SILVERSTONE

SilverStone SX1000 Platinum

DBSXK00LPT21040352

Lab ID SL10001831

Certification ID 251831

Test Result Report ID: 21PS1831A

Certificate Issue Date: Apr 20, 2021

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	SilverStone
Model	SX1000 Platinum
OEM/ODM	Enhance Electronics
Serial Number	DBSXK00LPT21040352
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	12-6
□□□□ (Hz)	50-60

□□□□ (W)	1000
Operating Temperature (Continuous Full Load) (°C)	
□□	SFX-L
□□□□	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	120mm Double Ball Bearing Fan (B1201512HB)
□□□□□	✓
Cybenetics Testing Information	
Lab ID	SL10001831
Date of receipt	Mar 10, 2021
Testing Date	Apr 14, 2021
Report Issued Date	Apr 20, 2021
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□ (Non-accredited measurements)

□□□□				
□□	□□□	□□□□□	Gauge	In Cable Capacitors
ATX □□ 20+4 pin (300mm)	1	1	16-22AWG	□
4+4 pin EPS 12V □□ (410mm)	2	2	16AWG	□
6+2pin PCIe□□ (410mm+150mm)	3	6	16-18AWG	□
SATA□□ (310mm+195mm+95mm+95mm)	2	8	18AWG	□
4-pin Molex (310mm+195mm+195mm) / FDD (+100mm)	1	3 / 1	18-22AWG	□
AC Power Cord (1370mm) - C13 coupler	1	1	16AWG	-

□□□□

□		3.3V	5V	12V	5VSB	-12V
□□□□	□□	25	25	83.3	3	0.3
	□	125		999.6	15	3.6
□□□□□ (W)		1000				

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6
□□ ErP Lot3/6□□	✓
□□ (EU) No 617/2013□□	✓
ALPM (Alternative Low Power Mode) compatible	✓

Performance Summary

115V

Accredited	
□□□□ (>1450 load combinations)	90.063%
Average Noise Output (>1450 Load Combinations)	36.09dBA
PF□□□ (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	68.738%
□□□□□□	0.0605W
Non-Accredited	
12V Ripple (Full Load)	71.72mV
5V Ripple (Full Load)	14.51mV
3.3V Ripple (Full Load)	22.37mV
5VSB Ripple (Full Load)	22.65mV
12V Load Regulation	0.94%
5V Load Regulation	1.86%

3.3V Load Regulation	2.63%
5VSB Load Regulation	2.69%
Inrush Current	26.540A

230V

Accredited		
□□□□ (>1450 load combinations)		92.148%
Average Noise Output (>1450 Load Combinations)		36.23dBA
PF□□□ (>1450 Load Combinations)		0.935
Efficiency With 10W (≤500W) or 2% (>500W) Load		-
□□□□□□		0.1052W
Non-Accredited		
12V Ripple (Full Load)		69.91mV
5V Ripple (Full Load)		13.75mV
3.3V Ripple (Full Load)		22.39mV
5VSB Ripple (Full Load)		22.34mV
12V Load Regulation		0.85%
5V Load Regulation		1.84%
3.3V Load Regulation		2.60%
5VSB Load Regulation		2.69%
Inrush Current		55.480A
□□□□ & PG□□		18.80ms
AC Loss to PWR_OK Hold Up Time		17.50ms
PWR_OK Inactive to DC Loss Delay		1.30ms
PSU Timings: T1 (20% / 100%)	156.0ms	155.0ms
PSU Timings: T3 (20% / 100%)	130.0ms	131.0ms
OPP (24.50°C / 42.70°C)	140.26%	122.06%

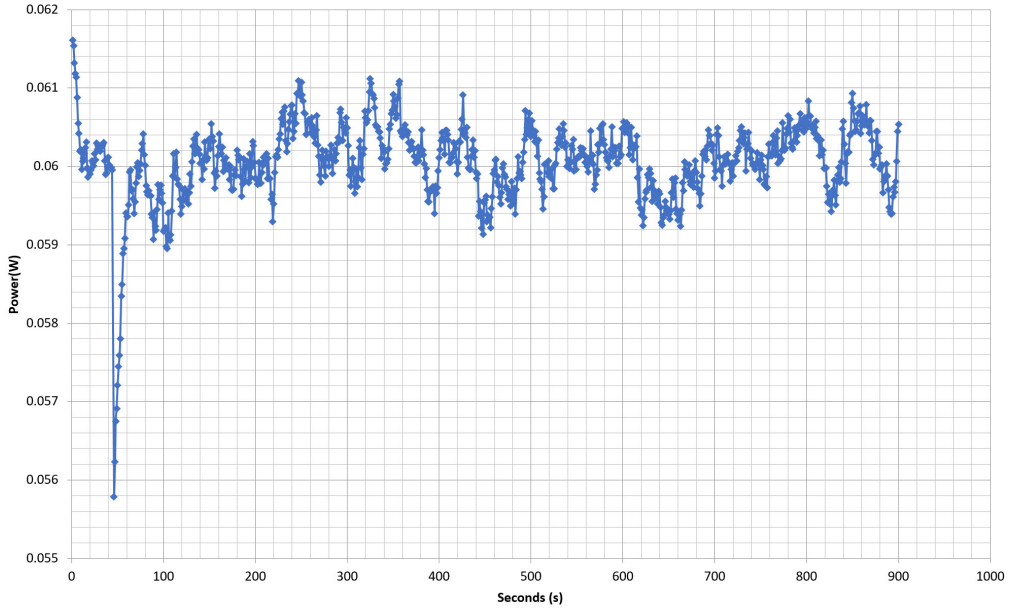
□□□□ & PG□□

Hold-Up Time (ms)	18.8
AC Loss to PWR_OK Hold Up Time (ms)	17.5
PWR_OK Inactive to DC Loss Delay (ms)	1.3

