

Anex

Corsair TX1000

Lab ID#: CR10002418
 Receipt Date: Mar 28, 2024
 Test Date: Apr 15, 2024

Report: 24PS2418A
 Report Date: Apr 16, 2024

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	TX
Model Number	RPS0209
Serial Number	A7VHD34540GCE0
DUT Notes	CP-9020290, Not Properly Configured OCP/OPP

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15-8
Rated Frequency (Hz)	47-63
Rated Power (W)	1000
Type	ATX12V
Cooling	130mm Fluid Dynamic Bearing (HA13525M12F-Z 12VDC)
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	✓
ATX v3.1 PSU Power Excursion	✓

115V

Average Efficiency	87.641%
Efficiency With 10W (≤500W) or 2% (>500W)	63.836
Average Efficiency 5VSB	80.771%
Standby Power Consumption (W)	0.0513000
Average PF	0.990
Avg Noise Output	31.97 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	Standard++

230V

Average Efficiency	90.273%
Average Efficiency 5VSB	80.415%
Standby Power Consumption (W)	0.1103000
Average PF	0.965
Avg Noise Output	32.00 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	Standard++

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	83.3	3	0.8
	Watts	130		1000	15	9.6
Total Max. Power (W)		1000				

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

Hold-Up Time (ms)	23
AC Loss to PWR_OK Hold Up Time (ms)	19.1
PWR_OK Inactive to DC Loss Delay (ms)	3.9

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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	18AWG	No
4+4 pin EPS12V (650mm)	2	2	18AWG	No
2 x 6+2 pin PCIe (675mm)	1	2	18AWG	No
6+2 pin PCIe (675mm)	2	2	18AWG	No
12+4 pin PCIe (675mm) (600W)	1	1	16-24AWG	No
SATA (100mm+115mm+115mm+115mm)	2	8	18AWG	No
4-pin Molex (100mm+115mm+115mm+115mm)	1	4	18AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	18AWG	No

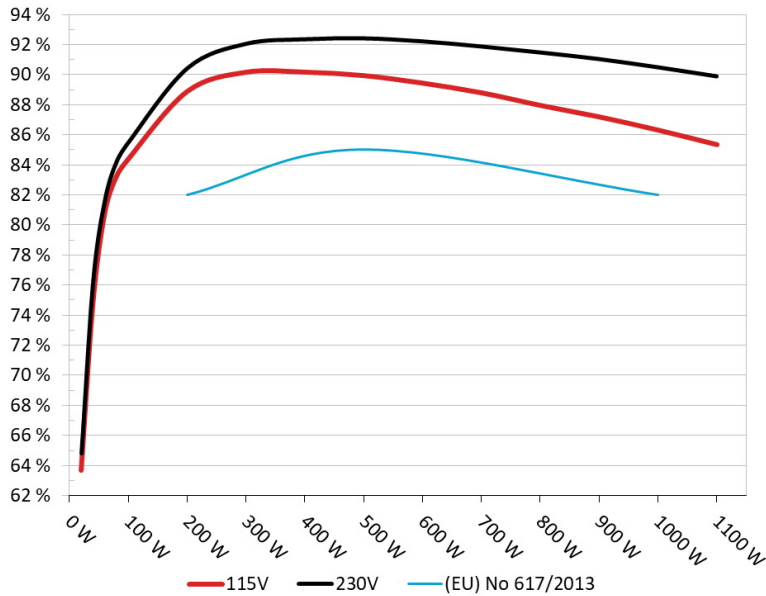
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair TX1000

