

Lab ID#: 206
Receipt Date: Oct 24, 2018
Test Date: Oct 29, 2018

Report: 20PS206A
Report Date: Oct 31, 2018

DUT INFORMATION

Brand	SeaSonic
Manufacturer (OEM)	Seasonic
Series	Prime Platinum
Model Number	SSR-750PD
Serial Number	R1701TA101420009
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	9.5-4.5
Rated Frequency (Hz)	50-60
Rated Power (W)	750
Type	ATX12V
Cooling	135mm Fluid Dynamic Bearing Fan (HA13525H12F-Z)
Semi-Passive Operation	✓ (selectable)
Cable Design	Fully Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62	2.5	0.3
	Watts	100		744	12.5	3.6
Total Max. Power (W)		750				

CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (610mm)	1	1	18-22AWG
4+4 pin EPS12V (650mm)	2	2	18AWG
6+2 pin PCIe (680mm+80mm)	2	4	18AWG
SATA (460mm+110mm+110mm+110mm)	2	8	18AWG
4 pin Molex (460mm+130mm+130mm)	1	3	18AWG
FDD Adapter (+110mm)	1	1	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	90.770%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	79.711%
Standby Power Consumption (W)	0.0563214
Average PF	0.989
Avg Noise Output	35.18 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	S+

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	

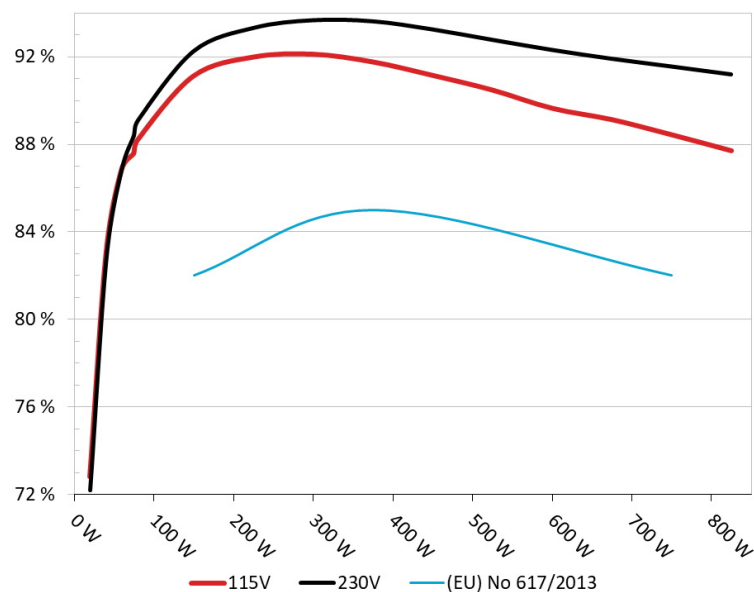
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Seasonic SSR-750PD
Ambient: 37°C - 47°C (98.6°F - 116.6°F)

