

Anex

Corsair TX850M

Lab ID#: 88
Receipt Date: -
Test Date: -

Report:

Report Date: Nov 4, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	TXM
Model Number	TX850M
Serial Number	17084854000040960743
DUT Notes	CP-9020130 - Retested on 9/28/17

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	47-63
Rated Power (W)	850
Type	ATX12V
Cooling	120mm Rifle Bearing Fan (NR120L)
Semi-Passive Operation	X
Cable Design	Semi Modular

POWER SPECIFICATIONS						
Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	70.8	3	0.8
	Watts	130		849.6	15	9.6
Total Max. Power (W)		850				

CABLES AND CONNECTORS			
Native Cables			
Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (600mm)	1	1	16-20AWG
4+4 pin EPS12V (650mm)	1	1	18AWG
Modular Cables			
6+2 pin PCIe (600mm+150mm)	2	4	18AWG
SATA (500mm+90mm+90mm+90mm)	2	8	18AWG
4 pin Molex (450mm+100mm+100mm+100mm)	2	8	18AWG
FDD (+100mm)	2	2	20AWG

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RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	88.736
Efficiency With 10W ($\leq 500W$) or 2% ($> 500W$) Load -115V	0.000
Average Efficiency 5VSB	80.944
Standby Power Consumption (W) -115V	0.0388675
Standby Power Consumption (W) -230V	0.0583520
Average PF	0.987
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	27.95
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A-

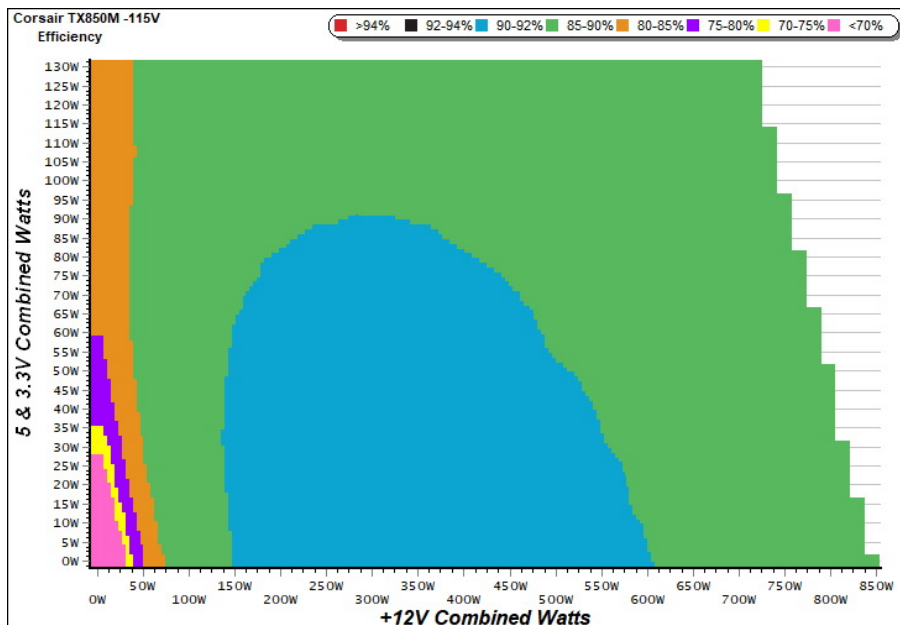
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5 Digit	
Sound Analyzer	Briel & Kjaer 2250-L G4	
Microphone	Briel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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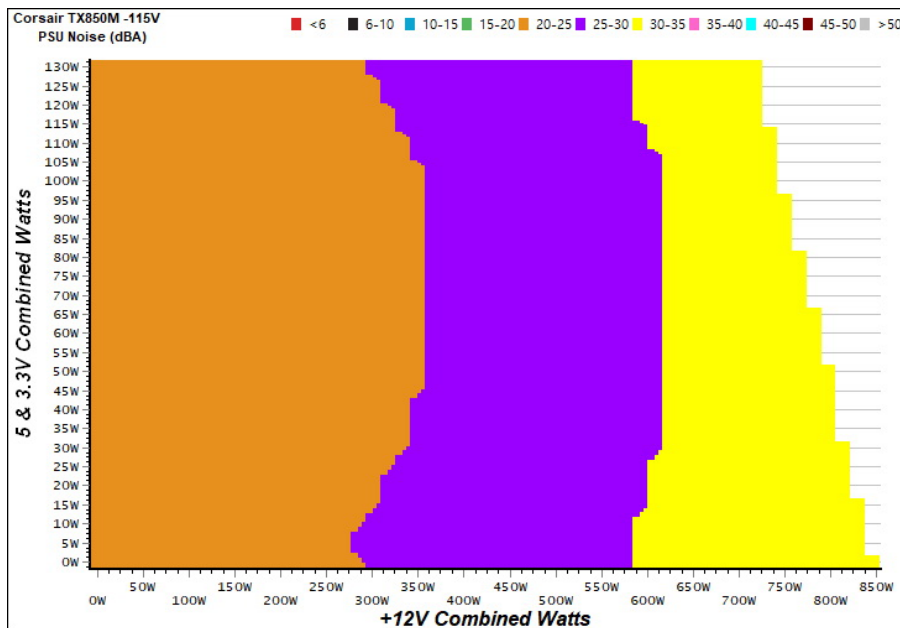
EFFICIENCY GRAPH



