

Anex

Corsair TX850

Lab ID#: CR85002421
 Receipt Date: Mar 28, 2024
 Test Date: Apr 18, 2024

Report: 24PS2421A
 Report Date: Apr 23, 2024

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	TX
Model Number	RPS0208
Serial Number	A7VGD348115K58
DUT Notes	CP-9020289, Not Properly Configured OCP/OPP

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-6
Rated Frequency (Hz)	47-63
Rated Power (W)	850
Type	ATX12V
Cooling	135mm Fluid Dynamic Bearing Fan (HA13525M12F-Z)
Semi-Passive Operation	✓
Cable Design	Fully Modular

TEST EQUIPMENT	
Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P
Power Analyzers	RS HMC8015, N4L PPA1530, N4L PPA5530
Oscilloscopes	Picoscope 4444, Rigol DS7014, 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, Keithley 2015 - THD
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Isolation Transformer	4kVA

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RESULTS

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

115V

Average Efficiency	88.769%
Efficiency With 10W (≤500W) or 2% (>500W)	64.854
Average Efficiency 5VSB	80.711%
Standby Power Consumption (W)	0.0403000
Average PF	0.990
Avg Noise Output	27.74 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A-

230V

Average Efficiency	91.096%
Average Efficiency 5VSB	80.073%
Standby Power Consumption (W)	0.1078000
Average PF	0.964
Avg Noise Output	27.23 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A-

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	70.8	3	0.8
	Watts	130		850	15	9.6
Total Max. Power (W)		850				

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

Hold-Up Time (ms)	19.6
AC Loss to PWR_OK Hold Up Time (ms)	17
PWR_OK Inactive to DC Loss Delay (ms)	2.7

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CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (605mm)	1	1	18-20AWG	No
4+4 pin EPS12V (650mm)	2	2	18AWG	No
6+2 pin PCIe (675mm)	1	1	18AWG	No
2 x 6+2 pin PCIe (675mm)	1	2	18AWG	No
12+4 pin PCIe (675mm) (600W)	1	1	16-24AWG	No
SATA (110mm+115mm+115mm+115mm)	1	4	18AWG	No
SATA (100mm+115mm+115mm+115mm)	1	4	18AWG	No
4-pin Molex (100mm+115mm+115mm+115mm)	1	4	18AWG	No
AC Power Cord (1375mm) - C13 coupler	1	1	18AWG	-

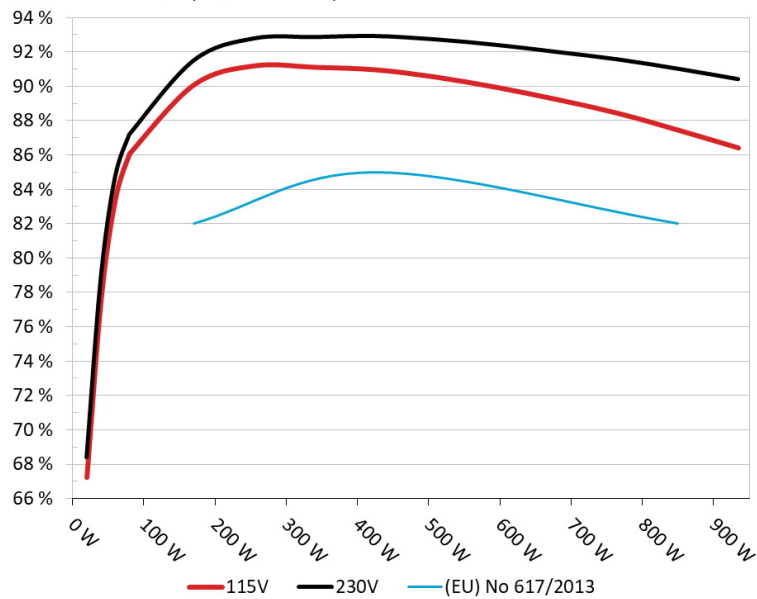
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair TX850

