80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	92.31%
AVERAGE EFFICIENCY:	90.87%
80 PLUS COMPLIANT:	YES



0.012

-Current

15

10

3

Ecos ID #	SO-84
Manufacturer	SUPER MICRO COMPUTER, INC.
Model Number	PWS-1K41P-1R
Serial Number	N/A
Year	2009
Туре	1U
Test Date	10/3/2009

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	13.5-7	Amps
Input Frequency	50-60	Hz
Rated Output Power	1,400	Watts



0.006

Input Current and Voltage Waveforms

Time (s) Voltage

400

300

200 € 100

Voltage (0

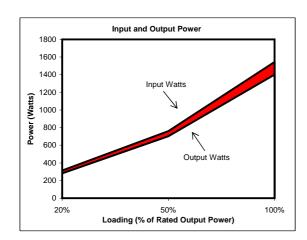
-200 -300 -400

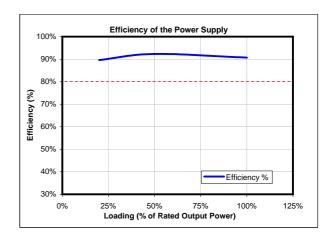
Input Voltage	100-240	Volts				
Input Current	13.5-7	Amps				
Input Frequency	50-60	Hz				
Rated Output Power	1,400	Watts				
Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz						

I _{RMS}	PF	I _{THD} (%)	Load	Fraction	Input	External	DC Terminal Voltage (V)/ DC Load Current (A)		A)	Output	
Α			(%)	of Load	Watts	Fan (W)**	12V	5Vsb		Watts	Efficiency %
0.80	0.90	31.05	*10%	Low	166	15.13	12.02/11.52	5.06/0.4		140	84.47%
1.44	0.95	19.00	20%	Light	313	15.25	12.02/23.02	5.05/0.79		281	89.59%
3.35	0.99	8.80	50%	Typical	760	15.13	12.02/57.53	5.03/1.99		702	92.31%
6.76	0.99	5.05	100%	Full	1545	15.13	12.01/115.02	4.98/3.99		1402	90.72%

^{* 10%} load results are for informative purposes only and not included in certification requirements.

^{**} Fan power is not included in the efficiency calculations





These tests were conducted as a part 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 computing technology applications.



Tested by Electric Power Research Institute, Knoxville, TN.

