Specification hFILTER www.onfilter.com

Rated Voltage, RMS	110250V AC (refer to filter's label)
Rated Current, RMS	3A
Power Line Frequency	50/60 Hz
Transient Signal Attenuation (Typical) 0.1/100 Ohms Interface	
Differential Mode	24dB
Common Mode	20dB
Continuous Signal Attenuation (Typical) 0.1/100 Ohms Interface	
Low Frequencies	50dB
High Frequencies	25dB
Power Indication	LED
Dimensions (WxDxH)	3.12"x1.85"x5.0" (80x47x127mm)
Ambient Temperature	+5°40°C
Climatic Category	+05/040/00

Typical Performance of CleanSweep® Soldering Filter



Current from the iron's tip without CleanSweep® filter

Filter Care

Normally, filter requires no maintenance and no calibration. It is recommended, though, to periodically inspect filter for overheating and to clean its surface with dry cloth.

Max(C1)

0.84mV

During its normal operation filter may have elevated temperature which would feel "warm" to the touch, but not what is considered "hot." If the filter does feel "hot" to the touch (more than 70°C or 158°F), turn your equipment off, disconnect filter from the circuit and discontinue using it. For warranty or other repairs contact factory or its authorized distributors. Full text of warranty can be found in the Library section at www.onfilter.com



Included: APxxxxLG Filter 1 ea. Power Cord 1 ea.



Blue: Current from the tip (C1

ted: High-Frequency Voltage on Mains

Peak current on C1 is 0.168mA (scaling of CT1 probe of 5mA/mV)

Current from the iron's tip with CleanSweep® filter

Min(C1) Min(C2)

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CleanSweep[®] **AC EMI Filters** for Soldering **APxxxxLG** Series



AC outlet may vary depending on the specific model

User's Guide



Patent Pending. All specifications are subject to change without notice. Made in U.S.A.

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Thank you for buying CleanSweep® EMI soldering filter!

Your new CleanSweep® soldering filter reduces electrical overstress (EOS) by significantly reducing high-frequency noise (often called conducted ElectroMagnetic Interference - EMI) on power lines and ground during soldering and other processes where your sensitive components come in physical contact with the tool such as soldering iron. Intel in its "Manufacturing Enabling Guide" published in 2010 states that "EOS is the number one cause of damage to IC components." The same document names "lack of AC line filters" as one of the chief causes of EOS, and installation of "incoming line filtering" as one of the main ways to prevent EOS. Your CleanSweep® EMI filter will help you in reducing EMI-caused EOS.

Noise on power lines and ground is common in industrial environment. This noise causes numerous equipment malfunctions, including lock-up, erratic response, software errors, and other often "unexplained" behavior. The only practical way to deal with it is by using properly-designed filters. OnFILTER' CleanSweep® EMI filters are designed to effectively suppress noise on power lines and ground in real-life environment and to reduce EMI-caused electrical overstress. For more details on this subject please visit Library section on our web site www.onfilter.com.

Safety First!

CleanSweep[®] filters operate with high voltage that may cause property damage, injury and death. Always observe safety measures when using power line filters. Here are some of the key safety precautions you should take:

WARNING

- Do not exceed maximum rating it may cause overheating
- Do not place anything on top of this device during its operation to avoid overheating
- **Use only with the power cord supplied by manufacturer**
- □ This filter is not for household use
- **Gold Provided Area and Area a**
- □ No serviceable parts inside do not open. High voltage is present inside.

Installation

Proper placement of the filter helps to assure its continuous operation for a long time. Please follow these requirements for installation:

- □ Place filter horizontally on a flat surface with its label facing up
- □ Install filter in a dry location away from clutter and debris and from the possibility of spillage, including from floor and bench cleaning. Install filter away from traffic where it does not interfere with movement of personnel and machinery.
- ❑ Ambient temperature at the place of installation should not exceed the range of 5°...40°C (40°...140°F) Do not install filter in small confined spaces with restricted air circulation in order to avoid overheating.
- $\hfill \Box$ Make sure that power LED on filter is observable and the filter is reachable
- $\hfill\square$ Install filter close to your soldering iron

Soldering Iron

CleanSweep[®] EMI filter works with any AC-powered soldering iron equipped with three-prong plug. Connect CleanSweep[®] EMI filter as shown in Figure 1. Plug the filter into the outlet. Plug your soldering iron into the outlet of the filter.

Ground

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Your CleanSweep® EMI filter for soldering applications has special connection to a filtered ground. Use this connection to ground your PC board or any other item you are working on. Keep grounding wire short.

Do not ground your entire workbench via the CleanSweep^ ${\ensuremath{^{\otimes}}}$ EMI filter - this ground connection is only for the item that you are soldering.

Do not use AC/facility ground, CPG (Common Point Ground), special ESD ground or any other ground, including ground bars, for grounding your PC board keep its connection only to the filtered ground terminal of CleanSweep® soldering filter.



Circuit Breaker

Your CleanSweep[®] EMI filter for soldering applications is equipped with built-in circuit breaker. 3A rating of this filter accommodates all soldering irons and majority of rework stations. Should the current through the filter exceed the filter's maximum rated current, the circuit breaker will trigger and disconnect power to your equipment plugged into the filter. In this case do not reset the circuit breaker until you unplug the equipment that may contribute to excessive current consumption. Circuit breaker can be reset by simply depressing its actuator until it "clicks."