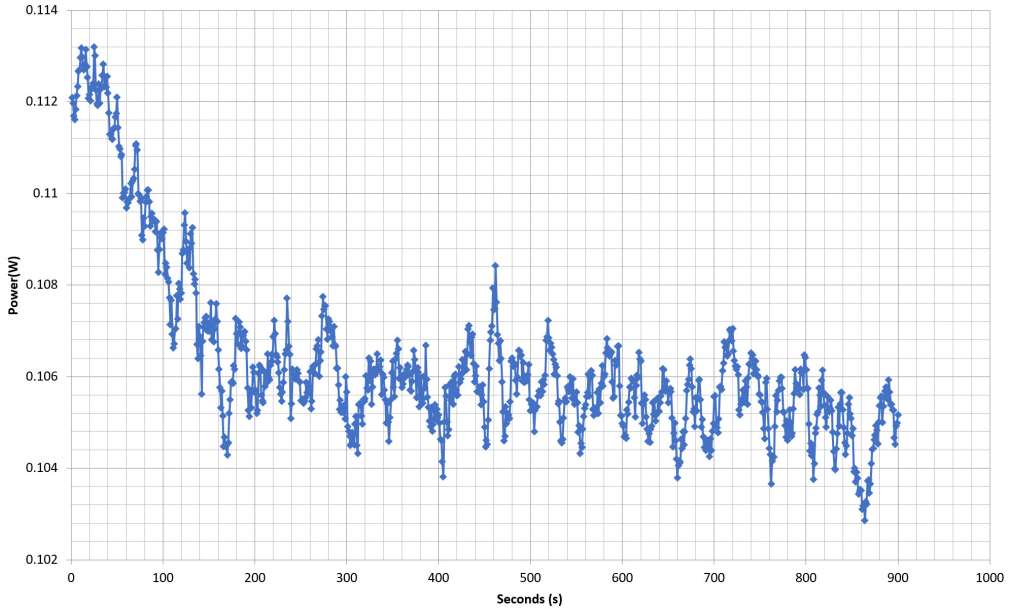
□□□□

Graphs

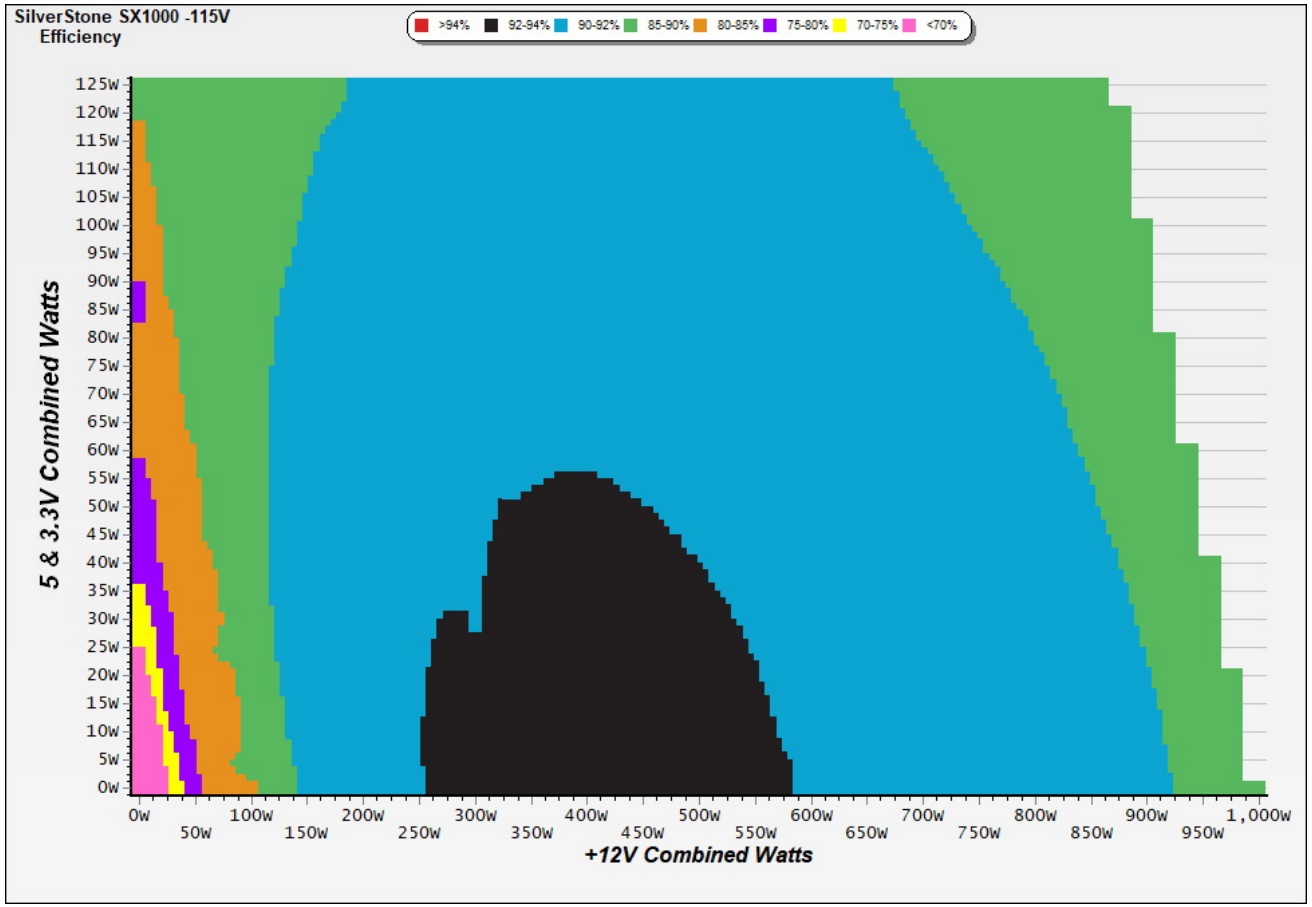
115V



230V



