

80 PLUS Verification and Testing Report

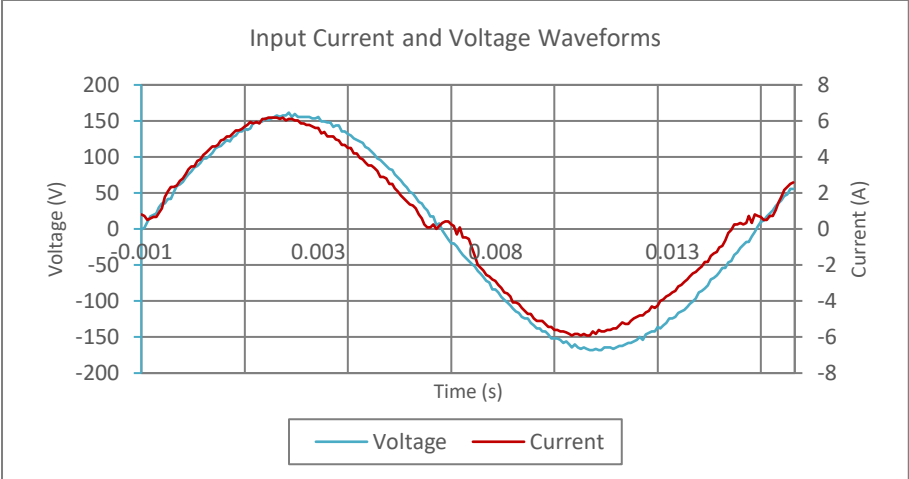
TYPICAL EFFICIENCY (50% Load):	91.84%
AVERAGE EFFICIENCY :	90.47%
80 PLUS COMPLIANT:	YES



ID Number	4990.3
Manufacturer	M.RED
Model Number	MRR-850A
Serial Number	176360850000005
Year	2017
Type	ATX12V
Test Date	7/7/17

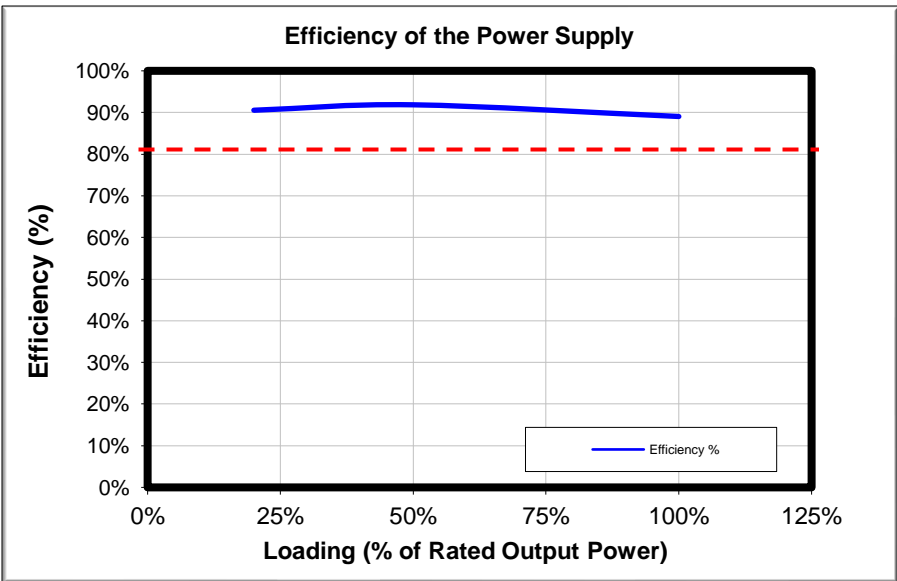
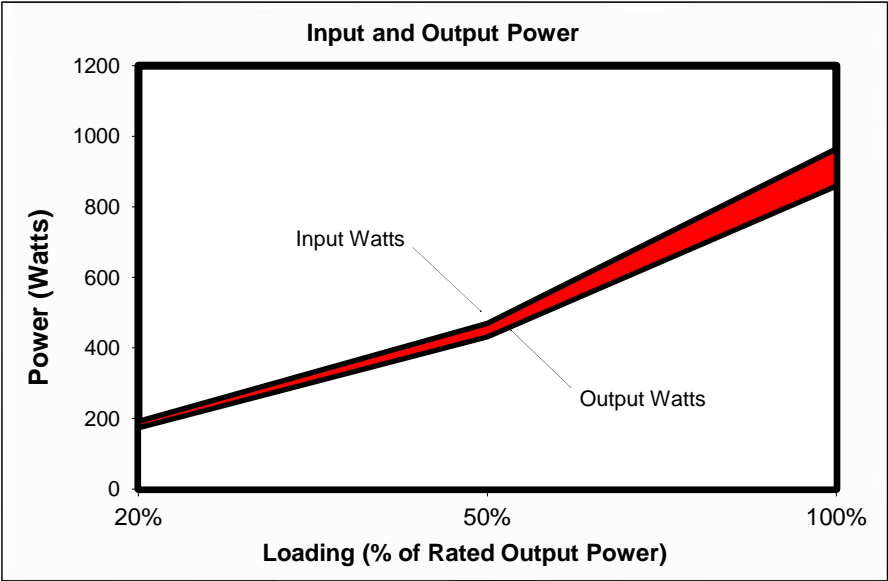
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	12-6	Amps
Input Frequency	47-63	Hz
Rated Output Power	850	Watts

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



Input AC Current Waveform (ITHD = 8.17%, 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		
0.89	0.98	6.92%	10%	99.84	12.21/6.22	11.8/0.04	3.34/1.07	5.01/1.07	5.13/0.22	86.53	86.67%
1.68	0.99	10.58%	20%	191.35	12.2/12.47	11.75/0.09	3.35/2.14	5.01/2.13	5.12/0.44	173.24	90.54%
4.12	0.99	8.17%	50%	470.40	12.17/31.16	11.82/0.22	3.35/5.35	5.02/5.3	5.08/1.11	432.03	91.84%
8.42	1.00	5.22%	100%	964.50	12.14/62.08	12.13/0.44	3.34/10.69	5.02/10.57	5.02/2.22	858.81	89.04%



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/>

