



Super Flower Leadex III Gold 750W rev.1

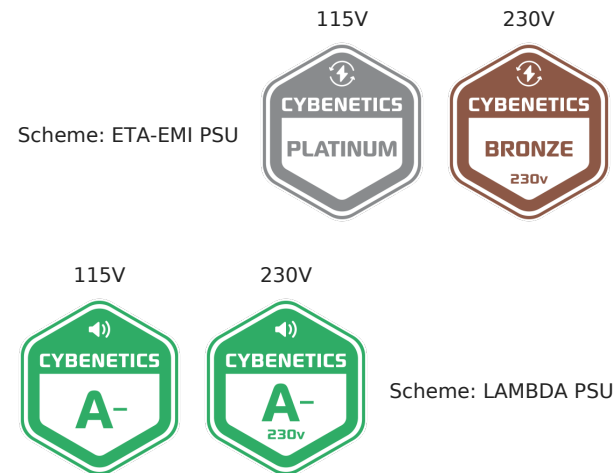
Serial Number S1901188886

Lab ID 636

Certification ID 25636

Test Result Report ID:

Certificate Issue Date: Feb 21, 2019



A handwritten signature in blue ink, appearing to read "A. Bitziopoulos", is positioned above the name of the Certification Body General Manager.

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 III Gold 750W rev.1
OEM/ODM	Super Flower
Serial Number	S1901188886
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10
Rated Frequency (Hz)	50-60

Rated Power (W)	750
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	130mm Fluid Dynamic Bearing (S1282412L)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	636
Date of receipt	Feb 5, 2019
Testing Date	Feb 17, 2019
Report Issued Date	Feb 21, 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	18-22AWG	Yes
4+4 pin EPS12V (700mm)	2	2	18-22AWG	Yes
6+2 pin PCIe (550mm+150mm)	2	4	20-22AWG	Yes
SATA (550mm+125mm+125mm+110mm)	2	8	18-20AWG	No
4 pin Molex (545mm+100mm+100mm+100mm)	1	4	18AWG	No

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62.4	3	0.5
	Watts	100		748.8	15	6
Total Max. Power (W)		750				

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)	89.426%
Average Noise Output (>1450 Load Combinations)	25.50dBA
Average PF (>1450 Load Combinations)	0.980
Efficiency With 10W (≤500W) or 2% (>500W) Load	69.251%
Standby Power Consumption	0.0492W
Non-Accredited	
12V Ripple (Full Load)	9.05mV
5V Ripple (Full Load)	9.97mV
3.3V Ripple (Full Load)	13.15mV
5VSB Ripple (Full Load)	9.83mV
12V Load Regulation	0.30%
5V Load Regulation	0.36%
3.3V Load Regulation	0.69%

5VSB Load Regulation	2.79%
Inrush Current	48.996A

230V

Accredited		
Average Efficiency (>1450 load combinations)	91.369%	
Average Noise Output (>1450 Load Combinations)	26.91dBA	
Average PF (>1450 Load Combinations)	0.917	
Efficiency With 10W (≤500W) or 2% (>500W) Load	-	
Standby Power Consumption	0.0823W	
Non-Accredited		
12V Ripple (Full Load)	8.90mV	
5V Ripple (Full Load)	9.69mV	
3.3V Ripple (Full Load)	13.03mV	
5VSB Ripple (Full Load)	8.64mV	
12V Load Regulation	0.30%	
5V Load Regulation	0.34%	
3.3V Load Regulation	0.66%	
5VSB Load Regulation	2.77%	
Inrush Current	141.465A	
Hold-Up Time & PWR_OK Signal	23.20ms	
AC Loss to PWR_OK Hold Up Time	21.00ms	
PWR_OK Inactive to DC Loss Delay	2.20ms	
OPP (0.00°C / 0.00°C)	-	-