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



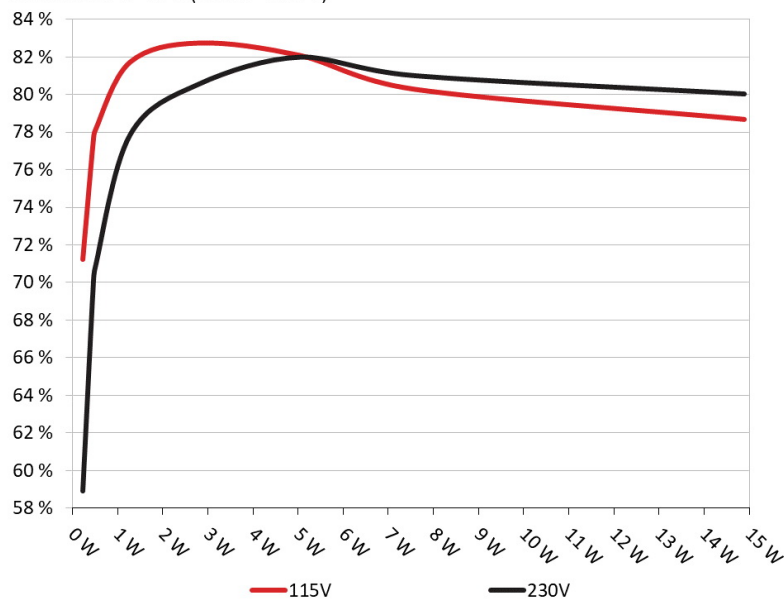
INFO

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 TX1000

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	0.23W	71.239%	0.03
	5.107V	0.323W		115.18V
2	0.09A	0.46W	77.503%	0.055
	5.105V	0.594W		115.18V
3	0.55A	2.796W	82.725%	0.249
	5.082V	3.38W		115.18V
4	1A	5.063W	82.056%	0.351
	5.061V	6.171W		115.18V
5	1.5A	7.557W	80.279%	0.408
	5.037V	9.414W		115.18V
6	3.001A	14.889W	78.673%	0.483
	4.962V	18.923W		115.17V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.23W	58.932%	0.011
	5.107V	0.392W		230.43V
2	0.09A	0.46W	69.834%	0.018
	5.105V	0.659W		230.43V
3	0.55A	2.796W	80.53%	0.093
	5.082V	3.473W		230.39V
4	1A	5.062W	81.97%	0.155
	5.061V	6.177W		230.38V
5	1.5A	7.557W	80.989%	0.215
	5.037V	9.327W		230.38V
6	3A	14.889W	80.013%	0.321
	4.962V	18.61W		230.38V

