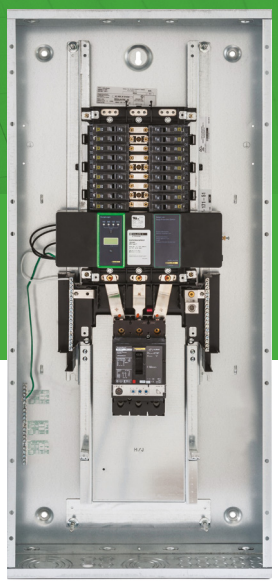
Surgelogic SurgeLoc for NQ Panel Boards

Square D™ Internally Mounted Surge Protective Devices



Square D brand Surgelogic™ SurgeLoc internal Surge Protective Device (SPD) delivers specification grade performance for service entrance or critical branch panel applications. This multi-phase system provides suppression for all critical modes inside electrical equipment and shorter lead lengths for superior SPD performance.

Learn more

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Features

Internal NQ Panelboard 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 first-rate surge suppression performance for demanding service entrance applications or emergency circuits required by NFPA 70, as part of a suppression network. The robust construction reduces potential down time and maintenance costs due to voltage surges.

Superior Performance

The Surgelogic SurgeLoc SPD product utilizes a high-energy suppression circuit that provides 6-10 modes of suppression from 80,000 to 240,000 peak Amperes of surge current rating per phase. These devices feature circuity that provides not only transient surge suppression, but also noise filtration.

Ordering/Installation

Surgelogic SurgeLoc can be ordered from your local Schneider Electric distributor as a merchandised product or as part of a factory assembled NQ panelboard. Installation in the electrical panel insures minimum lead lengths and can be direct connected to panel busbars, reducing impact to clamping voltages. Connecting to a breaker within the panel is optional as well, for when selective coordination is required. The SurgeLoc SPDs are tested prior to shipment, maintaining Square D brand's high standard of quality and customer satisfaction.

Warranty

Surgelogic SurgeLoc internal SPDs have a 10-year warranty.

Features	Advantages	Benefits
Integral to electrical gear and panels	SPDs are professionally installed inside electrical gear and panels	Delivers high levels of SPD performance and saves on enclosure and installation expenses
80,000 to 240,000 Amp Capacity (depending on model)	Longer service life and suppression against high-energy lightning strikes	High performance surge suppression even in severe electrical conditions
EMI/RFI Noise Rejection	Increased noise filtering	Improves operating performance of connected equipment
Advanced Diagnostics	Allows for visual indication/testing of the suppressor's functionality	Provides immediate response if suppressor is damaged
Suppression Status Alarms	Allows multiple methods of alarm notification	Provides immediate notification through audible, visual and remote signaling if reduced suppression occurs
Coordinated Fuse Technology	Coordinated fusing allows disconnection methods for thermal and high-current events	Provides premium surge suppression while managing both thermal and high-current end-of- life events

Features
(continued)

NQ Panelboard

NQ panelboards are primarily used for lighting, plug loads, and power distribution up to 600 Amps. These panelboards NQ panels are designed with 200% rated copper neutrals for non-linear loads. (NQ max volts 240 Vac, max 200kA Short Circuit Current)

When selecting a panelboard with a Surgelogic SurgeLoc SPD, an additional 12 circuit positions (6 adjacent mounting spaces per side) or 4.5 inches of space on each side are required. For example, if the desired number of circuits is 30, a 42 circuit panelboard is required. Selective coordination is supported by selecting an SPD disconnect option which dedicates one branch mounted circuit breaker as the disconnect. NQ Panelboards are available factory assembled with 84 branch circuit breakers.

Surgelogic SurgeLoc available surge current ratings: 80; 100; 120; 160; 200; 240 kA

Internal SPDs

Performance

Surge Current Rating per Phase	Up to 240kA
Short Circuit Current Rating	200kA
Modes of Protection	6, 10
Fusing	Individually fused MOVs
Thermal Fusing	Yes
Overcurrent Fusing	Yes
Sine Wave Tracking	Yes
EMI/RFI Filtering	Up to -45 dB
Operating Frequency	50/60 Hz

Mechanical Description

Connection Method	10 AWG, Stranded
Mounting Method/Circuit Type	Parallel
Operating Altitude	Sea Level-12,000' (3,658 m)
Storage Temperature	-40˚ F (-40˚ C) to 149˚ F (65˚ C)
Operating Temp.	-40˚ F (-40˚ C) to 104˚ F (40˚ C)
LCD Operating Temp.	32˚ F (0˚ C) to 122˚ F (50˚ C)
Operating Humidity	0 to 95% non-condensing

Diagnostics

Push to test diagnostic button, red and green status LEDs per phase, dry contacts, audible alarm with disable switch and surge counter.

Options

Remote monitor

Certifications

Type 1 SPD: UL Listed per UL 1449 4th Edition, UL 67 12th Edition, CSA C22.2 No. 29 5th Edition, and CSA C22.2 No. 8 M-1986. (UL 1283 components used)

Complies with UL 96A 12th Edition Master Label requirements for Lightning Protection Systems

Specifications

WYE Configured SPD Specifications

AC Voltage	Surge Current per Phase	Modes of Protection	Configuration	Model Number			VPR			
					MCOV	I_N	L-N	L-G	L-L	N-G
120/240V	80KA	6	1 Ø, 3-wire+G	SSP01SBA08D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	80KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA08D	150V	20KA	700V	700V	1000V	600V
120/240V	100KA	6	1 Ø, 3-wire+G	SSP01SBA10D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	100KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA10D	150V	20KA	700V	700V	1000V	600V
120/240V	120KA	6	1 Ø, 3-wire+G	SSP01SBA12D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	120KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA12D	150V	20KA	700V	700V	1000V	600V
120/240V	160KA	6	1 Ø, 3-wire+G	SSP01SBA16D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	160KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA16D	150V	20KA	700V	700V	1000V	600V
120/240V	200KA	6	1 Ø, 3-wire+G	SSP01SBA20D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	200KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA20D	150V	20KA	700V	700V	1000V	600V
120/240V	240KA	6	1 Ø, 3-wire+G	SSP01SBA24D	150V	20KA	700V	700V	1000V	600V
208Y/120V*	240KA	10	3 Ø, Wye, 4-wire+G	SSP02SBA24D	150V	20KA	700V	700V	1000V	600V

*208Y/120 series also applies to the following voltage 220Y/127

Note: High-Leg Delta surge protection will be available in late 2021.

Learn more

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