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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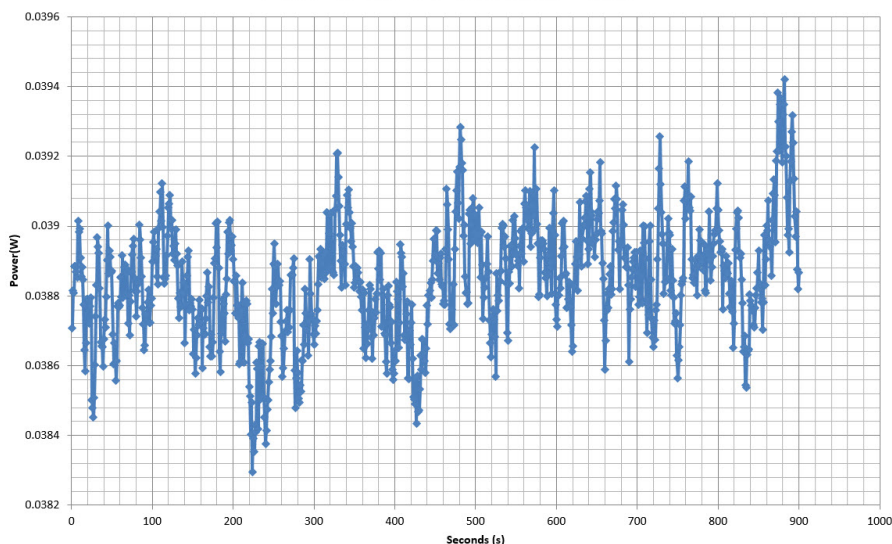
Corsair TX850M

5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)				
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.212	72.109%	0.030
	5.064V	0.294		115.52V
2	0.087A	0.442	77.544%	0.056
	5.064V	0.570		115.05V
3	0.532A	2.690	81.466%	0.244
	5.057V	3.302		115.06V
4	3.001A	15.067	79.304%	0.444
	5.020V	18.999		115.04V

5VSB EFFICIENCY -230V (ERP LOT 3/6 & CEC)				
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.211	66.562%	0.010
	5.064V	0.317		230.18V
2	0.087A	0.442	73.913%	0.018
	5.063V	0.598		230.19V
3	0.532A	2.689	80.125%	0.095
	5.056V	3.356		230.19V
4	3.001A	15.066	80.584%	0.312
	5.020V	18.696		230.17V

