Super Flower Leadex II 750W

S1609199008

Lab ID 97

Certification ID 2597

Test Result Report ID: 19PS97A

Certificate Issue Date: Apr 23, 2018

115V 230V

Scheme: ETA-EMI PSU



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	Super Flower
Model	Leadex II 750W
OEM/ODM	Super Flower
Serial Number	S1609199008
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	10
□□□□ (Hz)	50-60

□□□□ (W)	750
Operating Temperature (Continuous Full Load) (°C)	
□□	ATX12V
□□□□	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	135mm Fluid Dynamic Bearing Fan (RL4Z S1352512HH)
□□□□□	✓ (selectable)
Cybenetics Testing Information	
Lab ID	97
Date of receipt	Apr 10, 2018
Testing Date	Apr 19, 2018
Report Issued Date	Apr 23, 2018
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□□ (Non-accredited measurements)

□□□□□			
□□	□□□□	□□□□□□	Gauge
ATX □□ 20+4 pin (540mm)	1	1	18-22AWG
4+4 pin EPS 12V □□ (650mm)	2	2	18-22AWG
6+2pin PCIe□□ (550mm+150mm)	2	4	18-22AWG
SATA□□ (500mm+100mm+100mm	3	9	18AWG
□ 4pin Molex□□ (500mm+100mm+100mm+100)	1	4	18AWG

		3.3V	5V	12V	5VSB	-12V
		24	24	62.4	3	0.5
		120		748.8	15	6
	(W)	750				

Test Results

Temperature & Compliance Info

(°C /°F)	28-32 / 82.4-89.6
ErP Lot3/6	ErP Lot 6 2010: ✓ ErP Lot 6 2013: Partially ErP Lot 3 2014: ✓
(EU) No 617/2013	✓

Performance Summary

115V

Accredited	
(>1450 load combinations)	89.161%
Average Noise Output (>1450 Load Combinations)	29.84dBA
PF (>1450 Load Combinations)	0.989
Efficiency With 10W (≤500W) or 2% (>500W) Load	-
	0.1190W
Non-Accredited	
12V Ripple (Full Load)	12.32mV
5V Ripple (Full Load)	8.35mV
3.3V Ripple (Full Load)	9.35mV
5VSB Ripple (Full Load)	10.17mV
12V Load Regulation	0.30%

5V Load Regulation	0.12%
3.3V Load Regulation	0.12%
5VSB Load Regulation	2.96%
Inrush Current	33.080A

230V

Accredited	
□□□□ (>1450 load combinations)	91.143%
Average Noise Output (>1450 Load Combinations)	29.28dBA
PF□□□ (>1450 Load Combinations)	0.957
Efficiency With 10W (≤500W) or 2% (>500W) Load	-
□□□□□□	0.2273W
Non-Accredited	
12V Ripple (Full Load)	11.61mV
5V Ripple (Full Load)	7.64mV
3.3V Ripple (Full Load)	7.00mV
5VSB Ripple (Full Load)	8.73mV
12V Load Regulation	0.27%
5V Load Regulation	0.12%
3.3V Load Regulation	0.09%
5VSB Load Regulation	2.92%
Inrush Current	63.670A
□□□□ & PG□□	18.44ms
AC Loss to PWR_OK Hold Up Time	16.64ms
PWR_OK Inactive to DC Loss Delay	1.80ms
OPP (0.00°C / 0.00°C)	- -

