

Internal Modular OEM Kit SPDs

Square D™ Internally Mounted Surge Protective Devices

Square D™ brand Surgelogic™ internal modular OEM kit 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. The short lead lengths deliver superior SPD performance.



by Schneider Electric

Internal Modular OEM Kit SPDs Features



Internal panel modular 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 utilized a high-energy suppression circuit that provides 10 modes of suppression from 120,000 to 240,000 Amps of surge current rating per phase. Modular SPDs feature circuitry that provides not only transient surge suppression, but also noise filtration.

Installation

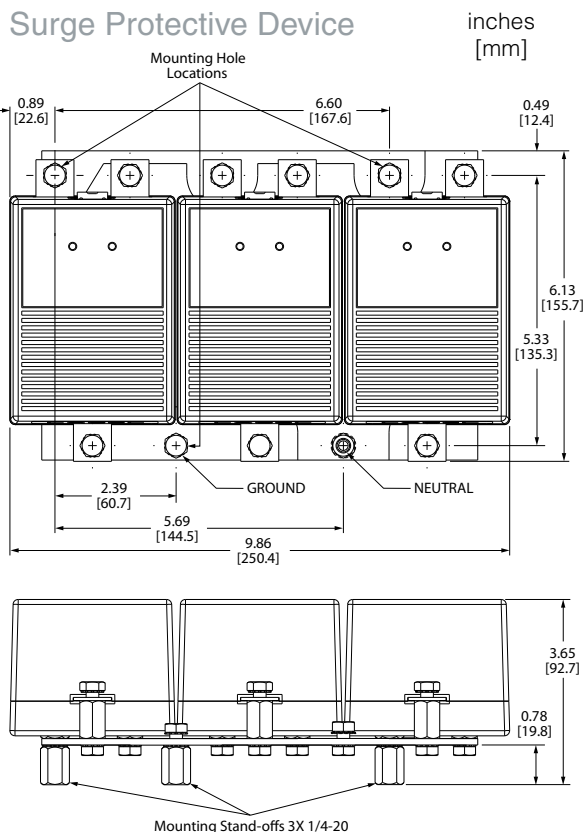
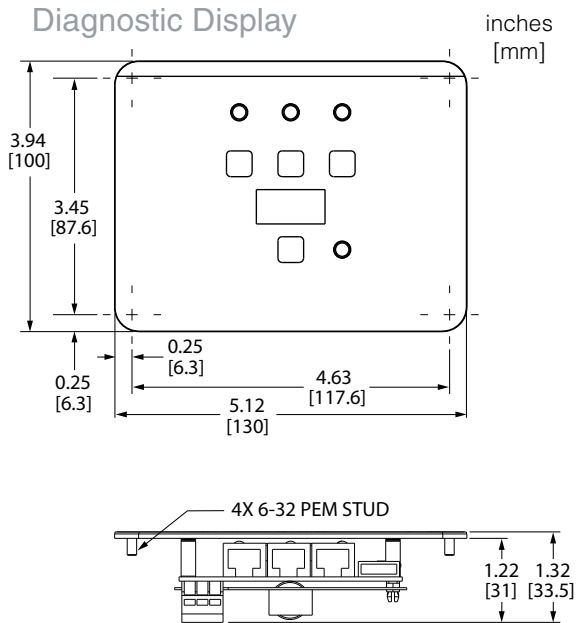
Internal OEM kits allow manufacturers to add industry leading surge suppression capabilities directly to their customized equipment. OEMs benefit from being able to integrate cost-effective Square D brand SPD solutions while keeping wire lengths to a minimum. Shorter wire lengths optimize the effective clamping voltage to create surge suppression solutions unmatched by externally mounted devices.

Warranty

SurgeLogic internal modular SPDs have a 10-year warranty.

FEATURES	ADVANTAGES	BENEFITS
120,000 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 Filtering	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 premium surge suppression while managing both thermal and high-current end-of-life events

Internal Modular OEM Kit SPDs Features (continued)



Internal SPDs



Performance

Surge Current Rating per Phase	Up to 240kA
Short Circuit Current Rating	200kA
Modes of Protection	10
Fusing	Individually fused MOVs
Thermal Fusing	Yes
Overcurrent Fusing	Yes
Filtering	Yes
Operating Frequency	50/60 Hz

Mechanical Description

Connection Method	#10-#2 AWG Terminals
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.	-4° F (-20° C) to 149° F (65° C)
LCD Operating Temp.	32° F (0° C) to 149° F (65° 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. Standard Diagnostic Cable Length is 36in (91.44cm).

Options

- Remote monitor
- Diagnostic cable kits with varying lengths (see last page)

Safety and Performance

cURus per UL1449 3rd Ed. Type 2 SPD, UL 1283 5th Ed., and CAN/CSA C22.2 No. 8-M1986. Complies with UL 96A 12th Ed. Master Label requirements for Lightning Protection Systems

Internal Modular OEM Kit SPDs 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	120kA	6	1 Ø, 3-wire+G	TVS11MA12O	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	120kA	10	3 Ø, Wye, 4-wire+G	TVS21MA12O	150V	20kA	700V	700V	1200V	700V
480Y/277V ▲	120kA	10	3 Ø, Wye, 4-wire+G	TVS41MA12O	320V	20kA	1200V	1200V	2000V	1200V
600Y/347V	120kA	10	3 Ø, Wye, 4-wire+G	TVS81MA12O	420V	20kA	1500V	1500V	2500V	1500V
120/240V	160kA	6	1 Ø, 3-wire+G	TVS11MA16O	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	160kA	10	3 Ø, Wye, 4-wire+G	TVS21MA16O	150V	20kA	700V	700V	1200V	700V
480Y/277V ▲	160kA	10	3 Ø, Wye, 4-wire+G	TVS41MA16O	320V	20kA	1200V	1200V	2000V	1200V
600Y/347V	160kA	10	3 Ø, Wye, 4-wire+G	TVS81MA16O	420V	20kA	1500V	1500V	2500V	1500V
120/240V	240kA	6	1 Ø, 3-wire+G	TVS11MA24O	150V	20kA	700V	700V	1200V	700V
208Y/120V ■	240kA	10	3 Ø, Wye, 4-wire+G	TVS21MA24O	150V	20kA	700V	700V	1200V	700V
480Y/277V ▲	240kA	10	3 Ø, Wye, 4-wire+G	TVS41MA24O	320V	20kA	1200V	1200V	2000V	1200V
600Y/347V	240kA	10	3 Ø, Wye, 4-wire+G	TVS81MA24O	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
OEM kit comes with 36 inches of cable

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	120kA	10	3 Ø, HLD*, 4-wire+G	TVS31MA12O	150V	20kA	700V	1200V	1200V	1000V	1200V	1500V	700V
240/120HLD	160kA	10	3 Ø, HLD*, 4-wire+G	TVS31MA16O	150V	20kA	700V	1200V	1200V	1000V	1200V	1500V	700V
240/120HLD	240kA	10	3 Ø, HLD*, 4-wire+G	TVS31MA24O	150V	20kA	700V	1200V	1200V	1000V	1200V	1500V	700V

Model numbers not recognized as line items in Schneider Electric ordering system until a suffix code is applied
*HLD = High-leg delta

SPD OPTIONS

TVS12RMU	Remote Monitor
TVS19PCK	19 inch (48.26 cm) cable kit
TVS36PCK	36 inch (91.44 cm) cable kit
TVS60PCK	60 inch (152.40 cm) cable kit
TVS192PCK	192 inch (487.68 cm) cable kit

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