

Surge FreeTM SF120

Economy Class Branch Protector Ip=120kA

The UL-listed SF120 protectors offer substantial protection for applications that do not require modular protection or extensive diagnostics. Elevators, motors, air conditioners, generating equipment and other machinery operating off a branch panel will benefit from the protection supplied by the cost-effective SF120.

Redundant protection is built into all MCG heavy-duty protectors, including the SF120. As a result, a fault condition will not disable the unit. Independently-fused modules on each phase enables efficient current sharing and long life.

The unit works by intercepting transients and providing a more attractive path to ground away from your sensitive equipment. Self-diagnostics indicate that protection is present and fully operational or if a fault condition exists.

The SF120 is shunt-installed and is housed in a NEMA 1 enclosure.



ANSI/IEEE
Category B

Features of the SF120

- ✔ **Protection Redundancy**
Each phase employs independently-fused protection elements to provide back-up protection for continued equipment survival despite a fault condition.
- ✔ **Fast Clamp Response**
In less than five nanoseconds, destructive transient currents are intercepted and safely diverted to ground.
- ✔ **Ten Year Warranty**
No questions, no nonsense.
- ✔ **MOV Technology - 40mm.**
- ✔ **Enhanced Status Indicators**
Each phase has a green LED status indicator verifying that protection is present.
- ✔ **Bipolar/Bidirectional Protection**
Eliminates coupling through a common panel into another room preventing the threat of additional surge damage.
- ✔ **Compact Design**
The SF120's low profile enables installation where substantial protection is needed but space is limited.

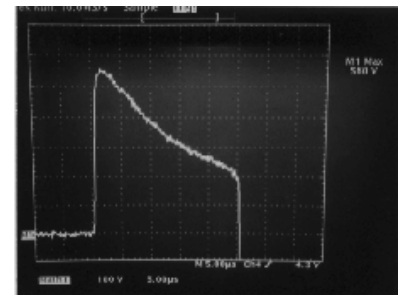
SF120 Electrical Specifications

The SF120 Series of surge protectors meet or exceed ANSI/IEEE C62.41-1991 and UL 1449, 2nd Ed.

Model	Rated Voltage	Description	Energy Absorption (8/20µs) Joules Total	Typical Peak 6" Lead Length Suppression Voltage (8/20µs)		UL1449 Surge Voltage (8/20µs) 500A
				10kA	3kA	
SF120-120T	120/240VAC	1 phase, 3w+gnd	4,984	780V	560V	500V
SF120-120Y	120/208	3 phase, 4w+gnd wye	6,853	780	560	500
SF120-220Y	220/380	3 phase, 4w+gnd, wye	18,480	1150	826	800
SF120-240Y	240/415	3 phase, 4w+gnd, wye	18,480	1150	826	800
SF120-240D	240	3 phase, 3w+gnd, delta	16,800	1150	826	800
SF120-240DCT	240/120/120*	3 phase, 4w+gnd, hi-leg	12,128	1150/780	826/560	800/500
SF120-277Y	277/480	3 phase, 4w+gnd, wye	19,800	1330	950	900
SF120-480D	480	3 phase, 3w+gnd, delta	30,000	2200	1580	1500

* High-leg delta center tapped

Maximum Continuous Operating VAC: 115% rated line voltage
 Response time: <5 nanoseconds
 Modes of protection: L-N, L-G, L-L, N-G (where applicable)
 Surge current/phase (8/20µs) 1 event: 120kA
 Surge life/phase (8/20µs) 10,000 impulses: 4kA
 Protection present indicators: 2 green LED's/phase
 Reduced protection indicator: 1 green LED/phase extinguished
 Operating altitude: 13,000 ft. (4000m)
 Temperature (operating): -40° to +70°C
 Enclosure: NEMA 1
 Dimensions: 7.25" x 7.50" x 2.38"
 Mounting: 6.50" x 6.50"
 Connection: #12 AWG with 3/4" compression connector
 Shipping weight: 6 lbs.



Shown here is a typical clamp waveform: SF120-120Y. Suppression voltage is 560V peak at 3kA (8/20).

Ordering Information

Example: SF120-120Y = 120/208 VAC, 3 phase, 4w+gnd, wye.
 No charge filter option = SF120-120YF.

MCG Surge Protection

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