

Lab ID#: 180
Receipt Date: Sep 7, 2018
Test Date: Sep 20, 2018

Report: 19PS180A
Report Date: Sep 23, 2018

DUT INFORMATION

Brand	Super Flower
Manufacturer (OEM)	Super Flower
Series	Leadex II Gold
Model Number	SF-1000F14MG
Serial Number	S1709199001
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15
Rated Frequency (Hz)	50-60
Rated Power (W)	1000
Type	ATX12V
Cooling	140mm Double Ball-Bearing Fan (RL4Z-B1402512EH)
Semi-Passive Operation	✓ (selectable)
Cable Design	Fully Modular

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	24	24	83.3	3	0.5
	Watts	120		999.6	15	6
Total Max. Power (W)		1000				

CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (580mm)	1	1	18-20AWG
4+4 pin EPS12V (700mm)	1	1	18-20AWG
8 pin EPS12V (700mm)	1	1	18-20AWG
6+2 pin PCIe (600mm+150mm)	4	8	18-20AWG
SATA (550mm+100mm+100mm)	4	12	18AWG
4 pin Molex (550mm+100mm+100mm+100mm)	1	4	18AWG

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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: Partially ErP Lot 3/6 2014, CEC: Failed		
(EU) No 617/2013 Compliance	✓		
115V		230V	
Average Efficiency	89.726%	Average Efficiency	91.553%
Efficiency With 10W (≤500W) or 2% (>500W)	61.427	Average Efficiency 5VSB	71.685%
Average Efficiency 5VSB	73.421%	Standby Power Consumption (W)	0.2785150
Standby Power Consumption (W)	0.1303840	Average PF	0.933
Average PF	0.979	Avg Noise Output	36.26 dB(A)
Avg Noise Output	37.77 dB(A)	Efficiency Rating (ETA)	
Efficiency Rating (ETA)	SILVER	Noise Rating (LAMBDA)	S+
Noise Rating (LAMBDA)	S+		

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	Bruel & Kjaer 2250-L G4	
Microphone	Bruel & Kjaer Type 4955-A, Bruel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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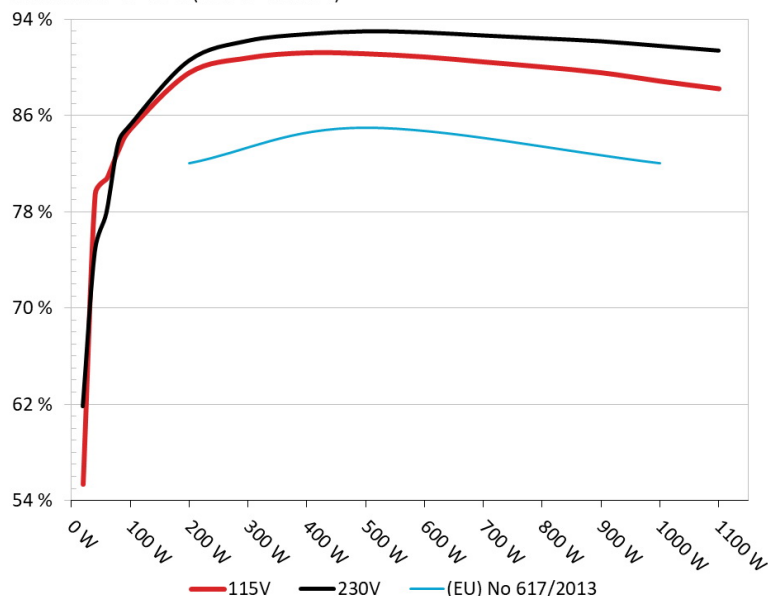
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Super Flower SF-1000F14MG

