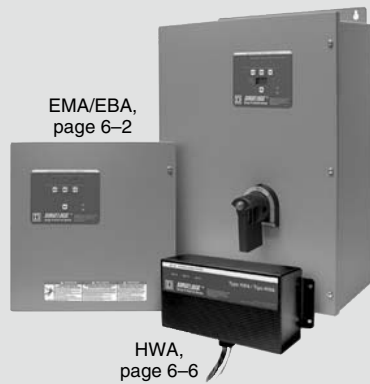


Commercial Applications



Residential & Light Commercial Applications



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by Schneider Electric

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SurgeLogic®

SurgeLogic® Surge Protective Device (SPD) products offer high performance solutions for electrical distribution systems. From simple to mission-critical applications in commercial, industrial, and OEM design, the comprehensive SurgeLogic® line provides devices for every need.

Externally Mounted Surge Protective Devices

SurgeLogic® offers a full range of externally mountable SPDs. These units are designed to provide surge suppression from service entrance panels to point-of-use equipment.

US and Canadian UL Listed® to UL 1449 3rd Edition and UL 1283 5th Edition. Complies with requirements of NEC® Article 285 and CSA 22.2 No. 8-M1986 as appropriate.

- 10 year product warranty
- Suppression modes: L-N, L-G, L-L, and N-G
- 200 kA SCCR
- EMI/RFI filtering

- Audible alarm with enable/disable switch, dry contacts, and surge counter standard
- Indicator LEDs; normal (green) and fault condition (red) for each phase

Modular External SPD

External Modular Assembly (EMA) SPD products feature a design based on modules for a flexible, cost effective way to achieve superior surge suppression at every level of the electrical distribution system. Modularity means lower life cycle costs and fast, easy service or replacement.

Table 6.1: EMA Series Modular Device

Service Voltage	Peak Surge Current Rating per Phase (kA)	NEMA 1/3R Cat. No.	\$ Price	NEMA 4X Stainless Steel Cat. No.	\$ Price
Note: Supplied with audible alarm, alarm enable/disable switch, dry contacts, and surge counter.					
120/240 V, 1-phase, 3-wire +ground	120	TVS1EMA12A()	4547.00	TVS1EMA12S()	5964.00
	160	TVS1EMA16A()	4997.00	TVS1EMA16S()	6414.00
	240	TVS1EMA24A()	7421.00	TVS1EMA24S()	8838.00
	320	TVS1EMA32A()	9962.00	—	—
	480	TVS1EMA48A()	14798.00	—	—
208Y/120 V, 3-phase, 4-wire +ground	120	TVS2EMA12A()	4760.00	TVS2EMA12S()	6177.00
	160	TVS2EMA16A()	5231.00	TVS2EMA16S()	6648.00
	240	TVS2EMA24A()	7782.00	TVS2EMA24S()	9200.00
	320	TVS2EMA32A()	10431.00	—	—
	480	TVS2EMA48A()	15522.00	—	—
120/240 V, 3-phase, 4-wire +ground High-leg Delta	120	TVS3EMA12A()	4760.00	TVS3EMA12S()	6177.00
	160	TVS3EMA16A()	5231.00	TVS3EMA16S()	6648.00
	240	TVS3EMA24A()	7782.00	TVS3EMA24S()	9200.00
	320	TVS3EMA32A()	10431.00	—	—
	480	TVS3EMA48A()	15522.00	—	—
480Y/277 V, 3-phase, 4-wire +ground	120	TVS4EMA12A()	4973.00	TVS4EMA12S()	6390.00
	160	TVS4EMA16A()	5468.00	TVS4EMA16S()	6885.00
	240	TVS4EMA24A()	8147.00	TVS4EMA24S()	9564.00
	320	TVS4EMA32A()	10904.00	—	—
	480	TVS4EMA48A()	16250.00	—	—
600Y/347 V, 3-phase, 4-wire +ground	120	TVS8EMA12A()	5220.00	TVS8EMA12S()	6638.00
	160	TVS8EMA16A()	5714.00	TVS8EMA16S()	7131.00
	240	TVS8EMA24A()	8528.00	TVS8EMA24S()	9945.00
	320	TVS8EMA32A()	11399.00	—	—
	480	TVS8EMA48A()	17012.00	—	—

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240
■ Can be used on 4-wire or 3-wire grounded neutral system.

