SILVERSTONE

SilverStone Strider Platinum 1000W

Serial Number DBSTK00PTS18480112

Lab ID SL19100005

Certification ID 25650

Test Result Report ID:

Certificate Issue Date: Jul 3, 2019

Scheme: ETA-EMI PSU

115V: CYBENETICS TITANIUM

230V: CYBENETICS PLATINUM 230v

Scheme: LAMBDA PSU

115V: CYBENETICS A

230V: CYBENETICS A 230v

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	Strider Platinum 1000W
OEM/ODM	Enhance Electronics
Serial Number	DBSTK00PTS18480112
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	50-60

Rated Power (W)	1000
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Rifle Bearing Fan (D12SH-12)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	SL19100005
Date of receipt	Feb 27, 2019
Testing Date	Jun 3, 2019
Report Issued Date	Jul 3, 2019
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	16-22AWG	No
4+4 pin EPS12V (750mm)	1	1	16AWG	No
4+4 pin EPS12V (550mm)	1	1	16AWG	No
6+2 pin PCIe (550mm+150mm)	4	8	16-18AWG	No
SATA (610mm+140mm+140mm+140mm)	2	8	18AWG	No
4 pin Molex (610mm+150mm+150mm) / FDD (+150mm)	2	6 / 2	18-22AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	16AWG	-

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	22	83	3	0.3
	Watts	120		996	15	3.6
Total Max. Power (W)		1000				

Test Results

Temperature & Compliance Info

Temperature Range (°C /°F)	28-32 / 82.4-89.6
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	91.038%
Average Noise Output (>1450 Load Combinations)	23.87dBA
Average PF (>1450 Load Combinations)	0.993
Efficiency With 10W (≤500W) or 2% (>500W) Load	68.462%
Standby Power Consumption	0.0730W
Non-Accredited	
12V Ripple (Full Load)	45.77mV
5V Ripple (Full Load)	16.35mV
3.3V Ripple (Full Load)	29.88mV
5VSB Ripple (Full Load)	23.11mV
12V Load Regulation	1.08%
5V Load Regulation	2.01%
3.3V Load Regulation	2.96%

5VSB Load Regulation	3.48%
Inrush Current	17.025A

230V

Accredited		
Average Efficiency (>1450 load combinations)	92.847%	
Average Noise Output (>1450 Load Combinations)	22.86dBA	
Average PF (>1450 Load Combinations)	0.959	
Efficiency With 10W (≤500W) or 2% (>500W) Load	-	
Standby Power Consumption	0.1090W	
Non-Accredited		
12V Ripple (Full Load)	47.13mV	
5V Ripple (Full Load)	15.70mV	
3.3V Ripple (Full Load)	30.22mV	
5VSB Ripple (Full Load)	20.94mV	
12V Load Regulation	1.11%	
5V Load Regulation	2.05%	
3.3V Load Regulation	3.14%	
5VSB Load Regulation	3.58%	
Inrush Current	8.064A	
Hold-Up Time & PWR_OK Signal	8.10ms	
AC Loss to PWR_OK Hold Up Time	29.10ms	
PWR_OK Inactive to DC Loss Delay	-21.00ms	
OPP (0.00°C / 0.00°C)	-	-

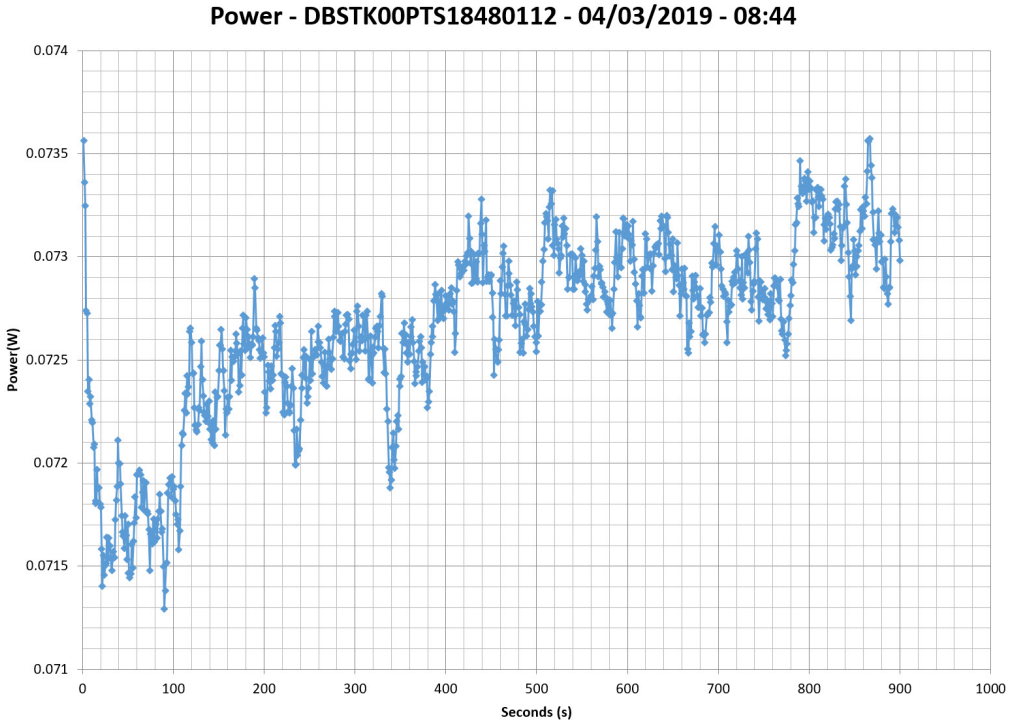
Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	8.1
AC Loss to PWR_OK Hold Up Time (ms)	29.1
PWR_OK Inactive to DC Loss Delay (ms)	-21

