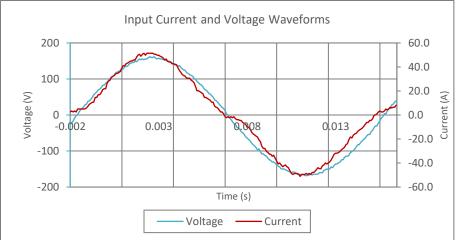
80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	88.32%	
AVERAGE EFFICIENCY :	86.99%	
80 PLUS COMPLIANT:	YES	



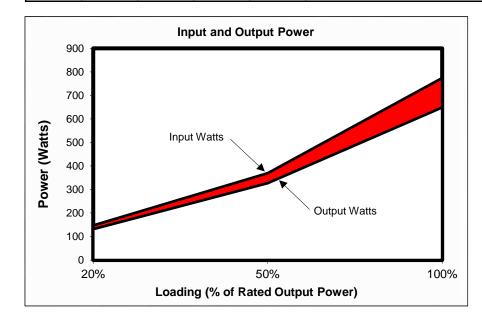
ID Number	6080
Manufacturer	CHINA GREATWALL TECHNOLOGY GROUP CO., LTD
Model Number	TUF-650B-GAMING
Serial Number	N/A
Year	2020
Туре	ATX12V
Test Date	9/9/20

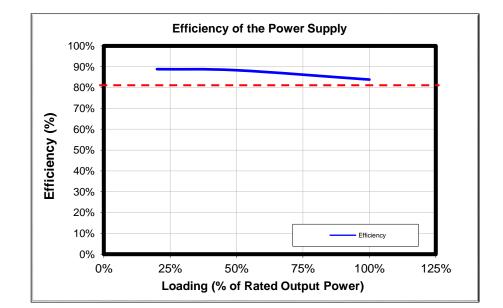
Rated Specifications	Value	Units				
Input Voltage	100-240	Volts				
Input Current	10-5	Amps				
Input Frequency	47-63	Hz				
Rated Output Power	650	Watts				
Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.						



Input AC Current Waveform (ITHD = 13.16%, 50% Load)

	PF	- 1	Lood	Input	DC Terminal Voltage (V)/ DC Load Current (A)					Output	Efficiency
RMS	FF	THD	Load	Watts	12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5Vsb	Watts	Enciency
0.70	0.96	21.37%	10%	77.47	12.04/4.34	11.94/0.07	3.31/1.33	5.11/1.33	5.1/0.25	65.58	84.66%
1.31	0.98	16.64%	20%	147.54	12.03/8.68	11.94/0.14	3.31/2.66	5.11/2.64	5.09/0.51	131.06	88.83%
3.25	0.99	13.16%	50%	369.70	11.99/21.73	11.98/0.34	3.31/6.64	5.1/6.58	5.07/1.27	326.53	88.32%
6.78	0.99	10.39%	100%	773.80	11.94/43.33	12.02/0.68	3.29/13.29	5.1/13.15	5.04/2.54	648.70	83.83%







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/*

