

Surge Free™ SF400M

Super Class Entry Protector Ip=400kA

The SF400M is a high-tech, fully automated service entry surge protector. This unit installed at the main service panel of your facility will keep transients away from your multimillion dollar investment.

Major facilities such as hospitals, office complexes, manufacturing plants and wherever it is mandatory that equipment function without disruption should be equipped with the rugged, state-of-the-art SF400M.

Lightning is an obvious source of transients – a direct hit can easily result in many thousands of dollars worth of damage. In addition, utility grid switching and the operation of heavy machinery and elevators produce transients which race through the facility every day. The SF400M offers triple redundant protection at each phase, virtually guaranteeing continued protection even in the event of a devastating hit.

This is MCG's most comprehensive unit in regard to self-diagnostics and self testing. Internal troubleshooting LEDs pinpoint the exact module that needs replacing in the unlikely event of damage. Plug-in modules can be replaced in less than five minutes.



ANSI/IEEE
Category C

Features of the SF400M

- 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.
- Micro-Z Concept/MOV Technology**
 MCG's patented Micro-Z technology system significantly reduces let-through voltage across the board and connecting cabling. 40mm MOV's.
- Personnel Safety**
 Integral disconnect with Lexan deadfront.
- Ten Year Warranty**
 And free replacement modules and fuses for life.
- Self Diagnostics & Self Test**
 Both front panel and internal LEDs offer continuous analysis of power and possible fault conditions. Self test ensures integrity of diagnostic components.
- Audible Alarm & Remote Alarm**
 Reduced protection triggers an audible alarm with mute capability. Monitor unit from a remote location with Form C dry contacts.
- Transient Event Counter**
 Records the number of surges suppressed and is resettable.
- Sinewave Filtering**
 MIL STD 220A. No charge option.

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

SF400M Electrical Specifications

The SF400M Series of surge protectors meet or exceed ANSI/IEEE C62.41-1991 and UL 1449, 2nd Ed.

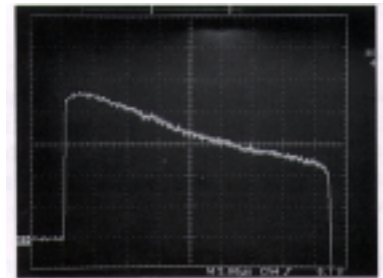
Model	Rated Voltage	Description	Energy Absorption (8/20µs) Joules Total	Typical Peak Suppression Voltage 6" Lead Length (8/20µs)		UL1449 Surge Voltage (8/20µs) 500A
				10kA	3kA	
SF400M-120T	120/240VAC	1f, 3w+gnd	22,428	464V	376V	400V
SF400M-120Y	120/208	3f, 4w+gnd wye	22,428	464	376	400
SF400M-220Y	220/380	3f, 4w+gnd, wye	60,480	792	680	700
SF400M-240Y	240/415	3f, 4w+gnd, wye	60,480	792	680	700
SF400M-240D	240	3f, 3w+gnd, delta	60,480	1064	800	700
SF400M-240DCT	240/120/120*	3f, 4w+gnd, hi-leg	35,112	1064/464	800/376	700/400
SF400M-277Y	277/480	3f, 4w+gnd, wye	64,800	944	800	800
SF400M-480D	480	3f, 3w+gnd, delta	108,000	1800	1420	1500

* High-leg delta center tapped

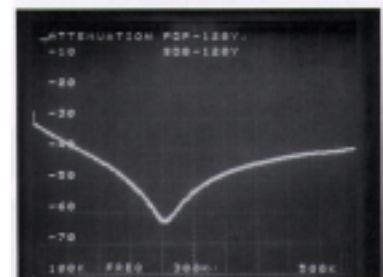
Maximum Continuous Operating VAC: 115% rated line voltage
 Response time: <5 nanoseconds
 Modes of protection: L-N, L-G, L-L, N-G (where applicable)
 Surge current/phase (8/20µs) 1 event: 400kA
 Surge life/phase (8/20µs) 10,000 impulses: 15kA
 Filter attenuation MIL STD 220A (50 ohm)**:

	120VAC	240VAC	277VAC
-30db	50kHz	50kHz	25kHz
-40db	125kHz	180kHz	100kHz
-50db	210kHz	210kHz	180kHz
-60db	250kHz	250kHz	200kHz

Status indicator: LCD diagnostic status display
 Situation indicators: Green, yellow, red LED display
 Additional status indicators: Audible alarm, dry contacts
 Operating altitude: 13,000 ft. (4000m)
 Temperature (operating/storage): -40° to +70°C/-40° to +85°C
 Enclosure: NEMA 12, 14 gauge steel
 Optional enclosures available
 Dimensions: 21" x 14" x 6.5"
 Mounting: 21.75 x 12"/.3125" ID - 4 holes
 Connection: Terminal block
 Shipping weight: 51 lbs.



Shown here is a typical clamp waveform: SF400M-120V suppression voltage is 464V peak at 10kA (8/20).



Typical filter attenuation for model SF400M-120YF -60db at 250kHz.

** T and Y models only.

Ordering Information

Example: SF400M-120Y = 120/208 VAC, 3f, 4w+gnd, wye.
 No charge filter option = SF400M-120YF.

MCG Surge Protection

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

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