() For option, select and add the appropriate suffix from the option listing below:

Option	\$ Price
(I) Integral Switch	738.00

Brick Assembly External SPD

External Brick Assembly (EBA) SPD products consist of a consolidation of phase modules into one solid brick casting and offered at a competitive price for those who want superior surge suppression on a limited budget.

Table 6.2: EBA Series Non-Modular Device

Service Voltage	Peak Surge Current Rating per Phase (kA)	NEMA 1/3R Cat. No.	\$ Price	NEMA 4X Stainless Steel Cat. No.	\$ Price
Note: Supplied with audible alarm, alarm enable/disable switch, dry contacts, and surge counter.					
120/240 V, 1-phase, 3-wire +ground	120	TVS1EBA12A()	3467.00	TVS1EBA12S()	4884.00
	160	TVS1EBA16A()	4208.00	TVS1EBA16S()	5625.00
	240	TVS1EBA24A()	6290.00	TVS1EBA24S()	7707.00
208Y/120 V, 3-phase, 4-wire +ground	120	TVS2EBA12A()	3588.00	TVS2EBA12S()	5006.00
	160	TVS2EBA16A()	4388.00	TVS2EBA16S()	5805.00
	240	TVS2EBA24A()	6525.00	TVS2EBA24S()	7943.00
120/240 V, 3-phase, 4-wire +ground High-leg Delta	120	TVS3EBA12A()	3588.00	TVS3EBA12S()	5006.00
	160	TVS3EBA16A()	4388.00	TVS3EBA16S()	5805.00
	240	TVS3EBA24A()	6525.00	TVS3EBA24S()	7943.00
480Y/277 V, 3-phase, 4-wire +ground	120	TVS4EBA12A()	3743.00	TVS4EBA12S()	5160.00
	160	TVS4EBA16A()	4581.00	TVS4EBA16S()	5999.00
	240	TVS4EBA24A()	6827.00	TVS4EBA24S()	8244.00
600Y/347 V, 3-phase, 4-wire +ground	120	TVS8EBA12A()	3905.00	TVS8EBA12S()	5322.00
	160	TVS8EBA16A()	4787.00	TVS8EBA16S()	6204.00
	240	TVS8EBA24A()	7143.00	TVS8EBA24S()	8561.00

▲ Can be used on 4 wire or 3 wire grounded neutral system.
■ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

() For options, select and add the appropriate suffix from the option listing below:

Option	\$ Price
(I) Integral Switch	738.00

10 Mode Modular External SPD *New!*

The 10 Mode (All Mode) SPD is an external modular parallel system that provides discrete surge suppression paths for all ten modes (L-L, L-N, L-G, N-G). Optional Sine Wave Tracker (SWT) circuitry establishes the power surge clamping window relative to the sine wave voltage to provide increased performance at distribution and branch panel applications.

- 10 year product warranty
- Audible alarm, dry contacts and surge counter are included in the standard diagnostic package
- 200 kA SCCR

Table 6.3: 10 Mode Modular Devices

Service Voltage	Peak Surge Current Rating per Phase (kA)	NEMA 1/3R Cat. No.	\$ Price	NEMA 4X Stainless Steel Cat. No.	\$ Price
Note: Supplied with audible alarm, alarm enable/disable switch, dry contacts, and surge counter.					
208Y/120 V, 3-phase, 3-4 wire	120	TVS2MEMA12A()	8810.	TVS2MEMA12S()	10010.
	180	TVS2MEMA18A()	10790.	TVS2MEMA18S()	12657.
	270	TVS2MEMA27A()	13760.	TVS2MEMA27S()	15627.
	360	TVS2MEMA36A()	16730.	TVS2MEMA36S()	18597.
480Y/277 V, 3-phase, 3-4 wire	120	TVS4MEMA12A()	9023.	TVS4MEMA12S()	10890.
	180	TVS4MEMA18A()	11003.	TVS4MEMA18S()	12870.
	270	TVS4MEMA27A()	13973.	TVS4MEMA27S()	15840.
	360	TVS4MEMA36A()	16943.	TVS4MEMA36S()	18810.

