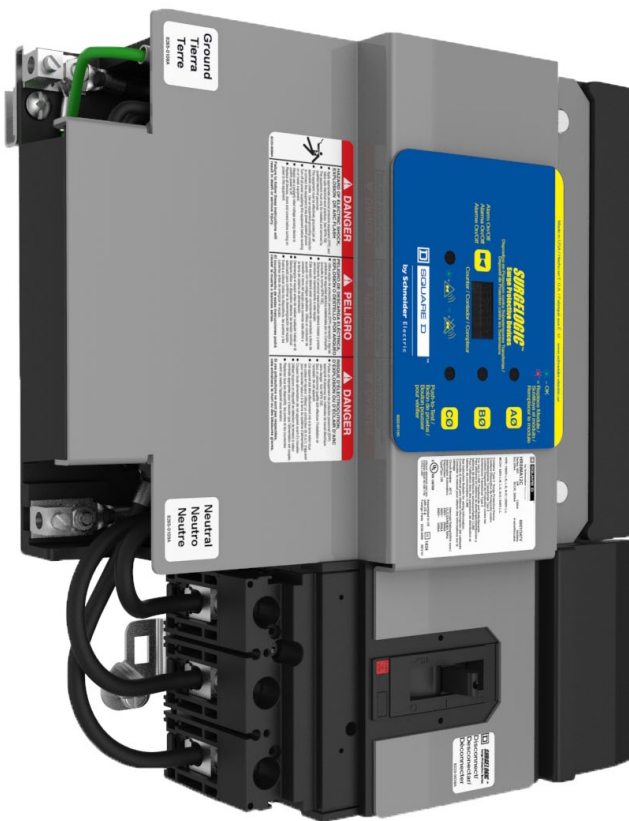


I-Line SPDs

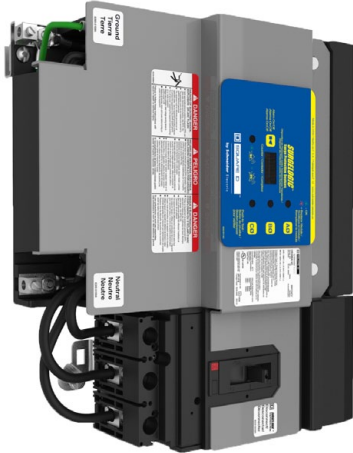
Square D™ Internally Mounted Surge Protective Devices

Square D™ brand Surgelogic™ I-Line Surge Protective Devices (SPDs) deliver 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 with superior SPD performance.



by Schneider Electric

I-Line SPDs Features



I-Line 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 performance and surge suppression for demanding service entrance applications or as part of a suppression network. The robust modular construction reduces possible down time and maintenance costs.

Superior Performance

Surgelogic SPDs utilize a high-energy suppression circuit that provides 10 modes of suppression from 100,000 to 240,000 peak Amps of surge current rating per phase. Modular SPDs feature circuitry that provides not only transient surge suppression, but also noise filtration. If more than 240,000 Amps is required, a second I-Line modular system can be installed.

Installation

Designed specifically for integral solutions that can come professionally pre-wired into electrical gear and panels from the factory or field installed into an existing I-Line panel. All units are tested at the factory before delivery to their final destination, maintaining Square D brand's high standard of quality. There is also no need for additional enclosures or installation labor costs.

Warranty

Surgelogic I-Line SPDs have a 10-year warranty.

