

Anex

Corsair HX750i

Lab ID#: 101

Receipt Date: -

Test Date: -

Report:

Report Date: Apr 28, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	HXi
Model Number	HX750i
Serial Number	16357169000005810454
DUT Notes	CP-9020072

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	750
Type	ATX12V
Cooling	135mm Fluid Dynamic Bearing Fan (NR135P)
Semi-Passive Operation	✓ (selectable)
Cable Design	Fully Modular

POWER SPECIFICATIONS						
Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	62.5	3	0.8
	Watts	150		750	15	9.6
Total Max. Power (W)		750				

CABLES AND CONNECTORS			
Modular Cables			
Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (600mm)	1	1	18AWG
4+4 pin EPS12V (650mm)	2	2	18AWG
6+2 pin PCIe (600mm+150mm)	3	6	16-18AWG
SATA (550mm+100mm+100mm+100mm)	1	4	18AWG
SATA (500mm+100mm+100mm+100mm)	2	8	18AWG
4 pin Molex (450mm+100mm+100mm+100mm)	2	8	18AWG
FDD Adapter (+100mm)	2	2	22AWG
C-Link USB Cable (800mm) / C-Link I2C Cable (800mm)	1 / 1	1 / 1	24-28 / 29AWG

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RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	89.819
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	0.000
Average Efficiency 5VSB	79.173
Standby Power Consumption (W) -115V	0.0407489
Standby Power Consumption (W) -230V	0.0775661
Average PF	0.992
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	19.10
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A+