Hold-Up Time & PWR_OK Signal

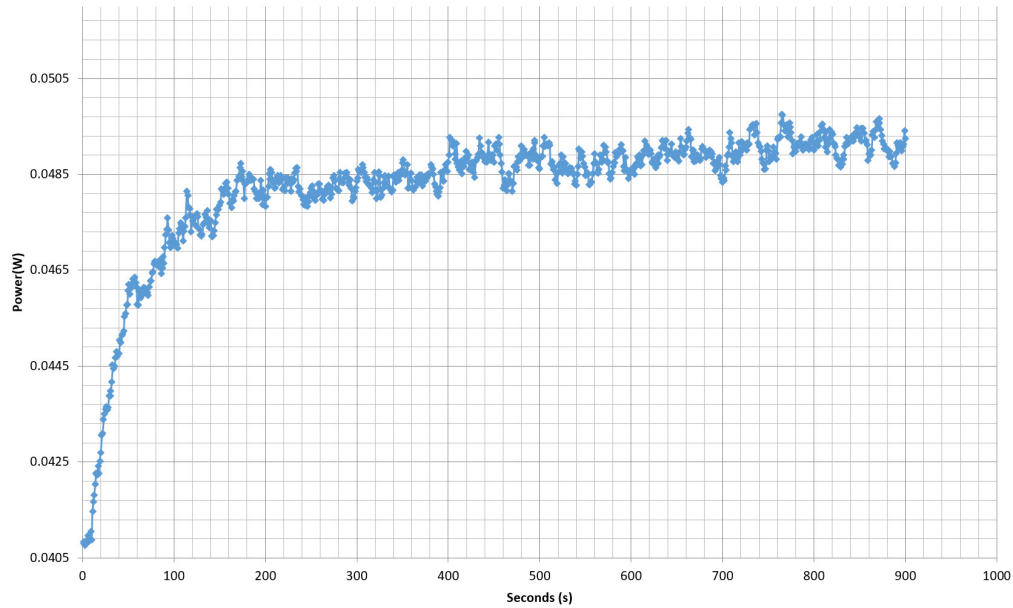
Hold-Up Time (ms)	23.20
AC Loss to PWR_OK Hold Up Time (ms)	21.0
PWR_OK Inactive to DC Loss Delay (ms)	2.20

