

Lab ID#: 48  
Receipt Date: Jan 5, 2018  
Test Date: Jan 18, 2018

Report:  
Report Date: Jan 22, 2018

### DUT INFORMATION

Brand	SeaSonic
Manufacturer (OEM)	Seasonic
Series	Prime Titanium
Model Number	SSR-750TD
Serial Number	R1606TA106430003
DUT Notes	Retested on 4/7/17

### 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 (HA13525M12F-Z)
Semi-Passive Operation	✓ (selectable)
Cable Design	Fully Modular

### POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62	3	0.3
	Watts	100		744	15	3.6
Total Max. Power (W)		750				

### CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (620mm)	1	1	18-22AWG
4+4 pin EPS12V (650mm)	2	2	18AWG
6+2 pin PCIe (680mm+80mm)	4	4	18AWG
SATA (450mm+110mm+110mm+110mm)	2	8	18AWG
SATA (350mm+110mm)	1	2	18AWG
4 pin Molex (350mm+120mm)	1	2	18AWG
4 pin Molex (450mm+120mm+120mm)	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	92.387%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	79.430%
Standby Power Consumption (W)	0.0575952
Average PF	0.989
Avg Noise Output	16.89 dB(A)
Efficiency Rating (ETA)	TITANIUM
Noise Rating (LAMBDA)	A+

### 230V

Average Efficiency	94.199%
Average Efficiency 5VSB	77.401%
Standby Power Consumption (W)	0.0995988
Average PF	0.945
Avg Noise Output	16.59 dB(A)
Efficiency Rating (ETA)	TITANIUM
Noise Rating (LAMBDA)	A+

## TEST EQUIPMENT

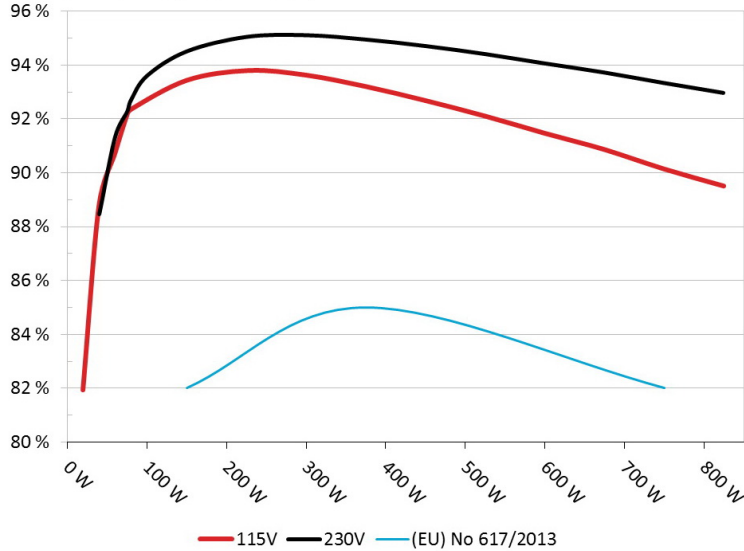
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5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

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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