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



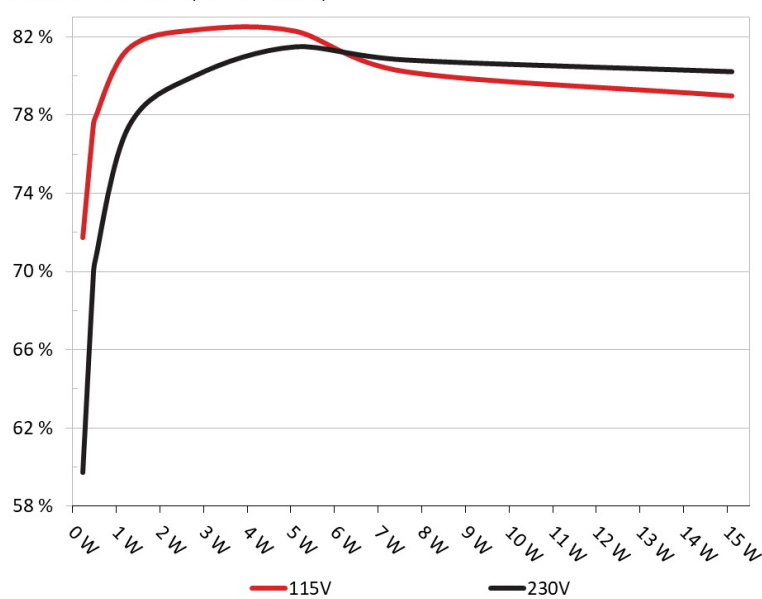
INFO

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 TX850

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	71.748%	0.03
	5.127V	0.322W		115.16V
2	0.09A	0.461W	77.234%	0.055
	5.125V	0.598W		115.16V
3	0.55A	2.811W	82.339%	0.251
	5.11V	3.414W		115.15V
4	1A	5.098W	82.275%	0.351
	5.096V	6.196W		115.16V
5	1.5A	7.625W	80.208%	0.407
	5.082V	9.507W		115.15V
6	3A	15.106W	78.972%	0.479
	5.035V	19.128W		115.14V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	59.723%	0.011
	5.126V	0.387W		230.37V
2	0.09A	0.461W	69.385%	0.019
	5.125V	0.665W		230.38V
3	0.55A	2.811W	80.027%	0.094
	5.11V	3.512W		230.37V
4	1A	5.098W	81.497%	0.157
	5.097V	6.256W		230.37V
5	1.5A	7.625W	80.829%	0.217
	5.082V	9.431W		230.37V
6	3A	15.107W	80.224%	0.323
	5.035V	18.833W		230.36V

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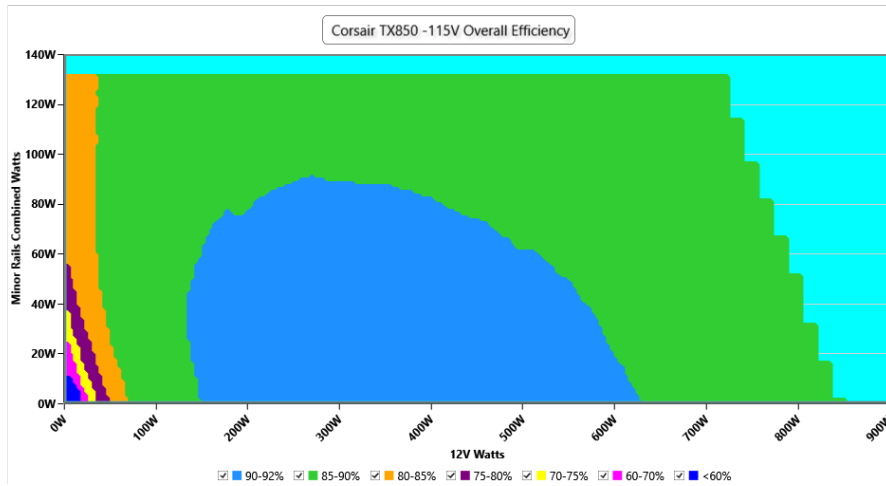
115V

