

Anex

Antec EA-750G

Lab ID#: 223

Receipt Date: -

Test Date: -

Report:

Report Date: Nov 23, 2018

DUT INFORMATION

Brand	Antec
Manufacturer (OEM)	Seasonic
Series	Earth Watts
Model Number	EA-750G
Serial Number	EA750GSN174301204
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	50-60
Rated Power (W)	750
Type	ATX12V
Cooling	120mm Sleeve Bearing Fan (HA1225H12S-Z)
Semi-Passive Operation	x
Cable Design	Semi 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

Captive Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (560mm)	1	1	18-22AWG	No
4+4 pin EPS12V (680mm)	2	2	18AWG	No
6+2 pin PCIe (680mm+150mm)	1	2	18AWG	No
Modular Cables				
6+2 pin PCIe (660mm+150mm)	1	2	18AWG	No
SATA (560mm+150mm+150mm) / 4 pin Molex (+150mm)	2	6 / 2	18AWG	No
SATA (560mm+150mm) / 4 pin Molex (+150mm)	1	2 / 1	18AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	No

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RESULTS		
Temperature Range (°C /°F)		30-32 / 86-89.6
Average Efficiency		88.301
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V		0.000
Average Efficiency 5VSB		76.516
Standby Power Consumption (W) -115V		0.0481414
Standby Power Consumption (W) -230V		0.0816828
Average PF		0.985
ErP Lot 3/6 Ready		✓
(EU) No 617/2013 Compliance		✓
Avg Noise Output		28.65
Efficiency Rating (ETA)		PLATINUM
Noise Rating (LAMBDA)		A-

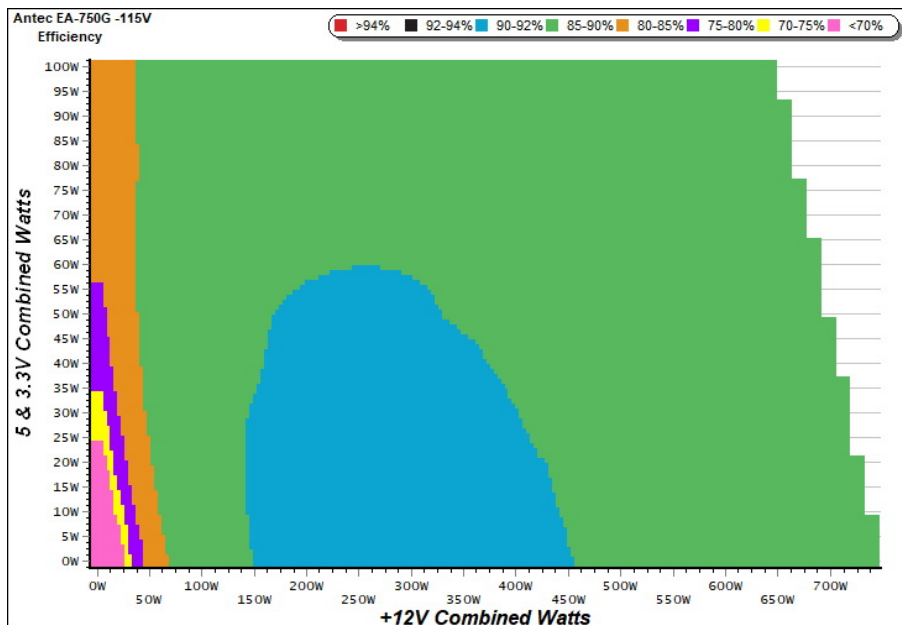
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 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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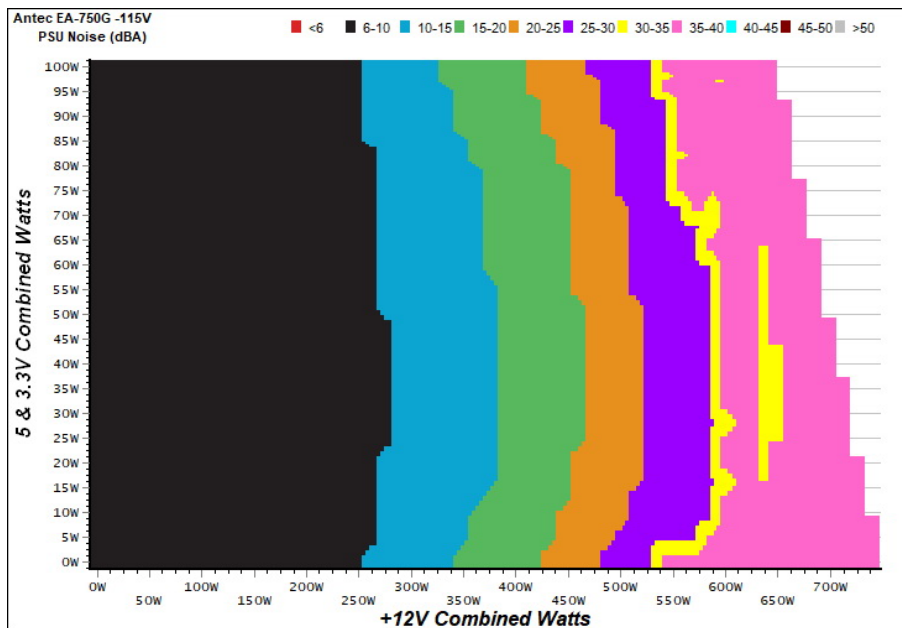
EFFICIENCY GRAPH



