

External Brick SPD

Square D® External Panel Surge Protective Devices

Square D brand Surgelagic® external brick panel surge protective devices (SPDs) deliver specification grade performance for service entrance or critical branch panel applications. This multi-phase surge suppression system provides transient suppression and noise filtration in a durable package.



by Schneider Electric

External Brick SPD Features



External brick panel surge protective devices (SPDs) provide superior design and service life for a wide variety of commercial, industrial, or institutional applications. Square D brand Surgelogic SPDs offer unsurpassed performance and surge suppression for demanding service entrance applications or as part of a suppression network. The robust construction minimizes possible down time and helps reduce maintenance costs.

Superior Performance

Surgelogic® brick panel SPDs utilize a high-energy suppression circuit that provides from 120,000 to 240,000 peak amps of surge current rating per phase. Brick panel SPDs contain a suppression circuit that not only provides additional transient surge suppression, but also noise filtration.

For harsh environments, external brick panels are optionally available in a NEMA 4X stainless steel enclosure to provide surge suppression in areas that can damage other enclosures.

Easy Installation

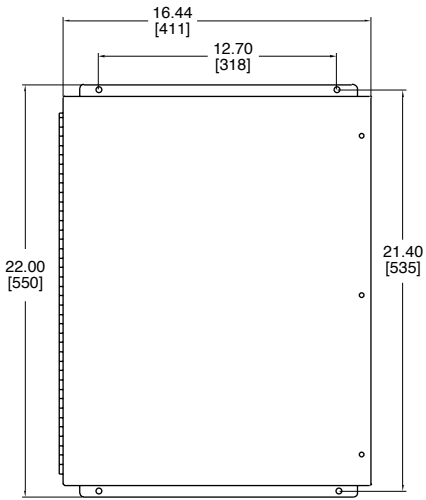
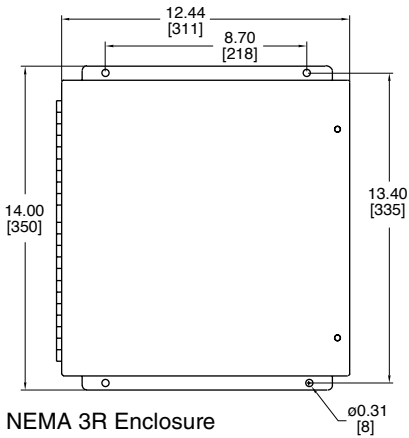
External panel SPDs should be mounted adjacent to the panel through a conduit connection and as close to the circuit breaker as possible in order to reduce lead lengths and improve protection.

10-year Warranty

Surgelogic external brick SPDs have a 10-year warranty.

FEATURES	ADVANTAGES	BENEFITS
NEMA 3R or 4X Enclosure	Allows installation in outdoor applications	Provides surge suppression to vulnerable equipment powered from weather exposed panels
120,000 to 240,000 AMP Capacity (depending on model)	Provides longer service life and suppression against high-energy lightning strikes	High performance surge suppression even in the worst electrical conditions
EMI/RFI Noise Rejection	Increased transient suppression	Improves surge suppression to the equipment
Advanced Diagnostics	Allows for online testing of the suppressors functionality	Allows immediate response if suppressor is damaged
Suppression Status Alarms	Provides immediate alarm if suppression is ever damaged	Warns if operating with reduced or without surge suppression
Coordinated Fuse Technology	Thermal fuse capable of passing extreme surge currents	Provides premium surge suppression while managing thermal effects from MOV end of life

External Brick SPD Features (continued)



External Brick SPDs



Performance

Short Circuit Current Rating	200kA
Fusing	Individually fused MOVs
Filtering EM/RFI Noise Rejection	Yes

Mechanical Description

Housing Ratings	NEMA 3R or 4X
Connection Method	#10-#2 AWG Terminals
Mounting Method/Circuit Type	Parallel
Thermal Fusing	Yes
Operating Frequency	50/60 Hz
Operating Altitude	Sea Level-12,000' (3,658 m)
Storage Temperature	-40° F (-40° C) to 149° F (65° C)
Operating Temp.	-4° F (-20° C) to 149° F (65° C)
LCD Operating Temp.	32° F (0° C) to 149° F (65° C)

Diagnostics

Push to test diagnostic switches, red and green status LEDs per phase (internal redundant status LEDs are green), module status LEDs per mode, dry contacts, audible alarm with disable switch, surge counter.

