

Lab ID#: 190
Receipt Date: May 31, 2018
Test Date: Jun 6, 2018

Report:

Report Date: Jun 10, 2018

DUT INFORMATION

Brand	EVGA
Manufacturer (OEM)	Andyson
Series	BQ
Model Number	
Serial Number	1701230615800480
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	50-60
Rated Power (W)	600
Type	ATX12V
Cooling	120mm Fluid Dynamic Bearing Fan (S1202512L)
Semi-Passive Operation	X
Cable Design	Semi Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	50	2.5	0.3
	Watts	120		600	12.5	3.6
Total Max. Power (W)		600				

CABLES AND CONNECTORS

Captive Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (610mm)	1	1	18-22AWG
4+4 pin EPS12V (620mm)	1	1	18AWG

Modular Cables

6+2 pin PCIe (600mm+100mm)	1	2	18AWG
SATA (460mm+120mm+120mm)	2	6	18AWG
4 pin Molex (470mm+120mm+120mm) / FDD (+120mm)	1	3 / 1	18AWG

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RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	ErP Lot 3/6 2010: ✓ ErP Lot 3/6 2013: ✓ ErP Lot 3/6 2014, CEC: Partially
(EU) No 617/2013 Compliance	✓

115V

Average Efficiency	85.095%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	77.608%
Standby Power Consumption (W)	0.0812430
Average PF	0.992
Avg Noise Output	37.30 dB(A)
Efficiency Rating (ETA)	SILVER
Noise Rating (LAMBDA)	S+

230V

Average Efficiency	87.464%
Average Efficiency 5VSB	75.198%
Standby Power Consumption (W)	0.1651580
Average PF	0.964
Avg Noise Output	37.08 dB(A)
Efficiency Rating (ETA)	SILVER
Noise Rating (LAMBDA)	S+

TEST EQUIPMENT

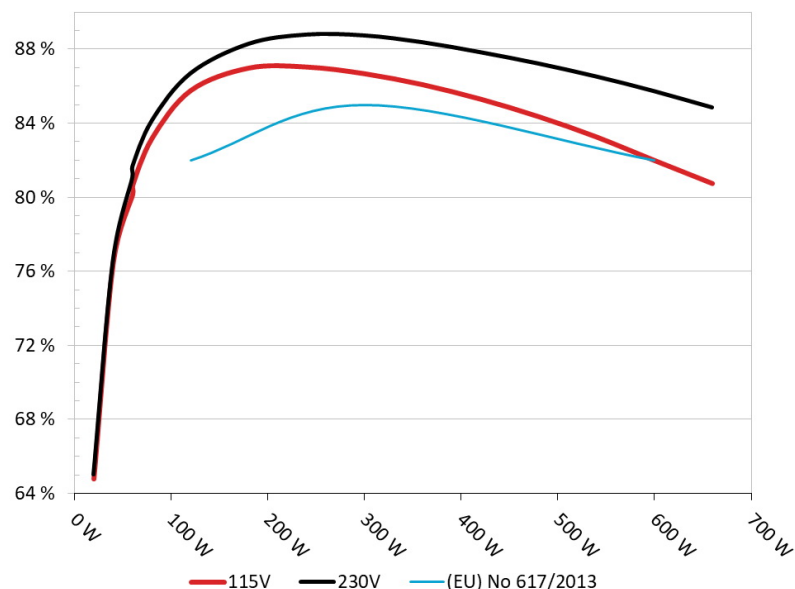
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: EVGA 600 BQ

Ambient: 37°C - 47°C (98.6°F - 116.6°F)



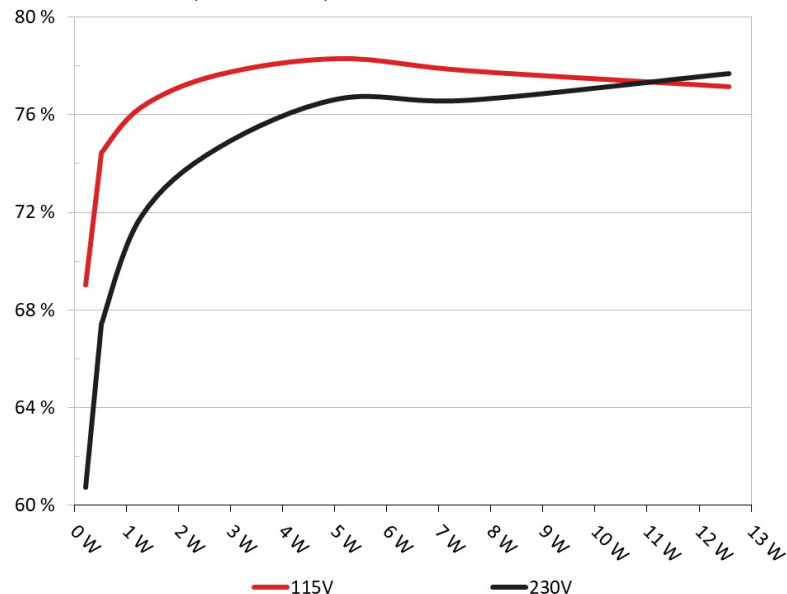
INFO

The PSU's efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

5VSB EFFICIENCY

5VSB Efficiency: EVGA 600 BQ

Ambient: 34°C - 36°C (93.2°F - 96.8°F)