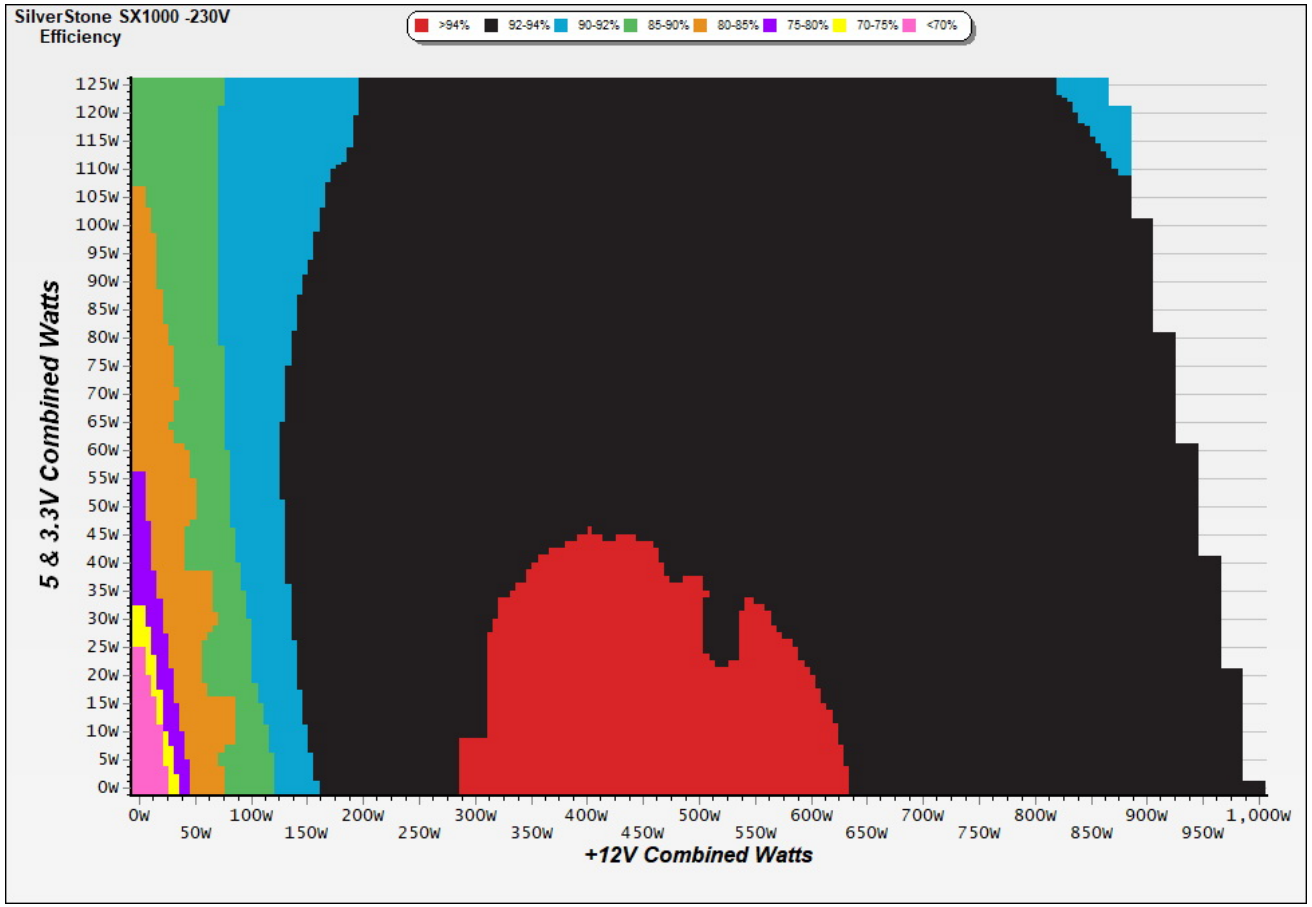
115V



□□

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