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

() For option, select and add the appropriate suffix from the following listing:

Option	\$ Price
(SWT) Sine Wave Tracking	750.00

Description	Cat. No.	\$ Price
Remote Monitor	TVS12RMU	788.
12" Flush Mounting Collar	TVS12FMK	945.
20" Flush Mounting Collar	TVS20FMK	1103.

Option Descriptions

- **Integral Switch.** The integral switch provides a mechanical means to electrically isolate the entire surge suppressor before opening the enclosure door to facilitate servicing of the unit's components.
- **Remote Monitor.** This option displays the alarm status of the surge protective device up to 1000 feet from the unit.
- **Flush Mounting.** Flush mounting collar can be used on 120–240 kA EMA and EBA series devices. Devices with integral switch require 20" flush mounting collar.

Replacement Modules *New!*

All modules and brick assemblies are US and Canadian UL Recognized® to UL 1449 3rd Edition and UL 1283 5th Edition. Complies with requirements of NEC® Article 285 and CSA C22.2 No. 8-M1986 as appropriate.



Modular External SPD with Integral Switch



Non-Modular External SPD with Integral Switch



10 Mode Modular External SPD

Table 6.4: EMA Series Replacement Modules

System Voltage	Peak Surge Current Rating (kA)	Catalog Numbers					
		Phase A	\$ Price	Phase B	\$ Price	Phase C	\$ Price
120/240 V, 1-phase, 3-wire	120	MA11MA12	906.00	—	—	MA11MA12	906.00
	160	MA11MA16	1064.00	—	—	MA11MA16	1064.00
	240	MA11MA24	1229.00	—	—	MA11MA24	1229.00
208Y/120 V, 3-phase, 4-wire	120	MA11MA12	906.00	MA11MA12	906.00	MA11MA12	906.00
	160	MA11MA16	1064.00	MA11MA16	1064.00	MA11MA16	1064.00
	240	MA11MA24	1229.00	MA11MA24	1229.00	MA11MA24	1229.00
120/240 V, 3-phase, 4-wire ■	120	MA11MA12	906.00	MA31MA12	906.00	MA11MA12	906.00
	160	MA11MA16	1064.00	MA31MA16	1064.00	MA11MA16	1064.00
	240	MA11MA24	1229.00	MA31MA24	1229.00	MA11MA24	1229.00
480Y/277 V, 3-phase, 4-wire ▲	120	MA41MA12	906.00	MA41MA12	906.00	MA41MA12	906.00
	160	MA41MA16	1064.00	MA41MA16	1064.00	MA41MA16	1064.00
	240	MA41MA24	1229.00	MA41MA24	1229.00	MA41MA24	1229.00
600/347 V, 3-phase, 4-wire	120	MA81MA12	906.00	MA81MA12	906.00	MA81MA12	906.00
	160	MA81MA16	1064.00	MA81MA16	1064.00	MA81MA16	1064.00
	240	MA81MA24	1229.00	MA81MA24	1229.00	MA81MA24	1229.00

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240
 ■ High-leg delta (Phase B modules are different than Phase A and Phase C modules)

Table 6.5: EBA Series Replacement Modules

System Voltage	Peak Surge Current Rating (kA)	Catalog Numbers	\$ Price
120/240 V, 1-phase, 3-wire	120	MA11BA12	2717.00
	160	MA11BA16	3189.00
	240	MA11BA24	3686.00
208Y/120 V, 3-phase, 3-4 wire	120	MA21BA12	2717.00
	160	MA21BA16	3189.00
	240	MA21BA24	3686.00
240/120 V, 3-phase, 4-wire, high-leg delta	120	MA31BA12	2717.00
	160	MA31BA16	3189.00
	240	MA31BA24	3686.00
480Y/277 V, 3-phase, 3-4 wire ▲	120	MA41BA12	2717.00
	160	MA41BA16	3189.00
	240	MA41BA24	3686.00
600Y/347 V, 3-phase, 3-4 wire	120	MA81BA12	2717.00
	160	MA81BA16	3189.00
	240	MA81BA24	3686.00

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240.

