10-Mode Modular SPD

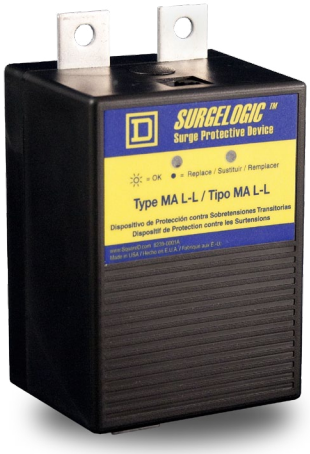
Square D® External Panel Surge Protective Devices

Square D brand Surgelogic® 10-Mode modular panel surge protective devices (SPDs) deliver specification grade performance for distribution or critical branch panel applications. 10-Mode systems provide surge suppression in harsh environments with discrete surge suppression paths for ten modes, L-L (3), L-N (3), L-G (3), and N-G (1).

SQUARE D

by Schneider Electric

10-Mode Modular SPD Features



10-Mode modular panel surge protective devices (SPDs) provide superior design, multiple real modes of surge suppression, and service life for a wide variety of commercial, industrial, or institutional applications. Square D brand Surgelogic SPDs offer unsurpassed performance and surge suppression for demanding electrical distribution applications or as part of a suppression network. The robust modular construction minimizes possible down time and helps to reduce maintenance costs. 10-Mode units feature redundant diagnostic system alerts for continued suppression against harmful transients.

Superior Performance

10-Mode modular panels provide reliable operation by incorporating the latest engineering improvements. Modules utilize high-energy suppression circuitry with proven fast acting metal oxide varistors (MOVs). 10-Mode units feature a thermal cutout circuit for each individually fused MOV to isolate it in the event it is damaged. Sine Wave Tracking is an option for 10-Mode modular panels to provide improved clamping and greater noise filtration.

For harsh environments, 10-Mode modular panels are available in a stainless steel NEMA 4X enclosure to provide surge suppression in areas that can damage other enclosures.

Easy Installation

10-Mode external modular panels should be mounted adjacent to the panel through a conduit connection and as close to the circuit breaker as possible to reduce lead lengths and improve transient suppression.

10-year Warranty

Surgelogic 10-Mode modular SPDs have a 10-year warranty.

FEATURES	ADVANTAGES	BENEFITS
NEMA 3R or 4X Enclosure	Allows installation in outdoor applications	Provides surge suppression to vulnerable equipment powered from weather exposed panels
10 Discrete Modes of surge suppression	Provides additional L-L protection for critical power applications beyond standard 4 & 7-mode devices	Mission critical electronics have additional surge suppression
Optional Sine Wave Tracker Circuitry	Increased transient suppression	Improves surge suppression to the equipment
Advanced Diagnostics	Allows for online testing of the suppressors functionality	Allows immediate response if suppressor is damaged
Suppression Status Alarms	Provides immediate alarm if suppression is ever damaged	Warns if operating with reduced or without surge supression
Coordinated Fuse Technology	Thermal fuse capable of passing extreme surge currents	Provides premium surge suppression while managing thermal effects from MOV end of life

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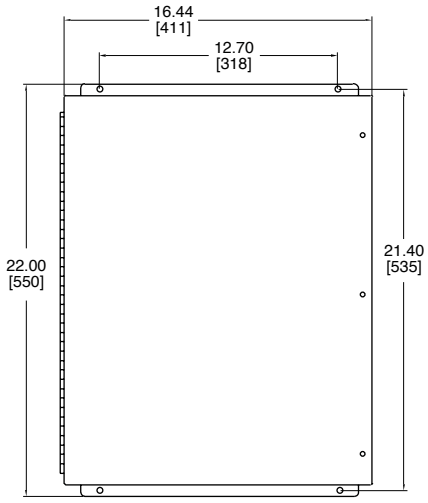
10-Mode Modular SPD
Features (continued)



NEMA 3R Enclosure
NEMA 4X Stainless Steel Enclosure

10-Mode SPDs

Performance

Short Circuit Current Rating	200kA
Fusing	Individually fused MOVs
Filtering EM/RFI Noise Rejection	Yes
Sine Wave Tracking Module	Optional

Mechanical Description

Housing Ratings	NEMA 3R or 4X
Connection Method	#10-#2 AWG Terminals
Mounting Method/Circuit Type	Parallel
Thermal Fusing	Yes
Operating Frequency	50/60 Hz
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)

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.

Options

- NEMA 4X stainless steel enclosure
- Sine Wave Tracking Module
- Flush mount collar
- Remote monitor

Listings and Performance

cULus 1449 3rd Edition Type 2 SPD, UL 1283, CSA C22.2 No. 8-M1986

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10-Mode Modular SPD Specifications

Voltage	Surge Current	Configuration	Model Number	MCOV	I_n	VPR			
						L-N	L-G	L-L	N-G
120V/208Y ■	120kA	3 Ø, Wye, 4-wire+G	TVS2MEMA12_	150V	20kA	700V	700V	1000V	600V
277V/480Y ▲	120kA	3 Ø, Wye, 4-wire+G	TVS4MEMA12_	320V	20kA	1200V	1200V	1800V	1000V
120V/208Y ■	180kA	3 Ø, Wye, 4-wire+G	TVS2MEMA18_	150V	20kA	700V	700V	1000V	600V
277V/480Y ▲	180kA	3 Ø, Wye, 4-wire+G	TVS4MEMA18_	320V	20kA	1200V	1200V	1800V	1000V
120V/208Y ■	270kA	3 Ø, Wye, 4-wire+G	TVS2MEMA27_	150V	20kA	700V	700V	1000V	600V
277V/480Y ▲	270kA	3 Ø, Wye, 4-wire+G	TVS4MEMA27_	320V	20kA	1200V	1200V	1800V	1000V
120V/208Y ■	360kA	3 Ø, Wye, 4-wire+G	TVS2MEMA36_	150V	20kA	700V	700V	1000V	600V
277V/480Y ▲	360kA	3 Ø, Wye, 4-wire+G	TVS4MEMA36_	320V	20kA	1200V	1200V	1800V	1000V

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

SUFFIX CODES

A = NEMA 3R steel enclosure (e.g. TVS4MEMA12A)

ASWT = NEMA 3R steel enclosure with Sine Wave Tracking module (e.g. TVS4MEMA12ASWT)

S = NEMA 4X stainless steel enclosure (e.g. TVS4MEMA12S)

SSWT = NEMA 4X stainless steel enclosure with Sine Wave Tracking module (e.g. TVS4MEMA12SSWT)

Optional Sine Wave Tracking Module	Voltage Surge Filtering					
	L1-L3	L1-L2	L2-L3	L1-N	L2-N	L3-N
	64V	68V	62V	44V	38V	36V

SPD OPTIONS

Remote Monitor TVS12RMU

16”X20” Flush Mount Collar TVS20FMK

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