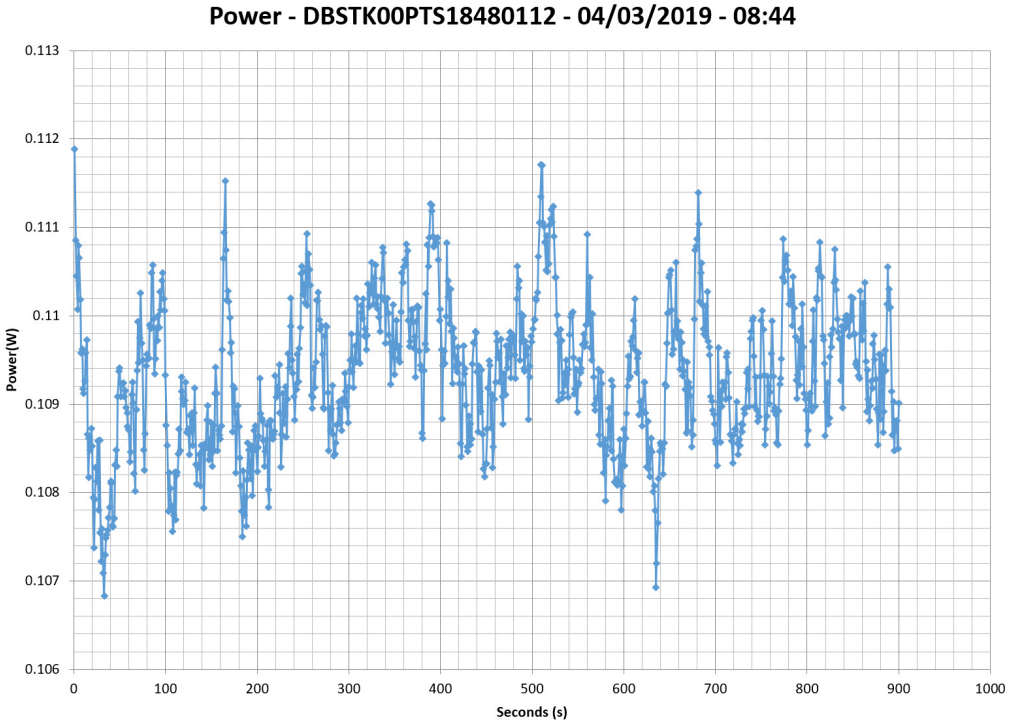
Vampire Power

Graphs

115V

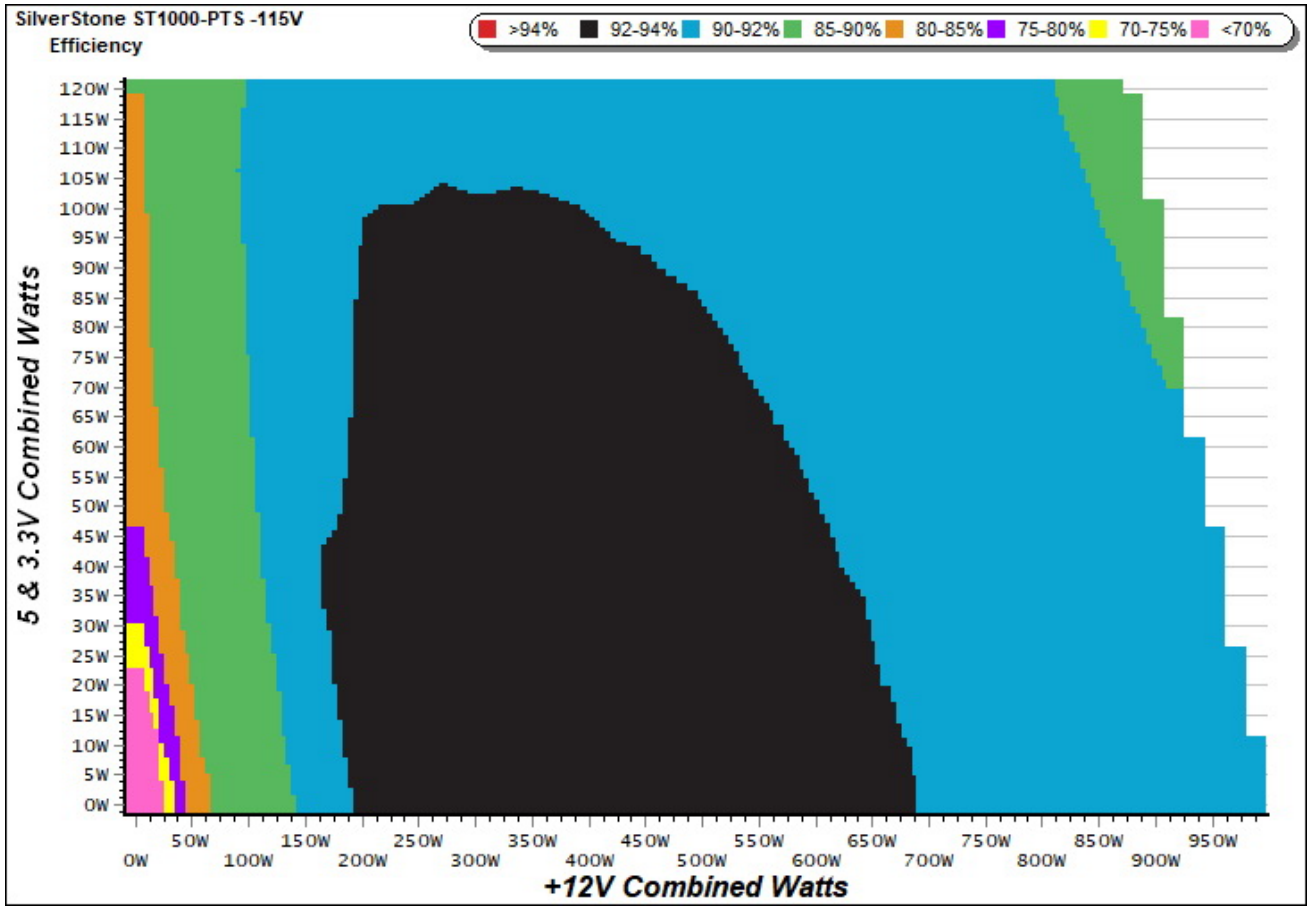


230V



