

Lab ID#: 177
Receipt Date: Sep 9, 2018
Test Date: Sep 17, 2018

Report:

Report Date: Sep 20, 2018

DUT INFORMATION

Brand	EVGA
Manufacturer (OEM)	HEC
Series	B
Model Number	
Serial Number	1603530615803629
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 Sleeve Bearing Fan (EFS-12E12H)
Semi-Passive Operation	X
Cable Design	Fixed cables

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	24	20	49	3	0.3
	Watts	130		588	15	3.6
Total Max. Power (W)		600				

CABLES AND CONNECTORS

Captive Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (560)	1	1	18-20AWG
4+4 pin EPS12V (620mm)	1	1	18AWG
6+2 pin PCIe (570mm+120mm)	1	2	20AWG
SATA (470mm+120mm+120mm)	2	6	20AWG
4 pin Molex (470mm+120mm+120mm) / FDD (+120mm)	1	3 / 1	20-22AWG

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RESULTS

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

115V

Average Efficiency	82.635%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	79.602%
Standby Power Consumption (W)	0.0570850
Average PF	0.972
Avg Noise Output	27.94 dB(A)
Efficiency Rating (ETA)	BRONZE
Noise Rating (LAMBDA)	A-

TEST EQUIPMENT

Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5 Digit	
Sound Analyzer	Bruel & Kjaer 2250-L G4	
Microphone	Bruel & Kjaer Type 4955-A, Bruel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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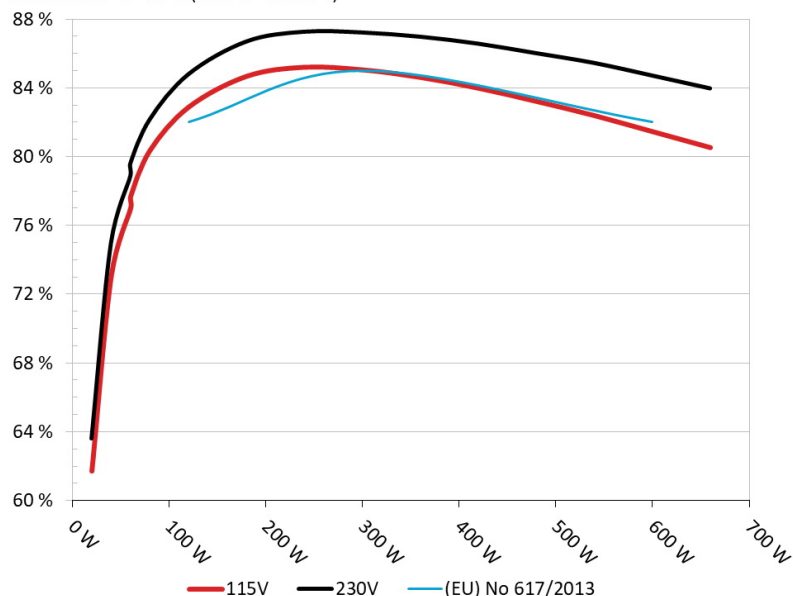
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: EVGA 600B

Ambient: 37°C - 46°C (98.6°F - 114.8°F)



