Corsair RM750

19027121000038930023

Lab ID CR19750014

Certification ID 25664

Test Result Report ID:

Certificate Issue Date: May 4, 2019

Scheme: ETA-EMI PSU

115V



230V



115V



230V



Scheme: LAMBDA PSU



Aristeidis Bitziopoulos, Certification Body General Manager

General Information

Test Equipment

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 Chroma 63640-80-80 x10 Chroma 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P, GW Instek ASR-3500
Power Analyzers	Rohde & Schwarz HMC8015 & NPA701
Oscilloscopes	Picoscope 4444, Siglent SDS2104X PLUS
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Temperature Logger	Picoscope TC-08
Tachometer	UNI-T UT372
Multimeters	Keysight 34465A
EMI Analyzer	TekBox TBMR-110M-EU
Isolation Transformer	4kVA
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Testing Methodology	Cybenetics PSU Test Protocol

DUT Information(Non-accredited measurements)

Product Identification Details	
Brand	Corsair
Model	RM750
OEM/ODM	Channel Well Technology
Serial Number	19027121000038930023
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	10-5
□□□□ (Hz)	47-63

□□□□ (W)	750
Operating Temperature (Continuous Full Load) (°C)	
□□	ATX12V
□□□□	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	140mm Rifle Bearing Fan (HA1425M12F-Z)
□□□□□	✓
Cybenetics Testing Information	
Lab ID	CR19750014
Date of receipt	Mar 21, 2019
Testing Date	Apr 4, 2019
Report Issued Date	May 4, 2019
□□□□□	CP-9020195
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□□ (Non-accredited measurements)

□□□□□				
□□	□□□□	□□□□□□	Gauge	In Cable Capacitors
ATX □□ 20+4 pin (610mm)	1	1	18-20AWG	□
4+4 pin EPS 12V □□ (650mm)	2	2	18AWG	□
6+2pin PCIe□□ (600mm+150mm)	3	6	16-18AWG	□
SATA□□ (450mm+110mm+110mm+110mm)	1	3	18AWG	□
SATA□□ (500mm+100mm+100mm)	2	6	18AWG	□
□ 4pin Molex□□ (450mm+100mm+100mm+100mm)	1	4	18AWG	□
AC Power Cord (1420mm) - C13 coupler	1	1	16AWG	-

□□□□

□		3.3V	5V	12V	5VSB	-12V
□□□□	□□	20	20	62.5	3	0.3
	□	150		750	15	3.6
□□□□□ (W)		750				

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6
□□ ErP Lot3/6□□	✓
□□ (EU) No 617/2013□□	✓

Performance Summary

115V

Accredited	
□□□□ (>1450 load combinations)	88.311%
Average Noise Output (>1450 Load Combinations)	21.44dBA
PF□□□ (>1450 Load Combinations)	0.990
Efficiency With 10W (≤500W) or 2% (>500W) Load	77.383%
□□□□□□	0.0366W
Non-Accredited	
12V Ripple (Full Load)	16.45mV
5V Ripple (Full Load)	13.77mV
3.3V Ripple (Full Load)	29.86mV
5VSB Ripple (Full Load)	12.41mV
12V Load Regulation	1.25%
5V Load Regulation	0.46%
3.3V Load Regulation	0.73%

5VSB Load Regulation	1.59%
Inrush Current	34.921A

230V

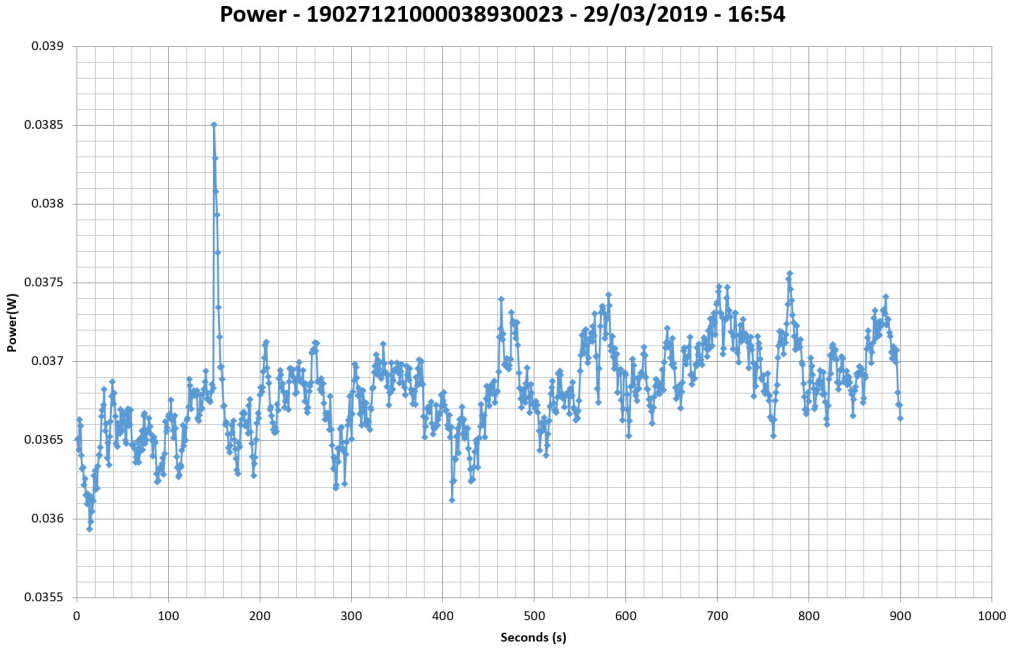
Accredited		
□□□□ (>1450 load combinations)	90.380%	
Average Noise Output (>1450 Load Combinations)	21.45dBA	
PF□□□ (>1450 Load Combinations)	0.963	
Efficiency With 10W (≤500W) or 2% (>500W) Load	-	
□□□□□□	0.0612W	
Non-Accredited		
12V Ripple (Full Load)	8.00mV	
5V Ripple (Full Load)	6.23mV	
3.3V Ripple (Full Load)	10.47mV	
5VSB Ripple (Full Load)	7.15mV	
12V Load Regulation	1.25%	
5V Load Regulation	0.44%	
3.3V Load Regulation	0.67%	
5VSB Load Regulation	1.59%	
Inrush Current	70.733A	
□□□□ & PG□□	20.70ms	
AC Loss to PWR_OK Hold Up Time	17.30ms	
PWR_OK Inactive to DC Loss Delay	3.40ms	
OPP (0.00°C / 0.00°C)	125.35%	-

