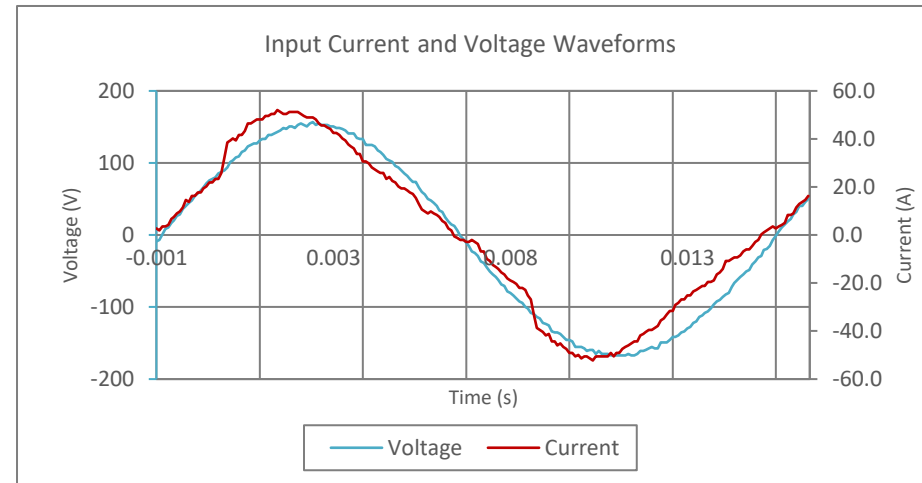


# 80 PLUS Verification and Testing Report

<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>90.01%</b>
<b>AVERAGE EFFICIENCY :</b>	<b>89.18%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



<b>ID Number</b>	5481.1
<b>Manufacturer</b>	Chieftronic
<b>Model Number</b>	GPU-650FC
<b>Serial Number</b>	N/A
<b>Year</b>	2019
<b>Type</b>	ATX12V
<b>Test Date</b>	2/1/19

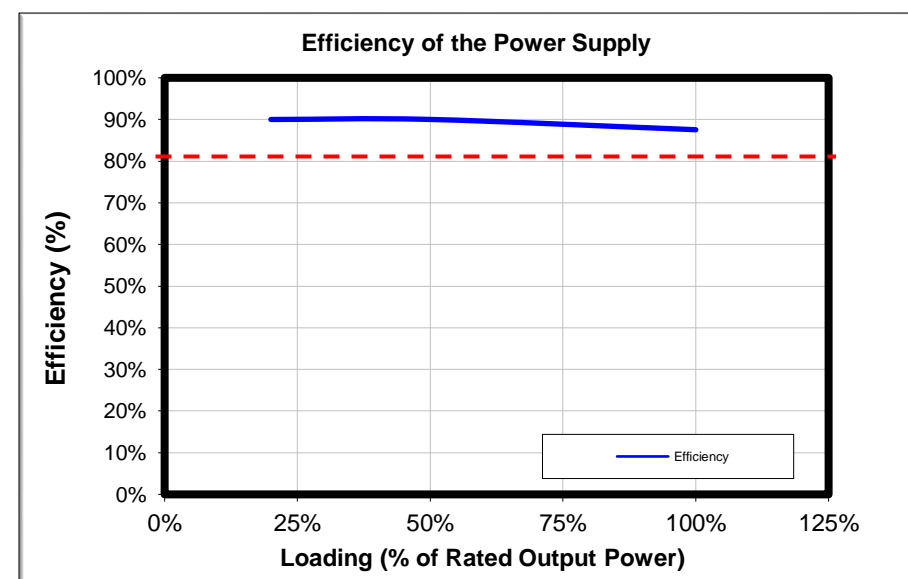
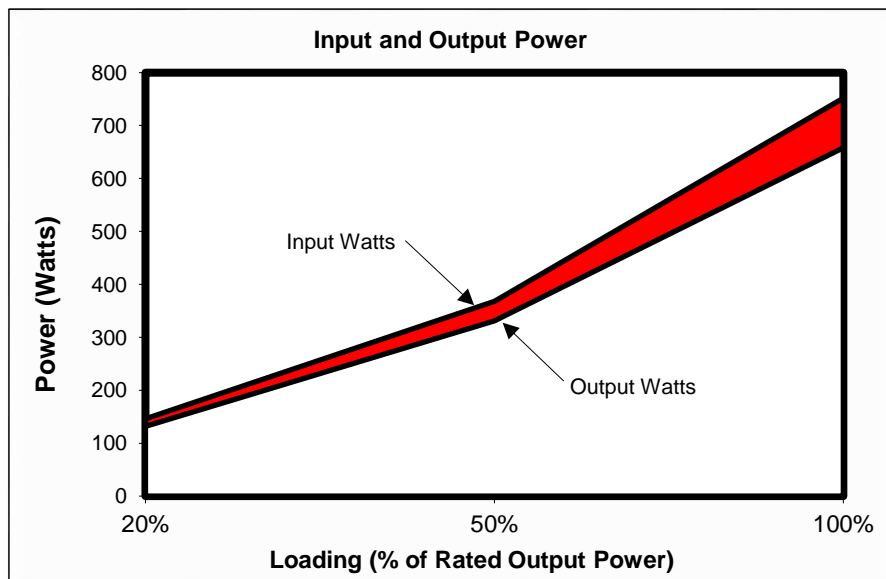


Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	10	Amps
Input Frequency	47-63	Hz
<b>Rated Output Power</b>	<b>650</b>	<b>Watts</b>

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

Input AC Current Waveform (ITHD = 13.87%, 50% Load)

I <sub>RMS</sub>	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			5Vsb
0.69	0.96	12.57%	10%	75.68	12.12/4.47	12.24/0.02	3.34/1.19	5.06/1.19	5.04/0.25	65.68	86.78%
1.30	0.98	13.41%	20%	146.40	12.14/8.96	12.26/0.05	3.35/2.38	5.05/2.37	5/0.49	131.76	90.00%
3.25	0.98	13.87%	50%	368.10	12.21/22.43	12.33/0.12	3.35/5.98	5.04/5.91	4.96/1.24	331.34	90.01%
6.62	0.99	10.87%	100%	751.80	12.12/44.82	12.34/0.25	3.34/11.92	5.03/11.79	5.03/2.47	658.14	87.54%



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/>

