Specification



Typical Attenuation Response

This filter qualifies for UL 508A panels by certification with UL/IEC 60939

50/60 Hz

AWG14...6

Non-polar

<0.1Ώ



Filter Care

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

Under normal operation the filter should not heat up. If the filter does feels "warm" or "hot" to the touch - more than 10°C (18°F) higher than the ambient temperature or the temperature of the surface on which the filter is mounted), this may mean that your ground circuit has excessive current which may be a safety hazard. AC (50/60Hz and DC ground current can be tested with a regular clamp ampermeter (your equipment must be operational for that). Contact your safety specialist immediately. For warranty or other questions contact OnFILTER or its authorized distributors.

Conditions Sale: Warranty Information and Terms and of Three years limited warranty. See links at the footer of www.onfilter.com

Life- and Mission-Critical Applications

OnFILTER products shall not be used in life- or missioncritical applications. While OnFILTER believes it designs and manufactures very reliable products, many of the vendors that OnFILTER sources components from do not recommend or endorse the use of their products in life critical applications. By extension, OnFILTER must adhere to the same business policy. See Terms and Conditions of Sale.



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User's Guide

Ground EMI Filter

DIN Rail Mounted



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Model GLV30-1

Thank You for Buying Ground EMI Filter!

Our Ground EMI filters are designed to effectively suppress high-frequency electrical noise on ground. This noise (often called conducted EMI—ElectroMagnetic Interference) causes numerous equipment malfunctions, including lock-up, erratic response, software errors, and other often "unexplained" and "random" equipment behavior, as well as electrical overstress (EOS) of sensitive electronics.

Safety First!

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FILTER

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Grounding is a safety element, therefore anything dealing with grounding of equipment must be done by trained professionals and verified. Improperly done or missing ground can cause equipment malfunction or damage, injury to personnel or death. Make sure that implementation of Ground EMI Filter is done by trained electrician.

Ground EMI Filters shall never be used in any circuit other than ground. Do not use the filter in circuits that intentionally carry current, such as phase ("live"), neutral or other lines. Although Ground EMI Filter GLV30-1 is designed not to interfere with proper safety operation of your circuit breakers and fuses for equipment rated up to 30A, it is not designed to continually conduct such current.

WARNING

- Never use Ground EMI Filter in any circuit other than ground
- Do not use Ground EMI Filter with the equipment rated to higher current than the rating of the filter
- Verify proper ground connection after installing the filter
- This filter is not for household use
- No serviceable parts inside do not open

Brief Summary

Ground EMI Filter is a non-polar device. It can be connected in ground line in either direction.

When you install GLV30-1, safety-wise your electrical ground is still one continuous grounding compliant with relevant safety standards. For EMI GLV30-1 splits your ground into two separate networks. High-frequency currents on ground in one such network cannot get pass the filter into another ground network, even though it is the same ground from electrical safety point of view.



Installation

Under normal circumstances GLV30-1 does not heat up and requires no special handling. Ambient temperature at the place of installation should not exceed the range of $5^{\circ}...40^{\circ}C$ (41° to 104°F).

Ground Only!

GLV30-1 is designed for installation in ground circuits only—never use it in power or other circuits. Not only it can easily overheat, it is highly likely that it won't produce desired attenuation of EMI as the filter is optimized for ground circuits, not for any other ones.

Mounting on DIN Rail

You will need a small-blade slot screwdriver, preferably long.

Set filter so that the top rail fits into the top slot of the enclosure. Gently snap the enclosure on the bottom rail. Don't force it. In case of any problem, use slot screwdriver, insert it into the slot in the red latch on the foot of the enclosure and leverage this latch slightly out. The enclosure should install easily.



To remove the filter from DIN rail use the flat-head screwdriver, leverage the red latch out, gently pull out the bottom part of the filter away from DIN rail, lift it slightly, and remove it from the top rail.

Connections



EMI comes mostly from the outside Use insulated ground bar for entry so that the panel ground is EMI-free

Avoid Ground Loops!

Make sure that your equipment is connected to ground only via the filter, otherwise there would be more than one path to ground and the effectiveness of the filter in suppression of EMI will be negated.

Should the noise on your equipment's ground persist, the noise may be coming via other ways. Consider using our CleanSweep® AC power line EMI filter that also includes filtering in ground. OnFILTER manufactures a broad line of power line, servo motor and other filters for variety of voltage, current and phase configurations. Please check www.onfilter.com for details.





GLV30-1

EMI comes from many sources. Use insulated ground bar for clean ground for sensitive components