□□□□ & PG□□

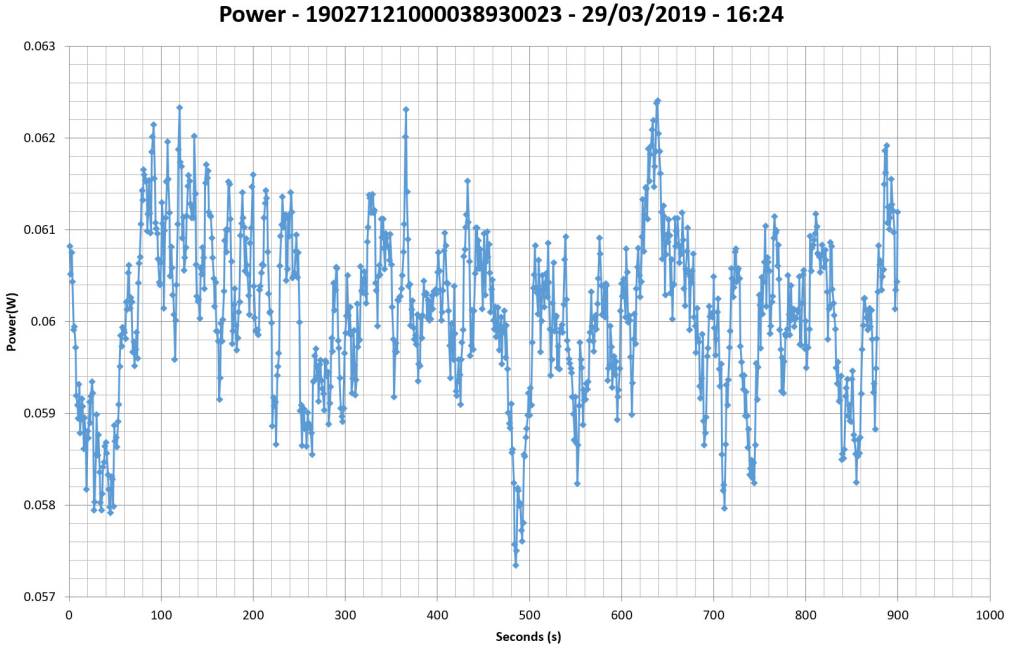
Hold-Up Time (ms)	20.7
AC Loss to PWR_OK Hold Up Time (ms)	17.3
PWR_OK Inactive to DC Loss Delay (ms)	3.4