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Anex

Corsair TX1000

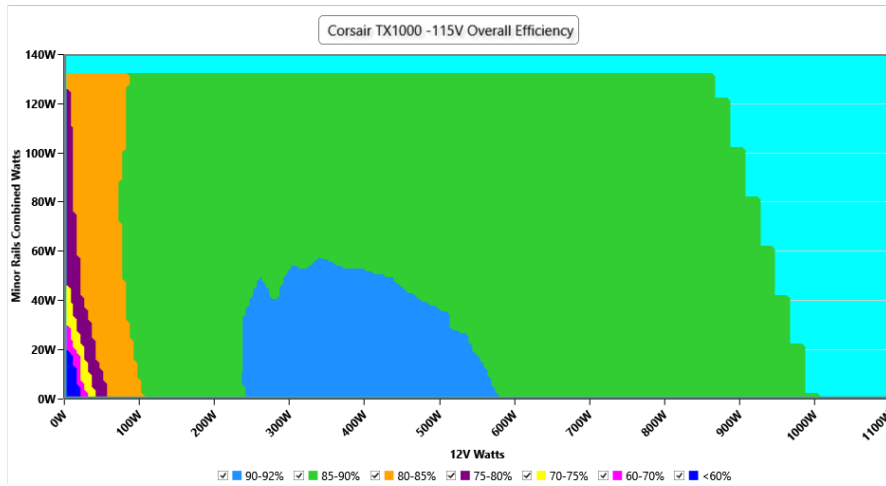
115V

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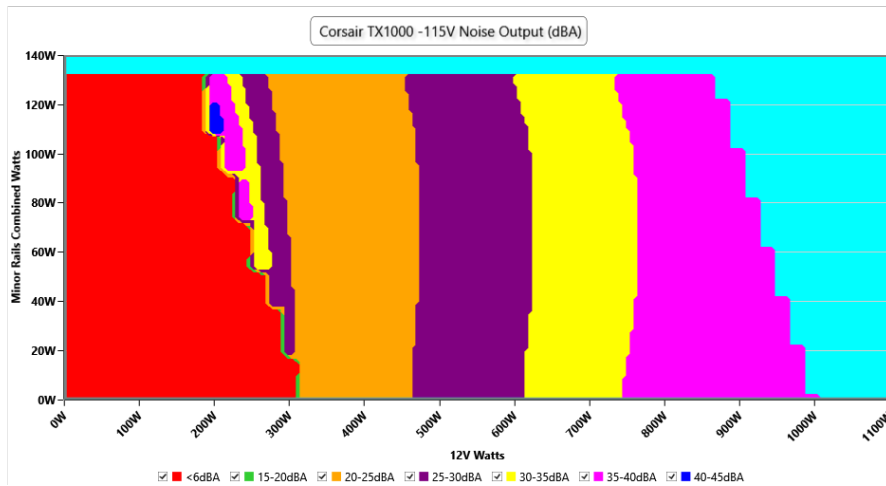
EFFICIENCY GRAPH 115V



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:	115.19 V	115.17 V	113.85 V	115.20 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 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 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.051 W	0.046 W	N/A	0.057 W	N/A	N/A
Apparent Power:	10.725 W	10.721 W	N/A	10.729 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%	6.526A	1.985A	1.993A	0.992A	100.027	84.383%	0	<6.0	44.23°C	0.971
	12.016V	5.04V	3.311V	5.044V	118.54				40.22°C	115.13V
20%	14.084A	2.978A	2.995A	1.195A	199.988	88.883%	0	<6.0	45.05°C	0.977
	12.005V	5.038V	3.306V	5.021V	225				40.81°C	115.1V
30%	22.006A	3.477A	3.498A	1.399A	300.048	90.169%	0	<6.0	45.91°C	0.987
	11.996V	5.035V	3.302V	5.006V	332.766				41.23°C	115.08V
40%	29.942A	3.977A	4.005A	1.605A	399.839	90.175%	987	32.5	41.75°C	0.991
	11.977V	5.03V	3.296V	4.985V	443.401				46.76°C	115.05V
50%	37.533A	4.975A	5.014A	1.814A	499.564	89.947%	1059	34.3	42.46°C	0.994
	11.964V	5.027V	3.291V	4.962V	555.4				47.97°C	115.02V
60%	45.199A	5.973A	6.027A	2.001A	600.006	89.443%	1165	37	42.73°C	0.996
	11.954V	5.024V	3.286V	4.941V	670.821				48.75°C	114.99V
70%	52.805A	6.973A	7.043A	2.238A	699.856	88.803%	1285	39.7	43.31°C	0.997
	11.945V	5.021V	3.281V	4.917V	788.098				50.33°C	114.96V
80%	60.496A	7.972A	8.06A	2.349A	799.886	87.963%	1389	41.8	43.74°C	0.997
	11.934V	5.018V	3.275V	4.896V	909.349				51.75°C	114.94V
90%	68.529A	8.475A	8.561A	2.466A	899.665	87.199%	1503	44.6	44.76°C	0.998
	11.925V	5.016V	3.271V	4.867V	1031.738				53.77°C	114.91V
100%	76.377A	8.978A	9.093A	3.12A	999.701	86.32%	1623	45.7	45.73°C	0.998
	11.915V	5.013V	3.266V	4.808V	1158.123				55.76°C	114.87V
110%	84.169A	9.982A	10.213A	3.116A	1100.326	85.348%	1755	47.5	46.82°C	0.998
	11.905V	5.01V	3.26V	4.815V	1289.236				57.76°C	114.83V
CL1	0.116A	15.557A	15.698A	0A	131.309	79.779%	0	<6.0	46.92°C	0.974
	12.024V	5.034V	3.287V	4.955V	164.573				41.41°C	115.13V
CL2	0.116A	24.871A	0A	0A	126.402	78.198%	0	<6.0	48.3°C	0.973
	12.026V	5.026V	3.318V	5.081V	161.642				41.28°C	115.13V
CL3	0.116A	0A	25.254A	0A	83.898	70.869%	0	<6.0	50.37°C	0.972
	12.029V	5.05V	3.267V	5.077V	118.386				41.36°C	115.14V
CL4	83.853A	0A	0A	0A	1000.202	87.017%	1620	45.7	45.84°C	0.998
	11.928V	5.03V	3.288V	5.001V	1149.419				56.78°C	114.88V

