

Anex

Corsair RM750x (2021)

Lab ID#: CR75001801
Receipt Date: Feb 10, 2021
Test Date: Mar 2, 2021

Report: 21PS1801A

Report Date: Mar 30, 2021

DUT INFORMATION

Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	RMx
Model Number	RPS0123
Serial Number	20277131000038970172
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	750
Type	ATX12V
Cooling	140mm Magnetic Levitation Fan (NR140ML)
Semi-Passive Operation	✓
Cable Design	Fully Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62.5	3	0.3
	Watts	150		750	15	3.6
Total Max. Power (W)		750				

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 (600mm+150mm)	2	4	16-18AWG	Yes
SATA (500mm+110mm+110mm+110mm)	1	4	18AWG	No
SATA (520mm+110mm+110mm)	2	6	18AWG	No
4-pin Molex (450mm+100mm+100mm+100mm)	1	4	18AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	18AWG	-

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 1/15

Anex

Corsair RM750x (2021)

RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓

115V

Average Efficiency	87.980%
Efficiency With 10W (≤500W) or 2% (>500W)	77.021
Average Efficiency 5VSB	78.090%
Standby Power Consumption (W)	0.0354107
Average PF	0.992
Avg Noise Output	27.98 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A-

230V

Average Efficiency	90.238%
Average Efficiency 5VSB	77.503%
Standby Power Consumption (W)	0.0552711
Average PF	0.967
Avg Noise Output	28.00 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A-

TEST EQUIPMENT

Electronic Loads	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Keysight AC6804B
Power Analyzers	N4L PPA1530 x2
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2
Tachometer	UNI-T UT372 x2
Digital Multimeter	Keysight U1273AX, Fluke 289, Keithley 2015 - THD
UPS	CyberPower OLS3000E 3kVA x2

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

Hold-Up Time (ms)	26.6
AC Loss to PWR_OK Hold Up Time (ms)	23.9
PWR_OK Inactive to DC Loss Delay (ms)	2.7

All data and graphs included in this test report can be used by any individual on the following conditions:

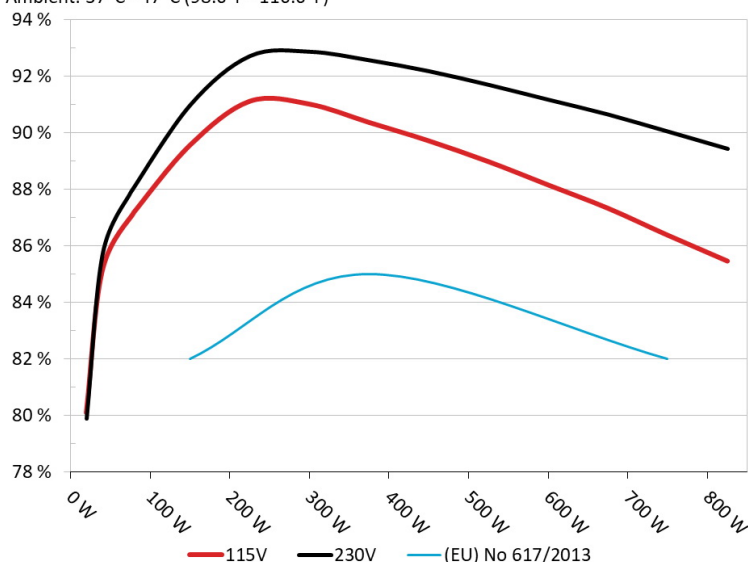
- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 2/15

EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair RM750x

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



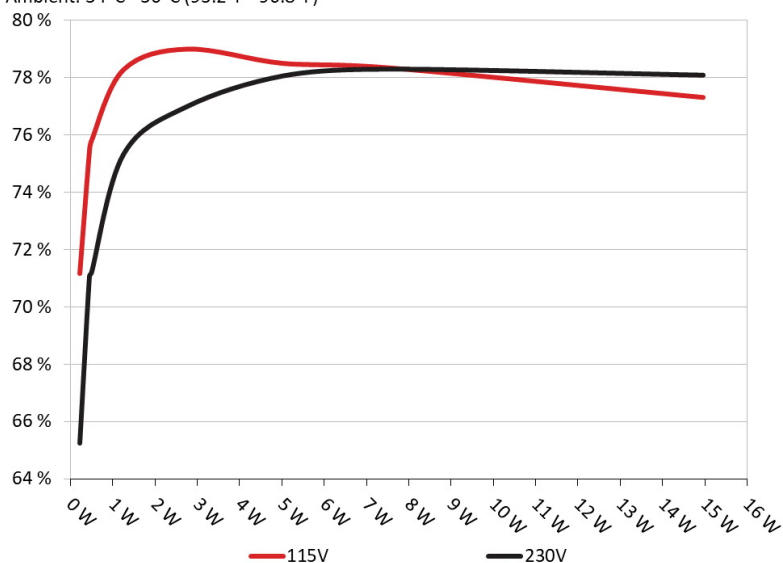
INFO

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 RM750x

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

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

Anex

Corsair RM750x (2021)

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.227	71.160%	0.033
	5.045V	0.319		115.15V
2	0.090A	0.454	75.415%	0.061
	5.043V	0.602		115.15V
3	0.550A	2.769	78.979%	0.262
	5.034V	3.506		115.17V
4	1.000A	5.026	78.482%	0.350
	5.025V	6.404		115.16V
5	1.500A	7.524	78.326%	0.400
	5.015V	9.606		115.15V
6	3.000A	14.959	77.296%	0.466
	4.986V	19.353		115.15V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.227	65.230%	0.011
	5.046V	0.348		230.34V
2	0.090A	0.454	71.049%	0.020
	5.044V	0.639		230.33V
3	0.550A	2.770	76.987%	0.105
	5.036V	3.598		230.32V
4	1.000A	5.028	78.050%	0.171
	5.027V	6.442		230.32V
5	1.500A	7.528	78.286%	0.228
	5.017V	9.616		230.32V
6	3.000A	14.965	78.077%	0.327
	4.988V	19.167		230.31V

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 4/15

Anex

Corsair RM750x (2021)

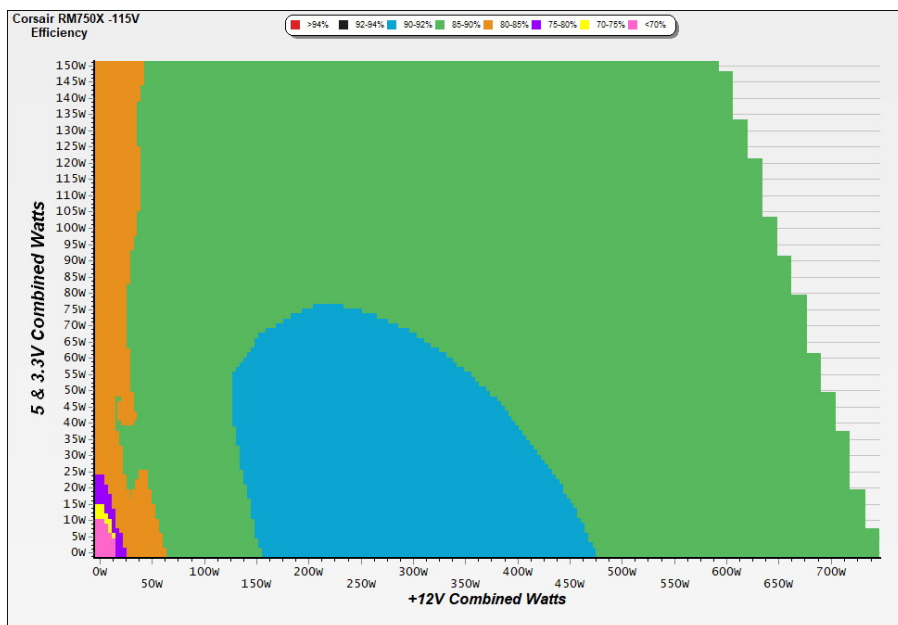
115V

All data and graphs included in this test report can be used by any individual on the following conditions:

- › It should be mentioned that the test results are provided by Cybenetics
- › The link to the original test results document should be provided in any case

