

# Surge Free™ SF160

## Economy Class Entry Protector Ip=160kA

The SF160 is a rugged, cost-effective shunt installed service entrance protector. It is the ideal unit for applications where heavy duty surge suppression is required, but extensive diagnostics and protection modularity are not.

All facilities containing sophisticated monitoring systems, computer installations, UPS equipment and other sensitive devices are vulnerable to transient-caused damage and can benefit from the installation of the SF160.

The SF160 works by diverting excess transient currents away from the sensitive equipment whenever the surge exceeds the specified clamping threshold. Protection redundancy offers back-up protection in a fault situation. The UL-listed SF160 automatically resets after the transient has been diverted.

Let our Technical Support Engineers help you with any questions about your application.



ANSI/IEEE  
Category C

## Features of the SF160

- ✓ **Protection Redundancy**  
Each phase employs independently-fused protection elements within a module 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 SF160's low profile enables installation where substantial protection is needed but space is limited.

MCG Surge Protection

**1-800-851-1508**  
<http://www.mcgsurge.com>

12 Burt Drive, Deer Park, N.Y. 11729, U.S.A. Phone (516) 586-5125 Fax (516) 586-5120 Note: New (631) Area Code begins 11/1/99 E-Mail: [mcginfo@mcgsurge.com](mailto:mcginfo@mcgsurge.com)

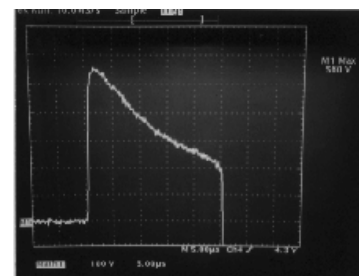
# SF160 Electrical Specifications

The SF160 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	
SF160-120T	120/240VAC	1 phase, 3w+gnd	6,230	730V	540V	500V
SF160-120Y	120/208	3 phase, 4w+gnd wye	8,722	730	540	500
SF160-220Y	220/380	3 phase, 4w+gnd, wye	23,520	1050	810	800
SF160-240Y	240/415	3 phase, 4w+gnd, wye	23,520	1050	810	800
SF160-240D	240	3 phase, 3w+gnd, delta	20,160	1050	810	800
SF160-240DCT	240/120/120*	3 phase, 4w+gnd, hi-leg	15,064	1050/730	810/540	800/500
SF160-277Y	277/480	3 phase, 4w+gnd, wye	25,200	1230	935	900
SF160-480D	480	3 phase, 3w+gnd, delta	36,000	2020	1530	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: 160kA  
 Surge life/phase (8/20µs) 10,000 impulses: 6kA  
 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: SF160-120Y. Suppression voltage is 560V peak at 3kA (8/20).

## Ordering Information

Example: SF160-120Y = 120/208 VAC, 3 phase, 4w+gnd, wye.  
 No charge filter option = SF160-120YF.

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