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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	0.498A	0.196A	20.006	63.657%	0	<6.0	39.74°C	0.89
	12.023V	5.042V	3.316V	5.097V	31.425				36.69°C	115.15V
40W	2.724A	0.694A	0.697A	0.295A	40.005	74.831%	0	<6.0	40.85°C	0.948
	12.005V	5.042V	3.315V	5.09V	53.46				37.61°C	115.15V
60W	4.206A	0.893A	0.896A	0.394A	60.004	80.808%	0	<6.0	42.31°C	0.966
	12.013V	5.042V	3.315V	5.083V	74.254				38.76°C	115.14V
80W	5.688A	1.091A	1.095A	0.493A	79.971	83.234%	0	<6.0	43.22°C	0.974
	12.015V	5.042V	3.314V	5.076V	96.079				39.23°C	115.14V

RIPPLE MEASUREMENTS 115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	11.67mV	6.33mV	4.22mV	6.72mV	Pass
20% Load	13.91mV	6.12mV	4.38mV	6.93mV	Pass
30% Load	12.26mV	6.99mV	4.53mV	7.08mV	Pass
40% Load	11.91mV	6.74mV	4.63mV	8.15mV	Pass
50% Load	12.62mV	7.65mV	4.93mV	7.54mV	Pass
60% Load	14.04mV	7.50mV	5.14mV	7.95mV	Pass
70% Load	15.57mV	9.85mV	7.58mV	9.27mV	Pass
80% Load	16.54mV	10.46mV	8.75mV	12.07mV	Pass
90% Load	16.84mV	9.34mV	8.39mV	10.95mV	Pass
100% Load	22.94mV	10.33mV	8.69mV	13.13mV	Pass
110% Load	24.55mV	10.42mV	8.71mV	14.65mV	Pass
Crossload1	20.88mV	8.92mV	8.70mV	5.87mV	Pass
Crossload2	12.99mV	6.43mV	3.87mV	5.66mV	Pass
Crossload3	42.38mV	6.89mV	10.07mV	5.45mV	Pass
Crossload4	23.59mV	9.95mV	5.47mV	8.51mV	Pass

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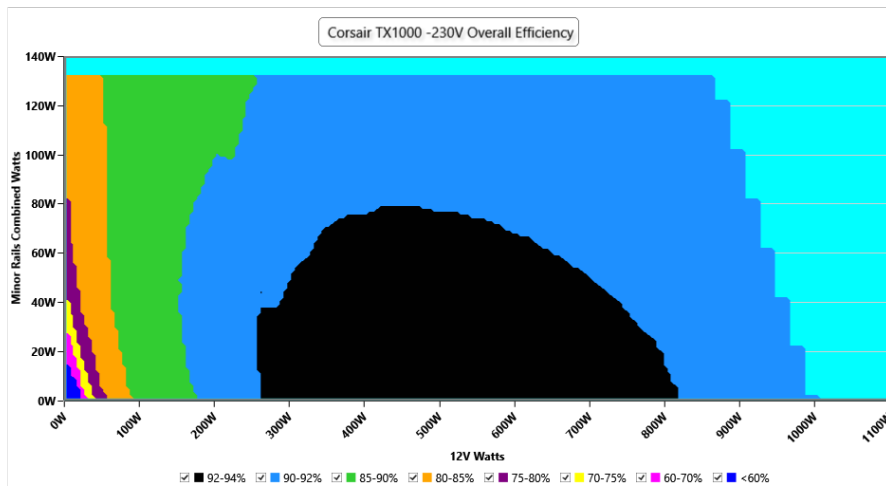
230V