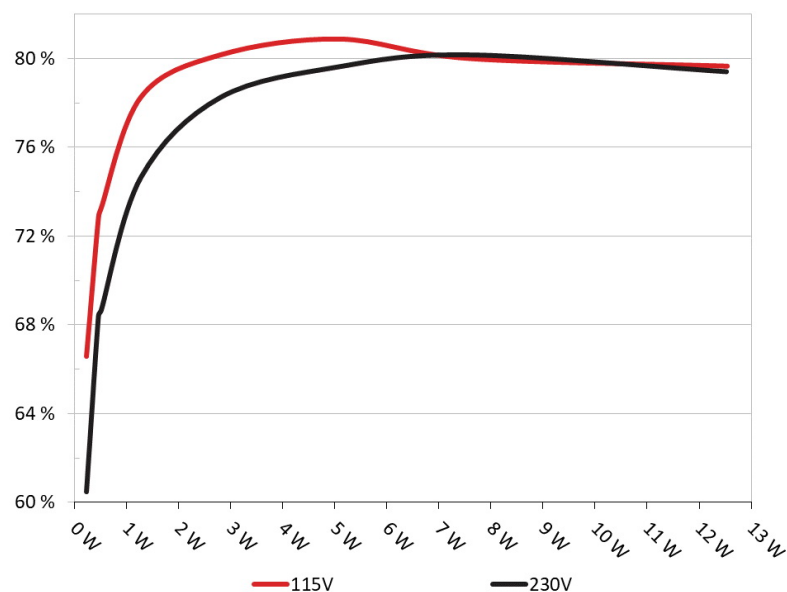


INFO

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: Seasonic SSR-750PD
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	0.045A	0.231	66.571%	0.031
	5.117V	0.347		115.38V
2	0.090A	0.461	72.828%	0.055
	5.115V	0.633		115.39V
3	0.550A	2.804	80.160%	0.247
	5.096V	3.498		115.37V
4	1.000A	5.078	80.873%	0.348
	5.077V	6.279		115.37V
5	1.500A	7.582	79.996%	0.410
	5.054V	9.478		115.37V
6	2.500A	12.537	79.651%	0.466
	5.014V	15.740		115.36V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.041A	0.212	63.473%	0.010
	5.108V	0.334		230.40V
2	0.087A	0.444	71.268%	0.019
	5.107V	0.623		230.40V
3	0.542A	2.760	76.731%	0.102
	5.096V	3.597		230.43V
4	1.002A	5.093	78.294%	0.172
	5.085V	6.505		230.43V
5	1.501A	7.614	78.301%	0.232
	5.071V	9.724		230.42V
6	2.501A	12.620	78.186%	0.314
	5.046V	16.141		230.41V

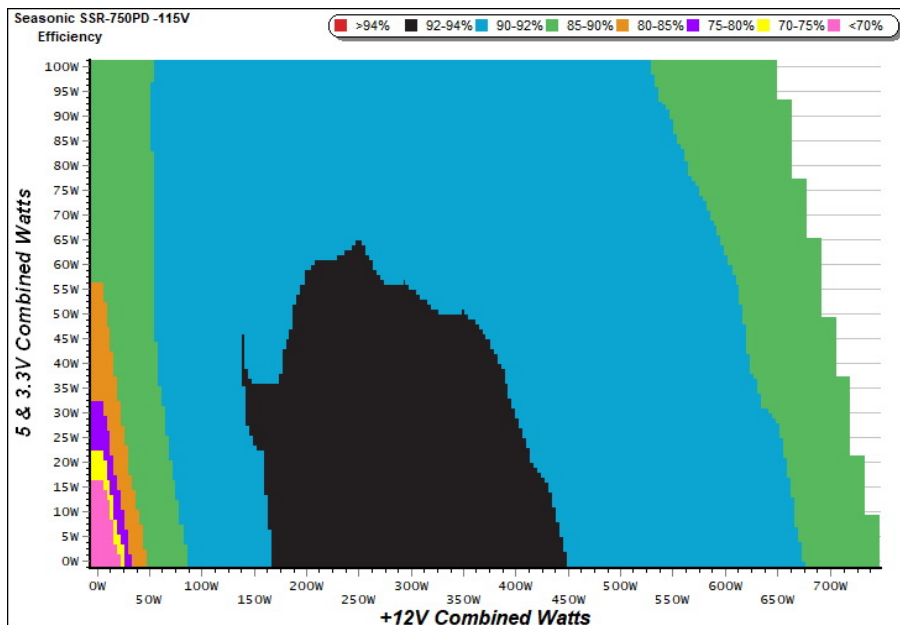
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115V

