

Re: Skin Effect in Solid/Stranded/Litzendraht Wire –Guy Macon

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- *From:* Rich Grise <rich@xxxxxxxxxxxx>
 - *Date:* Sun, 14 Oct 2007 19:19:03 GMT
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On Fri, 12 Oct 2007 20:41:06 –0700, Robert Baer wrote:

Recently, an article in EE Times (Oct 8, p.39) about protecting electrical devices has some nice data on skin depth. They explain it is due to "...a back EMF is created in the center of the conductor, which opposes the current flow". Hmmm...i thought that the current flow created a magnetic field (in this case cylindrical, centered at wire center) and the "inner" field opposed the "outer field", thereby "pushing" the current away from the center.

Yes – that's two different ways of saying the exact same thing.

So..one could correctly say that there is a "skin effect" even at DC.

Probably not – a DC magnetic field doesn't generate any back EMF.

One could observe this at reasonable currents (say 100 amps) using multiple wires (thin insulation if one wishes) twisted around a central wire.

OK, go ahead and do the measurements, and post your results.

Thanks!
Rich

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