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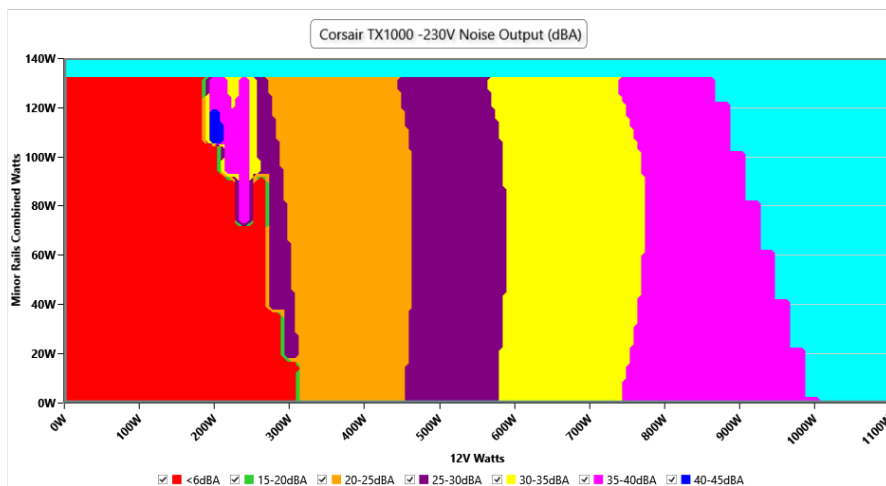
EFFICIENCY GRAPH 230V



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:	230.38 V	230.31 V	227.70 V	230.41 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.110 W	0.094 W	N/A	0.135 W	N/A	N/A
Apparent Power:	35.770 W	35.752 W	N/A	35.791 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%	6.524A	1.984A	1.993A	0.991A	100.038	85.523%	0	<6.0	44.38°C	0.881
	12.022V	5.043V	3.312V	5.045V	116.972				40.37°C	230.42V
20%	14.077A	2.977A	2.994A	1.194A	200.003	90.446%	0	<6.0	44.96°C	0.945
	12.012V	5.04V	3.307V	5.025V	221.127				40.72°C	230.4V
30%	21.997A	3.475A	3.498A	1.399A	300.068	92.073%	0	<6.0	45.62°C	0.962
	12.002V	5.038V	3.303V	5.005V	325.905				41.05°C	230.39V
40%	29.951A	3.976A	4.005A	1.607A	399.91	92.374%	1034	33.7	41.78°C	0.973
	11.976V	5.032V	3.297V	4.98V	432.925				46.79°C	230.38V
50%	37.536A	4.974A	5.014A	1.817A	499.629	92.434%	1080	34.9	42.11°C	0.979
	11.965V	5.028V	3.292V	4.956V	540.527				47.62°C	230.37V
60%	45.203A	5.973A	6.027A	2.001A	600.055	92.236%	1160	36.9	42.73°C	0.982
	11.954V	5.025V	3.286V	4.939V	650.56				48.75°C	230.35V
70%	52.811A	6.972A	7.043A	2.239A	699.898	91.895%	1273	39.4	43.27°C	0.985
	11.944V	5.022V	3.281V	4.914V	761.629				50.28°C	230.34V
80%	60.501A	7.972A	8.061A	2.348A	799.917	91.499%	1367	41.2	43.83°C	0.988
	11.933V	5.019V	3.275V	4.898V	874.241				51.86°C	230.32V
90%	68.536A	8.474A	8.561A	2.459A	899.697	91.062%	1493	44.4	44.08°C	0.99
	11.924V	5.016V	3.271V	4.881V	988.006				53.12°C	230.31V
100%	76.383A	8.977A	9.093A	3.103A	999.743	90.516%	1631	45.9	45.61°C	0.991
	11.914V	5.014V	3.266V	4.835V	1104.493				55.67°C	230.29V
110%	84.176A	9.981A	10.214A	3.113A	1100.368	89.912%	1762	47.6	46.95°C	0.993
	11.904V	5.01V	3.26V	4.819V	1223.818				57.89°C	230.28V
CL1	0.117A	15.565A	15.705A	0A	131.317	81.212%	0	<6.0	45.72°C	0.921
	12.021V	5.031V	3.286V	5.076V	161.699				40.2°C	230.41V
CL2	0.117A	24.864A	0A	0A	126.405	79.369%	0	<6.0	48.15°C	0.919
	12.026V	5.027V	3.318V	5.085V	159.233				41.14°C	230.42V
CL3	0.116A	0A	25.236A	0A	83.9	71.92%	0	<6.0	49.93°C	0.881
	12.029V	5.051V	3.269V	5.08V	116.65				40.89°C	230.42V
CL4	83.859A	0A	0A	0A	1000.242	91.122%	1635	46	45.56°C	0.992
	11.928V	5.03V	3.288V	5.004V	1097.699				56.5°C	230.3V

