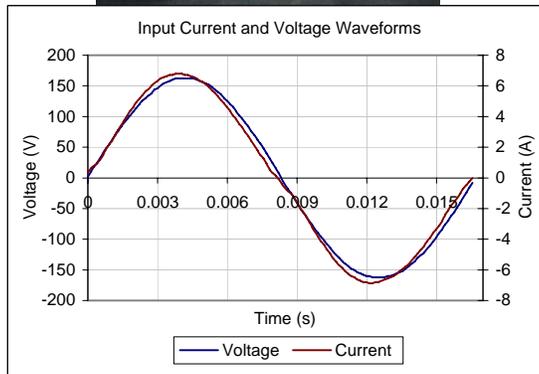


# 80 PLUS Verification and Testing Report

<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>86.09%</b>
<b>AVERAGE EFFICIENCY :</b>	<b>84.93%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



<b>Ecos ID #</b>	1097
<b>Manufacturer</b>	COOLERMAS <sup>TM</sup>
<b>Model Number</b>	RS-460-ASAA-D3
<b>Serial Number</b>	1083900201
<b>Year</b>	2008
<b>Type</b>	ATX12V
<b>Test Date</b>	10/31/2008

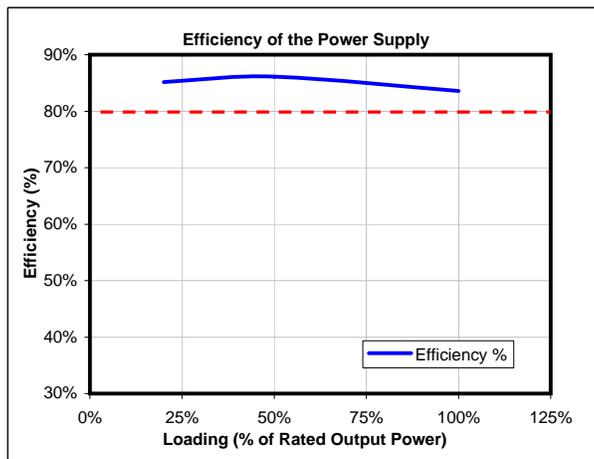
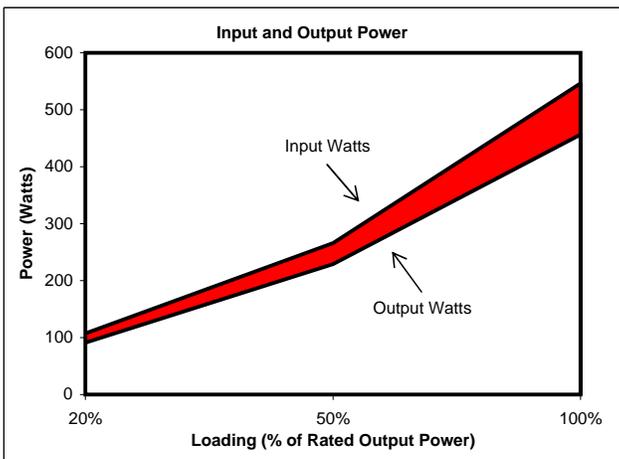


Input AC Current Waveform (ITHD = 5.1%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	8-4	Amps
Input Frequency	60-50	Hz
<b>Rated Output Power</b>	<b>460</b>	<b>Watts</b>

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

I <sub>RMS</sub> A	PF	I <sub>THD</sub> (%)	Load (%)	Fraction of Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency %
						12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V*	5VSB		
0.96	0.97	10.4%	20%	Light	107	11.8/5.5	11.4/0.1	3.4/2.7	5.1/2.7	5/0.4	91	85.14%
2.33	0.99	5.1%	50%	Typical	266	11.9/13.9	11.5/0.2	3.3/6.8	5/6.7	5/1.1	229	86.09%
4.77	1.00	5.1%	100%	Full	546	11.9/27.7	11.6/0.4	3.3/13.5	4.9/13.5	4.9/2.2	457	83.57%



These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS<sup>®</sup> 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/>