PAGE 5/15

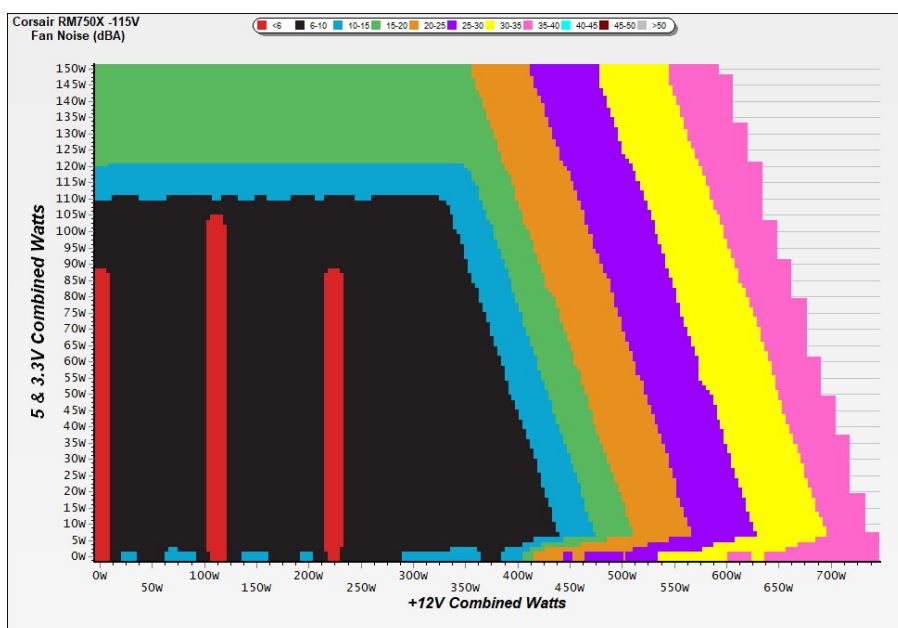
EFFICIENCY GRAPH 115V



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 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

All data and graphs included in this test report can be used by any individual on the following conditions:

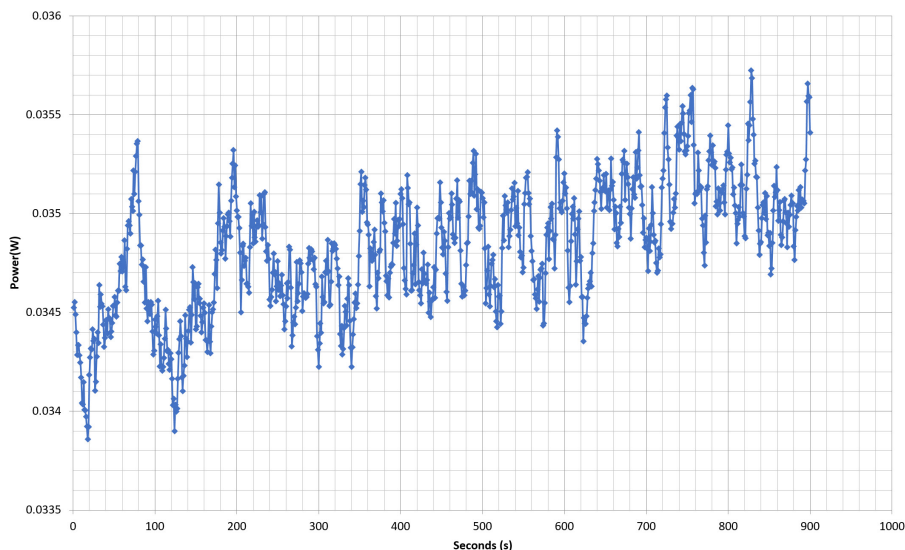
- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

Anex

Corsair RM750x (2021)

VAMPIRE POWER -115V

Power - 20277131000038970172 - 26/02/2021 - 14:25



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

All data and graphs included in this test report can be used by any individual on the following conditions:

- › It should be mentioned that the test results are provided by Cybenetics
- › The link to the original test results document should be provided in any case

PAGE 7/15

Anex

Corsair RM750x (2021)