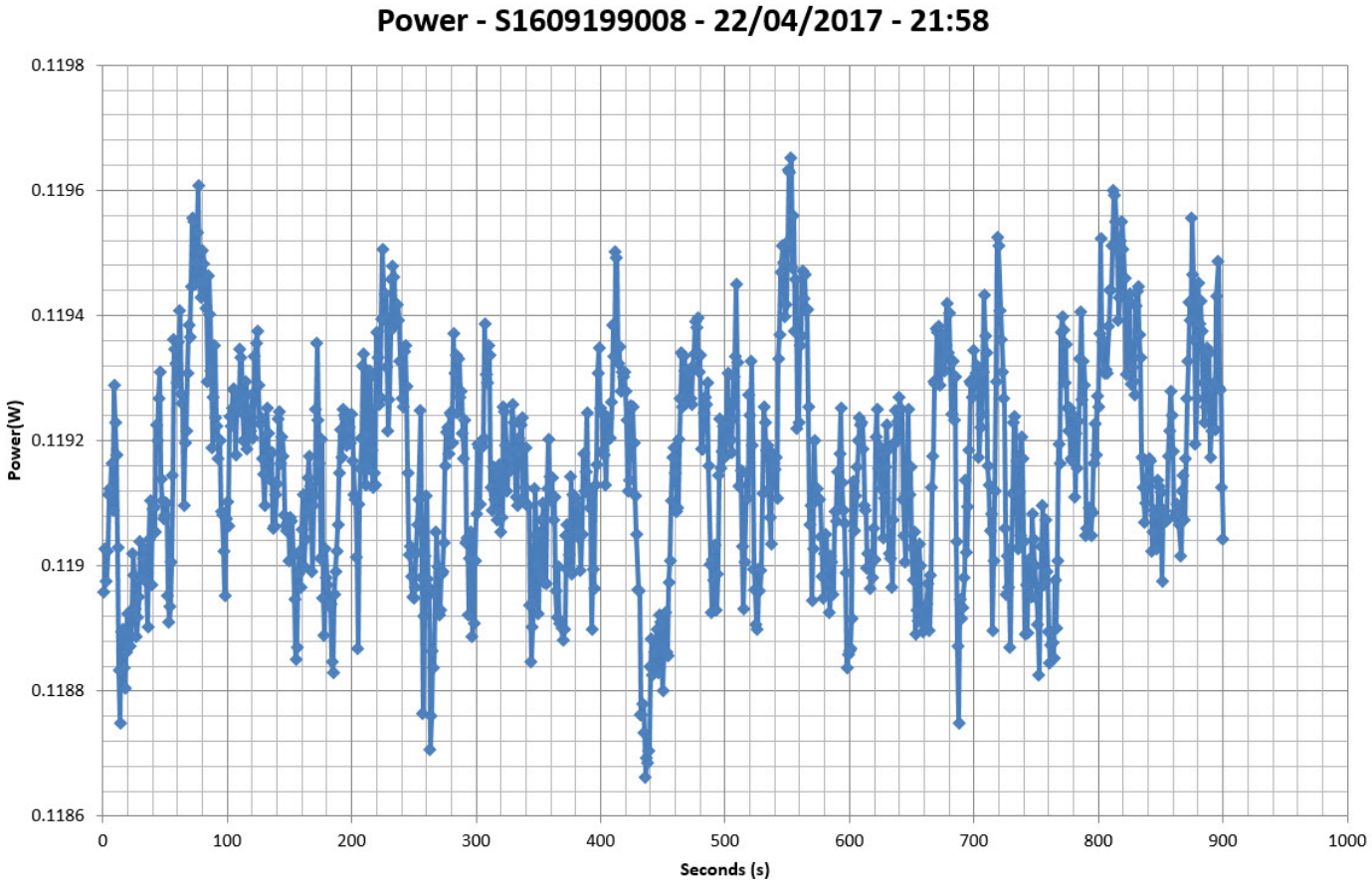
□□□□ & PG□□

Hold-Up Time (ms)	18.44
AC Loss to PWR_OK Hold Up Time (ms)	16.64

