

## TECHNICAL SPECIFICATION

# SSFi

## SURGE FILTER

SSFi10i  
(Single Phase, 10A, 25kA Primary)



### APPLICATIONS

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

### FEATURES

- |   |   |
|---|---|
| ✓ Surge suppression and filtering in a single package | ✓ Enclosed in IP20 painted metal housing  |
| ✓ Small footprint / Modular design                    | ✓ Protection fail indicators              |
| ✓ 3 mode protection (L-N, L-E, N-E)                   | ✓ 3 stage protection (MOV, Inductor, MOV) |
| ✓ Surge suppression rating of 25kA (L-N)              | ✓ 12 months warranty                      |

### FUNCTIONAL DESCRIPTION

The SSFi is designed to provide secondary protection against power surges caused by external sources such as lightning strikes and 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 and other standards and codes as applicable.

The SSFi is a 3-stage protection unit utilising primary and secondary MOV protection in conjunction with a Low Q L/C filter. The unit provides filtering of line harmonics, noise and RF transmitters with a cut-off frequency of <10kHz and a minimum attenuation of 40dB above 1Mhz.

### OPERATION

**Indicators** - The operation status of the SSFi is indicated by lamps on the front panel. The 'OK' light indicates that power is applied to the SSFi. The 'FAULT' light indicates that the surge protection circuitry is damaged and the unit should be replaced.

**Enclosures** – SSFi is fully enclosed. Enclosures are manufactured in powder-coated mild steel for exposure category IP20.

### WARRANTY

Eaton Power Quality warrants the SSFi against faulty parts and workmanship for a period of 12 months from the date of purchase. For further information, refer to EATON Powerware warranty statement.

## PHYSICAL AND ELECTRICAL SPECIFICATIONS

Manufacturers name and model	SSF10i
Number of ports	2 Port
Method of mounting	Portable.
Input voltage – Uc	200-250VAC 1Ø
Maximum continuous voltage – MCOV	285VAC L-N
Temporary overvoltage - TOV	300VAC 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
Energy Absorption rating – per mode (Joules)	Primary protection L-N = 370J Primary Common Mode protection L-E & N-E = 480J Secondary protection L-N = 225J Secondary Common Mode protection L-E & N-E = 480J Aggregate rating = 1,555J
Current rating - continuous	10A
Recommended maximum over current protection	10A
Residual current	<0.5 mA
Protection modes	Line-Neutral, Line-Earth, Neutral-Earth
In 8/20us (Line-Neutral). Nominal surge life.	10kA x 20 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
Ismax 8/20us (Line-Neutral). Maximum surge level.	25kA
Ismax 8/20us (Line-Earth). Maximum surge level.	10kA
Ismax 8/20us (Neutral-Earth). Maximum surge level.	10kA
Filter attenuation	40dB nominal above 1MHz
Initial clamp voltage (Line-Neutral)	560V
Initial clamp voltage (Line-Earth)	680V
Initial clamp voltage (Neutral-Earth)	680V
Residual voltage (Vpl) (Line-Neutral). (Let through voltage)	<900 (3kA, 8/20uS)
Residual voltage (Vpl) (Line-Earth). (Let through voltage)	<1000 (3kA, 8/20uS)
Residual voltage (Vpl) (Neutral-Earth). (Let through voltage)	<1000 (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.
Alarms/indicators	2 LED display, Power OK, Protection Fault.
Location Category	Indoor
Enclosure rating	IP20
Standards. Designed in accordance with :	IEC61643-1, IEC610006-1,2,3,4 ANSI/IEEE C62.41 Cat B,C,D,E AS1768-1991 Cat B,C,D,E AS3000,AS3100, CE mark
Installation instructions	Supplied with unit.
Dimensions	155 x 140 x 50 mm (W x D X H)
Weight	500g
Environment	-10 to 60°C, 0 to 95%RH (non-condensing)
Warranty	12 months, workmanship and materials