

Lab ID#: 147
Receipt Date: Jul 14, 2018
Test Date: Jul 25, 2018

Report:

Report Date: Jul 27, 2018

DUT INFORMATION

Brand	EVGA
Manufacturer (OEM)	Super Flower
Series	B3
Model Number	
Serial Number	1703460505800699
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10
Rated Frequency (Hz)	50-60
Rated Power (W)	550
Type	ATX12V
Cooling	130mm Sleeve Bearing Fan (S1282412H)
Semi-Passive Operation	✓ (selectable)
Cable Design	Fully Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	45.8	3	0.5
	Watts	110		549.6	15	6
Total Max. Power (W)		550				

CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (600mm)	1	1	18-22AWG
4+4 pin EPS12V (600mm)	1	1	18-22AWG
6+2 pin PCIe (550mm+150mm)	1	2	18-22AWG
SATA (500mm+100mm+100mm)	2	6	18-20AWG
4 pin Molex (500mm+100mm+100mm)	1	3	18AWG
FDD Adapter (+105mm)	1	1	24AWG

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PAGE 1/8

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: Partially ErP Lot 3/6 2014, CEC: Partially
(EU) No 617/2013 Compliance	✓

115V

Average Efficiency	86.127%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	76.343%
Standby Power Consumption (W)	0.1292250
Average PF	0.985
Avg Noise Output	29.74 dB(A)
Efficiency Rating (ETA)	SILVER
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	

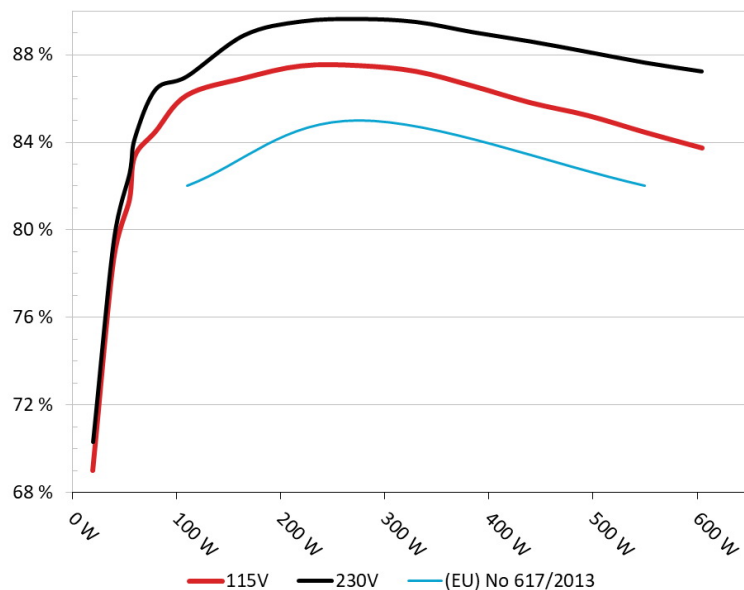
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: EVGA 550 B3