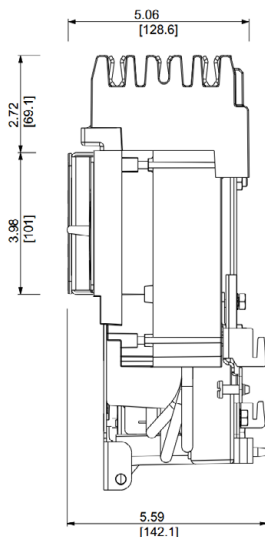
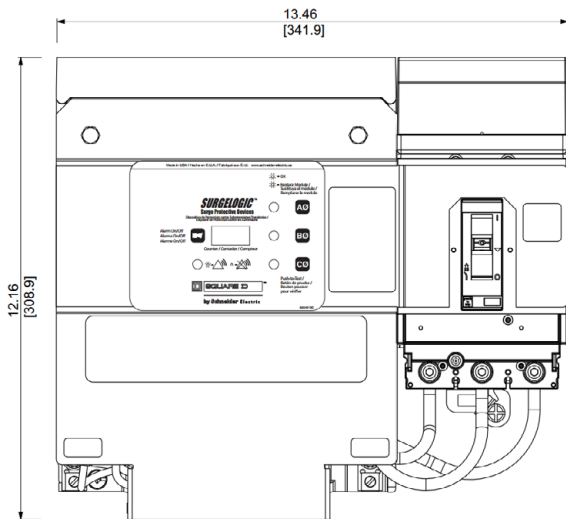
FEATURES	ADVANTAGES	BENEFITS
Integral to electrical gear and panels	SPDs are installed inside electrical gear and panels	Delivers high levels of SPD performance and saves additional enclosure and installation expenses
100,000 to 240,000 Amp Capacity (depending on model)	Longer service life and suppression against high-energy lightning strikes	High performance surge suppression, even in severe electrical conditions
EMI/RFI Noise Rejection	Increased transient suppression	Improves surge suppression to the equipment
Advanced Diagnostics	Allows for online 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 exceptional surge suppression while managing both thermal and high-current end-of-life events

I-Line SPDs

Features (continued)

I-Line™ Panelboard

The Square D brand I-Line power distribution panel is extremely versatile. It is used to feed NQ and NF lighting and appliance panelboards. I-Line panelboards can also feed large motors and temperature control systems. Interiors accept plug-on or bolt-on branch circuit breakers. (Max volts 600 Vac, max current 1,200 Amps)



I-Line 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 -42 dB
Operating Frequency	50/60 Hz

Mechanical Description

Connection Method	Direct Bused
Mounting Method/Circuit Type	I-Line bus/Parallel
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.	14° F (-10° C) to 140° F (60° C)
Operating Humidity	0 to 95% non-condensing

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.

Safety and Performance

Type 2: cULus Listed per UL 489 11th Edition and CAN/CSA C22.2 No. 5-09 Circuit Breaker. SPD cULus Listed per UL 1449 3rd Edition, UL 1283 5th Edition and CAN/CSA C22.2 No. 8-M1986. Complies with UL96A 12th Edition Master Label requirements for Lightning Protection Systems.

Type 1: cULus Listed per UL 489 11th Edition and CAN/CSA C22.2 No. 5-09 Circuit Breaker. ULus Listed per UL 1449 3rd Edition and CAN/CSA C22.2 No. 8-M1986.

Complies with UL96A 12th Edition Master Label requirements for Lightning Protection Systems.

I-Line SPDs

Features (continued)

WYE Configured SPD Specifications

Voltage	Surge Current per Phase	Modes of Protection	HL Breaker I-Line SPD Model Number ¹	HR Breaker I-Line SPD Model Number ¹	MCOV	I _n	VPR			
							L-N	L-G	L-L	N-G
120/240V	120kA	6	HL1IMA12C	HR1IMA12C	150V	20kA	1200V	700V	1200V	900V
208Y/120V ■	120kA	10	HL2IMA12C	HR2IMA12C	150V	20kA	1200V	700V	1200V	900V
480Y/277V ▲	120kA	10	HL4IMA12C	HR4IMA12C	320V	20kA	1500V	1200V	2000V	1200V
600Y/347V	120kA	10	N/A	HR8IMA12C	420V	20kA	1800V	1500V	2500V	1500V
120/240V	160kA	6	HL1IMA16C	HR1IMA16C	150V	20kA	1200V	700V	1200V	900V
208Y/120V ■	160kA	10	HL2IMA16C	HR2IMA16C	150V	20kA	1200V	700V	1200V	900V
480Y/277V ▲	160kA	10	HL4IMA16C	HR4IMA16C	320V	20kA	1500V	1200V	2000V	1200V
600Y/347V	160kA	10	N/A	HR8IMA16C	420V	20kA	1800V	1500V	2500V	1500V
120/240V	240kA	6	HL1IMA24C	HR1IMA24C	150V	20kA	1200V	700V	1200V	900V
208Y/120V ■	240kA	10	HL2IMA24C	HR2IMA24C	150V	20kA	1200V	700V	1200V	900V
480Y/277V ▲	240kA	10	HL4IMA24C	HR4IMA24C	320V	20kA	1500V	1200V	2000V	1200V
600Y/347V	240kA	10	N/A	HR8IMA24C	420V	20kA	1800V	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
¹ Model Numbers in the table represent UL Type 2 SPDs. Apply the suffix (1) to indicate a UL Type 1 SPD

