80 PLUS Verification and Testing Report

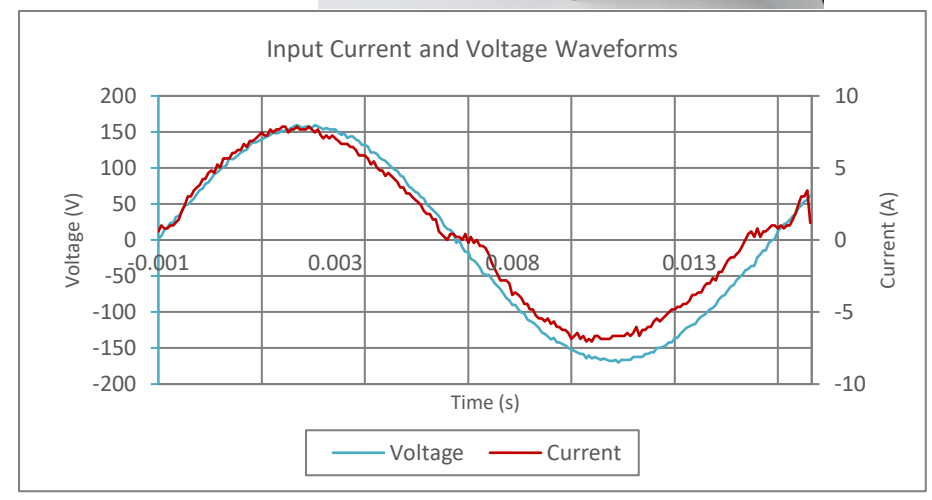
TYPICAL EFFICIENCY (50% Load):	**91.83%**
AVERAGE EFFICIENCY :	**90.49%**
80 PLUS COMPLIANT:	**YES**



ID Number	4989.3
Manufacturer	M.RED
Model Number	MRR-1050AG
Serial Number	17636105000005
Year	2017
Type	ATX12V
Test Date	7/6/17

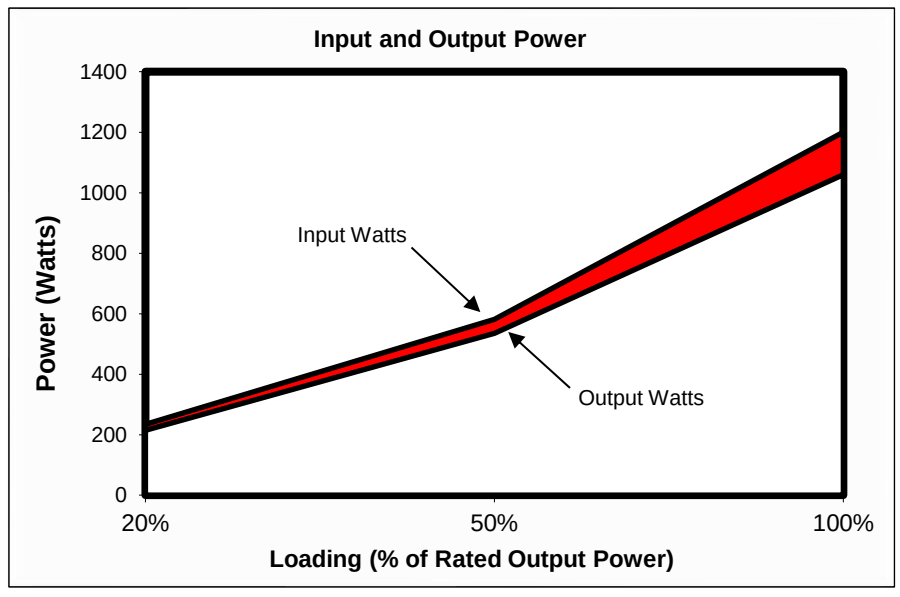
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	15-8	Amps
Input Frequency	47-63	Hz
Rated Output Power	**1050**	**Watts**

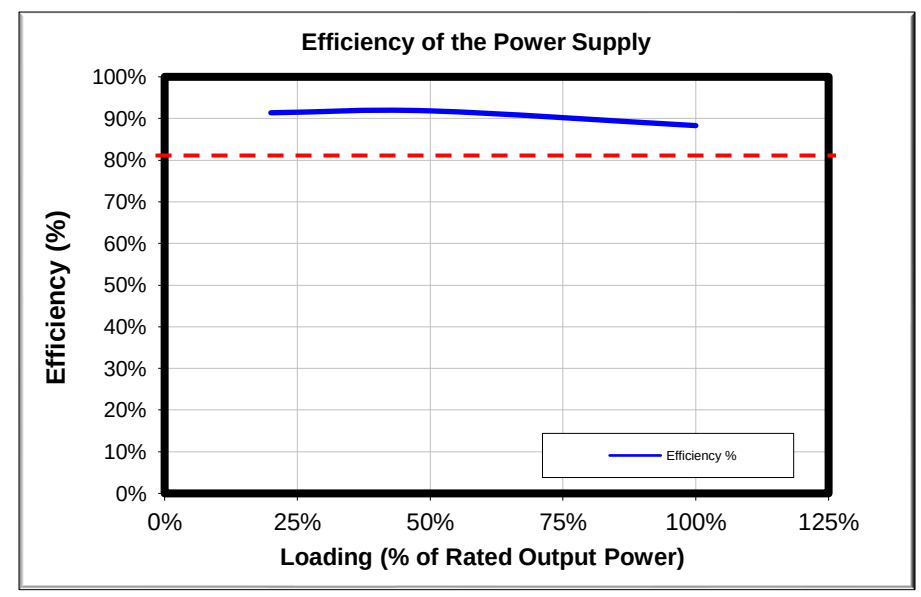
Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.



Input AC Current Waveform (ITHD = 8.5%, 50% Load)

I_{RMS} A 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		
1.07	0.98	7.55%	10%	121.10	12.22/7.65	11.85/0.05	3.36/1.4	5.05/1.4	5.11/0.23	107.01	**88.37%**
2.06	0.99	11.48%	20%	234.43	12.21/15.34	11.88/0.09	3.37/2.81	5.05/2.79	5.09/0.47	214.19	**91.37%**
5.09	0.99	8.50%	50%	581.60	12.17/38.32	11.99/0.23	3.4/7.02	5.05/6.95	5.05/1.16	534.07	**91.83%**
10.46	1.00	5.24%	100%	1200.00	12.13/76.21	12.43/0.47	3.39/14.05	5.05/13.87	4.98/2.33	1059.46	**88.29%**





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/*