80 PLUS Verification and Testing Report

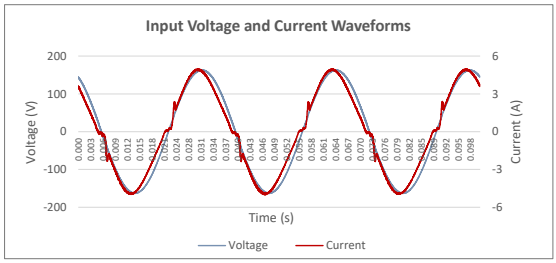
TYPICAL EFFICIENCY (50% Load):	87.69%
AVERAGE EFFICIENCY :	78.41%
AVERAGE STANDBY EFFICIENCY :	78.22%
80 PLUS COMPLIANT:	Bronze



ID Number	7910
Manufacturer	Phanteks
Model Number	PH-P650BH
Sample 1 S/N:	P650BHB24122994
Sample 2 S/N:	P650BHB24122993
Type	ATX 3.1
Test Date	7/31/25

Rated	Value	Units
Input Voltage	100-240	Volts
Input Current	8-4	Amps
Input Frequency	50-60	Hz
Rated Output Power	650	Watts

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



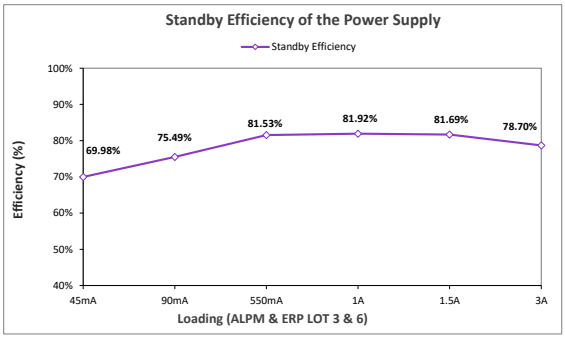
Input AC Current Waveform (ITHD = 8.92%, 50% Load)

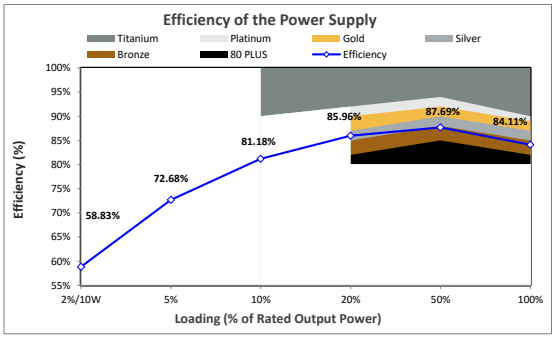
I_{RMS} (A)	PF	I_{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5VSB		
0.170	0.7401	16.26	0%	14.45	No-Load						
0.230	**0.8409**	17.91	2%/10W	22.27	12.083/0.916	12.038/0.005	3.346/0.204	5.056/0.204	5.060/0.051	13.10	58.83%
0.418	**0.9384**	14.07	5%	45.06	12.082/2.290	12.255/0.013	3.344/0.511	5.054/0.511	5.055/0.127	32.75	72.68%
0.725	**0.9683**	14.21	10%	80.64	12.080/4.578	12.246/0.025	3.341/1.021	5.050/1.021	5.048/0.255	65.46	81.18%
1.361	**0.9718**	13.55	20%	152.21	12.074/9.157	12.201/0.051	3.332/2.042	5.042/2.043	5.033/0.509	130.84	85.96%
3.278	**0.9873**	8.92	50%	372.25	12.058/22.892	12.078/0.127	3.307/5.107	5.018/5.108	4.987/1.272	326.42	87.69%
6.803	**0.9931**	7.74	100%	772.78	12.021/45.782	12.041/0.254	3.262/10.215	4.974/10.215	4.906/2.543	650.01	84.11%

Note: Efficiency data was obtained from Sample 1 (Serial Number: P650BHB24122994)

I_{RMS} (A)	PF	I_{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)	Output Watts	Standby Efficiency
					5VSB		
0.087	0.0046	4.32	0mA	0.05	Vampire Load		
0.083	**0.0340**	10.56	45mA	0.32	5.055/0.045	0.23	69.98%
0.082	**0.0642**	17.71	90mA	0.60	5.054/0.090	0.45	75.49%
0.103	**0.2874**	59.26	550mA	3.40	5.042/0.550	2.77	81.53%
0.136	**0.3936**	72.84	1A	6.14	5.029/1.000	5.03	81.92%
0.180	**0.4453**	79.01	1.5A	9.21	5.015/1.500	7.52	81.69%
0.322	**0.5112**	82.57	3A	18.97	4.974/3.002	14.93	78.70%

Note: Standby efficiency data was obtained from Sample 2 (Serial Number: P650BHB24122993)





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.
https://www.clearesult.com/80plus/ [clearesult.com]