**Efficiency: Seasonic SSR-750TD**  
Ambient: 39°C - 45°C (102.2°F - 113°F)

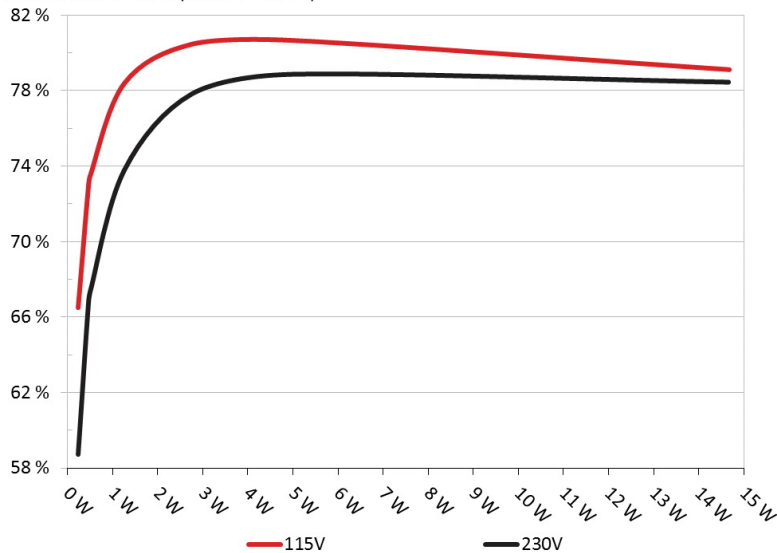


#### INFO

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-750TD**  
Ambient: 38°C - 40°C (100.4°F - 104°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	0.047A	0.236	66.479%	0.040
	5.013V	0.355		115.10V
2	0.092A	0.461	72.828%	0.070
	5.011V	0.633		115.10V
3	0.552A	2.756	80.444%	0.273
	4.992V	3.426		115.09V
4	3.002A	14.680	79.039%	0.476
	4.890V	18.573		115.08V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.047A	0.236	58.706%	0.014
	5.013V	0.402		230.24V
2	0.092A	0.461	66.618%	0.024
	5.011V	0.692		230.23V
3	0.552A	2.754	77.819%	0.112
	4.990V	3.539		230.24V
4	3.002A	14.659	78.445%	0.335
	4.883V	18.687		230.24V

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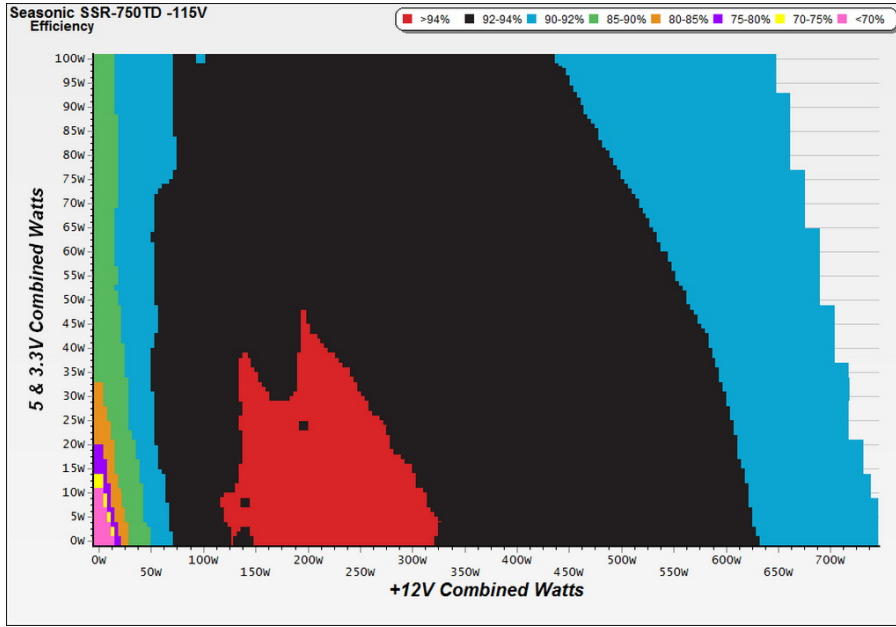
# 115V

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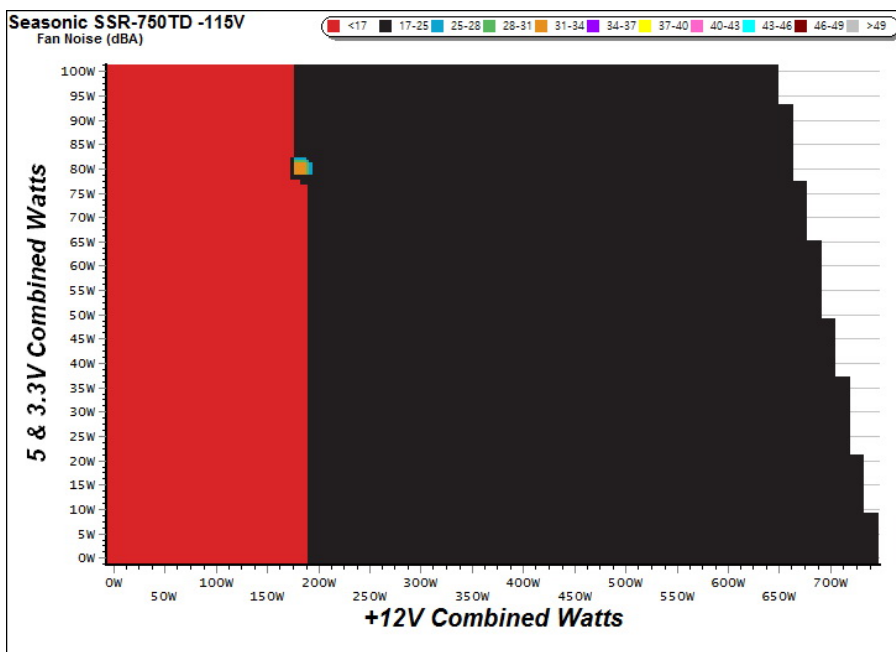
### EFFICIENCY GRAPH 115V