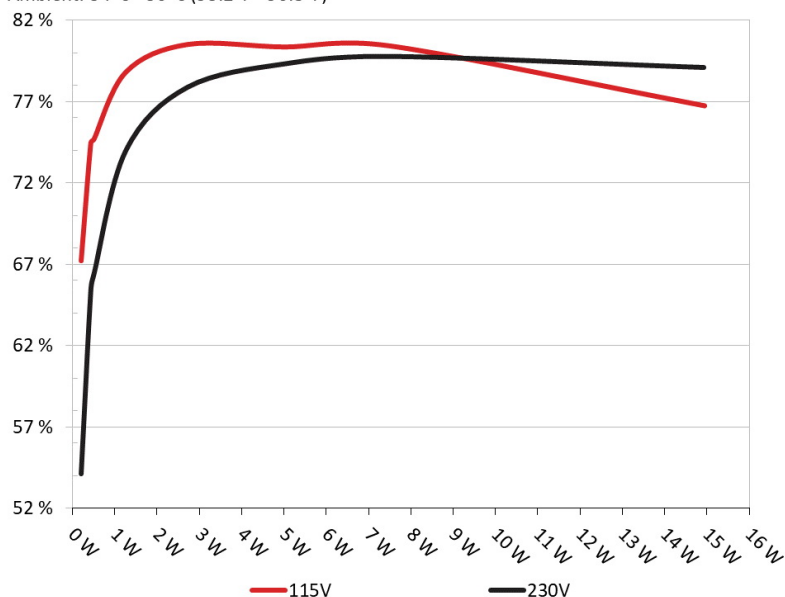
INFO

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 600B

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	0.209	67.203%	0.058
	5.032V	0.311		115.14V
2	0.087A	0.437	74.446%	0.104
	5.032V	0.587		115.14V
3	0.542A	2.722	80.509%	0.310
	5.022V	3.381		115.10V
4	1.002A	5.026	80.352%	0.362
	5.016V	6.255		115.22V
5	1.501A	7.515	80.417%	0.391
	5.005V	9.345		115.13V
6	3.002A	14.943	76.737%	0.437
	4.978V	19.473		115.13V

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

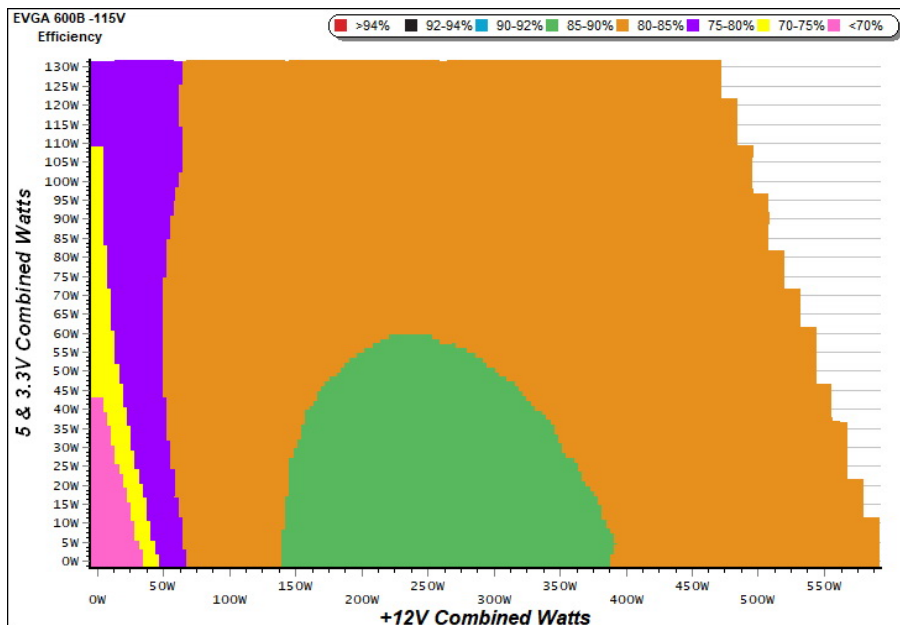
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.209	54.145%	0.023
	5.032V	0.386		230.41V
2	0.087A	0.437	65.419%	0.039
	5.031V	0.668		230.43V
3	0.542A	2.721	77.899%	0.169
	5.022V	3.493		230.39V
4	1.002A	5.019	79.339%	0.242
	5.010V	6.326		230.39V
5	1.501A	7.515	79.794%	0.285
	5.005V	9.418		230.40V
6	3.001A	14.933	79.115%	0.343
	4.976V	18.875		230.40V

