

## Anex

Corsair AX1000

Lab ID#: 546

Receipt Date: -

Test Date: -

Report:

Report Date: Nov 22, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Seasonic
Series	AX
Model Number	AX1000
Serial Number	18437002000059610001
DUT Notes	CP-9020152

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	13-6.5
Rated Frequency (Hz)	50-60
Rated Power (W)	1000
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	25	25	83	3	0.3
	Watts	125		996	15	3.6
Total Max. Power (W)		1000				

CABLES AND CONNECTORS				
Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (610mm)	1	1	16-20AWG	Yes
4+4 pin EPS12V (650mm)	2	2	18AWG	Yes
6+2 pin PCIe (670mm+100mm)	4	8	16-18AWG	Yes
SATA (460mm+110mm+110mm+110mm)	4	16	18AWG	No
4 pin Molex (450mm+100mm+100mm+100mm)	2	8	18AWG	No
FDD Adapter (110mm)	1	1	22AWG	No
AC Power Cord (1400mm)	1	1	14AWG	-

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RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	92.107
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	77.269
Average Efficiency 5VSB	79.719
Standby Power Consumption (W) -115V	0.0470888
Standby Power Consumption (W) -230V	0.0801304
Average PF	0.990
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	22.85
Efficiency Rating (ETA)	TITANIUM
Noise Rating (LAMBDA)	A

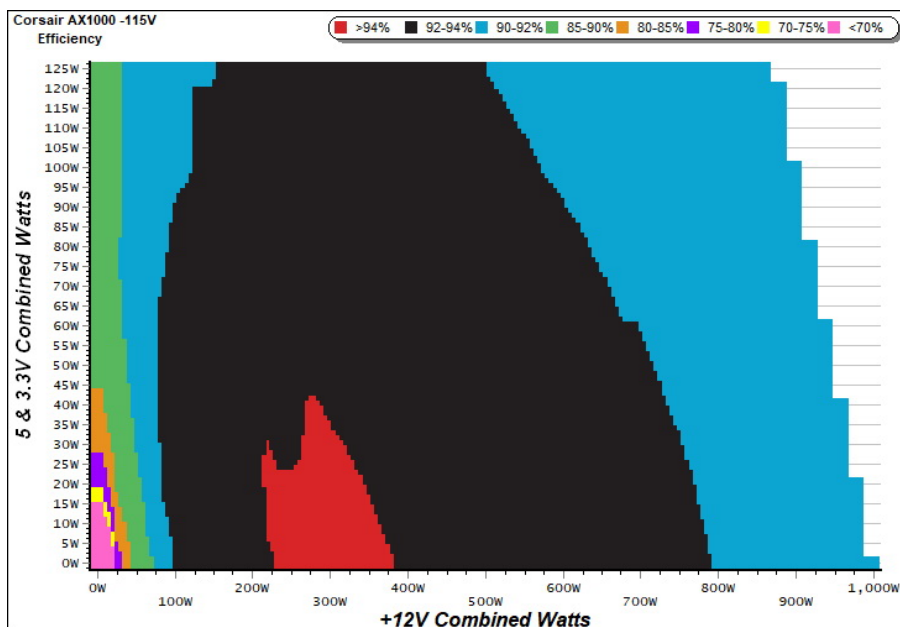
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Chroma 61604, Keysight AC6804B	
Power Analyzers	N4L PPA1530 x2, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol 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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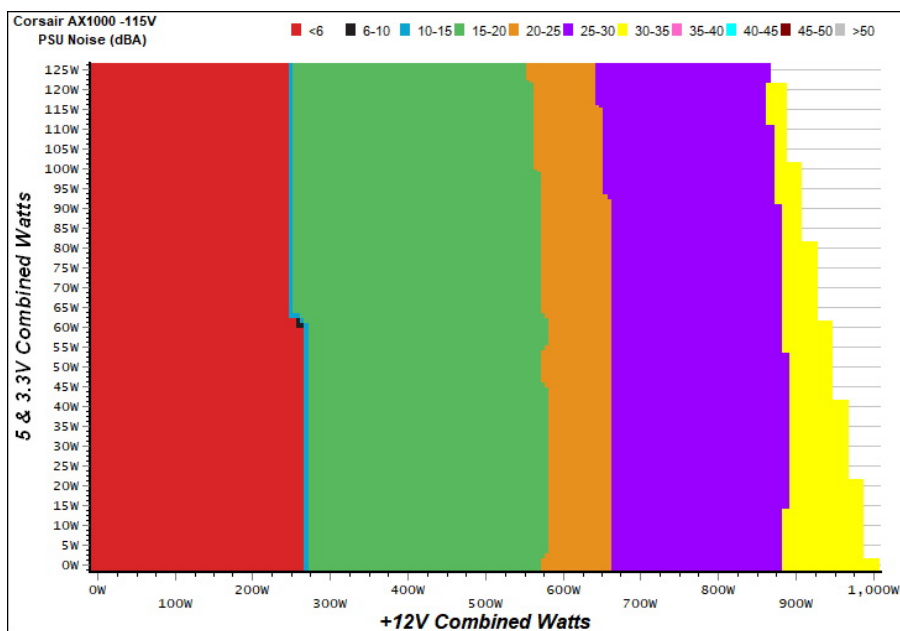
### EFFICIENCY GRAPH