Efficiency Graph

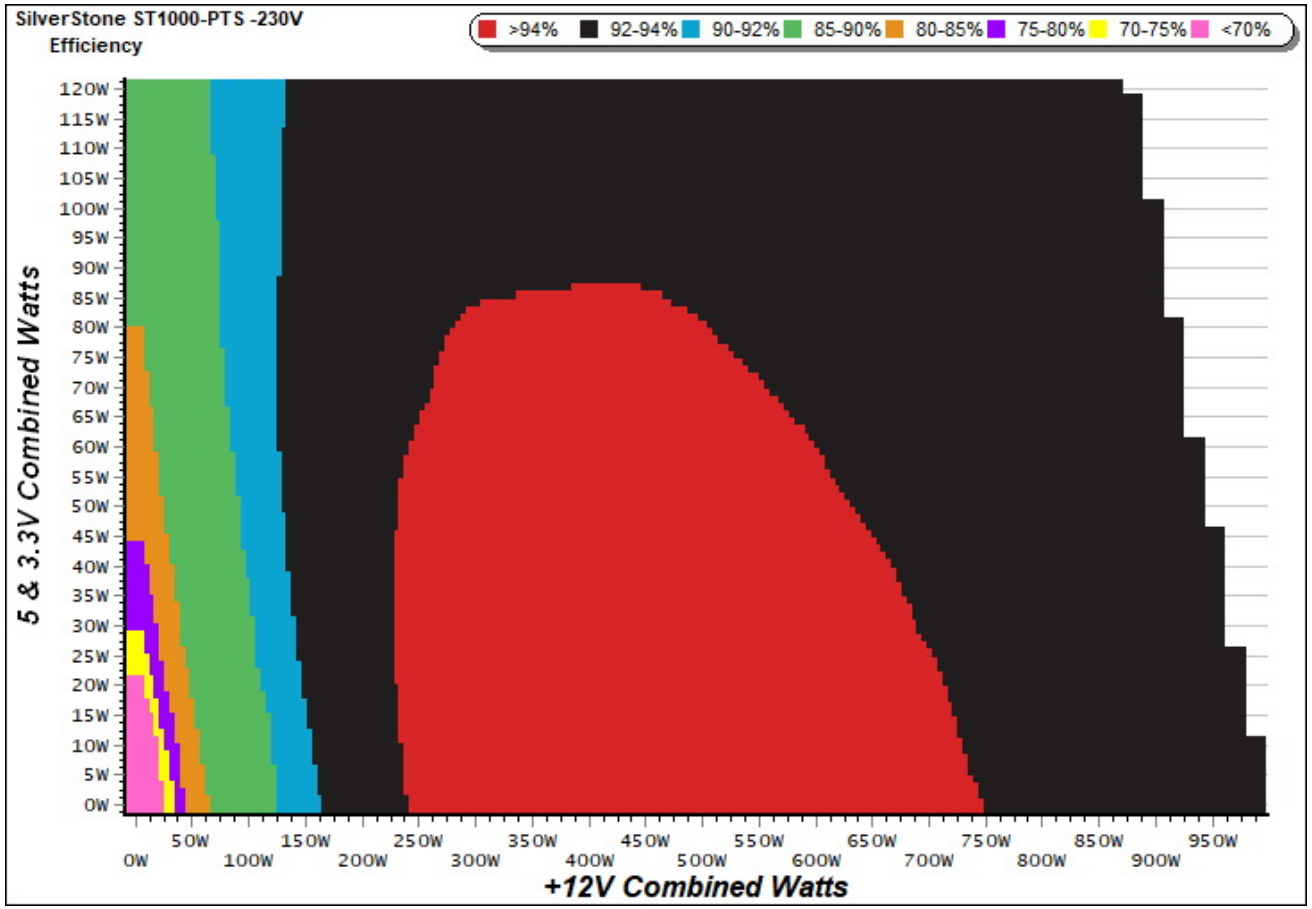
115V



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.