10-110% LOAD TESTS 115V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	4.426A	1.981A	2.003A	0.994A	74.964	86.350%	0	<6.0	45.68°C	0.976
	12.057V	5.046V	3.296V	5.032V	86.814				40.72°C	115.17V
2	9.890A	2.974A	3.006A	1.194A	150.044	89.565%	0	<6.0	46.61°C	0.991
	12.047V	5.042V	3.294V	5.027V	167.526				40.96°C	115.17V
3	15.726A	3.473A	3.509A	1.394A	225.052	91.126%	0	<6.0	48.28°C	0.995
	12.018V	5.040V	3.292V	5.022V	246.967				41.85°C	115.17V
4	21.560A	3.971A	4.009A	1.595A	300.053	91.026%	0	<6.0	48.81°C	0.995
	12.006V	5.038V	3.291V	5.018V	329.636				41.94°C	115.12V
5	27.021A	4.964A	5.015A	1.795A	374.621	90.381%	361	7.2	42.58°C	0.994
	11.995V	5.037V	3.290V	5.015V	414.492				49.84°C	115.11V
6	32.530A	5.961A	6.022A	1.996A	449.525	89.729%	490	10.9	42.77°C	0.995
	11.980V	5.034V	3.289V	5.011V	500.982				50.70°C	115.11V
7	38.080A	6.958A	7.027A	2.198A	524.855	88.989%	712	21.0	43.51°C	0.995
	11.968V	5.031V	3.288V	5.006V	589.795				52.37°C	115.11V
8	43.636A	7.957A	8.034A	2.400A	600.168	88.158%	942	29.7	43.88°C	0.996
	11.957V	5.028V	3.286V	5.002V	680.789				53.14°C	115.11V
9	49.566A	8.461A	8.525A	2.400A	674.727	87.338%	1244	38.2	44.80°C	0.996
	11.948V	5.025V	3.284V	5.000V	772.544				54.75°C	115.10V
10	55.308A	8.964A	9.048A	3.009A	749.982	86.381%	1512	42.5	45.23°C	0.997
	11.938V	5.022V	3.282V	4.986V	868.225				55.74°C	115.10V
11	61.658A	8.969A	9.052A	3.011A	825.230	85.461%	1914	48.1	46.58°C	0.997
	11.929V	5.019V	3.281V	4.982V	965.625				57.40°C	115.12V
CL1	0.116A	18.002A	17.999A	0.000A	151.036	82.569%	592	15.2	42.86°C	0.992
	12.024V	5.026V	3.287V	5.076V	182.921				49.79°C	115.15V
CL2	62.528A	1.000A	1.000A	1.000A	760.339	86.946%	1907	48.4	45.44°C	0.997
	11.947V	5.025V	3.282V	5.011V	874.498				55.98°C	115.20V

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 8/15

Anex

Corsair RM750x (2021)

20-80W LOAD TESTS 115V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.239A	0.493A	0.500A	0.197A	19.992	80.087%	0	<6.0	0.832
	11.976V	5.072V	3.310V	5.070V	24.963				115.17V
2	2.478A	0.990A	1.000A	0.397A	39.983	85.115%	0	<6.0	0.937
	11.977V	5.051V	3.299V	5.047V	46.975				115.17V
3	3.720A	1.486A	1.501A	0.595A	60.013	87.199%	0	<6.0	0.967
	11.979V	5.048V	3.298V	5.041V	68.823				115.17V
4	4.925A	1.982A	2.000A	0.795A	79.963	86.916%	0	<6.0	0.978
	12.054V	5.046V	3.296V	5.036V	92.000				115.17V

RIPPLE MEASUREMENTS 115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	4.50mV	3.30mV	3.30mV	4.90mV	Pass
20% Load	4.90mV	3.60mV	3.00mV	4.90mV	Pass
30% Load	8.10mV	3.50mV	3.30mV	5.20mV	Pass
40% Load	6.90mV	3.50mV	3.00mV	4.90mV	Pass
50% Load	6.40mV	3.80mV	3.10mV	5.00mV	Pass
60% Load	6.30mV	6.80mV	9.70mV	7.30mV	Pass
70% Load	6.10mV	4.00mV	3.50mV	5.40mV	Pass
80% Load	6.10mV	4.50mV	6.20mV	5.30mV	Pass
90% Load	5.90mV	4.30mV	7.60mV	5.30mV	Pass
100% Load	8.90mV	5.00mV	6.80mV	7.30mV	Pass
110% Load	9.00mV	5.10mV	9.80mV	6.40mV	Pass
Crossload1	5.30mV	4.60mV	7.90mV	6.10mV	Pass
Crossload2	9.30mV	4.50mV	3.70mV	5.80mV	Pass

