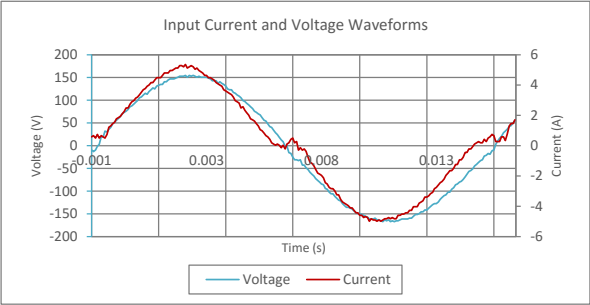


80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	88.65%
AVERAGE EFFICIENCY :	86.92%
80 PLUS COMPLIANT:	YES



ID Number	5040
Manufacturer	GIGA-BYTE TECHNOLOGY CO.,LTD.
Model Number	GP-P650B
Serial Number	N/A
Year	2017
Type	ATX12V
Test Date	9/5/17

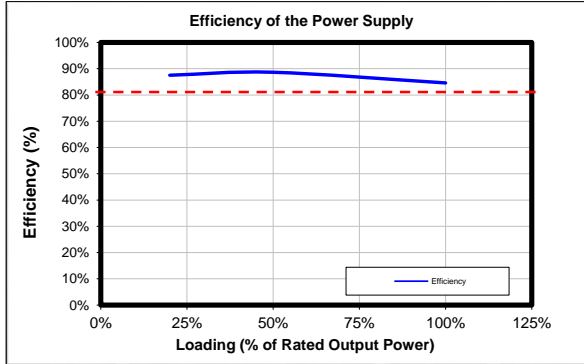
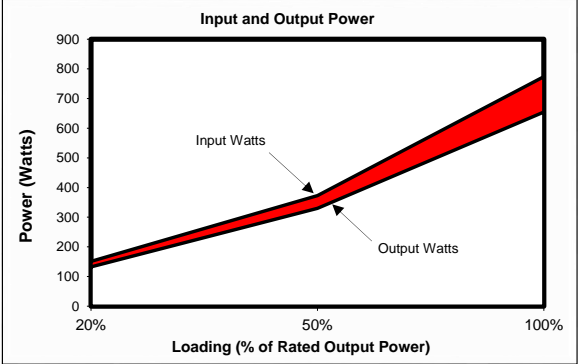


Input AC Current Waveform (ITHD = 13.564%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	9-4	Amps
Input Frequency	50-60	Hz
Rated Output Power	650	Watts

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

I _{RMS}	PF	I _{THD}	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency
					12V (cumulative of 12V1, 12V2, etc.)						
0.75	0.92	32.27%	10%	79.31	12.16/4.55	-12V	3.3V	5V	5Vsb	66.08	83.32%
1.39	0.95	27.23%	20%	151.32	12.14/9.13	12.01/0.03	3.4/1.22	5.18/1.01	5.12/0.21	132.44	87.52%
3.29	0.98	13.56%	50%	372.66	12.13/22.83	12.06/0.05	3.4/2.44	5.17/2.02	5.11/0.42	330.35	88.65%
6.76	0.99	7.16%	100%	773.82	12.1/45.39	12.16/0.13	3.39/6.1	5.15/5.03	5.07/1.05	654.61	84.59%



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/>

