

Anex

Corsair RM750x (2018)

Lab ID#: 269

Receipt Date: -

Test Date: -

Report:

Report Date: Sep 1, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	RMx
Model Number	RM750x (2018)
Serial Number	17477137000034440117
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	135mm Rifle Bearing Fan (NR135L)
Semi-Passive Operation	✓
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	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18-20AWG	Yes
4+4 pin EPS12V (650mm)	2	2	18AWG	Yes
6+2 pin PCIe (600mm+150mm)	2	4	18AWG	Yes
SATA (520mm+110mm+110mm)	3	9	18AWG	No
4 pin Molex (450mm+100mm+100mm+100mm)	2	8	18AWG	No
FDD Adapter (+100mm)	1	1	20AWG	No
AC Power Cord (1430mm) - C13 coupler	1	1	16AWG	-

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RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	90.218
Efficiency With 10W ($\leq 500W$) or 2% ($> 500W$) Load -115V	0.000
Average Efficiency 5VSB	77.816
Standby Power Consumption (W) -115V	0.0364795
Standby Power Consumption (W) -230V	0.0543663
Average PF	0.964
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	15.45
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A+

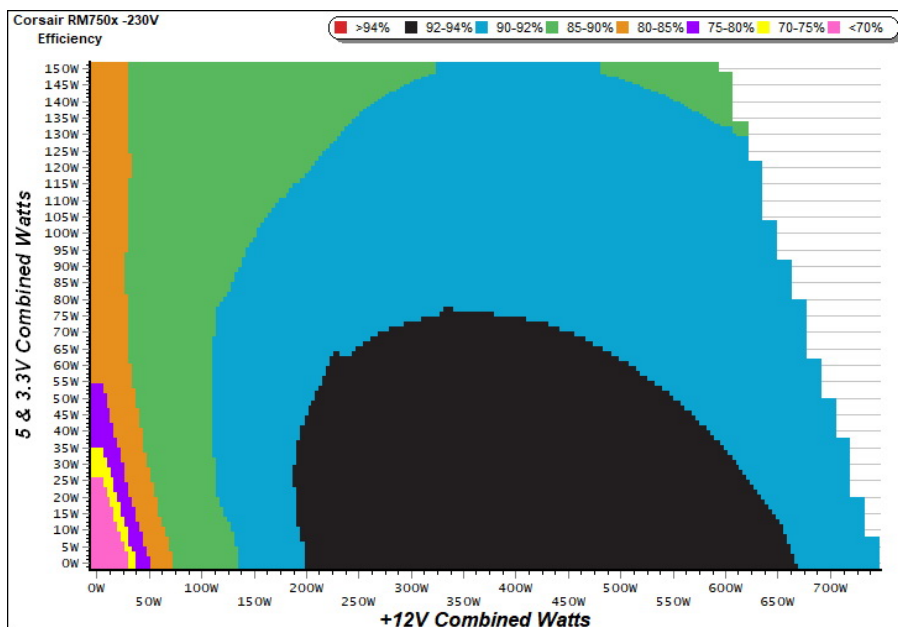
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley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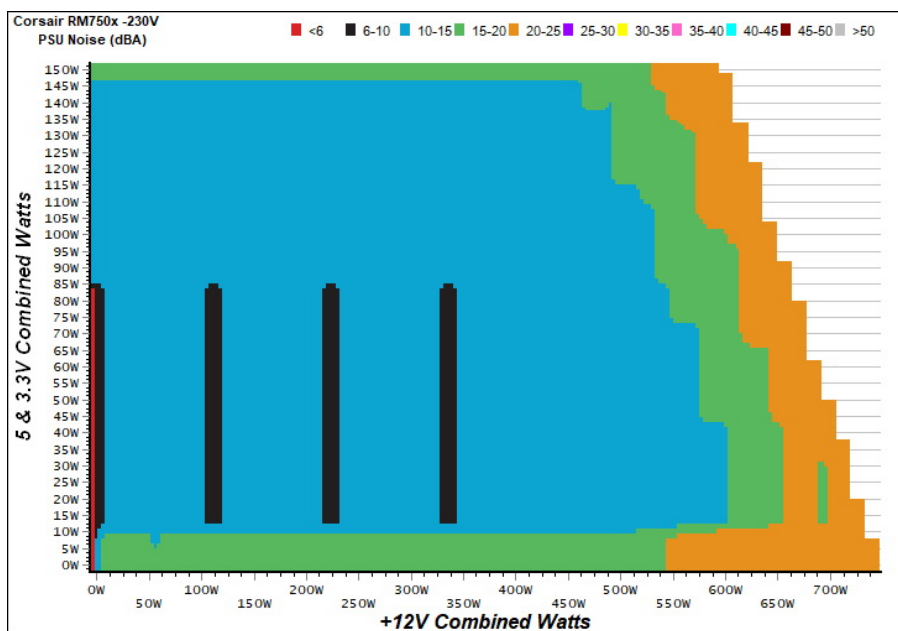
EFFICIENCY GRAPH