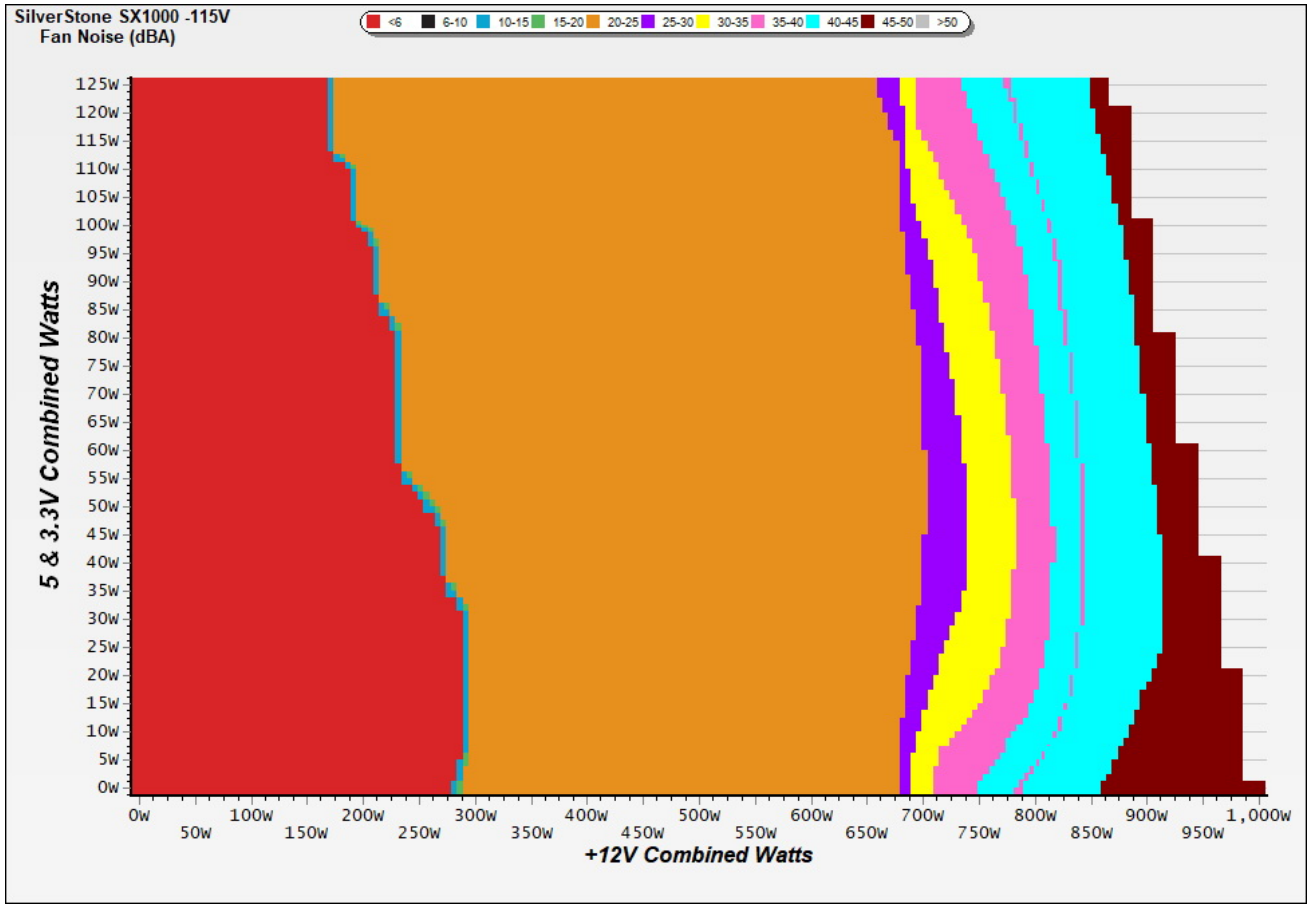
230V



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

□□□□□

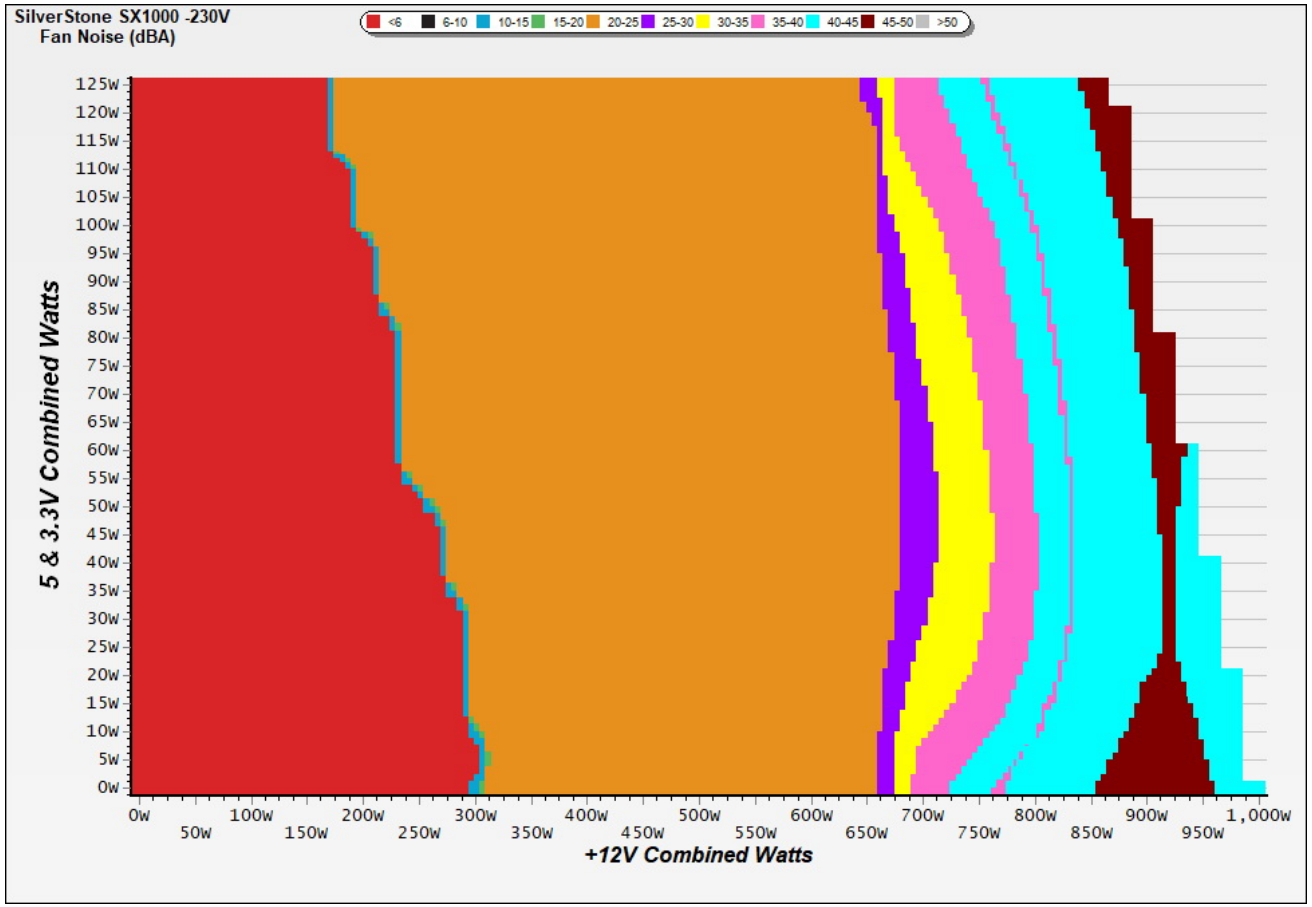
