

Agrivolt Noise Filter



Opposed to an EMI filter, the Agrivolt Filter prevents an excessive amount of current flows on the grounding network which can affect herd performance.

Current flowing on the grounding network in a livestock facility is not acceptable

The Agrivolt Filter protects the load (motor) and eliminates electromagnetic incompatibility issues between equipment. By design, the Agrivolt Filter modifies the characteristics of the impulse produced by noise-generating equipment.

Agrivolt Noise Filters greatly reduce electrical noise interference generated by:

- Variable Speed Drives (VSDs)
- Variable Speed Fans
- Electronic Ballast Lighting
- Ventilation
- Electric Fences

All of our Filters have the CSA(us) certification and CE Marking.

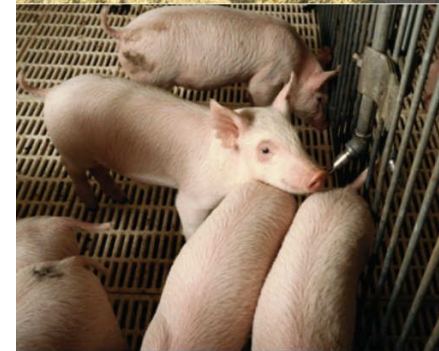


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Protecting your livestock and equipment

Agrivolt

Electrical Noise Filters

Questions and Answers

Can you tell me why I should use an Agrivolt Noise Filter instead of an EMI filter? What is the difference between the two filters?

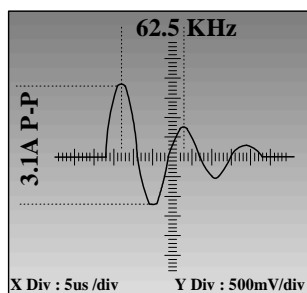
First, we must understand that we are talking about two different pieces of equipment built to perform different functions.

An EMI has one objective which is to protect the equipment. To modify the frequency response a line reactor has to be installed as well. A line reactor can cost just as much as an EMI filter.

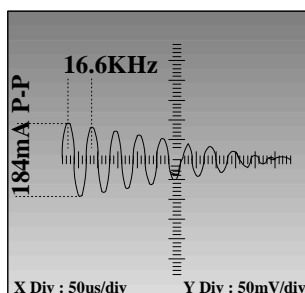
An EMI filter will send any undesirable current to the grounding network. This “leakage current” on the grounding network may cause stress to the livestock, which can lead to health issues, breeding problems, reduced water intake and thus production issues. Moreover interference issues may remain uncontrolled.

By design, the Agrivolt Filter modifies the characteristics of the impulse produced by noise generating equipment. Oppose to an EMI type filter, the Agrivolt Filter prevents that an excessive amount of current flows on the grounding and bonding network and affect the herd performance.

And yes, an Agrivolt Filter protects the equipment and eliminates electromagnetic incompatibility issues between equipment without the use of a Line reactor.



Before Agrivolt Filter



After Agrivolt Filter

When I purchased my VSD I was told that it already has a filter, installed at the factory. The manufacturer said that they have sold thousands of these VSDs with this filter with no problems. Why isn't this filter satisfactory?

Answer: If you have a filter installed in your VSD from the factory it is an EMI filter and yes, the manufacturer probably has sold thousands of these VSDs without any problems, however, the vast majority of these VSDs are sold for industrial usage as opposed to a livestock facility. Re-directing current to the grounding network may be acceptable in an industrial application but it is NOT acceptable in a livestock application for the reasons outlined in the previous answer.

On what particular equipment should I install the Agrivolt Filters?

VSDs, electronic ballast lighting devices, variable speed ventilation and electric fences are some of the more common applications that can generate an excessive amount of electrical noise. Some dairy equipment is now coming from OEMs with Agrivolt Noise Filters already installed. Your Agrivolt Distributor can help you make this decision.

How can I find out if I have electrical network problems that need to be corrected?

Some electronic interference issues may be very obvious, for example problems with ID systems. The same is true with improper grounding current, for example, you may observe that your animals are refusing to drink. There is only one sure way, however, to establish the quality of your electrical network-- Measure.

If we are truly going to manage our electrical network, we must first measure the current flow on the facility network. You do not make management decisions on facility expansion, personnel or nutrition without first knowing your current position as well as knowing where you want to be. Managing the electrical network is no different. Measure first, make the corrections, measure the result.

OK—My Agrivolt distributor determined the source of my interference—I have installed Agrivolt filters on the suggested equipment and I am not experiencing any electronic interference issues, nor do I see obvious production problems. The electronic noise generated by the problematic equipment is now at an acceptable level. May I assume my network is now in good shape and move on?

You can assume that the noise level on your network is in good shape “now”, however, your operation is not static—things change. Wiring can become faulty due to electrical shorts, arcs, overload, ect. You may add equipment that may cause electronic interference or improper ground current. Equipment can become faulty and motors can fail. Any number of events can occur that can affect the electrical network and your livestock.

As you must monitor your equipment, your nutritional program, your feed cost and your vet expense—you must also monitor your electrical network. Your Agrivolt distributor can help.