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



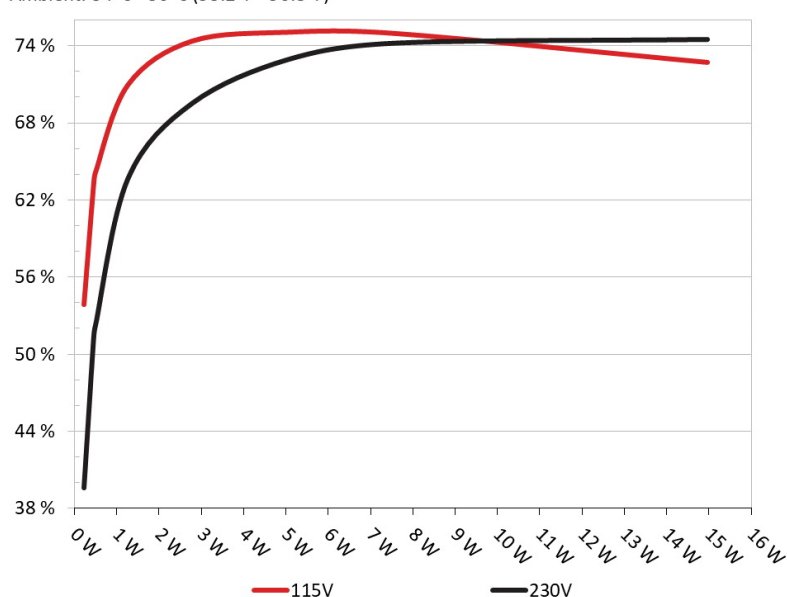
INFO

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: Super Flower SF-1000F14MG

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	0.229	53.882%	0.038
	5.074V	0.425		115.39V
2	0.090A	0.457	63.209%	0.063
	5.073V	0.723		115.39V
3	0.550A	2.784	74.359%	0.258
	5.060V	3.744		115.39V
4	1.000A	5.048	75.052%	0.355
	5.047V	6.726		115.38V
5	1.500A	7.551	74.963%	0.411
	5.034V	10.073		115.38V
6	3.000A	14.966	72.710%	0.483
	4.989V	20.583		115.37V

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

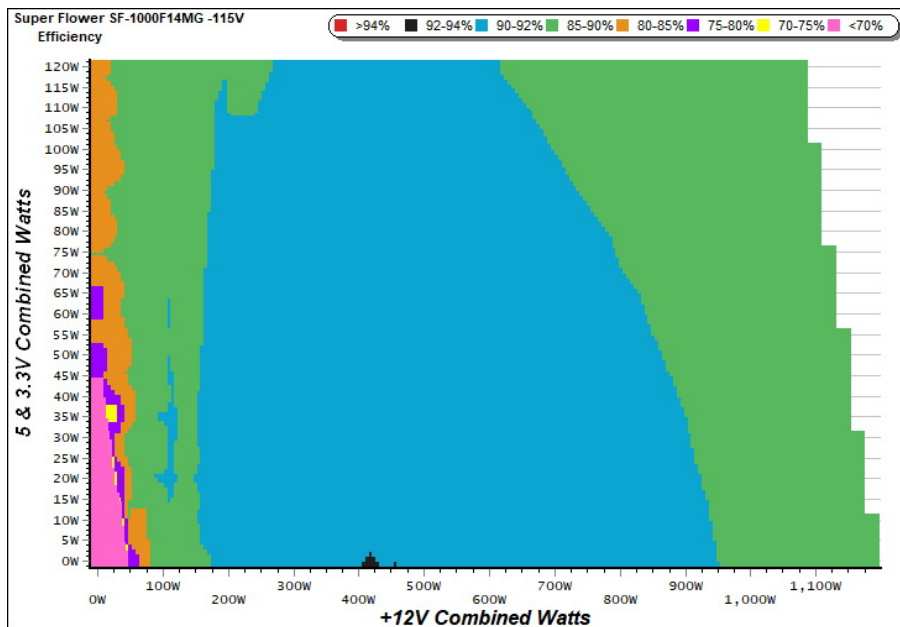
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.229	39.965%	0.024
	5.076V	0.573		230.28V
2	0.090A	0.457	51.464%	0.036
	5.075V	0.888		230.28V
3	0.550A	2.784	69.496%	0.147
	5.061V	4.006		230.28V
4	1.000A	5.049	72.836%	0.222
	5.048V	6.932		230.28V
5	1.500A	7.552	74.083%	0.280
	5.034V	10.194		230.28V
6	3.000A	14.965	74.246%	0.368
	4.988V	20.156		230.28V