115V



□□

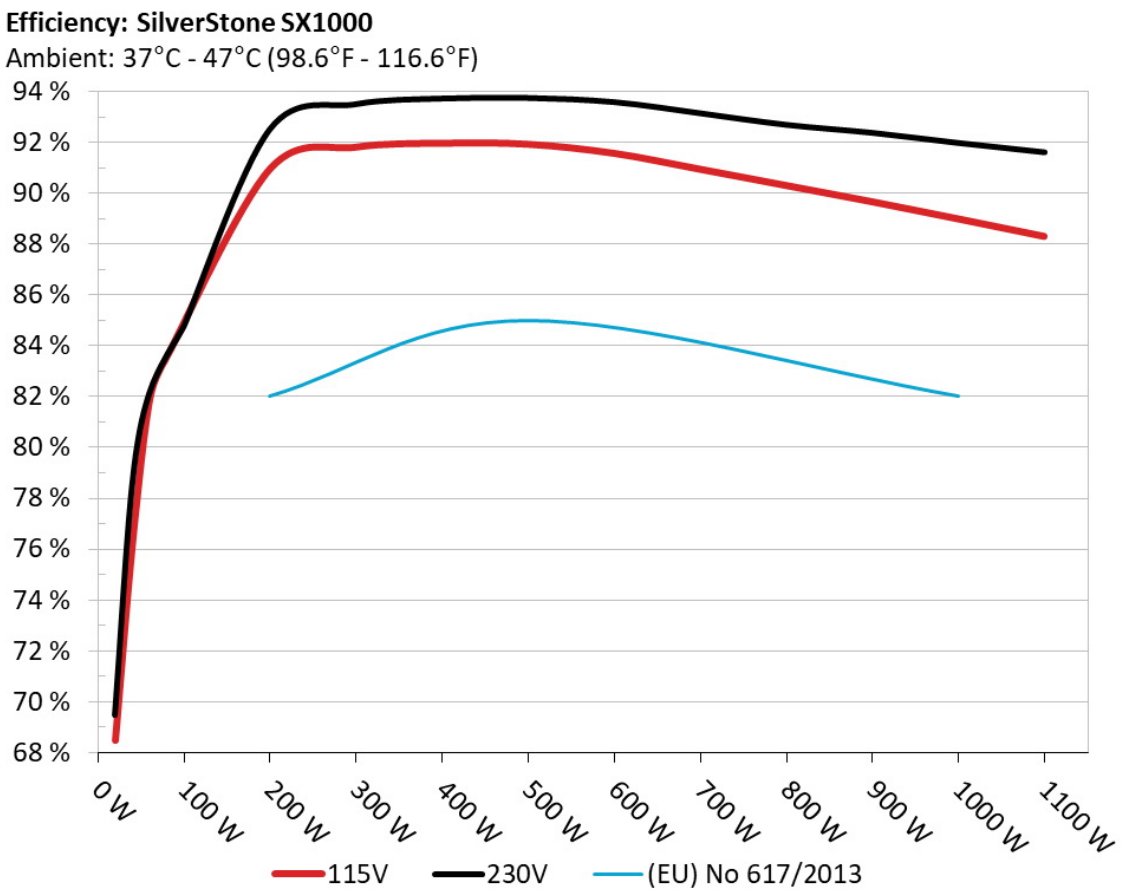
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

