

EAT•N

Powerware

Powerware SSFi Surge Filter

Product Focus

Surge Filter
1 Phase 10A, 1 Phase 15A, 20kA Primary



Features

- Surge suppression and filtering in a single package
- Small footprint, modular design
- Enclosed in IP 20 painted metal housing
- Surge suppression rating of 20kA (L-N)
- Protection Fail Indicators
- 3 mode, 3 Stage Protection
- 12 Month Warranty

Typical applications:

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

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 LC filter.

The unit provides filtering of the line harmonics, noise and RF transmitters with a cut-off frequency of <10kHz and a minimum attenuation of 40dB above 1Mhz.

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.

The SSFi is fully enclosed in powder-coated mild steel for exposure category IP20.



View of Input and Output Connections

Technical Specifications

POWERWARE SSFi

Technical Specifications	SSF10i	SSF15i
Number of ports	2 Port	
Method of mounting	Portable	
Input Voltage - Uc	200-250VAC 1 Phase	
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	15A
Recommended maximum over current protection	10A	15A
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	
I _{max} 8/20us (Line-Neutral) Max surge level	20kA	
I _{max} 8/20us (Line-Earth) Max surge level	10kA	
I _{max} 8/20us (Neutral-Earth) Max 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 (V _{pl}) (Line-Neutral). (Let through voltage)	<1100 (3kA, 8/20uS)	
Residual voltage (V _{pl}) (Line-Earth). (Let through voltage)	<1400 (3kA, 8/20uS)	
Residual voltage (V _{pl}) (Neutral-Earth). (Let through voltage)	<1400 (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	IP20	
Design Standards	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	
Dimensions	155 x 150 x 50 mm (W x D x H)	
Weight	500g	
Environment	-10 to 60°C, 0 to 95% RH (non-condensing)	
Warranty	12 months	

Due to continuing product improvement programs, specifications are subject to change without notice.

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