Environmental Potentials

EP-HPF is not an option, its necessity.

An average home in the US has over $20,000 worth of electrical appliances that are subjected to damaging effects of the surges. The surges cause millions of dollars of damage to the electrical systems every year, with an average insurance claim of $5,869 per surge incident in the year 2013 for the US residential market. Although the amount shown above only reflects in the instantaneously damaged electrical loads per incident, thousands of dollars of damage are "slowly causing" to the residential market.

The surges primarily come into your home in two ways, external and internal. External surge sources are the lightning and utility disturbances. Internal surges are the switching transients generated by your regular home appliances. External surges are less than 10% of the surges in your home, the remaining 90% are directly from internal sources inside your home.

The majority of home appliances use a switching mechanism to operate efficiently, which creates residual switching noise or micro-surges in the electrical system. The switching noise is inevitable, regardless of how new or expensive is your appliance is. The switching noise "rings" within the electrical system causing to further amplify the noise. This amplification is the "internally generated surge or switching transient", causing the damaging effect to the other expensive appliances.

The damaging effects of the surges are:

1. Complete damage to the appliance, making it un-operable
2. Malfunction or erratic nature of the load, causing load tripping
3. Excessive heat generation, resulting in "hot to touch" appliance, or increased power bill
4. Premature damage to the appliance, shortening the life of the appliances

Many homeowners believe that the surge strips used in the home are sufficient enough to protect their home appliances, but the reality is that the surge takes various paths to get into the home and it is impossible for a surge strip to divert all the surges to itself and protect your load. A homeowner must need "complete home protection" to protect all the appliances in the home at the main service entrance of the home.

EP offers the "complete home protection" plan in the form of **EP-HPF**, an UL listed type 2 SPD, that protects the home from both internal and external surges. In addition to removing the surges, **EP-HPF** can also act as a filter removing constantly generated ringing noise amongst the appliances. **EP-HPF** can be retrofitted to any manufacturers electrical panel without any hassle, is easily mountable and alerts you with visible LED status indicators.

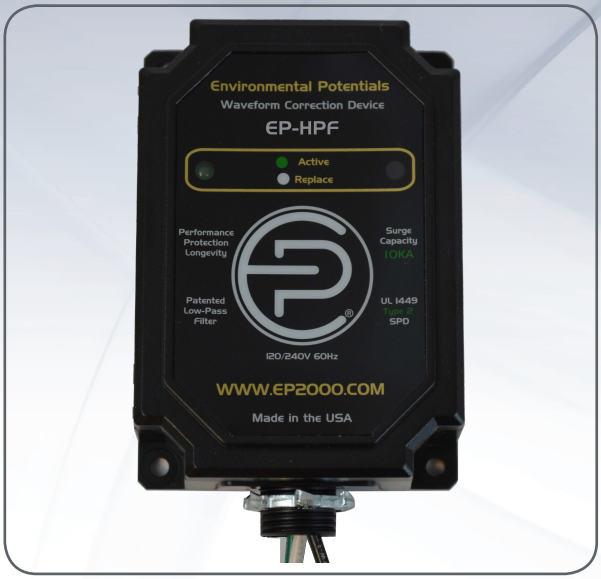
EP-HPF for a home is not an option, but a necessity! The homeowner is constantly adding sophisticated electronics to their home such as gaming machines, laptops, and high-end home theatre systems. It is lamaging surges and noise generated in the sys sive electronics and home appliances, increasing gs to your electricity bill.

O&M Resources, Inc.
Saving You "Watts" of Money!

4220W 2100S, Suite N&O, Salt Lake City, UT 84120

844.500.7436

EP-HPF RESIDENTIAL PROTECTION



THE EP-HPF:

- An industrial grade **surge protector** and **noise filter** for residential market
- Eliminates detrimental **power disturbances** that permeate the residential electrical distribution system
- Designed to protect the **sensitive residential appliances** such as high-end audio/video systems, HVAC and other computer loads
- Widely accepted by **Audiophiles** worldwide
- **Complete** Home Protection
- Available in **10kA, 18kA and 22kA** max surge current
- **Quick connection** to any manufacturer's breaker

ABSORBS, DISSIPATES & REMOVES

- Transient voltage surges and spikes
- Frequency Noise Between 3kHz-1MHz
- Ring waves
- Ground loops (when equipped with EP-2750)

EP-HPF GENERAL SPECIFICATIONS

CIRCUIT DESCRIPTION	Internal Circuit Breaker	Spectrum Multiplier	Voltage Limit Clamp (MOV)	Low-Pass Filter	Dissipative Absorber	(Parallel Operated)

OPERATING FREQUENCY
45 - 65 Hz

FREQUENCY ATTENUATION
-20 dB/decade roll-off starting at 2.5 kHz

MAX SURGE CURRENT
10kA, 18kA and 22kA mode

MCOV
20% above rated voltage

SAFETY APPROVALS
UL 1449 4th Edition TVSS Testing Type 2 SPD
CSA C22.2#8:2013 Ed 5 EMI filters

SAFETY RATINGS
Fire Rating 94V-0

OPERATING ENVIRONMENT
Approximately -25° C to 65° C

RESPONSE TIME
Primary Response Time: Instantaneous; Key Event Time: Approx. 1 Nanosecond

COMPLIANCE
NEMA LS-1, NEC Surge Suppression Standards, Electrical Notice 516

CONNECTION
Wire leads. Size: 14 AWG Length: 3'

MATERIALS
Plastic Housing, LED Indicator Lamps, 14 AWG 600 V rated Wire.
Circuit encapsulated in epoxy to retain integrity of circuitry in failure mode.

ACCESSORIES
Green LED indicates active phase

DIMENSIONS & WEIGHT
Length: 4.85", Width: 3.41", Depth:1.75", Weight: 1 lb.
Compact for easy installations

EP-HPF Product Ordering Guidelines

MODEL NUMBER

EP | H | P | F | 1S240

- H P F → Series
- 1S240 → Voltage Configuration ID#

VOLTAGE CONFIGURATIONS

SYSTEM VOLTAGE	PROTECT MODE	VPR	SYSTEM CONFIGURATION	VOLTAGE ID#
Single Phase 100/200	L-N L-G	400	3 Wire + G	**1S200**
Single Phase 120/240	L-N L-G	400	3 Wire + G	**1S240**
Single Leg 240	L-N L-G	400	2 Wire + G	**1L240**