PWR_OK Inactive to DC Loss Delay (ms)	1.80

Graphs

115V



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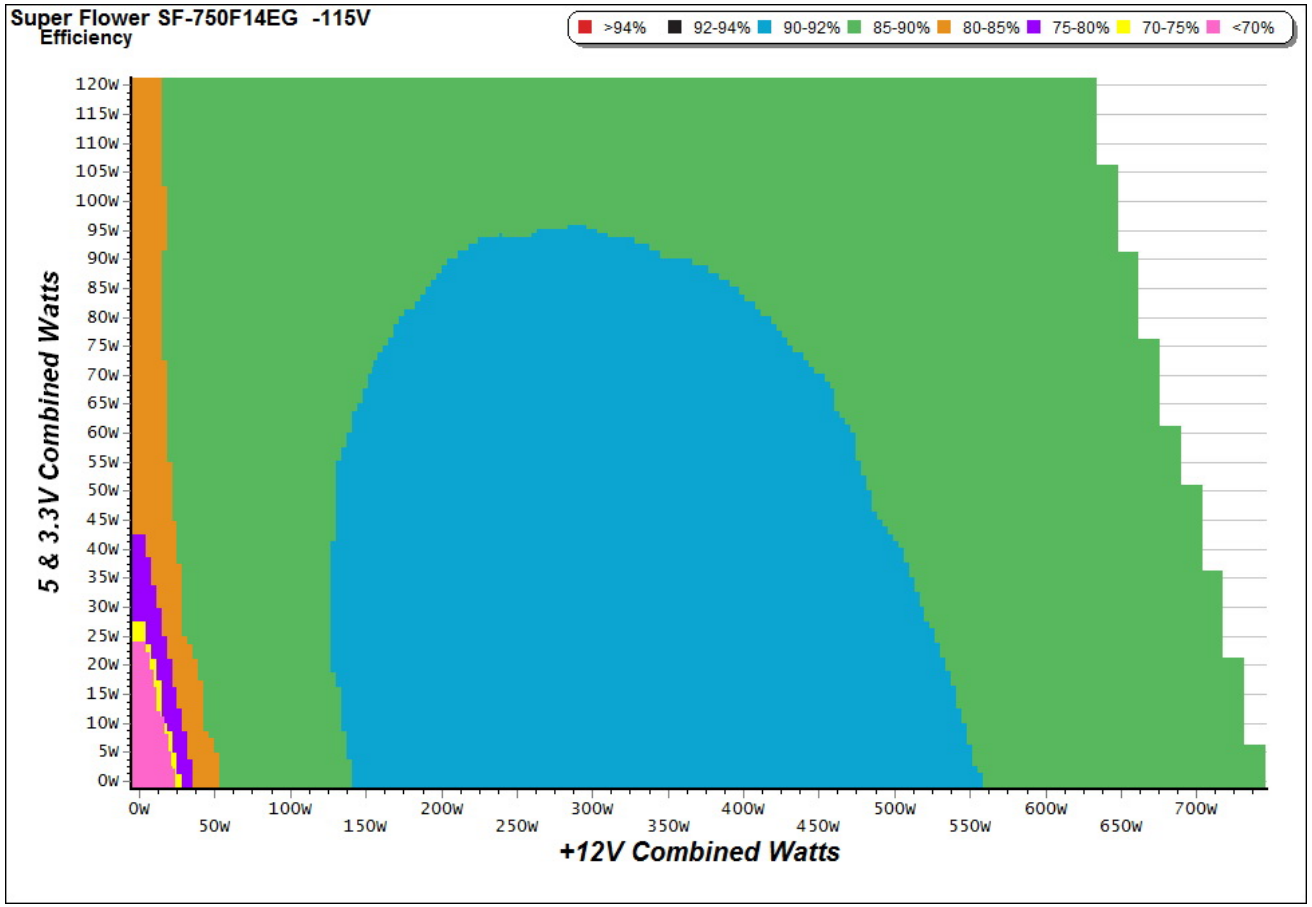
115V