Options

- NEMA 4X stainless steel enclosure
- Integral switch
- Flush mount collar (for panel sizes 12"x12"x6" and 16"x20"x6" only)
- Remote monitor

Listings and Performance

cULus 1449 3rd edition Type 2 SPD, UL 1283, CSA C22.2 No. 8-M1986

External Brick SPD Specifications

Voltage	Surge Current	Configuration	Model Number	MCOV	I _n	VPR			
						L-N	L-G	L-L	N-G
120V/240	120kA	1 Ø, 3-wire+G	TVS1EBA12_	150V	20kA	700V	700V	1200V	700V
120V/208Y ■	120kA	3 Ø, Wye, 4-wire+G	TVS2EBA12_	150V	20kA	700V	700V	1200V	700V
277V/480Y ▲	120kA	3 Ø, Wye, 4-wire+G	TVS4EBA12_	320V	20kA	1200V	1200V	2000V	1200V
347V/600Y	120kA	3 Ø, Wye, 4-wire+G	TVS8EBA12_	420V	20kA	1500V	1500V	2500V	1500V
120V/240	160kA	1 Ø, 3-wire+G	TVS1EBA16_	150V	20kA	700V	700V	1200V	700V
120V/208Y ■	160kA	3 Ø, Wye, 4-wire+G	TVS2EBA16_	150V	20kA	700V	700V	1200V	700V
277V/480Y ▲	160kA	3 Ø, Wye, 4-wire+G	TVS4EBA16_	320V	20kA	1200V	1200V	2000V	1200V
347V/600Y	160kA	3 Ø, Wye, 4-wire+G	TVS8EBA16_	420V	20kA	1500V	1500V	2500V	1500V
120V/240	240kA	1 Ø, 3-wire+G	TVS1EBA24_	150V	20kA	700V	700V	1200V	700V
120V/208Y ■	240kA	3 Ø, Wye, 4-wire+G	TVS2EBA24_	150V	20kA	700V	700V	1200V	700V
277V/480Y ▲	240kA	3 Ø, Wye, 4-wire+G	TVS4EBA24_	320V	20kA	1200V	1200V	2000V	1200V
347V/600Y	240kA	3 Ø, Wye, 4-wire+G	TVS8EBA24_	420V	20kA	1500V	1500V	2500V	1500V

■ 208Y/120 series also applies to the following voltage 220Y/127 ▲ 480Y/277 series also applies to the following voltages 380Y/220, 400Y/230, and 415Y/240

Voltage	Surge Current	Configuration	Model Number	MCOV	I _n	VPR						
						L-N	H-N	L-G	H-G	L-L	H-L	N-G
120V/240HLD	120kA	3 Ø, High-leg delta, 4-wire+G	TVS3EBA12_	150V	20kA	700V	1000V	700V	1000V	1200V	1500V	700V
120V/240HLD	160kA	3 Ø, High-leg delta, 4-wire+G	TVS3EBA16_	150V	20kA	700V	1000V	700V	1000V	1200V	1500V	700V
120V/240HLD	240kA	3 Ø, High-leg delta, 4-wire+G	TVS3EBA24_	150V	20kA	700V	1000V	700V	1000V	1200V	1500V	700V

Model numbers not recognized as line items in Schneider Electric ordering system until a suffix code is applied

MODEL NUMBER SUFFIX CODES

- A = NEMA 3R steel enclosure (e.g. TVS4EBA12A)
- AI = NEMA 3R steel enclosure with integral switch (e.g. TVS4EBA12AI)
- S = NEMA 4X stainless steel enclosure (e.g. TSV4EBA12S)
- SI = NEMA 4X stainless steel enclosure with integral switch (e.g. TVS4EBA12SI)

SPD OPTIONS

- Remote Monitor TVS12RMU
- 12"x12" Flush Mount Collar TVS12FMK
- 16"X20" Flush Mount Collar TVS20FMK

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