

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 Surgelogic 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, 20, 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 -50 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: cULus 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.

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 _n	VPR			
							L-N	L-G	L-L	N-G
120/240V	80kA	6	1 Ø, 3-wire+G	SSP01BIA08PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	80kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA08PBQ1	150V	20kA	700V	700V	1200V	700V
120/240V	100kA	6	1 Ø, 3-wire+G	SSP01BIA10PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	100kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA10PBQ1	150V	20kA	700V	700V	1200V	700V
120/240V	120kA	6	1 Ø, 3-wire+G	SSP01BIA12PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	120kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA12PBQ1	150V	20kA	700V	700V	1200V	700V
120/240V	160kA	6	1 Ø, 3-wire+G	SSP01BIA16PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	160kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA16PBQ1	150V	20kA	700V	700V	1200V	700V
120/240V	200kA	6	1 Ø, 3-wire+G	SSP01BIA20PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	200kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA20PBQ1	150V	20kA	700V	700V	1200V	700V
120/240V	240kA	6	1 Ø, 3-wire+G	SSP01BIA24PBQ1	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	240kA	10	3 Ø, Wye, 4-wire+G	SSP02BIA24PBQ1	150V	20kA	700V	700V	1200V	700V

■ 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 _n	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

Schneider Electric USA, Inc.

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Salt Lake City, UT 84104
Telephone: (801)-977-9009
www.surgeologic.com

Schneider Electric México, S.A. de C.V.

Calz. J. Rojo Gómez 1121-A
Col. Gpe. del Moral 09300 México, D.F.
Tel. 55-5804-5000
www.schneider-electric.com.mx

Schneider Electric Canada, Inc.

5985 McLaughlin Road
Mississauga, ON L5R 1B8 Canada
Tel: 1-800-565-6699
www.schneider-electric.ca

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: July 19, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Bill Shaw

Project No. WT 14127.01

☐

UPS

☐

Courier

☒

Email

Copies	No.	Description
1 PDF	264000E01	(Submittal No. 264000-001) Electrical Distribution

Submittal Review Comments

Circuit breaker size and position shall match panel schedules on sheets E0503, 504, 505, & 506.

c: Kelvin Patel
Kpatel@cannondesign.com

☐ Furnish as Submitted

☐ Furnish as Noted

☐ Rejected

☒ ***Revise & Resubmit**

☐ Reviewed

☐

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WTASHOP - Webster ISB - 26 4000-001

From: STL-CAC <STL-CAC@CANNONDESIGN.COM>
To: 'Patrick Garner' <pgarner@wmtao.com>, WTASHOP <wtashop@wmtao.com>
Date: 7/5/2016 11:40 AM
Subject: Webster ISB - 26 4000-001
Cc: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>, "Grossman, Lynn" <lgrossman@C...>
Attachments: 264000-001 Electrical Distribution.pdf

Attached for review.

Melissa Pirtle

Construction Admin

CANNONDESIGN

1100 Clark Ave
St. Louis, Missouri 63102
T [314.425.8797](tel:314.425.8797) • M
cannondesign.com

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

PROJECT NAME	
ADDRESS	
NUMBER	
OWNER	
ARCHITECT / ENGINEER	
SUBMITTED BY	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
CRITICALITY	

To be completed by Reviewer

CANNON DESIGN SUBMITTAL NUMBER
RECEIVED DATE

- ☐ **A. No Exceptions Taken**
No further review of submittal is required.
- ☐ **B. Make Corrections Noted**
Incorporate corrections in work;
resubmission is not required.
- ☐ **C. Revise and Resubmit**
Revise as noted, and resubmit for review.
- ☐ **D. Rejected**
Submittal is not in compliance with Contract Documents;
provide new submittal.
- ☐ **E. For Record / Information Only**
Submittal was reviewed for Record / Information
purposes only.
- ☐ **F. Not Required for Review**
Submittal is not required by Contract Documents
and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

ITEM BEING SUBMITTED (check only one)

- ☐ Shop Drawings ☐ Certification / Qualifications ☐ Coordination Drawing
☐ Samples ☐ Record Documents ☐ Calculations
 (_____ copies) ☐ Product Data ☐ Schedules
☐ LEED Submittal ☐ O&M Manuals
☐ Other

ITEM BEING SUBMITTED FOR (check only one)

- ☐ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

Ry:

By:
Devin D. Gates

REVIEWED BY	DATE

A/E COMMENTS

- ☐
- See attached sheet(s) for additional comments

REVIEWED BY	DATE



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0114

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 07/05/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Electrical Distribution

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☒ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☒ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		264000-001	1		07/05/2016	Electrical Distribution	Submitted

NOTES:

CC: Paric Corporation, Kathy Bathe

Project Coordinator: Paric Corporation, Kathy Bathe

Signed: _____
Devin Gates

Transmittal

To Paric Corporation

Date 7/1/16

Job Number 11317

Job Name Webster Univ. ISB Building

Attention Devin Gates

Transmittal Number 11317-005

We are sending you:

☒ Attached

☐ Under separate cover, the following:

☐ Preliminary Drawings

☐ Samples

☐ Construction Drawings

☐ Copy of Letter

☐ Specifications

☐ Other _____

Quantity	Drawing #	Date/Revision	Description
1			Submittal for Distribution - Spec Section
			26 40 00

These are transmitted as checked:

☒ For Your Review & Comment

☐ Approved As Noted

☒ For Approval

☐ Returned For Corrections

☐ For Your File

☐ Approved As Submitted

☐ As Requested

☐

Copy:

Transmittal

Enclosure

Rick Branstetter

Signed: Rick Branstetter, Project Manager

Webster University ISB

Approval Drawing Package

Factory Order #: 37999262

06/13/2016

Distributor:
Graybar

Contractor/Installer:
Guarantee Electric / TD4

Consulting Engineer:
Wm Tao & Associates

Lou Feldhaus
Sales Representative

Jake Kaufman
Project Manager
North American Operating Division
(636) 329-2265
jacob.kaufman@schneider-electric.com

Life Is On

Schneider
Electric

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Unit Substation Brochure

HVL 5...38 kV Load Interrupter Switchgear - Brochure

Power Dry II- Dry-Type, Small Power Transformer Brochure

Model 98A Digital Temperature Controller For Medium Voltage Transformers

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PowerLogic PM8000 Series Intermediate Metering Technical Data Sheet

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Integrated Power Center 2 (IPC2)

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I-Line Panelboard Handout

NF Panelboard Handout

NQ Panelboard Handout

I-Line SPD

Internal Modular SPD Brochure

SurgeLoc SPD for NQ Panelboards

CONTACTORS AND STARTERS

BILL OF MATERIALS AND DRAWINGS

8538SCG

8538SCA - EF-1

8538SCA - KEF-1

2510FG

LITERATURE

Manual Starters - Type F

Manual Starters - Type M and T

8538 Combination Starter Catalog

SAFETY SWITCHES

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H365

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MCTAS-485 Terminator

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LPJ Fuses 70 - 600 Amps