80 PLUS Verification and Testing Report

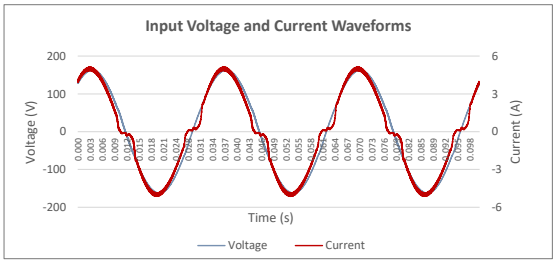


TYPICAL EFFICIENCY (50% Load):	86.00%
AVERAGE EFFICIENCY :	76.87%
AVERAGE STANDBY EFFICIENCY :	71.24%
80 PLUS COMPLIANT:	Standard

ID Number	8048
Manufacturer	Rosewill
Model Number	VNW650
Sample 1 S/N:	N/A
Sample 2 S/N:	N/A
Type	ATX 2.0
Test Date	12/3/25

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.



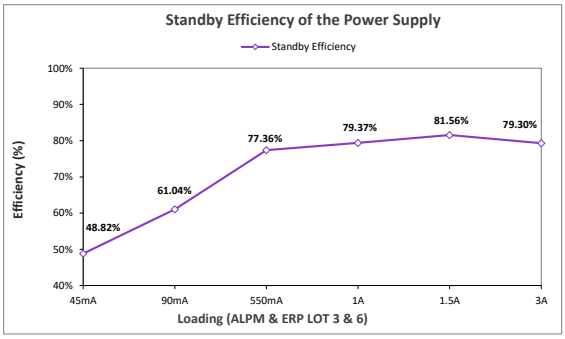
Input AC Current Waveform (ITHD = 13.31%, 50% Load)

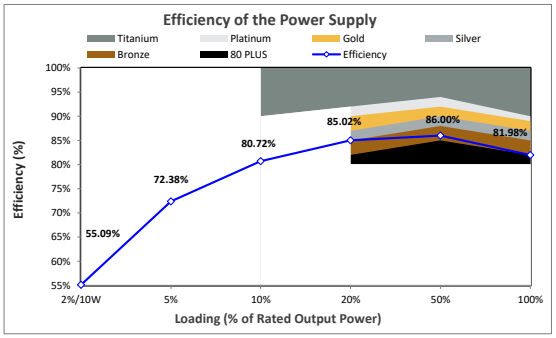
$I_{RMS\ (A)}$	PF	$I_{THD\ (\%)}$	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5VSB		
0.163	0.2976	42.53	0%	5.60	No-Load						
0.301	**0.6879**	61.25	2%/10W	23.84	12.069/0.918	11.775/0.005	3.387/0.204	5.199/0.204	5.215/0.051	13.13	55.09%
0.453	**0.8712**	41.61	5%	45.35	12.068/2.292	11.807/0.013	3.385/0.510	5.193/0.510	5.210/0.127	32.83	72.38%
0.730	**0.9679**	19.29	10%	81.31	12.068/4.583	11.834/0.025	3.384/1.018	5.184/1.018	5.201/0.254	65.63	80.72%
1.376	**0.9748**	18.75	20%	154.22	12.057/9.163	11.871/0.051	3.379/2.038	5.169/2.038	5.183/0.508	131.12	85.02%
3.342	**0.9881**	13.31	50%	379.96	12.023/22.906	11.990/0.127	3.365/5.098	5.139/5.098	5.127/1.270	326.77	86.00%
6.953	**0.9925**	10.44	100%	793.68	11.987/45.804	12.182/0.254	3.341/10.198	5.070/10.198	5.032/2.539	650.66	81.98%

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		
0.072	0.0228	6.70	0mA	0.19	Vampire Load		
0.074	**0.0566**	16.71	45mA	0.48	5.207/0.045	0.23	48.82%
0.077	**0.0865**	24.78	90mA	0.77	5.205/0.090	0.47	61.04%
0.112	**0.2888**	69.23	550mA	3.68	5.180/0.550	2.85	77.36%
0.154	**0.3654**	80.42	1A	6.49	5.155/1.000	5.16	79.37%
0.202	**0.4002**	84.26	1.5A	9.43	5.126/1.500	7.69	81.56%
0.361	**0.4532**	86.34	3A	19.00	5.022/3.000	15.06	79.30%

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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