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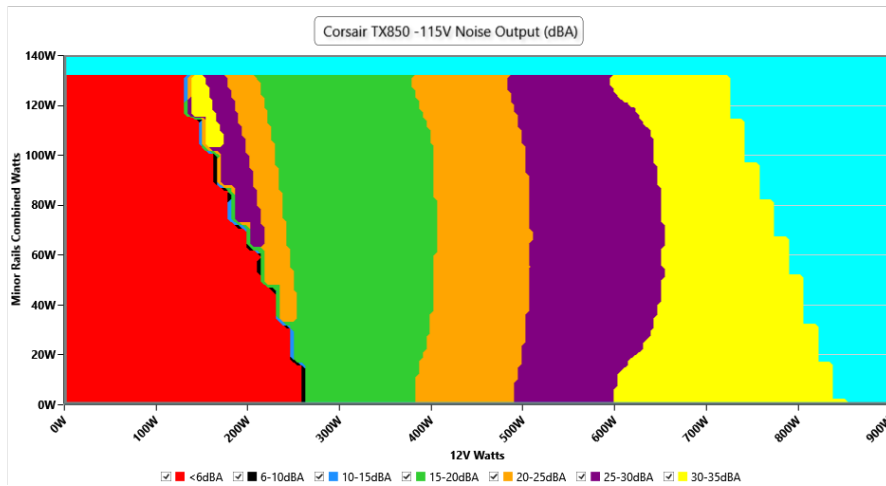
EFFICIENCY GRAPH 115V



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

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VAMPIRE POWER -115V

Detailed Results

	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.13 V	115.12 V	113.85 V	115.16 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.91 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.15 %	2.00 %	PASS
Real Power:	0.040 W	0.011 W	N/A	0.056 W	N/A	N/A
Apparent Power:	10.703 W	10.699 W	N/A	10.708 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

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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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
10%	5.286A	1.984A	1.991A	0.982A	85.008	85.982%	0	<6.0	44.49°C	0.98
	11.993V	5.042V	3.315V	5.092V	98.866				40.34°C	115.14V
20%	11.596A	2.977A	2.989A	1.182A	169.973	90.07%	0	<6.0	45.42°C	0.98
	11.992V	5.04V	3.312V	5.078V	188.711				40.87°C	115.11V
30%	18.266A	3.474A	3.489A	1.382A	254.976	91.183%	0	<6.0	45.94°C	0.987
	11.985V	5.039V	3.31V	5.065V	279.634				41.24°C	115.08V
40%	24.974A	3.972A	3.991A	1.585A	340.061	91.099%	892	29.6	41.76°C	0.991
	11.967V	5.037V	3.307V	5.05V	373.289				46.68°C	115.06V
50%	31.309A	4.967A	4.995A	1.788A	425.008	90.955%	929	30.8	42.22°C	0.994
	11.961V	5.034V	3.304V	5.034V	467.275				47.46°C	115.03V
60%	37.619A	5.963A	5.999A	1.993A	509.527	90.53%	1007	33.6	42.53°C	0.995
	11.954V	5.032V	3.301V	5.019V	562.825				48.65°C	115.01V
70%	44.006A	6.96A	7.005A	2.199A	594.869	89.934%	1103	35.8	43.21°C	0.996
	11.948V	5.03V	3.298V	5.004V	661.453				50.32°C	114.98V
80%	50.398A	7.955A	8.01A	2.304A	679.696	89.224%	1232	39.1	43.8°C	0.997
	11.941V	5.028V	3.296V	4.992V	761.787				52.23°C	114.96V
90%	57.198A	8.456A	8.501A	2.41A	765.116	88.428%	1342	41.1	44.7°C	0.997
	11.934V	5.026V	3.293V	4.98V	865.247				53.9°C	114.93V
100%	63.732A	8.955A	9.024A	3.03A	849.907	87.445%	1480	44.9	45.19°C	0.997
	11.928V	5.025V	3.291V	4.952V	971.932				55.62°C	114.9V
110%	70.144A	9.954A	10.125A	3.035A	934.523	86.411%	1614	45.9	46.13°C	0.997
	11.922V	5.023V	3.288V	4.942V	1081.494				56.87°C	114.87V
CL1	0.117A	15.565A	15.604A	0A	131.296	82.774%	0	<6.0	46.88°C	0.979
	12.001V	5.03V	3.306V	5.109V	158.623				41.39°C	115.11V
CL2	0.116A	24.878A	0A	0A	126.388	80.851%	0	<6.0	47.34°C	0.979
	12.005V	5.024V	3.324V	5.117V	156.322				40.13°C	115.11V
CL3	0.116A	0A	24.968A	0A	83.889	74.842%	0	<6.0	49.63°C	0.979
	12.008V	5.045V	3.304V	5.112V	112.086				40.73°C	115.12V
CL4	71.163A	0A	0A	0A	849.647	88.217%	1511	45.5	45.58°C	0.997
	11.940V	5.039V	3.303V	5.06V	963.142				56.09°C	114.9V