Table 6.6: 10 Mode MA (L-N, L-G) Replacement Modules

System Voltage	Peak Surge Current Rating (kA)	Catalog Numbers					
		Phase A	\$ Price	Phase B	\$ Price	Phase C	\$ Price
208Y/120 V, 3-phase, 3-4 wire	120	MA11MA12	906.00	MA11MA12	906.00	MA11MA12	906.00
	180	MA11MA16	1064.00	MA11MA16	1064.00	MA11MA16	1064.00
	270	MA11MA16	1064.00	MA11MA16	1064.00	MA11MA16	1064.00
480Y/277 V, 3-phase, 3-4 wire ▲	120	MA41MA12	906.00	MA41MA12	906.00	MA41MA12	906.00
	180	MA41MA16	1064.00	MA41MA16	1064.00	MA41MA16	1064.00
	270	MA41MA16	1064.00	MA41MA16	1064.00	MA41MA16	1064.00
600Y/347 V, 3-phase, 3-4 wire	120	MA81MA12	906.00	MA81MA12	906.00	MA81MA12	906.00
	180	MA81MA16	1064.00	MA81MA16	1064.00	MA81MA16	1064.00
	270	MA81MA24	1229.00	MA81MA24	1229.00	MA81MA24	1229.00
	320	MA81MA24	1229.00	MA81MA24	1229.00	MA81MA24	1229.00

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

Table 6.7: 10 Mode L-L Replacement Modules

System Voltage	Peak Surge Current Rating (kA)	Catalog Numbers					
		Phase A	\$ Price	Phase B	\$ Price	Phase C	\$ Price
208Y/120 V, 3-phase, 3-4 wire	120	MA21MA40LL	604.00	MA21MA40LL	604.00	MA21MA40LL	604.00
	180	MA21MA60LL	709.00	MA21MA60LL	709.00	MA21MA60LL	709.00
	270	MA21MA90LL	819.00	MA21MA90LL	819.00	MA21MA90LL	819.00
	360	MA21MA12LL	946.00	MA21MA12LL	946.00	MA21MA12LL	946.00
480Y/277 V, 3-phase, 3-4 wire ▲	120	MA41MA40LL	604.00	MA41MA40LL	604.00	MA41MA40LL	604.00
	180	MA41MA60LL	709.00	MA41MA60LL	709.00	MA41MA60LL	709.00
	270	MA41MA90LL	819.00	MA41MA90LL	819.00	MA41MA90LL	819.00
	360	MA41MA12LL	946.00	MA41MA12LL	946.00	MA41MA12LL	946.00

▲ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

6 SURGE PROTECTIVE DEVICES

Internally Mounted Surge Protective Devices

Internally mounted surge protective devices are installed integrally to systems for service entrance and branch panel surge suppression. External SPDs cannot compete with the performance of integrally/internally mounted products installed next to the supply busses inside Square D® systems. Built-in performance is the best way to ensure cost effective power quality (especially important for critical power facilities).

US and Canadian UL Recognized® to UL 1449 3rd Edition and UL 1283 5th Edition. Complies with requirements of NEC® Article 285 and CSA C22.2 No. 8-M1986 as appropriate.

Internally Mounted—New Construction

SurgeLogic® SPD products with integral/internal performance make new construction projects easy with factory installed surge suppression. Refer to the sections listed below to identify the correct product for your application or contact SurgeLogic® TAG at 1-800-577-7353 for assistance.

