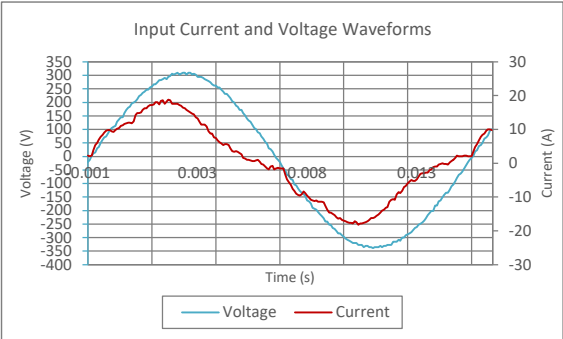


# 80 PLUS Verification and Testing Report

<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>90.21%</b>
<b>AVERAGE EFFICIENCY :</b>	<b>88.75%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



<b>ID Number</b>	SO-1243
<b>Manufacturer</b>	Zippy Technology Corp
<b>Model Number</b>	M1P-2420V
<b>Serial Number</b>	N/A
<b>Year</b>	2017
<b>Type</b>	1U
<b>Test Date</b>	03/15/17



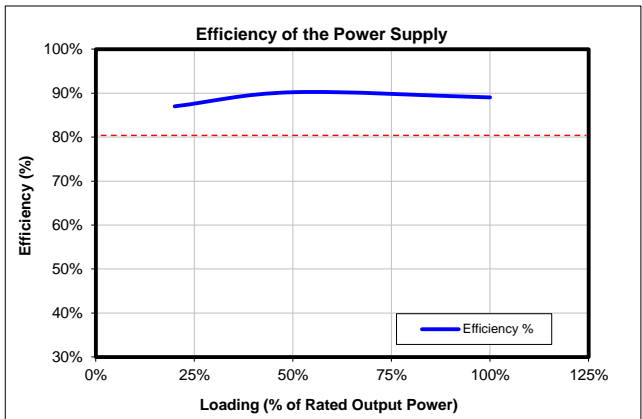
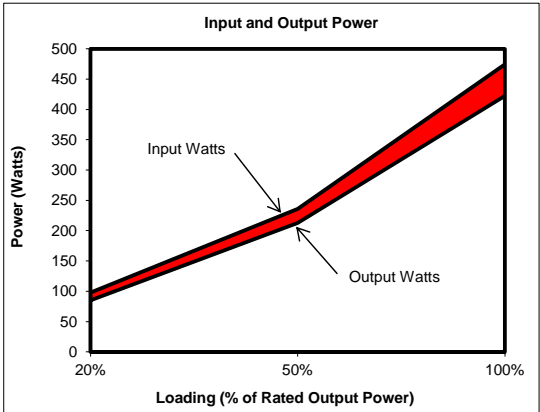
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	7-3	Amps
Input Frequency	47-63	Hz
<b>Rated Output Power</b>	<b>420</b>	<b>Watts</b>

Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.

Input AC Current Waveform (ITHD = 17.55%, 50% Load)

I <sub>RMS</sub> A	PF	I <sub>THD</sub> (%)	Load (%)	Fraction of Load	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A)		Output Watts	Efficiency %
							12V	5Vsb		
0.33	0.70	34.35	10%	Low	52	5.28	12.14/3.37	5.18/0.34	43	81.96%
0.52	0.82	18.09	20%	Light	98	5.28	12.13/6.73	5.17/0.67	85	87.01%
1.11	0.93	17.55	50%	Typical	236	5.28	12.12/16.84	5.15/1.68	213	90.21%
2.16	0.96	9.19	100%	Full	474	5.28	12.11/33.45	5.11/3.37	422	89.03%

\* Fan power is not included in the efficiency calculations



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/>

