

# 80 PLUS Verification and Testing Report

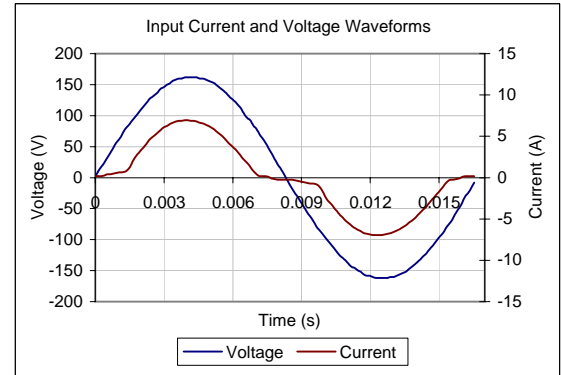
<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>86.83%</b>
<b>AVERAGE EFFICIENCY :</b>	<b>85.17%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



<b>Ecos ID #</b>	969.1
<b>Manufacturer</b>	SIGMA PRODUCT INC
<b>Model Number</b>	SP-400AB
<b>Serial Number</b>	NA
<b>Year</b>	2008
<b>Type</b>	ATX12V
<b>Test Date</b>	9/30/2008

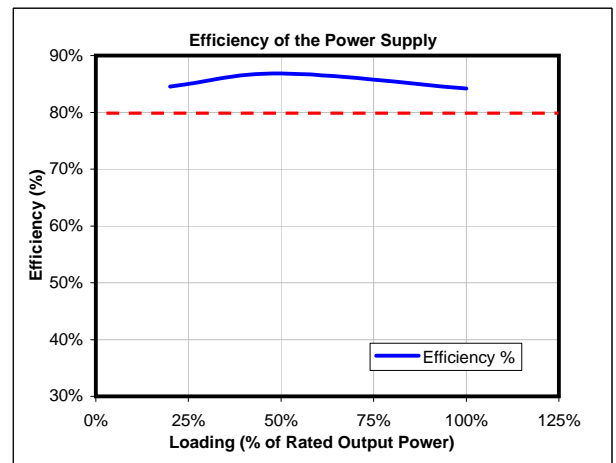
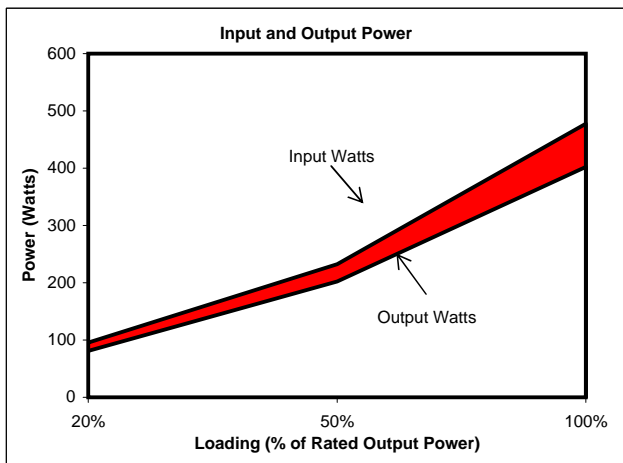
<b>Rated Specifications</b>	<b>Value</b>	<b>Units</b>
Input Voltage	115-230	Volts
Input Current	5-8	Amps
Input Frequency	50-60	Hz
<b>Rated Output Power</b>	<b>400</b>	<b>Watts</b>

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



Input AC Current Waveform (ITHD = 31.05%, 50% Load)

<b>I<sub>RMS</sub> A</b>	<b>PF</b>	<b>I<sub>THD</sub> (%)</b>	<b>Load (%)</b>	<b>Fraction of Load</b>	<b>Input Watts</b>	<b>DC Terminal Voltage (V)/ DC Load Current (A)</b>					<b>Output Watts</b>	<b>Efficiency %</b>
						12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V*	5VSB		
0.84	0.99	10.0%	20%	Light	96	12.1/5	11.7/0.1	3.3/2.2	5/2	5.1/0.4	81	84.51%
2.13	0.95	31.1%	50%	Typical	233	12.1/12.6	11.8/0.1	3.3/5.5	5/5	5.1/1	202	86.83%
4.32	0.96	26.7%	100%	Full	478	12.1/25.1	11.9/0.3	3.3/11	5/10	5/2	402	84.17%



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/>

Tested by Electric Power Research Institute, Knoxville, TN.