#### 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

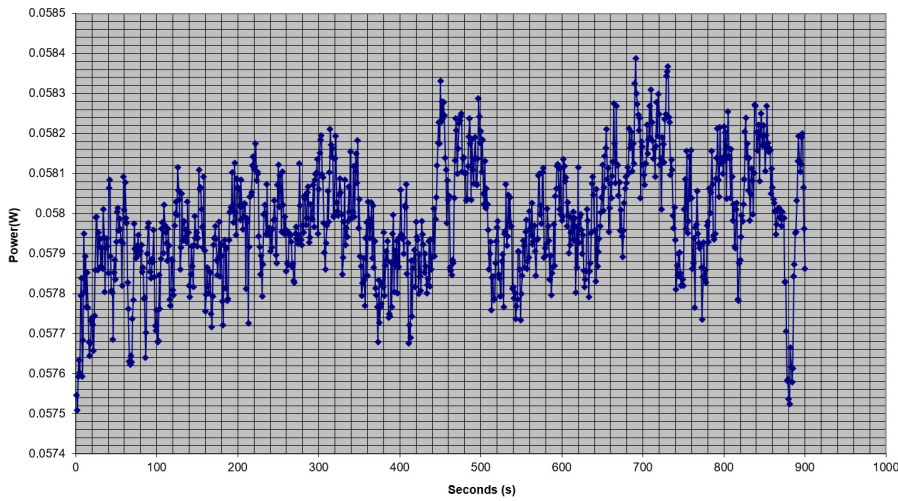
The PSU's noise in its entire operational range and under 30-32 °C (+-2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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### VAMPIRE POWER -115V

Power - R1606TA106430003 - 21/01/2017 - 23:25



#### 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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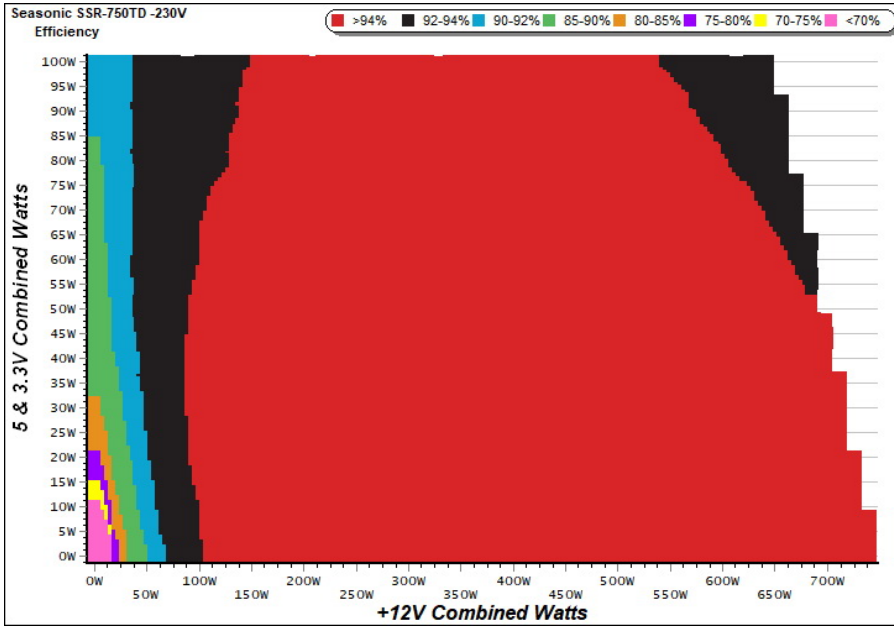
# 230V