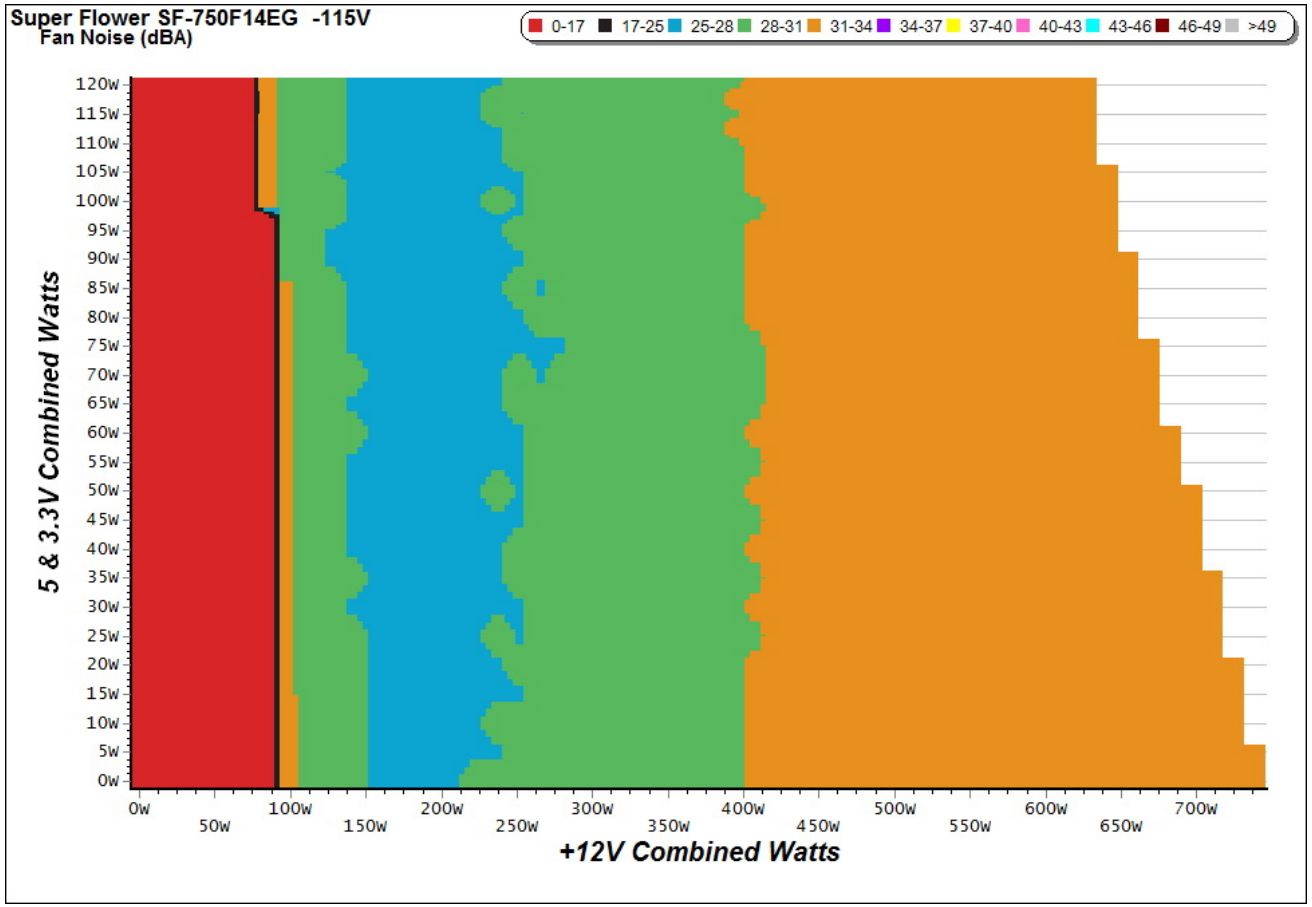


□□

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.