Panelboards
Refer to Section 9

Switchboards and Switchgear
Refer to Section 11

Motor Control Centers
Refer to Section 17

Integrated Power and Control Centers
Refer to Section 10



NF



NQ



PZ4



QED



MCC



IPAC2

Busway—Refer to Section 12

Internally Mounted—Retrofit

To ensure high-performance surge suppression at critical power locations, A variety of SurgeLogic® products are offered which are designed specifically for retrofitting into commonly used Square D® systems. Retrofitting SPD units on I-Line, QMB, MCC, and Busway applications is simple. The QMB fusible switch, 6 in. MCC bucket, I-Line and Busway plug-on units come with the SPD factory-built into these devices.

- Audible alarm with enable/disable switch, dry contacts, and surge counter standard.
- 200 kA SCCR
- Indicator LEDs
- EMI/RFI filtering

Table 6.8: Internally Mounted—Retrofit

Voltage	Surge Current Rating	I-Line Branch Units ■				QMB Branch Units ♦		Busway Units		Model 6 MCC Units ▼	
		Cat. No.	\$ Price	Cat. No.	\$ Price	Cat. No.	\$ Price	Cat. No.	\$ Price△	Cat. No.	\$ Price□
Note: Supplied with audible alarm, alarm enable/disable switch, dry contacts, and surge counter.											
120/240 V, 1-phase, 3-wire	120 kA	HL11MA12C	9518.00	FI11MA12C	10185.00	QMB11MA12C	6663.00	—	—	—	—
	160 kA	HL11MA16C	10455.00	FI11MA16C	11199.00	QMB11MA16C	7340.00	—	—	—	—
	240 kA	HL11MA24C	14100.00	FI11MA24C	15525.00	QMB11MA24C	10055.00	—	—	—	—
208Y/120 V, 3-phase, 4-wire ▲	120 kA	HL21MA12C	9893.00	FI21MA12C	10562.00	QMB21MA12C	6899.00	—	—	MCC21MA12C	13250.00
	160 kA	HL21MA16C	10872.00	FI21MA16C	11616.00	QMB21MA16C	7602.00	PIU21MA16	4472.00	MCC21MA16C	17250.00
	240 kA	HL21MA24C	15423.00	FI21MA24C	16170.00	QMB21MA24C	10460.00	PIU21MA24	6407.00	MCC21MA24C	24250.00
240/120 V, 3-phase, 4-wire High-leg Delta	120 kA	HL31MA12C	9893.00	FI31MA12C	10562.00	QMB31MA12C	6899.00	—	—	MCC31MA12C	13250.00
	160 kA	HL31MA16C	10872.00	FI31MA16C	11616.00	QMB31MA16C	7602.00	PIU31MA16	4472.00	MCC31MA16C	17250.00
	240 kA	HL31MA24C	15423.00	FI31MA24C	16170.00	QMB31MA24C	10460.00	PIU31MA24	6407.00	MCC31MA24C	24250.00
480Y/277 V, 3-phase, 4-wire ▲★	120 kA	HL41MA12C	10271.00	FI41MA12C	10944.00	QMB41MA12C	7137.00	—	—	MCC41MA12C	14250.00
	160 kA	HL41MA16C	11292.00	FI41MA16C	12039.00	QMB41MA16C	7868.00	PIU41MA16	4740.00	MCC41MA16C	18250.00
	240 kA	HL41MA24C	16070.00	FI41MA24C	16818.00	QMB41MA24C	10868.00	PIU41MA24	6792.00	MCC41MA24C	26250.00
600Y/347 V, 3-phase, 4-wire ▲	120 kA	—	—	FI81MA12C	11342.00	QMB81MA12C	7388.00	—	—	MCC81MA12C	15250.00
	160 kA	—	—	FI81MA16C	12482.00	QMB81MA16C	8145.00	PIU81MA16	4919.00	MCC81MA16C	19250.00
	240 kA	—	—	FI81MA24C	16692.00	QMB81MA24C	11295.00	PIU81MA24	7048.00	MCC81MA24C	28250.00

- ▲ Can be used on 4-wire or 3-wire grounded neutral system.
- Requires 13.5" mounting height.
- ♦ Requires 9" mounting height.
- ★ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

- ▼ Requires 6" mounting height.
- △ PE7 Discount Schedule
- PE4 Discount Schedule

Note: If required, order remote monitor from page 6-2.



