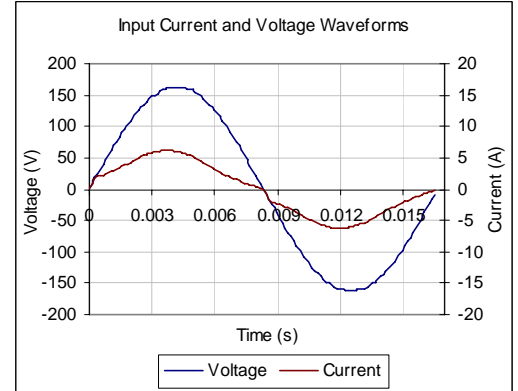


# 80 PLUS Verification and Testing Report

<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>86.11%</b>
<b>AVERAGE EFFICIENCY :</b>	<b>84.55%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



<b>Ecos ID #</b>	58
<b>Manufacturer</b>	HEC
<b>Model Number</b>	HEC-400ER-ATX
<b>Serial Number</b>	S-1
<b>Year</b>	2006
<b>Type</b>	ATX12V
<b>Test Date</b>	6/27/2006

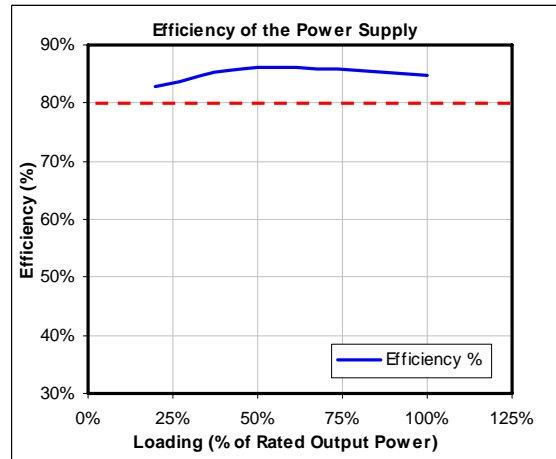
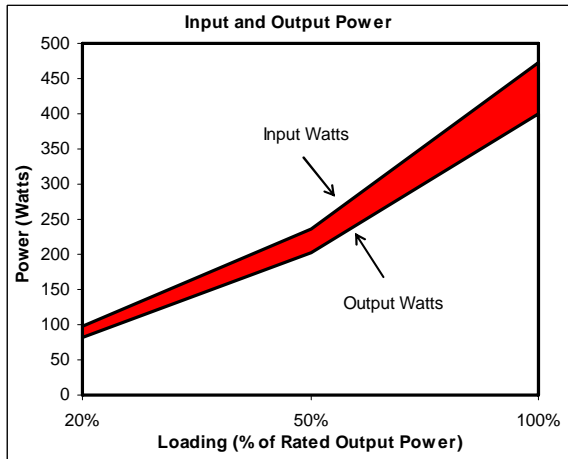


Input AC Current Waveform ( $I_{THD} = 10.8\%$ , 50% Load)

Rated Specifications	Value	Units
Input Voltage	100 - 240	Volts
Input Current	6	Amps
Input Frequency	60 - 50	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.

$I_{RMS}$ A	PF	$I_{THD}$ (%)	Load (%)	Fraction of Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)						Output Watts	Efficiency %
						12V1	12V2	-12V	3.3V	5V*	5VSB		
0.91	0.94	21.3%	20%	Light	99	12.3/2.5	12.3/2.5	12.7/0.02	3.4/2.1	5.0/2.4	5.0/0.3	82	82.91%
2.12	0.97	10.8%	50%	Typical	235	12.3/6.2	12.3/6.2	12.8/0.05	3.3/5.1	4.9/6.0	4.9/0.8	203	86.11%
4.23	0.97	9.6%	100%	Full	473	12.2/12.4	12.1/12.4	12.9/0.1	3.2/10.3	4.8/12.0	4.9/1.5	400	84.63%



These tests were conducted as a part of the 80 PLUS program. 80 PLUS is a computer buy-down program to promote high-efficiency power supplies (greater than 80% efficiency in the active mode) in desktop computers and desktop-derived servers.



Tested by EPRI Solutions Inc., Knoxville, TN.