#### 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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Corsair AX1000

## 5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

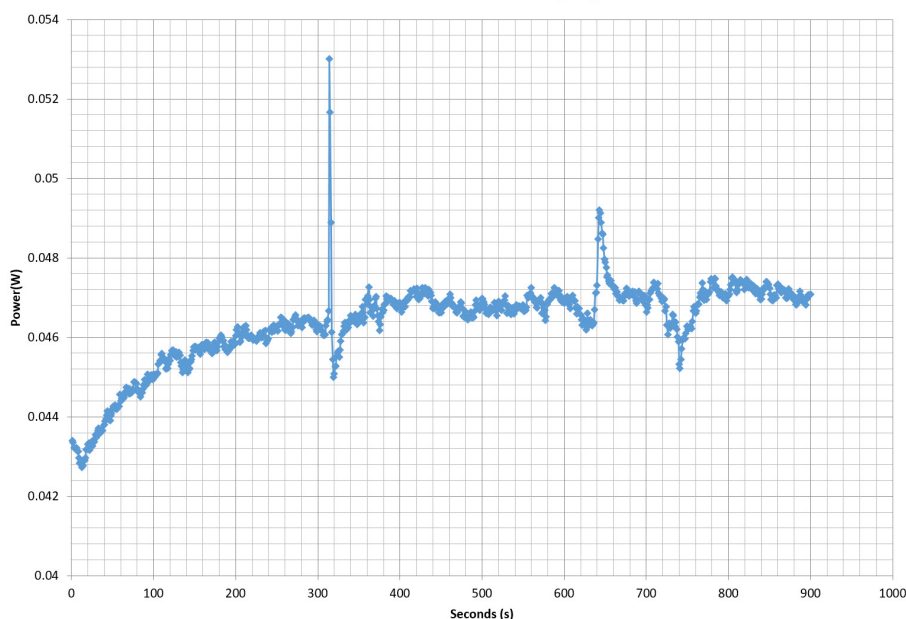
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.223	66.967%	0.032
	4.961V	0.333		115.10V
2	0.090A	0.447	72.801%	0.059
	4.960V	0.614		115.10V
3	0.550A	2.724	79.812%	0.256
	4.952V	3.413		115.08V
4	1.000A	4.944	79.858%	0.354
	4.943V	6.191		115.08V
5	1.500A	7.404	80.768%	0.409
	4.935V	9.167		115.08V
6	3.000A	14.725	79.789%	0.484
	4.908V	18.455		115.08V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.223	60.108%	0.011
	4.962V	0.371		230.24V
2	0.090A	0.446	67.678%	0.019
	4.961V	0.659		230.24V
3	0.550A	2.723	76.769%	0.098
	4.950V	3.547		230.38V
4	1.000A	4.943	78.886%	0.162
	4.942V	6.266		230.38V
5	1.500A	7.399	78.746%	0.220
	4.933V	9.396		230.27V
6	3.000A	14.715	79.386%	0.326
	4.905V	18.536		230.27V

