

Transient Voltage
Surge Suppressors By:

AC Distribution Panel Unit

Model S2101A11S1

Dedicated Protection Components And Frequency Attenuation Circuitry For Each Mode



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"Power Quality is Our Only Business"

The SineTamer® S210 series of units blends outstanding high-energy "impulse" suppression with unsurpassed "ring-wave" transient protection utilizing our Frequency Attenuation Network®. This durable device is intended for general purpose and sensitive/critical load applications in high end residences. Compact size and non-metallic enclosure design also allow it to be installed directly inside electrical panels and individual equipment disconnects. The S210 is extremely effective in limiting internally generated transients and is an absolute must on panels feeding residential locations and/or microprocessor based equipment.

This economical device has features that are not available in devices costing many times its price. Its compact size makes installation a breeze. **Maintenance Free** operation and **20 Year Unlimited Free Replacement Warranty** provide peace of mind.

Standard unit is Type 2 10kA UL Nominal Discharge Current.

GENERAL

Description:	Parallel connected, transient voltage surge suppressor device utilizing both high-energy handling and Frequency Attenuation Network® circuitry for virtual elimination of ring wave type transients. Unit has a 20ka per mode/60ka per phase rating.
Application:	Designed for use at ANSI/IEEE Categories C, B and A with susceptibility up to medium exposure levels. Designed to protect sensitive/critical loads fed from distribution panels, branch panels and/or individual equipment panels.
Warranty:	20 Years Unlimited Free Replacement
Product Qualifications:	ANSI/UL 1449 Fourth Edition by CSA (MC# 259700) & UL – (ML#: E363345); UL1283* and CE Compliant (*Type 2 SPDs only) ISO 9001:2000, ANSI C62.72-2007, IEC 61643-1 Class 2&3

MECHANICAL

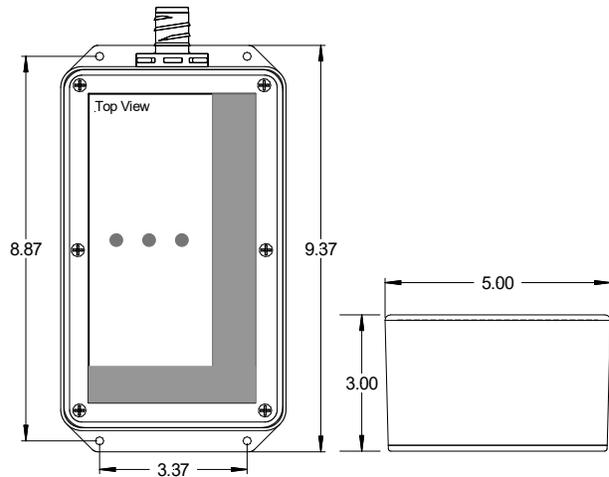
Enclosure:	High strength ABS Plastic, NEMA 1 rated enclosure.
Mounting:	3/4" conduit fitting (internally threaded) and external mounting feet.
Connection Method:	#10 stranded wire.
Shipping Weight:	≈ 6lbs / 2.7kgs

ELECTRICAL

Circuit Design:	Parallel connected, internally fused, hybrid design incorporating our Frequency Attenuation Network® our Transient Equalization Network . All suppression circuits are encapsulated in our exclusive compound to improve durability, assure long component life and complete protection from the environment and/or vibration.
Protection Modes:	Dedicated protection components and circuitry for each mode. Discrete L-N, L-L (Normal Mode), and Discrete L-G, N-G (Common Mode).
Input Power Frequency:	50-60Hz
EMI/RFI Noise Attenuation:	30dB Max. from 1kHz to 10MHz
Temperature Rating:	Up to 80°C
Humidity	0-99% Non-condensing
Energy Consumption:	12mA Total (Approximately 4mA per LED)
Capacitance:	1S1: L-N & N-G = 3.6 uF; L-L & L-G = 1.8 uF
kAIC Rating:	200 kAIC when installed according to installation instructions
Fusing:	Component Level Thermal and Board Level Current Fusing

Because we are constantly seeking to improve our products, specifications are subject to change at any time.

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MEASURED LIMITING VOLTAGE PERFORMANCE AND ELECTRICAL SPECIFICATIONS

Model	Circuit Type	MCOV	Peak Surge Current (Amps) Per Mode	Mode	ANSI/IEEE C62.41 & C62.45 Let-Through Voltage Test Results		
					A1 2kV, 67A 100KHz Ring Wave 270° Phase Angle	Cat B3/C1 (6 kV, 3 kA) 90° Phase Angle	C3 20kV, 10kA Impulse Wave 90° Phase Angle
S8070A11S1	120/240V, Split Ø (3 wire + ground)	300 L-L 150 L-N 150 L-G 150 N-G	20,000 L-L 20,000 L-N 20,000 L-G 20,000 N-G 120,000 Total	L-L L-N L-G N-G	75 45 60 55	576 377 380 541	1119 914 1025 1176

Let-Through Voltage Test Environment: Positive Polarity. Time base=1ms. All voltages are peak ($\pm 10\%$). Surge voltages are measured from the insertion point of surge on the sine wave to the peak of the surge. All tests are Dynamic (voltage applied) except N-G which is static (no voltage applied). All tests were performed with 6 inches of lead length outside the device enclosure which simulates actual "as installed" performance.

. Single-pulse, surge current capacities of 200,000 amps or less are determined by single-unit testing of all components within each mode. Present industry test equipment limitations require testing of individual components or sub-assemblies within a mode for single-pulse, surge current capacities over 200,000 amps.

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