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20-80W 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
20W	1.236A	0.496A	0.497A	0.195A	20.001	67.247%	0	<6.0	40.01°C	0.906
	12.015V	5.044V	3.316V	5.122V	29.743				36.77°C	115.14V
40W	2.724A	0.694A	0.696A	0.293A	40.001	77.6%	0	<6.0	40.9°C	0.955
	12.000V	5.044V	3.316V	5.118V	51.548				37.51°C	115.14V
60W	4.214A	0.892A	0.896A	0.391A	60.002	83.436%	0	<6.0	42.04°C	0.967
	11.992V	5.044V	3.316V	5.113V	71.913				38.42°C	115.14V
80W	5.698A	1.091A	1.095A	0.49A	79.971	86.075%	0	<6.0	43.25°C	0.981
	11.992V	5.044V	3.316V	5.108V	92.909				39.35°C	115.15V

RIPPLE MEASUREMENTS 115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	17.3 mV	5.6 mV	4.2 mV	5.8 mV	Pass
20% Load	12.9 mV	6.0 mV	4.5 mV	6.4 mV	Pass
30% Load	10.2 mV	6.8 mV	4.3 mV	6.9 mV	Pass
40% Load	10.9 mV	6.4 mV	4.6 mV	7.9 mV	Pass
50% Load	12.4 mV	8.7 mV	5.1 mV	7.5 mV	Pass
60% Load	12.0 mV	6.9 mV	4.6 mV	8.4 mV	Pass
70% Load	13.3 mV	7.2 mV	4.7 mV	9.4 mV	Pass
80% Load	14.0 mV	7.9 mV	7.9 mV	10.1 mV	Pass
90% Load	16.0 mV	8.0 mV	8.2 mV	9.6 mV	Pass
100% Load	20.3 mV	8.7 mV	9.0 mV	11.0 mV	Pass
110% Load	21.9 mV	9.8 mV	9.3 mV	11.2 mV	Pass
Crossload 1	17.8 mV	7.2 mV	9.6 mV	5.5 mV	Pass
Crossload 2	11.7 mV	6.4 mV	3.9 mV	5.4 mV	Pass
Crossload 3	11.6 mV	6.1 mV	10.7 mV	5.5 mV	Pass
Crossload 4	20.9 mV	9.0 mV	5.3 mV	8.5 mV	Pass

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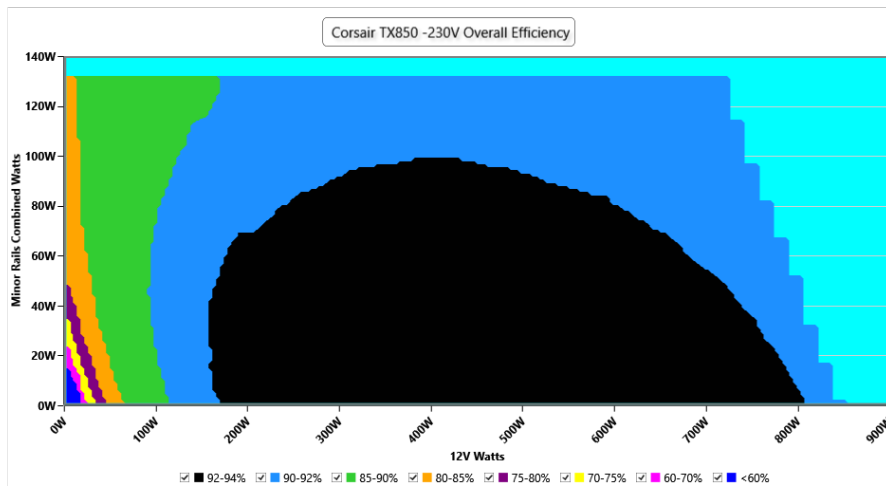
230V