I-Line SurgeLogic® SPD Unit



QMB SurgeLogic® SPD Unit



Busway SurgeLogic® SPD Unit



MCC SurgeLogic® SPD Unit



OEM Kit

OEM/Assembler Kit

Surgelogic® OEM/assembler kits allow manufacturers to add industry-leading surge suppression directly to customized equipment. Manufacturers benefit from shorter wire lengths that optimize the clamping voltage of the SPD. Products come with a backplane-mounted SPD, mounting hardware and diagnostic display with 36" cables. Audible alarm, silence switch, remote monitoring contacts, and surge counter are standard.

US and Canadian UL Recognized® to UL 1449 3rd Edition and UL 1283 5th Edition. Complies with requirements of NEC® Article 285 and CSA 22.2 No. 8-M1986 as appropriate.

Table 6.9: OEM/Assembler Kits

Service Voltage	Peak Surge Current Rating per Phase (kA)	Cat. No. ■	\$ Price
Note: Supplied with audible alarm, alarm enable/disable switch, dry contacts, and surge counter.			
120/240 V, 1-phase, 3-wire +ground	120	TVS11MA120	4137.00
	160	TVS11MA160	4547.00
	240	TVS11MA240	6753.00
208Y/120 V, 3-phase, 4-wire +ground ▲	120	TVS21MA120	4331.00
	160	TVS21MA160	4760.00
	240	TVS21MA240	7082.00
120/240 V, 3-phase, 4-wire +ground High-leg Delta	120	TVS31MA120	4331.00
	160	TVS31MA160	4760.00
	240	TVS31MA240	7082.00
480Y/277 V, 3-phase, 4-wire +ground ▲◆	120	TVS41MA120	4526.00
	160	TVS41MA160	4976.00
	240	TVS41MA240	7413.00
600Y/347 V, 3-phase, 4-wire +ground ▲	120	TVS81MA120	4751.00
	160	TVS81MA160	5199.00
	240	TVS81MA240	7760.00

- ▲ Can be used on 4-wire or 3-wire grounded neutral system.
- Note the last character of the catalog number is the letter "O", not a zero.
- ◆ 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

Nipple Mounted Surge Protective Devices

HWA Series, Nipple-Mounted Surge Protective Device



HWA Series

Surgelogic® HWA series surge protective devices are compact, nipple-mounted parallel-connected surge suppressors that come in a variety of voltage configurations, including Delta. A surge suppression path is provided for each mode, line-to-neutral (L-N), line-to-line (L-L), line-to ground (L-G), and neutral-to-ground (N-G) in a NEMA 4X housing. On-line diagnostics continuously monitor the device status.

US and Canadian UL Listed® to UL 1449 3rd Edition and UL 1283 5th Edition. Complies with requirements of NEC® Article 285 and CSA C22.2 No. 8-M1986 as appropriate.

- Audible alarm indicates a fault condition
- Compact design provides easy mounting inside or outside the equipment cabinets
- Dry contacts
- Does not contain alarm enable/disable switch
- Optional flush mount kit TVSHWAFMK
- EMI/RFI filtering
- LEDs indicate operational status
- 200 kA SCCR

