

80 PLUS Verification and Testing Report

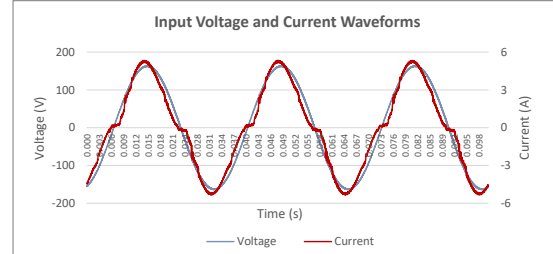
TYPICAL EFFICIENCY (50% Load):	87.39%
AVERAGE EFFICIENCY :	78.55%
AVERAGE STANDBY EFFICIENCY :	77.77%
80 PLUS COMPLIANT:	Bronze



ID Number	7880
Manufacturer	ASUS
Model Number	TUF-GAMING-650B-EVO
Sample 1 S/N:	N/A
Sample 2 S/N:	N/A
Type	ATX 3.1
Test Date	6/26/25

Rated	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.

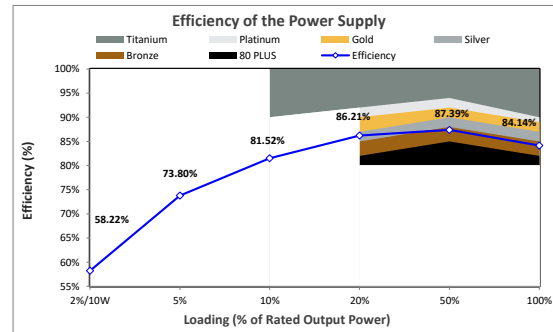
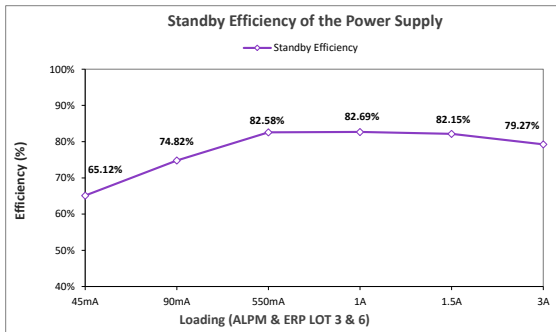


I _{RMS} (A)	PF	I _{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5VSB		
0.124	0.5284	38.50	0%	7.55	No-Load						
0.253	0.7805	43.53	2%/10W	22.75	12.213/0.942	11.934/0.005	3.405/0.167	5.133/0.167	5.051/0.052	13.24	58.22%
0.435	0.8963	37.82	5%	44.84	12.206/2.353	11.972/0.013	3.401/0.419	5.130/0.419	5.047/0.130	33.09	73.80%
0.755	0.9339	31.75	10%	81.12	12.198/4.704	12.008/0.026	3.395/0.837	5.125/0.837	5.042/0.261	66.12	81.52%
1.384	0.9629	25.01	20%	153.15	12.179/9.407	12.041/0.052	3.382/1.674	5.115/1.674	5.030/0.521	132.02	86.21%
3.319	0.9835	16.97	50%	375.67	12.120/23.516	12.111/0.130	3.342/4.185	5.082/4.185	4.995/1.303	328.31	87.39%
6.764	0.9913	11.73	100%	771.58	11.988/47.025	12.242/0.261	3.273/8.370	5.027/8.370	4.937/2.605	649.21	84.14%

Note: Efficiency data was obtained from Sample 1 (Serial Number: N/A)

I _{RMS} (A)	PF	I _{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Standby Efficiency
					5VSB						
0.094	0.0048	7.51	0mA	0.05	Vampire Load						
0.099	0.0305	12.83	45mA	0.35	5.040/0.045					0.23	65.12%
0.096	0.0548	19.66	90mA	0.61	5.039/0.090					0.45	74.82%
0.126	0.2310	63.92	550mA	3.35	5.027/0.550					2.76	82.58%
0.170	0.3095	78.76	1A	6.06	5.014/1.000					5.01	82.69%
0.223	0.3555	84.90	1.5A	9.13	5.001/1.500					7.50	82.15%
0.390	0.4184	88.07	3A	18.77	4.958/3.002					14.88	79.27%

Note: Standby efficiency data was obtained from Sample 2 (Serial Number: N/A)



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.
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