

80 PLUS Verification and Testing Report

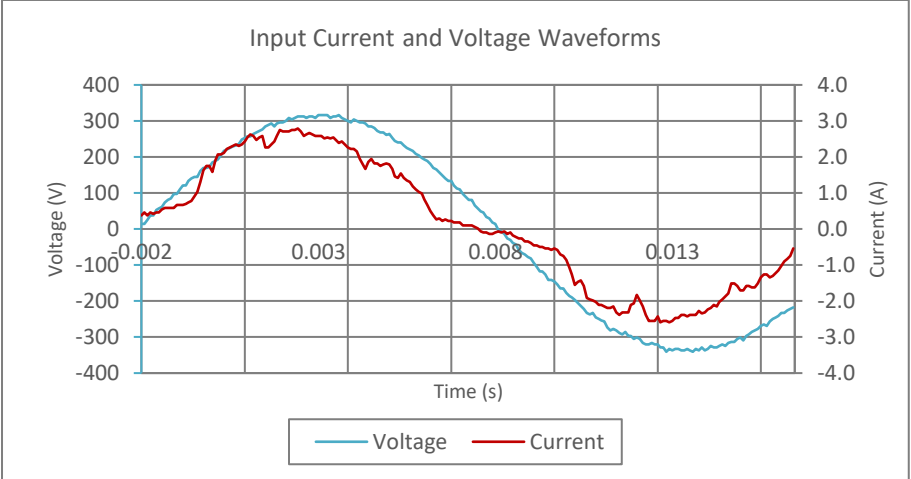
TYPICAL EFFICIENCY (50% Load):	89.38%
AVERAGE EFFICIENCY :	88.20%
80 PLUS COMPLIANT:	YES



ID Number	EU-730
Manufacturer	HIPER
Model Number	HPB-650SM-PRO
Serial Number	N/A
Year	2020
Type	ATX12V
Test Date	9/28/20

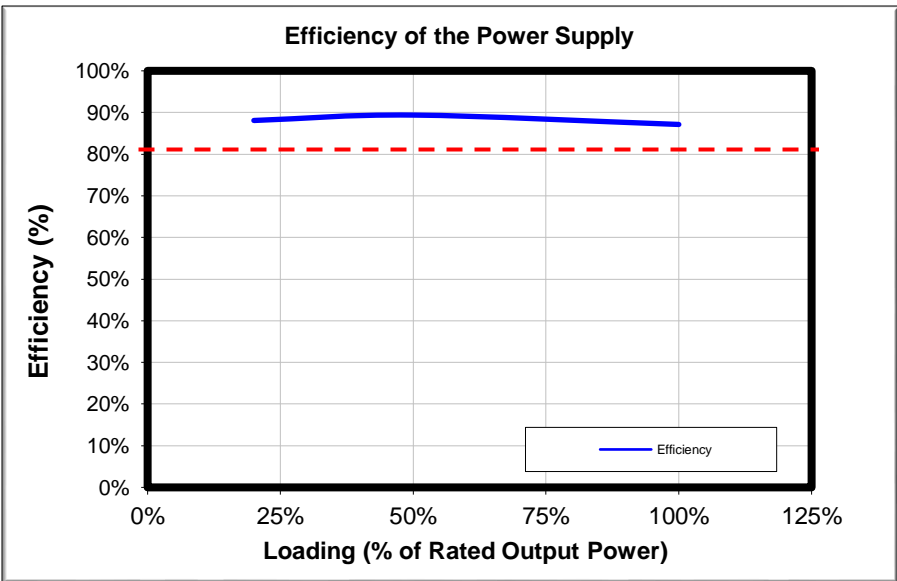
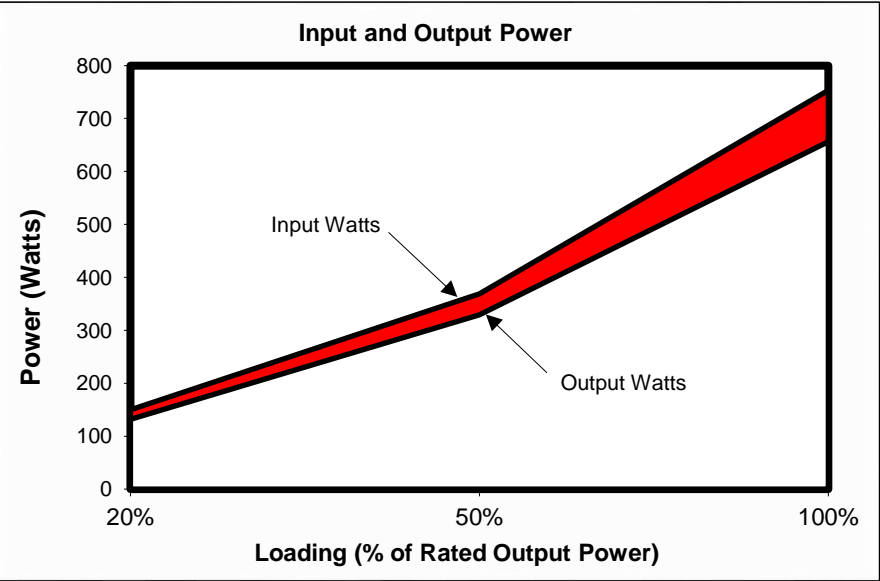
Rated Specifications	Value	Units
Input Voltage	180-264	Volts
Input Current	6	Amps
Input Frequency	47/63	Hz
Rated Output Power	650	Watts

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



Input AC Current Waveform (ITHD = 20.03%, 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		
0.39	0.88	30.31%	10%	78.83	12.1/4.43	12/0.03	3.41/1.28	5.22/1.28	5.11/0.21	66.08	83.83%
0.71	0.91	32.75%	20%	149.65	12.11/8.85	12.05/0.05	3.4/2.56	5.19/2.55	5.09/0.42	131.81	88.08%
1.66	0.97	20.03%	50%	368.70	12.08/22.21	12.09/0.13	3.39/6.4	5.13/6.35	5.06/1.06	329.55	89.38%
3.32	0.99	12.88%	100%	753.40	12.08/44.39	12.25/0.25	3.32/12.81	5.05/12.66	5/2.12	656.42	87.13%



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/>

