SAMA 先马

SAMA G850

Serial Number XMGB08525060300131

Lab ID SM85003002

Certification ID 253002

Test Result Report ID: 25PS3002A

Certificate Issue Date: Oct 23, 2025

Scheme: ETA-EMI PSU

115V



230V



Scheme: LAMBDA PSU

115V



230V





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	SAMA
Model	G850
OEM/ODM	RSY
Serial Number	XMGB08525060300131
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	6-10

Rated Frequency (Hz)	50-60
Rated Power (W)	850
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	140mm Fluid Dynamic Bearing Fan (S1402512HH)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	SM85003002
Date of receipt	Oct 8, 2025
Testing Date	Oct 21, 2025
Report Issued Date	Oct 23, 2025
Engineer Name	Okeke Ugochukwu Onyedikachukwu
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Modular Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	Cable Type
ATX connector 24 pin (600mm)	1	1	18-22AWG	Tinned Copper
4+4 pin EPS12V (700mm)	2	2	18AWG	Tinned Copper
6+2 pin PCIe (550mm+150mm)	1	2	18AWG	Tinned Copper
6+2 pin PCIe (600mm)	1	1	18AWG	Tinned Copper
12+4 pin PCIe (600mm) (600W)	1	1	16-24AWG	Tinned Copper
SATA (470mm+150mm+150mm)/ 4-pin Molex (+150mm)	2	6 / 2	18AWG	Tinned Copper
AC Power Cord (1360mm) - C13 coupler	1	1	18AWG	-

Protection Features(Manufacturer)

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

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	70.8	3	0.4
	Watts	100		849.6	15	4.8
Total Max. Power (W)		850				

Parts Description

Manufacturer (OEM)	RSY
PCB Type	Double-Sided
Transient Filter	6x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK-0512 (5 Ohm @ 25°C) & Relay
Brigde Rectifier	1x
APFC MOSFETs	2x Maple Semi SLF65R170E7 (650V, 12A @ 100°C, Rds(on): 170mOhm)
APFC Boost Diode	Maplesemi MSP08065G1 (650V, 8A @ 150°C)
Bulk Cap(s)	Rubycon (420V, 390uF, 2000h @ 105°C, MXH)
Main Switchers	4x Shenzhen SIF13N50C (500V, 8A @ 100°C, Rds(on): 0.55Ohm)
APFC Controller	Texas Instrument UCC28180 & Sync Power SPN5003 (reducing no load consumption)

Resonant Controller	Texas Instrument UCC25600
Topology	Primary side: APFC, Half-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
+12V MOSFETs	4x Huayi Microelectronics HYG020N04NR1P (40V, 160A @ 100°C, Rds(on): 2.5mOhm)
5V & 3.3V	DC-DC Converters: 4x Infineon BSC0906NS (30V, 40A @ 100°C, Rds(on): 4.5mOhm) PWM Controller(s): 2x ANPEC APW7164
Filtering Capacitors	Electrolytic: 11x Teapo (2-6,000 @ 105°C, SY) 4x Teapo (1-3,000 @ 105°C, SC) 14x Teapo (1-5,000 @ 105°C, SJ) Polymer: 7x NJcon
Supervisor IC	INFSitronix IN1S313I-SAG
Fan Model	Globe Fan RL4Z S140512HH (140mm, 12V, 0.5A, Fluid Dynamic Bearing Fan)
Rectifier(s)	PingWei PS10U60S (60V, 10A)
Standby PWM Controller	Shenzhen Foster Semiconductor FIR4N70BLG (700V, 2.5A @ 100°C, Rds(on): 3mOhm)

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	✓
ALPM (Alternative Low Power Mode) compatible	✓
ATX v3.1 PSU Power Excursion	✓

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	89.301%
Average Noise Output (>1450 Load Combinations)	26.28dBA
Average PF (>1450 Load Combinations)	0.985
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.543%
Standby Power Consumption	0.0545W
Non-Accredited	
12V Ripple (Full Load)	24.79mV
5V Ripple (Full Load)	10.57mV
3.3V Ripple (Full Load)	13.86mV
5VSB Ripple (Full Load)	9.50mV
12V Load Regulation	1.00%
5V Load Regulation	1.72%
3.3V Load Regulation	3.79%
5VSB Load Regulation	4.48%
Inrush Current	53.570A

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.242%
Average Noise Output (>1450 Load Combinations)	25.79dBA
Average PF (>1450 Load Combinations)	0.946
Efficiency With 10W (≤500W) or 2% (>500W) Load	72.097%
Standby Power Consumption	0.1375W
Non-Accredited	
12V Ripple (Full Load)	25.43mV
5V Ripple (Full Load)	14.41mV
3.3V Ripple (Full Load)	13.02mV

5VSB Ripple (Full Load)		9.32mV
12V Load Regulation		1.11%
5V Load Regulation		2.09%
3.3V Load Regulation		4.14%
5VSB Load Regulation		4.74%
Inrush Current		79.730A
12V Transient Response (200%)		11.29V
5V Transient Response (200%)		4.907V
3.3V Transient Response (200%)		3.169V
5VSB Transient Response (200%)		4.889V
Hold-Up Time & PWR_OK Signal		16.50ms
AC Loss to PWR_OK Hold Up Time		15.00ms
PWR_OK Inactive to DC Loss Delay		1.50ms
PSU Timings: T1 (20% / 100%)	116.0ms	117.0ms
PSU Timings: T3 (20% / 100%)	126.0ms	126.0ms
12V OCP (27.7°C / 46.0°C)	106.40A (150.28%), 11.938V	91.00A (128.53%), 11.977V
5V OCP (27.7°C / 46.0°C)	34.6A (173.00%), 5.018V	34.6A (173.00%), 5.009V
3.3V OCP (27.7°C / 46.0°C)	34.9A (174.50%), 3.293V* Didn't shut down	33.8A (169.00%), 3.294V
5VSB OCP (27.7°C / 46.0°C)	4.3A (143.33%), 4.93V	4.2A (140.00%), 4.935V
OPP (28.95°C / 45.35°C)	145.65%	125.94%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	16.5
AC Loss to PWR_OK Hold Up Time (ms)	15
PWR_OK Inactive to DC Loss Delay (ms)	1.5