230V



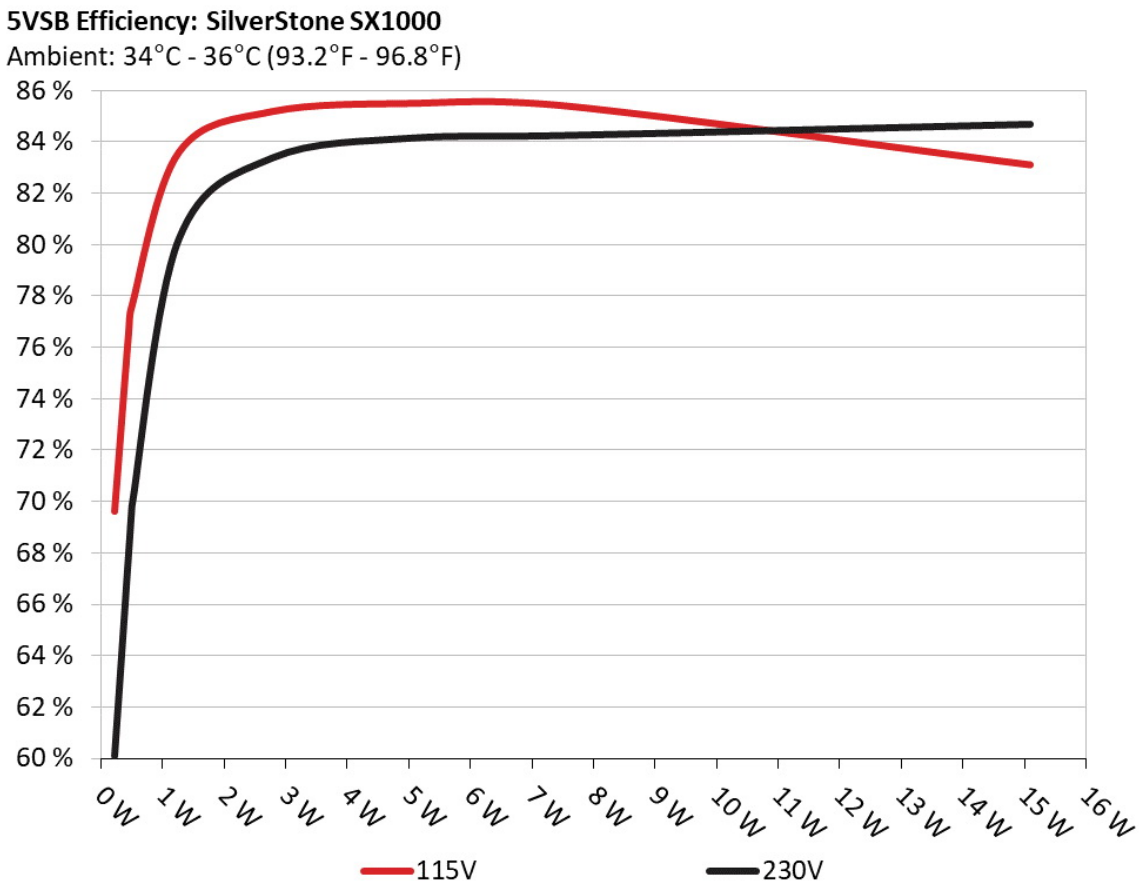
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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	0.229	69.605%	0.020
	5.093V	0.329		115.16V
2	0.090A	0.458	76.589%	0.035
	5.092V	0.598		115.16V
3	0.550A	2.795	85.161%	0.175
	5.083V	3.282		115.16V
4	1.000A	5.073	85.476%	0.273
	5.074V	5.935		115.16V
5	1.500A	7.595	85.366%	0.346
	5.064V	8.897		115.15V
6	2.999A	15.098	83.084%	0.454
	5.034V	18.172		115.15V

230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.045A	0.229	60.105%	0.007
	5.093V	0.381		230.30V
2	0.090A	0.458	69.817%	0.012
	5.092V	0.656		230.31V
3	0.550A	2.795	83.358%	0.058
	5.083V	3.353		230.31V
4	1.000A	5.073	84.129%	0.101
	5.074V	6.030		230.31V
5	1.500A	7.595	84.230%	0.145
	5.064V	9.017		230.31V
6	2.999A	15.098	84.659%	0.248
	5.034V	17.834		230.31V

Supplementary Tests (For Reference)

10-110%□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	6.500A	1.980A	1.976A	0.986A	99.970	83.572%	0	<6.0	44.59°C	0.982
	12.058V	5.048V	3.340V	5.069V	119.621				40.39°C	115.13V
2	14.035A	2.981A	2.974A	1.186A	199.987	90.951%	0	<6.0	45.40°C	0.969
	12.048V	5.032V	3.327V	5.058V	219.884				40.61°C	115.13V
3	21.926A	3.484A	3.477A	1.387A	299.945	91.798%	0	<6.0	46.78°C	0.985
	12.036V	5.024V	3.319V	5.046V	326.744				41.35°C	115.13V
4	29.765A	3.989A	3.987A	1.589A	399.346	91.952%	1018	23.7	41.49°C	0.993
	12.032V	5.016V	3.312V	5.034V	434.297				47.51°C	115.12V
5	37.336A	4.993A	4.998A	1.792A	499.479	91.913%	1025	24.0	42.26°C	0.997
	12.025V	5.008V	3.303V	5.022V	543.426				49.14°C	115.11V
6	44.942A	6.003A	6.011A	1.996A	599.606	91.554%	1034	23.4	43.15°C	0.998
	12.011V	4.999V	3.294V	5.009V	654.922				50.77°C	115.10V
7	52.525A	7.015A	7.029A	2.200A	699.343	90.932%	1673	40.7	43.24°C	0.999
	11.999V	4.990V	3.286V	4.997V	769.081				51.55°C	115.09V
8	60.188A	8.003A	8.053A	2.407A	799.723	90.289%	2082	45.5	43.79°C	0.999
	11.987V	4.981V	3.277V	4.984V	885.741				52.64°C	115.07V
9	68.193A	8.544A	8.562A	2.410A	899.150	89.653%	2204	47.6	44.68°C	0.999
	11.976V	4.973V	3.269V	4.976V	1002.918				54.15°C	115.07V
10	76.073A	9.064A	9.107A	3.026A	999.586	88.978%	2202	47.5	45.57°C	0.999
	11.961V	4.964V	3.260V	4.955V	1123.409				55.57°C	115.06V
11	84.553A	9.080A	9.128A	3.031A	1099.577	88.291%	2201	47.2	46.54°C	0.999
	11.944V	4.956V	3.252V	4.946V	1245.404				57.29°C	115.05V
CL1	0.111A	14.999A	14.997A	0.000A	126.137	84.960%	0	<6.0	49.94°C	0.980
	12.036V	5.011V	3.310V	5.076V	148.467				42.76°C	115.14V