High-Leg Delta (HLD) Configured SPD Specifications

Voltage	Surge Current per Phase	Modes of Protection	HL Breaker I-Line SPD Model Number ¹	HR Breaker I-Line SPD Model Number ¹	MCOV	I _n	VPR						
							L-N	H-N	L-G	H-G	L-L	H-L	N-G
240/120HLD	120kA	10	HL3IMA12C	HR3IMA12C	150V	20kA	1200V	1500V	700V	1000V	1200V	1500V	1000V
240/120HLD	160kA	10	HL3IMA16C	HR3IMA16C	150V	20kA	1200V	1500V	700V	1000V	1200V	1500V	1000V
240/120HLD	240kA	10	HL3IMA24C	HR3IMA24C	150V	20kA	1200V	1500V	700V	1000V	1200V	1500V	1000V

¹ Model Numbers in the table represent UL Type 2 SPDs. Apply the suffix (1) to indicate a UL Type 1 SPD

I-Line SPDs

Features (continued)

Delta Configured SPD Specifications

Voltage	Surge Current per Phase	Modes of protection	HL Breaker I-Line SPD Model Number ¹	HR Breaker I-Line SPD Model Number ¹	MCOV	In	VPR			
							L-N	L-G	L-L	N-G
240V DELTA	100kA	6	HL6IMA10C	HR6IMA10C	320	20kA	N/A	1200	1500	N/A
480V DELTA ²	100kA	6	HL5IMA10C	HR5IMA10C	550	20kA	N/A	1800	2500	N/A
600V DELTA ³	100kA	6	N/A	HR9IMA10C	700	20kA	N/A	2500	2500	N/A
240V DELTA	120kA	6	HL6IMA12C	HR6IMA12C	320	20kA	N/A	1200	1500	N/A
480V DELTA ²	120kA	6	HL5IMA12C	HR5IMA12C	550	20kA	N/A	1800	2500	N/A
600V DELTA ³	120kA	6	N/A	HR9IMA12C	700	20kA	N/A	2500	2500	N/A
240V DELTA	160kA	6	HL6IMA16C	HR6IMA16C	320	20kA	N/A	1200	1500	N/A
480V DELTA ²	160kA	6	HL5IMA16C	HR5IMA16C	550	20kA	N/A	1800	2500	N/A
600V DELTA ³	160kA	6	N/A	HR9IMA16C	700	20kA	N/A	2500	2500	N/A
600V DELTA ³	180kA	6	N/A	HR9IMA18C	700	20kA	N/A	2500	2500	N/A
240V DELTA	200kA	6	HL6IMA20C	HR6IMA20C	320	20kA	N/A	1200	1500	N/A
480V DELTA ²	200kA	6	HL5IMA20C	HR5IMA20C	550	20kA	N/A	1800	2500	N/A
240V DELTA	240kA	6	HL6IMA24C	HR6IMA24C	320	20kA	N/A	1200	1500	N/A
480V DELTA ²	240kA	6	HL5IMA24C	HR5IMA24C	550	20kA	N/A	1800	2500	N/A

¹ Model Numbers in the table represent UL Type 2 SPDs. Apply the suffix (1) to indicate a UL Type 1 SPD

² 480V Delta series also applies to the following voltages: 480Y/277V HRG

³ 600V Delta series also applies to the following voltages: 600Y/347V HRG

For Complete IEEE Testing, see Reference Document 9990-0200.

Schneider Electric USA, Inc.

800 Federal Street
Andover, MA 01810
Telephone: (978) 794-0800
www.schneider-electric.com/us

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