□□□□□

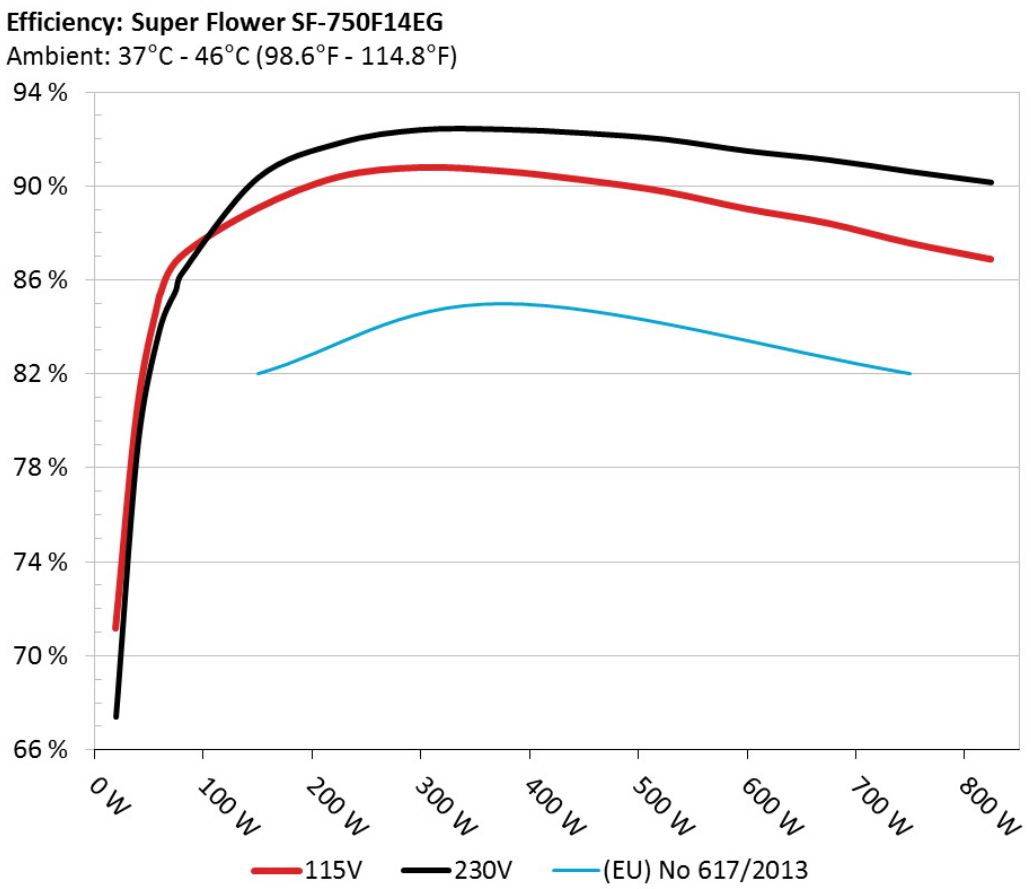
115V



□□

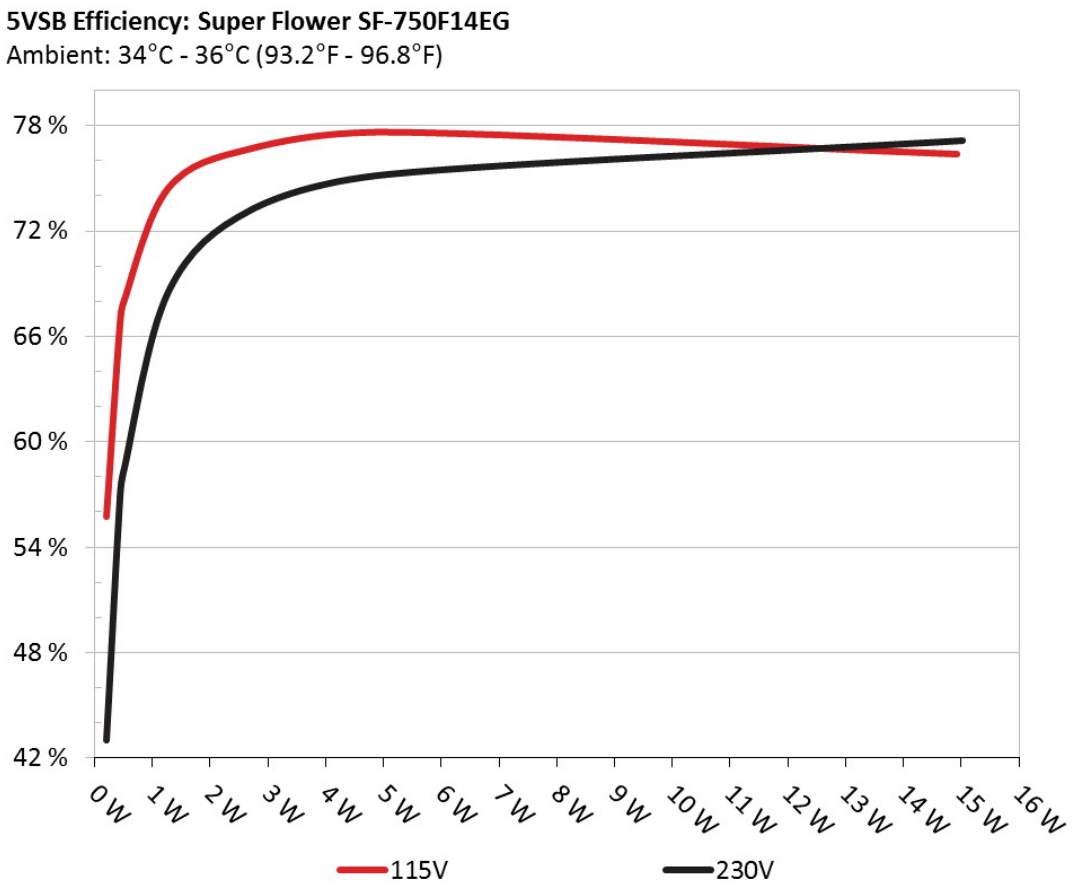
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails.

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	0.042A	0.213	55.759%	0.046
	5.108V	0.382		115.09V
2	0.087A	0.445	66.717%	0.078
	5.107V	0.667		115.10V
3	0.532A	2.709	76.720%	0.292
	5.093V	3.531		115.10V
4	3.003A	14.928	76.409%	0.492
	4.971V	19.537		115.08V

230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.042A	0.213	43.030%	0.018
	5.107V	0.495		230.27V
2	0.087A	0.446	56.815%	0.028
	5.107V	0.785		230.27V
3	0.532A	2.709	73.196%	0.123
	5.093V	3.701		230.27V
4	3.001A	15.025	77.146%	0.353
	5.006V	19.476		230.26V

Supplementary Tests (For Reference)