Vampire Power

Tables

115V

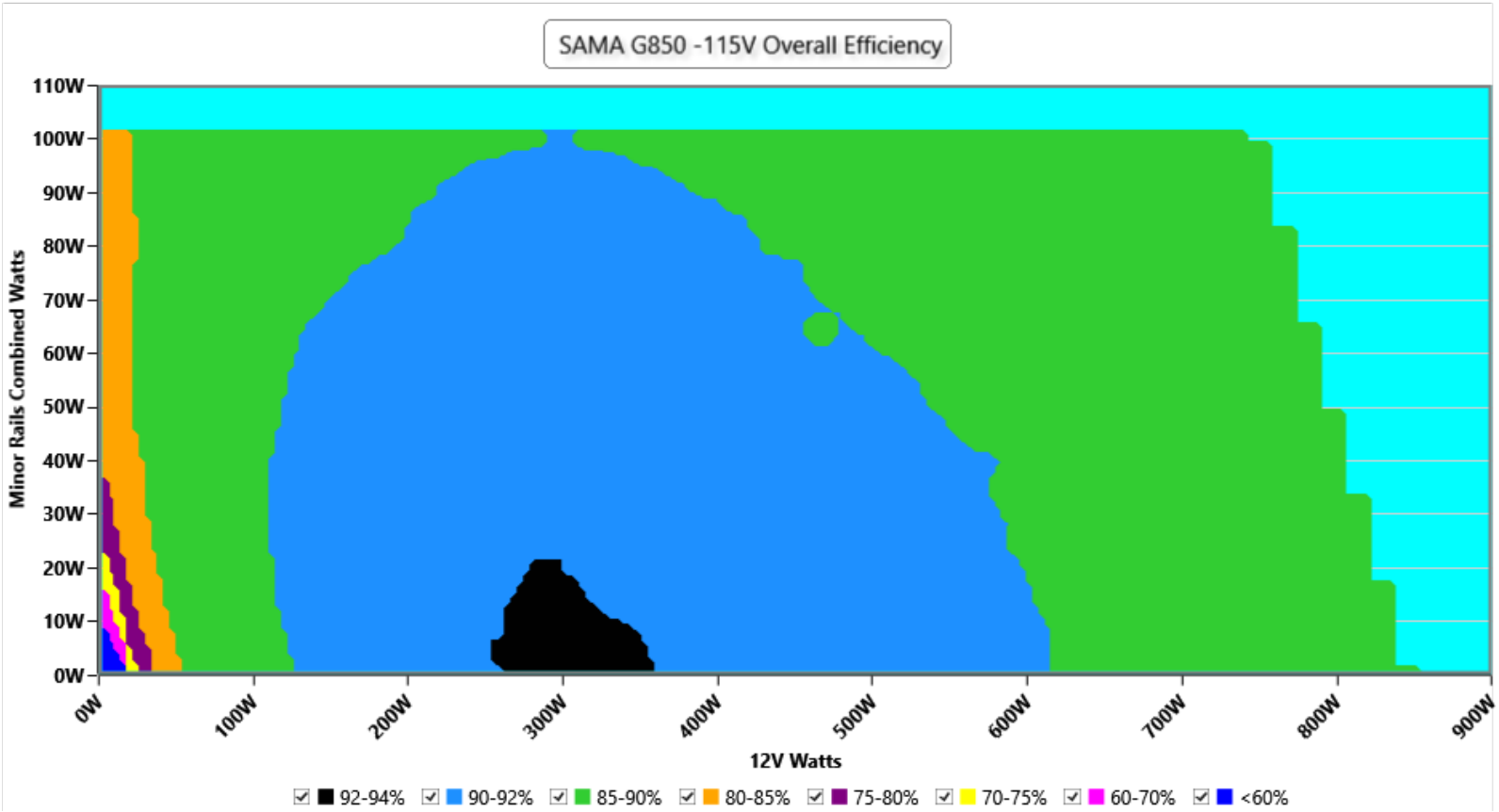
Detailed Results Average Min Limit Min Max Limit Max Result Mains Voltage RMS: 115.03 V 115.00 V 113.85 V 115.10 V 116.15 V PASS Mains Frequency: 60.00 Hz 59.99 Hz 59.40 Hz 60.01 Hz 60.60 Hz PASS Mains Voltage CF: 1.416 1.415 1.340 1.417 1.490 PASS Mains Voltage THD: 0.13 % 0.11 % N/A 0.16 % 2.00 % PASS Real Power: 0.054 W 0.012 W N/A 0.095 W N/A N/A Apparent Power: 8.838 W 8.818 W N/A 8.859 W N/A N/A Power Factor: 0.007 N/A N/A N/A N/A N/A

230V

Detailed Results Average Min Limit Min Max Limit Max Result Mains Voltage RMS: 230.01 V 229.99 V 227.70 V 230.05 V 232.30 V PASS Mains Frequency: 50.00 Hz 50.00 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: 0.137 W 0.098 W N/A 0.180 W N/A N/A Apparent Power: 28.893 W 28.861 W N/A 28.925 W N/A N/A Power Factor: 0.004 N/A N/A N/A N/A N/A