VAMPIRE POWER -115V

Power - 171002476 - 07/04/2017 - 09:39



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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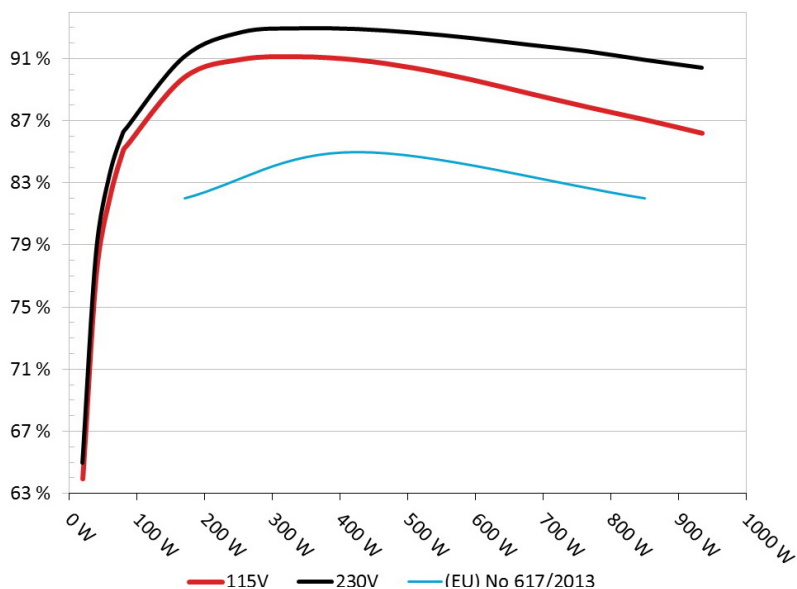
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair TX850M

Ambient: 38°C - 46°C (100.4°F - 114.8°F)