INFO

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

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5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.214	69.032%	0.038
	5.071V	0.310		115.05V
2	0.088A	0.446	74.457%	0.072
	5.070V	0.599		115.05V
3	0.543A	2.747	77.643%	0.278
	5.061V	3.538		115.04V
4	1.003A	5.066	78.312%	0.345
	5.052V	6.469		115.04V
5	1.502A	7.575	77.812%	0.378
	5.043V	9.735		115.04V
6	2.502A	12.566	77.163%	0.412
	5.023V	16.285		115.04V

5VSB EFFICIENCY -230V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.215	60.734%	0.013
	5.071V	0.354		230.20V
2	0.088A	0.445	67.424%	0.024
	5.070V	0.660		230.20V
3	0.543A	2.746	74.620%	0.124
	5.061V	3.680		230.18V
4	1.003A	5.066	76.641%	0.195
	5.052V	6.610		230.18V
5	1.502A	7.574	76.590%	0.249
	5.043V	9.889		230.19V
6	2.502A	12.566	77.678%	0.309
	5.023V	16.177		230.19V

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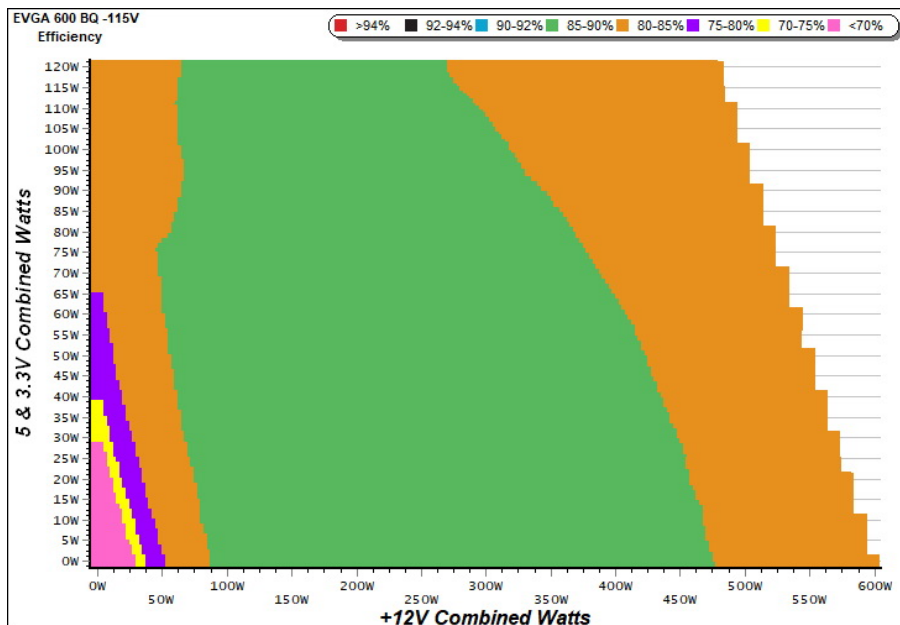
115V

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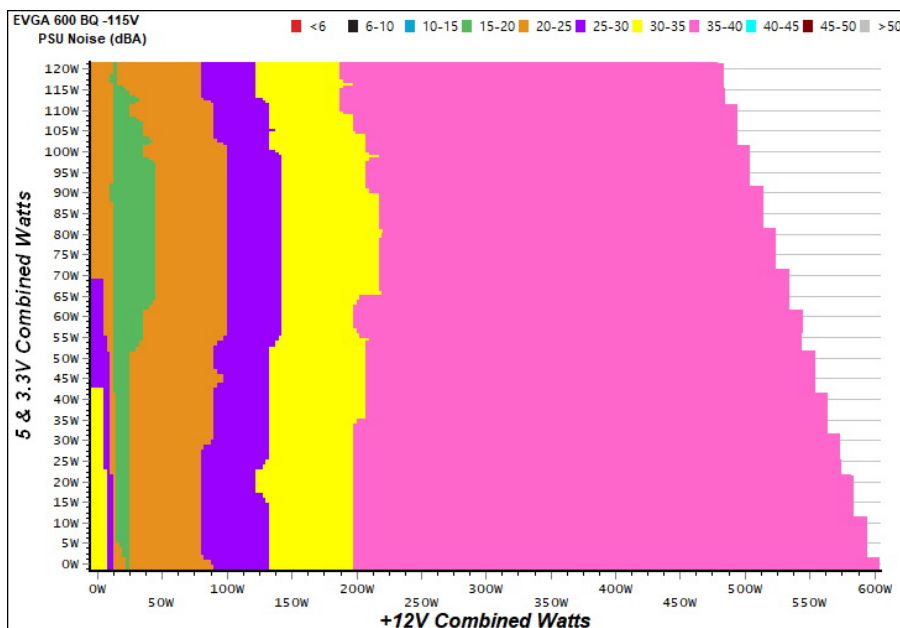
EFFICIENCY GRAPH 115V



