



# SEQ

## PROGRAMMABLE SEQUENCER SURGE ELIMINATOR & POWER CONDITIONER

- **Advanced Series Mode®** Surge Protection
- **SurgeX ICE®** Inrush Current Elimination
- **Impedance Tolerant®** EMI/RFI Filtering
- **COUVS®** Catastrophic Over/Under-Voltage Shutdown

The SEQ provides guaranteed surge protection, power conditioning and sequencing for audio, video, broadcast and computer equipment. A double rack-space unit, the SEQ features two always-on receptacles and four programmable banks. There are three physical banks of four receptacles each and a fourth 'virtual' bank for controlling remote units, allowing for infinitely expanding power distribution schemes.

The SEQ has an LCD display on the front panel that provides unit status, AC line voltage and is also used in programming the unit. Settings are saved in nonvolatile memory. The SEQ can control other SurgeX products, or several SEQs can be interconnected to operate together. With many powerful features, the SEQ is extremely easy to install, program and use.

The unit features both common mode and normal mode *Impedance Tolerant* EMI/RFI filtering, *SurgeX ICE* -Inrush Current Elimination and *COUVS* -Catastrophic Over/Under Voltage Shutdown for a complete power conditioning solution.

SurgeX *Advanced Series Mode* technology is superior to conventional MOV circuitry or MOV-Hybrid designs and is completely non-sacrificial. Our zero let-through technology provides the most reliable protection available. It stops all surges up to 6,000 volts (unlimited surge current) without producing harmful side effects such as ground contamination or common-mode disturbances.



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### SPECIFICATIONS

**Load Rating:** 20 amps @ 120 volts.

**Power Requirement (no load):** 20 watts.

**Surge Let-Through Voltage (6000-volt surge):**  
0 volts.

**UL 1449 Adjunct Classification Test Results:** 1000 surges, 6000 volts, 3000 amps, B3 pulse; Measured suppressed voltage: 170 volts; no failures.

**Federal Guidelines:** Grade A, Class 1, Mode 1 (CID A-A-55818).

**EMI/RFI Filter, Normal Mode (50-ohm load):** 40 dB @ 100 kHz; 50 dB @ 300 kHz; 50 dB @ 3 MHz; 50 dB @ 30 MHz

**EMI/RFI Filter, Common Mode (50-ohm load):** 18 dB @ 300 kHz; 30 dB @ 1 MHz; 50 dB @ 5 MHz; 50 dB @ 20 MHz

**Maximum Applied Surge Voltage:** 6000 volts.\*

**Maximum Applied Surge Current:** Unlimited, due to current limiting.\*

**Maximum Applied Surge Energy:** Unlimited, due to current limiting.\*

**Endurance (C62.41-1991 Category B3 pulses):** 1 kV>500,000; 3 kV>10,000; 6 kV>1000.

**Control Inputs:** Momentary Switch, Latching Switch, Contact Closure or 5-30 Vdc

**Input Control Current:** 3 mA

**DC Voltage Output:** 12 Vdc, 40 mA maximum load

**Auxiliary Relay Output:** 1 amp, 30 Vdc

**Delay Times:** 0-40 seconds

**Dimensions:** 3.5" H x 19.0" W x 10.5" D  
(8.9 x 48.3 x 26.7 cm)

**Weight:** 16 lbs (7.3 kg)

**Temperature Range:** 5° to 35° C

**Humidity Range:** 5% to 95% R.H., non-condensing.

**Agency Listings:** ETL and cETL (UL 1449, 2nd edition; CSA C22.2 No.8-M1986, R2000)

\*1.2 x 50 µs pulse, industry standard combination wave surge, as per IEEE C62.41.

### TECHNICAL DESCRIPTION

The SEQ shall be a two-rack-space unit in a magnetic shielding steel enclosure. It shall operate from 120 volts AC and have a 9-foot, grounded, 3-wire #12 line cord. There shall be 12 grounded AC receptacles in three banks of four on the rear panel, each bank sequenced from the previous bank by an adjustable 0 - 40 second delay, and two receptacles always on. There shall be a back-lit LCD display that shows unit status and AC line voltage, and two screwdriver adjustments to program the unit. Overall dimensions shall be 3.5" H x 19" W x 10.5" D. Weight shall be 16 pounds.

The SEQ shall have a load rating of 20 amps at 120 volts, a self-test circuit with visual indicator and provide EMI/RFI filtering, inrush current elimination and catastrophic over/under-voltage shutdown. It shall meet Federal Grade A, Class 1, Mode 1 guidelines for powerline surge suppressors and withstand at least 1000 occurrences of surge pulse voltages up to 6000 volts.

### FEATURES

- Magnetic shielding steel enclosure
- 9' grounded 3-wire #12 line cord
- Three sequenced banks of four receptacles with combined load of 20 amperes
- Two receptacles always on
- Control output for fourth external bank
- Can be used to control other SurgeX surge eliminators and power conditioners, or daisy-chained with other SEQs
- Easy setup and programming
- LCD display
- Setup stored in nonvolatile memory
- Provides continual display of AC line voltage
- Accommodates any type of control input
- DC voltage or contact closure feedback to Crestron, AMX or similar control devices.
- Output to drive up to four status LEDs
- Advanced *Series Mode* surge protection
- Advanced *Impedance Tolerant* EMI/RFI filtering
- *SurgeX ICE* inrush current elimination technology
- *COUVS* catastrophic over/under-voltage shutdown
- Thermal circuit breaker overload protection
- 10-year warranty
- **Made in U.S.A.**

**NO  
MOVs**



**SURGEX®**

Professional AC Power Products

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Specifications subject to change without notice. *SurgeX* is a division of New Frontier Electronics Inc.

This product, including its components and/or processes carried out thereby, are covered by one or more of the following:  
U.S. Pat. No. 4,870,534, 4,870,528, 6,728,089, 6,744,613, 7,068,487. Can. Pat. No. 1,333,191, 1,332,439. Other Patents Pending.