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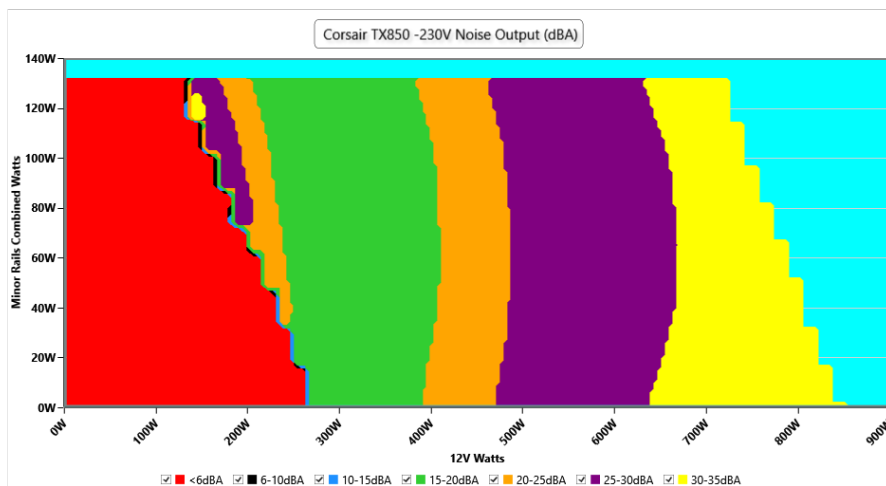
EFFICIENCY GRAPH 230V



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

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VAMPIRE POWER -230V

Detailed Results

	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.35 V	230.34 V	227.70 V	230.38 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.415	1.490	PASS
Mains Voltage THD:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.108 W	0.090 W	N/A	0.139 W	N/A	N/A
Apparent Power:	35.752 W	35.736 W	N/A	35.768 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

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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
10%	5.285A	1.984A	1.991A	0.982A	85.01	87.23%	0	<6.0	44.63°C	0.87
	11.996V	5.043V	3.315V	5.092V	97.454				40.38°C	230.41V
20%	11.595A	2.976A	2.989A	1.182A	169.986	91.515%	0	<6.0	45.19°C	0.941
	11.995V	5.041V	3.313V	5.078V	185.748				40.65°C	230.4V
30%	18.264A	3.473A	3.489A	1.383A	255.004	92.812%	0	<6.0	46.21°C	0.961
	11.988V	5.04V	3.311V	5.064V	274.75				41.14°C	230.39V
40%	24.961A	3.972A	3.992A	1.585A	340.103	92.887%	917	30.5	41.96°C	0.972
	11.974V	5.037V	3.307V	5.049V	366.144				47.54°C	230.38V
50%	31.320A	4.967A	4.996A	1.789A	425.17	92.945%	952	31.7	42.13°C	0.979
	11.962V	5.035V	3.303V	5.033V	457.445				48.18°C	230.37V
60%	37.634A	5.964A	6.001A	1.994A	509.703	92.752%	1018	33.8	42.73°C	0.982
	11.954V	5.032V	3.3V	5.017V	549.531				49.42°C	230.36V
70%	44.022A	6.961A	7.007A	2.2A	595.049	92.433%	1119	36.3	43.41°C	0.984
	11.946V	5.03V	3.298V	5.002V	643.769				50.59°C	230.35V
80%	50.419A	7.957A	8.013A	2.305A	679.882	92.024%	1217	38.5	43.64°C	0.987
	11.940V	5.028V	3.295V	4.99V	738.807				51.69°C	230.34V
90%	57.221A	8.457A	8.505A	2.411A	765.323	91.59%	1337	41.0	44.18°C	0.988
	11.933V	5.026V	3.292V	4.978V	835.594				53.33°C	230.32V
100%	63.759A	8.957A	9.028A	3.032A	850.131	91.043%	1464	41.7	45.05°C	0.99
	11.927V	5.025V	3.29V	4.949V	933.767				55.19°C	230.31V
110%	70.174A	9.956A	10.13A	3.037A	934.724	90.438%	1600	45.6	46.06°C	0.992
	11.920V	5.023V	3.287V	4.94V	1033.549				56.98°C	230.3V
CL1	0.117A	15.566A	15.608A	0A	131.313	84.243%	0	<6.0	46.27°C	0.928
	11.999V	5.03V	3.306V	5.107V	155.873				40.42°C	230.4V
CL2	0.117A	24.878A	0A	0A	126.401	82.233%	0	<6.0	49.15°C	0.926
	12.003V	5.024V	3.324V	5.115V	153.708				41.96°C	230.37V
CL3	0.116A	0A	24.969A	0A	83.892	76.079%	0	<6.0	51.32°C	0.889
	12.007V	5.045V	3.304V	5.11V	110.269				41.73°C	230.37V
CL4	71.171A	0A	0A	0A	849.668	91.758%	1449	41.4	45.67°C	0.99
	11.939V	5.038V	3.303V	5.059V	925.983				56.04°C	230.26V

