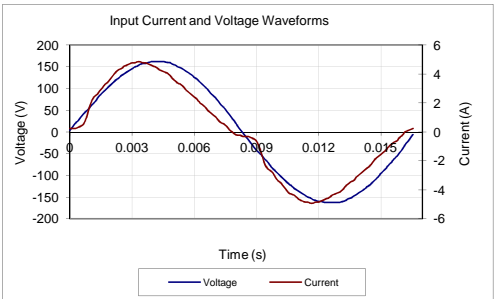


80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	90.76%
AVERAGE EFFICIENCY :	89.24%
80 PLUS COMPLIANT:	YES



Ecos ID #	2928
Manufacturer	Antec, Inc
Model Number	HCP-650 Gold
Serial Number	N/A
Year	2011
Type	ATX12V, EPS12V
Test Date	12/19/2011

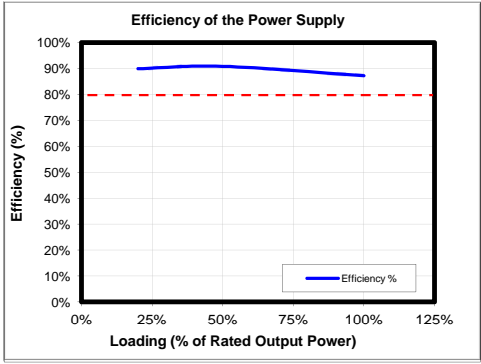
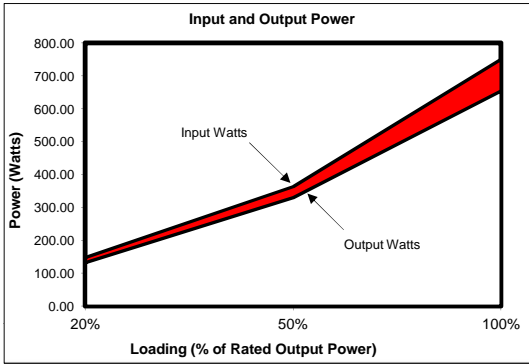


Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	9-5	Amps
Input Frequency	50-60	Hz
Rated Output Power	650	Watts

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

Input AC Current Waveform (ITHD = 14.56%, 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 %
						12V (cumulative of 12V1, 12V2, etc.)						
1.32	0.98	20.23%	20%	Light	147.70	12.2/8.9					132.70	89.84%
3.24	0.98	14.56%	50%	Typical	363.60	12.2/22.3					329.99	90.76%
6.61	0.99	10.50%	100%	Full	750.90	12.1/44.6					654.29	87.13%



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/>