230V

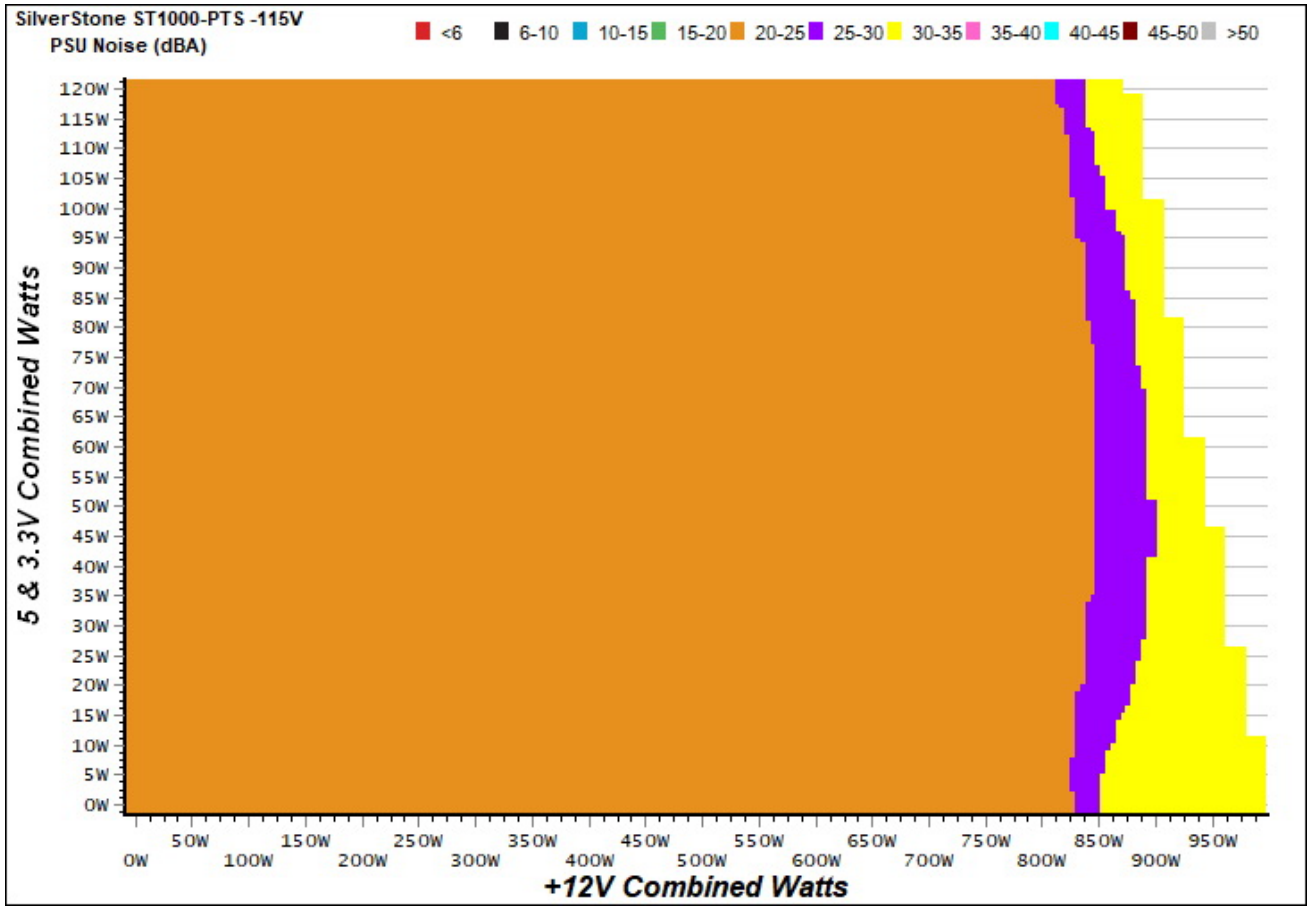


INFO

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Noise Graph

