

## 80 PLUS Verification and Testing Report

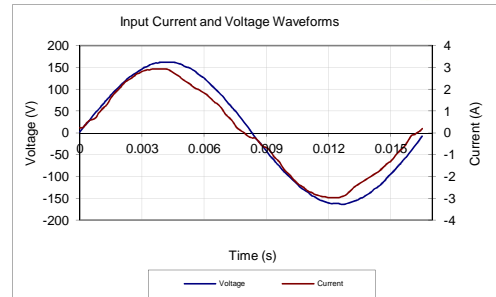
|                                       |               |
|---------------------------------------|---------------|
| <b>TYPICAL EFFICIENCY (50% Load):</b> | <b>87.27%</b> |
| <b>AVERAGE EFFICIENCY :</b>           | <b>85.69%</b> |
| <b>80 PLUS COMPLIANT:</b>             | <b>YES</b>    |



|                      |                       |
|----------------------|-----------------------|
| <b>Ecos ID #</b>     | 3531.4                |
| <b>Manufacturer</b>  | Sharkoon Technologies |
| <b>Model Number</b>  | WPM400 Bronze         |
| <b>Serial Number</b> | N/A                   |
| <b>Year</b>          | 2013                  |
| <b>Type</b>          | ATX12V                |
| <b>Test Date</b>     | 4/9/13                |

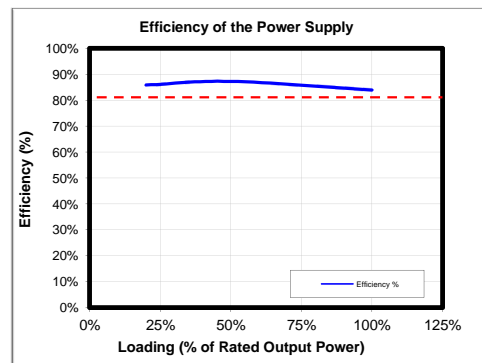
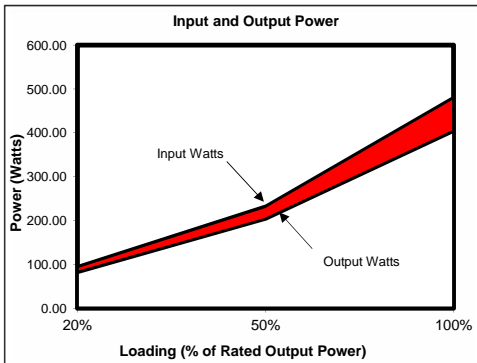
| Rated Specifications      | Value      | Units        |
|---------------------------|------------|--------------|
| Input Voltage             | 100-240    | Volts        |
| Input Current             | 6          | Amps         |
| Input Frequency           | 47-63      | Hz           |
| <b>Rated Output Power</b> | <b>400</b> | <b>Watts</b> |

Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.



Input AC Current Waveform (ITHD = 8.45%, 50% Load)

| I <sub>RMS</sub><br>A | PF   | I <sub>THD</sub> (%) | Load<br>(%) | Input<br>Watts | DC Terminal Voltage (V)/ DC Load Current (A) |  |          |          |       |         | Output<br>Watts | Efficiency<br>% |
|-----------------------|------|----------------------|-------------|----------------|--|--|----------|----------|-------|---------|-----------------|-----------------|
|                       |      |                      |             |                | 12V (cumulative of 12V1, 12V2, etc.)         |  | -12V     | 3.3V     | 5V    | 5Vs/b   |                 |                 |
| 0.46                  | 0.94 | 21.89%               | 10%         | 49.76          | 12.1/2.5                                     |  | 11.9/0.3 | 3.4/1    | 5/1   | 5.1/0.2 | 40.68           | 81.75%          |
| 0.84                  | 0.98 | 13.32%               | 20%         | 94.55          | 12.1/5.1                                     |  | 11.9/0.1 | 3.4/2.1  | 5/2   | 5.1/0.4 | 81.17           | 85.85%          |
| 2.04                  | 0.99 | 8.45%                | 50%         | 232.28         | 12.1/12.7                                    |  | 12/0.1   | 3.4/5.3  | 5/4.9 | 5/1.1   | 202.71          | 87.27%          |
| 4.21                  | 0.99 | 7.48%                | 100%        | 480.40         | 12.1/25.3                                    |  | 12.1/0.3 | 3.3/10.5 | 5/9.8 | 5/2.1   | 403.35          | 83.96%          |



These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. <http://www.80plus.org/>