Efficiency Graph

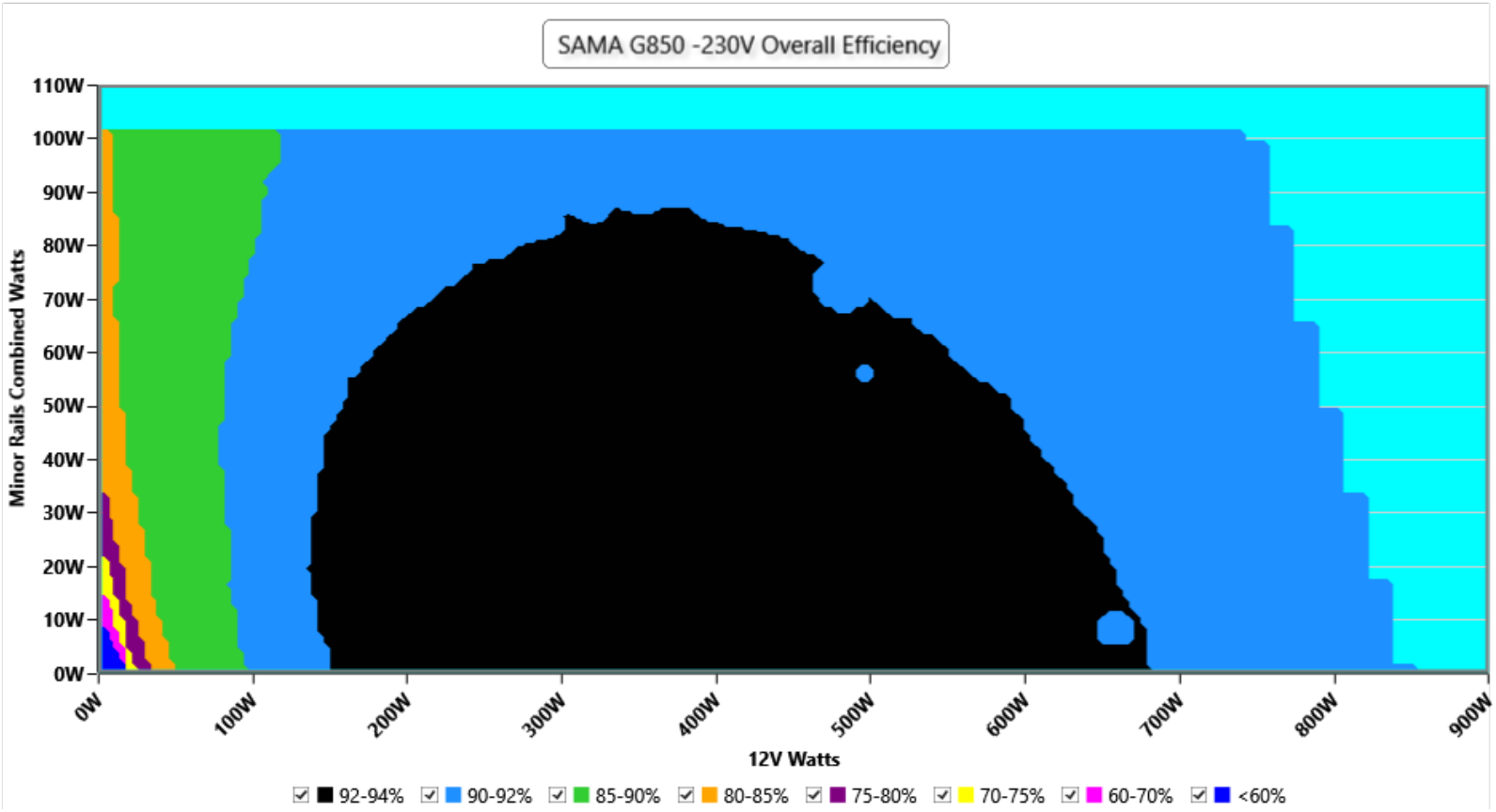
115V



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

230V

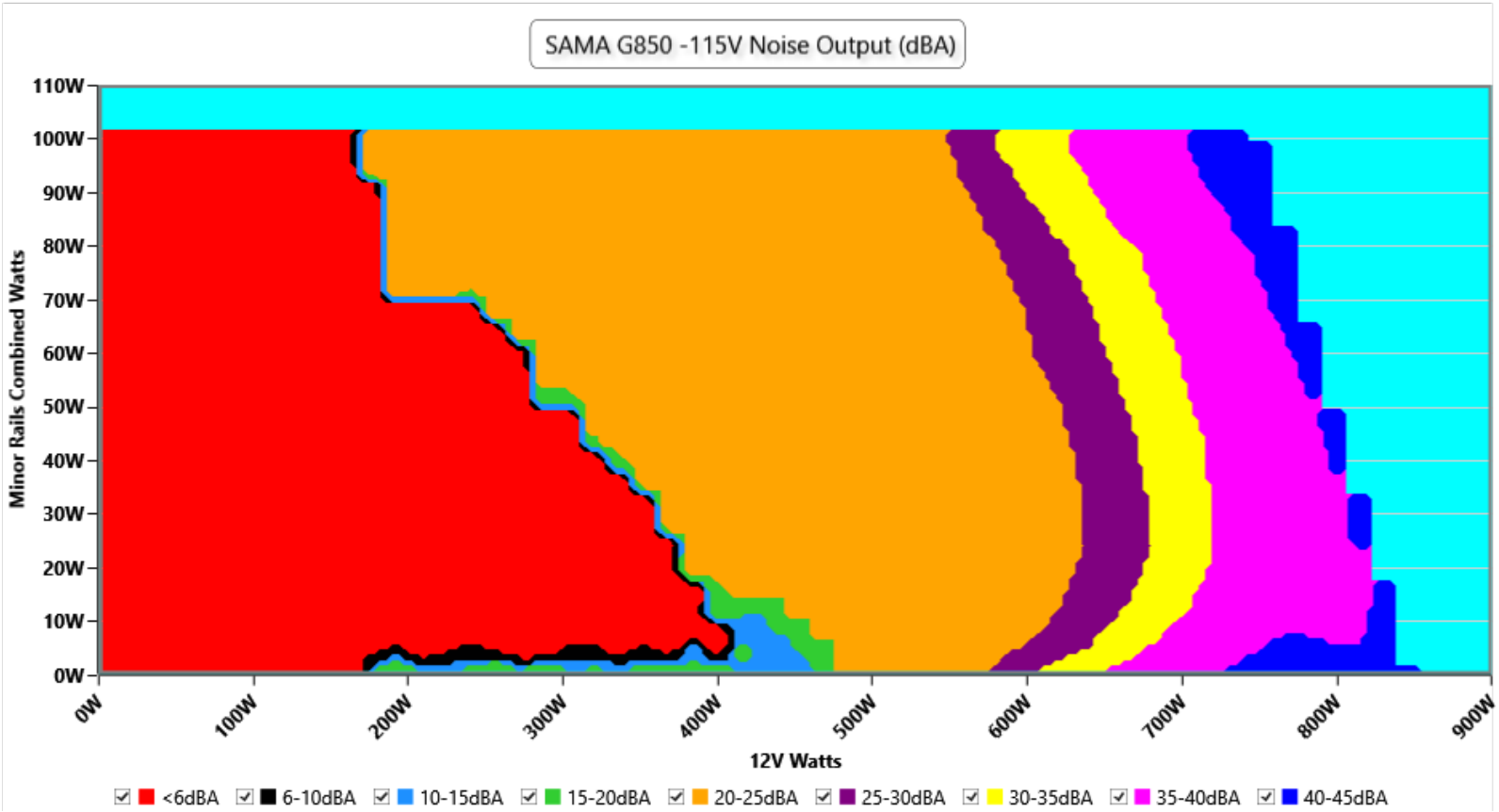


INFO

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

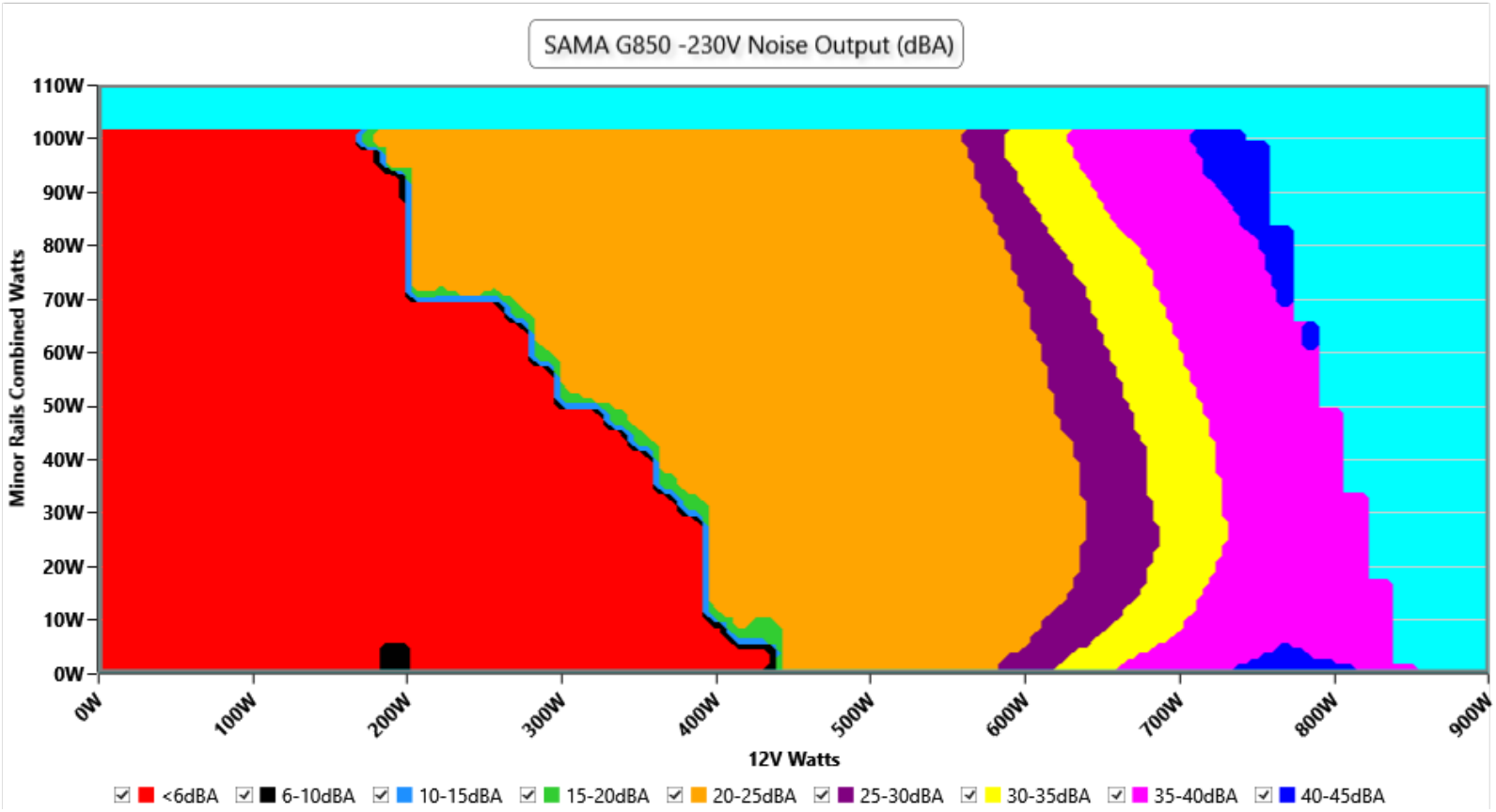
115V



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

Noise under high ambient temperature (indicative)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 38.5 °C	0 RPM · <6.0 dB(A) · 51.3 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 40.3 °C	0 RPM · <6.0 dB(A) · 53.9 °C	fan off in both
50%	836 RPM · 21.4 dB(A) · 30.1 °C	854 RPM · 21.8 dB(A) · 42.1 °C	**+0.4 dB(A)**
100%	1580 RPM · 40.8 dB(A) · 30.1 °C	1903 RPM · 46.3 dB(A) · 45.5 °C	**+5.5 dB(A)**

