

80 PLUS Verification and Testing Report

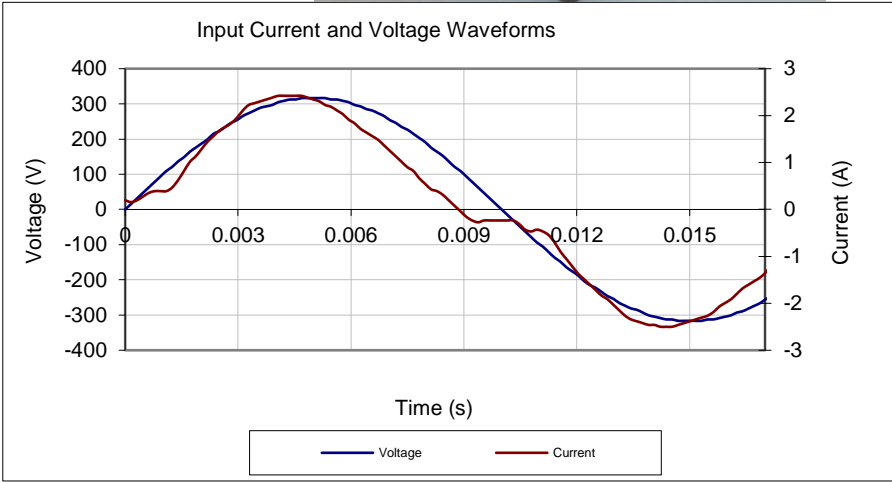
TYPICAL EFFICIENCY (50% Load):	93.23%
AVERAGE EFFICIENCY :	92.05%
80 PLUS COMPLIANT:	YES



ID Number	EU-290
Manufacturer	VINGA
Model Number	VPS-650G
Serial Number	N/A
Year	2017
Type	ATX12V
Test Date	2/2/17

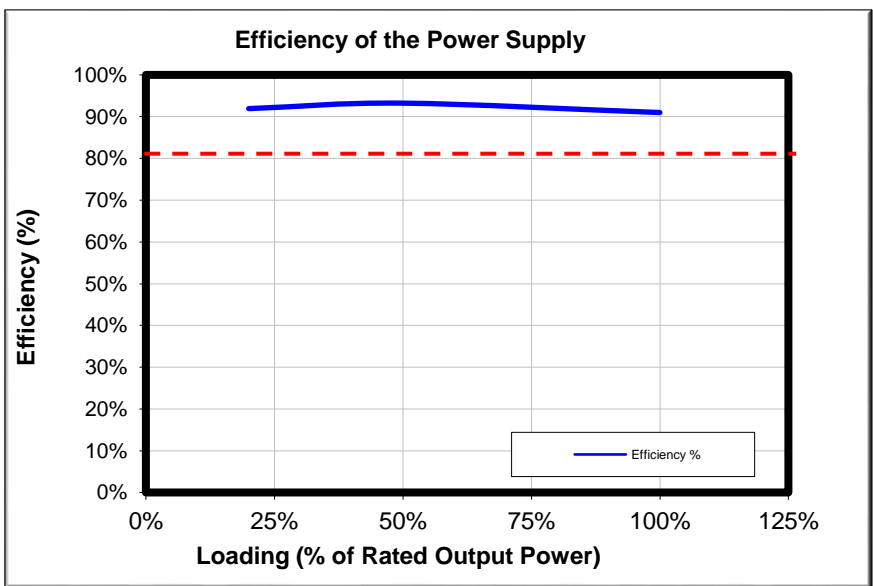
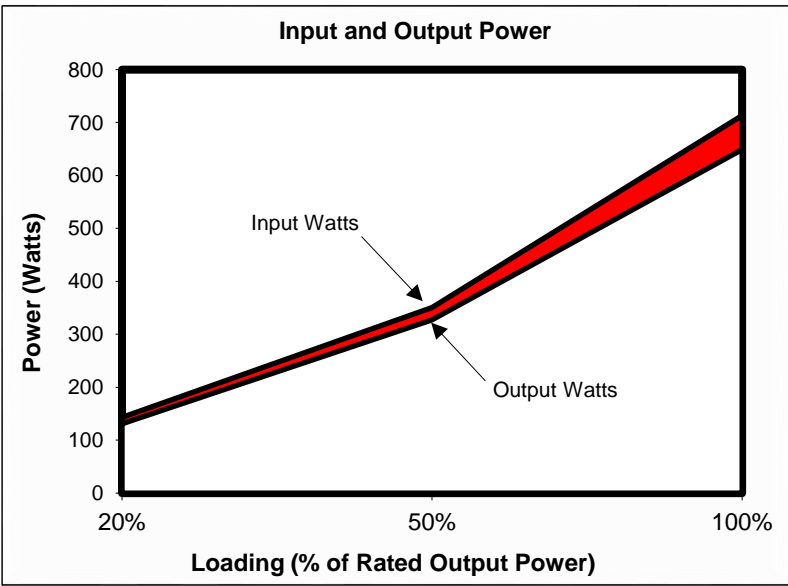
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	6-12	Amps
Input Frequency	47-63	Hz
Rated Output Power	650	Watts

Note: All measurements were taken with input voltage at 230 V nominal at 50 Hz.



Input AC Current Waveform (ITHD = 19.68%, 50% Load)

I _{RMS} A	PF	I _{THD} (%)	Load (%)	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency %
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5Vsb		
0.39	0.84	34.91%	10%	75.12	12.11/4.59	12/0.03	3.43/1.05	5.08/1.05	5.08/0.22	65.96	87.81%
0.68	0.91	28.64%	20%	142.86	12.09/9.15	11.79/0.05	3.42/2.1	5.07/2.09	5.06/0.45	131.32	91.92%
1.58	0.97	19.68%	50%	351.00	12.04/22.94	11.63/0.13	3.39/5.24	5.03/5.2	5.02/1.12	327.25	93.23%
3.16	0.98	15.27%	100%	713.40	11.96/45.82	11.86/0.27	3.35/10.46	4.97/10.4	4.94/2.24	649.08	90.98%



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/>