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115V

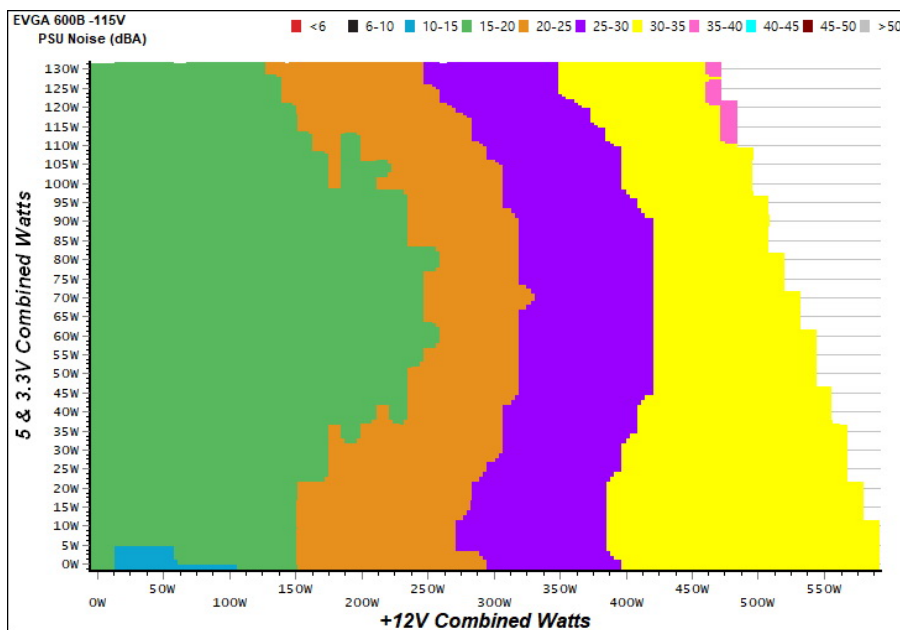
EFFICIENCY GRAPH 115V



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

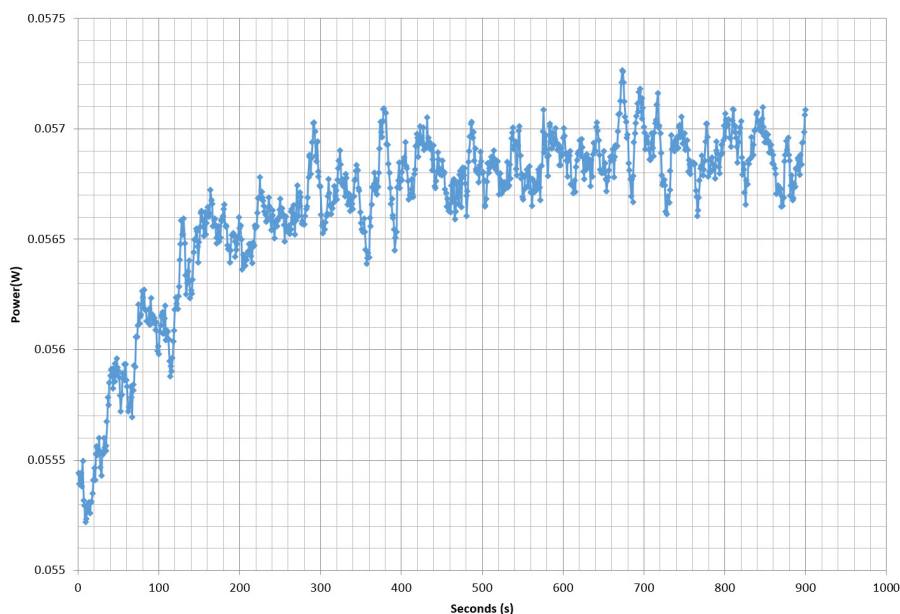
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - 1603530615803629 - 15/09/2017 - 11:23



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

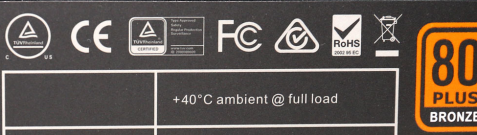
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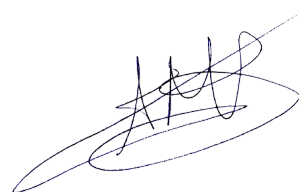


Top side

					
+40°C ambient @ full load					
AC Input	AC 100-240V~ 50-60Hz 10/5A				
DC Output	+5V	+3.3V	+12V	-12V	+5Vsb
Max Output, A	20	24	49	0.3	3.0
Combined, W	130		588	3.6	15
Output Power, P _{cont}	600W @ +40°C				

Power specifications label

CERTIFICATIONS 115V

Aris Mpitsiopoulos
Lab Director

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