230V

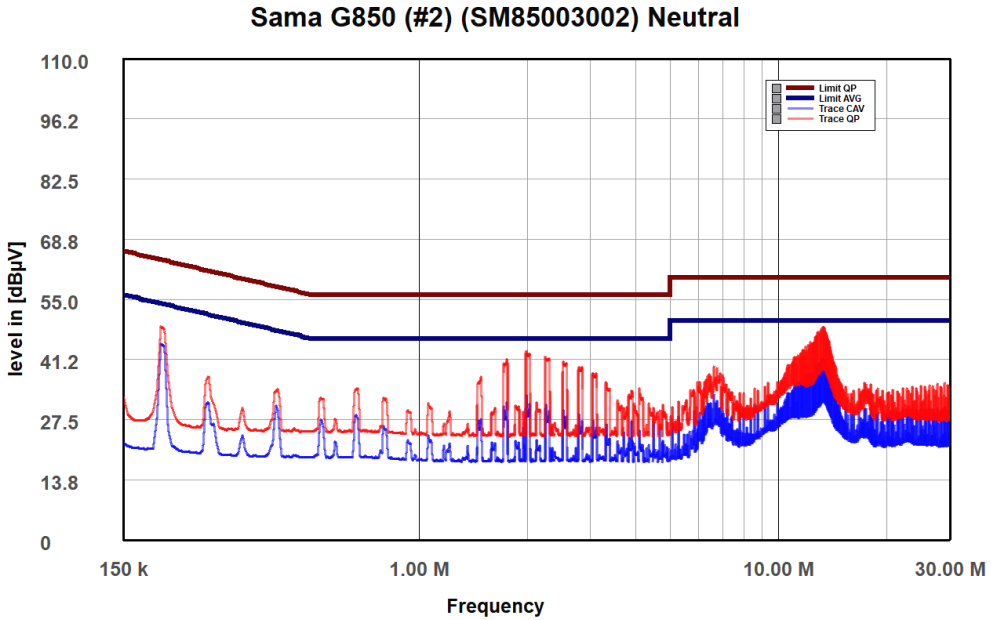
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 36.7 °C	0 RPM · <6.0 dB(A) · 50.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 37.9 °C	0 RPM · <6.0 dB(A) · 50.3 °C	fan off in both
50%	837 RPM · 21.5 dB(A) · 30.1 °C	852 RPM · 21.8 dB(A) · 42.1 °C	**+0.3 dB(A)**
100%	1512 RPM · 38.8 dB(A) · 30.3 °C	1899 RPM · 46.3 dB(A) · 45.8 °C	**+7.5 dB(A)**

INFO

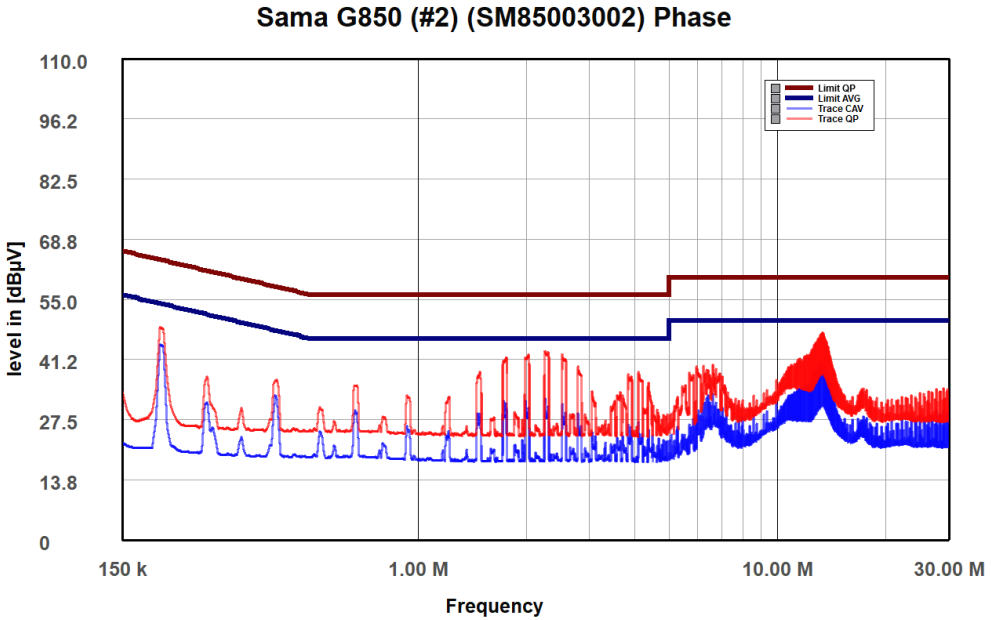
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