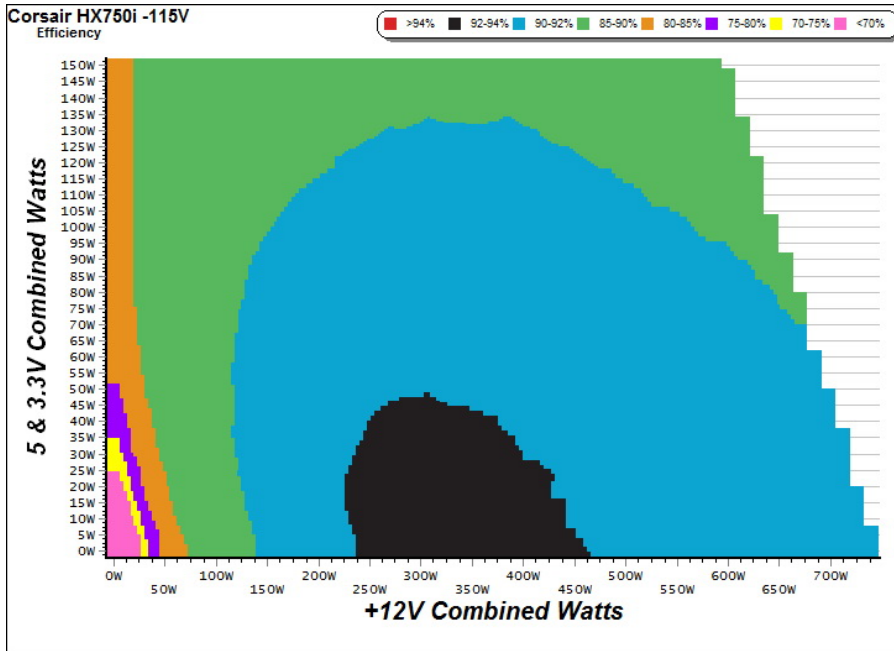
TEST EQUIPMENT

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 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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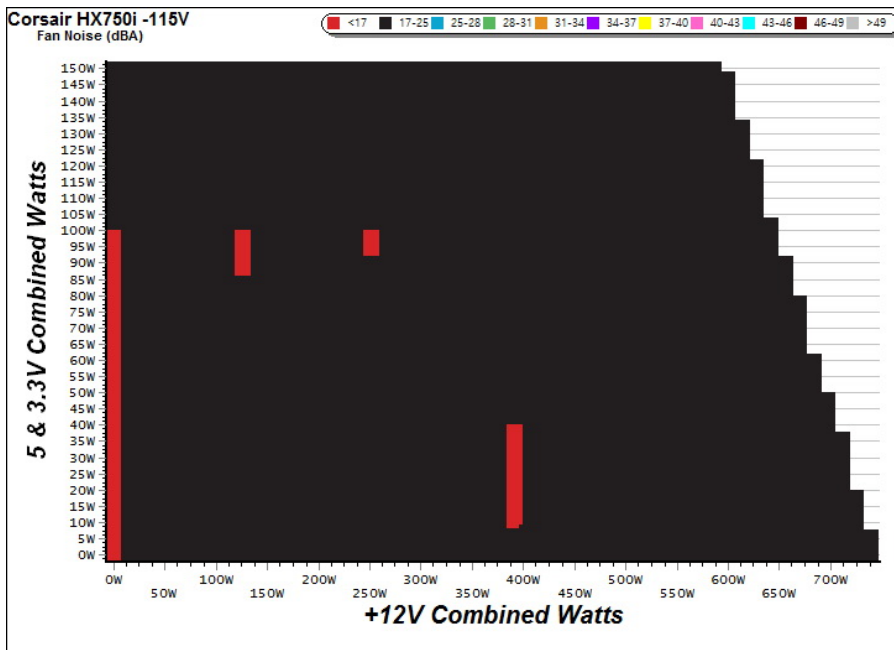
EFFICIENCY GRAPH



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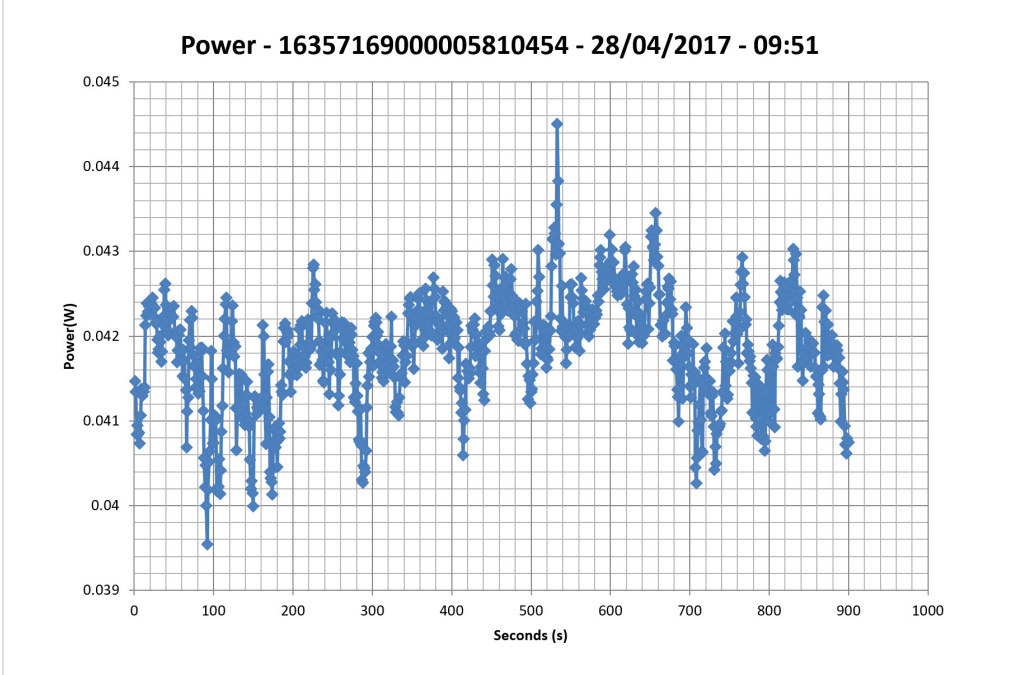
5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.213	70.530%	0.030
	5.067V	0.302		115.07V
2	0.088A	0.444	76.552%	0.058
	5.066V	0.580		115.07V
3	0.532A	2.690	80.131%	0.271
	5.053V	3.357		115.08V
4	3.002A	14.952	77.745%	0.527
	4.981V	19.232		115.07V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.212	61.095%	0.011
	5.067V	0.347		230.22V
2	0.087A	0.443	70.541%	0.019
	5.066V	0.628		230.23V
3	0.532A	2.689	78.879%	0.099
	5.053V	3.409		230.23V
4	3.001A	14.951	79.060%	0.357
	4.982V	18.911		230.22V

