

Pro Series™ Surge Protection Device

DESCRIPTION

Powersmiths Pro Series is a high performance surge protection and noise filtration device (SPD), used to protect equipment connected to in-building electrical distribution systems. With ratings up to 240kA and an internal filter effective from 10kHz with greater than 50dB attenuation at 1MHz, Pro Series meets your needs.

Pro Series' enclosure is NEMA 4X rated to be compatible with most environments. Its compact dimensions allow Pro Series to be mounted close to the bus or the equipment being protected, minimizing connection lead length and let-through voltage.

TECHNOLOGY

Pro Series incorporates metal oxide varistors (MOV) in a parallel redundant configuration to provide a high level of protection from line-to-line, line-to-neutral, line-to-ground and neutral-to-ground disturbances. It is internally fused and can be directly connected to buses rated to 100kAIC.

Each internal MOV branch in the Pro Series is monitored. Any failures are annunciated via the on-unit LED indicators, the audible alarm and the auxiliary contacts. An on-unit status LED indicator confirms the ground connection.

APPLICATIONS

Powersmiths Pro Series is ideal for installation at building distribution panels to address locally produced electrical noise and transients. Used in conjunction with Powersmiths Cyberhawk MPC at the building entrance, Pro Series provides total electrical system protection.

To minimize wall space and eliminate costly field installation, Pro Series can also be pre-wired into Powersmiths transformers for effective integrated protection.

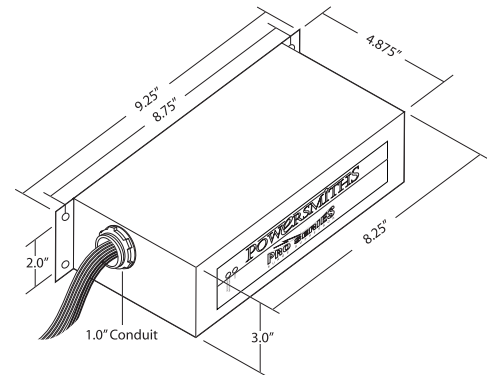


CERTIFICATIONS

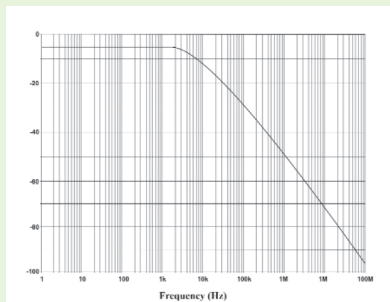
The Pro Series is UL/CUL listed to UL 1419 2nd edition and exceeds the requirements of ANSI/IEEE C62.41 and C62.45.

WARRANTY

Powersmiths provides a 10 year full product replacement warranty. A 25 year pro-rated warranty is also available when Powersmiths Cyberhawk MPC is installed at the building entrance.



Frequency Attenuation



KEY FEATURES

- Treats internally and externally generated transients
- Filters electrical noise
- Has a lower let-through voltage due to compact size and short lead length
- Can be directly connected to systems rated up to 100kAIC
- Easy to locate and install
- Available 80-240kA per phase in the same package

TECHNICAL SPECIFICATIONS

MAX. SURGE CURRENT* (8/20µS):

RATINGS:

PRO80: 80,000A
PRO100: 100,000A
PRO120: 120,000A
PRO160: 160,000A
PRO200: 200,000A
PRO240: 240,000A

PROTECTION

Modes: L-L, L-N, L-G, N-G

Fault Level: 100 kAIC

MAX. CONTINUOUS OPERATING VOLTAGE

120/240V models: 140/280 Vac
120/208V models: 140/280 Vac
277/480V models: 320/555 Vac

SURGE WITHSTAND CAPABILITY

8/20µs, 10,000A: > 6,500, single impulse

8/20µs 100A: unlimited, single impulse

SURGE SURVIVABILITY (SINGLE IMPULSE)

8/20µs: 80kA-240kA per Model Rating

10/1000µs: 3,600 Amps

PRO80, PRO120:

10/350µs: 6,000 Amps (per IEC61643-1)

PRO160, PRO200, PRO240:

10/350µs: 10,000 Amps (per IEC61643-1)

ELECTRICAL NOISE ATTENUATION (EMI/RFI)

10kHz: > 10dB

100kHz: > 30dB

1MHz: > 55dB

PHYSICAL

Size: 9.5"H x 5"W x 3"D, Weight: 5.5 lbs.