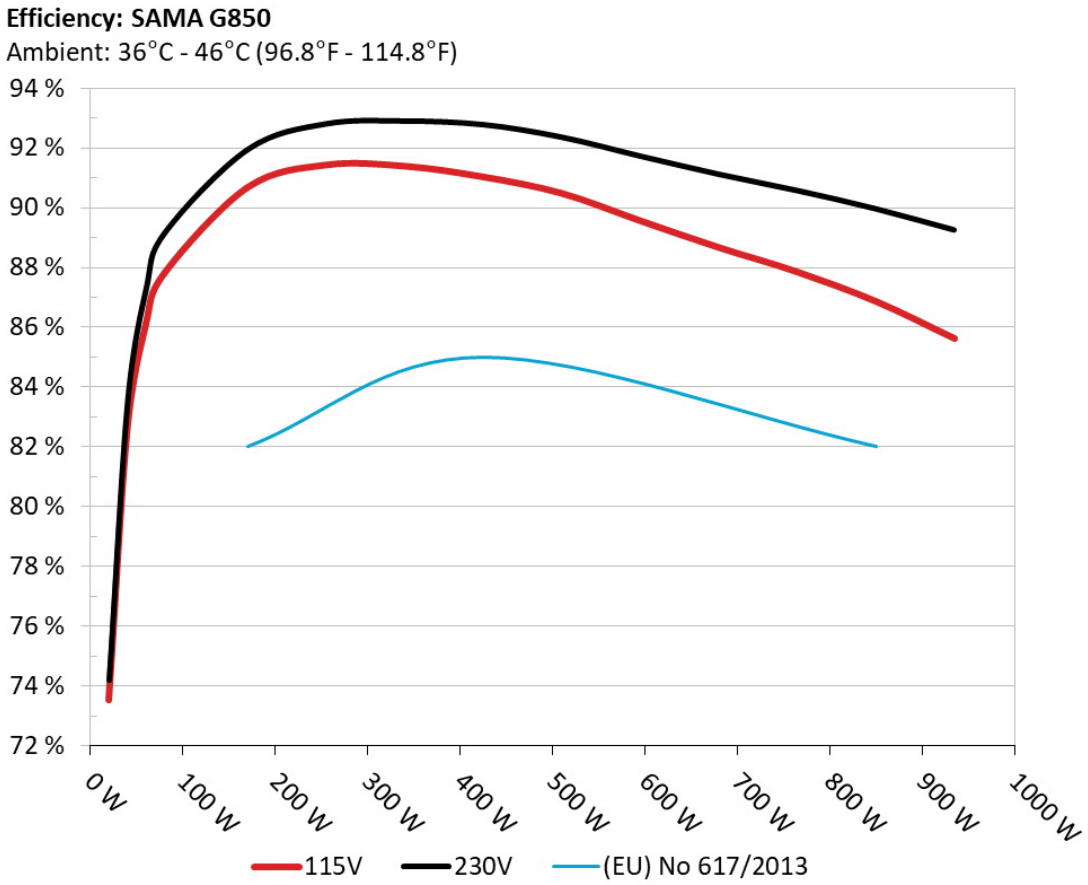
NEUTRAL



PHASE

Indicative Performance

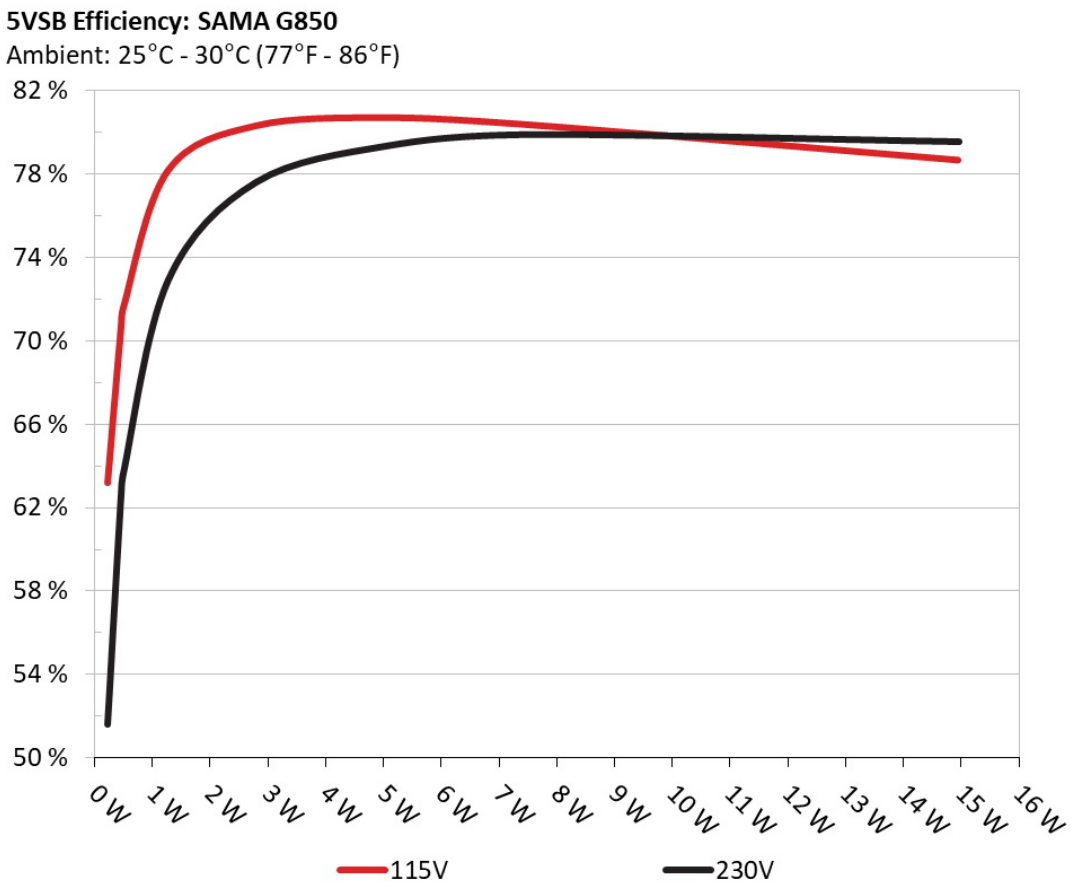
Efficiency under high ambient temperature



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



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**	0.23W	63.205%	0.042
	5.108V	0.364W		114.94V
2	**0.09A**	0.46W	70.591%	0.074
	5.104V	0.651W		114.93V
3	**0.55A**	2.798W	80.292%	0.278
	5.084V	3.485W		114.93V
4	**1A**	5.068W	80.677%	0.351
	5.066V	6.282W		114.92V
5	**1.5A**	7.572W	80.331%	0.393
	5.046V	9.427W		114.92V
6	**3.001A**	14.952W	78.65%	0.452
	4.983V	19.011W		114.95V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.23W	51.589%	0.016
	5.112V	0.447W		230.06V
2	**0.09A**	0.46W	62.453%	0.026
	5.109V	0.737W		230.06V
3	**0.55A**	2.799W	77.581%	0.117
	5.088V	3.608W		230.07V
4	**1A**	5.071W	79.327%	0.186
	5.069V	6.392W		230.07V
5	**1.5A**	7.575W	79.867%	0.238
	5.049V	9.485W		230.08V
6	**3A**	14.963W	79.525%	0.324
	4.987V	18.816W		230.08V

Protection Features

OCP (Normal @ 27.7°C)	12V: 106.40A (150.28%), 11.938V 5V: 34.6A (173.00%), 5.018V 3.3V: 34.9A (174.50%), 3.293V* Didn't shut down 5VSB: 4.3A (143.33%), 4.93V
OCP (Hot @ 46.0°C)	12V: 91.00A (128.53%), 11.977V 5V: 34.6A (173.00%), 5.009V 3.3V: 33.8A (169.00%), 3.294V 5VSB: 4.2A (140.00%), 4.935V
OPP (Normal @ 28.9°C)	1238.03W (145.65%)
OPP (Hot @ 45.4°C)	1070.53W (125.94%)
OTP	✓ (130°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Full Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