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



INFO

The PSU's noise in its entire operational range and under 30-32 °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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5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

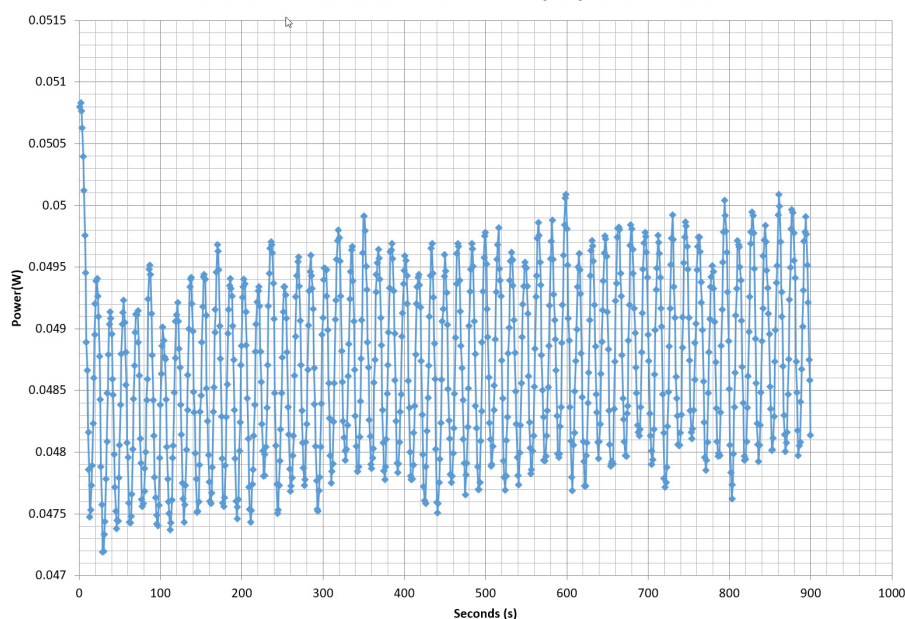
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.230	67.647%	0.032
	5.109V	0.340		115.27V
2	0.090A	0.460	72.670%	0.059
	5.107V	0.633		115.28V
3	0.550A	2.804	77.118%	0.264
	5.098V	3.636		115.27V
4	1.000A	5.089	76.954%	0.358
	5.089V	6.613		115.26V
5	1.500A	7.619	77.170%	0.409
	5.079V	9.873		115.26V
6	3.000A	15.124	75.662%	0.470
	5.042V	19.989		115.25V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.230	60.526%	0.012
	5.109V	0.380		230.83V
2	0.090A	0.460	67.449%	0.022
	5.107V	0.682		230.84V
3	0.550A	2.804	75.559%	0.114
	5.098V	3.711		230.83V
4	1.000A	5.089	76.446%	0.186
	5.089V	6.657		230.82V
5	1.500A	7.619	76.851%	0.246
	5.079V	9.914		230.82V
6	3.000A	15.146	76.918%	0.344
	5.049V	19.691		230.82V