10-110%□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	4.407A	1.986A	1.989A	0.985A	74.783	84.566%	1339	33.3	37.52°C	0.966
	12.074V	5.028V	3.316V	5.067V	88.431				39.43°C	115.11V
2	9.856A	2.981A	2.984A	1.185A	149.782	89.023%	1339	33.3	38.20°C	0.981
	12.064V	5.030V	3.316V	5.055V	168.251				39.88°C	115.11V
3	15.662A	3.483A	3.494A	1.386A	224.890	90.372%	1364	33.5	38.81°C	0.989
	12.055V	5.028V	3.315V	5.043V	248.848				40.79°C	115.11V
4	21.454A	3.977A	3.980A	1.590A	299.743	90.770%	1384	33.8	39.58°C	0.992
	12.052V	5.026V	3.314V	5.032V	330.223				41.87°C	115.11V
5	26.911A	4.973A	4.976A	1.791A	374.723	90.617%	1415	35.2	40.00°C	0.993
	12.049V	5.026V	3.314V	5.019V	413.525				42.87°C	115.11V
6	32.362A	5.965A	5.972A	1.996A	449.637	90.239%	1448	37.6	41.41°C	0.994
	12.047V	5.028V	3.314V	5.004V	498.276				44.55°C	115.10V
7	37.813A	6.968A	6.969A	2.200A	524.645	89.742%	1476	36.9	41.98°C	0.995
	12.047V	5.028V	3.314V	4.992V	584.618				45.74°C	115.10V
8	43.265A	7.955A	7.963A	2.409A	599.558	89.013%	1530	37.1	42.69°C	0.995
	12.046V	5.028V	3.315V	4.978V	673.564				46.98°C	115.10V
9	49.156A	8.463A	8.480A	2.409A	674.644	88.400%	1583	38.1	43.59°C	0.995
	12.044V	5.026V	3.313V	4.973V	763.171				48.51°C	115.10V
10	54.786A	8.962A	8.965A	3.031A	749.496	87.559%	1631	39.9	44.87°C	0.996
	12.043V	5.024V	3.312V	4.946V	855.994				50.52°C	115.10V
11	61.015A	8.968A	8.972A	3.032A	824.382	86.870%	1667	40.1	46.45°C	0.996
	12.041V	5.021V	3.309V	4.942V	948.987				52.60°C	115.10V
CL1	0.099A	14.025A	14.005A	0.004A	119.170	82.812%	1544	37.4	43.16°C	0.977
	12.071V	5.069V	3.346V	5.081V	143.905				45.77°C	115.12V

CL2	62.452A	1.004A	1.003A	1.002A	765.148	88.041%	1596	38.2	44.76°C	0.996
	12.038V	4.995V	3.290V	5.027V	869.081				49.69°C	115.11V

The results above are not used in the certification process

230V

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	1.207A	0.493A	0.481A	0.195A	19.648	71.176%	0	0	0.846
	12.082V	5.025V	3.314V	5.097V	27.605				115.12V
2	2.443A	0.990A	0.994A	0.391A	39.770	80.573%	0	0	0.929
	12.079V	5.026V	3.315V	5.089V	49.359				115.12V
3	3.678A	1.487A	1.506A	5.080A	59.887	85.302%	0	0	0.965
	12.076V	5.028V	3.315V	5.080V	70.206				115.11V
4	4.905A	1.984A	1.989A	0.786A	79.772	86.991%	0	0	0.966
	12.073V	5.028V	3.315V	5.071V	91.701				115.11V

