

# 80 PLUS Verification and Testing Report

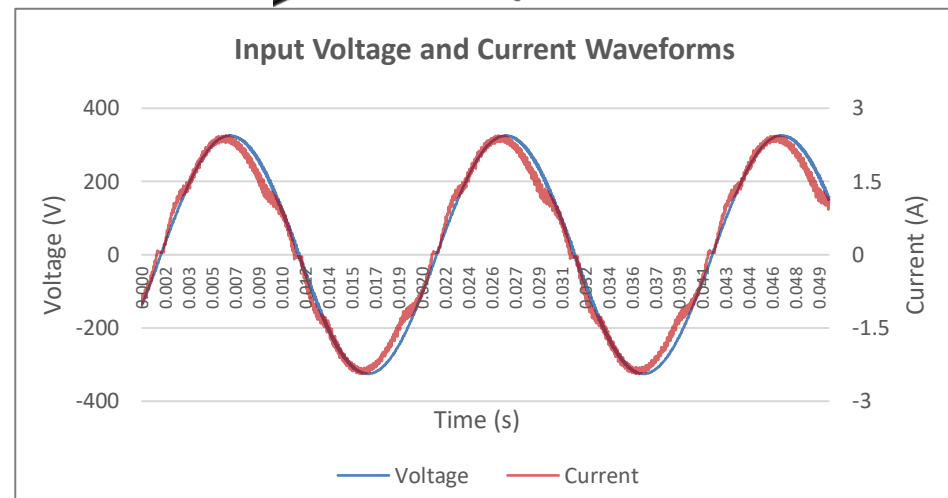
TYPICAL EFFICIENCY (50% Load):	88.73%
AVERAGE EFFICIENCY :	83.39%
80 PLUS COMPLIANT:	Bronze



ID Number	EU-1003
Manufacturer	SHENZHEN FPMAX INDUSTRY CO., LTD
Model Number	CS650W BR
Serial Number	6973574164949
Year	2023
Type	ATX12V
Test Date	12/14/23

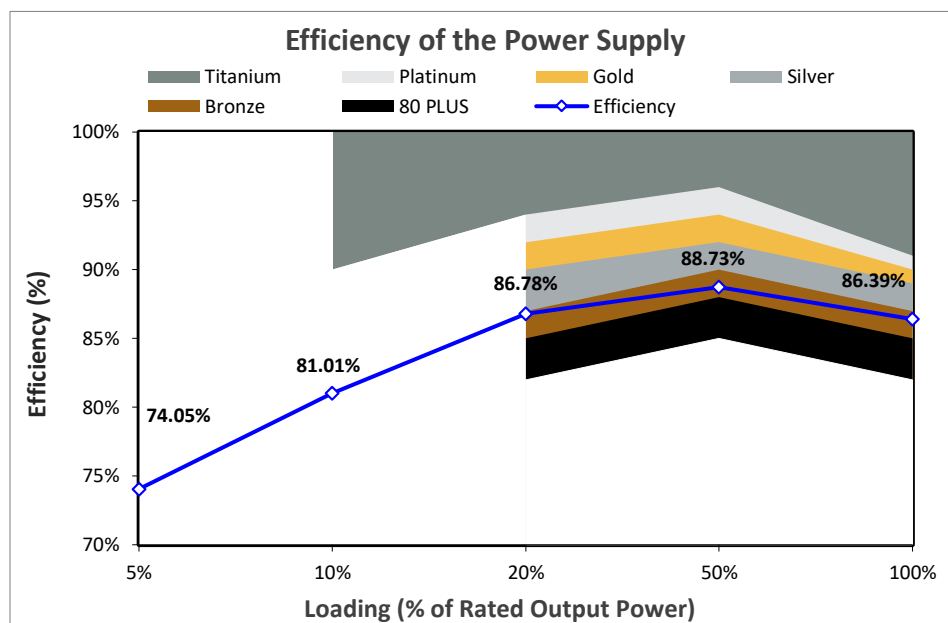
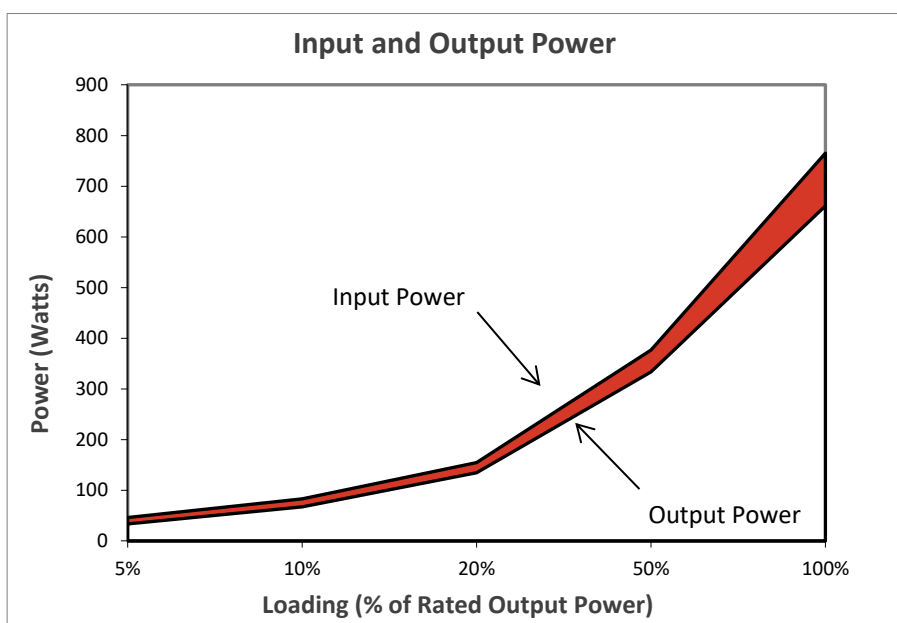
Rated Specifications	Value	Units
Input Voltage	230	Volts
Input Current	4	Amps
Input Frequency	50	Hz
Rated Output Power	650	Watts

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



Input AC Current Waveform (ITHD = 5.68%, 50% Load)

I <sub>RMS</sub> (A)	PF	I <sub>THD</sub> (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)				Output Watts	Efficiency	
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V			5Vstb
0.056	0.4439	43.99	0%	5.74	No-Load						
0.230	0.8595	38.96	5%	45.50	12.47/2.3	11.75/0.015	3.35/0.5	5.16/0.5	5.1/0.125	33.69	74.05%
0.381	0.9479	20.43	10%	83.12	12.46/4.59	11.73/0.03	3.34/1	5.15/1	5.09/0.25	67.34	81.01%
0.686	0.9820	6.41	20%	154.86	12.44/9.18	11.68/0.06	3.32/2	5.13/2	5.07/0.5	134.38	86.78%
1.643	0.9950	5.68	50%	376.14	12.37/22.96	11.63/0.15	3.28/5	5.06/5	5/1.25	333.74	88.73%
3.346	0.9942	7.53	100%	764.96	12.28/45.91	11.65/0.3	3.2/10	4.94/10	4.88/2.499	660.88	86.39%



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/>