CL2	83.327A	1.000A	1.000A	1.000A	1010.533	89.390%	2199	47.2	45.11°C	0.999
	11.968V	4.989V	3.281V	5.006V	1130.474				55.28°C	115.06V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	6.500A	1.981A	1.975A	0.986A	99.985	84.575%	0	<6.0	44.87°C	0.824
	12.060V	5.048V	3.340V	5.069V	118.220				40.23°C	230.31V
2	14.034A	2.981A	2.975A	1.186A	200.005	92.540%	0	<6.0	46.28°C	0.903
	12.050V	5.032V	3.327V	5.057V	216.127				40.87°C	230.32V
3	21.924A	3.484A	3.478A	1.387A	299.966	93.528%	0	<6.0	47.42°C	0.931
	12.038V	5.024V	3.319V	5.045V	320.724				41.50°C	230.31V
4	29.760A	3.989A	3.988A	1.589A	399.483	93.750%	1022	23.9	41.69°C	0.942
	12.039V	5.015V	3.310V	5.033V	426.115				48.20°C	230.32V
5	37.346A	4.994A	4.998A	1.793A	499.597	93.771%	1028	24.0	42.47°C	0.956
	12.025V	5.007V	3.302V	5.021V	532.785				49.49°C	230.31V
6	44.947A	6.003A	6.011A	1.997A	599.713	93.611%	1032	23.4	42.73°C	0.964
	12.012V	4.999V	3.294V	5.008V	640.647				50.61°C	230.32V
7	52.528A	7.017A	7.034A	2.201A	699.453	93.171%	1639	39.6	43.10°C	0.967
	12.000V	4.990V	3.285V	4.996V	750.716				51.56°C	230.31V
8	60.185A	8.002A	8.058A	2.408A	799.813	92.715%	2044	44.4	43.94°C	0.972
	11.989V	4.981V	3.276V	4.983V	862.662				52.85°C	230.31V
9	68.183A	8.546A	8.565A	2.411A	899.181	92.403%	2220	47.1	44.66°C	0.976
	11.978V	4.973V	3.268V	4.975V	973.103				54.20°C	230.32V
10	76.064A	9.065A	9.111A	3.027A	999.628	92.001%	2213	47.4	45.05°C	0.980
	11.963V	4.963V	3.259V	4.953V	1086.542				55.21°C	230.31V
11	84.508A	9.080A	9.128A	3.032A	1099.636	91.634%	2208	47.7	46.56°C	0.984
	11.951V	4.956V	3.252V	4.946V	1200.027				57.33°C	230.31V
CL1	0.116A	15.000A	14.997A	0.000A	126.170	86.083%	0	<6.0	49.29°C	0.864
	12.036V	5.010V	3.309V	5.076V	146.568				42.43°C	230.33V

CL2	83.334A	1.000A	1.000A	1.000A	1010.949	92.415%	2210	47.3	45.47°C	0.980
	11.972V	4.989V	3.281V	5.005V	1093.922				55.80°C	230.32V

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	1.227A	0.495A	0.492A	0.196A	19.974	68.474%	0	<6.0	0.647
	12.080V	5.061V	3.351V	5.092V	29.170				115.13V
2	2.458A	0.987A	0.984A	0.393A	39.963	76.265%	0	<6.0	0.932
	12.074V	5.058V	3.348V	5.086V	52.400				115.13V
3	3.692A	1.483A	1.479A	0.590A	59.996	81.921%	0	<6.0	0.956
	12.067V	5.056V	3.346V	5.080V	73.236				115.13V
4	4.920A	1.980A	1.974A	0.788A	79.949	83.499%	0	<6.0	0.971
	12.064V	5.050V	3.342V	5.075V	95.748				115.12V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	PF/AC □□
1	1.229A	0.494A	0.491A	0.196A	19.982	69.498%	0	<6.0	0.374
	12.075V	5.060V	3.350V	5.092V	28.752				230.32V
2	2.459A	0.989A	0.985A	0.393A	39.971	78.535%	0	<6.0	0.527
	12.067V	5.057V	3.348V	5.086V	50.896				230.32V
3	3.694A	1.484A	1.477A	0.590A	60.001	82.155%	0	<6.0	0.713
	12.063V	5.055V	3.346V	5.080V	73.034				230.32V
4	4.922A	1.981A	1.975A	0.788A	79.952	84.787%	0	<6.0	0.778
	12.059V	5.049V	3.341V	5.074V	94.298				230.32V