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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	1.236A	0.496A	0.498A	0.196A	20.011	64.831%	0	<6.0	39.99°C	0.555
	12.030V	5.043V	3.317V	5.097V	30.87				36.94°C	230.42V
40W	2.722A	0.694A	0.697A	0.295A	40.008	76.37%	0	<6.0	40.83°C	0.716
	12.010V	5.044V	3.316V	5.09V	52.389				37.6°C	230.42V
60W	4.206A	0.893A	0.896A	0.394A	60.008	81.709%	0	<6.0	42.23°C	0.803
	12.017V	5.044V	3.315V	5.08V	73.44				38.88°C	230.42V
80W	5.687A	1.091A	1.095A	0.495A	79.982	84.257%	0	<6.0	43.01°C	0.856
	12.018V	5.044V	3.315V	5.055V	94.929				39.4°C	230.42V

RIPPLE MEASUREMENTS 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	12.97mV	6.58mV	4.58mV	7.95mV	Pass
20% Load	14.87mV	6.22mV	4.48mV	6.47mV	Pass
30% Load	11.55mV	6.78mV	4.63mV	6.52mV	Pass
40% Load	11.50mV	6.94mV	4.78mV	8.15mV	Pass
50% Load	12.47mV	7.45mV	4.68mV	7.28mV	Pass
60% Load	13.89mV	7.65mV	4.93mV	7.79mV	Pass
70% Load	15.52mV	9.74mV	6.36mV	9.83mV	Pass
80% Load	16.13mV	10.86mV	8.65mV	11.11mV	Pass
90% Load	16.13mV	9.23mV	8.39mV	12.13mV	Pass
100% Load	22.49mV	9.72mV	8.75mV	15.86mV	Pass
110% Load	24.10mV	10.14mV	9.20mV	32.95mV	Pass
Crossload1	20.68mV	7.48mV	9.01mV	5.94mV	Pass
Crossload2	10.58mV	5.51mV	3.46mV	4.43mV	Pass
Crossload3	26.41mV	6.02mV	9.92mV	4.64mV	Pass
Crossload4	22.42mV	9.69mV	5.93mV	8.25mV	Pass

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

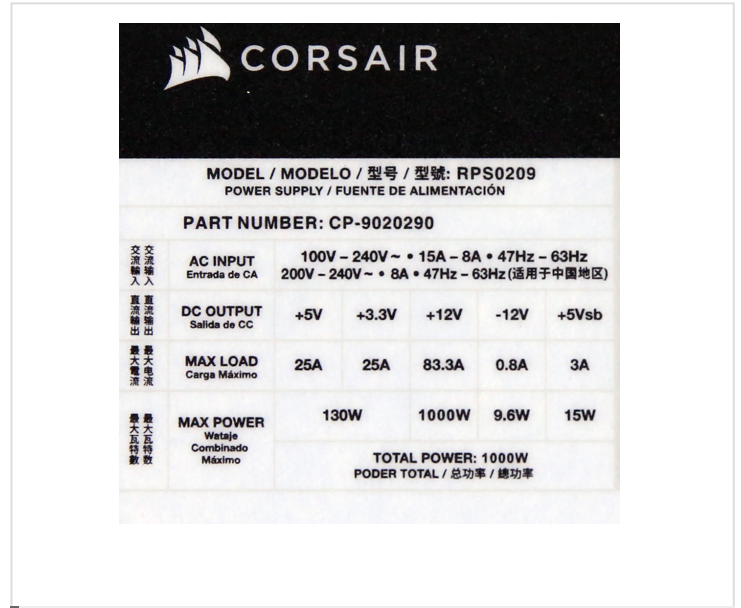
- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

Anex

Corsair TX1000

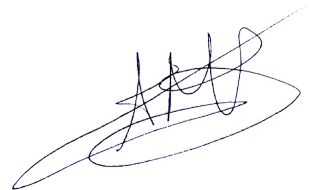


Top side



Power specifications label

CERTIFICATIONS 115V

Aristeidis Bitziopoulos
Lab Director

CERTIFICATIONS 230V



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