

# NQ SurgeLoc SPD

## Square D Internally Mounted Surge Protective Devices

Square D™ brand Surgelogic™ internal SurgeLoc 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.



# NQ SurgeLoc SPD Features



Internal NQ panel Surge Protective Devices (SPDs) provide superior design and service life for a wide variety of commercial, industrial, or institutional applications. Square D brand Surgeloc SPDs offer first-rate surge suppression performance for demanding service entrance applications or as part of a suppression network. The robust construction reduces potential down time and maintenance costs due to voltage surges.

## Superior Performance

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

## Ordering/Installation

SurgeLoc can be ordered from your local Schneider Electric distributor as a merchandised product or factory installed as part of a complete panelboard assembly. Factory orders come professionally assembled and pre-wired into the electrical panel insuring minimum lead lengths and high performance. All factory installed units are tested before delivery to their final destination, maintaining Square D brand's high standard of quality and customer satisfaction.

## Warranty

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

# NQ SurgeLoc SPD

## Features (continued)

### NQ Panelboard



NQ panelboards are primarily used for lighting and power distribution up to 600 Amps. These panelboards, following the 2008 National Electric Code changes, provide electrical capacity up to 84 circuit breakers. 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 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.

**NQ SPD 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

#### Safety and Performance

**Type 1 SPD:** UL Listed per UL 1449 3rd Edition, UL 67 12th Edition, CSA C22.2 No. 29 5th Edition, and CSA C22.2 No. 8 M-1986. (UL 1283 components used)

**Type 2 SPD:** cULus Listed per UL 1449 3rd Edition, UL 67 12th Edition, CSA C22.2 No. 29 5th Edition, UL 1283, and CSA C22.2 No. 8 M-1986.

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

# NQ SurgeLoc SPD Specifications

## WYE Configured SPD Specifications

Voltage	Surge Current per Phase	Modes of Protection	Configuration	Model Number	MCOV	I <sub>n</sub>	VPR			
							L-N	L-G	L-L	N-G
120/240V	80kA	6	1 Ø, 3-wire+G	SSP01BIA08PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	80kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA08PBQ1	150V	20kA	700V	700V	1000V	600V
120/240V	100kA	6	1 Ø, 3-wire+G	SSP01BIA10PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	100kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA10PBQ1	150V	20kA	700V	700V	1000V	600V
120/240V	120kA	6	1 Ø, 3-wire+G	SSP01BIA12PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	120kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA12PBQ1	150V	20kA	700V	700V	1000V	600V
120/240V	160kA	6	1 Ø, 3-wire+G	SSP01BIA16PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	160kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA16PBQ1	150V	20kA	700V	700V	1000V	600V
120/240V	200kA	6	1 Ø, 3-wire+G	SSP01BIA20PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	200kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA20PBQ1	150V	20kA	700V	700V	1000V	600V
120/240V	240kA	6	1 Ø, 3-wire+G	SSP01BIA24PBQ1	150V	20kA	700V	700V	1000V	600V
208Y/120V ■	240kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA24PBQ1	150V	20kA	700V	700V	1000V	600V

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

## High-Leg Delta (HLD) Configured SPD Specifications

Voltage	Surge Current per Phase	Modes of Protection	Configuration	Model Number	MCOV	I <sub>n</sub>	VPR						
							L-N	H-N	L-G	H-G	L-L	H-L	N-G
240/120HLD	80kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA08PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V
240/120HLD	100kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA10PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V
240/120HLD	120kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA12PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V
240/120HLD	160kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA16PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V
240/120HLD	200kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA20PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V
240/120HLD	240kA	10	3 Ø, HLD, 4-wire+G	SSP03BIA24PBQ1	150V	20kA	800V	1200V	800V	1000V	1200V	1500V	700V

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

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