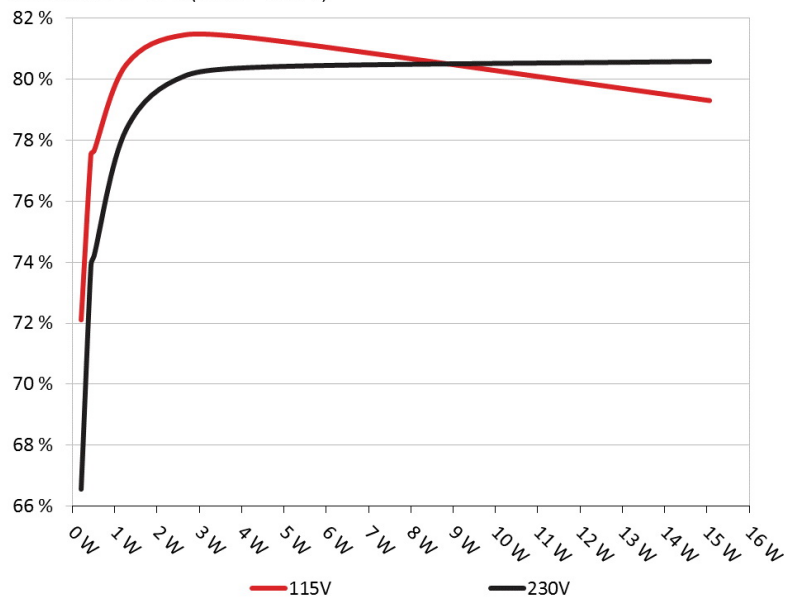
INFO

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 TX850M

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)	Fan Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	5.159A	1.985A	1.976A	0.990A	84.765	85.431%	1298	30.5	39.27°C	0.979
	12.249V	5.033V	3.336V	5.041V	99.220				40.04°C	115.12V
2	11.345A	2.980A	2.970A	1.190A	169.643	89.813%	1394	31.2	39.77°C	0.976
	12.233V	5.028V	3.330V	5.031V	188.884				40.74°C	115.11V
3	17.911A	3.488A	3.487A	1.391A	254.886	90.981%	1454	32.4	40.15°C	0.983
	12.216V	5.021V	3.323V	5.022V	280.154				41.16°C	115.10V
4	24.468A	3.985A	3.978A	1.595A	339.731	91.141%	1524	33.8	40.67°C	0.988
	12.202V	5.016V	3.316V	5.012V	372.754				41.89°C	115.10V
5	30.696A	4.984A	4.982A	1.798A	424.573	90.936%	1596	35.4	41.33°C	0.991
	12.188V	5.012V	3.308V	5.000V	466.891				42.58°C	115.09V
6	36.953A	5.993A	5.996A	2.001A	509.606	90.408%	1704	37.3	41.98°C	0.992
	12.173V	5.007V	3.300V	4.989V	563.674				43.43°C	115.09V
7	43.241A	7.002A	7.013A	2.203A	594.551	89.656%	1829	37.3	43.02°C	0.994
	12.152V	5.002V	3.293V	4.979V	663.146				44.96°C	115.09V
8	49.532A	8.006A	8.034A	2.416A	679.523	88.774%	1847	39.9	43.67°C	0.995
	12.136V	4.996V	3.286V	4.969V	765.450				46.04°C	115.09V
9	56.261A	8.516A	8.567A	2.417A	764.510	87.908%	1847	39.9	44.79°C	0.995
	12.121V	4.989V	3.279V	4.962V	869.674				47.62°C	115.08V
10	62.765A	9.036A	9.075A	3.031A	849.400	87.092%	1847	39.9	45.60°C	0.996
	12.104V	4.983V	3.271V	4.943V	975.295				48.64°C	115.08V
11	69.864A	9.053A	9.096A	3.037A	934.380	86.220%	1847	39.9	46.33°C	0.996
	12.090V	4.975V	3.265V	4.935V	1083.710				49.95°C	115.08V
CL1	0.099A	16.025A	16.004A	0.004A	135.115	83.083%	1659	35.9	43.65°C	0.975
	12.239V	5.047V	3.312V	5.032V	162.627				45.58°C	115.10V
CL2	54.126A	1.003A	1.003A	1.003A	670.582	89.484%	1847	39.9	44.41°C	0.994
	12.143V	4.990V	3.300V	5.000V	749.385				46.69°C	115.11V

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20-80W LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	Fan Noise (dB[A])	PF/AC Volts
1	1.191A	0.491A	0.477A	0.194A	19.644	63.958%	1195	28.5	0.891
	12.255V	5.036V	3.343V	5.059V	30.714				115.11V
2	2.411A	0.990A	0.985A	0.397A	39.822	77.206%	1205	28.7	0.962
	12.252V	5.035V	3.341V	5.055V	51.579				115.10V
3	3.623A	1.480A	1.495A	0.590A	59.815	82.121%	1242	29.6	0.977
	12.253V	5.034V	3.339V	5.050V	72.838				115.10V
4	4.833A	1.985A	1.974A	0.792A	79.775	85.158%	1255	29.8	0.981
	12.249V	5.033V	3.338V	5.045V	93.679				115.10V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.3 mV	5.1 mV	7.7 mV	4.5 mV	Pass
20% Load	20.5 mV	6.3 mV	9.1 mV	5.7 mV	Pass
30% Load	21.7 mV	6.6 mV	10.6 mV	7.2 mV	Pass
40% Load	23.7 mV	6.8 mV	11.5 mV	8.4 mV	Pass
50% Load	27.0 mV	8.3 mV	11.9 mV	13.8 mV	Pass
60% Load	29.7 mV	9.2 mV	12.6 mV	12.6 mV	Pass
70% Load	34.5 mV	9.5 mV	12.8 mV	14.9 mV	Pass
80% Load	39.1 mV	10.9 mV	13.6 mV	16.0 mV	Pass
90% Load	44.2 mV	11.9 mV	14.9 mV	17.9 mV	Pass
100% Load	51.1 mV	13.7 mV	18.8 mV	21.9 mV	Pass
110% Load	58.8 mV	15.2 mV	21.6 mV	24.6 mV	Pass
Crossload 1	23.2 mV	8.1 mV	9.5 mV	7.4 mV	Pass
Crossload 2	40.3 mV	9.8 mV	16.2 mV	16.8 mV	Pass

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

Hold-Up Time (ms)	17.68
AC Loss to PWR_OK Hold Up Time (ms)	13.9
PWR_OK Inactive to DC Loss Delay (ms)	3.78



Top side



Power specifications table

CERTIFICATIONS



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