VAMPIRE POWER -115V



INFO

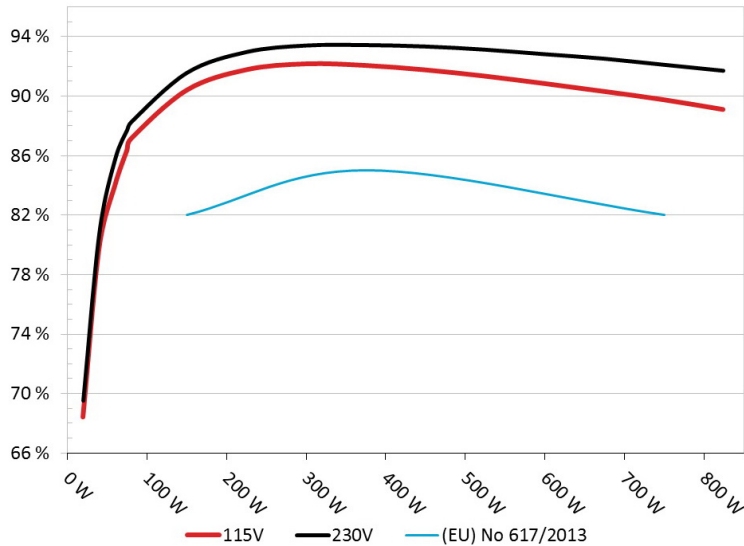
This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair HX750i
Ambient: 37°C - 46°C (98.6°F - 114.8°F)