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



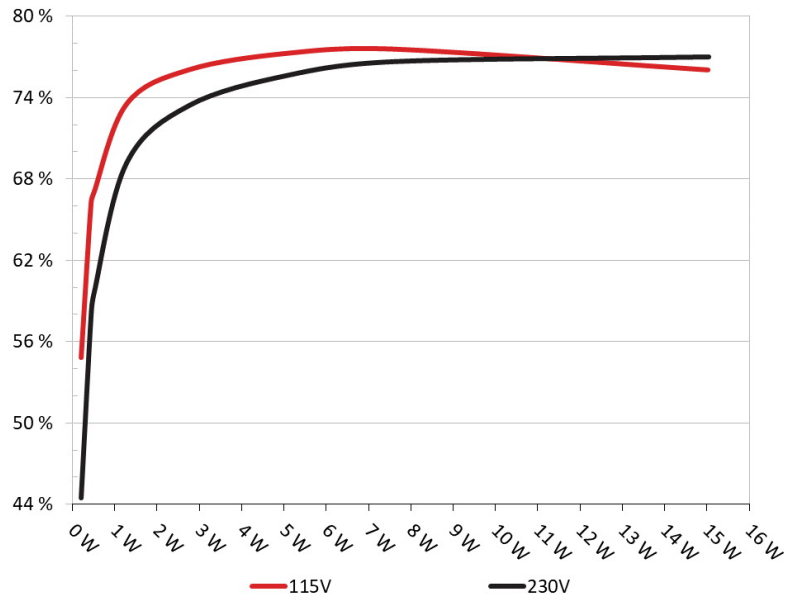
INFO

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 550 B3

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	0.041A	0.210	54.830%	0.028
	5.126V	0.383		115.22V
2	0.086A	0.443	66.218%	0.049
	5.125V	0.669		115.22V
3	0.541A	2.764	76.080%	0.218
	5.108V	3.633		115.21V
4	1.001A	5.096	77.294%	0.310
	5.090V	6.593		115.21V
5	1.500A	7.609	77.595%	0.364
	5.071V	9.806		115.21V
6	3.000A	15.020	76.062%	0.436
	5.006V	19.747		115.21V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.041A	0.210	44.492%	0.011
	5.126V	0.472		230.50V
2	0.086A	0.443	57.908%	0.017
	5.125V	0.765		230.50V
3	0.541A	2.764	73.433%	0.080
	5.108V	3.764		230.50V
4	1.001A	5.094	75.657%	0.136
	5.089V	6.733		230.50V
5	1.501A	7.609	76.665%	0.185
	5.069V	9.925		230.50V
6	3.001A	15.033	77.009%	0.284
	5.010V	19.521		230.50V