INFO

This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

NOISE GRAPH 115V



INFO

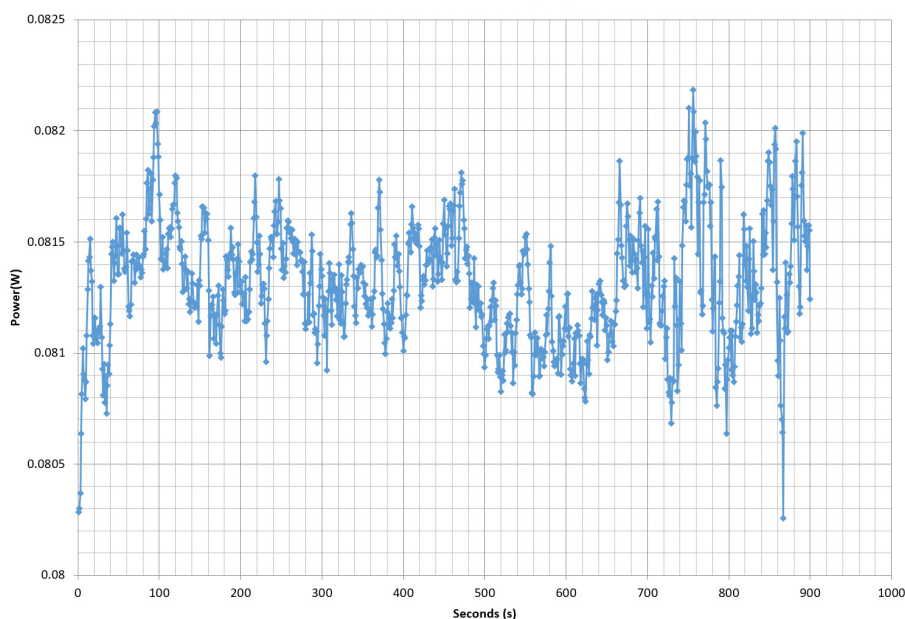
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - 1701230615800480 - 06/10/2017 - 09:26



INFO

This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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COMMISSION REGULATION (EU) NO 617/2013 TESTING 115V

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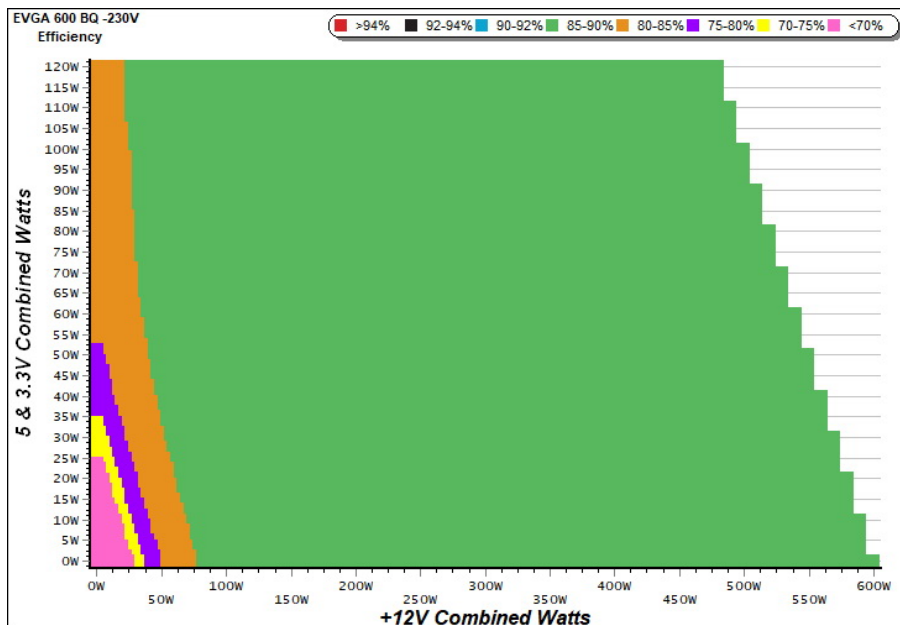
230V