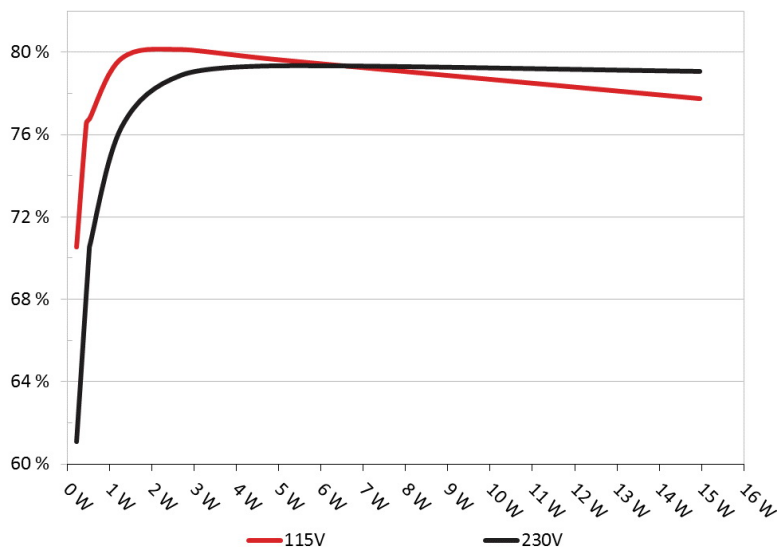


INFO

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 HX750i
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)	Fan Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	4.384A	2.006A	2.000A	1.006A	74.806	86.349%	0	0	45.89°C	0.972
	12.131V	4.998V	3.298V	4.972V	86.632				38.07°C	115.12V
2	9.814A	2.990A	2.999A	1.201A	149.769	90.393%	0	0	46.77°C	0.986
	12.117V	5.009V	3.299V	4.981V	165.686				38.64°C	115.11V
3	15.598A	3.483A	3.509A	1.399A	224.850	91.770%	0	0	47.56°C	0.992
	12.102V	5.027V	3.302V	4.995V	245.014				39.23°C	115.11V
4	21.390A	3.976A	3.986A	1.601A	299.735	92.170%	0	0	48.27°C	0.994
	12.088V	5.028V	3.309V	4.992V	325.199				39.78°C	115.11V
5	26.860A	4.981A	4.974A	1.805A	374.710	92.063%	0	0	49.23°C	0.995
	12.071V	5.019V	3.316V	4.980V	407.015				40.10°C	115.11V
6	32.327A	5.989A	5.973A	2.011A	449.578	91.765%	619	17.6	41.89°C	0.996
	12.058V	5.009V	3.313V	4.968V	489.925				51.46°C	115.11V
7	37.812A	7.010A	6.976A	2.218A	524.607	91.346%	718	18.9	42.10°C	0.996
	12.046V	4.999V	3.310V	4.955V	574.310				50.89°C	115.10V
8	43.308A	8.024A	7.983A	2.426A	599.537	90.847%	811	20.3	42.44°C	0.996
	12.033V	4.988V	3.307V	4.941V	659.943				51.75°C	115.11V
9	49.256A	8.538A	8.512A	2.431A	674.564	90.315%	917	21.6	43.44°C	0.996
	12.018V	4.978V	3.302V	4.935V	746.898				53.20°C	115.10V
10	54.959A	9.065A	9.010A	3.055A	749.405	89.760%	1070	24.8	44.45°C	0.996
	12.003V	4.969V	3.296V	4.907V	834.895				54.87°C	115.10V
11	61.283A	9.071A	9.019A	3.058A	824.225	89.102%	1163	27.0	45.76°C	0.996
	11.986V	4.963V	3.291V	4.901V	925.037				56.98°C	115.09V
CL1	0.099A	18.028A	18.002A	0.004A	151.215	83.814%	778	19.5	43.76°C	0.989
	12.105V	4.968V	3.357V	5.018V	180.418				51.52°C	115.12V
CL2	62.449A	1.005A	1.003A	1.001A	762.683	90.156%	1099	25.7	44.28°C	0.996
	12.002V	4.951V	3.251V	4.928V	845.958				54.11°C	115.10V

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20-80W LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	Fan Noise (dB[A])	PF/AC Volts
1	1.202A	0.492A	0.481A	0.196A	19.634	68.423%	0	0	0.830
	12.147V	5.010V	3.300V	5.002V	28.695				115.16V
2	2.428A	0.990A	1.000A	0.401A	39.737	79.750%	0	0	0.926
	12.142V	5.005V	3.299V	4.993V	49.827				115.12V
3	3.659A	1.493A	1.514A	0.601A	59.860	84.010%	0	0	0.944
	12.136V	5.000V	3.298V	4.985V	71.253				115.12V
4	4.882A	2.006A	1.999A	0.801A	79.826	87.122%	0	0	0.977
	12.131V	4.996V	3.298V	4.977V	91.626				115.12V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	7.6 mV	4.7 mV	4.4 mV	4.2 mV	Pass
20% Load	9.8 mV	4.9 mV	5.1 mV	4.8 mV	Pass
30% Load	14.2 mV	5.2 mV	6.0 mV	5.9 mV	Pass
40% Load	17.8 mV	5.4 mV	7.3 mV	7.4 mV	Pass
50% Load	21.8 mV	5.5 mV	7.7 mV	7.8 mV	Pass
60% Load	25.9 mV	6.2 mV	8.8 mV	9.0 mV	Pass
70% Load	23.5 mV	7.1 mV	9.6 mV	9.6 mV	Pass
80% Load	25.7 mV	8.5 mV	11.0 mV	10.5 mV	Pass
90% Load	28.5 mV	8.3 mV	12.6 mV	11.6 mV	Pass
100% Load	32.6 mV	9.2 mV	14.4 mV	13.0 mV	Pass
110% Load	37.2 mV	9.7 mV	15.5 mV	14.7 mV	Pass
Crossload 1	14.9 mV	8.5 mV	9.5 mV	8.3 mV	Pass
Crossload 2	31.4 mV	7.9 mV	13.3 mV	11.7 mV	Pass

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Anex

Corsair HX750i

HOLD-UP TIME & POWER OK SIGNAL (230V)	
Hold-Up Time (ms)	21.72
AC Loss to PWR_OK Hold Up Time (ms)	17.00
PWR_OK Inactive to DC Loss Delay (ms)	4.72



Top side



Power specifications label

CERTIFICATIONS



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