

Re: Strange voltage readings=Half-Wave Rectifier?

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- *From:* "Dana" <raff242@xxxxxxxxxx>
 - *Date:* Tue, 26 Sep 2006 16:18:12 -0800
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"Tom Biasi" <tombiasi@*****optonline.net> wrote in message
[news:ODiSg.38\\$V23.23@xxxxxxxxxxxxxxxxxx](mailto:news:ODiSg.38$V23.23@xxxxxxxxxxxxxxxxxx)

"Dana" <raff242@xxxxxxxxxx> wrote in message
news:12hjcsqhvmtts4f@xxxxxxxxxxxxxxxxxxxxxxxxxx

"Tom Biasi" <tombiasi@*****optonline.net> wrote in message
[news:qYhSg.75\\$JF4.48@xxxxxxxxxxxxxxxxxx](mailto:news:qYhSg.75$JF4.48@xxxxxxxxxxxxxxxxxx)

"Dana" <raff242@xxxxxxxxxx> wrote in message
news:12hjaco8ijtm128@xxxxxxxxxxxxxxxxxxxxxxxxxx

"Charles Schuler"
<charleschuler@xxxxxxxxxx> wrote in
message
news:CICdnSEnaJzPOYTYnZ2dnUVZ_rKdnZ2d@xxxxxxxxxxxxxxxxxx

"ghostwriter"
<ghostwriter25@xxxxxxxxxxxxxxxxxx>
wrote in message
news:1159296322.379635.88010@xx

Here is the
basics, I
have a
heating coil
that I think
has a

half-wave

rectifier in
front of it (I
am still
waiting for

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the sales
guy to

call

back). I get
about
20Volts AC
when
measuring
the hot wire
to

ground,

0.8Volts
AC when I
measure the
COLD wire
to ground
and
19.2Volts
between the
hot and cold
wires.

DC voltage
osillates
between 1.2
and 1.8
volts. So
whatever it
is
it
inst straight
AC.

I want to be
able to
calculate
the wattage
that the
system is
running
at, any help
appreciated.
The circuit
havs 4.2
Ohemns of

resistance.

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I'd guess 100 watts.

How did you guess that, on the DC or AC

It doesn't matter.

Depending on what the original poster needs, it does. He is stating he thinks he has a rectifier, well that implies he is expecting a DC

output.

And with only 1.8v out, that would probably indicate an issue with the rectifier.

I assumed he was measuring at the output of what he thinks is the rectifier.

Hence that is where the values he gave come into play.

But if indeed it is just a simple AC heating coil, than yes about 100 watts would be correct.

He squared the 20 volts and divided by 4 (rounded).

$$P=E^2/R$$

If the 4.2 Ohms was operating resistance then I agree with this "guess"

Tom

He stated a lot of things. But the question was of power consumption. If the unit is getting 20 volts (ACorDC) then the power calculation

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stands.

If he really cares about the rectifier he shouldn't say " I want to be

able

to calculate the wattage that the system is running at, any help appreciated. "

I can agree to that. But when he gave AC as well as DC readings, and mentioned rectifier, I assumed that maybe he had a DC type element.

I took all his extra readings to be just info we didn't need but he had no way of knowing what we need.

If the voltage across the heating element is 1.8 volts then that's another story.

Rectifiers before a heating element than has a stepped down supply of 20 volts makes no sense from a design standpoint.

Regards,
Tom