Super Flower Leadex 3000W ATX3+

S2609199014

Lab ID SF30003473

Certification ID 263473

Test Result Report ID: 26PS3473A

Certificate Issue Date: Nov 3, 2026

230V

Scheme: ETA-EMI PSU

230V

Scheme: LAMBDA PSU

Outside Validation Scope

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 3000W ATX3+
OEM/ODM	Super Flower
Serial Number	S2609199014
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	200-240
□□□□ (Arms)	15

□□□□ (Hz)	50-60
□□□□ (W)	3000
Operating Temperature (Continuous Full Load) (°C)	0 - 50
□□	ATX12V
□□□□	Fully Modular
Warranty	10 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 86 x 202mm
Weight	2.95 kg (6.50 lb)
□□	140mm Double Ball Bearing Fan (ZIC ZFB142512D)
□□□□□	✗
Cybenetics Testing Information	
Lab ID	SF30003473
Date of receipt	Oct 20, 2026
Testing Date	Oct 27, 2026
Report Issued Date	Nov 3, 2026
□□□□□	We did not perform the OPP and 12V OCP tests because the PSU's high power capacity would require us to exceed the maximum output capabilities of our AC power sources to trigger these protection mechanisms.
Engineer Name	Efstathios Papadopoulos
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□□ (Non-accredited measurements)

□□	□□□□	□□□□□□	**Gauge**	**Cable Type**
ATX □□ 20+4 pin (590mm)	1	1	16-20AWG	Tinned Copper
4+4 pin EPS 12V □□ (700mm)	2	2	16-18AWG	Tinned Copper
6+2pin PCIe□□ (700mm)	6	6	16AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	4	4	16-26AWG	Tinned Copper

SATA□□ (550mm+105mm+105mm+105mm)	4	16	18AWG	Tinned Copper
4-pin Molex (550mm+100mm+100mm+100mm)	1	4	18AWG	Tinned Copper
AC Power Cord (1670mm) - C19 coupler	1	1	16AWG	-

Protection Features(Manufacturer)

Over Power Protection	✗
Over Current (+12V) Protection	✗
Over Temperature Protection	✓
Short Circuit Protection	✓
Surge Protection	✓
Inrush Current Protection	✓
Fan Failure Protection	✗

□□□□

□		**3.3V**	**5V**	**12V**	**5VSB**	**-12V**
□□□□	□□	20	20	249.9	3	0.5
	□	100		2998.8	15	6
□□□□□ **(W)**		3000				

Parts Description

General Data	
Manufacturer (OEM)	Super Flower
PCB Type	Double-Sided
Primary Side	
Transient Filter	7x Y caps, 4x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK256R8 (6.8 Ohm @ 25°C) & Relay
Bridge Rectifier(s)	Shindengen US30KB80R (800V, 30A @ 97°C)
APFC MOSFETs	8x Infineon FETs 65C7130 ThinPAK/8*8
APFC Boost Diode	8x Infineon IDL10G65C5 (650V, 10A @ 125°C)

Bulk Cap(s)	1x Nippon Chemi-Con (450V, 790uF, 2000h @ 105°C, KHE) 1x Rubycon (450V, 870uF, 2,000h @ 105°C, MXZ)
Main Switchers	8x Infineon IPW60R070CFD7 (650V, 20A @ 100°C, Rds(on): 0.07 Ohm)
APFC Controller	Onsemi NCP1654 1x Syncpower SPN5003 (for reduced no-load consumption)
Resonant Controller	STMicroelectronics MZQV349
Topology	Primary side: APFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	32x Infineon BSC014N04LS (40V, 100A @ 125°C, Rds(on): 1.4 mOhm)
5V & 3.3V	DC-DC Converters: 4x Infineon BSC0902NS (30V, 67A , Rds(on): 4.5mOhm) PWM Controller(s): 1x ANPEC APW7159C
Filtering Capacitors	Electrolytic: 5x Nippon Chemi-Con (@ 105°C, W) 1x Nippon Chemi-Con (@ 105°C, CST) 2x Nippon Chemi-Con (@ 105°C, KMG) 9x CapXon (2-5,000h @ 105°C, KF) 3x Rubycon (6-10000h @ 105°C, ZLH) 1x Rubycon (4-10000h @ 105°C, YXJ) Polymer: 42x Nippon Chemi-Con
Supervisor IC	JTC113 & LM324ADG
Fan Model	ZIC ZFB142512D (140mm, 12V, 0.65A, Double Ball Bearing Fan)
5VSB	
Rectifier	PFC Device Corporation PFR20L60CT (60V, 20A)
Standby PWM Controller	29604

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6
□□ ErP Lot3/6□□	✓

□□ (EU) No 617/2013□□	✓
ALPM (Alternative Low Power Mode) compatible	✓
ATX v3.1 PSU Power Excursion	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary 230V

Accredited		
□□□□ (>1450 load combinations)		93.279%
Average Noise Output (>1450 Load Combinations)		43.75dBA
PF□□□ (>1450 Load Combinations)		0.942
Efficiency With 10W (≤500W) or 2% (>500W) Load		79.823%
□□□□□□		0.1110W
Non-Accredited		
12V Ripple (Full Load)		25.88mV
5V Ripple (Full Load)		22.07mV
3.3V Ripple (Full Load)		21.55mV
5VSB Ripple (Full Load)		26.99mV
12V Load Regulation		0.94%
5V Load Regulation		0.52%
3.3V Load Regulation		0.33%
5VSB Load Regulation		3.03%
Inrush Current		69.920A
12V Transient Response (200%)		11.61V
5V Transient Response (200%)		4.964V
3.3V Transient Response (200%)		3.238V
5VSB Transient Response (200%)		4.944V
□□□□ & PG□□		24.00ms
AC Loss to PWR_OK Hold Up Time		18.60ms
PWR_OK Inactive to DC Loss Delay		5.40ms
PSU Timings: T1 (20% / 100%)	97.0ms	97.0ms
PSU Timings: T3 (20% / 100%)	121.0ms	123.0ms
OPP (0.00°C / 0.00°C)	-	-