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115V

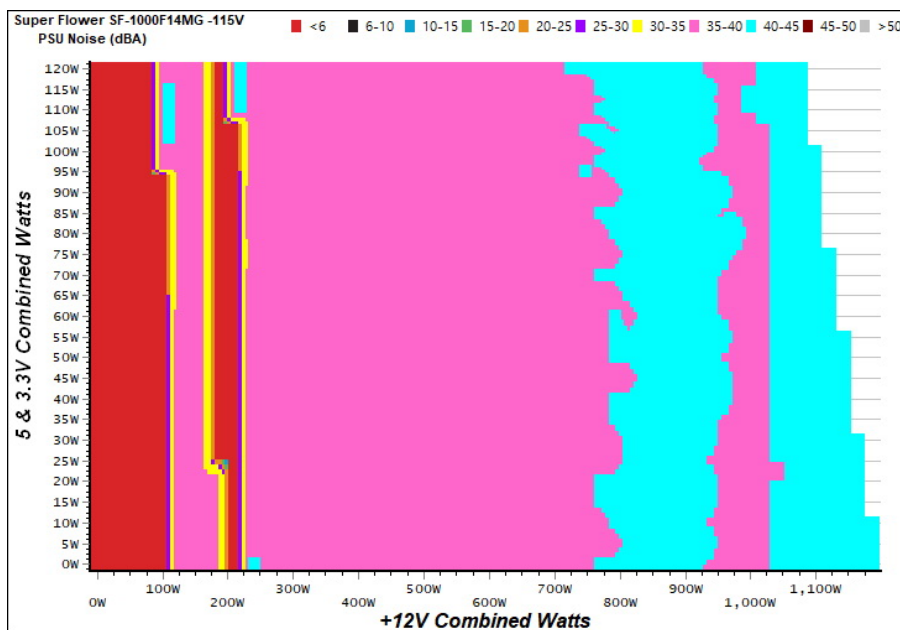
EFFICIENCY GRAPH 115V



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

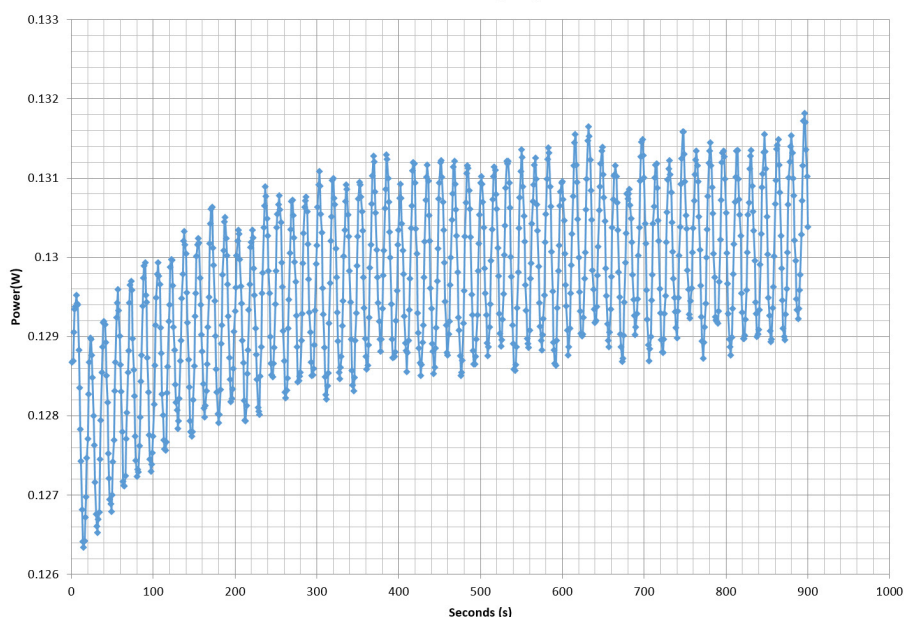
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - S1709199001 - 22/09/2017 - 10:20