Graphs

115V

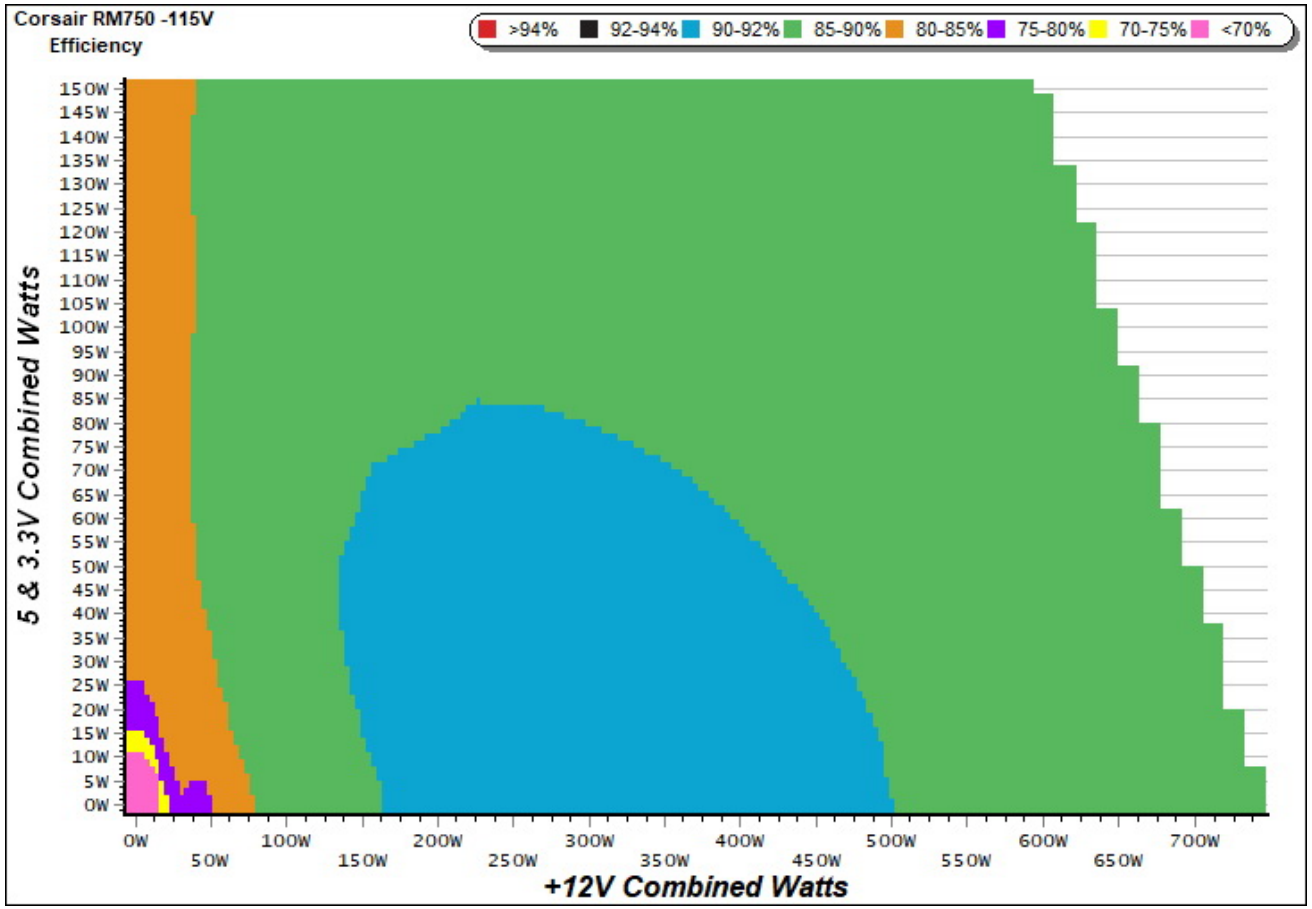


230V



□□□□□□

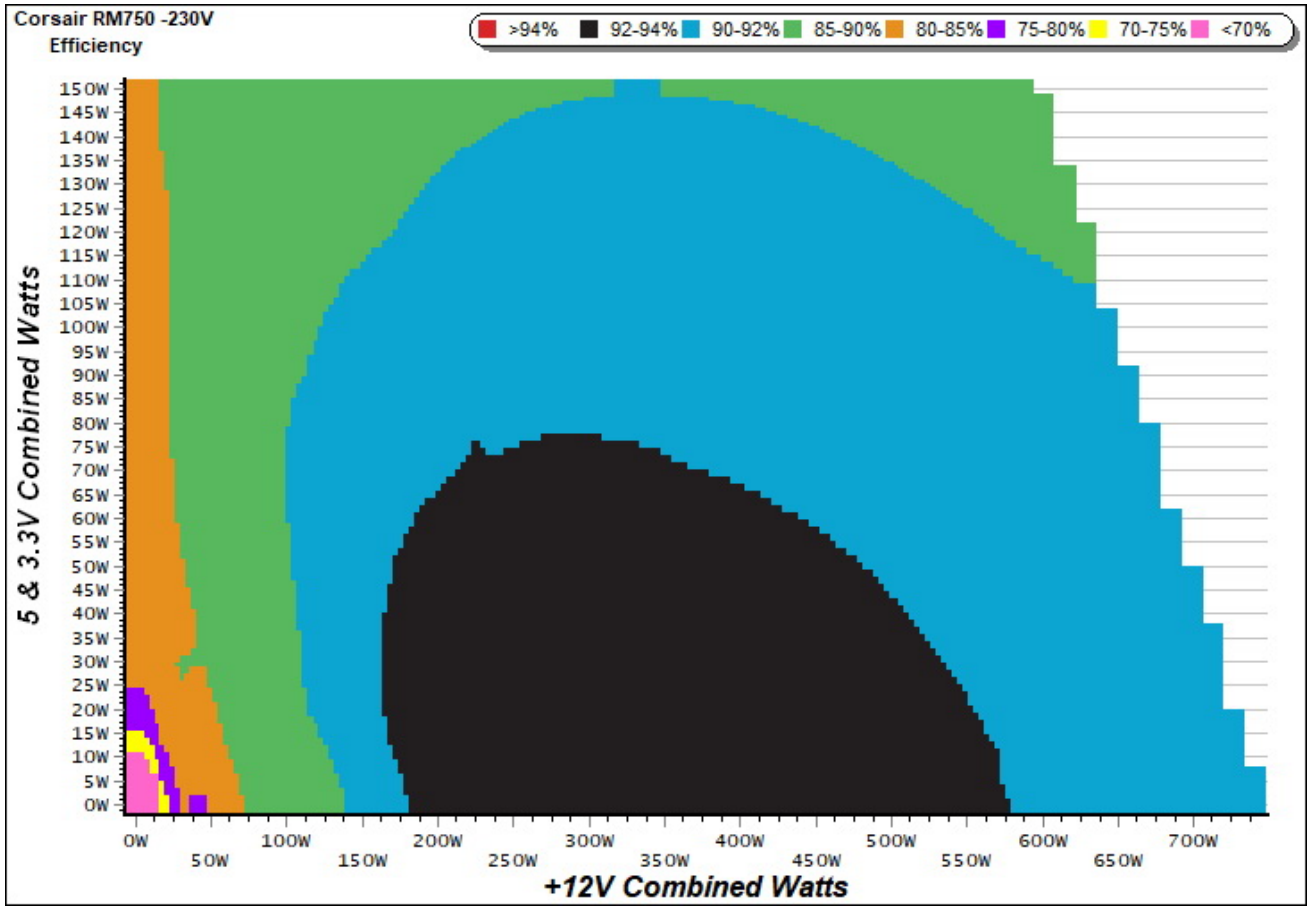
115V



□□

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.