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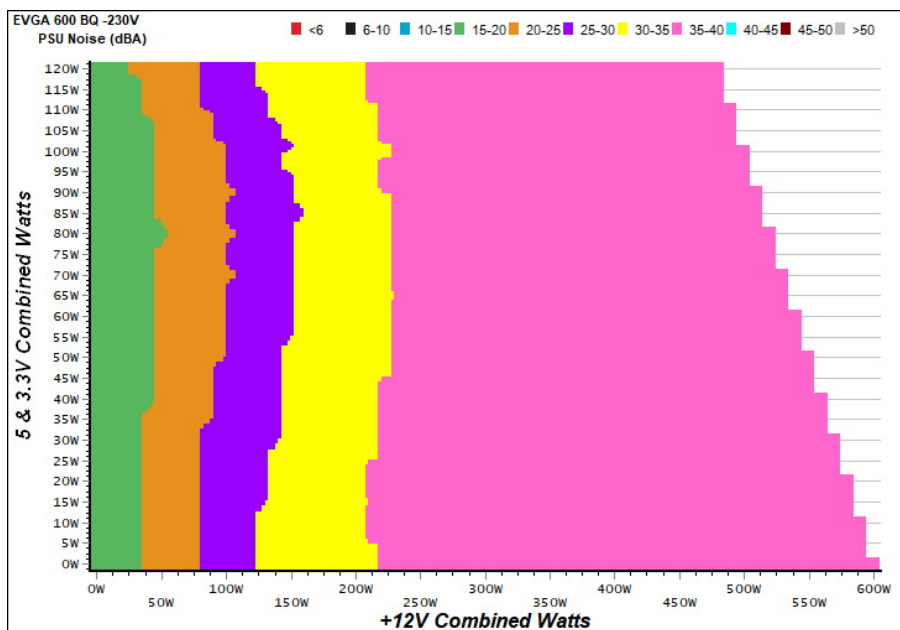
EFFICIENCY GRAPH 230V



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NOISE GRAPH 230V



INFO

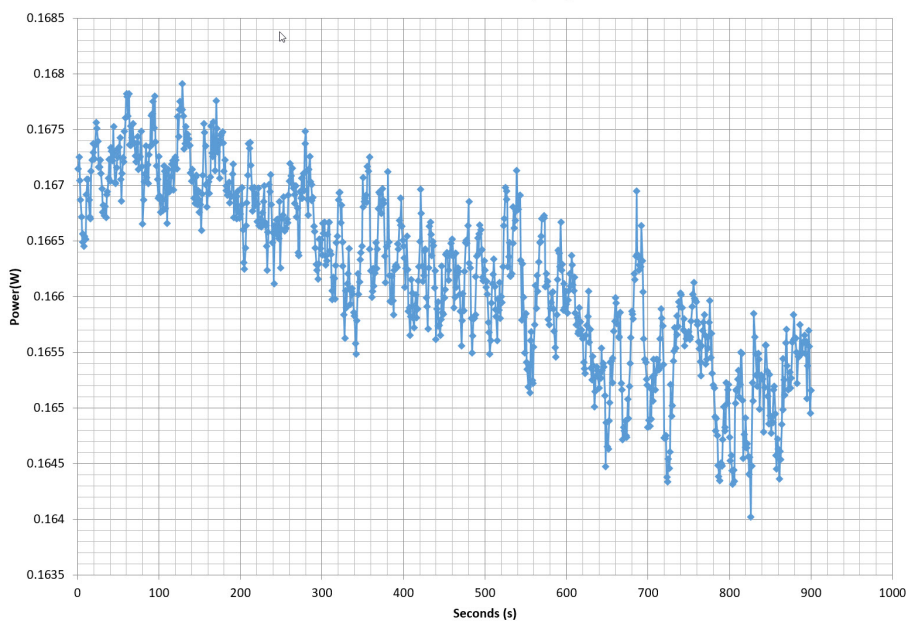
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VAMPIRE POWER -230V

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COMMISSION REGULATION (EU) NO 617/2013 TESTING 230V

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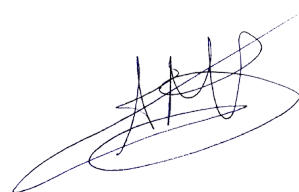
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	+40° C ambient @ full load				
AC Input	100-240 VAC, 10-5A, 50-60Hz				
DC Output	+5V	+3.3V	+12V	-12V	+5Vsb
Max Output, A	20A	20A	50A	0.3A	2.5A
Combined, W	120W		600W	3.6W	12.5W
Output Power, P _{cont}	600W @ +40°C				

Power specifications label

CERTIFICATIONS 115V

Aris Mpitsiopoulos
Lab Director

CERTIFICATIONS 230V



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