delta, 3-wire + gnd	100 kA (200 kA)	(3) 2480
52412-DS3	4-Mode Surge Protection Panel	120/240/120 Split Phase Delta, 4-wire + gnd	100 kA (200 kA)	(2) 2120, (1) 2412, (1) 8120-GN
57120-M3	4-Mode Surge Protection Panel	120/208 3Ø WYE, 4-wire + gnd	150 kA (300 kA)	(3) 7120, (1) 8120-GN
57240-DM3	3-Mode Surge Protection Panel	240 3Ø Delta, 3-wire + gnd	150 kA (300 kA)	(3) 7240
57277-M3	4-Mode Surge Protection Panel	277/480 3Ø WYE, 4-wire + gnd	150 kA (300 kA)	(3) 7277, (1) 8320-GN
57480-DM3	3-Mode Surge Protection Panel	480 3Ø Delta, 3-wire + gnd	150 kA (300 kA)	(3) 7480



# TYPE 3 SURGE PROTECTIVE DEVICES

## Surge Protective Receptacles

- An extensive selection of amperages, colors and configurations to meet almost any need
- EMI/RFI Noise Filtering
- Audible alarm
- 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 Guide: Surge Protective Receptacles

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

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

## TYPE 3 SURGE PROTECTIVE DEVICES

### S1000 and S2000 Series Surge Protective Strips

- Internal circuit breaker
- Audible alarm
- Multi-line protection (L-N, L-G, N-G)



### 5100 and 5300 Series Surge Protective Strips

- Industrial Grade strips feature metal housings while Commercial Grade strips feature thermoplastic housing
- Industrial Grade strips with tamper-resistant, Hospital Grade components
- Multi-line protection (L-N, L-G, N-G)
- Onboard resettable circuit breaker



#### Ordering Guide: S1000 and S2000 Series Surge Protective Strips

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

#### Ordering Guide: 51000 and 53000 Series Surge Protective Strips

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

# TYPE 3 SURGE PROTECTIVE DEVICES

## Medical Grade Power Strips

- Conforms to UL 1363A, UL 60601-1, UL 60950-1, and UL 1449
- Devices with Inform™ technology feature a line-of-sight, real-time LED indication when the NFPA 99 current limit (75%) has been reached
- All outlets and plug are hospital grade, ensuring dependable performance
- Heavy duty steel construction withstands the rigors of demanding environments
- Built-in overload protection shuts off the strip in case of excess power draw, and can be returned to service with the simple push of a button
- Easily accommodates surface mounting; IV pole mounting with the use of mounting bracket (5300M-BKT)
- Locking safety covers are splash-resistant and protect from incidental contact with unused outlets

### OVERCURRENT INDICATION



**LOAD MONITOR**  
EXCEEDED NFPA 99  
CURRENT LIMIT WHEN LIT



Surge Protective with Load Monitoring  
Inform Technology

Surge Protective

## Ordering Guide: Medical Grade Power Strips

Stock Configurations	Current Rating	AC Power Cord Length	2 Outlet	4 Outlet	6 Outlet
Medical Grade Power Strips	15 A (12 A max continuous load)	7 Feet	5302M-1N7	5304M-1N7	5306M-1N7
		15 Feet	5302M-1N5	5304M-1N5	5306M-1N5
	20 A (16 A max continuous load)	7 Feet	5302M-2N7	5304M-2N7	5306M-2N7
		15 Feet	5302M-2N5	5304M-2N5	5306M-2N5
Surge Protective Medical Grade Power Strips	15 A (12 A max continuous load)	7 Feet	5302M-1S7	5304M-1S7	5306M-1S7
		15 Feet	5302M-1S5	5304M-1S5	5306M-1S5
	20 A (16 A max continuous load)	7 Feet	5302M-2S7	5304M-2S7	5306M-2S7
		15 Feet	5302M-2S5	5304M-2S5	5306M-2S5
Medical Grade Power Strips with Load Monitoring Inform™ Technology	15 A (12 A max continuous load)	7 Feet	—	53C4M-1N7	53C6M-1N7
		15 Feet	—	53C4M-1N5	53C6M-1N5
	20 A (16 A max continuous load)	7 Feet	—	53C4M-2N7	53C6M-2N7
		15 Feet	—	53C4M-2N5	53C6M-2N5
Surge Protective Medical Grade Power Strips with Load Monitoring Inform™ Technology	15 A (12 A max continuous load)	7 Feet	—	53C4M-1S7	53C6M-1S7
		15 Feet	—	53C4M-1S5	53C6M-1S5
	20 A (16 A max continuous load)	7 Feet	—	53C4M-2S7	53C6M-2S7
		15 Feet	—	53C4M-2S5	53C6M-2S5

All strips available with flying leads - contact your Leviton sales representative for details.

### Additional Accessories

#### Replacement Outlet Covers

Each will cover two outlets  
5300M-CVR



#### Mounting Bracket

Includes top and bottom mounting mechanisms  
5300M-BKT



# TYPE 4 SURGE PROTECTIVE DEVICES

## 3800 Series

- Suitable for 125 VAC applications
- UL recognized components
- MOV-based suppression circuitry provides optimum clamping
- Tested to ANSI/IEEE C62.41 and C62.45 standards for category A & B applications
- Terminal-Block accepts 14 AWG or 12 AWG conductors

### Ordering Guide: 3800 Series Surge Modules and DIN Rail Receptacles

Catalog Number	Description
3800-DIN	Terminal Block Connection, DIN rail mounted
3800-WM	Terminal Block Connection
3800-OEM	Pigtail Connection w/ 6" leads
3880-DIN	Hospital Grade Surge Protective Duplex Receptacle, Single-phase, DIN rail mount

## DIN Rail Mount Receptacles

- Provide MOV-based normal mode and common mode L-N, L-G, N-G surge protection
- LED indicator and audible alarm
- Outlet continues to provide power to connected load in the event of a loss of protection



## Device Types in Brief

### Type 1 SPDs .....Page 2

Typically mounted on the line side of the main service entrance. Protect against external surges caused by lightning or utility capacitor bank switching. Type 1 devices can automatically be used in Type 2 applications, so that is why we often refer to them as Type 1/Type 2.

### Type 2 SPDs .....Pages 2-4

Generally serve a branch circuit and protect against residual lightning energy, motor driven surges and other internally generated surges.

### Type 3 SPDs .....Pages 5-7

Often used at the protected equipment. Provide point-of-use protection.

### Type 4 SPDs .....Top of this page

Component assemblies 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 in UL 1449.

## Surge Protector Limited Warranty

This warranty is for the benefit of the original consumer purchaser only.

### LIMITED 5 YEAR WARRANTY FOR ENTIRE SURGE LINE

#### THE BELOW SKU's HAVE A CONNECTED EQUIPMENT WARRANTY

Up to \$25,000	51120-1, 51110-SRG, 51120-3R, S2000 Series, 5300
Up to \$10,000	55240-ASA, S1000 Series
Up to \$5,000	5100 Series

Visit our Website at:

[www.leviton.com/surge](http://www.leviton.com/surge)

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