Vampire Power

Graphs

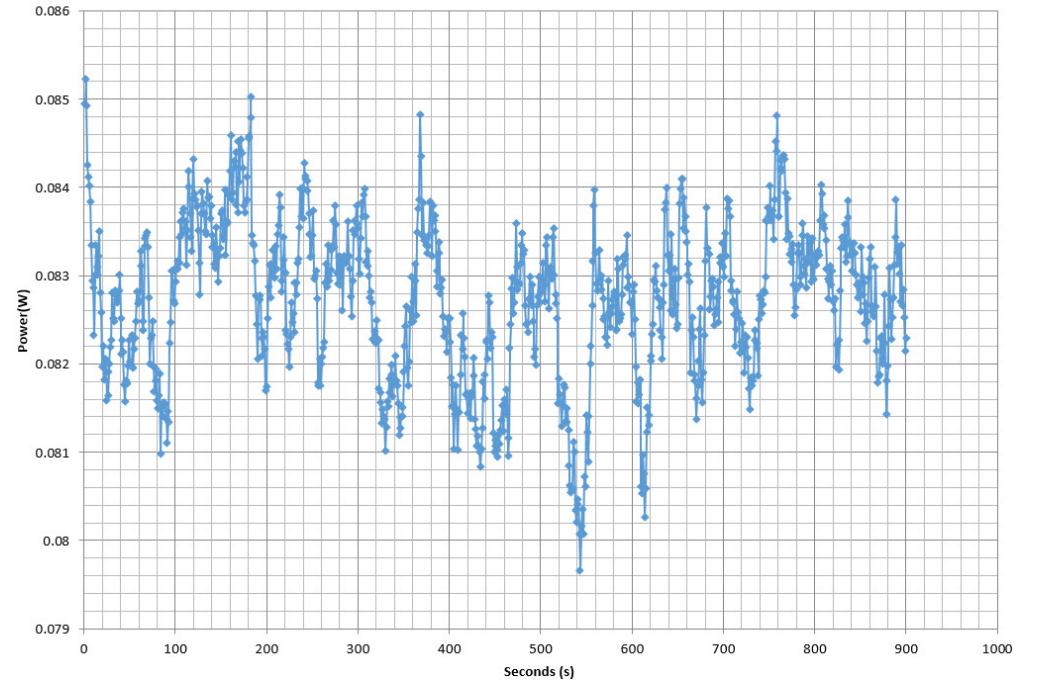
115V

Power - S1901188886 - 12/02/2019 - 13:57



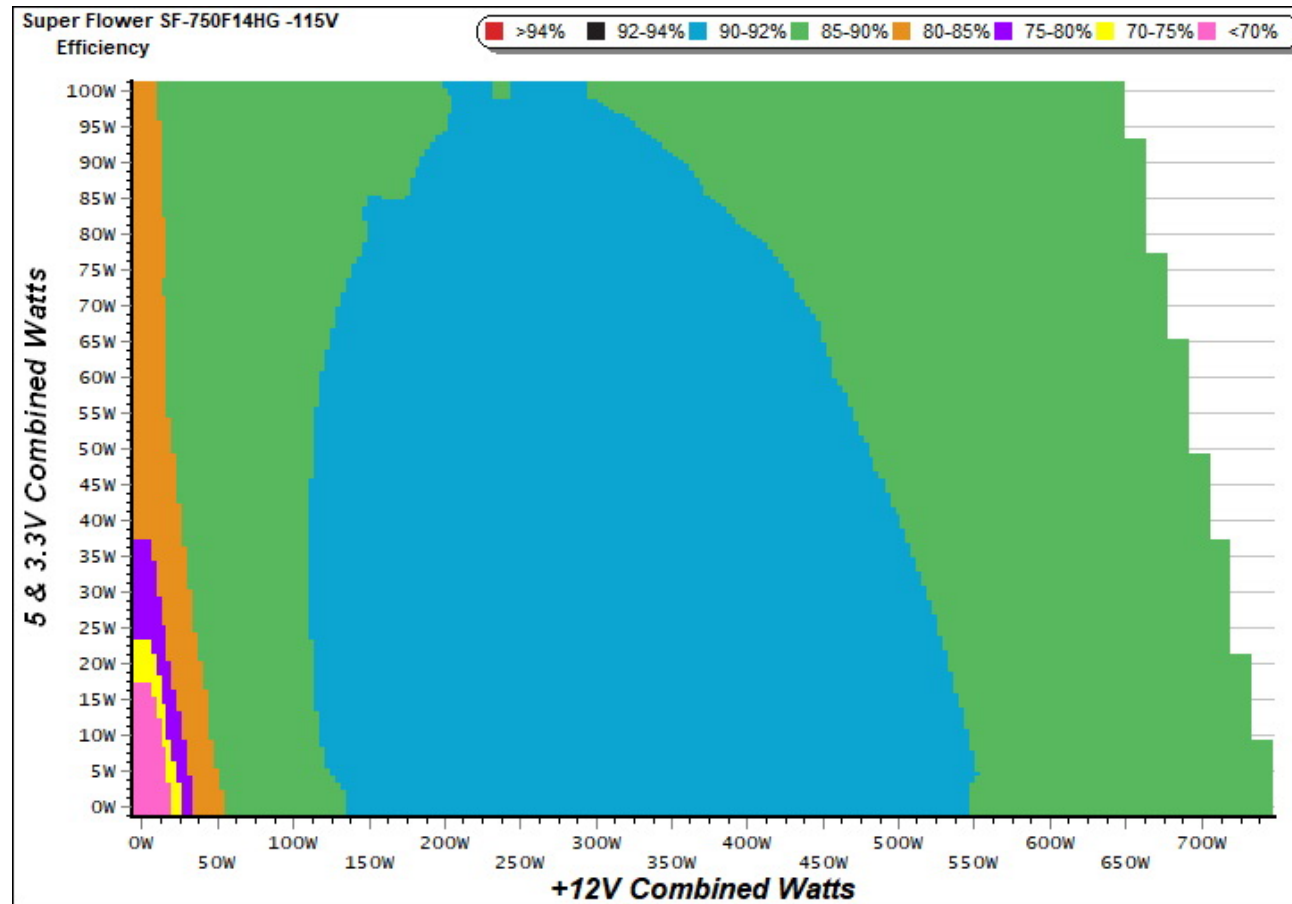