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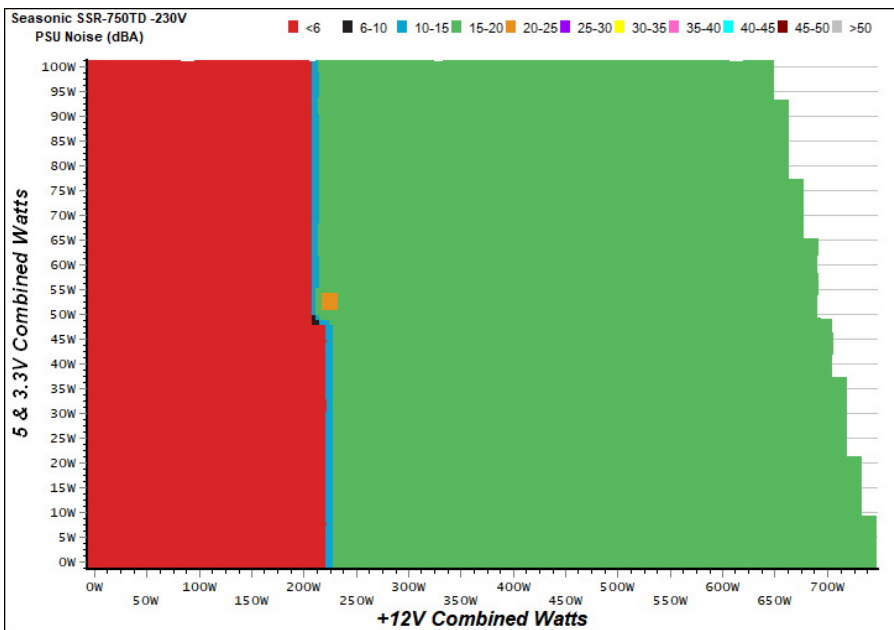
### EFFICIENCY GRAPH 230V



#### 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 230V



#### INFO

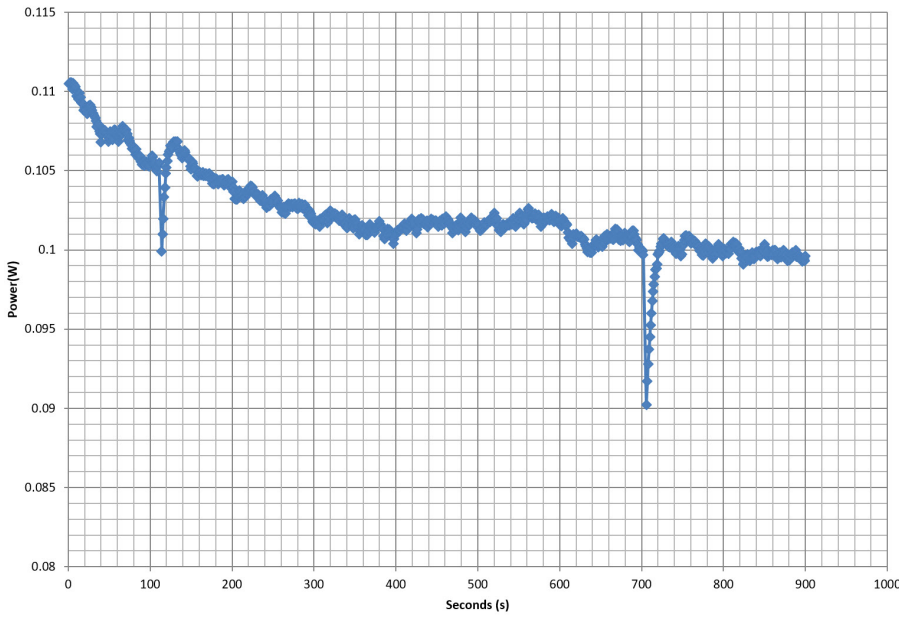
The PSU's noise in its entire operational range and under 30-32 °C (+-2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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**VAMPIRE POWER -230V**

**Power - R1606TA106430003 - 09/05/2017 - 08:10**



**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 230V**

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

## SeaSonic Prime Titanium 750W

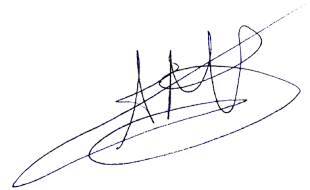


Top side



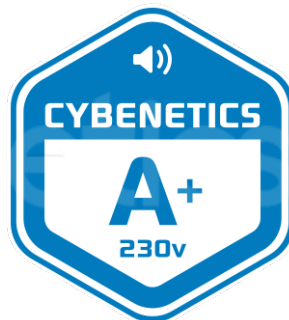
Power specifications label

### CERTIFICATIONS 115V

**Aris Mpitsiopoulos**  
Lab Director

### CERTIFICATIONS 230V



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