



TEST  
LABORATORIES

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Verde Power Supply, Inc.  
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OCMTL No.: 281553  
DATE OF REPORT: October 28, 2008  
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#### Background:

Verde Power Supply, Inc. submitted two ATX Power Supplies for desktop computers to us for the purpose of performing the comparison tests to determine how much electricity a desktop computer uses with each of the two different power supplies.

The power supplies, computer, and software were identified as:

- 1) Verde Power Supply; model VPS 400
- 2) Antec Power Supply; model Earthwatts 430 Watts; 80 Plus
- 3) The components of the generic desktop computer were identified as: PC Chips motherboard; VIA CN700/8237R+Chipset: C7-D Processor 1.5 GHz; FSB 400MHz; Front Side Buss; Memory: 1024 Mbits.
- 4) The software used to achieve a "fully loaded" computer was SpinRite 6.0 (SpinRite constantly fully engages the CPU and hard drive)

#### Test Methods and Results:

1. The PC with each power supply was plugged into a KILL A WATT meter, which was then connected to an AC 120V outlet.
2. The AC power (watts) was recorded when the two different power supplies were turned on in two modes: idle—no activity, and full load—when the PC was loaded with the SpinRite software.

#### Conclusion:

We have compared the electricity used by a generic desktop PC with an 80 Plus power supply (Antec Earthwatts 430W) to a Verde Power Supply, Inc. power supply, model VPS-400 (rated at 400 watts).

Our test procedure used the same PC, only changing out the power supplies. We used identical time frames and software. We tested the PC in idle mode, where there was no computer activity, and under constant load when software SpinRite 6.0 was run. We measured power into the power supplies using a Kill A Watt meter.

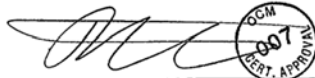
#### Watts consumed in IDLE MODE

In idle mode the Antec 80 Plus power supply used 27 Watts, while the Verde VPS-400 power supply used 8 Watts. The Verde power supply used only 30 % of the power used by the 80 Plus power supply ( $8 / 27 = 30\%$ ). Verde used 70% less energy than the Antec. [  $27-8=19$   $19/27= 70\%$  ]

#### Watts consumed in FULL LOAD MODE

In full load mode the Antec 80 Plus power supply used 34 Watts power, while the Verde power supply used 9 Watts power. The Verde power supply used only 26 % of the power used by the original power supply ( $9 / 34 = 26.5\%$ ). Verde used 73.5% less energy than the Antec. [  $34-9=25$   $25/34= 73.5\%$  ] Submitted by,

Lev Vaikhanski, Ph.D  
MATERIALS ENGINEER



The test results in this report relate only to the items tested.

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