

Re: Surge protectors to use with home electronics when grounding is not available?

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- *From:* bud-- <[remove.budnews@xxxxxxx](mailto:remove.budnews@xxxxxxx)>
  - *Date:* Tue, 01 Jul 2008 11:57:45 -0500
- 

w\_tom wrote:

On Jun 30, 4:06 pm, John Fields <[jfie...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:jfie...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)> wrote:

Well, I see from your outburst that you've been confounded by my excellent ASCII art schematics and my lucid explanation of why and how two-wire plug-in TVS-basedsurgesuppressors can be used to good advantage in premises without (or with unused) earth grounding. That is, after all, the topic as indicated by the subject line.

No surge protection stops or absorbs the common mode surge – surge that typically causes appliance damage.

..

Never explained – how does a common mode surge on incoming power lines get past the N-G bond required in all US services.

And neither service panel or plug-in suppressors protect by "stopping" or "absorbing".

..

As Bud's NIST states:

..

What does the NIST guide really say?  
Plug-in suppressors are the "easiest solution".

..

Page 42 Figure 8 – a protector too far from earth ground and too close to appliances therefore leaves surge energy earthed 8000 volts destructively through an adjacent TV.

..

The point of the illustration for the IEEE, and anyone who can think, is "to protect TV2, a second multiport protector located at TV2 is required." What a radical idea.

..

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No way around what a protector does. Either it stops (absorbs) surge energy OR it diverts (shunts, connects, clamps) that surge energy into earth.

..  
The IEEE guide explains plug-in suppressors work primarily by CLAMPING the voltage on all wires to the common ground at the suppressor. The guide explains they do not work primarily by earthing. And they certainly do not work by stopping or absorbing.

..

Who should the OP believe? John Fields? Or Sun Microsystems ... and the IEEE, NIST

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The OP should believe the IEEE and NIST. Both say plug-in suppressors are effective.

..

John do you really believe a hundred joules in a UPS or power strip will stop (by absorbing) lightning energy?

..

w\_'s religious blinders prevent him from understanding how plug-in suppressors work. It is not by stopping or absorbing.

And repeating:

"Because of arc-over and branch circuit impedance to surges, surprisingly little surge current can reach a plug-in suppressor. That means surprisingly little energy can reach a plug-in suppressor."

One-hundred Joules is a red herring. Plug-in suppressors with very high ratings are readily available at low cost..

..

No problem.

Electronics routinely withstand 600 volt transients without damage – a standard from 1970.

..

Provide that standard.

..

Protection is about earthing.

..

The IEEE guide explains that for plug-in suppressors, earthing occurs elsewhere in the system, not primarily through the suppressor.

Still never seen – a link to another lunatic that agrees with w\_ that plug-in suppressors are NOT effective.

Why doesn't anyone on a science newsgroup agree with you w\_???

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Still never answered – embarrassing questions:

- Why do the only 2 examples of protection in the IEEE guide use plug-in suppressors?
- Why does the NIST guide says plug-in suppressors are "the easiest solution"?
- How would a service panel suppressor provide any protection in the IEEE example, pdf page 42?
- Why does the IEEE guide say in the example "the only effective way of protecting the equipment is to use a multiport protector"?
- Why does SquareD say "electronic equipment may need additional protection by installing plug-in [suppressors] at the point of use."

How can SquareD be a "responsible" company when there is no "spec that lists each type of surge and protection from that surge".

- Where is the link to a 75,000A and 1475Joule rated MOV for \$0.10.

- Was the UL standard revised as w\_'s own hanford link said?
- Did that revision require thermal protection next to the MOVs as w\_'s own hanford link said?
- What was the date of that revision – which w\_'s own hanford link said was UL1449 \*2ed\*?
- Where specifically in any of w\_'s links did anyone say a damaged suppressor had a UL label?

Why no answers w\_???

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bud--

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