The results above are not used in the certification process

230V

The results above are not used in the certification process

115V

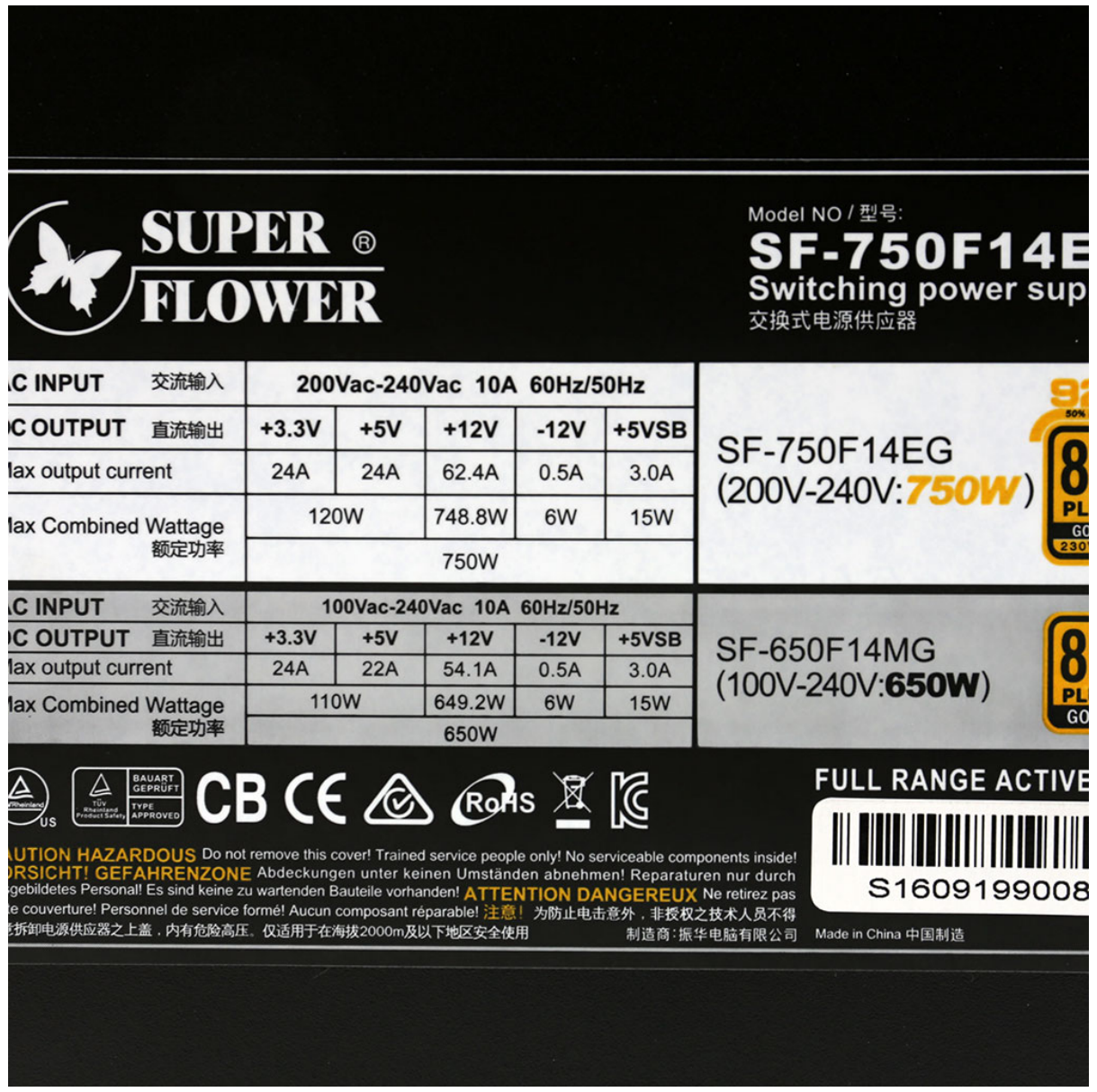
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	4.3 mV	4.1 mV	5.4 mV	4.5 mV	Pass
20% Load	5.6 mV	4.2 mV	6.0 mV	4.9 mV	Pass
30% Load	7.0 mV	4.6 mV	6.0 mV	5.2 mV	Pass
40% Load	7.6 mV	4.7 mV	6.5 mV	5.4 mV	Pass
50% Load	8.6 mV	5.2 mV	6.6 mV	5.8 mV	Pass
60% Load	9.3 mV	5.8 mV	7.2 mV	5.9 mV	Pass
70% Load	9.8 mV	7.0 mV	6.7 mV	6.4 mV	Pass
80% Load	11.0 mV	6.9 mV	7.5 mV	7.9 mV	Pass
90% Load	11.5 mV	7.9 mV	8.0 mV	9.3 mV	Pass
100% Load	12.3 mV	8.4 mV	9.4 mV	10.2 mV	Pass
107% Load	12.8 mV	9.0 mV	9.8 mV	10.2 mV	Pass
Crossload 1	6.8 mV	5.8 mV	8.3 mV	11.6 mV	Pass
Crossload 2	11.7 mV	8.4 mV	8.8 mV	8.2 mV	Pass

The results above are not used in the certification process

230V

The results above are not used in the certification process





Super Flower Leadex II 750W

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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