

# Eaton® PSFI

Class III/Cat A Portable Surge Filter



## Surge Filter, 1 Phase 10A & 16A, 40kA Primary

The PSFI is designed to provide secondary protection against power surges caused by external sources such as lightning strikes & substation switching, as well as providing a measure of protection from surge events generated on the secondary side of the filter. The unit has been designed in accordance with AS3100, AS1768, IEC61643-1, IEC61000-6-1, 2, 3, 4 & other standards & codes as applicable.

The PSFI is a 3-stage protection unit utilising primary & secondary MOV protection in conjunction with a Low-Q LC filter. The unit provides filtering of the line harmonics, noise & RF transmitters with a cut-off frequency of <math><10\text{kHz}</math> & a minimum attenuation of 40dB above 1Mhz. The operation status of the PSFI is indicated by lamps on the front panel. The "OK" light indicates that power is applied to the PSFI. The "FAULT" light indicates that the surge protection circuitry is damaged & the unit should be replaced. An ideal device for Category A locations.

### Applications

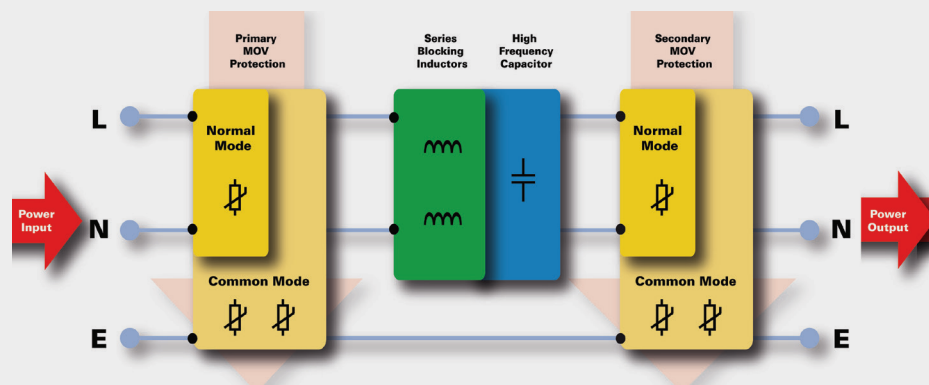
- Plug-in UPS systems
- Servers
- Portable instrumentation
- POS systems
- Small office systems
- Industrial & rural surge prone sites

### Key Features

- Surge suppression & filtering in a single package
- Small footprint
- Enclosed in IP 24 painted metal housing
- Surge suppression rating of 40kA (L-N)
- Protection Fail Indicators
- 3 mode, 3 Stage Protection
- 12 Month Warranty

## PSFi Block Diagram

2 Mode 3 Element Series Filter  
3 Mode 2 Stage Diverter



## Surge Category

PSFI01 & PSFI61 are suitable for use in category locations:

### Class III/Cat A

(6kV/200A) Long final sub circuits & power outlets



Powering Business Worldwide

# Eaton® PSFI Specifications

Technical	PSF10I	PSF16I
Number of ports	2 Port	
Method of mounting	Portable	
Input voltage - U <sub>c</sub>	200-250VAC 1 Phase	
Maximum Continuous voltage - MCOV	320VAC L-N	
Temporary overvoltage - TOV	350VAC L-N, 15 mins	
Service type	TT, TN, TN C-S or any 1 phase system with a grounded neutral. This unit must not be connected to an ungrounded system.	
Test Classification	Class II	
Current rating - continuous	10A	16A
Test Classification	Class III (IEC 61643-1), Category A (ANSI/IEEE C62.41)	
Recommended max. overcurrent protection	10A	16A
Residual current	<0.5 mA	
Protection modes	Line-Neutral, Line-Earth, Neutral-Earth	
In 8/20us (Line-Neutral) Nominal surge life	20kA x 15 hits	
In 8/20us (Line-Earth) Nominal surge life	3kA x 20 hits	
In 8/20us (Neutral-Earth) Nominal surge life	3kA x 20 hits	
I <sub>sm</sub> 8/20us (Line-Neutral) Max surge level	40kA	
I <sub>sm</sub> 8/20us (Line-Earth) Max surge level	10kA	
I <sub>sm</sub> 8/20us (Neutral-Earth) Max surge level	10kA	
Filter attenuation	40dB nominal above 1MHz	
Initial clamp voltage (Line-Neutral)	560V (350VAC RMS)	
Initial clamp voltage (Line-Earth)	680V (420VAC RMS)	
Initial clamp voltage (Neutral-Earth)	680V (420VAC RMS)	
Residual voltage (V <sub>pl</sub> ) (Line-Neutral) (Let through voltage)	<900 (3kA, 8/20uS)	
Internal protection (fusing)	Thermal fusing on primary line-connected MOVs	
Terminations	IEC 320-C14 10A input x 1, IEC 320-C13 10A output x 1	IEC 320-C20 16A input x 1, IEC 320-C19 16A output x 1
Alarms/indicators	2 LED display, Power OK, Protection Fault	
Location Category	Indoor	
Enclosure rating	IP24	
Design Standards:	IEC61643-1, IEC610006-1, 2, 3, 4 ANSI/IEEE C62.41 Cat B, C, D, E AS1768-2007 Cat B, C, D, E AS3000, AS3100, CE mark	
Dimensions & Weight	90 x 205 x 55 mm (W x D x H), 1kg	
Environment	-10 to 50°C, 0 to 95% RH (non-condensing)	

Due to continual product improvement specifications are subject to change without notice. Copyright 2013 Eaton.

## Line Diagram