Table 6.10: HWA Series, Nipple-Mounted Surge Protective Device

Service Voltage	Peak Surge Current Rating per Phase (kA)	NEMA 3R, 4X Cat. No.	\$ Price
120/240 V, 1-phase, 3-wire +ground	50	TVS1HWA50X	2385.00
	80	TVS1HWA80X	2660.00
	100	TVS1HWA10X	3401.00
208Y/120 V, 3-phase, 4-wire +ground ▲	50	TVS2HWA50X	2544.00
	80	TVS2HWA80X	2810.00
	100	TVS2HWA10X	3611.00
120/240 V, 3-phase, 4-wire +ground High-leg Delta	50	TVS3HWA50X	2544.00
	80	TVS3HWA80X	2810.00
	100	TVS3HWA10X	3611.00
240 V, 3-phase, 3-wire Delta	50	TVS6HWA50X	2583.00
	80	TVS6HWA80X	2924.00
	100	TVS6HWA10X	3606.00
480Y/277 V, 3-phase, 4-wire +ground ▲■	50	TVS4HWA50X	2640.00
	80	TVS4HWA80X	2907.00
	100	TVS4HWA10X	3853.00
480 V, 3-phase, 3-wire Delta	50	TVS5HWA50X	3052.00
	80	TVS5HWA80X	3393.00
	100	TVS5HWA10X	4075.00
600Y/347 V, 3-phase, 4-wire +ground	50	TVS8HWA50X	2915.00
	80	TVS8HWA80X	3171.00
	100	TVS8HWA10X	3853.00
600 V, 3-phase, 3-wire Delta	50	TVS9HWA50X	3052.00
	80	TVS9HWA80X	3393.00
	100	TVS9HWA10X	4075.00

- ▲ Can be used on 4-wire or 3-wire grounded neutral system.
- 480Y/277 series applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

6 SURGE PROTECTIVE DEVICES

Nipple Mounted, Type 1 Surge Protective Devices

Type 1 Surge Protective Devices (SPDs) are designed and tested to be used on the line side or the load side of the main service disconnect switch. These devices may also be used for surge suppression for irrigation pumps, oil pumps and motors.



SDSA1175

SDSA1175 Series Type 1 Surge Protective Devices

The SDSA1175 SPD is designed and listed for indoor or outdoor installation and surge suppression for single-phase three-wire 120/240 Vac 60 Hz electrical services and major appliances. Two SDSA1175 surge protection devices can be installed to provide suppression for 208Y/120 Vac three-phase four-wire services.

US and Canadian UL Listed® to UL 1449 3rd Edition. Complies with requirements of NEC® Article 285, CSA 233.1-87, and CSA C22.2 No. 8-M1986 as appropriate.

- LED indicates operational status
- Suitable for indoor and outdoor applications (NEMA 4X housing)
- Convenient back nipple mounting
- Short circuit current rating 22 kA

Table 6.11: SDSA1175 Series Surge Protective Devices

Service Voltage	Peak Surge Current Rating per Phase (kA)	Cat. No.	\$ Price
120/240 V, 1-phase, 3-wire	36	SDSA1175 ▲	92.00

▲ See Table 6.14 for QOSAMK mounting kit for installation in QO® load centers.

XR Series Type 1 Surge Protective Device

The XR Series SPD provides high-quality surge suppression in a compact and versatile package. This product is ideal for panel builders as well as manufacturers and integrators of instrumentation cabinets for industrial, commercial, and residential applications for single-phase power systems.

US and Canadian UL Listed® to UL 1449 3rd Edition. Complies with requirements of NEC® Article 285, CSA 233.1-87, and CSA C22.2 No. 8-M1986 as appropriate.

- Short circuit current rating 22 kA
- Suitable for indoor and outdoor applications (NEMA 4X housing)
- Optional flush mount kit TVSXRFMK
- LEDs indicate operational status
- Convenient side nipple mounting

Table 6.12: XR Series Nipple-Mounted Surge Protective Devices

Service Voltage	Peak Surge Current Rating per Phase (kA)	Cat. No.	\$ Price
120/240 V, 1-phase, 3-wire +ground	50	TVS120XR50S	315.00
	80	TVS120XR80S	515.00
	100	TVS120XR100S	615.00
	120	TVS120XR120S	715.00

SDSA3650 Series Type 1 Surge Protective Devices

The SDSA3650 SPD is designed and listed for indoor or outdoor installation and surge suppression for three-phase grounded electrical services up to 600 Vac. The SDSA3650 series is used extensively in service entrance panels to provide an efficient and economical means of surge suppression.

US and Canadian UL Listed® to UL 1449 3rd Edition. Complies with requirements of NEC® Article 285, CSA 233.1-87, and CSA C22.2 No. 8-M1986 as appropriate.