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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COMMISSION REGULATION (EU) NO 617/2013 TESTING 115V

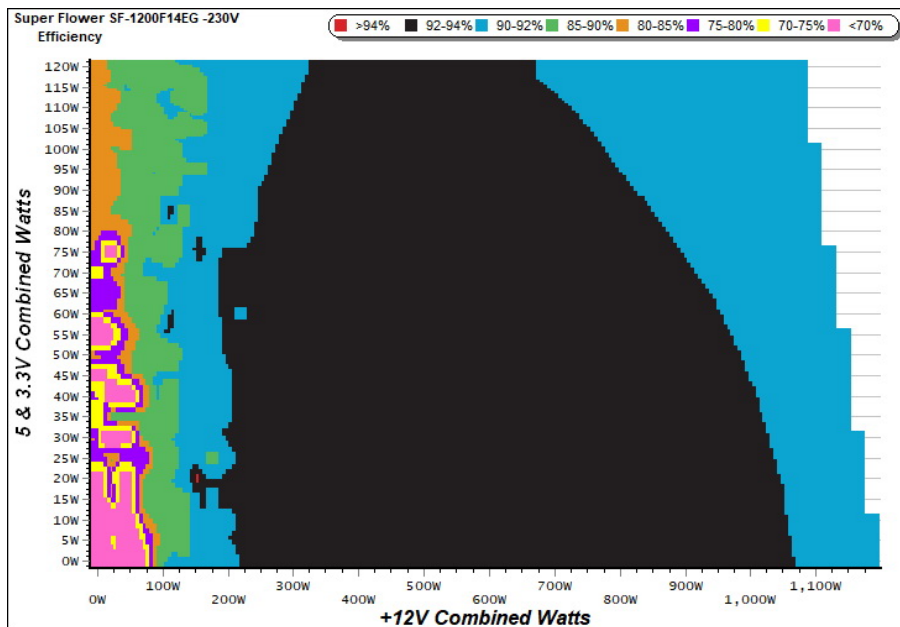
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230V