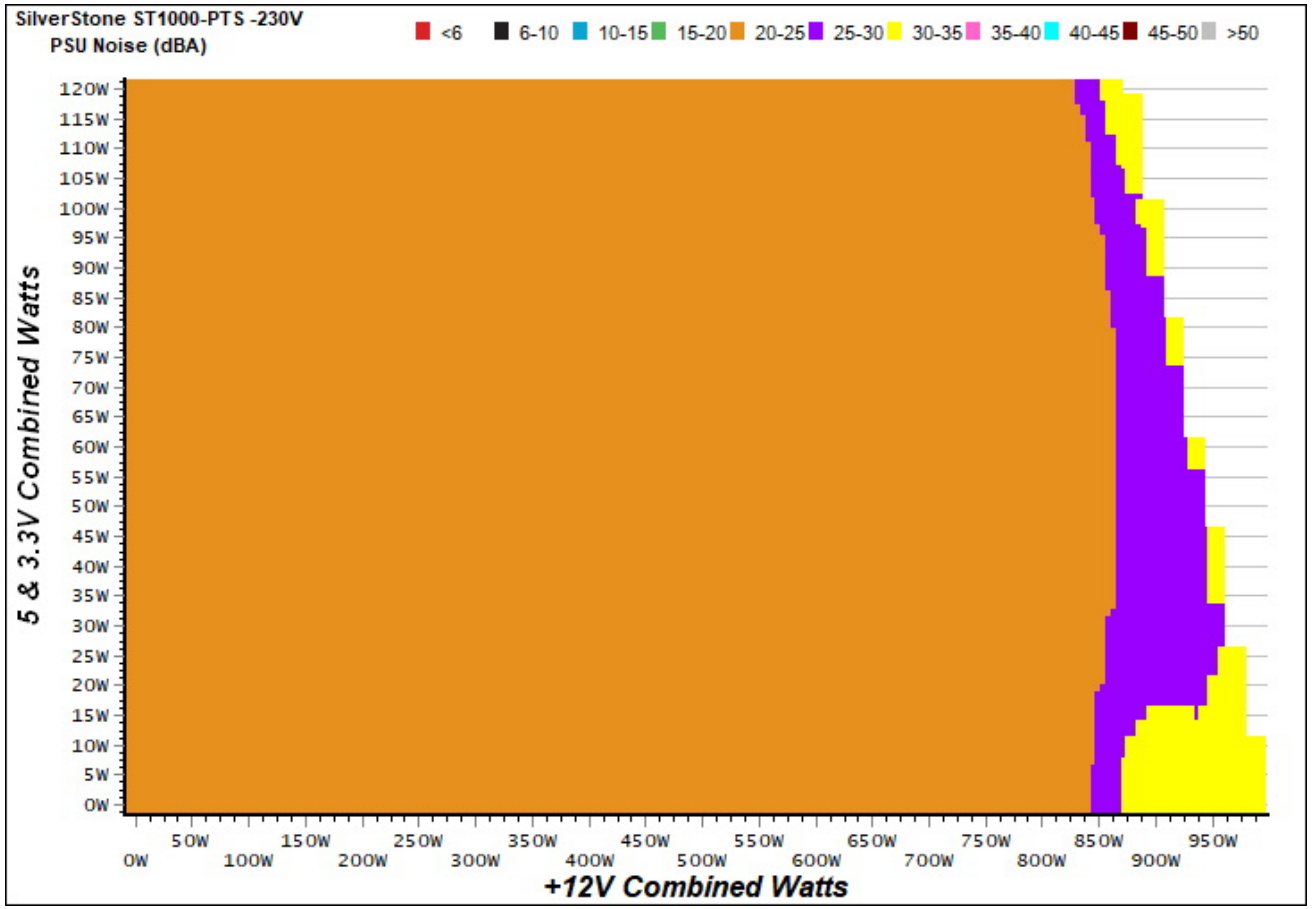
115V



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.

230V

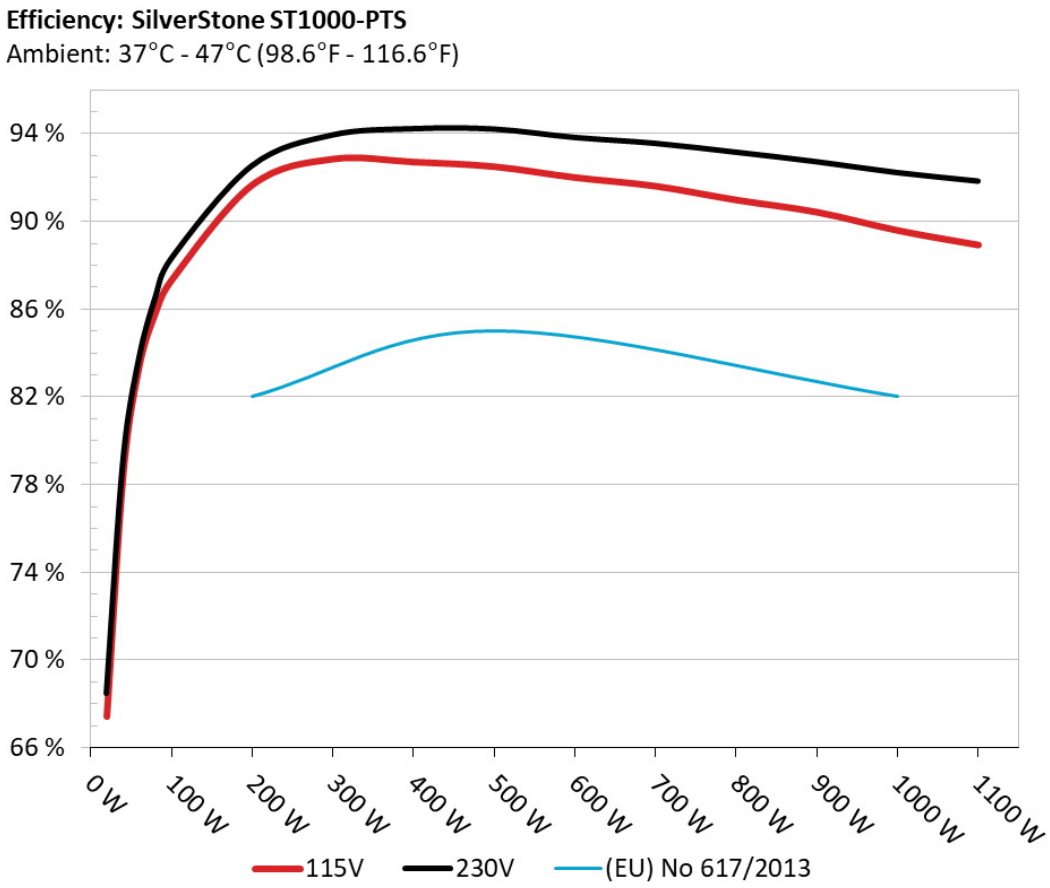


INFO

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.

Indicative Performance

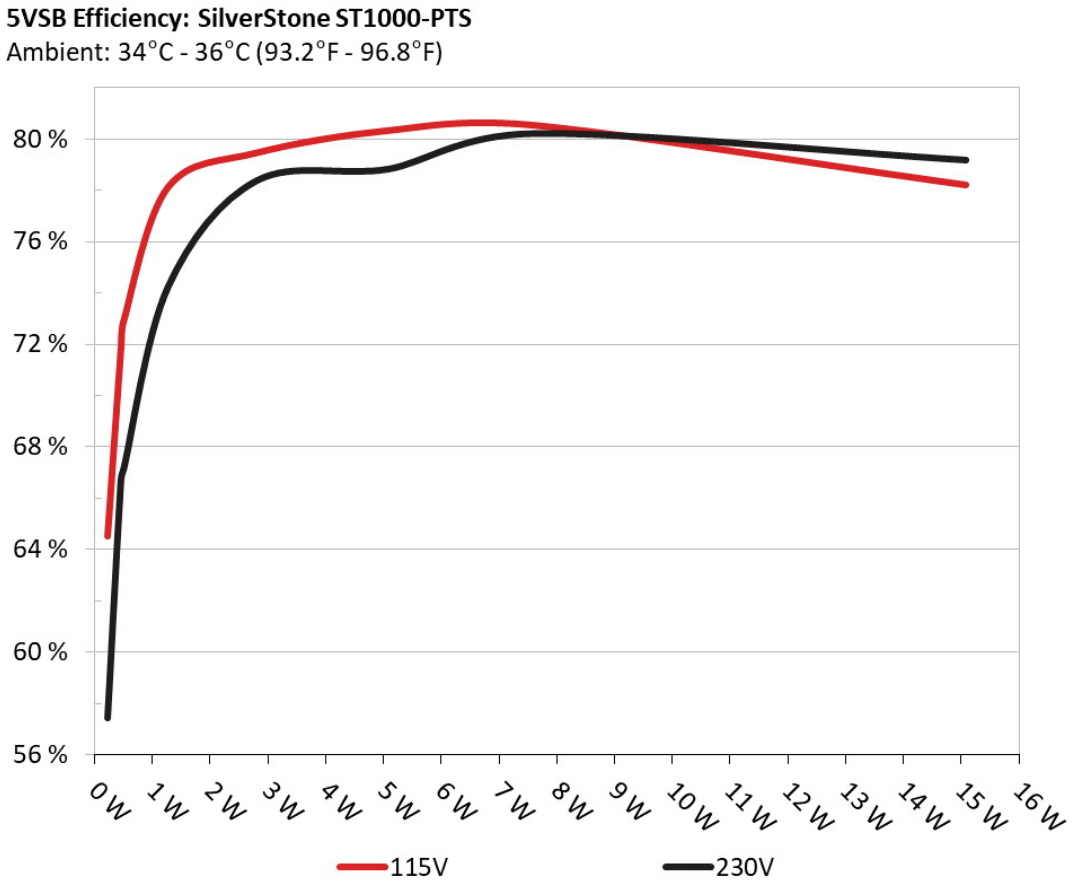
Efficiency under high ambient temperature



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



INFO

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

5VSB Efficiency (ERP LOT 3/6 & CEC)

