

Branch Circuits

Advanced power protection at the service panel



Have you ever wanted complete surge elimination and power conditioning at the branch circuit level, eliminating the need for additional protection downstream? We have the solution.

The SurgeX Branch Circuit product line provides guaranteed surge elimination and conditioning for audio, video, and mission critical equipment at the service panel. Available in three configurations, our unique solutions are built with professional-grade NEMA magnetic shielding steel enclosures that meet code for use at the service entrance, sub-panels, and in-ceiling plenums.

They are engineered with Advanced Series Mode surge elimination and power conditioning technologies to provide top-of-the-line protection. Superior to conventional MOV circuitry or MOV-hybrid designs, they completely eliminate surge energy up to 6,000 Volts without producing harmful side effects such as ground contamination or common-mode disturbances. Completely non-sacrificial and never needing reset, they provide the most reliable protection available.




Our branch circuit line also features both common mode and normal mode impedance tolerant EMI/RFI filtering, and SurgeX ICE (Inrush Current Elimination) for a complete power conditioning solution.

Features:

- NEMA rated magnetic shielding steel enclosure
- Advanced Series Mode[®] surge elimination
- Impedance Tolerant[®] EMI/RFI filtering
- SurgeX ICE[®] (Inrush Current Elimination) (SX-20NE-RT)
- Remote turn-on (SX-20NE-RT)
- Self-circuit with visual indicator (SX-20NE-RT)



Inside the PF-420

	Model Number	Description
	PF-420	Branch Circuit Surge Eliminator, multi circuit, 20A/120V
	SX-20NE-RT	Branch Circuit Surge Eliminator with Remote Control, single circuit, 20A/120V
	SX-20NE	Branch Circuit Surge Eliminator, single circuit, 20A/120V

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Technical Specifications	PF-420	SX-20NE-RT	SX-20NE
Load Rating:	20 Amps per circuit @ 120 Volts (80 Amps total)	20 Amps @ 120 Volts	20 Amps @ 120 Volts
Power Requirement (no load)	15 watts per circuit	15 watts per circuit	15 watts per circuit
Surge Let- Through Voltage (6000-volt surge)	0 Volts	0 Volts	0 Volts
UL 1449 Adjunct Classification Test Results	1000 surges, 6000 Volts, 3000 Amps, B3 pulse; Measured suppressed voltage: 170 Volts; no failures.	1000 surges, 6000 Volts, 3000 Amps, B3 pulse; Measured suppressed voltage: 170 Volts; no failures.	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)	Grade A, Class 1, Mode 1 (CID A-A-55818)	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	40 dB @ 100 kHz; 50 dB @ 300 kHz; 50 dB @ 3 MHz; 50 dB @ 30 MHz	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	18 dB @ 300 kHz; 30 dB @ 1 MHz; 50 dB @ 5 MHz; 50 dB @ 20 MHz	18 dB @ 300 kHz; 30 dB @ 1 MHz; 50 dB @ 5 MHz; 50 dB @ 20 MHz
Maximum Applied Surge Voltage	6000 Volts*	6000 Volts*	6000 Volts*
Maximum Applied Surge Current	Unlimited, due to current limiting*	Unlimited, due to current limiting*	Unlimited, due to current limiting*
Maximum Applied Surge Energy	Unlimited, due to current limiting*	Unlimited, due to current limiting*	Unlimited, due to current limiting*
Endurance (C62.41-1991 Category B3 pulses)	1 kV>500,000; 3 kV>10,000; 6 kV>1000	1 kV>500,000; 3 kV>10,000; 6 kV>1000	1 kV>500,000; 3 kV>10,000; 6 kV>1000
Maximum Load Inrush Current During Power-up	N/A	1000 Joules	N/A
Remote Turn-on Applied Voltage Range	N/A	5 to 30 Volts DC	N/A
Remote Turn-on Current Draw	N/A	Contact Closure: 3 mA 5 V DC Applied Voltage: 1 mA 12 V DC Applied Voltage: 2.5 mA 24 V DC Applied Voltage: 5 mA	N/A
Auxiliary Relay Contact Rating	N/A	30 Volts at 1 Amp	N/A
LED Output	12 volts DC, maximum 20 mA (resistor required)	12 volts DC, maximum 20 mA (resistor required)	12 volts DC, maximum 20 mA (resistor required)
Dimensions	16.0" H x 12.0" W x 4.0" D (40.6 x 30.5 x 10.2 cm)	12.0" H x 12.0" W x 4.0" D (30.5 x 30.5 x 10.2 cm)	10.0" H x 8.0" W x 4.0" D (25.4 x 20.3 x 10.1 cm)
Weight	30 lbs (13.6 kg)	12 lbs (5.45 kg)	9 lbs (4.0 kg)
Temperature Range	5° to 35° C	5° to 35° C	5° to 35° C
Humidity Range	5% to 95% R.H., non-condensing	5% to 95% R.H., non-condensing	5% to 95% R.H., non-condensing
Agency Listings	ETL and cETL (UL 1449, 2nd edition; CSA C22.2 No.8-M1986, R2000)	ETL and cETL (UL 1449, 2nd edition; CSA C22.2 No.8-M1986, R2000)	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

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

Specifications subject to change without notice.