

# **SURGEX**<sup>®</sup>

THE WORLD LEADER IN  
POWER CONDITIONING TECHNOLOGIES



# Powerframe<sup>®</sup> 420

## **SURGE ELIMINATOR & POWER CONDITIONER**

- **Advanced Series Mode<sup>®</sup>** Surge Protection
- **Impedance Tolerant<sup>®</sup>** EMI/RFI Filtering

**The SurgeX Powerframe 420 provides guaranteed surge protection and power conditioning for audio, video, broadcast and computer equipment.** Powerframe 420 units are compact 80 Amp load centers for multi-branch circuit applications. They offer four independent 20 Amp circuits in a 16" x 12" x 4" magnetic shielding NEMA enclosure and meet code for use at the service entrance, sub-panels and in ceiling plenums.

The unit features both common mode and normal mode *Impedance Tolerant* EMI/RFI filtering for a comprehensive 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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Professional AC Power Products

[www.surgex.com](http://www.surgex.com)

**10-YEAR WARRANTY**

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## SURGE ELIMINATOR & POWER CONDITIONER

- **Advanced Series Mode<sup>®</sup> Surge Protection**
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### SPECIFICATIONS

**Load Rating:** 20 amps per circuit @ 120 volts (80 amps total).

**Power Requirement (no load):** 15 watts per circuit.

**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.

**Dimensions:** 16.0" H x 12.0" W x 4.0" D (40.6 x 30.5 x 10.2 cm)

**Weight:** 30 lbs (13.6 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  $\mu$ s pulse, industry standard combination wave surge, as per IEEE C62.41.

### TECHNICAL DESCRIPTION

The Powerframe 420 shall be housed in a magnetic shielding NEMA steel enclosure. It shall operate from 120 volts AC and have a barrier strip accessible through knock-outs in the enclosure for hardwiring power input and output connections. Overall dimensions shall be 16.0" H x 12.0" W x 4.0" D. Weight shall be 30.0 pounds.

The Powerframe 420 shall have a load rating of 20 amps per circuit at 120 volts (80 amps total), a self-test circuit with visual indicator and provide EMI/RFI filtering. 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
- Advanced *Series Mode* surge protection
- Advanced *Impedance Tolerant* EMI/RFI filtering
- Self-test circuit with visual indicator
- 10-year warranty
- **Made in U.S.A.**

**NO  
MOV**



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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.