- Suitable for indoor and outdoor applications (NEMA 4X housing)
- LEDs indicate operational status
- Convenient back nipple mounting
- Short circuit current rating 200 kA

Table 6.13: SDSA3650 Series Surge Protective Devices

Description	Peak Surge Current Rating per Phase (kA)	Cat. No.	\$ Price
600 Vac Maximum, 3-phase, 4-wire ♦	40	SDSA3650 ■	248.00
600 Vac Maximum, 3-phase, 3-wire Delta	40	SDSA3650D ■	248.00

■ See Table 6.14 for QOSAMK mounting kit for installation in QO® load centers.

♦ Do not use on ungrounded systems. Systems must be solidly grounded.

Mounting Brackets and Flush Mount Kits

The nipple products shown in this catalog provide a convenient means of incorporating surge suppression within a new or existing cabinet. The mounting bracket and flush-mount kits are designed for easy mounting of nipple products.

Table 6.14: Mounting Bracket for Enclosures

Description	Cat. No.	\$ Price
Mounts to QO® and Homeline® load centers and other enclosures	QOSAMK	11.40
Flush-mount kit for XR SPDs	TVSXRFMK	58.00
Flush-mount kit for HWA SPDs	TVSHWAFMK	180.00



QOSAMK

Residential Surge Protective Devices

Whole House Surge Protective Devices

The Whole House series provides surge suppression for electrical surges to AC power, telephone, and television cables. Installed next to the circuit breaker power panel, the device is hard-wired to the electrical panel and accommodates up to four telephone lines (eight with optional telco unit) and two 75 ohm coaxial television modules. The Whole House device can be surface or flush mounted, depending on the power panel installation. US and Canadian UL Listed® to UL 1449 3rd Edition. Complies with requirements of NEC® Article 285, CSA 233.1-87, and CSA C22.2 No. 8-M1986 as appropriate. Telephone and coaxial video modules US and Canadian UL Recognized® to UL 497A 4th Edition and UL 497B 4th Edition.

- 80 kA per phase AC line suppression for single-phase, three-wire 120/240 Vac applications
- Four-line telephone module with tool-less insulation displacement connectors (IDC)
- Two-line coaxial modules
- LED status indicators for AC surge suppression
- Space for additional telephone surge suppressor module
- Space for additional coaxial surge suppressor module



Table 6.15: Whole House Surge Protective Devices

Description	Cat. No.	\$ Price
Whole House NEMA 1 Surge Protective Device	SDSB1175C	630.00
Whole House NEMA 3R Surge Protective Device	SDSB1175R <i>New!</i>	737.00

Whole House Accessories

Add additional surge suppression or replace existing modules in Whole House products. US and Canadian UL Recognized® to UL 497A 4th Edition and UL 497B 4th Edition.

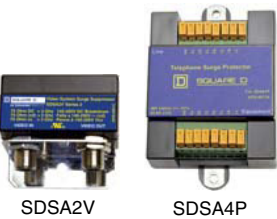


Table 6.16: Accessories *New!*

Description	Cat. No.	\$ Price
4-Line telephone surge suppressor with tool-less IDC terminations	SDSA4P	101.00
Coaxial video surge suppressor	SDSA2V	90.00

QO®, NQ, and Homeline® Load Center Surge Protective Devices

Square D® load center surge protective devices are easy to install plug-in units that install as quickly as a standard circuit breaker. The surge suppressors use two pole spaces in a QO®, or Homeline® load center, or NQ panelboard.

US and Canadian UL Listed® to UL 1449 3rd Edition. Complies with requirements of NEC® Article 285, CSA 233.1-87, and CSA C22.2 No. 8-M1986 as appropriate.

- QO2175SB for QO® load centers, combination devices, and NQ panelboards
- HOM2175SB for Homeline® load centers and combination devices
- Plug-on design requires two pole spaces
- LED indicates operational status
- 27 kA per phase



Table 6.17: QO®, NQ, and Homeline® Panelboard Surge Arresters

Description	Cat. No.	\$ Price
QO® Surgebreaker for QO and NQ	QO2175SB	159.00
Homeline® Surgebreaker	HOM2175SB	159.00