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)

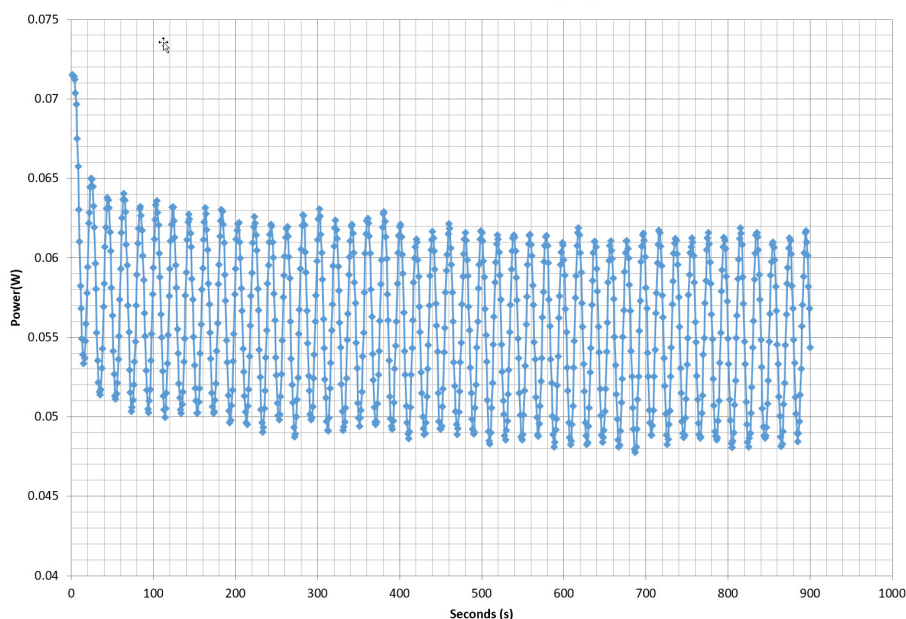
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.228	71.473%	0.024
	5.059V	0.319		115.26V
2	0.090A	0.455	75.707%	0.046
	5.058V	0.601		115.26V
3	0.550A	2.774	79.393%	0.218
	5.044V	3.494		115.25V
4	1.000A	5.031	78.609%	0.315
	5.031V	6.400		115.25V
5	1.500A	7.526	78.241%	0.374
	5.017V	9.619		115.25V
6	3.000A	14.927	76.832%	0.451
	4.976V	19.428		115.23V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.228	66.472%	0.009
	5.059V	0.343		230.80V
2	0.090A	0.455	72.222%	0.016
	5.058V	0.630		230.79V
3	0.550A	2.774	77.725%	0.088
	5.044V	3.569		230.79V
4	1.000A	5.030	78.410%	0.149
	5.030V	6.415		230.79V
5	1.500A	7.527	78.276%	0.205
	5.018V	9.616		230.79V
6	3.000A	14.921	77.608%	0.312
	4.974V	19.226		230.78V

