80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	**86.48%**
AVERAGE EFFICIENCY :	**84.80%**
80 PLUS COMPLIANT:	**YES**

Ecos ID #	947
Manufacturer	ZALMAN
Model Number	ZM770-XT
Serial Number	NA
Year	2008
Type	ATX12V
Test Date	9/29/2008

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	11-5	Amps
Input Frequency	50-60	Hz
Rated Output Power	**770**	**Watts**

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

Input Current and Voltage Waveforms
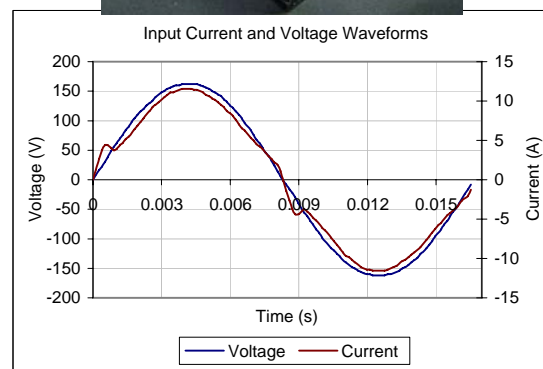
Input AC Current Waveform (ITHD = 4.77%, 50% Load)

I_{RMS} A	PF	I_{THD} (%)	Load (%)	Fraction of Load	Input Watts	12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V*	5VSB	Output Watts	Efficiency %
1.64	0.98	8.4%	20%	Light	185	12.3/10.3	12/0.1	3.3/3.3	5.1/3.3	5.1/0.4	157	**85.02%**
3.94	1.00	4.8%	50%	Typical	451	12.2/25.7	12/0.3	3.3/8.2	5/8.2	5/1.1	390	**86.48%**
8.11	1.00	6.1%	100%	Full	932	12.1/51.3	12.1/0.7	3.3/16.3	5/16.4	5/2.1	773	**82.91%**

Input and Output Power

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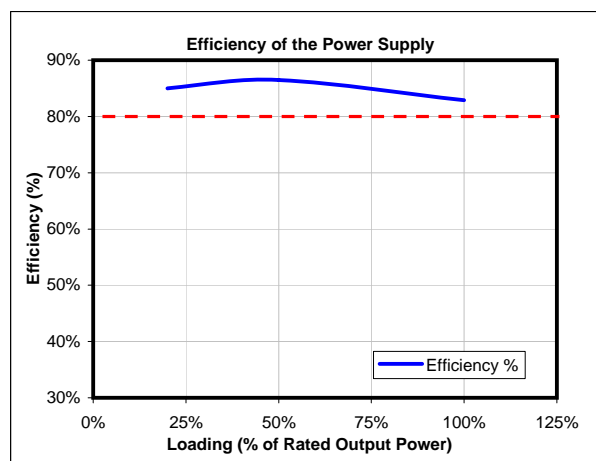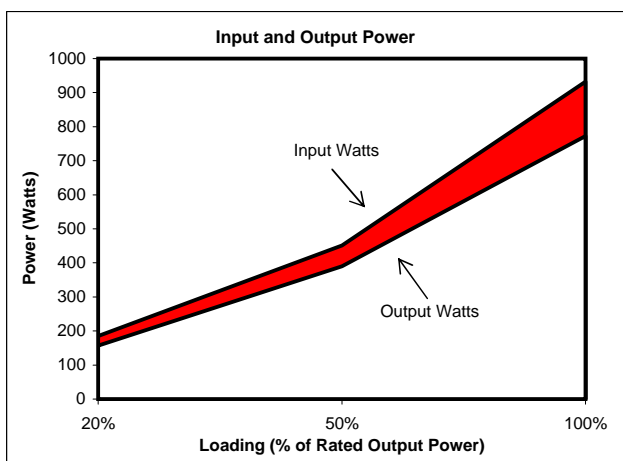
These tests were conducted as a part of the 80 PLUS program. 80 PLUS is a computer buy-down program to promote high-efficiency power supplies (greater than 80% efficiency in the active mode) in desktop computers and desktop-derived servers.

Tested by Electric Power Research Institute, Knoxville, TN.

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