VAMPIRE POWER -115V

Power - EA750GSN174301204 - 22/11/2017 - 11:44



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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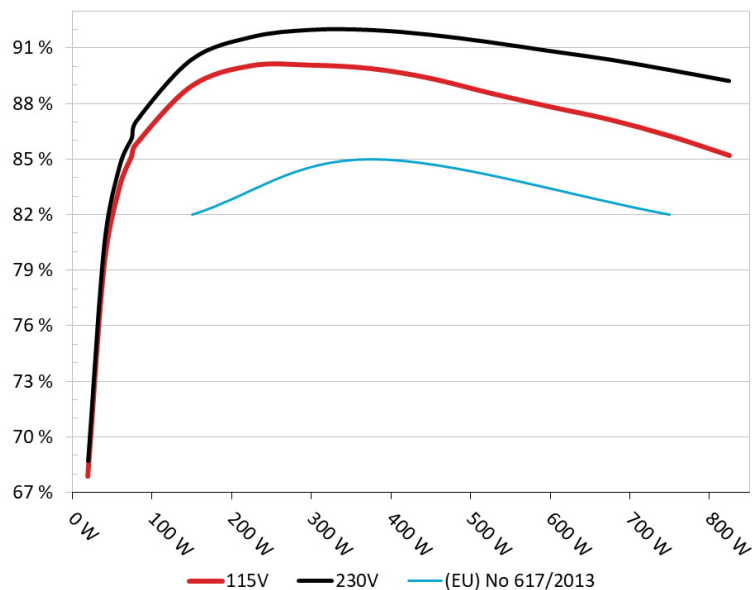
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Antec EA-750G

Ambient: 37°C - 48°C (98.6°F - 118.4°F)



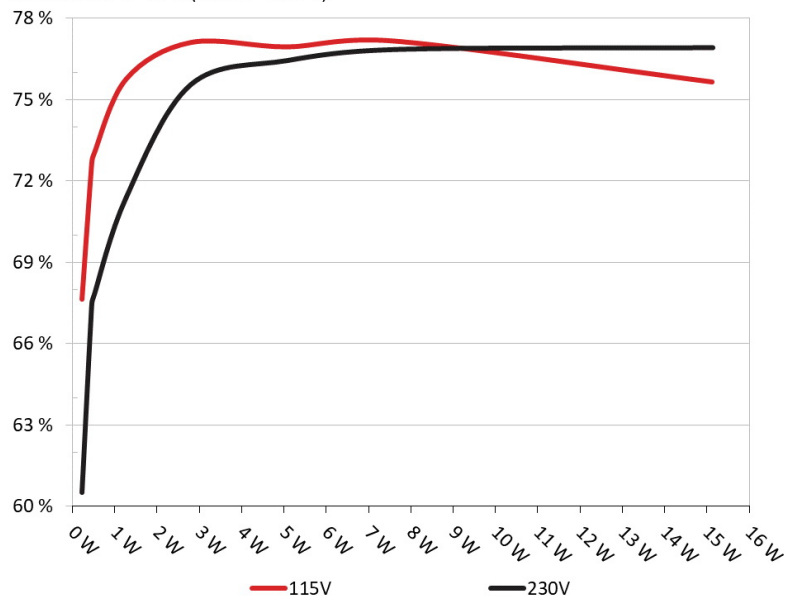
INFO

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: Antec EA-750G

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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10-110% LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	4.370A	1.981A	1.989A	0.984A	74.345	85.140%	474	9.2	38.23°C	0.969
	12.072V	5.043V	3.317V	5.084V	87.321				47.06°C	115.28V
2	9.806A	2.977A	2.988A	1.183A	149.254	88.917%	474	9.2	38.44°C	0.985
	12.070V	5.038V	3.312V	5.074V	167.858				49.59°C	115.18V
3	15.644A	3.476A	3.478A	1.382A	224.777	90.029%	556	10.1	38.51°C	0.989
	12.067V	5.034V	3.307V	5.065V	249.671				52.09°C	115.07V
4	21.415A	3.974A	3.999A	1.583A	299.547	90.056%	812	16.0	39.77°C	0.988
	12.064V	5.031V	3.301V	5.055V	332.624				54.10°C	115.07V
5	26.859A	4.972A	5.002A	1.784A	374.474	89.875%	1046	22.0	40.89°C	0.988
	12.062V	5.030V	3.297V	5.045V	416.662				56.50°C	114.96V
6	32.307A	5.966A	6.012A	1.986A	449.423	89.347%	1287	29.1	41.52°C	0.988
	12.060V	5.029V	3.293V	5.035V	503.009				57.59°C	114.86V
7	37.788A	6.962A	7.028A	2.189A	524.738	88.549%	1698	35.9	42.49°C	0.988
	12.058V	5.027V	3.286V	5.025V	592.598				58.83°C	114.83V
8	43.272A	7.959A	8.048A	2.393A	600.044	87.812%	2017	41.3	43.52°C	0.989
	12.055V	5.026V	3.280V	5.015V	683.331				60.54°C	114.72V
9	49.122A	8.461A	8.551A	2.396A	674.565	87.122%	2030	40.8	44.52°C	0.990
	12.053V	5.023V	3.274V	5.009V	774.274				63.15°C	114.60V
10	54.784A	8.968A	9.088A	3.006A	749.801	86.242%	2046	40.1	46.05°C	0.991
	12.049V	5.019V	3.268V	4.990V	869.416				68.10°C	114.57V
11	61.047A	8.980A	9.105A	3.010A	825.030	85.185%	2046	40.1	47.70°C	0.991
	12.045V	5.013V	3.262V	4.984V	968.514				73.39°C	114.44V
CL1	0.735A	12.001A	11.998A	0.000A	109.510	83.031%	1180	25.7	43.97°C	0.983
	12.064V	5.069V	3.318V	5.091V	131.891				55.00°C	115.21V
CL2	62.009A	1.000A	0.999A	1.000A	760.496	86.936%	2046	40.1	46.31°C	0.991
	12.050V	4.990V	3.262V	5.039V	874.781				67.91°C	114.58V