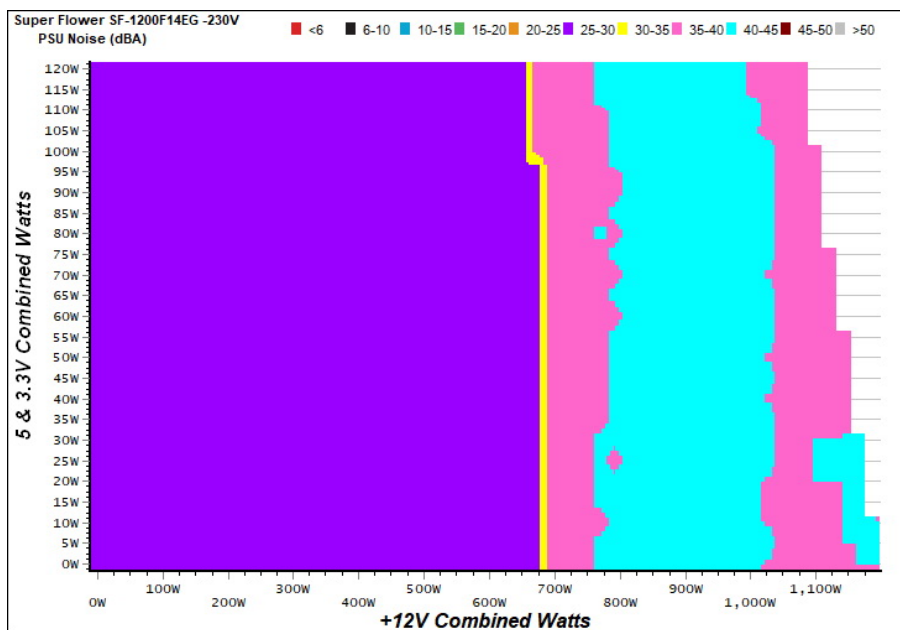
EFFICIENCY GRAPH 230V



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

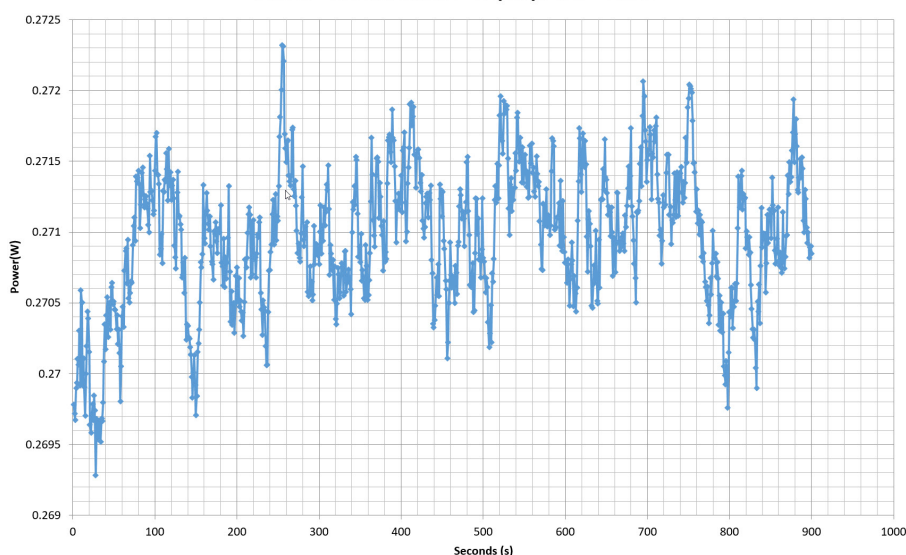
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -230V

Power - S1709199001 - 14/03/2019 - 10:42



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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COMMISSION REGULATION (EU) NO 617/2013 TESTING 230V

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

Super Flower Leadex Gold 1000W

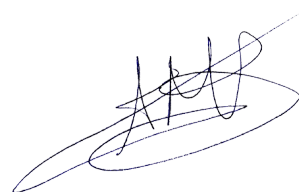


Top side

 SUPER[®] FLOWER						Model NO / 型号: SF-1200F14EG Switching power supply 交流式电源供应器	
AC INPUT 交流输入	200Vac-240Vac 15A 60Hz/50Hz					SF-1200F14EG (200V-240V: 1200W) 	
DC OUTPUT 直流输出	+3.3V	+5V	+12V	-12V	+5VSB		
Max output current	24A	24A	99.9A	0.5A	3.0A		
Max Combined Wattage 额定功率	120W 1198.8W 6W 15W 1200W					SF-1000F14MG (100V-240V: 1000W) 	
AC INPUT 交流输入	100Vac-240Vac 15A 60Hz/50Hz						
DC OUTPUT 直流输出	+3.3V	+5V	+12V	-12V	+5VSB		
Max output current	24A	24A	83.3A	0.5A	3.0A		
Max Combined Wattage 额定功率	120W 999.6W 6W 15W 1000W					FULL RANGE ACTIVE PFC  S1709199001 Made in China 中国制造	
  CB CE  							
CAUTION HAZARDOUS Do not remove this cover! Trained service people only! No serviceable components inside! VORSICHT! GEFAHRZONE! Abdeckung unter keinen Umständen abkürzen! Reparaturen nur durch ausgebildetes Personal! Es sind keine zu wartenden Bauteile vorhanden! ATTENTION DANGEREUX! Ne retirez pas cette couverture! Personnel de service formé! Aucun composant réparateur! (注意) 危险! 未经授权, 不得打开此盖! 未经授权, 不得打开此盖! 未经授权, 不得打开此盖! 未经授权, 不得打开此盖! 未经授权, 不得打开此盖!							

Power specifications label

CERTIFICATIONS 115V

Aris Mpitsiopoulos
Lab Director

CERTIFICATIONS 230V



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