230V

Power - S1901188886 - 12/02/2019 - 13:57



Efficiency Graph

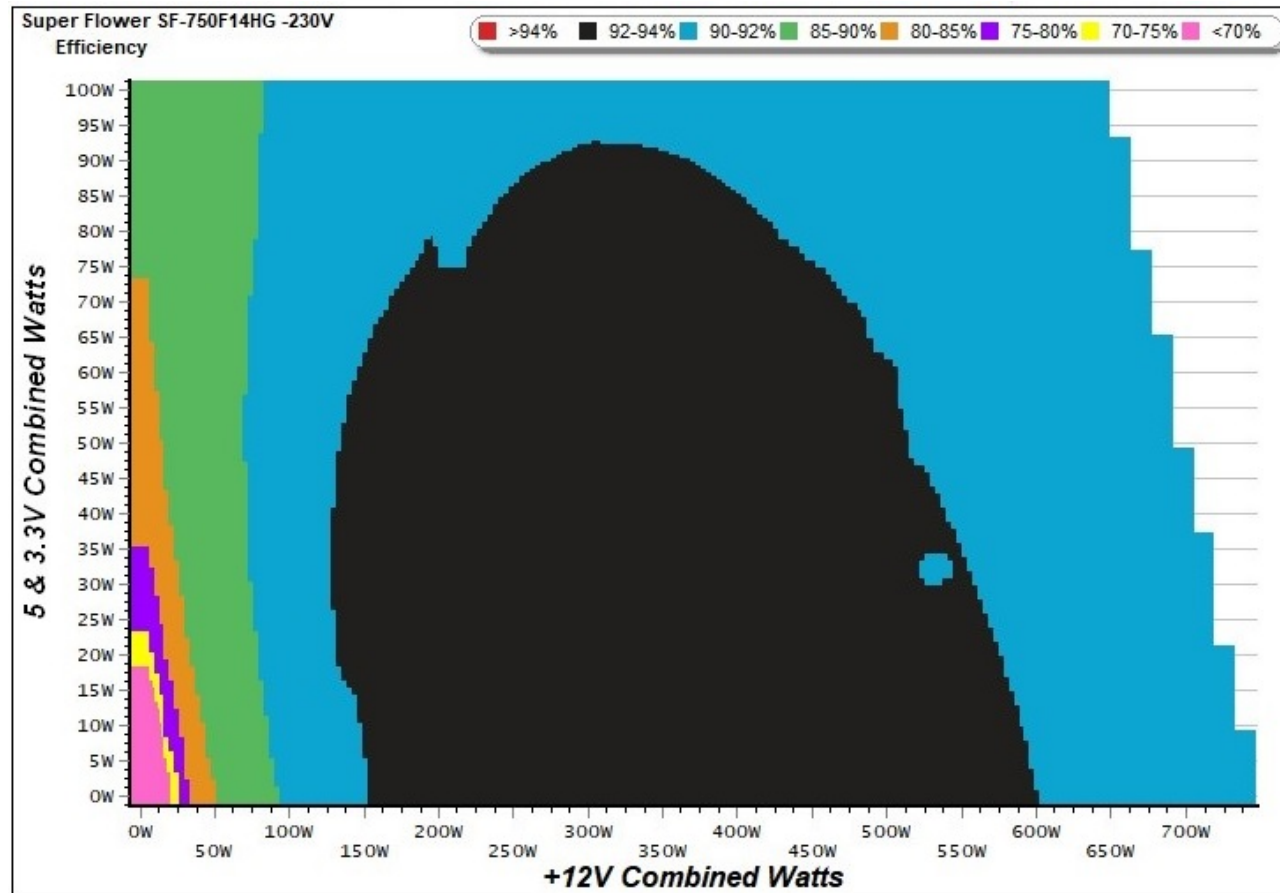
115V