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20-80W LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.184A	0.496A	0.479A	0.196A	19.385	67.882%	474	9.2	0.826
	12.078V	5.031V	3.318V	5.104V	28.557				115.35V
2	2.445A	0.991A	0.992A	0.392A	39.809	79.241%	474	9.2	0.929
	12.075V	5.041V	3.318V	5.099V	50.238				115.32V
3	3.638A	1.484A	1.476A	0.589A	59.305	83.483%	474	9.2	0.959
	12.074V	5.043V	3.317V	5.093V	71.038				115.30V
4	4.899A	1.982A	1.988A	0.786A	79.732	85.779%	474	9.2	0.973
	12.073V	5.042V	3.317V	5.088V	92.951				115.28V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	21.0 mV	15.7 mV	14.9 mV	5.3 mV	Pass
20% Load	29.6 mV	15.4 mV	12.5 mV	6.1 mV	Pass
30% Load	34.9 mV	17.7 mV	16.3 mV	7.3 mV	Pass
40% Load	38.5 mV	18.6 mV	18.3 mV	8.1 mV	Pass
50% Load	33.3 mV	17.9 mV	18.1 mV	8.6 mV	Pass
60% Load	32.4 mV	19.5 mV	16.8 mV	9.4 mV	Pass
70% Load	33.0 mV	20.8 mV	14.9 mV	9.7 mV	Pass
80% Load	35.3 mV	21.7 mV	18.7 mV	10.7 mV	Pass
90% Load	37.9 mV	22.8 mV	19.1 mV	11.6 mV	Pass
100% Load	44.0 mV	23.6 mV	19.1 mV	12.4 mV	Pass
110% Load	52.3 mV	23.9 mV	19.0 mV	12.6 mV	Pass
Crossload 1	27.9 mV	21.3 mV	17.5 mV	7.4 mV	Pass
Crossload 2	44.7 mV	19.9 mV	18.3 mV	11.3 mV	Pass

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HOLD-UP TIME & POWER OK SIGNAL (230V)

Hold-Up Time (ms)	16.70
AC Loss to PWR_OK Hold Up Time (ms)	15.10
PWR_OK Inactive to DC Loss Delay (ms)	1.60



Top side

Switching power supply / Bloc d'alimentation / Schaltnetzteil Fuente de Alimentación / 交換式電源供應器 / 交換式電源供應器						
AC Input / Entrée / Eingang / Entrada / 交流輸入 / 交流輸入: 100-240VAC, 50Hz-60Hz, 10A-5A						
Model / Modèle / Modell / Modelo / 型號 / 型号: EA750G PRO						
直流輸出 / 直流輸出	DC Output	+3.3V	+5V	+12V	-12V	+5VSB
	Max. 最大	20A	20A	62A	0.3A	3.0A
合併瓦數/合併瓦數						
Max. Combined						
瓦數配比 / 瓦數配比		100W	744W	3.6W	15W	
總瓦數/總瓦數		750W				
Total						
WARNING: Hazardous voltages contained within this power supply. Not user-serviceable. Return to service center.						
ATTENTION: Tensions dangereuses contenues dans cette alimentation. N'essayez pas de la réparer vous-même.						
Retournez-la au service clientèle pour toute réparation.						
WARNING: Netzteil unter gefährlicher Spannung. Nicht vom Nutzer wartbar. Zur Reparatur an Kundendienst schicken.						
警告: 非專業維修人員請勿自行開啟此蓋/非專業維修人員請勿自行開啟此蓋。						
製造商: 安基克科技股份有限公司						
Made in China / Fabriqué en Chine / Hergestellt in China / 製造地: 中國 / 中國製造 / 中國製造						
Authorized Representative in Europe: Antec Europe BV, Stuttgarterstrat 12, 3047 AS-Rotterdam / The Netherlands						
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Power specifications label

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