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 9/15

Anex

Corsair RM750x (2021)

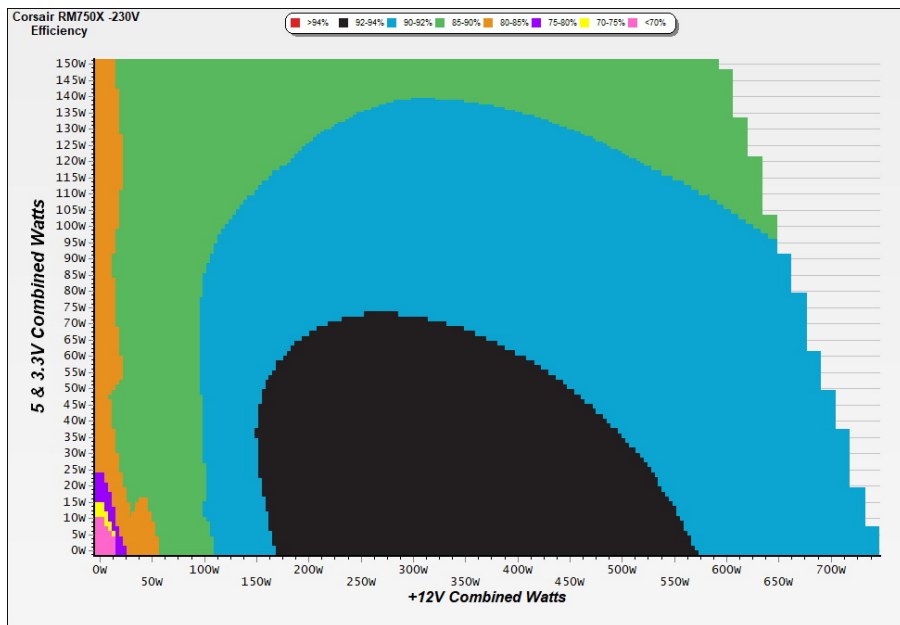
230V

All data and graphs included in this test report can be used by any individual on the following conditions:

- › It should be mentioned that the test results are provided by Cybenetics
- › The link to the original test results document should be provided in any case