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

230V

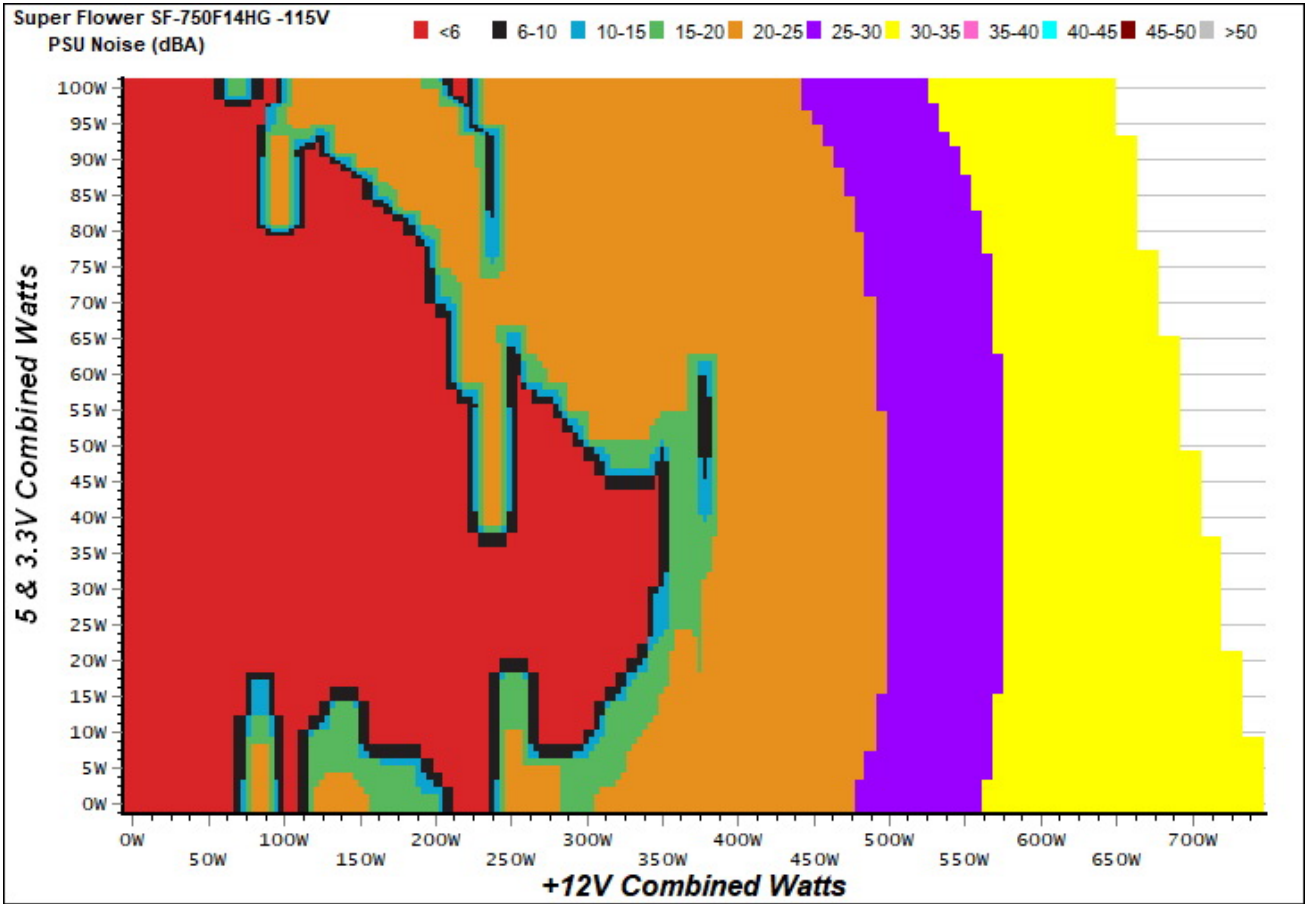


INFO

