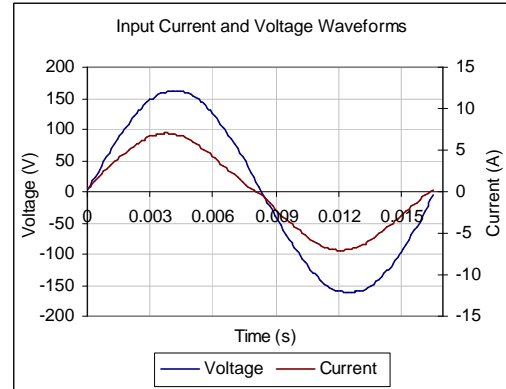


80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	84.11%
AVERAGE EFFICIENCY :	82.76%
80 PLUS COMPLIANT:	YES



Ecos ID #	108
Manufacturer	High Power
Model Number	HP-450-G12S
Serial Number	05489156032B13000006
Year	2006
Type	ATX12V
Test Date	10/3/2006

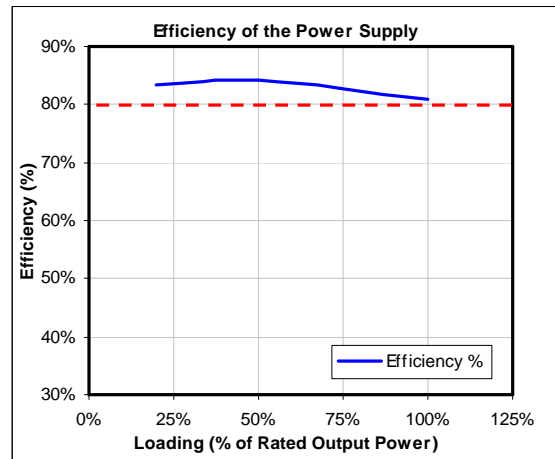
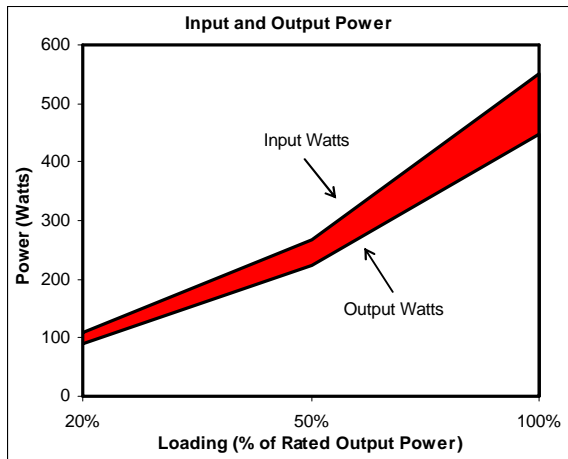


Rated Specifications	Value	Units
Input Voltage	100 - 240	Volts
Input Current	6	Amps
Input Frequency	60 - 50	Hz
Rated Output Power	450	Watts

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

Input AC Current Waveform (ITHD = 8.13%, 50% Load)

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		
0.97	0.97	10.3%	20%	Light	109	12.0/2.5	12.1/2.9	12.0/0.05	3.4/3.5	5.1/2.3	5.1/0.4	91	83.28%
2.37	0.98	8.1%	50%	Typical	268	12.0/6.2	12.0/7.1	12.0/0.1	3.3/8.6	5.0/5.9	5.1/1.1	225	84.11%
4.83	0.99	5.9%	100%	Full	552	12.0/12.4	12.0/14.2	12.0/0.3	3.2/17.2	4.9/11.8	5.1/2.2	447	80.89%



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/>