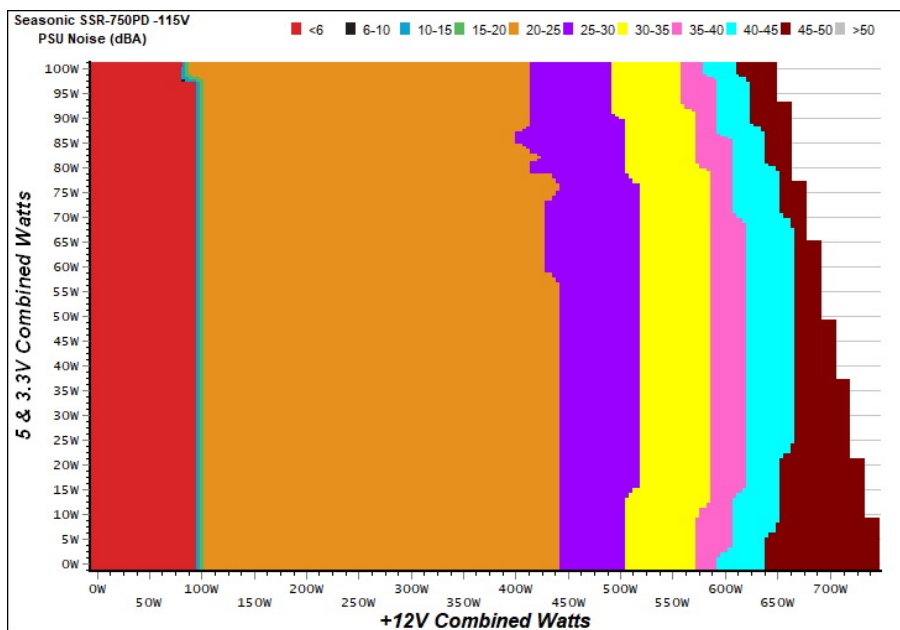
EFFICIENCY GRAPH 115V



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



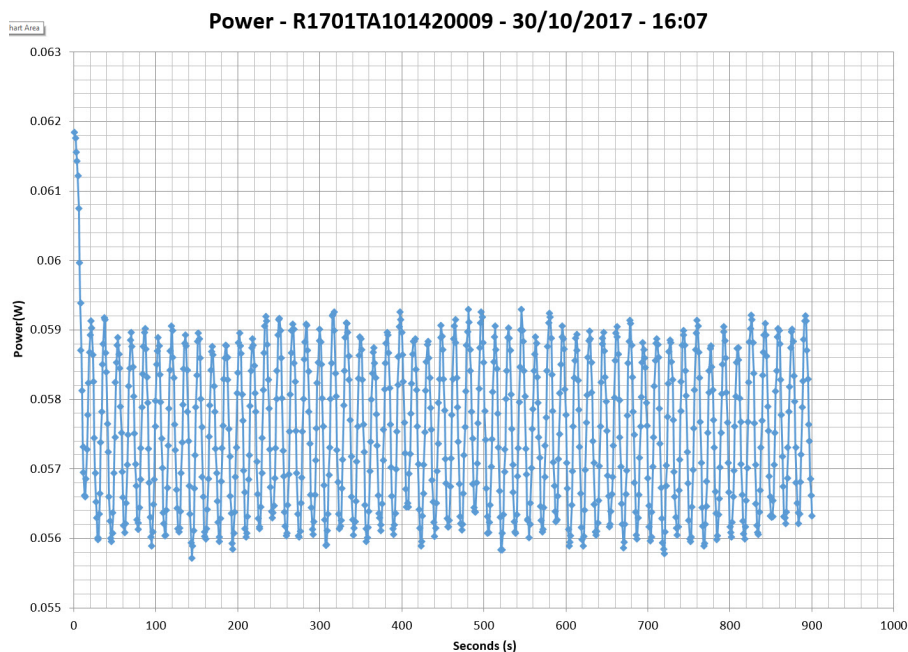
INFO

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



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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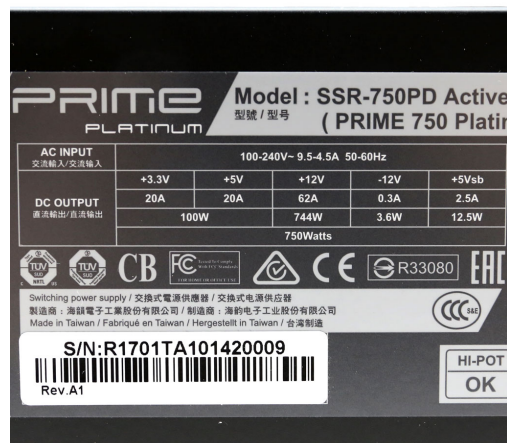
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EFFICIENCY AND NOISE REPORT IN ACCORDANCE WITH
CYBENETICS ETA AND CYBENETICS LAMBDA PROCEDURE

SeaSonic Prime Platinum 750W



Top side



Power specifications label

CERTIFICATIONS 115V




Aris Mpitsiopoulos
Lab Director

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