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

Noise Graph

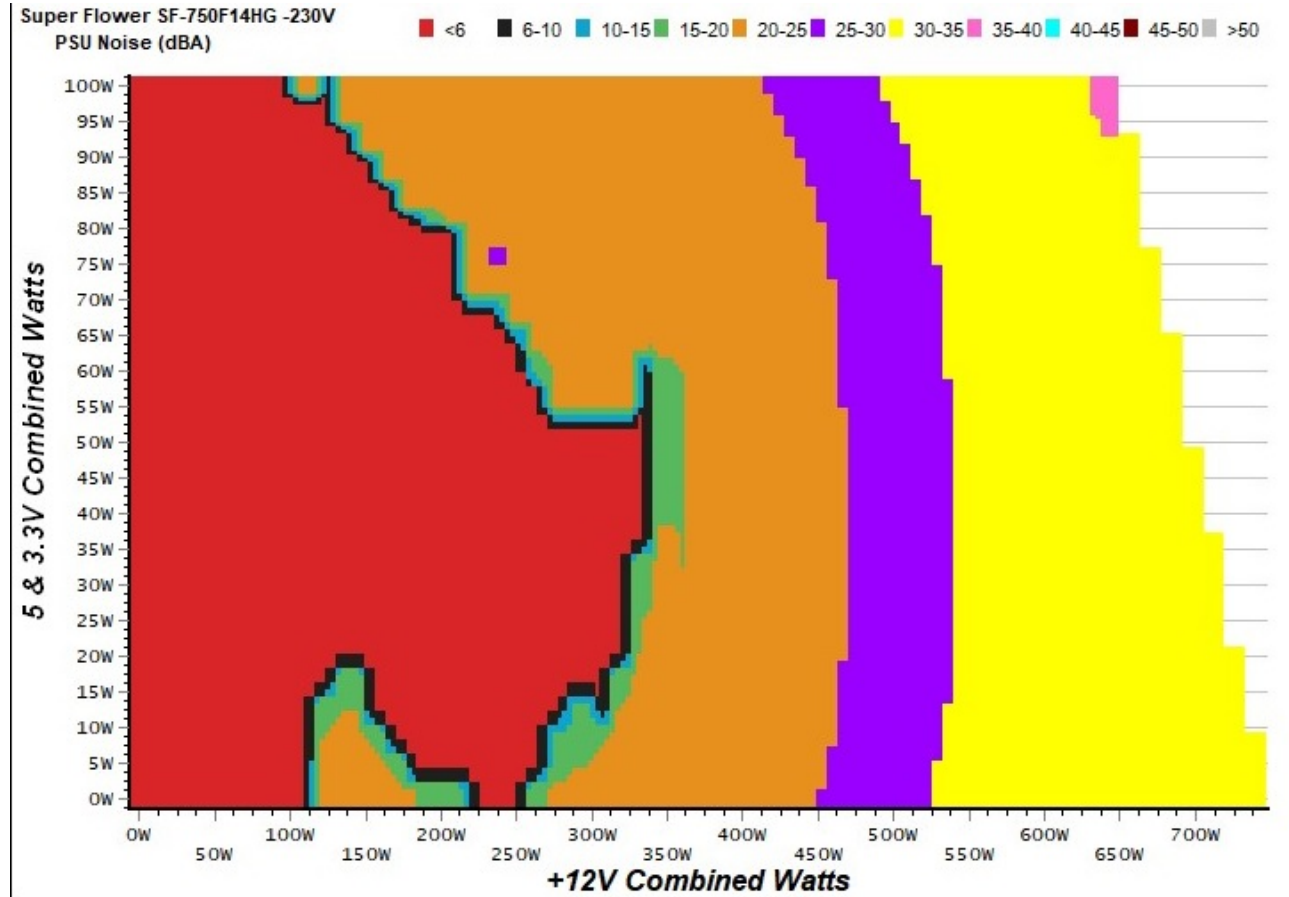
115V



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