□□□□ & PG□□

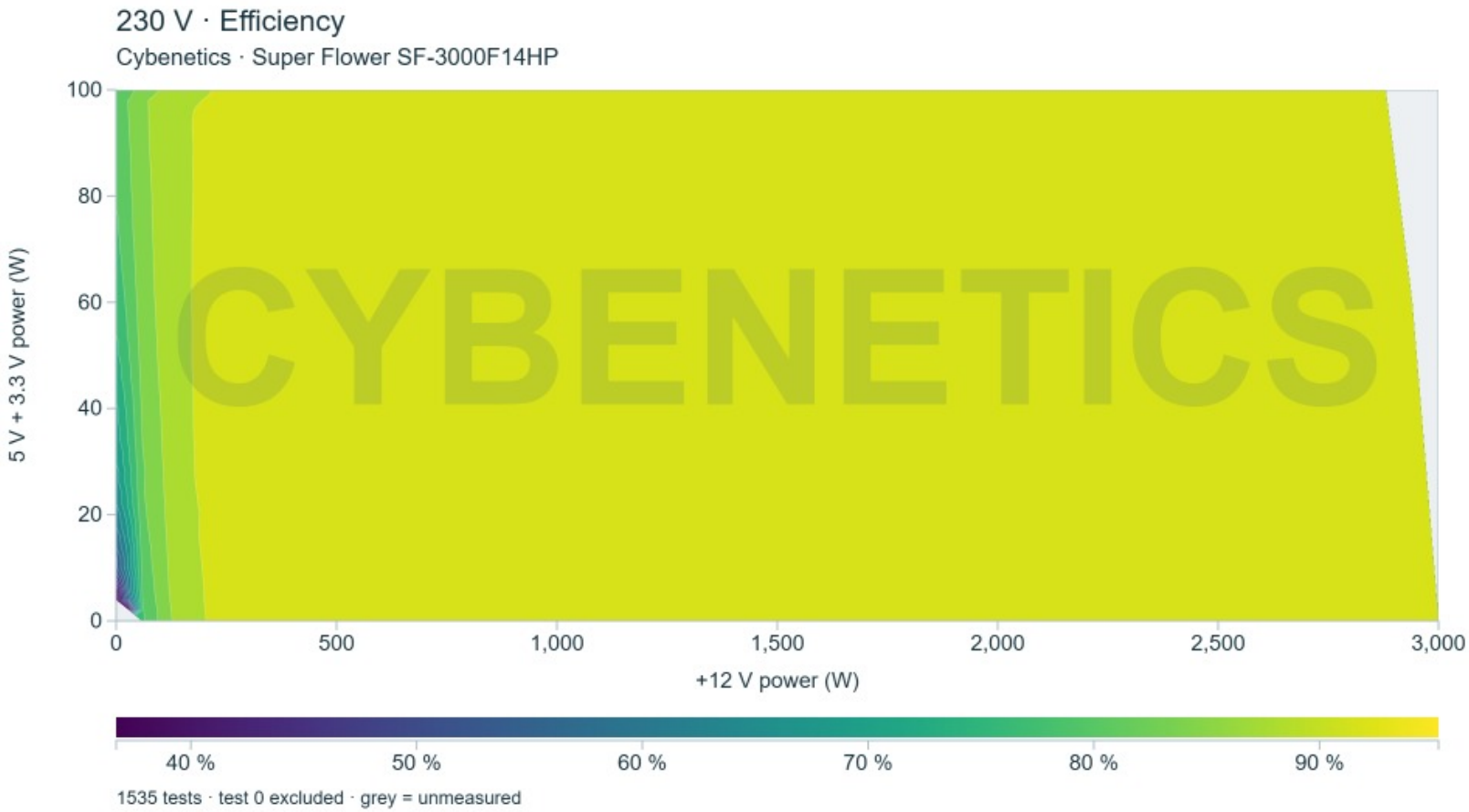
Hold-Up Time (ms)	24.0
AC Loss to PWR_OK Hold Up Time (ms)	18.6
PWR_OK Inactive to DC Loss Delay (ms)	5.4

□□□□

Tables 230V

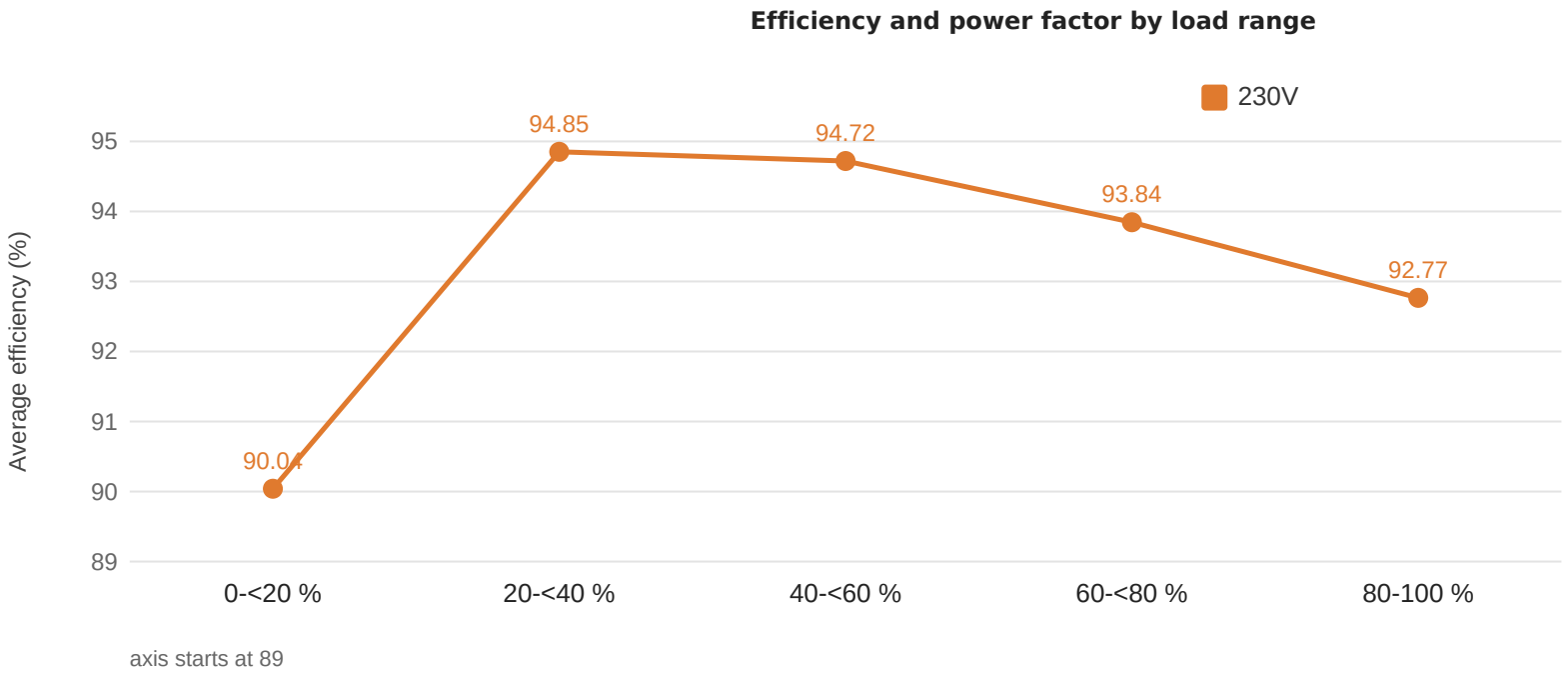
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.00 V	229.94 V	227.70 V	230.02 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.15 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.111 W	0.049 W	N/A	0.162 W	N/A	N/A
Apparent Power:	56.797 W	56.740 W	N/A	56.858 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

230V

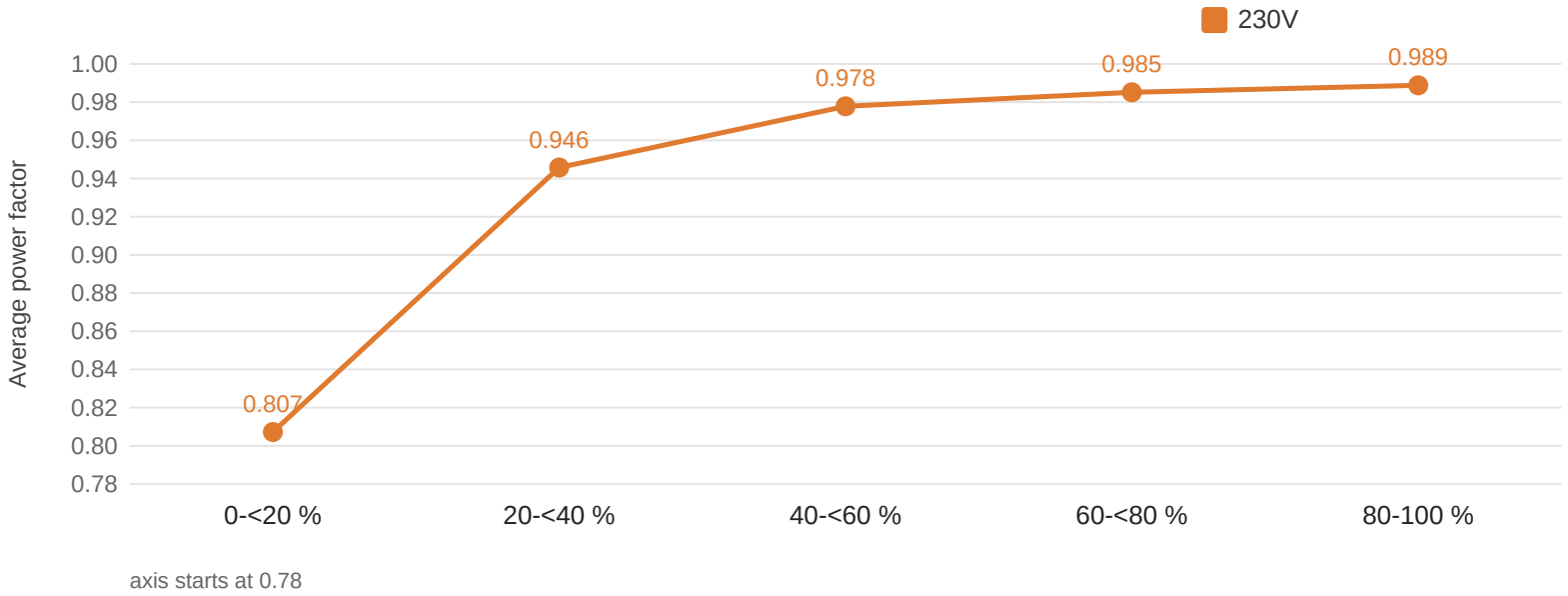


□□

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



axis starts at 89



axis starts at 0.78

Load range	Points	Efficiency 230V	PF 230V
0-<20 %	293	90.04%	0.807
20-<40 %	310	94.85%	0.946
40-<60 %	310	94.72%	0.978
60-<80 %	310	93.84%	0.985
80-100 %	312	92.77%	0.989
70-100 % (High-Load)	467	93.03%	0.988
All (published average)	1535	93.28%	0.942

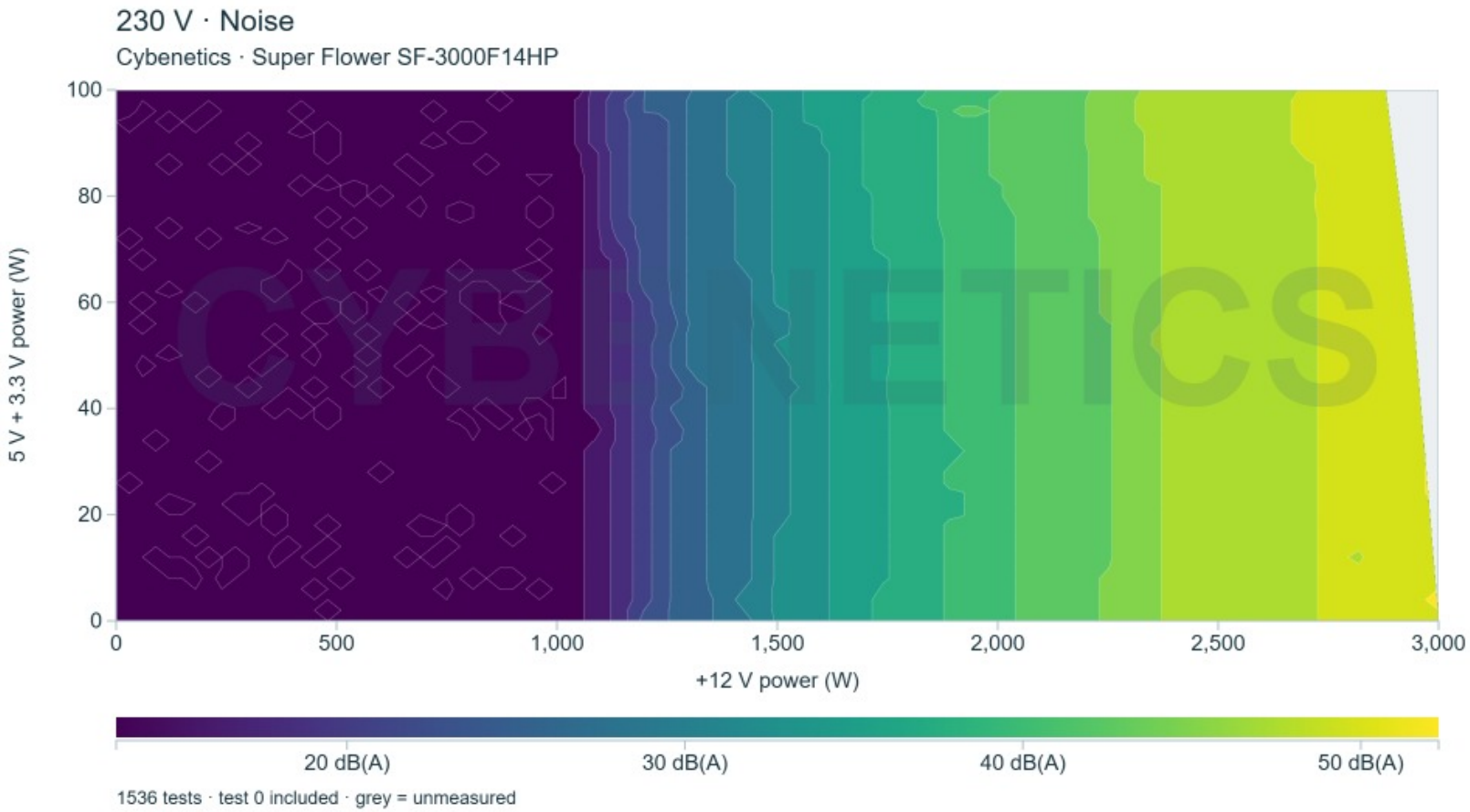
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1535 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 3000 W. These are plain averages of the valid readings, as for the ETA rating, so the ranges combined give back the published averages.

Informational. Not part of the ETA or LAMBDA rating.

□□□□□

230V



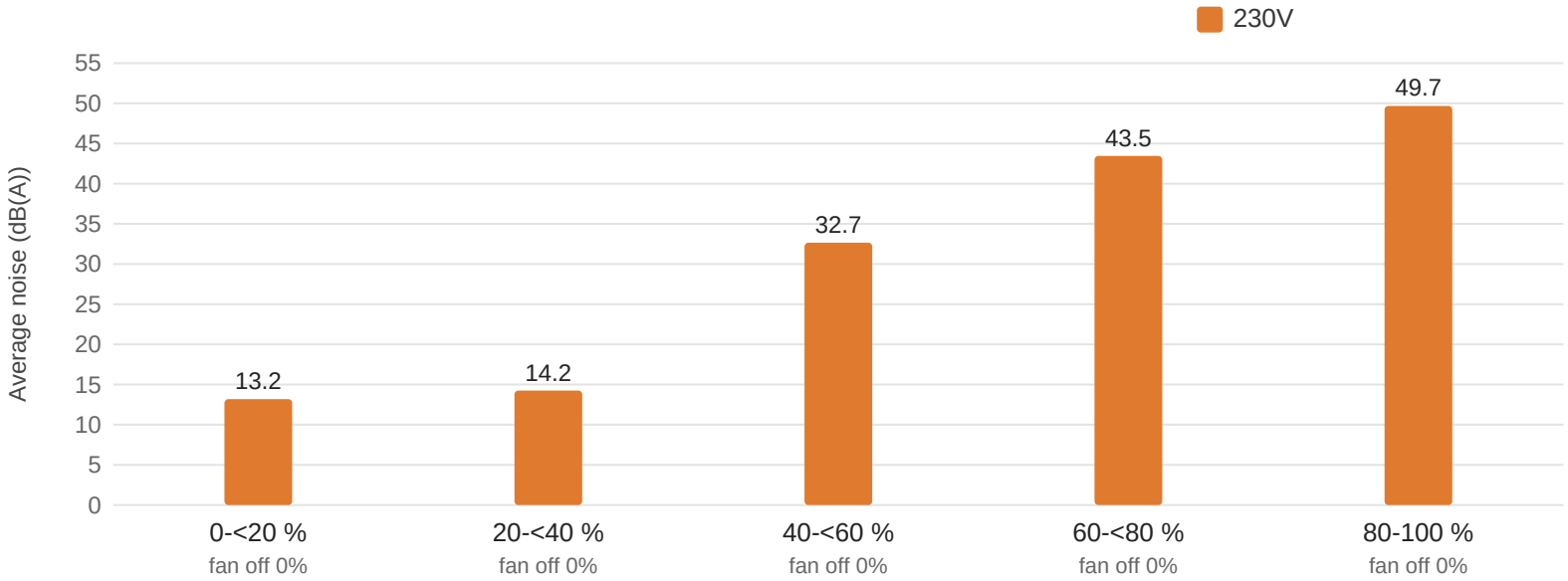
□□

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

Noise by load range

High-Load Index (70-100 % load)
Noise **48.6 dB(A)** at 230V · loudest point 52.3 dB(A)

Efficiency 93.03% · power factor 0.988 (230V)



Load range	Noise 230V avg (loudest)	Fan off 230V
0-<20 %	13.2 (13.2)	0%
20-<40 %	14.2 (18.7)	0%
40-<60 %	32.7 (39.1)	0%
60-<80 %	43.5 (47.2)	0%
80-100 %	49.7 (52.3)	0%
70-100 % (High-Load)	48.6 (52.3)	0%
All (published average)	43.8 (52.3)	0%

INFO

The average noise in five ranges of load, the share of points with the fan stopped (semi-passive operation), and the High-Load Index: the same figures for all points at 70 % of the rated output and above. Calculated from the 1535 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 3000 W. Noise is averaged on the energy scale, as for LAMBDA, so the ranges combined give back the published average noise. Each load combination is held for about five seconds; the stabilized readings at fixed loads

are under "Noise under high ambient temperature".

Informational. Not part of the ETA or LAMBDA rating.

Noise under high ambient temperature (indicative)

230V

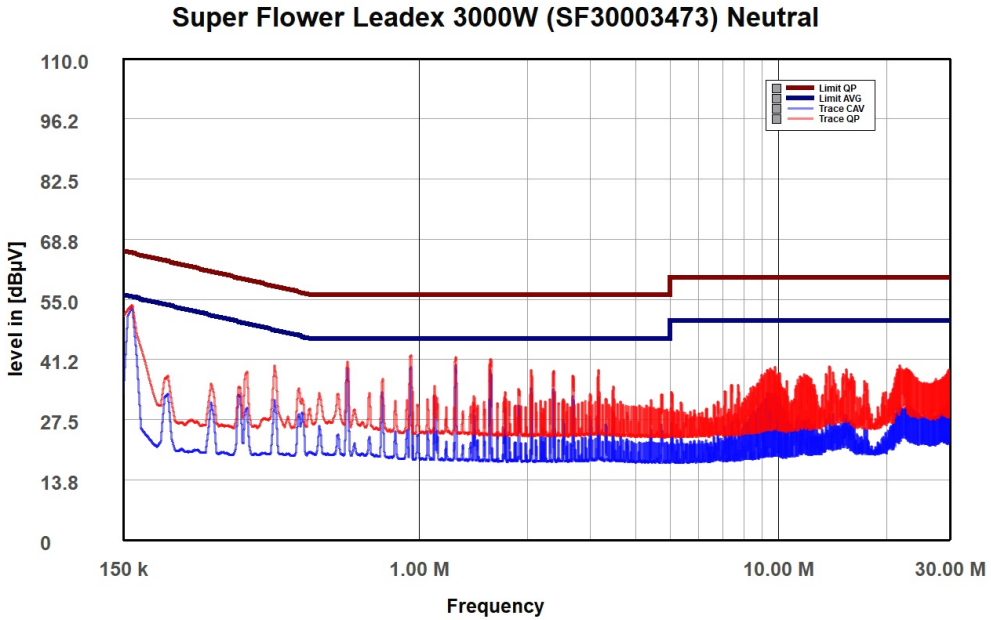
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	532 RPM · 13.2 dB(A) · 30.3 °C	549 RPM · 13.2 dB(A) · 40.5 °C	**+0.0 dB(A)**
20%	538 RPM · 13.2 dB(A) · 30.5 °C	557 RPM · 13.2 dB(A) · 40.8 °C	**+0.0 dB(A)**
50%	545 RPM · 13.2 dB(A) · 30.9 °C	1443 RPM · 39.7 dB(A) · 43.4 °C	**+26.5 dB(A)**
100%	2156 RPM · 48.5 dB(A) · 31.0 °C	3033 RPM · 55.9 dB(A) · 45.8 °C	**+7.4 dB(A)**

INFO

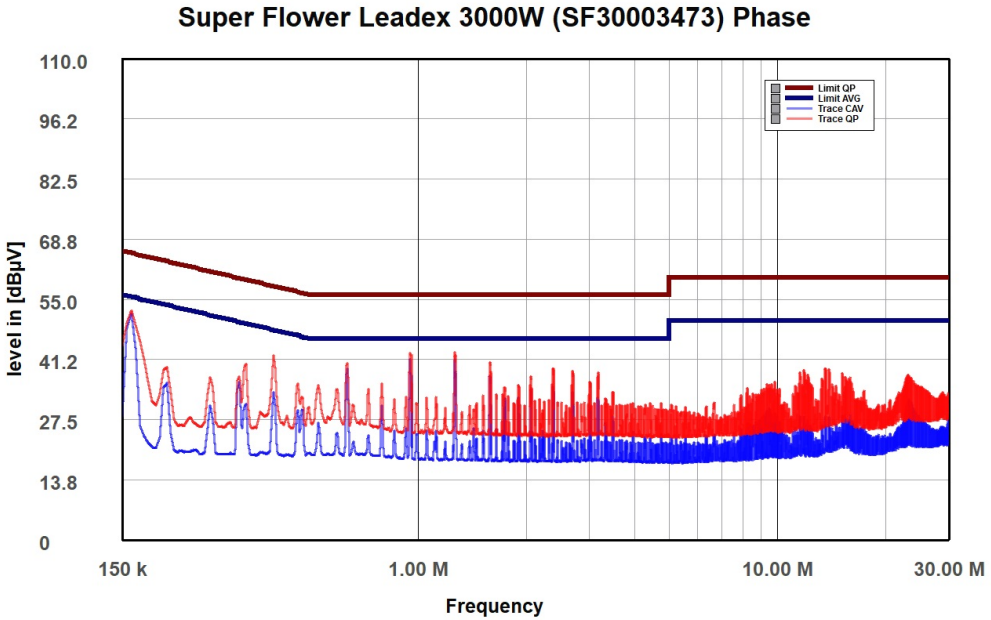
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative of how the fan behaves when it is hot. "<6.0" is the floor of our sound meter, with the fan stopped; with the fan stopped, the intake sensor can read higher than the chamber air.

Informational. Not part of the ETA or LAMBDA rating.

Conducted Emissions EN 55032 & CISPR 32

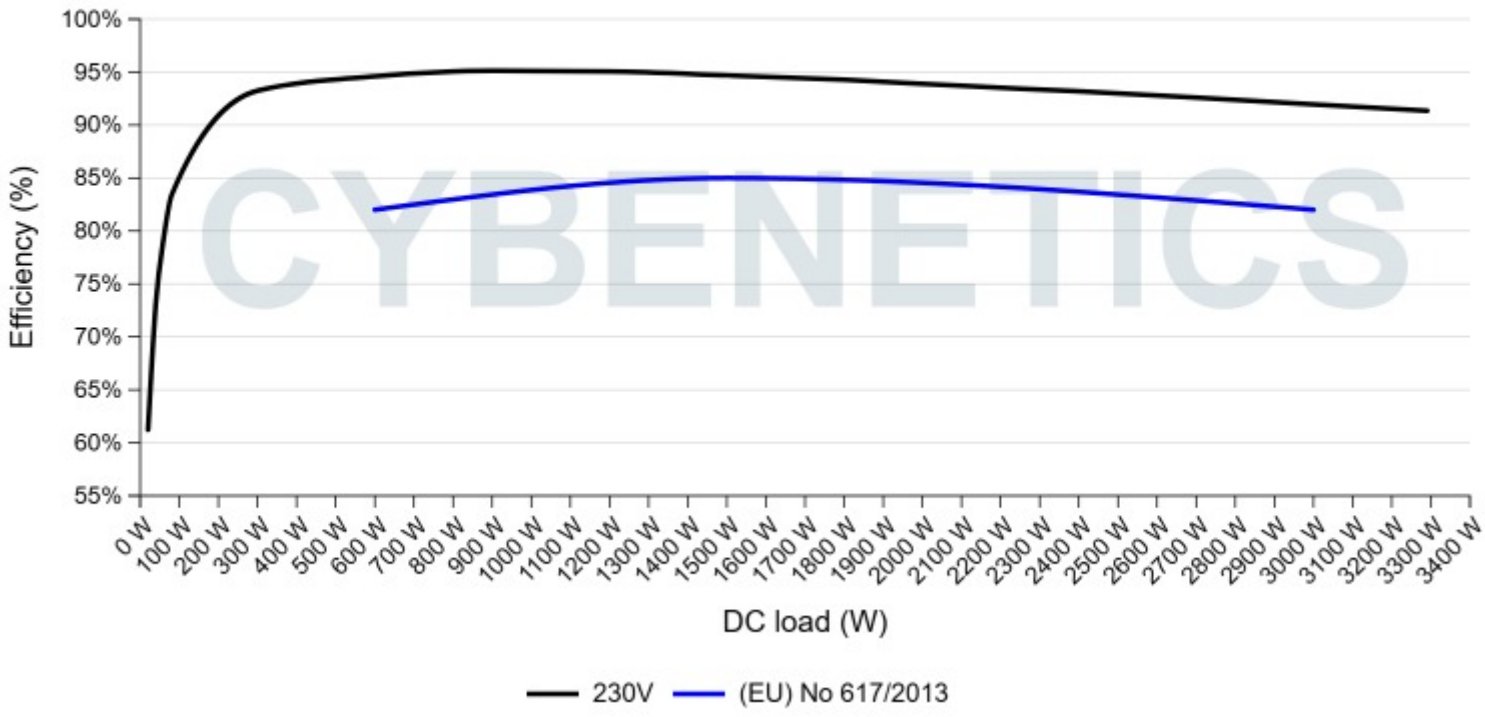


NEUTRAL



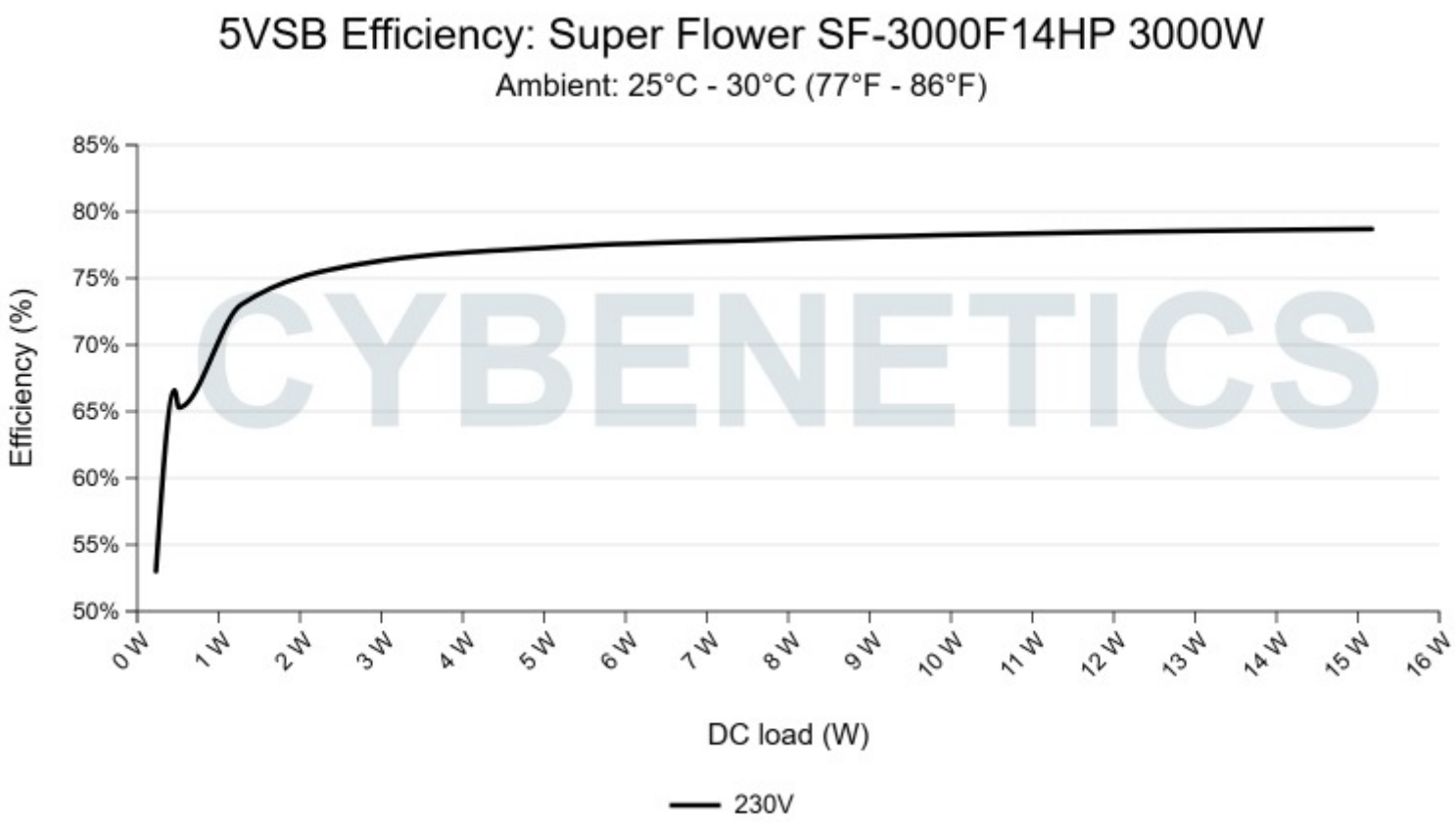
PHASE

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) 230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	**0.045A**	0.23W	53.016%	0.007
	5.107V	0.433W		229.91V

2	**0.09A**	0.459W	65.759%	0.012
	5.105V	0.698W		229.89V
3	**0.55A**	2.803W	76.126%	0.062
	5.098V	3.683W		229.89V
4	**1A**	5.091W	77.321%	0.108
	5.091V	6.584W		229.91V
5	**1.5A**	7.625W	77.874%	0.154
	5.084V	9.792W		229.9V
6	**3A**	15.171W	78.686%	0.265
	5.057V	19.28W		229.9V

Protection Features

OCP (Normal @ temperature unavailable)	12V: not performed 5V: 28.400A (142.00%), 4.988V — shut down 3.3V: 29.600A (148.00%), 3.332V — shut down 5VSB: 5.000A (166.67%), 5.000V — shut down
OCP (Hot @ temperature unavailable)	12V: not performed 5V: 27.900A (139.50%), 4.988V — shut down 3.3V: 28.700A (143.50%), 3.333V — shut down 5VSB: 4.900A (163.33%), 5.017V — shut down
OVP (per rail)	12V: 15.6V (✓) 5V: 6.076V (✓) 3.3V: 3.988V (✓)
OPP (Normal)	not performed
OPP (Hot)	not performed
OTP	✓ (155°C @ 12V Heatsink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓ Rail to rail: not tested
PWR_OK	Proper Operation
UVP (Typical Load @ 180V)	✓

UVP (No Damage @ 170V)	✓
Conducted Emissions EN 55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

Supplementary Tests (For Reference)

10-110%□□□□ 230V

□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
10%	**23.202A**	**2A**	**2A**	**1A**	302.005	93.261%	549	13.2	40.49°C	0.837
	12.078V	5.033V	3.313V	5.083V	323.826				43.27°C	229.85V
20%	**47.421A**	**3A**	**3A**	**1.2A**	603.26	94.609%	557	13.2	40.83°C	0.909
	12.065V	5.03V	3.312V	5.07V	637.637				45.54°C	229.99V
30%	**72.002A**	**3.5A**	**3.5A**	**1.4A**	903.942	95.131%	665	16.8	41.29°C	0.95
	12.051V	5.028V	3.311V	5.056V	950.208				49.47°C	229.95V
40%	**96.563A**	**4A**	**4A**	**1.6A**	1203.774	95.055%	1060	30.8	41.75°C	0.969
	12.037V	5.027V	3.31V	5.043V	1266.397				52.19°C	229.89V
50%	**120.805A**	**5A**	**5A**	**1.8A**	1503.25	94.694%	1443	39.7	43.4°C	0.979
	12.024V	5.024V	3.309V	5.03V	1587.479				53.69°C	229.83V
60%	**145.032A**	**5.998A**	**5.999A**	**2A**	1801.916	94.279%	1752	43.6	42.61°C	0.983
	12.011V	5.021V	3.307V	5.015V	1911.249				54.92°C	229.79V
70%	**169.245A**	**6.999A**	**6.999A**	**2.2A**	2100.38	93.704%	2051	47.7	43.29°C	0.986
	12.001V	5.019V	3.306V	5.001V	2241.512				56.12°C	229.94V
80%	**193.512A**	**7.999A**	**8A**	**2.3A**	2398.899	93.183%	2325	50.4	43.83°C	0.988
	11.993V	5.016V	3.305V	4.987V	2574.395				57.71°C	229.98V
90%	**218.120A**	**8.499A**	**8.499A**	**2.4A**	2696.838	92.613%	2577	52.9	44.32°C	0.989
	11.985V	5.014V	3.303V	4.974V	2911.931				59.54°C	229.93V
100%	**242.516A**	**9A**	**8.998A**	**3A**	2994.239	91.973%	3033	55.9	45.84°C	0.99
	11.976V	5.012V	3.303V	4.954V	3255.58				61.65°C	229.86V

110%	**266.831A**	**10A**	**9.999A**	**3A**	3290.946	91.355%	3029	55.9	46.35°C	0.991
	11.966V	5.009V	3.302V	4.943V	3602.383				64.05°C	229.8V
CL1	**0.118A**	**12.047A**	**12.046A**	**0A**	101.866	81.948%	963	27.0	40.22°C	0.814
	12.080V	5.015V	3.322V	5.101V	124.306				49.96°C	230.37V
CL2	**0.117A**	**19.988A**	**0A**	**0A**	101.27	80.379%	859	24.2	40.56°C	0.815
	12.083V	4.996V	3.311V	5.102V	125.992				48.72°C	230.37V
CL3	**0.116A**	**0A**	**19.998A**	**0A**	68.018	74.731%	584	13.5	40.28°C	0.756
	12.085V	5.04V	3.331V	5.102V	91.018				46.59°C	230.37V
CL4	**249.913A**	**0A**	**0A**	**0A**	2991.058	92.336%	2621	53.3	45.35°C	0.99
	11.968V	5.03V	3.298V	5.007V	3239.311				59.59°C	229.87V

The results above are not used in the certification process

20-80□□□□□ 230V

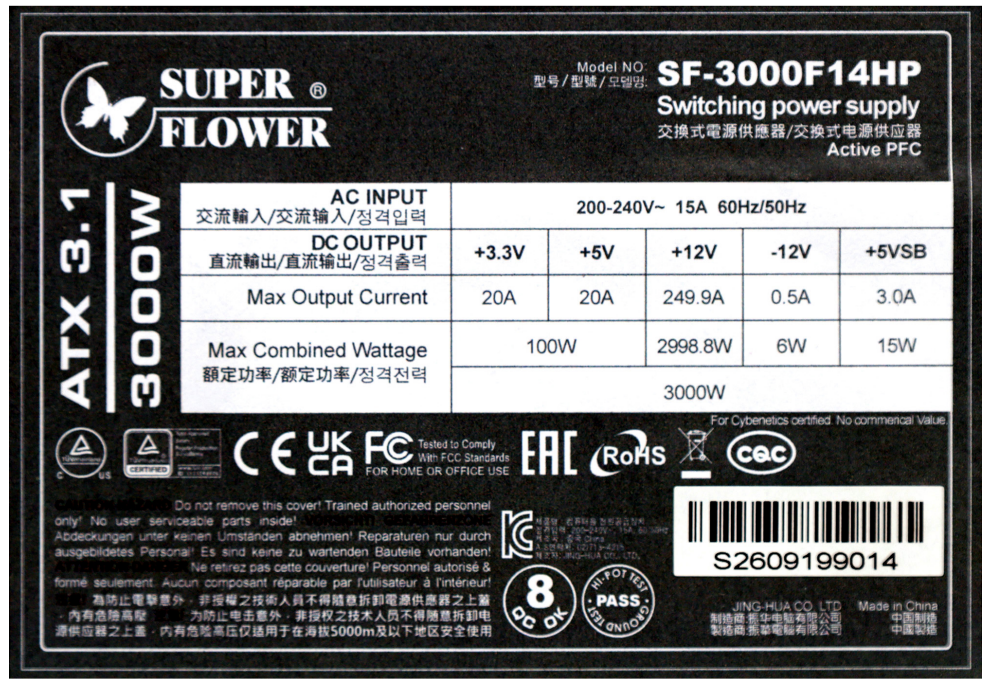
□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
20W	**1.240A**	**0.5A**	**0.5A**	**0.2A**	20.183	61.238%	546	13.2	36.86°C	0.428
	12.089V	5.038V	3.314V	5.104V	32.959				42.44°C	229.88V
40W	**2.720A**	**0.7A**	**0.7A**	**0.3A**	40.254	73.25%	545	13.2	37.66°C	0.617
	12.088V	5.037V	3.314V	5.102V	54.955				41.87°C	229.88V
61W	**4.224A**	**0.9A**	**0.9A**	**0.4A**	60.614	79.441%	544	13.2	38.94°C	0.716
	12.088V	5.036V	3.314V	5.099V	76.301				41.8°C	229.88V
81W	**5.704A**	**1.1A**	**1.1A**	**0.5A**	80.682	83.418%	545	13.2	39.38°C	0.77
	12.087V	5.035V	3.313V	5.097V	96.721				41.59°C	229.87V

The results above are not used in the certification process

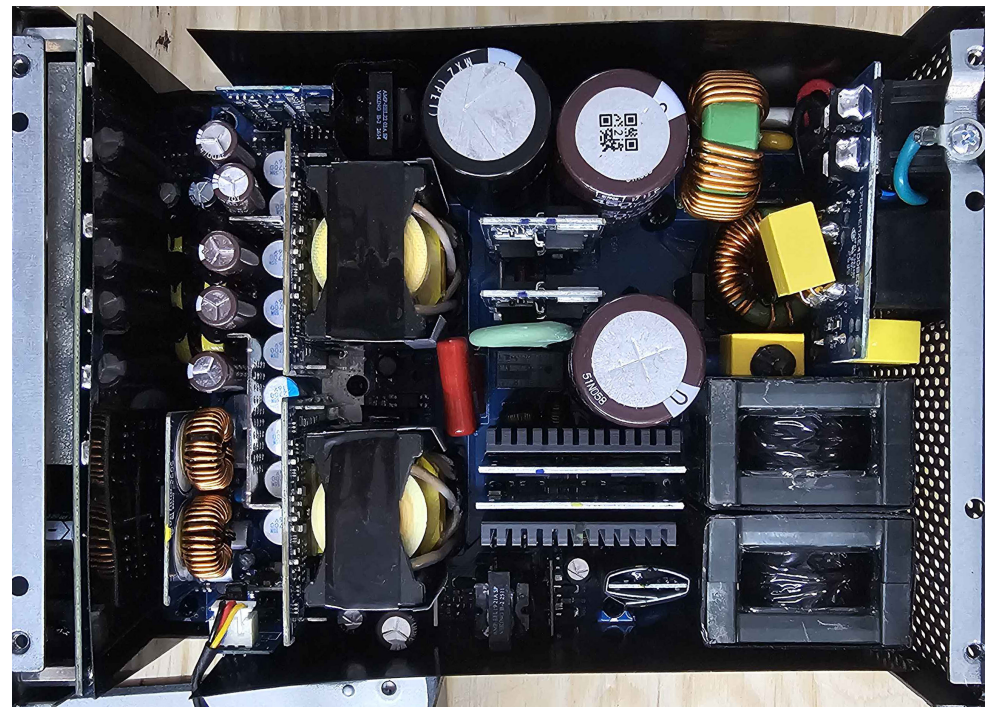
□□□□ 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	23.99mV	17.71mV	17.80mV	14.21mV	Pass
20% Load	24.34mV	18.68mV	18.83mV	14.37mV	Pass
30% Load	23.07mV	19.09mV	19.85mV	15.19mV	Pass
40% Load	23.58mV	17.81mV	17.85mV	14.73mV	Pass









Test	12V	5V	3.3V	5VSB	Pass/Fail
50% Load	26.08mV	18.99mV	19.03mV	19.09mV	Pass
60% Load	24.60mV	19.30mV	19.75mV	20.42mV	Pass
70% Load	25.88mV	20.58mV	21.96mV	20.32mV	Pass
80% Load	25.16mV	20.07mV	19.55mV	18.63mV	Pass
90% Load	27.57mV	21.20mV	21.60mV	21.50mV	Pass
100% Load	25.88mV	22.07mV	21.55mV	26.99mV	Pass
110% Load	24.60mV	22.32mV	22.78mV	22.17mV	Pass
Crossload1	20.51mV	17.86mV	18.26mV	14.37mV	Pass
Crossload2	21.69mV	22.74mV	18.37mV	14.16mV	Pass
Crossload3	20.36mV	17.45mV	18.57mV	13.80mV	Pass
Crossload4	24.19mV	21.35mV	21.65mV	23.55mV	Pass

The results above are not used in the certification process

Super Flower Leadex 3000W ATX3+

Top side

Power specifications label

Fan

PSU Internals

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
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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