## VAMPIRE POWER -115V

Power - 18437002000059610001 - 15/11/2018 - 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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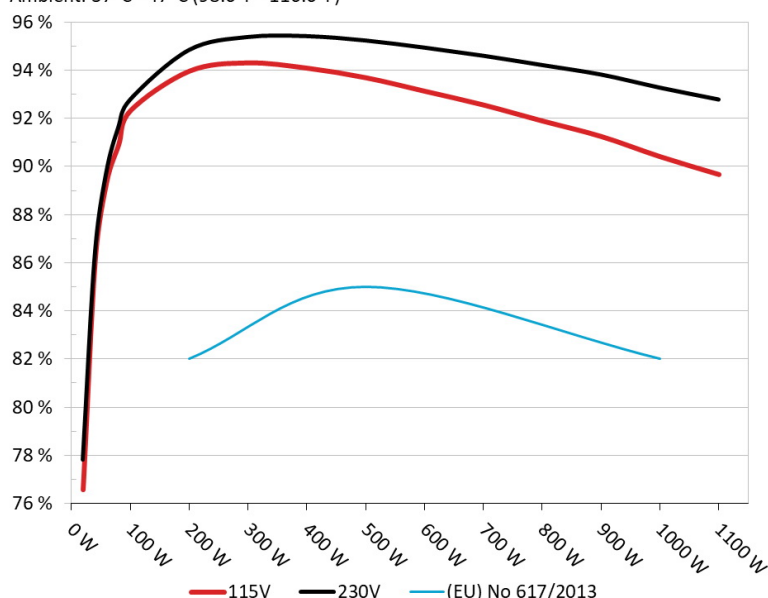
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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

#### Efficiency: Corsair AX1000

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



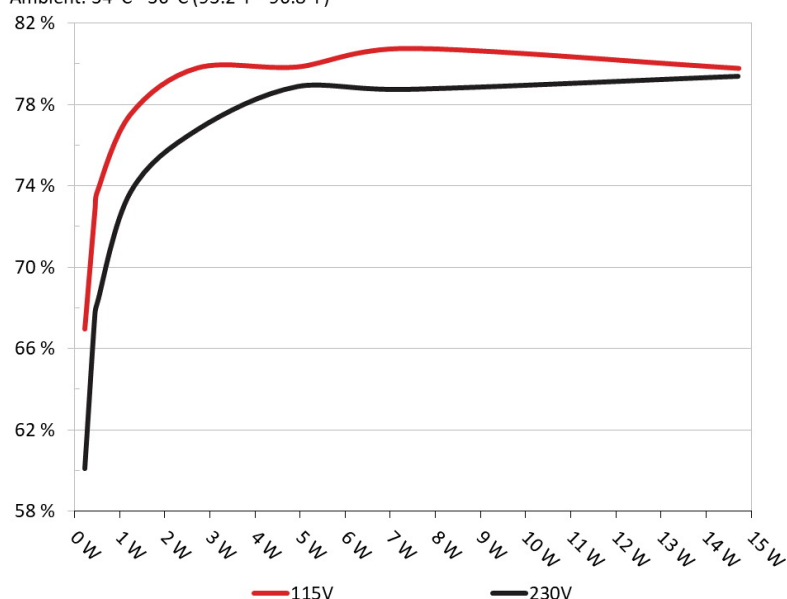
#### INFO

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: Corsair AX1000

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	6.431A	1.977A	1.960A	0.992A	99.851	92.324%	0	<6.0	42.98°C	0.963
	12.171V	5.055V	3.359V	5.042V	108.153				40.31°C	115.09V
2	13.863A	2.968A	2.946A	1.191A	199.572	93.965%	0	<6.0	44.83°C	0.981
	12.168V	5.052V	3.358V	5.038V	212.389				41.30°C	115.10V
3	21.617A	3.462A	3.423A	1.391A	298.969	94.309%	0	<6.0	41.58°C	0.990
	12.166V	5.050V	3.357V	5.034V	317.010				45.87°C	115.05V
4	29.459A	3.960A	3.931A	1.591A	399.486	94.092%	733	20.2	41.76°C	0.993
	12.163V	5.047V	3.355V	5.029V	424.570				46.67°C	115.05V
5	36.928A	4.955A	4.917A	1.792A	499.576	93.694%	782	22.4	41.97°C	0.993
	12.161V	5.045V	3.354V	5.025V	533.198				47.60°C	115.05V
6	44.407A	5.947A	5.904A	1.992A	599.720	93.133%	848	25.7	42.62°C	0.995
	12.159V	5.042V	3.352V	5.020V	643.938				48.48°C	115.07V
7	51.854A	6.945A	6.892A	2.193A	699.488	92.563%	923	27.0	43.17°C	0.996
	12.157V	5.040V	3.351V	5.016V	755.687				50.19°C	115.07V
8	59.374A	7.940A	7.881A	2.394A	800.026	91.894%	993	29.6	43.64°C	0.997
	12.154V	5.037V	3.350V	5.012V	870.601				52.43°C	115.07V
9	67.217A	8.442A	8.359A	2.395A	899.322	91.255%	1072	32.1	44.55°C	0.997
	12.152V	5.035V	3.349V	5.011V	985.505				54.82°C	115.08V
10	74.903A	8.943A	8.872A	3.002A	999.772	90.413%	1422	40.5	45.22°C	0.998
	12.150V	5.032V	3.347V	4.998V	1105.782				56.46°C	115.08V
11	83.152A	8.944A	8.873A	3.003A	1099.823	89.670%	1815	47.8	46.55°C	0.998
	12.148V	5.030V	3.347V	4.997V	1226.522				58.64°C	115.10V
CL1	0.138A	15.001A	14.999A	0.000A	127.665	88.571%	938	27.7	41.93°C	0.974
	12.167V	5.049V	3.350V	5.076V	144.138				47.41°C	115.09V
CL2	83.013A	1.000A	0.999A	1.000A	1021.927	90.682%	1376	40.3	45.89°C	0.998
	12.149V	5.033V	3.351V	5.022V	1126.939				56.05°C	115.09V

