Seasonic Focus GX-850 (ATX3.1)

Serial Number A582360033

Lab ID SS85003202

Certification ID 263202

Test Result Report ID: 26PS3202A

Certificate Issue Date: Apr 2, 2026

Scheme: ETA-EMI PSU



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	Seasonic
Model	Focus GX-850 (ATX3.1)
OEM/ODM	Seasonic
Serial Number	A582360033
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	5.5-11

Rated Frequency (Hz)	50-60
Rated Power (W)	850
Operating Temperature (Continuous Full Load) (°C)	0 - 50
Type	ATX12V
Cable Design	Fully Modular
Warranty	10 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 140mm
Weight	1.62 kg (3.57 lb)
Cooling	135mm Fluid Dynamic Bearing Fan (HA13525H12SF-Z)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	SS85003202
Date of receipt	Feb 4, 2026
Testing Date	Mar 27, 2026
Report Issued Date	Apr 2, 2026
Engineer Name	Georgios Theodoros Sarimpalas
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 20+4 pin (610mm)	1	1	16-18AWG	Tinned Copper
4+4 pin EPS12V (750mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (750mm)	2	2	16AWG	Tinned Copper
2x 6+2 pin PCIe (700mm)	2	2	16-18AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	1	1	16-28AWG	Tinned Copper
SATA (500mm+150mm+150mm+150mm)	2	8	18AWG	Tinned Copper
4-pin Molex (450mm+120mm+120mm)	1	3	18AWG	Tinned Copper

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	3	0.3
	Watts	100		840	15	3.6
Total Max. Power (W)		850				

Parts Description

General Data	
Manufacturer (OEM)	Seasonic
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF72 5D-20L (5 Ohm @ 25°C) & