

Lab ID#: SL13001661
Receipt Date: Feb 2, 2018
Test Date: Jun 3, 2020

Report: 20PS1661A
Report Date: Feb 18, 2020

DUT INFORMATION

Brand	SilverStone
Manufacturer (OEM)	Enhance Electronics
Series	Strider Titanium
Model Number	ST1300-TI
Serial Number	DB17250295STK30TIO
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15-7.5
Rated Frequency (Hz)	50-60
Rated Power (W)	1300
Type	ATX12V
Cooling	140mm Double Ball-Bearing Fan (D14BH-12)
Semi-Passive Operation	✓
Cable Design	Fully Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	22	108	3	0.3
	Watts	120		1300	15	3.6
Total Max. Power (W)		1300				

CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (550mm)	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)	8	8	16AWG	No
SATA (600mm+140mm+140mm+140mm)	4	16	18AWG	No
4 pin Molex (600mm+150mm+150mm)	2	6	18AWG	No
FDD Adapter (+120mm)	1	1	22AWG	No
AC Power Cord (1380mm) - C19 coupler	1	1	16AWG	-

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RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	ErP Lot 3/6 2010: ✓ ErP Lot 3/6 2013: ✓ ErP Lot 3/6 2014, CEC: Partially
(EU) No 617/2013 Compliance	✓

115V

Average Efficiency	91.200%
Efficiency With 10W (≤500W) or 2% (>500W)	70.554
Average Efficiency 5VSB	79.362%
Standby Power Consumption (W)	0.1104110
Average PF	0.981
Avg Noise Output	43.36 dB(A)
Efficiency Rating (ETA)	TITANIUM
Noise Rating (LAMBDA)	S

230V

Average Efficiency	91.906%
Average Efficiency 5VSB	77.293%
Standby Power Consumption (W)	0.1525440
Average PF	0.942
Avg Noise Output	44.43 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	S

TEST EQUIPMENT

Electronic Loads	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Keysight AC6804B
Power Analyzers	N4L PPA1530 x2
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2
Tachometer	UNI-T UT372 x2
Digital Multimeter	Keysight U1273AX, Fluke 289, Keithley 2015 - THD
UPS	CyberPower OLS3000E 3kVA x2
Transformer	3kVA x2

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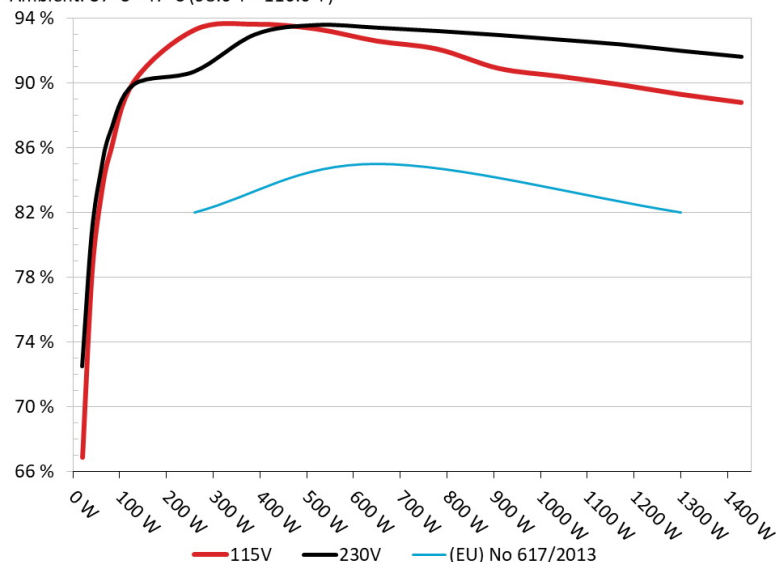
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PAGE 2/13

EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: SilverStone ST1300-TI

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



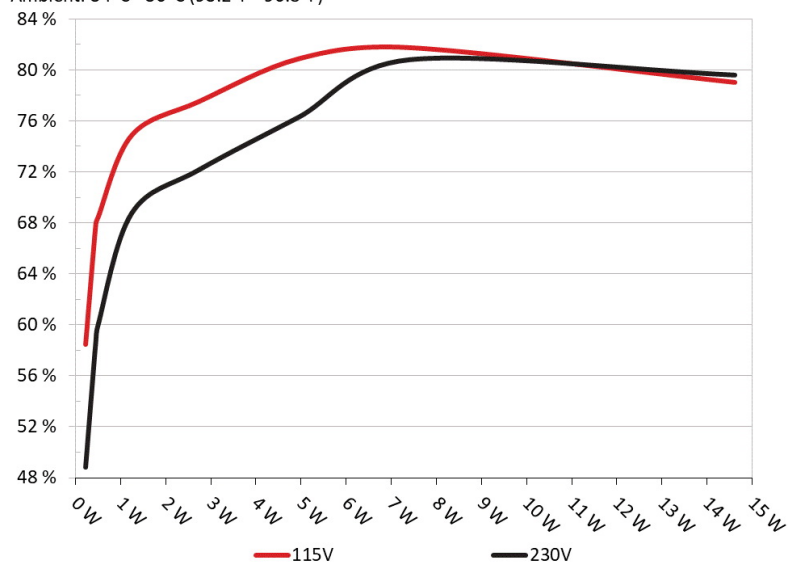
INFO

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: SilverStone ST1300-TI

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	0.225	58.442%	0.018
	5.004V	0.385		115.16V
2	0.090A	0.450	67.873%	0.031
	5.002V	0.663		115.14V
3	0.550A	2.740	77.511%	0.161
	4.982V	3.535		115.16V
4	1.000A	4.962	80.880%	0.257
	4.963V	6.135		115.16V
5	1.500A	7.412	81.738%	0.339
	4.941V	9.068		115.16V
6	2.999A	14.613	79.011%	0.479
	4.872V	18.495		115.16V

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

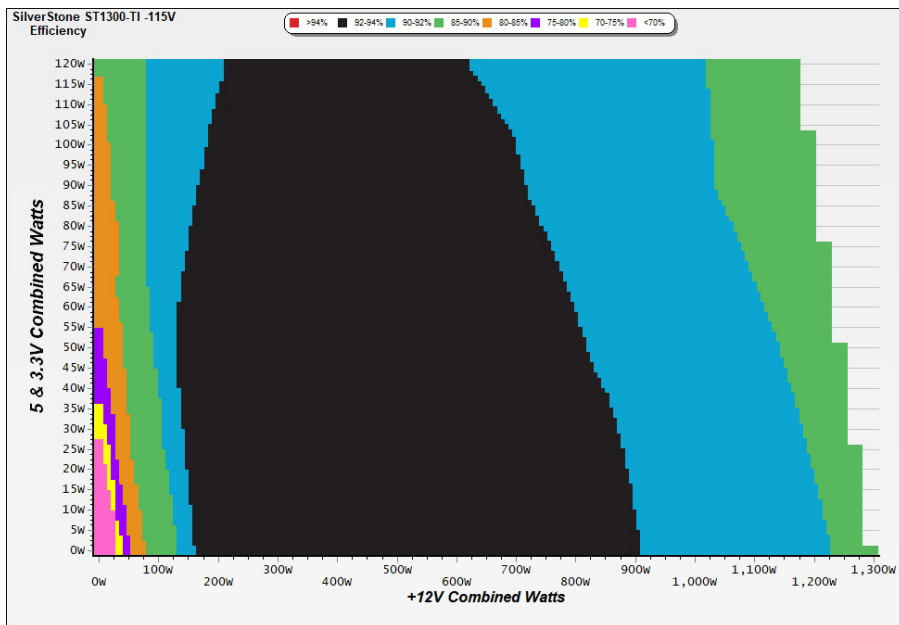
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.225	48.807%	0.007
	5.005V	0.461		230.27V
2	0.090A	0.450	58.670%	0.011
	5.003V	0.767		230.29V
3	0.550A	2.740	72.162%	0.054
	4.982V	3.797		230.29V
4	1.000A	4.962	76.315%	0.092
	4.963V	6.502		230.29V
5	1.500A	7.412	80.811%	0.127
	4.941V	9.172		230.30V
6	2.999A	14.618	79.601%	0.230
	4.874V	18.364		230.27V

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115V

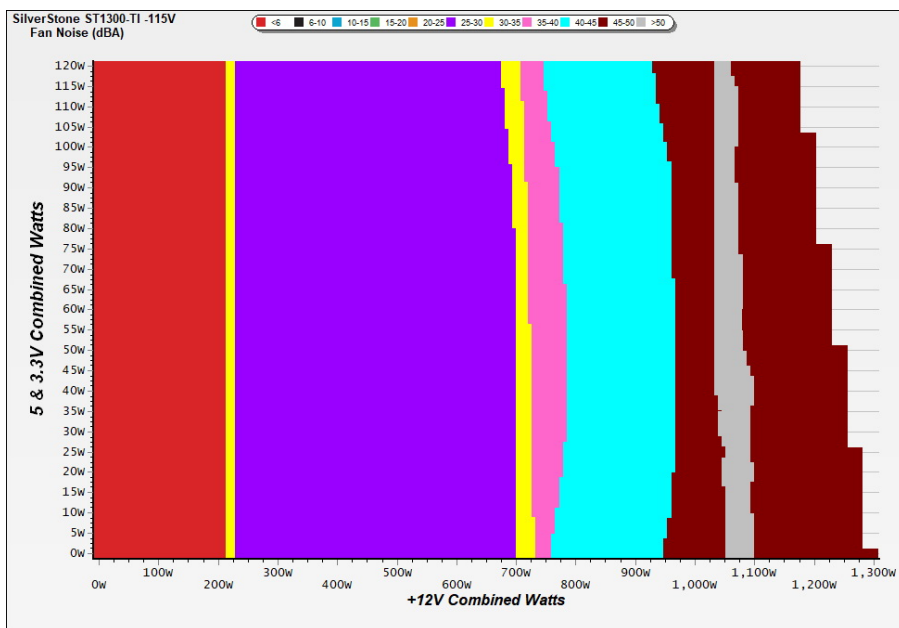
EFFICIENCY GRAPH 115V



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

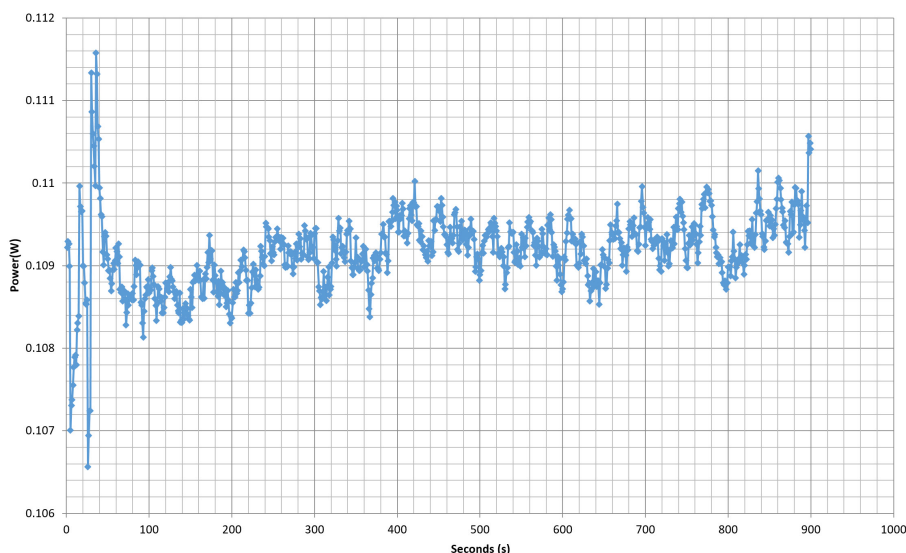
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - DB17250295STK30TIO - 29/05/2020 - 09:33



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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PAGE 7/13

COMMISSION REGULATION (EU) NO 617/2013 TESTING 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	8.968A	1.969A	1.980A	0.991A	129.971	90.089%	0	<6.0	43.17°C	0.948
	12.085V	5.079V	3.330V	5.045V	144.270				40.01°C	115.12V
2	18.988A	2.963A	2.987A	1.194A	259.998	93.286%	928	27.8	40.76°C	0.975
	12.065V	5.063V	3.316V	5.026V	278.711				44.02°C	115.12V
5	49.908A	4.980A	5.038A	1.812A	649.612	92.593%	1701	44.5	42.45°C	0.988
	12.004V	5.022V	3.276V	4.968V	701.577				46.81°C	115.10V
10	100.344A	9.099A	9.270A	3.088A	1299.750	89.299%	2056	49.6	45.76°C	0.993
	12.059V	4.946V	3.204V	4.857V	1455.507				52.16°C	115.07V

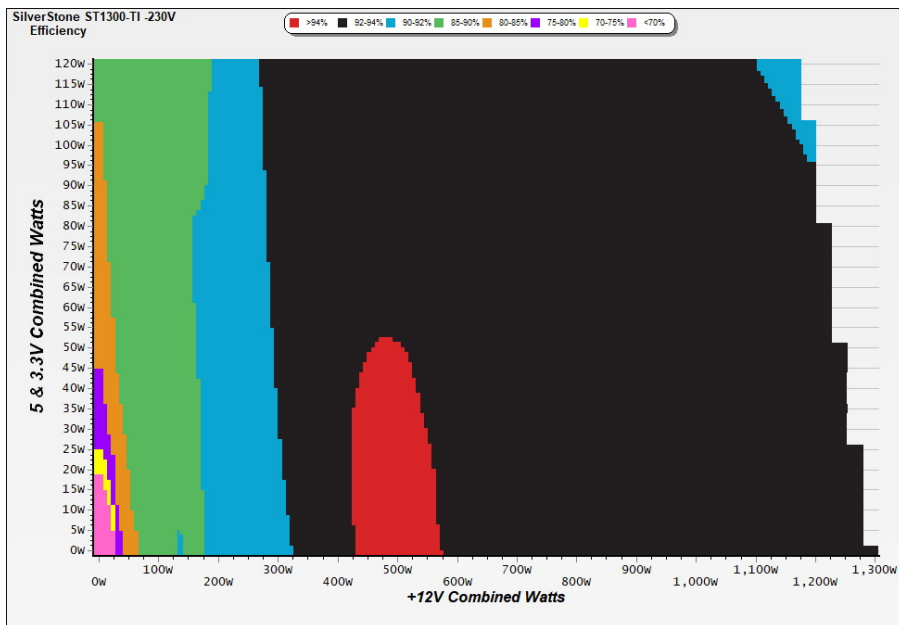
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PAGE 8/13

230V

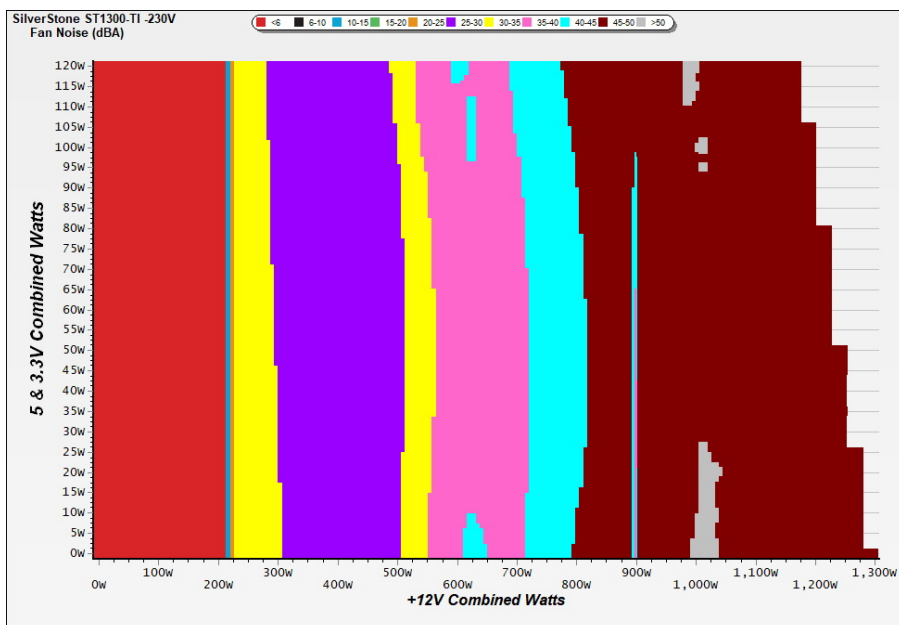
EFFICIENCY GRAPH 230V



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

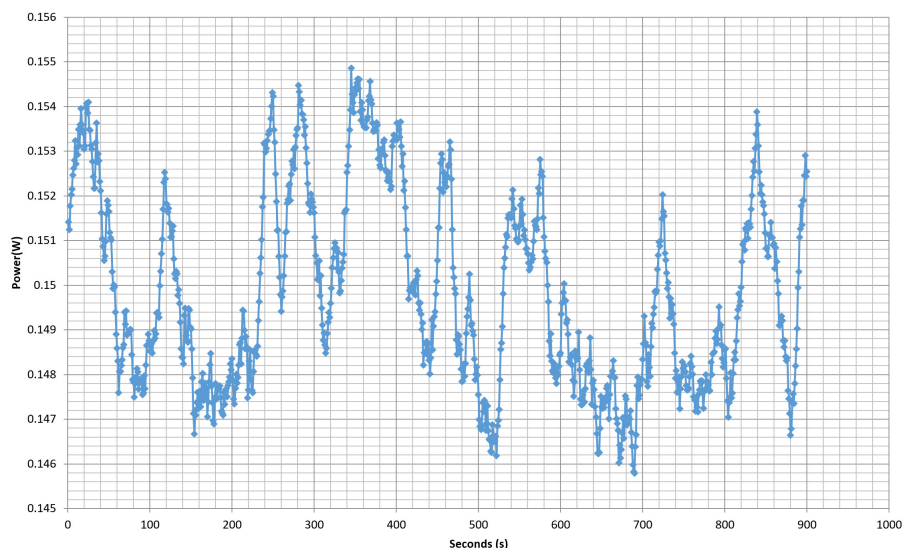
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VAMPIRE POWER -230V

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COMMISSION REGULATION (EU) NO 617/2013 TESTING 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	8.975A	1.969A	1.982A	0.991A	129.983	89.895%	0	<6.0	44.20°C	0.835
	12.076V	5.079V	3.331V	5.045V	144.595				40.13°C	230.30V
2	19.004A	2.963A	2.984A	1.194A	260.014	90.704%	1134	33.6	41.75°C	0.918
	12.056V	5.064V	3.316V	5.027V	286.663				46.56°C	230.30V
5	49.919A	4.979A	5.037A	1.812A	649.686	93.409%	1965	48.1	42.36°C	0.966
	12.003V	5.022V	3.276V	4.968V	695.529				49.42°C	230.30V
10	100.357A	9.101A	9.276A	3.090A	1299.821	91.981%	2081	50.2	45.27°C	0.983
	12.058V	4.945V	3.203V	4.855V	1413.134				55.24°C	230.32V

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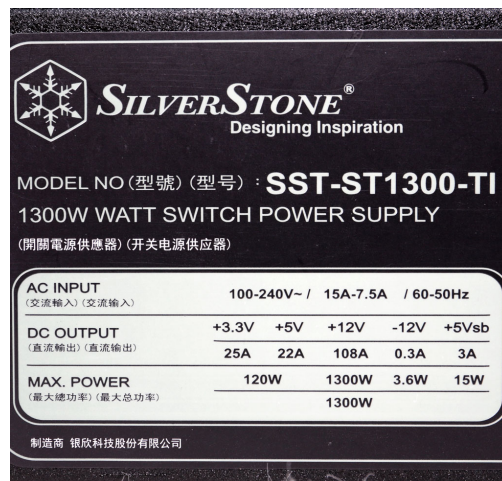
PAGE 12/13

EFFICIENCY AND NOISE REPORT IN ACCORDANCE WITH
CYBENETICS ETA AND CYBENETICS LAMBDA PROCEDURE

SilverStone Strider Titanium 1300W



Top side



Power specifications label

CERTIFICATIONS 115V




Aris Mpitsiopoulos
Lab Director

CERTIFICATIONS 230V



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