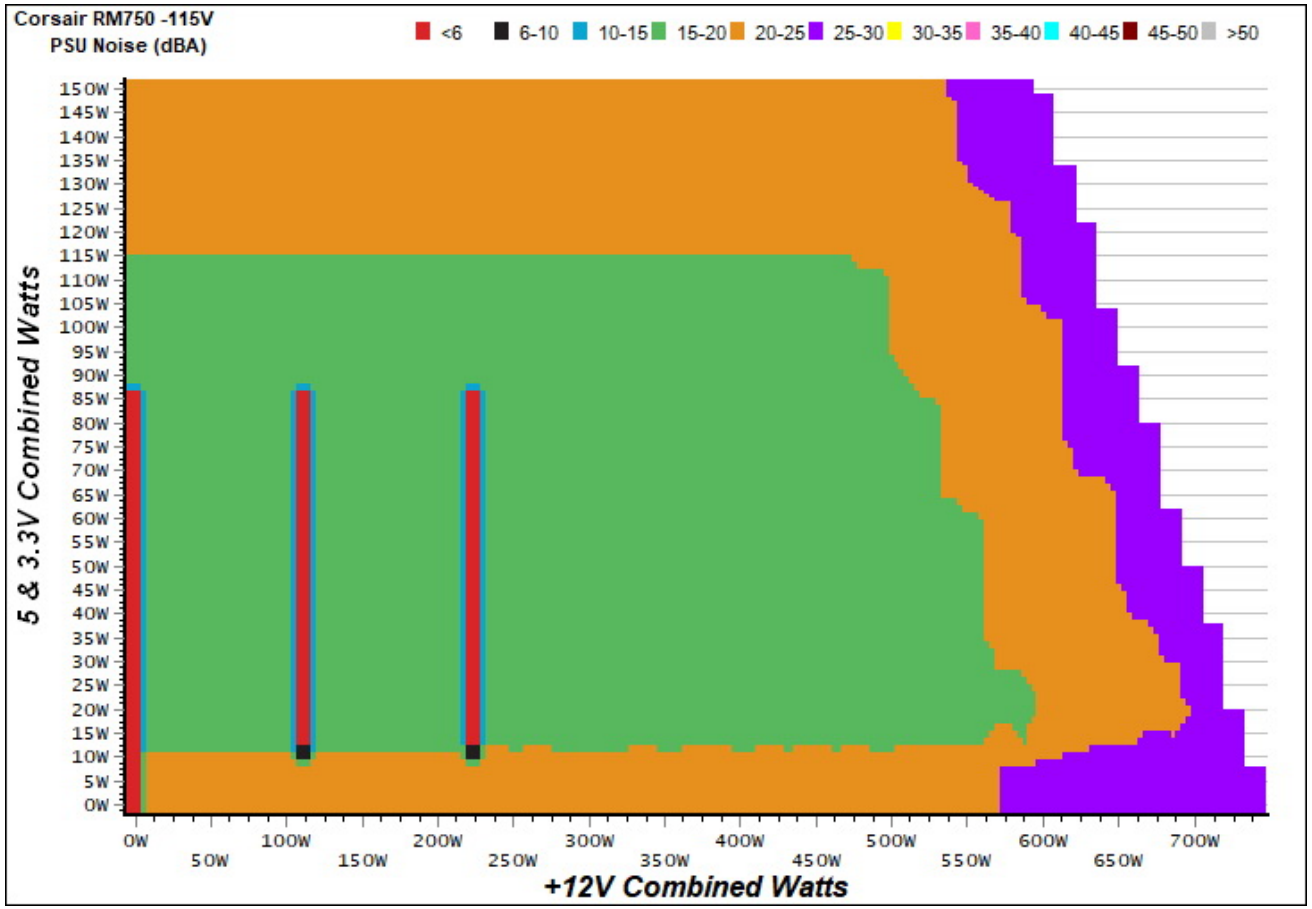
230V



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.