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231	64.525%	0.017
	5.118V	0.358		115.11V
2	0.090A	0.461	71.807%	0.031
	5.117V	0.642		115.10V
3	0.550A	2.807	79.451%	0.158
	5.103V	3.533		115.11V
4	1.000A	5.090	80.322%	0.259
	5.089V	6.337		115.10V
5	1.500A	7.611	80.523%	0.342
	5.073V	9.452		115.10V
6	3.000A	15.079	78.202%	0.479
	5.027V	19.282		115.10V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231	57.463%	0.006
	5.118V	0.402		230.29V
2	0.090A	0.461	66.715%	0.010
	5.117V	0.691		230.26V
3	0.550A	2.807	78.386%	0.051
	5.103V	3.581		230.26V
4	1.000A	5.090	78.841%	0.090
	5.089V	6.456		230.28V
5	1.500A	7.611	80.226%	0.129
	5.074V	9.487		230.28V
6	3.000A	15.080	79.193%	0.234
	5.026V	19.042		230.28V

Supplementary Tests (For Reference)

Typical 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
1	6.519A	1.989A	1.994A	0.985A	100.026	87.331%	940	21.5	39.55°C	0.968
	12.031V	5.029V	3.306V	5.077V	114.537				43.04°C	115.10V
2	14.040A	2.990A	3.002A	1.185A	199.739	91.659%	938	21.5	40.84°C	0.990
	12.026V	5.018V	3.295V	5.063V	217.915				44.98°C	115.10V
3	21.915A	3.494A	3.499A	1.387A	299.240	92.839%	941	21.5	41.14°C	0.995
	12.012V	5.008V	3.286V	5.048V	322.323				45.83°C	115.10V
4	29.881A	4.001A	4.027A	1.590A	399.687	92.705%	944	21.6	41.56°C	0.997
	11.997V	4.999V	3.278V	5.033V	431.140				46.85°C	115.12V
5	37.493A	5.014A	5.050A	1.794A	499.792	92.493%	946	21.6	42.36°C	0.998
	11.983V	4.989V	3.267V	5.017V	540.359				48.56°C	115.12V
6	45.130A	6.028A	6.080A	2.000A	599.923	91.997%	952	21.8	42.73°C	0.999
	11.968V	4.978V	3.256V	5.002V	652.114				49.32°C	115.12V
7	52.748A	7.048A	7.120A	2.207A	699.613	91.604%	976	22.5	43.47°C	0.999
	11.953V	4.967V	3.245V	4.986V	763.733				51.11°C	115.12V
8	60.453A	8.073A	8.163A	2.416A	800.162	90.970%	1480	32.7	43.74°C	0.999
	11.939V	4.956V	3.234V	4.969V	879.592				52.36°C	115.12V
9	68.520A	8.595A	8.685A	2.419A	899.468	90.419%	1933	39.7	44.26°C	0.999
	11.923V	4.945V	3.224V	4.961V	994.782				53.91°C	115.12V
10	76.431A	9.121A	9.239A	3.042A	999.863	89.582%	2175	42.6	45.26°C	0.999
	11.908V	4.935V	3.215V	4.933V	1116.142				55.53°C	115.12V
11	84.947A	9.133A	9.256A	3.048A	1099.895	88.919%	2181	42.6	46.64°C	0.999
	11.892V	4.928V	3.208V	4.923V	1236.960				58.04°C	115.13V
CL1	0.146A	13.999A	13.999A	0.000A	117.137	84.516%	987	22.6	42.52°C	0.983
	12.035V	4.991V	3.251V	5.089V	138.597				48.63°C	115.10V

CL2	83.006A	1.002A	1.000A	1.000A	1002.007	89.943%	2175	42.6	45.39°C	0.999
	11.912V	4.964V	3.254V	5.011V	1114.042				55.85°C	115.13V

The results above are not used in the certification process

230V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	6.523A	1.990A	1.998A	0.985A	100.073	88.339%	949	21.6	40.15°C	0.799
	12.030V	5.028V	3.301V	5.077V	113.283				43.84°C	230.30V
2	14.046A	2.990A	3.005A	1.186A	199.787	92.558%	950	21.7	40.97°C	0.929
	12.024V	5.017V	3.293V	5.061V	215.851				44.85°C	230.30V
3	21.926A	3.496A	3.503A	1.387A	299.317	93.960%	950	21.7	41.23°C	0.964
	12.009V	5.007V	3.284V	5.047V	318.558				45.52°C	230.30V
4	29.893A	4.003A	4.030A	1.590A	399.739	94.250%	950	21.7	41.58°C	0.978
	11.994V	4.997V	3.275V	5.032V	424.128				46.82°C	230.31V
5	37.514A	5.015A	5.056A	1.795A	499.886	94.232%	957	22.1	42.41°C	0.986
	11.979V	4.986V	3.263V	5.016V	530.485				48.13°C	230.31V
6	45.153A	6.032A	6.088A	2.001A	600.025	93.850%	961	22.2	42.51°C	0.990
	11.964V	4.976V	3.252V	4.998V	639.345				49.18°C	230.32V
7	52.777A	7.052A	7.129A	2.209A	699.739	93.584%	999	23.5	43.22°C	0.991
	11.949V	4.964V	3.240V	4.981V	747.715				51.04°C	230.32V
8	60.488A	8.081A	8.179A	2.417A	800.225	93.177%	1472	32.7	43.76°C	0.994
	11.933V	4.952V	3.228V	4.966V	858.824				52.29°C	230.32V
9	68.556A	8.602A	8.699A	2.421A	899.478	92.746%	1974	42.4	44.21°C	0.995
	11.917V	4.941V	3.218V	4.957V	969.826				53.38°C	230.30V
10	76.481A	9.127A	9.258A	3.045A	999.908	92.248%	2180	42.6	45.65°C	0.997
	11.901V	4.931V	3.208V	4.927V	1083.940				55.76°C	230.28V
11	84.992A	9.144A	9.277A	3.051A	1099.921	91.862%	2184	42.6	46.59°C	0.997
	11.886V	4.922V	3.201V	4.918V	1197.362				57.86°C	230.28V
CL1	0.146A	14.001A	13.998A	0.000A	117.017	85.165%	994	23.5	42.71°C	0.849
	12.032V	4.988V	3.245V	5.088V	137.401				48.48°C	230.28V