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20-80W 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
20W	1.238A	0.496A	0.498A	0.195A	20.009	68.403%	0	<6.0	39.84°C	0.54
	12.007V	5.043V	3.315V	5.121V	29.246				36.78°C	230.42V
40W	2.726A	0.694A	0.697A	0.293A	40.007	78.848%	0	<6.0	40.57°C	0.713
	11.997V	5.044V	3.316V	5.117V	50.738				37.3°C	230.41V
60W	4.214A	0.892A	0.896A	0.391A	60.007	84.728%	0	<6.0	41.78°C	0.8
	11.990V	5.044V	3.316V	5.112V	70.821				38.32°C	230.41V
80W	5.700A	1.091A	1.095A	0.49A	79.977	87.213%	0	<6.0	42.76°C	0.857
	11.992V	5.044V	3.316V	5.108V	91.702				39.14°C	230.41V

RIPPLE MEASUREMENTS 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	19.0 mV	5.7 mV	4.3 mV	5.3 mV	Pass
20% Load	13.5 mV	7.4 mV	4.4 mV	6.0 mV	Pass
30% Load	10.2 mV	6.0 mV	4.8 mV	6.7 mV	Pass
40% Load	10.5 mV	6.2 mV	4.3 mV	7.3 mV	Pass
50% Load	12.0 mV	8.8 mV	4.9 mV	8.3 mV	Pass
60% Load	11.8 mV	6.9 mV	4.7 mV	8.1 mV	Pass
70% Load	12.9 mV	7.0 mV	4.7 mV	9.9 mV	Pass
80% Load	14.0 mV	7.7 mV	8.0 mV	9.4 mV	Pass
90% Load	15.4 mV	8.1 mV	8.0 mV	9.3 mV	Pass
100% Load	20.6 mV	9.6 mV	8.6 mV	10.7 mV	Pass
110% Load	21.9 mV	10.0 mV	9.3 mV	11.4 mV	Pass
Crossload 1	17.4 mV	7.2 mV	9.4 mV	5.6 mV	Pass
Crossload 2	12.5 mV	6.6 mV	3.8 mV	5.6 mV	Pass
Crossload 3	12.4 mV	5.8 mV	10.3 mV	5.5 mV	Pass
Crossload 4	20.4 mV	8.9 mV	5.4 mV	8.4 mV	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

Anex

Corsair TX850

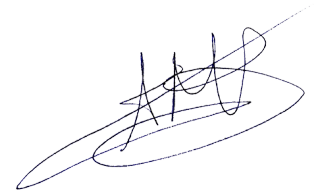


Top side

MODEL / MODELO / 型号 / 型号: RPS0208 POWER SUPPLY / FUENTE DE ALIMENTACIÓN					
PART NUMBER: CP-9020289					
交流输入 AC INPUT	Entrada de CA	100V – 240V ~ • 10A – 6A • 47Hz – 63Hz			
直流输出 DC OUTPUT	Salida de CC	+5V	+3.3V	+12V	-12V +5Vsb
最大电流 MAX LOAD	Carga Máximo	25A	25A	70.8A	0.8A 3A
最大瓦特数 MAX POWER	Wattaje Combinado Máximo	130W	850W	9.6W	15W
		TOTAL POWER: 850W PODER TOTAL / 总功率 / 總功率			

Power specifications label

CERTIFICATIONS 115V

Aristeidis Bitziopoulos
Lab Director

CERTIFICATIONS 230V



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