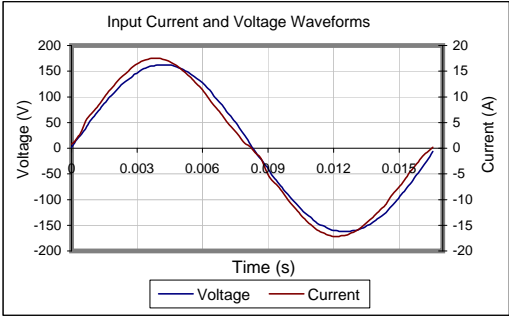


80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	90.84%
AVERAGE EFFICIENCY :	89.39%
80 PLUS COMPLIANT:	YES



Ecos ID #	1274.1
Manufacturer	THORTECH POWER
Model Number	THUNDERBOLT TTBK20G
Serial Number	N/A
Year	2009
Type	ATX12V
Test Date	1/23/2009

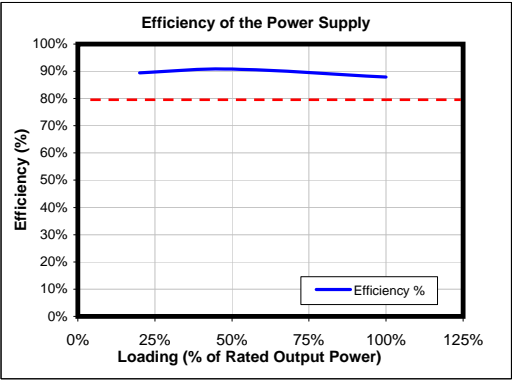
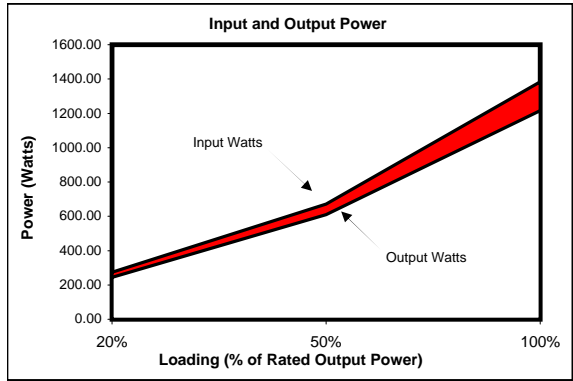


Input AC Current Waveform (THD = 8.88%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	15	Amps
Input Frequency	50-60	Hz
Rated Output Power	1200	Watts

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 %
						12V (cumulative of 12V1, 12V2, etc.)						
2.48	0.96	17.43%	20%	Light	274.20	12.2/17.6	12/0.1	3.3/3.2	5.2/3.1	5/0.5	245.17	89.41%
5.91	0.99	8.88%	50%	Typical	672.20	12.2/43.8	12/0.2	3.3/7.9	5.2/7.9	5/1.3	610.65	90.84%
12.07	1.00	5.21%	100%	Full	1382.90	12.2/87.6	12.1/0.4	3.3/15.7	5.1/15.8	5/2.6	1215.80	87.92%



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/>

