

400 Series

OEM Equipment Protector Ip=10kA

The 400 Series installed at or within a piece of equipment such as PLC's, fire alarm monitoring systems, security system controls, etc., provides compact, heavy-duty surge suppression. The units employ a sophisticated combination of brute force surge protection and impulse filtering to prevent damage or malfunction to sensitive equipment. Reaction time is less than one nanosecond with automatic reset after the transient has passed.

Equipment components are susceptible to damage from lightning, transients and surges. Conducted EMI can also be a problem. By installing the highly reliable 400 Series, transient overvoltages that would normally exceed the threshold level are safely limited. A series filter attenuates the conducted EMI.

Sine tracking virtually eliminates transients that ride on the sine wave. The 400 Series provides superior attenuation at the critical lower frequencies.



**ANSI/IEEE
Category A**

Features of the 400 Series

- ✔ **Compact Size**
Space efficient and easy to install, the 400 Series offer quick, hard-wired installation in locations where space is limited.
- ✔ **Maximum Surge Protection**
Large absorption capability exceeds 400 joules.
- ✔ **Fast Clamp Response**
In less than one nanosecond, currents are intercepted and safely diverted.
- ✔ **MOV Technology - 20mm.**
- ✔ **Sine Tracking Filter**
The 400 Series offers superior transient attenuation at the critical lower frequencies.
- ✔ **Automatic Reset**
The unit automatically resets after an overvoltage transient condition has occurred. A green LED gives verification that the unit is operational and full protection is present.
- ✔ **Ten Year Warranty**
No questions, no nonsense.

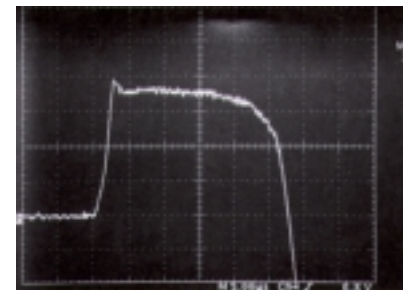
400 Series Electrical Specifications

The 400 Series of surge protectors meet or exceed ANSI/IEEE C62.41-1991 and UL 1449, 2nd Ed.

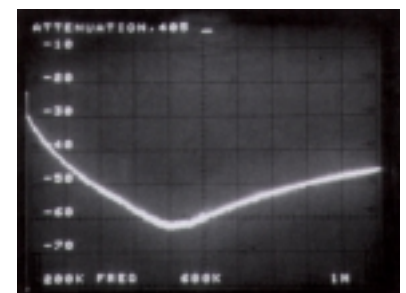
Model	405	407	415	416	417
Rated voltage (50/60/500Hz)	120VAC	120VAC	120VAC	120VAC	240VAC
Rated current (rms.) @ 40°C	5A	7.5A	15A	25A	25A
Service (phase)	1	1	1	1	1
Surge current (8/20µs) (kA)	10	10	10	10	10
Clamp voltage (1mA) peak	220V	220V	220V	220V	425V
Suppression voltage Impulse (B3) 6kV/3kA	392V	392V	392V	420V	760V
Ringwave (B3) 6kV/500A	250V	180V	120V	250V	330V
Surge energy (joules), 8/20µs	630	630	630	630	1,050
Filter attenuation (50 ohm)					
-20db	45 kHz	30 kHz	30 kHz	30 kHz	30 kHz
-30db	75 kHz	95 kHz	90 kHz	90 kHz	80 kHz
-40db	150 kHz	300 kHz	300 kHz	300 kHz	260 kHz
-50db	250 kHz	750 kHz	880 kHz	800 kHz	530 kHz
-60db	450 kHz	1.5MHz	1.4 MHz	1.0 MHz	700 kHz

Maximum Continuous Operating VAC: 115% rated line voltage
 Response time: <5 nanoseconds
 Modes of Protection: L-N, L-G, N-G
 Surge current/phase (8/20µs): 1 Event 10kA
 (Based on Model 415) 2 5A
 100 2kA
 1,000 1kA
 10,000 500A

Power present indicator: Green LED
 Operating altitude: 13,000 ft. (4000m)
 Temperature (Operating): -40° to +70°C
 Temperature (Storage): -40° to +85°C
 Enclosure: High-impact plastic
 Dimensions: 4.95" x 2.85" x 1.25"
 Mounting: 4.20" x 2.25"/.185 ID - 4 holes
 Dimensions (Model 405 Only): 4.95" x 4.36" x 1.10"
 Mounting (Model 405 Only): 4.20" x 3.76"/.185 ID - 4 holes
 Connection: Solderless screw terminals
 Shipping weight: <1 lb.



Shown here is a typical clamp waveform: 415 suppression voltage is 393V peak at 3kA (8/20) short circuit.



Typical filter attenuation for Model 405: -60db at 450Hz.

Ordering Information

Example: 415 = 120VAC, 15A, 1 phase, 2 w + gnd.

MCG Surge Protection

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