PAGE 10/15

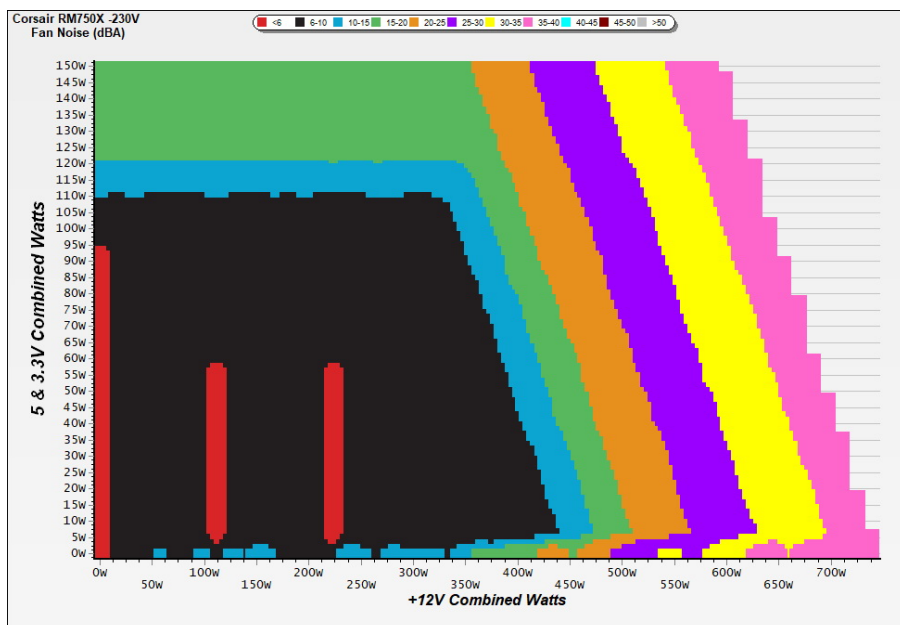
EFFICIENCY GRAPH 230V



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

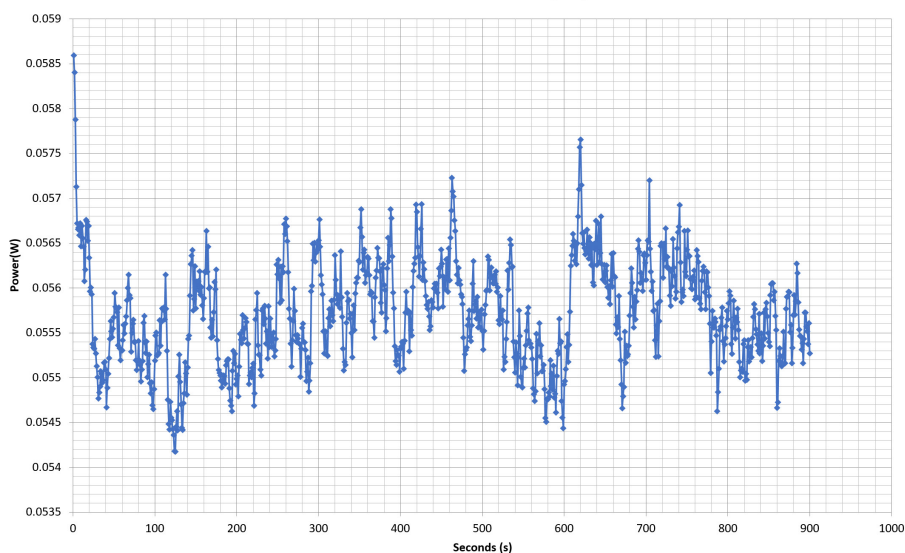
The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

VAMPIRE POWER -230V

Power - 20277131000038970172 - 26/02/2021 - 14:25



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

All data and graphs included in this test report can be used by any individual on the following conditions:

- › It should be mentioned that the test results are provided by Cybenetics
- › The link to the original test results document should be provided in any case

Anex

Corsair RM750x (2021)

10-110% LOAD TESTS 230V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	4.426A	1.981A	2.003A	0.994A	74.959	87.221%	0	<6.0	45.19°C	0.839
	12.056V	5.046V	3.296V	5.032V	85.941				40.29°C	230.36V
2	9.889A	2.975A	3.004A	1.194A	150.031	90.974%	0	<6.0	46.41°C	0.938
	12.047V	5.042V	3.294V	5.027V	164.916				40.76°C	230.36V
3	15.725A	3.473A	3.508A	1.394A	225.037	92.710%	0	<6.0	47.30°C	0.965
	12.018V	5.040V	3.292V	5.023V	242.732				41.18°C	230.36V
4	21.559A	3.970A	4.011A	1.595A	300.045	92.863%	0	<6.0	48.61°C	0.977
	12.006V	5.039V	3.291V	5.018V	323.105				41.96°C	230.36V
5	27.020A	4.965A	5.017A	1.795A	374.594	92.563%	362	7.3	42.16°C	0.983
	11.994V	5.037V	3.290V	5.015V	404.691				49.44°C	230.36V
6	32.529A	5.962A	6.021A	1.996A	449.515	92.175%	491	10.9	42.60°C	0.986
	11.980V	5.034V	3.289V	5.011V	487.677				50.61°C	230.36V
7	38.083A	6.957A	7.028A	2.198A	524.858	91.691%	712	21.0	43.07°C	0.988
	11.967V	5.032V	3.288V	5.006V	572.419				51.52°C	230.37V
8	43.638A	7.958A	8.035A	2.400A	600.165	91.163%	942	29.7	43.91°C	0.990
	11.956V	5.029V	3.286V	5.002V	658.345				53.08°C	230.39V
9	49.570A	8.459A	8.525A	2.400A	674.714	90.643%	1218	37.5	44.30°C	0.991
	11.947V	5.025V	3.284V	5.000V	744.361				54.23°C	230.40V
10	55.310A	8.961A	9.046A	3.009A	749.938	90.040%	1515	42.6	45.91°C	0.992
	11.937V	5.022V	3.283V	4.986V	832.890				56.20°C	230.43V
11	61.658A	8.967A	9.053A	3.011A	825.169	89.427%	1913	48.1	46.60°C	0.992
	11.928V	5.019V	3.281V	4.983V	922.732				57.45°C	230.46V
CL1	0.116A	18.001A	17.998A	0.000A	151.044	83.635%	591	15.2	42.31°C	0.946
	12.021V	5.026V	3.288V	5.077V	180.598				49.74°C	230.39V
CL2	62.516A	1.000A	1.002A	1.000A	760.207	90.506%	1912	48.1	45.69°C	0.992
	11.947V	5.026V	3.283V	5.012V	839.955				56.16°C	230.40V