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PAGE 4/8

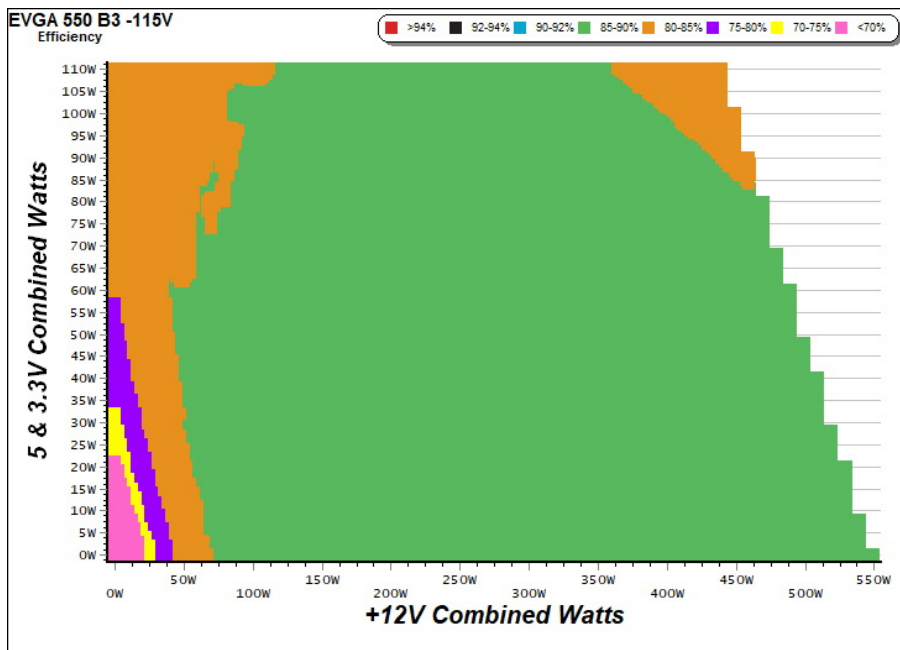
115V

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PAGE 5/8

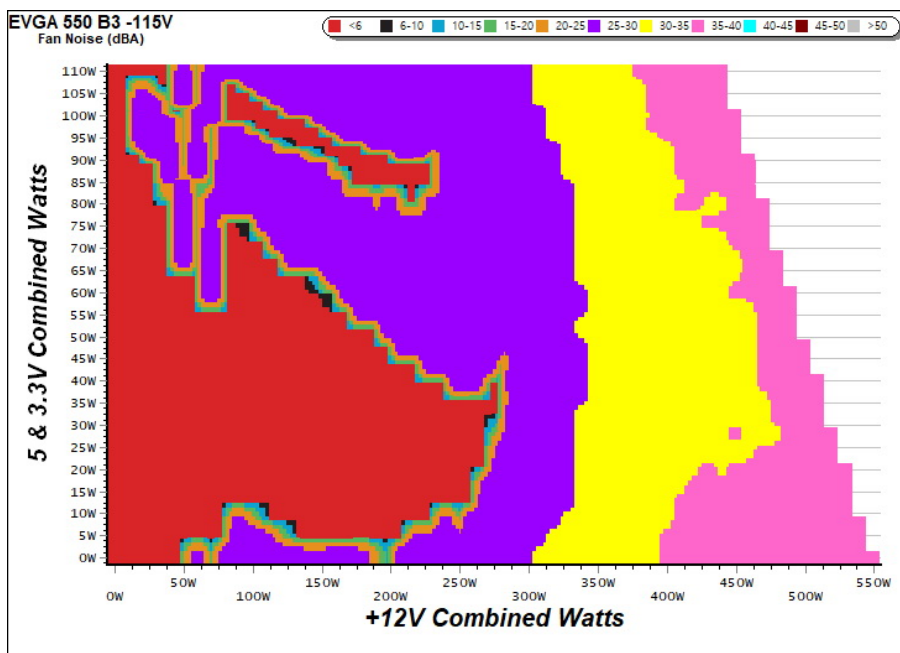
EFFICIENCY GRAPH 115V



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

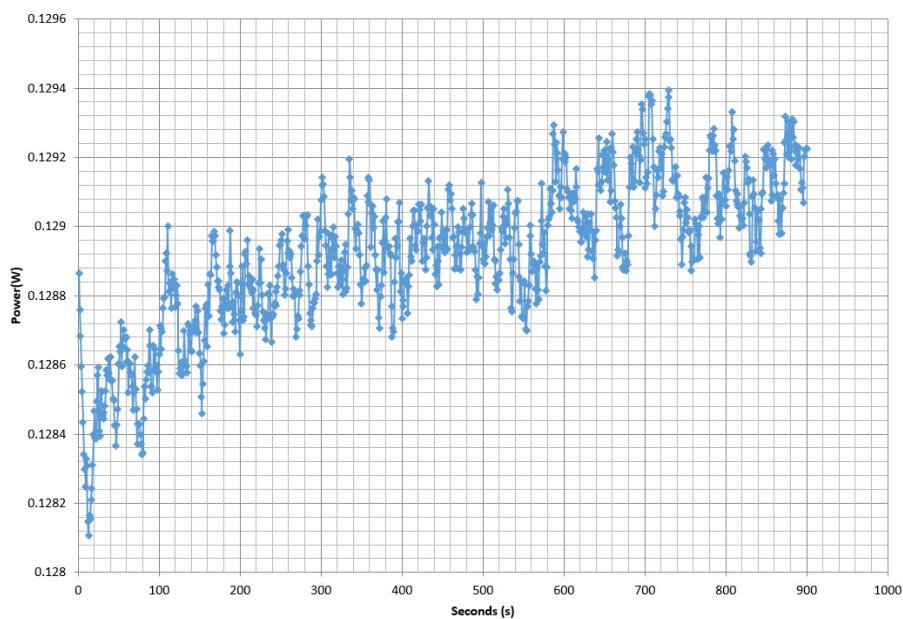
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - 1703460505800699 - 26/07/2017 - 15:15



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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PAGE 8/8



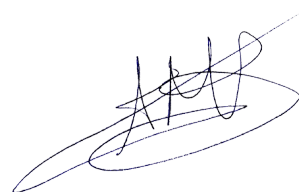
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+40°C ambient @ full load					
AC Input	100-240 VAC, 10A, 60/50 Hz				
DC Output	+5V	+3.3V	+12V	-12V	+5Vsb
Max Output, A	20A	20A	45.8A	0.5A	3.0A
Combined, W	110W		549.6W	6W	15W
Output Power, P _{cont}	550W @ +40°C				

Power specifications label

CERTIFICATIONS 115V

Aris Mpitsiopoulos
Lab Director

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