80 PLUS Verification and Testing Report

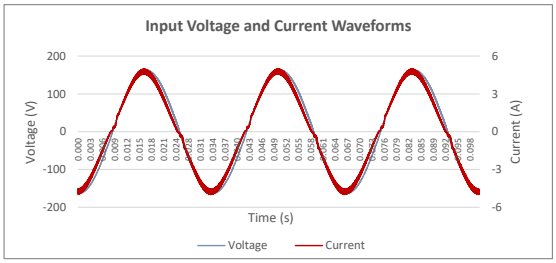
TYPICAL EFFICIENCY (50% Load):	88.74%
AVERAGE EFFICIENCY :	80.62%
AVERAGE STANDBY EFFICIENCY :	75.61%
80 PLUS COMPLIANT:	Bronze



ID Number	8010
Manufacturer	Formula V Technology CO.
Model Number	FV-650BD
Sample 1 S/N:	N/A
Sample 2 S/N:	N/A
Type	EPS12V
Test Date	10/23/25

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.



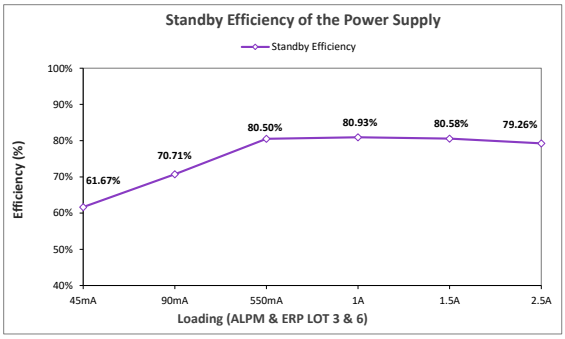
Input AC Current Waveform (ITHD = 5.58%, 50% Load)

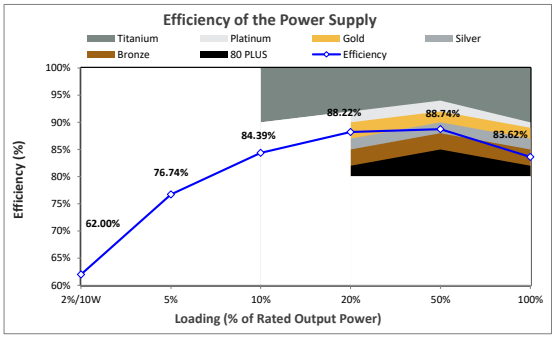
I_{RMS} (A)	PF	I_{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)					Output Watts	Efficiency
					12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5VSB		
0.120	0.5017	31.24	0%	6.92	No-Load						
0.224	**0.8219**	20.24	2%/10W	21.22	12.108/0.887	11.890/0.005	3.404/0.251	5.101/0.251	5.149/0.043	13.15	**62.00%**
0.401	**0.9281**	13.44	5%	42.84	12.106/2.217	11.902/0.013	3.401/0.628	5.097/0.628	5.143/0.109	32.88	**76.74%**
0.699	**0.9688**	11.62	10%	77.88	12.105/4.433	11.907/0.026	3.397/1.254	5.092/1.254	5.133/0.217	65.73	**84.39%**
1.321	**0.9798**	10.31	20%	148.91	12.102/8.864	11.917/0.052	3.387/2.510	5.081/2.510	5.112/0.434	131.37	**88.22%**
3.229	**0.9948**	5.58	50%	369.36	12.092/22.161	11.960/0.130	3.358/6.279	5.048/6.279	5.048/1.086	327.76	**88.74%**
6.808	**0.9980**	3.54	100%	781.02	12.076/44.315	12.001/0.261	3.306/12.559	4.989/12.560	4.935/2.172	653.09	**83.62%**

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		
0.065	0.0130	6.42	0mA	0.10	Vampire Load		
0.066	**0.0492**	14.74	45mA	0.37	5.130/0.045	0.23	**61.67%**
0.068	**0.0829**	23.03	90mA	0.65	5.127/0.090	0.46	**70.71%**
0.098	**0.3089**	67.48	550mA	3.49	5.104/0.550	2.81	**80.50%**
0.137	**0.3968**	78.55	1A	6.28	5.080/1.000	5.08	**80.93%**
0.185	**0.4409**	82.45	1.5A	9.41	5.054/1.500	7.58	**80.58%**
0.286	**0.4809**	84.29	2.5A	15.77	5.000/2.500	12.50	**79.26%**

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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