VAMPIRE POWER -230V

Power - 17477137000034440117 - 08/01/2018 - 09:54



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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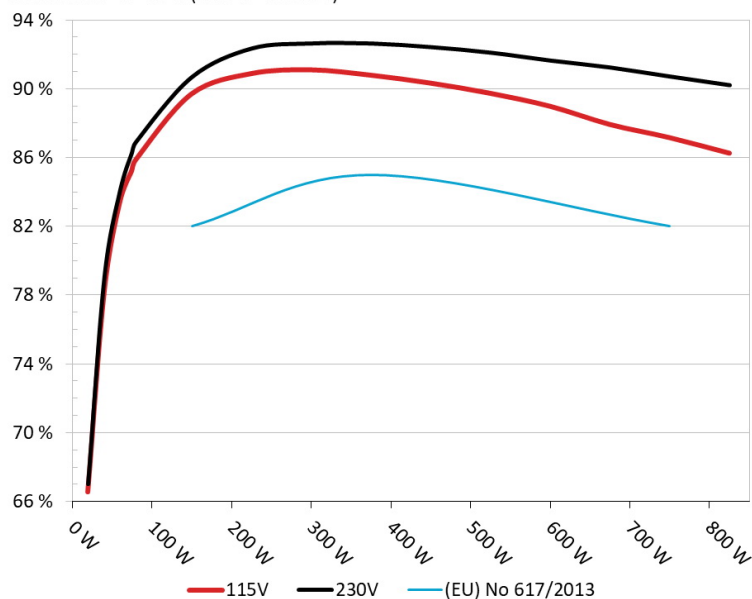
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair RM750x

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



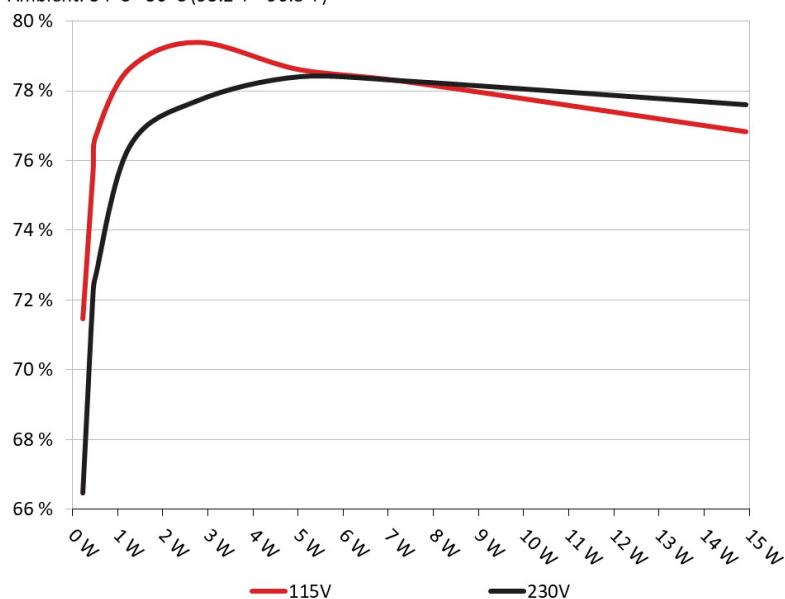
INFO

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: 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

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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	4.388A	1.984A	1.988A	0.997A	74.513	86.283%	0	<6.0	53.28°C	0.820
	12.057V	5.041V	3.320V	5.019V	86.359				38.36°C	230.87V
2	9.835A	2.977A	2.983A	1.197A	149.420	90.670%	0	<6.0	54.08°C	0.927
	12.051V	5.039V	3.317V	5.015V	164.795				38.56°C	230.81V
3	15.673A	3.475A	3.469A	1.398A	224.917	92.348%	0	<6.0	55.31°C	0.959
	12.053V	5.038V	3.315V	5.010V	243.555				38.71°C	230.59V
4	21.458A	3.972A	3.986A	1.599A	299.693	92.642%	610	10.2	38.97°C	0.972
	12.046V	5.036V	3.313V	5.004V	323.495				56.08°C	230.70V
5	26.921A	4.967A	4.985A	1.801A	374.612	92.640%	610	10.2	39.44°C	0.978
	12.039V	5.034V	3.311V	4.998V	404.376				56.85°C	230.63V
6	32.389A	5.963A	5.986A	2.003A	449.520	92.432%	610	10.2	40.12°C	0.982
	12.032V	5.032V	3.309V	4.994V	486.327				57.87°C	230.68V
7	37.895A	6.957A	6.982A	2.205A	524.826	92.106%	610	10.2	41.13°C	0.985
	12.026V	5.032V	3.307V	4.990V	569.809				59.12°C	230.63V
8	43.408A	7.952A	7.986A	2.407A	600.130	91.647%	822	19.5	42.32°C	0.987
	12.019V	5.031V	3.306V	4.986V	654.829				60.93°C	230.57V
9	49.286A	8.451A	8.475A	2.408A	674.638	91.246%	1049	27.0	44.41°C	0.988
	12.014V	5.030V	3.304V	4.986V	739.360				63.30°C	230.49V
10	54.975A	8.951A	8.994A	3.019A	749.854	90.719%	1227	33.0	45.90°C	0.989
	12.008V	5.029V	3.302V	4.969V	826.566				65.19°C	230.43V
11	61.265A	8.952A	9.001A	3.020A	825.072	90.216%	1428	36.9	47.55°C	0.990
	12.003V	5.027V	3.300V	4.968V	914.554				67.47°C	230.47V
CL1	0.739A	18.003A	18.000A	0.000A	159.175	83.540%	785	18.1	44.07°C	0.942
	12.038V	5.035V	3.313V	5.078V	190.538				56.55°C	230.88V
CL2	62.516A	1.002A	0.999A	1.000A	764.542	91.345%	1227	33.0	44.83°C	0.989
	12.016V	5.032V	3.304V	5.007V	836.984				60.87°C	230.44V