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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	1.171A	0.491A	0.474A	0.198A	19.323	76.572%	0	<6.0	0.784
	12.161V	5.063V	3.364V	5.061V	25.235				115.08V
2	2.421A	0.987A	0.978A	0.396A	39.722	86.070%	0	<6.0	0.895
	12.161V	5.058V	3.361V	5.054V	46.151				115.08V
3	3.604A	1.482A	1.455A	0.594A	59.208	89.345%	0	<6.0	0.936
	12.160V	5.057V	3.360V	5.050V	66.269				115.09V
4	4.857A	1.976A	1.961A	0.793A	79.645	90.898%	0	<6.0	0.953
	12.161V	5.056V	3.359V	5.047V	87.620				115.09V

### RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	12.5 mV	9.7 mV	12.9 mV	10.7 mV	Pass
20% Load	13.0 mV	5.2 mV	10.8 mV	12.7 mV	Pass
30% Load	6.7 mV	5.0 mV	10.1 mV	9.1 mV	Pass
40% Load	7.7 mV	6.4 mV	9.1 mV	7.3 mV	Pass
50% Load	8.4 mV	5.0 mV	8.7 mV	7.2 mV	Pass
60% Load	8.8 mV	5.2 mV	9.0 mV	7.4 mV	Pass
70% Load	9.7 mV	5.3 mV	9.1 mV	8.2 mV	Pass
80% Load	10.4 mV	5.5 mV	9.8 mV	8.5 mV	Pass
90% Load	10.9 mV	5.6 mV	10.1 mV	8.4 mV	Pass
100% Load	15.2 mV	6.5 mV	10.7 mV	9.6 mV	Pass
110% Load	15.7 mV	6.6 mV	11.0 mV	9.9 mV	Pass
Crossload 1	15.2 mV	5.2 mV	11.6 mV	7.0 mV	Pass
Crossload 2	15.1 mV	6.2 mV	9.5 mV	9.0 mV	Pass

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

Hold-Up Time (ms)	20.40
AC Loss to PWR_OK Hold Up Time (ms)	18.70
PWR_OK Inactive to DC Loss Delay (ms)	1.70



Top side



CORSAIR						
MODEL / MODELO / 型号 / 型號 / 모델: RPS0114						
POWER SUPPLY / FUENTE DE ALIMENTACIÓN / 전원 공급 장치						
PART NUMBER: CP-9020152 / 75-003206						
交流输入 交流輸入	AC INPUT AC 입력 Entrada de CA	100 - 240V • 13A - 6.5A • 50Hz - 60Hz (200-240V • 6.5A • 50-60Hz 适用于中国地区使用)				
直流输出 直流出	DC OUTPUT DC 출력 Salida de CC	+3.3V	+5V	+12V	-12V	+5Vsb
最大电流 最大電流	MAX LOAD 최대 부하 Carga Máximo	25A	25A	83A	0.3A	3A
最大瓦特数 最大瓦特數	MAX POWER 최대 출력 Wattaje Combinado Máximo	125W		996W	3.6W	15W
TOTAL POWER: 1000W PODER TOTAL / 总功率 / 總功率 / 총출력						

Power specifications label

## CERTIFICATIONS



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