Bus Connection: 8 AWG (stripped wire, 18" long)

Mounting: Integrated mounting brackets (.21"D holes)

Temperature: -40°C to + 85°C

Humidity: 95% RH non-condensing

Enclosure Type: NEMA 4X

ANNUNCIATION

Green LED: Normal status

LEDs OFF: No ground or power

Red LED: Protection fault

Remote Contacts & Rating: 125Vac, 2A, Form C (NO/NC)

Audible: 90dB – when protection fault

APPROVALS/COMPLIANCE

UL, cUL: UL1449, 2nd Edition

ANSI/IEEE: C62.41 & C62.45

ORDERING INFORMATION

	Model Number	System Voltage (V, nominal)	Let-through voltage (V)				System Configuration
			8/20µs waveform			Ringwave	
			Per UL 1449	3kA	10kA	@ 200A	
80kA MODELS	PRO80-1PS3W120/240	120/240	400	470	780	60	Split Ph, 3 wire
	PRO80-3P4WY120/208	120/208	400	470	780	60	3 Ph. 4 wire WYE
	PRO80-3P4WD120/240	120/240	400/800	470/890	780/1200	60/75	3 Ph. 4 wire DELTA
	PRO80-3P4WY277/480	277/480	800	890	1200	75	3 Ph. 4 wire WYE
100kA MODELS	PRO100-1PS3W120/240	120/240	400	470	780	60	Split Ph, 3 wire
	PRO100-3P4WY120/208	120/208	400	470	780	60	3 Ph. 4 wire WYE
	PRO100-3P4WD120/240	120/240	400/800	470/890	780/1200	60/75	3 Ph. 4 wire DELTA
	PRO100-3P4WY277/480	277/480	800	890	1200	75	3 Ph. 4 wire WYE
120kA MODELS	PRO120-1PS3W120/240	120/240	400	470	780	60	Split Ph, 3 wire
	PRO120-3P4WY120/208	120/208	400	470	780	60	3 Ph. 4 wire WYE
	PRO120-3P4WD120/240	120/240	400/800	470/890	780/1200	60/75	3 Ph. 4 wire DELTA
	PRO120-3P4WY277/480	277/480	800	890	1200	75	3 Ph. 4 wire WYE
160kA MODELS	PRO160-1PS3W120/240	120/240	400	430	650	50	Split Ph, 3 wire
	PRO160-3P4WY120/208	120/208	400	430	650	50	3 Ph. 4 wire WYE
	PRO160-3P4WD120/240	120/240	400/800	430/770	650/1180	50/68	3 Ph. 4 wire DELTA
	PRO160-3P4WY277/480	277/480	800	770	1180	68	3 Ph. 4 wire WYE
200kA MODELS	PRO200-1PS3W120/240	120/240	400	430	650	50	Split Ph, 3 wire
	PRO200-3P4WY120/208	120/208	400	430	650	50	3 Ph. 4 wire WYE
	PRO200-3P4WD120/240	120/240	400/800	430/770	650/1180	50/68	3 Ph. 4 wire DELTA
	PRO200-3P4WY277/480	277/480	800	770	1180	68	3 Ph. 4 wire WYE
240kA MODELS	PRO240-1PS3W120/240	120/240	400	430	650	50	Split Ph, 3 wire
	PRO240-3P4WY120/208	120/208	400	430	650	50	3 Ph. 4 wire WYE
	PRO240-3P4WD120/240	120/240	400/800	430/770	650/1180	50/68	3 Ph. 4 wire DELTA
	PRO240-3P4WY277/480	277/480	800	770	1180	68	3 Ph. 4 wire WYE



Technical specifications subject to change without notice.

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