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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	1.200A	0.496A	0.481A	0.199A	19.575	67.008%	0	<6.0	0.477
	12.062V	5.041V	3.321V	5.037V	29.213				230.90V
2	2.463A	0.992A	0.993A	0.398A	40.003	79.057%	0	<6.0	0.673
	12.060V	5.041V	3.320V	5.032V	50.600				230.89V
3	3.658A	1.488A	1.474A	0.597A	59.509	84.044%	0	<6.0	0.772
	12.059V	5.041V	3.320V	5.028V	70.807				230.88V
4	4.920A	1.983A	1.987A	0.796A	79.913	86.927%	0	<6.0	0.835
	12.057V	5.041V	3.320V	5.024V	91.931				230.86V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	2.6 mV	5.0 mV	3.3 mV	4.0 mV	Pass
20% Load	2.5 mV	5.6 mV	3.5 mV	4.5 mV	Pass
30% Load	7.2 mV	4.8 mV	4.4 mV	3.7 mV	Pass
40% Load	7.9 mV	11.8 mV	5.2 mV	10.7 mV	Pass
50% Load	6.8 mV	6.6 mV	4.2 mV	4.9 mV	Pass
60% Load	6.9 mV	11.7 mV	7.0 mV	6.1 mV	Pass
70% Load	7.5 mV	7.8 mV	6.8 mV	6.3 mV	Pass
80% Load	7.4 mV	8.7 mV	8.0 mV	8.0 mV	Pass
90% Load	7.8 mV	9.1 mV	7.0 mV	7.8 mV	Pass
100% Load	7.7 mV	9.2 mV	6.9 mV	7.5 mV	Pass
110% Load	8.6 mV	11.8 mV	6.8 mV	10.4 mV	Pass
Crossload 1	12.3 mV	10.3 mV	9.2 mV	6.9 mV	Pass
Crossload 2	7.3 mV	7.4 mV	3.9 mV	6.5 mV	Pass

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


Hold-Up Time (ms)	23.8
AC Loss to PWR_OK Hold Up Time (ms)	21.0
PWR_OK Inactive to DC Loss Delay (ms)	2.8




Top side


MODEL / 型号 / 型號 / 모델 : RPS0109 POWER SUPPLY / 전원 공급 장치					
PART NUMBER: 75-003444					
交流輸入 AC 입력	100V - 240V • 10A - 5A • 47Hz - 63Hz				
DC OUTPUT DC 출력	+3.3V	+5V	+12V	-12V	+5Vsb
MAX LOAD 최대 부하	25A	25A	62.5A	0.8A	3A
MAXIMUM COMBINED WATTAGE 최대 결합 외트	150W		750W	9.6W	15W
最大瓦特數 최대 결합 외트	總功率 總功率 총 전력		TOTAL POWER: 750W		










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ID: 1246000107









S/N : 17477137000034440117

Q.C.
PASSED

Power specifications table

CERTIFICATIONS



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