

# Cutler-Hammer Powerline Filters



## Three stages of protection

Cutler-Hammer

1. Suppressors shunt high energy surges to ground
2. LC filter provides noise and voltage clamping
3. Bi-directional protection stops voltage surges and noise traveling upstream or downstream through the APF

Low **let-through** feature clamps voltage transients at levels just over operating voltage to protect equipment from cumulative damage.

High-end noise attenuation inductor-capacitor (L-C) circuitry grabs EMI/RFI noise before it gets into your system.

High-surge current capability of up to 39,000 a.mps (L-N or L-G) handles the surges your electronics can't.

The filters feature lightning fast response of less than one nanosecond.

DIN rail mounting requires no special mounting hole patterns. Unit comes with short DIN rail for mounting in non-DIN installations.

## Low-cost protection for your control system

The Automation Powerline Filter (APF) is a high-performance surge filter designed to protect electronic loads from surges, transients and noise. The APF diverts these disturbances away from the load with a low impedance path to ground. This compact unit is ideal for PLCs, industrial PCs, robotics and other automation equipment.

## Features

- 120 or 230 VAC input voltage, single phase
- One, three and five amp models
- 50/60 Hz operation
- Protection modes — L-N, L-G, N-G
- Five-year product warranty
- Internally fused
- Status indication
- UL, CSA approvals
- Tested to ANSI/IEEE Cat. B3 Ringwave and C1 Impulse waveforms

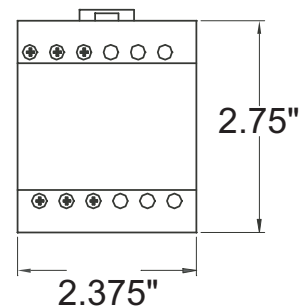
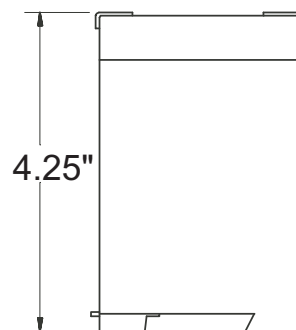
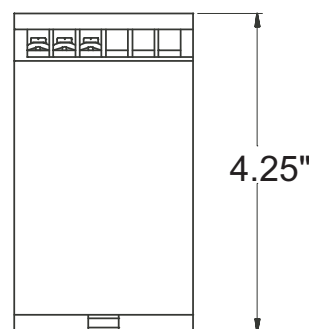
## Benefits

- Low "let-through voltage" ensures significantly better protection than other suppressors
- Excellent LC noise filter reduces operating glitches and disruptions
- High surge current capability protects against lightning induced surges
- Small footprint, DIN-rail mounted (DIN rail section included) — easy to install in control cabinet or OEM application

## APF specifications

Input voltage	120, 230 VAC, single phase (L,N,G or L,L,G)
Amperage	1, 3, 5 Amp
Frequency	50/60 Hz
Protection modes	L-N, L-G, N-G
MCOV	150, 320 V
Noise attenuation: (Normal mode)	55dB @ 100 kHz
Filter bandwidth	10 kHz to 50 MHz
Peak surge current	39,000 Amps per phase
Internal thermal fuses	
Fault current rating: (AIC rating per UL)	500A
Operating temp.	-40 to +50 °C
Response time	Less than 1ns
Agency approvals	UL 1449 2nd Ed., CSA
Warranty	Five years
Test waveforms	IEEE C62.41 (1991)

Automation Powerline Filter		
Part Number	Description	Price
APF120N01	110/120V, 1 Amp	<--->
APF120N03	110/120V, 3 Amp	<--->
APF120N05	110/120V, 5 Amp	<--->
APF230L01	230/240V, 1 Amp	<--->
APF230L03	230/240V, 3 Amp	<--->
APF230L05	230/240V, 5 Amp	<--->



**Note:** Cutler-Hammer products available to North America locations only.