CL2	83.003A	1.002A	0.997A	1.000A	1001.536	92.657%	2181	42.6	45.24°C	0.997
	11.907V	4.960V	3.251V	5.008V	1080.903				55.23°C	230.27V

The results above are not used in the certification process

Light Load Tests

115V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.197A	0.496A	0.481A	0.196A	19.510	67.415%	934	21.4	0.779
	12.041V	5.039V	3.317V	5.111V	28.940				115.12V
2	2.465A	0.993A	0.994A	0.392A	39.968	78.574%	934	21.4	0.897
	12.038V	5.036V	3.313V	5.103V	50.867				115.11V
3	3.658A	1.490A	1.479A	0.589A	59.417	83.363%	933	21.4	0.935
	12.035V	5.032V	3.310V	5.094V	71.275				115.11V
4	4.919A	1.989A	1.996A	0.787A	79.799	85.832%	936	21.4	0.962
	12.033V	5.030V	3.307V	5.086V	92.971				115.10V

The results above are not used in the certification process

230V

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.196A	0.496A	0.481A	0.196A	19.496	68.501%	943	21.5	0.356
	12.041V	5.038V	3.317V	5.111V	28.461				230.29V
2	2.465A	0.994A	0.994A	0.392A	39.972	79.090%	942	21.5	0.525
	12.038V	5.035V	3.313V	5.102V	50.540				230.29V
3	3.659A	1.491A	1.479A	0.589A	59.430	83.708%	943	21.5	0.652
	12.034V	5.032V	3.309V	5.094V	70.997				230.29V
4	4.923A	1.989A	1.994A	0.787A	79.831	86.523%	948	21.6	0.743
	12.032V	5.029V	3.306V	5.085V	92.266				230.29V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	7.4 mV	9.7 mV	20.3 mV	10.4 mV	Pass
20% Load	13.6 mV	10.0 mV	20.8 mV	10.9 mV	Pass
30% Load	13.5 mV	9.7 mV	22.6 mV	11.6 mV	Pass
40% Load	18.3 mV	10.3 mV	24.6 mV	12.4 mV	Pass
50% Load	22.2 mV	12.6 mV	23.6 mV	13.1 mV	Pass
60% Load	26.5 mV	13.5 mV	26.4 mV	13.9 mV	Pass
70% Load	31.3 mV	16.1 mV	31.6 mV	15.1 mV	Pass
80% Load	34.8 mV	16.6 mV	30.3 mV	16.7 mV	Pass
90% Load	39.8 mV	14.8 mV	29.3 mV	18.3 mV	Pass
100% Load	45.8 mV	16.4 mV	29.9 mV	23.1 mV	Pass
110% Load	52.3 mV	17.1 mV	32.0 mV	25.1 mV	Pass
Crossload 1	32.5 mV	12.7 mV	25.1 mV	35.0 mV	Pass
Crossload 2	47.3 mV	13.8 mV	26.7 mV	20.3 mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	7.4 mV	8.4 mV	19.3 mV	10.3 mV	Pass
20% Load	13.6 mV	9.8 mV	22.7 mV	11.2 mV	Pass
30% Load	13.6 mV	10.3 mV	22.6 mV	11.2 mV	Pass
40% Load	17.6 mV	11.2 mV	24.4 mV	12.2 mV	Pass
50% Load	22.2 mV	11.6 mV	25.1 mV	13.0 mV	Pass
60% Load	26.5 mV	13.2 mV	27.9 mV	13.4 mV	Pass
70% Load	30.9 mV	14.8 mV	32.5 mV	14.2 mV	Pass
80% Load	34.8 mV	15.9 mV	31.0 mV	16.4 mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
90% Load	39.2 mV	15.6 mV	29.3 mV	17.2 mV	Pass
100% Load	47.1 mV	15.7 mV	30.2 mV	20.9 mV	Pass
110% Load	52.1 mV	17.1 mV	30.2 mV	22.1 mV	Pass
Crossload 1	34.1 mV	13.2 mV	26.8 mV	37.3 mV	Pass
Crossload 2	46.8 mV	12.6 mV	25.2 mV	17.9 mV	Pass

The results above are not used in the certification process

SilverStone Strider Platinum 1000W



Top side



Power specifications label

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

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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