□□□□□

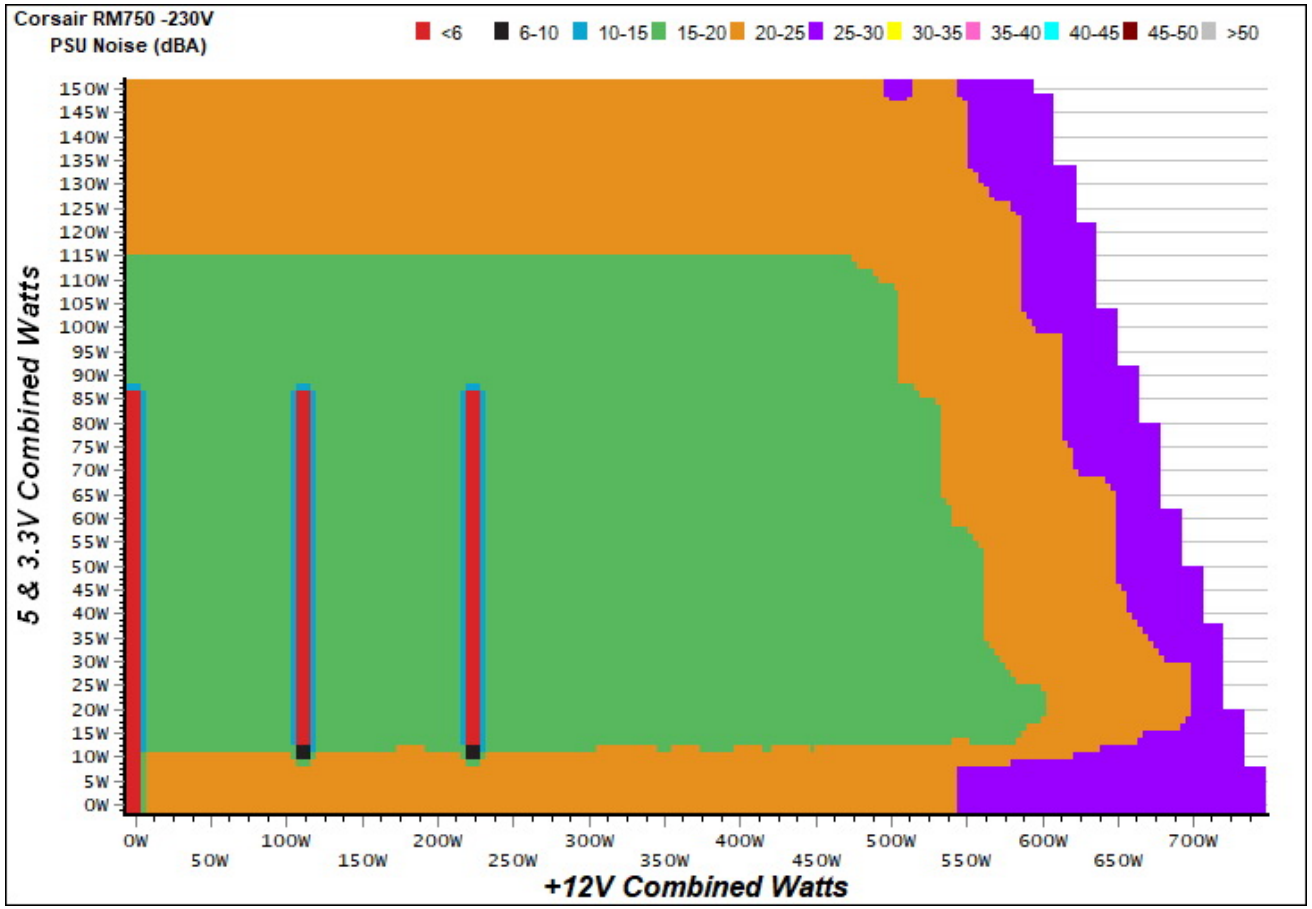
115V



□□

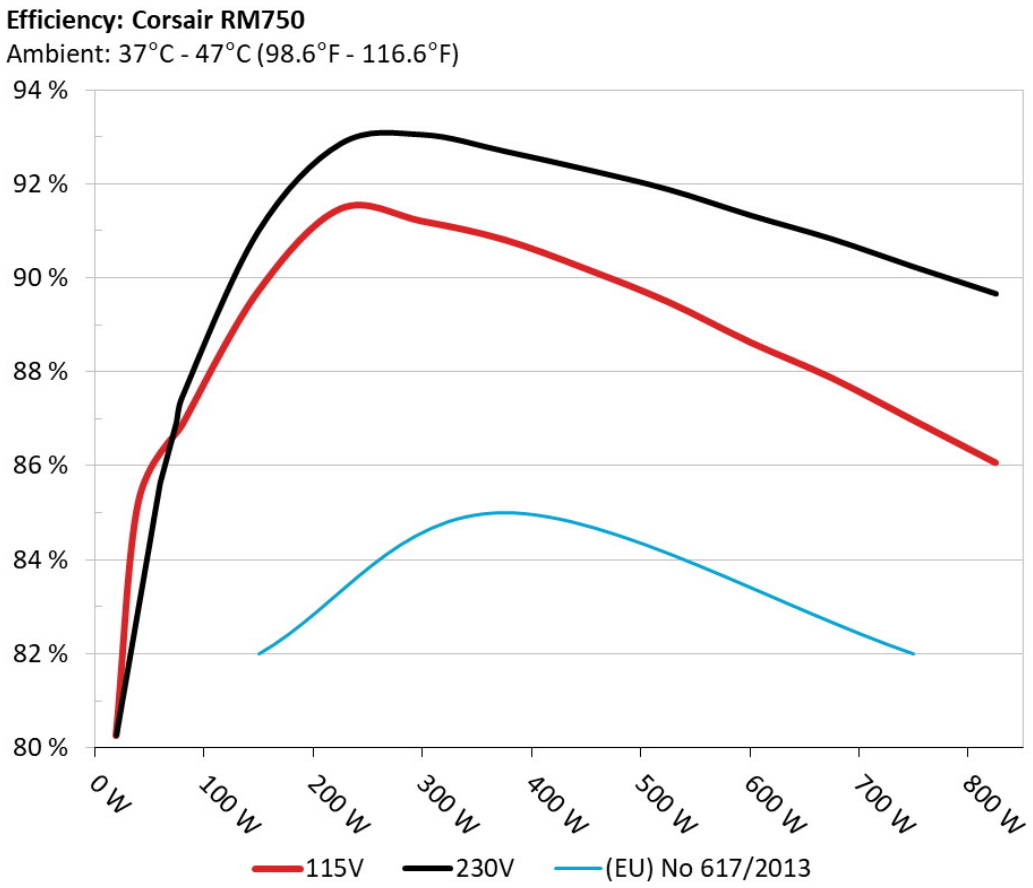
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails.

