

80 PLUS Verification and Testing Report

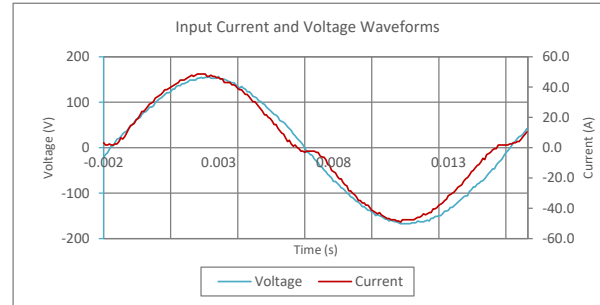
TYPICAL EFFICIENCY (50% Load):	90.13%
AVERAGE EFFICIENCY :	88.64%
80 PLUS COMPLIANT:	YES



ID Number	6060
Manufacturer	FSP Technology Inc.
Model Number	HGS-650M
Serial Number	S0131030012
Year	2020
Type	ATX12V
Test Date	8/11/20

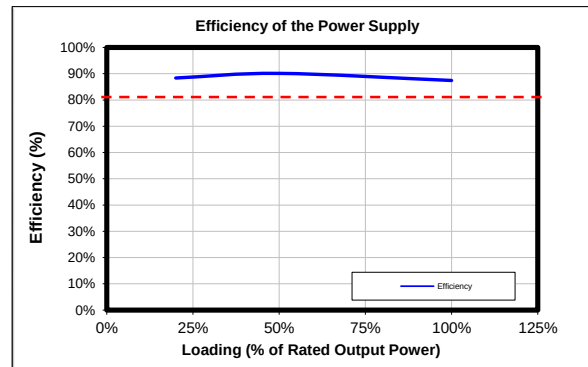
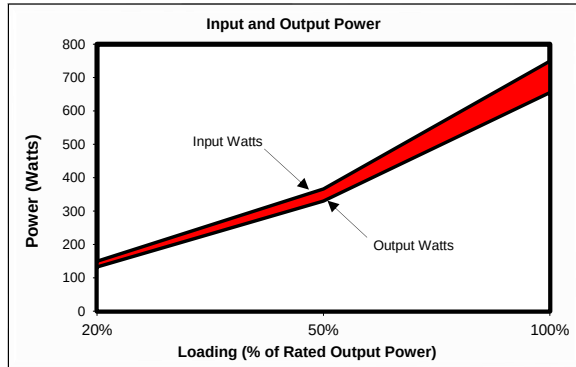
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	8-4	Amps
Input Frequency	50-60	Hz
Rated Output Power	650	Watts

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



Input AC Current Waveform (THD = 10.76%, 50% Load)

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.)	-12V	3.3V	5V	5Vsb		
0.72	0.98	13.07%	10%	80.43	12.21/4.6	12.83/0.03	3.34/1.02	5.1/1.02	5.03/0.25	66.43	82.60%
1.32	0.99	12.98%	20%	149.84	12.2/9.18	12.82/0.05	3.33/2.04	5.09/2.03	5.02/0.51	132.40	88.36%
3.21	0.99	10.76%	50%	366.50	12.16/23.03	11.92/0.13	3.31/5.09	5.06/5.05	4.97/1.27	330.33	90.13%
6.56	0.99	9.93%	100%	749.30	12.08/45.99	12.13/0.25	3.26/10.2	5.02/10.09	4.9/2.54	655.11	87.43%



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/>