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])	Temps (In/Out)	PF/AC Volts
10%	**5.233A**	**1.973A**	**1.964A**	**0.988A**	85.009	87.546%	0	<6.0	51.32°C	0.975
	12.117V	5.069V	3.361V	5.064V	97.103				40.26°C	114.91V
20%	**11.489A**	**2.965A**	**2.957A**	**1.189A**	169.982	90.692%	0	<6.0	53.85°C	0.98
	12.105V	5.061V	3.349V	5.047V	187.427				40.53°C	114.88V
30%	**18.103A**	**3.464A**	**3.461A**	**1.392A**	254.999	91.447%	0	<6.0	57.08°C	0.982
	12.094V	5.054V	3.338V	5.03V	278.845				41.48°C	114.86V
40%	**24.737A**	**3.965A**	**3.969A**	**1.596A**	340.095	91.406%	379	<6.0	41.87°C	0.986
	12.082V	5.046V	3.327V	5.013V	372.067				52.95°C	114.83V
50%	**31.051A**	**4.967A**	**4.98A**	**1.803A**	425.166	91.045%	854	21.8	42.09°C	0.988
	12.065V	5.035V	3.314V	4.992V	466.985				48.15°C	114.8V
60%	**37.330A**	**5.972A**	**5.999A**	**2.001A**	509.655	90.5%	856	21.8	42.79°C	0.989
	12.052V	5.025V	3.301V	4.973V	563.153				49.06°C	114.78V
70%	**43.682A**	**6.982A**	**7.028A**	**2.222A**	595.042	89.576%	1227	33.2	43.44°C	0.99
	12.040V	5.015V	3.288V	4.953V	664.29				49.67°C	114.76V
80%	**50.054A**	**7.993A**	**8.064A**	**2.33A**	679.883	88.682%	1565	40.7	43.72°C	0.991
	12.026V	5.005V	3.274V	4.937V	766.652				49.78°C	114.73V
90%	**56.839A**	**8.509A**	**8.584A**	**2.439A**	765.324	87.857%	1903	46.3	44.13°C	0.992
	12.013V	4.996V	3.262V	4.922V	871.109				50.61°C	114.7V
100%	**63.363A**	**9.025A**	**9.142A**	**3.072A**	850.142	86.871%	1903	46.3	45.5°C	0.992
	12.001V	4.987V	3.249V	4.884V	978.622				53.04°C	114.67V
110%	**69.769A**	**10.043A**	**10.294A**	**3.079A**	934.75	85.636%	1902	46.3	46.45°C	0.992
	11.989V	4.979V	3.235V	4.873V	1091.54				55.87°C	114.65V
CL1	**0.117A**	**11.907A**	**11.906A**	**0A**	101.322	82.898%	434	<6.0	40.72°C	0.987
	12.112V	5.056V	3.334V	5.094V	122.228				49.56°C	114.9V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	**0.116A**	**19.767A**	**0A**	**0A**	101.408	81.778%	431	<6.0	40.4°C	0.987
	12.116V	5.059V	3.351V	5.098V	124.004				48.62°C	114.89V
CL3	**0.116A**	**0A**	**19.81A**	**0A**	67.403	75.513%	327	<6.0	40.43°C	0.971
	12.117V	5.066V	3.332V	5.097V	89.258				49.01°C	114.9V
CL4	**70.822A**	**0A**	**0A**	**0A**	849.86	87.827%	1903	46.3	45.38°C	0.992
	12.000V	5.005V	3.276V	5.031V	967.665				51.87°C	114.67V

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])	Temps (In/Out)	PF/AC Volts
10%	**5.232A**	**1.975A**	**1.965A**	**0.988A**	85.005	88.895%	0	<6.0	50.24°C	0.825
	12.116V	5.065V	3.359V	5.062V	95.624				40.06°C	230.07V
20%	**11.489A**	**2.968A**	**2.959A**	**1.19A**	169.968	91.941%	0	<6.0	50.34°C	0.928
	12.104V	5.054V	3.346V	5.044V	184.862				40.66°C	230.06V
30%	**18.106A**	**3.469A**	**3.465A**	**1.393A**	254.98	92.801%	0	<6.0	53.37°C	0.954
	12.092V	5.046V	3.334V	5.026V	274.759				41.24°C	230.06V
40%	**24.749A**	**3.973A**	**3.974A**	**1.598A**	340.092	92.893%	452	6.5	41.87°C	0.966
	12.077V	5.035V	3.322V	5.007V	366.109				53.27°C	230.06V
50%	**31.059A**	**4.979A**	**4.989A**	**1.806A**	425.065	92.772%	852	21.8	42.11°C	0.968
	12.059V	5.022V	3.308V	4.986V	458.195				52.32°C	230.05V
60%	**37.338A**	**5.989A**	**6.012A**	**2.001A**	509.556	92.355%	902	23.4	42.62°C	0.97
	12.046V	5.011V	3.294V	4.966V	551.739				53.46°C	230.04V
70%	**43.708A**	**7.001A**	**7.046A**	**2.225A**	594.963	91.721%	1264	34.8	43.13°C	0.97
	12.031V	5.001V	3.279V	4.944V	648.666				53.22°C	230.01V
80%	**50.089A**	**8.018A**	**8.087A**	**2.335A**	679.804	91.115%	1616	41.3	43.99°C	0.968
	12.017V	4.989V	3.264V	4.927V	746.094				53.57°C	229.99V
90%	**56.886A**	**8.537A**	**8.612A**	**2.444A**	765.244	90.566%	1901	46.3	44.62°C	0.967
	12.002V	4.979V	3.251V	4.911V	844.956				54.45°C	229.98V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**63.427A**	**9.059A**	**9.174A**	**3.079A**	850.051	89.957%	1899	46.3	45.82°C	0.965
	11.988V	4.968V	3.237V	4.872V	944.957				56.93°C	229.96V
110%	**69.849A**	**10.088A**	**10.334A**	**3.087A**	934.645	89.255%	1900	46.3	46.02°C	0.964
	11.974V	4.956V	3.222V	4.859V	1047.167				59.49°C	229.95V
CL1	**0.116A**	**11.939A**	**11.916A**	**0A**	101.313	84.462%	391	<6.0	40.29°C	0.872
	12.108V	5.043V	3.332V	5.09V	119.953				52.6°C	230.06V
CL2	**0.116A**	**19.822A**	**0A**	**0A**	101.402	83.274%	408	<6.0	40.27°C	0.874
	12.113V	5.045V	3.348V	5.095V	121.766				50.83°C	230.06V
CL3	**0.115A**	**0A**	**19.82A**	**0A**	67.396	76.991%	326	<6.0	40.57°C	0.806
	12.115V	5.063V	3.33V	5.093V	87.536				50.99°C	230.06V
CL4	**70.883A**	**0A**	**0A**	**0A**	849.764	90.842%	1901	46.3	45.33°C	0.965
	11.989V	4.995V	3.266V	5.022V	935.438				55.2°C	229.97V

