## **80 PLUS Verification and Testing Report**

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



0.012

----- Current

0.015

6

4

2

-2 -4

-6

₹ Current 0

Input Current and Voltage Waveforms

0,009

Time (s)

Ecos ID #	SO-713.1			
Manufacturer	Super Micro Computer			
Model Number	PWS-1K68A-1R			
Serial Number	N/A			
Year	2014			
Туре	10			
Test Date	03/13/14			

Rated Specifications	Value	Units
Input Voltage	100-140 / 180-240	Volts
Input Current	10-7 / 11-8	Amps
Input Frequency	50-60	Hz
Rated Output Power	1,600	Watts

- Voltage Input AC Current Waveform (ITHD = 3.92%, 50% Load)

0.006

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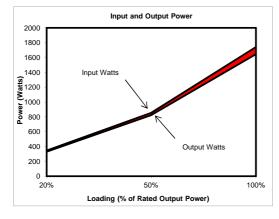
I <sub>RMS</sub>	PF	I <sub>тнр</sub> (%)	Load	Fraction	Input	External	DC Terminal Voltage (V)/ DC Load Current (A)		Output	
Α			(%)	of Load	Watts	Fan (W)*	12V	5Vsb	Watts	Efficiency %
0.82	0.93	5.90	10%	Low	176	0.83	12.34/13.24	5.11/0.1	164	92.97%
1.53	0.98	5.12	20%	Light	346	0.83	12.34/26.62	5.11/0.2	329	95.22%
3.73	1.00	3.92	50%	Typical	856	1.43	12.34/66.58	5.1/0.5	824	96.33%
7.58	1.00	2.55	100%	Full	1741	5.76	12.32/133.18	5.1/1.01	1645	94.51%

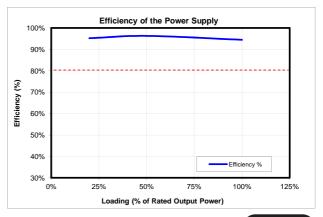
96.33%

95.35%

YES

\* Fan power is not included in the efficiency calculations







PLUG LOAD Solutions 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/



400

300

200

 $\mathrm{S}^{\mathrm{100}}$ 

0 0 100-100 -200 0

-300

-400

0.003