The results above are not used in the certification process

□□□□

115V

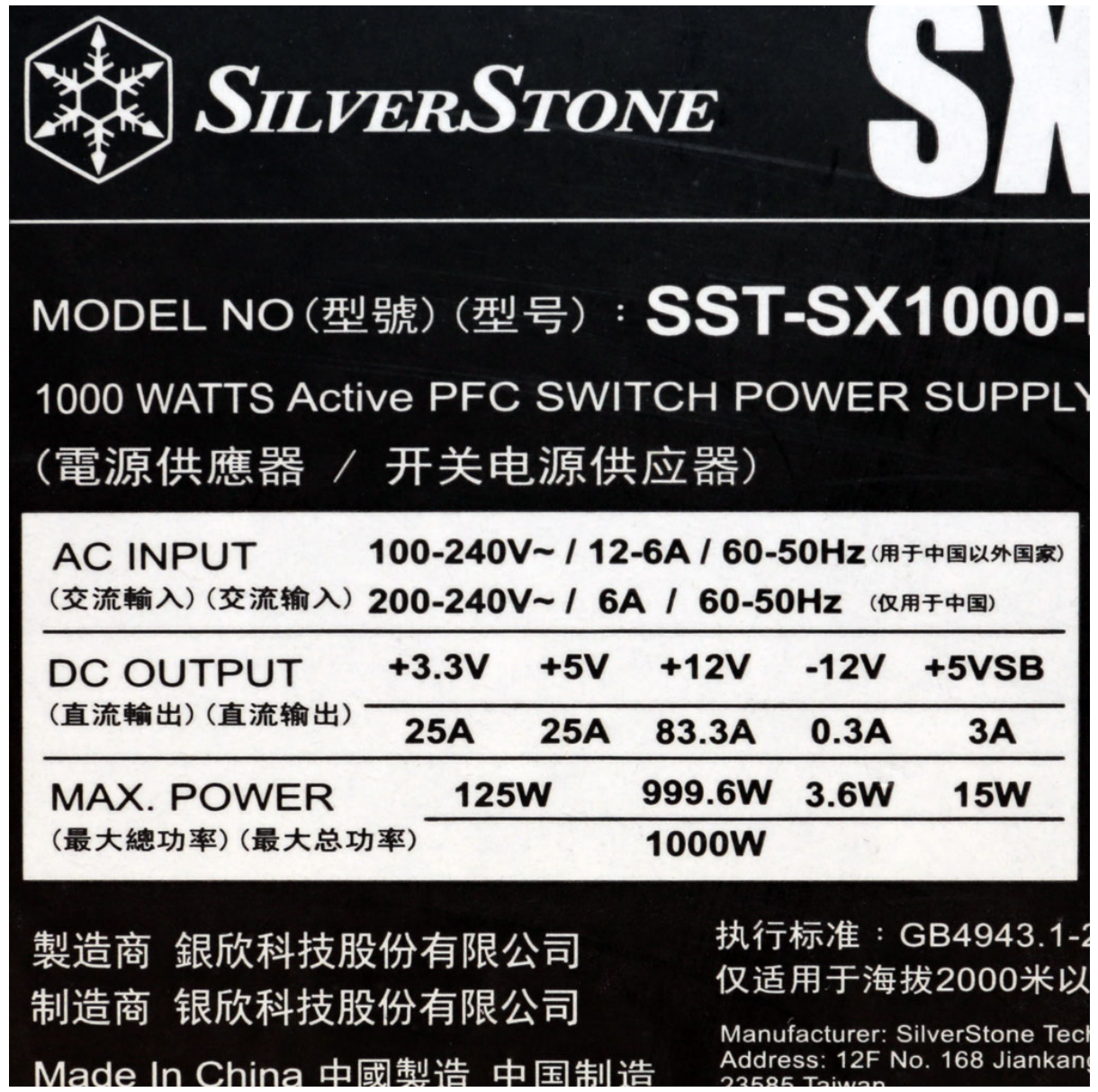
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	14.20mV	6.90mV	10.80mV	9.30mV	Pass
20% Load	19.90mV	8.60mV	12.20mV	10.80mV	Pass
30% Load	26.40mV	9.60mV	13.50mV	12.50mV	Pass
40% Load	31.30mV	10.20mV	14.60mV	14.10mV	Pass
50% Load	36.40mV	11.00mV	15.90mV	14.90mV	Pass
60% Load	40.20mV	11.30mV	16.70mV	16.70mV	Pass
70% Load	46.70mV	12.40mV	17.70mV	17.90mV	Pass
80% Load	53.70mV	12.60mV	19.90mV	19.50mV	Pass
90% Load	60.20mV	13.40mV	20.70mV	20.00mV	Pass
100% Load	71.70mV	14.50mV	22.40mV	22.70mV	Pass
110% Load	81.80mV	15.20mV	23.20mV	24.50mV	Pass
Crossload1	21.60mV	9.70mV	16.90mV	11.70mV	Pass
Crossload2	72.40mV	14.00mV	20.40mV	22.60mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	14.00mV	6.40mV	10.40mV	8.90mV	Pass
20% Load	19.70mV	8.00mV	12.50mV	10.20mV	Pass
30% Load	27.00mV	9.30mV	13.00mV	11.90mV	Pass
40% Load	31.40mV	9.70mV	14.50mV	14.20mV	Pass
50% Load	35.70mV	10.30mV	15.50mV	14.60mV	Pass
60% Load	41.00mV	11.10mV	16.50mV	16.60mV	Pass
70% Load	46.70mV	11.20mV	17.70mV	17.70mV	Pass
80% Load	52.90mV	11.80mV	19.40mV	18.50mV	Pass





Test	12V	5V	3.3V	5VSB	Pass/Fail
90% Load	58.70mV	12.70mV	20.60mV	19.40mV	Pass
100% Load	69.90mV	13.80mV	22.40mV	22.30mV	Pass
110% Load	77.20mV	14.50mV	23.90mV	23.10mV	Pass
Crossload1	21.80mV	9.30mV	16.30mV	9.90mV	Pass
Crossload2	69.10mV	12.90mV	19.60mV	22.00mV	Pass

The results above are not used in the certification process

SilverStone SX1000 Platinum

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

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