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 13/15

Anex

Corsair RM750x (2021)

20-80W LOAD TESTS 230V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.239A	0.493A	0.499A	0.197A	19.989	79.883%	0	<6.0	0.446
	11.975V	5.072V	3.310V	5.070V	25.023				230.36V
2	2.478A	0.990A	1.001A	0.396A	39.979	85.696%	0	<6.0	0.663
	11.976V	5.051V	3.300V	5.046V	46.652				230.37V
3	3.720A	1.485A	1.501A	0.595A	60.008	87.875%	0	<6.0	0.780
	11.979V	5.048V	3.298V	5.041V	68.288				230.36V
4	4.925A	1.982A	2.001A	0.794A	79.958	87.707%	0	<6.0	0.852
	12.054V	5.045V	3.296V	5.036V	91.165				230.36V

RIPPLE MEASUREMENTS 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	4.90mV	3.50mV	3.30mV	5.30mV	Pass
20% Load	4.70mV	3.40mV	2.90mV	5.10mV	Pass
30% Load	8.10mV	3.50mV	3.00mV	4.90mV	Pass
40% Load	7.20mV	3.70mV	3.20mV	5.50mV	Pass
50% Load	6.60mV	3.70mV	3.00mV	5.70mV	Pass
60% Load	6.40mV	7.20mV	9.80mV	7.90mV	Pass
70% Load	6.70mV	3.90mV	3.70mV	5.30mV	Pass
80% Load	6.70mV	4.40mV	6.60mV	5.50mV	Pass
90% Load	6.20mV	4.90mV	7.10mV	5.50mV	Pass
100% Load	8.90mV	5.10mV	7.10mV	6.60mV	Pass
110% Load	9.50mV	5.30mV	9.00mV	6.20mV	Pass
Crossload1	5.20mV	4.10mV	7.70mV	5.40mV	Pass
Crossload2	5.30mV	4.50mV	8.00mV	6.30mV	Pass

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case


PAGE 14/15

Anex

Corsair RM750x (2021)



Top side

MODEL / MODELO / 型号 / 型號 / 모델: RPS0123 POWER SUPPLY / FUENTE DE ALIMENTACIÓN / 전원 공급 장치					
PART NUMBER: CP-9020199/75-003897					
交流输入 AC 입력 Entrada de CA	AC INPUT 100V – 240V • 10A – 5A • 47Hz – 63Hz				
直流输出 DC 출력 Salida de CC	+5V	+3.3V	+12V	-12V	+5Vsb
最大电流 최대 부하 Carga Máximo	20A	20A	62.5A	0.3A	3A
最大瓦特数 최대 결합 와트 Wattaje Combinado Máximo	150W	750W	3.6W	15W	
TOTAL POWER: 750W PODER TOTAL / 总功率 / 總功率 / 총출력					
					

Power specifications label

CERTIFICATIONS 115V



CERTIFICATIONS 230V



All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

PAGE 15/15