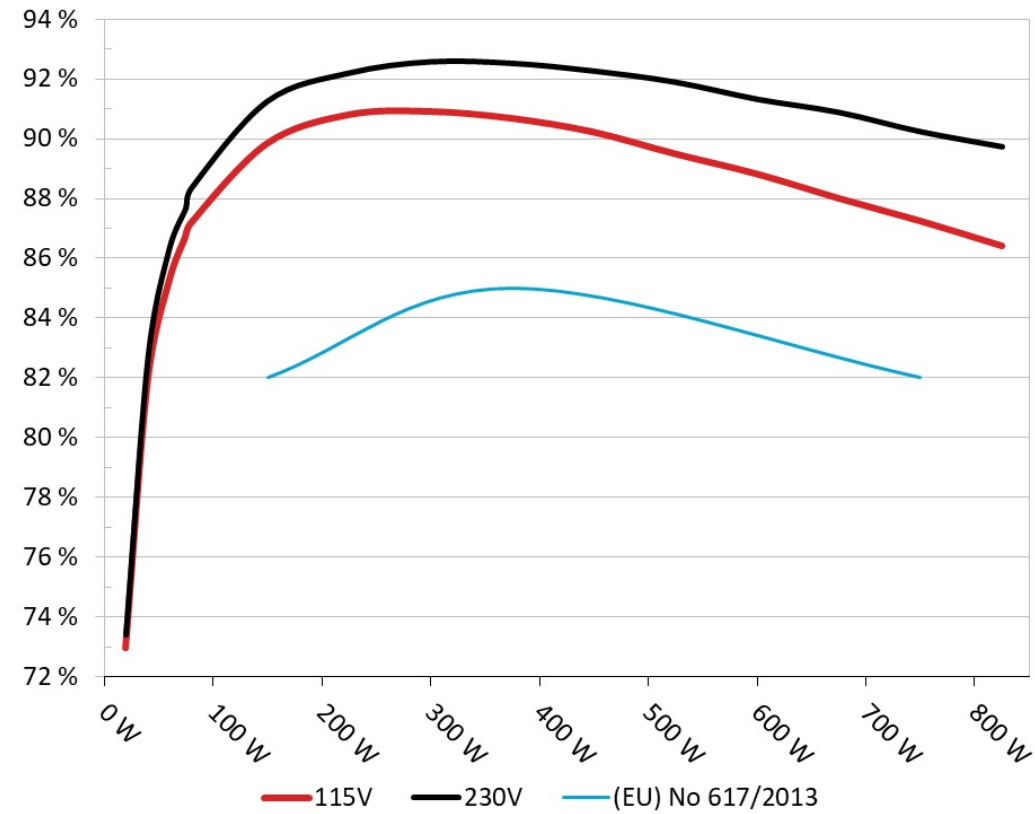
The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Indicative Performance