230V



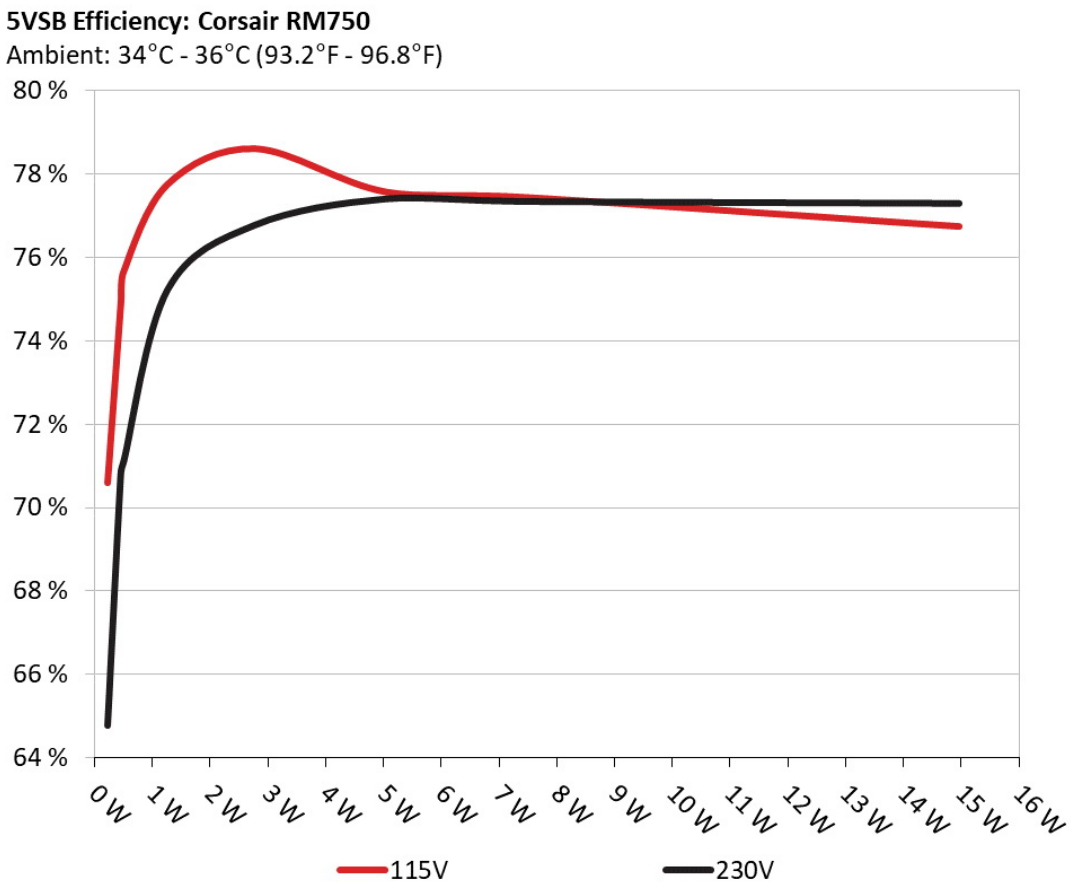
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails.

Indicative Performance



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□□□□



□□

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input.

□□□□ □□ 5Vsb □□ (ErP Lot3/6 & CEC)

115V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.045A	0.228	70.588%	0.032
	5.065V	0.323		115.14V
2	0.090A	0.456	74.877%	0.060
	5.065V	0.609		115.14V
3	0.550A	2.780	78.620%	0.257
	5.053V	3.536		115.13V
4	1.000A	5.042	77.581%	0.345
	5.041V	6.499		115.13V
5	1.500A	7.543	77.444%	0.393
	5.029V	9.740		115.13V
6	3.000A	14.965	76.751%	0.455
	4.988V	19.498		115.13V

230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.045A	0.228	64.773%	0.011
	5.064V	0.352		230.29V
2	0.090A	0.456	70.807%	0.019
	5.065V	0.644		230.27V
3	0.550A	2.780	76.774%	0.101
	5.053V	3.621		230.27V
4	1.000A	5.041	77.399%	0.166
	5.041V	6.513		230.27V
5	1.500A	7.542	77.338%	0.222
	5.028V	9.752		230.25V
6	3.000A	14.962	77.291%	0.318
	4.987V	19.358		230.24V

Supplementary Tests (For Reference)

10-110%□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	4.359A	1.982A	1.998A	0.995A	74.438	85.961%	0	<6.0	43.90°C	0.973
	12.123V	5.045V	3.301V	5.024V	86.595				39.90°C	115.10V
2	9.782A	2.975A	2.999A	1.196A	149.317	89.693%	0	<6.0	44.71°C	0.988
	12.106V	5.043V	3.298V	5.018V	166.476				40.43°C	115.10V
3	15.639A	3.474A	3.489A	1.397A	224.846	91.461%	0	<6.0	45.76°C	0.991
	12.075V	5.040V	3.295V	5.011V	245.837				41.09°C	115.11V
4	21.441A	3.970A	4.007A	1.599A	299.665	91.199%	791	16.3	41.85°C	0.993
	12.054V	5.040V	3.295V	5.005V	328.583				46.80°C	115.11V
5	26.923A	4.964A	5.012A	1.801A	374.580	90.808%	793	16.3	42.13°C	0.992
	12.037V	5.037V	3.292V	4.999V	412.495				47.71°C	115.11V
6	32.418A	5.962A	6.019A	2.003A	449.507	90.188%	794	16.4	42.56°C	0.992
	12.021V	5.034V	3.289V	4.993V	498.413				49.19°C	115.11V
7	37.955A	6.959A	7.024A	2.207A	524.838	89.484%	795	16.4	43.21°C	0.993
	12.007V	5.032V	3.287V	4.987V	586.513				50.92°C	115.11V
8	43.490A	7.957A	8.040A	2.411A	600.167	88.626%	1131	28.4	43.80°C	0.994
	11.997V	5.028V	3.284V	4.980V	677.188				52.23°C	115.11V
9	49.418A	8.460A	8.528A	2.411A	674.717	87.866%	1298	32.4	44.65°C	0.994
	11.983V	5.027V	3.284V	4.980V	767.897				53.98°C	115.11V
10	55.146A	8.959A	9.051A	3.025A	749.919	86.961%	1642	39.2	45.71°C	0.995
	11.972V	5.024V	3.281V	4.960V	862.367				56.27°C	115.11V
11	61.479A	8.963A	9.051A	3.027A	825.137	86.058%	1780	41.3	46.54°C	0.995
	11.962V	5.022V	3.282V	4.958V	958.818				57.72°C	115.11V
CL1	0.136A	18.006A	17.998A	0.000A	151.320	82.647%	1022	25.0	42.59°C	0.989
	12.099V	5.025V	3.289V	5.076V	183.092				47.81°C	115.13V