The results above are not used in the certification process

Light Load Tests

115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	**1.226A**	**0.493A**	**0.489A**	**0.196A**	20.009	73.531%	0	<6.0	44.15°C	0.827
	12.122V	5.073V	3.372V	5.103V	27.212				36.27°C	114.92V
40W	**2.698A**	**0.69A**	**0.686A**	**0.294A**	40.007	82.604%	0	<6.0	46.01°C	0.926
	12.120V	5.071V	3.369V	5.097V	48.432				37.17°C	114.92V
60W	**4.170A**	**0.888A**	**0.882A**	**0.393A**	60.006	86.096%	0	<6.0	47.41°C	0.959
	12.119V	5.07V	3.367V	5.092V	69.696				38.64°C	114.92V
80W	**5.640A**	**1.086A**	**1.079A**	**0.492A**	79.975	87.814%	0	<6.0	49.82°C	0.972
	12.116V	5.068V	3.364V	5.086V	91.072				39.21°C	114.91V

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])	Temps (In/Out)	PF/AC Volts
20W	**1.226A**	**0.493A**	**0.489A**	**0.196A**	20.014	74.203%	0	<6.0	43.19°C	0.494
	12.121V	5.072V	3.371V	5.103V	26.969				36.71°C	229.98V
40W	**2.698A**	**0.69A**	**0.686A**	**0.294A**	40.011	83.526%	0	<6.0	45.61°C	0.647
	12.119V	5.071V	3.369V	5.097V	47.9				37.53°C	229.98V
60W	**4.170A**	**0.888A**	**0.882A**	**0.393A**	60.01	87.294%	0	<6.0	45.92°C	0.748
	12.118V	5.07V	3.366V	5.091V	68.743				38.81°C	229.98V
80W	**5.642A**	**1.085A**	**1.079A**	**0.492A**	79.988	89.149%	0	<6.0	47.95°C	0.811
	12.115V	5.07V	3.364V	5.086V	89.722				39.43°C	229.98V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	16.03mV	7.09mV	5.29mV	7.64mV	Pass
20% Load	16.59mV	14.28mV	6.97mV	7.95mV	Pass
30% Load	20.20mV	8.47mV	7.68mV	8.26mV	Pass
40% Load	20.86mV	9.23mV	6.81mV	8.05mV	Pass
50% Load	23.66mV	10.31mV	7.32mV	8.97mV	Pass
60% Load	23.66mV	13.36mV	8.59mV	9.78mV	Pass
70% Load	24.68mV	13.21mV	9.10mV	9.38mV	Pass
80% Load	23.00mV	13.31mV	11.90mV	10.04mV	Pass
90% Load	23.61mV	14.28mV	13.48mV	9.83mV	Pass
100% Load	24.79mV	10.57mV	13.86mV	9.50mV	Pass
110% Load	26.05mV	13.24mV	14.48mV	9.86mV	Pass
Crossload1	14.49mV	10.58mV	9.09mV	10.52mV	Pass
Crossload2	16.23mV	10.15mV	5.44mV	10.44mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	15.83mV	6.89mV	10.48mV	10.95mV	Pass
Crossload4	24.69mV	9.30mV	9.32mV	11.26mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	19.13mV	12.70mV	9.16mV	12.99mV	Pass
20% Load	19.13mV	19.08mV	10.78mV	14.11mV	Pass
30% Load	24.17mV	14.94mV	12.16mV	14.42mV	Pass
40% Load	20.61mV	8.72mV	6.77mV	8.10mV	Pass
50% Load	23.00mV	10.10mV	7.27mV	8.20mV	Pass
60% Load	24.63mV	13.46mV	8.14mV	9.27mV	Pass
70% Load	24.83mV	13.52mV	8.70mV	9.22mV	Pass
80% Load	24.42mV	13.77mV	12.31mV	10.03mV	Pass
90% Load	24.78mV	13.67mV	13.12mV	9.73mV	Pass
100% Load	25.43mV	14.41mV	13.02mV	9.32mV	Pass
110% Load	27.17mV	12.42mV	16.19mV	9.46mV	Pass
Crossload1	14.48mV	10.20mV	9.99mV	10.63mV	Pass
Crossload2	15.88mV	10.61mV	5.54mV	10.50mV	Pass
Crossload3	16.49mV	7.29mV	10.68mV	10.75mV	Pass
Crossload4	25.73mV	12.23mV	9.59mV	10.69mV	Pass

The results above are not used in the certification process

SAMA G850



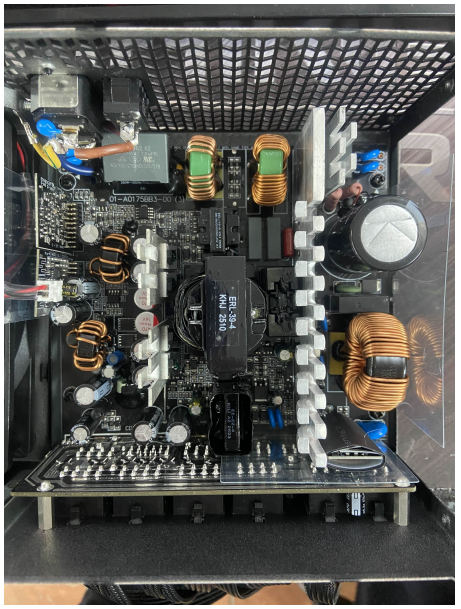
Top side



Power specifications label



Fan



PSU Internals

All data and graphs included in this test report can be used by any individual on the following conditions:
› It should be mentioned that the test results are provided by Cybenetics
› The link to the original test results document should be provided in any case

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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