Efficiency under high ambient temperature

Efficiency: Super Flower SF-750F14HG

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



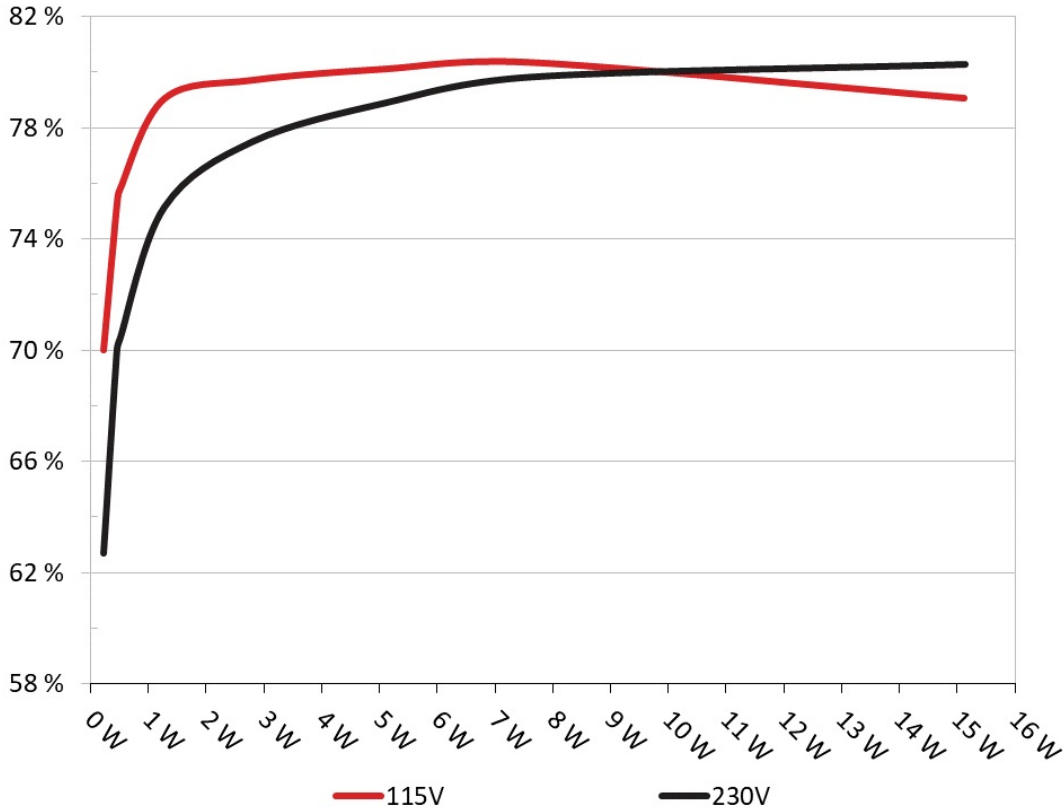
INFO

The PSU's efficiency under high ambient temperatures

5VSB Efficiency

5VSB Efficiency: Super Flower SF-750F14HG

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

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

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231	70.000%	0.020
	5.134V	0.330		115.11V
2	0.090A	0.462	75.244%	0.038
	5.133V	0.614		115.10V
3	0.550A	2.816	79.706%	0.192
	5.119V	3.533		115.10V
4	1.000A	5.106	80.107%	0.293
	5.106V	6.374		115.11V
5	1.500A	7.638	80.341%	0.363
	5.091V	9.507		115.11V
6	3.000A	15.115	79.057%	0.458
	5.038V	19.119		115.11V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.232	62.703%	0.008
	5.133V	0.370		230.25V
2	0.090A	0.462	70.000%	0.013
	5.132V	0.660		230.25V
3	0.550A	2.816	77.512%	0.071
	5.120V	3.633		230.25V
4	1.000A	5.107	78.897%	0.122
	5.106V	6.473		230.25V
5	1.500A	7.638	79.829%	0.170
	5.091V	9.568		230.25V
6	3.000A	15.134	80.282%	0.276
	5.045V	18.851		230.25V

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])
1	4.340A	1.980A	1.987A	0.981A	74.427	86.705%	0	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])
1	4.344A	1.979A	1.987A	0.981A	74.457	87.661%	0	The results above are not used in the certification process
Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])
1	1.187A	0.495A	0.480A	0.195A	19.562	72.984%	0	The results above are not used in the certification process
Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])
1	1.187A	0.495A	0.480A	0.195A	19.562	72.984%	0	The results above are not used in the certification process

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