CL2	62.521A	1.004A	0.999A	1.000A	762.085	87.491%	1547	37.6	45.46°C	0.995
	11.976V	5.030V	3.285V	5.001V	871.043				56.11°C	115.11V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	4.364A	1.981A	1.999A	0.996A	74.501	86.937%	0	<6.0	43.64°C	0.827
	12.123V	5.045V	3.301V	5.023V	85.695				39.91°C	230.26V
2	9.786A	2.975A	3.000A	1.196A	149.367	90.999%	0	<6.0	44.60°C	0.929
	12.106V	5.043V	3.298V	5.018V	164.142				40.46°C	230.26V
3	15.642A	3.473A	3.488A	1.397A	224.875	92.867%	0	<6.0	45.85°C	0.958
	12.075V	5.040V	3.295V	5.011V	242.148				41.27°C	230.26V
4	21.432A	3.972A	4.008A	1.599A	299.649	93.059%	0	<6.0	46.79°C	0.971
	12.059V	5.037V	3.292V	5.003V	322.000				41.70°C	230.25V
5	26.923A	4.965A	5.012A	1.801A	374.579	92.709%	791	16.3	42.30°C	0.978
	12.037V	5.036V	3.292V	4.999V	404.039				48.26°C	230.25V
6	32.416A	5.961A	6.021A	2.004A	449.483	92.320%	794	16.4	42.73°C	0.981
	12.021V	5.033V	3.289V	4.993V	486.873				49.37°C	230.25V
7	38.086A	6.959A	6.700A	2.105A	524.803	91.894%	795	16.4	43.43°C	0.983
	12.006V	5.031V	3.288V	4.989V	571.097				50.82°C	230.25V
8	43.493A	7.956A	8.037A	2.410A	600.104	91.343%	1063	26.1	43.71°C	0.985
	11.995V	5.028V	3.285V	4.980V	656.976				52.04°C	230.25V
9	49.414A	8.459A	8.529A	2.411A	674.648	90.840%	1298	32.4	44.53°C	0.987
	11.983V	5.026V	3.283V	4.979V	742.678				53.76°C	230.25V
10	55.141A	8.959A	9.052A	3.025A	749.861	90.245%	1656	39.4	45.64°C	0.987
	11.972V	5.024V	3.281V	4.960V	830.918				56.01°C	230.24V
11	61.476A	8.962A	9.058A	3.027A	825.089	89.673%	1777	41.3	46.68°C	0.988
	11.962V	5.022V	3.279V	4.957V	920.107				58.01°C	230.25V
CL1	0.141A	18.004A	17.999A	0.000A	151.267	83.847%	1021	25.0	42.28°C	0.938
	12.097V	5.024V	3.284V	5.075V	180.408				48.66°C	230.26V

CL2	62.509A	1.002A	1.000A	1.000A	761.806	90.778%	1474	36.3	45.72°C	0.987
	11.974V	5.030V	3.282V	5.000V	839.201				56.08°C	230.25V

The results above are not used in the certification process

20-80□□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	PF/AC □□
1	1.194A	0.496A	0.484A	0.198A	19.483	80.246%	0	<6.0	0.818
	12.048V	5.045V	3.299V	5.040V	24.279				115.11V
2	2.461A	0.989A	0.998A	0.397A	39.955	85.219%	0	<6.0	0.932
	12.054V	5.047V	3.305V	5.039V	46.885				115.11V
3	3.653A	1.487A	1.481A	0.596A	59.425	86.852%	0	<6.0	0.961
	12.052V	5.047V	3.304V	5.034V	68.421				115.11V
4	4.890A	1.983A	1.997A	0.795A	79.853	86.397%	0	<6.0	0.975
	12.117V	5.046V	3.303V	5.030V	92.426				115.11V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	PF/AC □□
1	1.202A	0.497A	0.485A	0.199A	19.597	80.276%	0	<6.0	0.434
	12.052V	5.044V	3.298V	5.040V	24.412				230.28V
2	2.469A	0.991A	0.999A	0.397A	40.068	85.639%	0	<6.0	0.652
	12.056V	5.046V	3.304V	5.038V	46.787				230.28V
3	3.638A	1.487A	1.485A	0.596A	59.519	85.014%	0	<6.0	0.777
	12.125V	5.046V	3.303V	5.034V	70.011				230.27V
4	4.900A	1.983A	2.000A	0.796A	79.886	87.483%	0	<6.0	0.840
	12.097V	5.045V	3.302V	5.029V	91.316				230.27V

The results above are not used in the certification process

115V

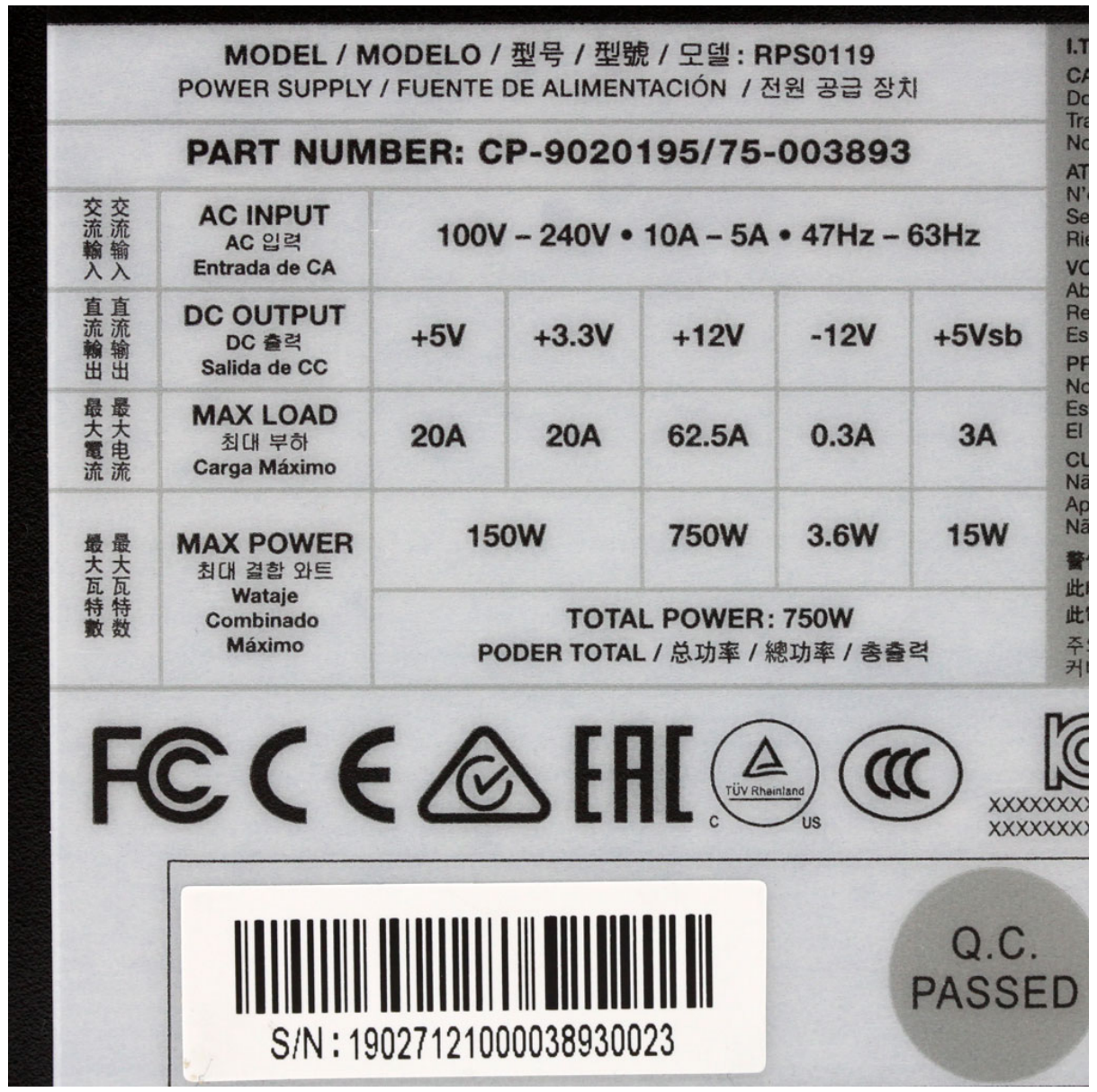
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	5.9 mV	7.1 mV	9.7 mV	9.3 mV	Pass
20% Load	6.7 mV	8.0 mV	11.0 mV	9.8 mV	Pass
30% Load	10.8 mV	8.8 mV	12.3 mV	9.7 mV	Pass
40% Load	9.4 mV	9.2 mV	12.4 mV	9.9 mV	Pass
50% Load	9.7 mV	10.7 mV	13.3 mV	11.3 mV	Pass
60% Load	9.4 mV	10.6 mV	13.6 mV	10.5 mV	Pass
70% Load	10.1 mV	11.5 mV	14.0 mV	10.9 mV	Pass
80% Load	10.7 mV	12.0 mV	17.3 mV	11.2 mV	Pass
90% Load	11.7 mV	12.8 mV	20.5 mV	13.1 mV	Pass
100% Load	16.5 mV	13.8 mV	29.9 mV	12.4 mV	Pass
110% Load	16.9 mV	14.5 mV	29.7 mV	14.0 mV	Pass
Crossload 1	18.4 mV	12.2 mV	20.1 mV	12.0 mV	Pass
Crossload 2	16.2 mV	11.8 mV	19.6 mV	12.3 mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	6.9 mV	7.4 mV	11.5 mV	10.6 mV	Pass
20% Load	6.7 mV	8.1 mV	12.7 mV	11.1 mV	Pass
30% Load	11.3 mV	9.1 mV	13.4 mV	10.7 mV	Pass
40% Load	9.7 mV	9.3 mV	13.3 mV	10.6 mV	Pass
50% Load	9.6 mV	11.2 mV	15.4 mV	11.9 mV	Pass
60% Load	9.3 mV	11.0 mV	15.0 mV	10.9 mV	Pass
70% Load	9.6 mV	11.3 mV	15.9 mV	10.9 mV	Pass
80% Load	10.4 mV	12.0 mV	16.4 mV	11.4 mV	Pass





Test	12V	5V	3.3V	5VSB	Pass/Fail
90% Load	10.8 mV	12.9 mV	17.4 mV	12.0 mV	Pass
100% Load	15.8 mV	14.1 mV	17.9 mV	12.5 mV	Pass
110% Load	17.9 mV	14.5 mV	30.8 mV	12.0 mV	Pass
Crossload 1	21.7 mV	11.6 mV	18.1 mV	10.3 mV	Pass
Crossload 2	15.9 mV	12.1 mV	16.5 mV	11.4 mV	Pass

The results above are not used in the certification process

Corsair RM750

Top side

Power specifications label

本测试报告中包含的所有数据和图表均可在以下条件下由任何人使用：使用过程需提及测试结果由 Cybenetics提供。
在任何情况下都应提供原始测试结果文档的网站链接

Cybenetics 提供自愿性认证计划：电源方面有 ETA (效率)、 LAMBDA (噪声) 与 SAFE (安全与正确运行)；散热产品方面有 DELTA (机箱隔音) 与 PHI (风扇风量与静压)

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com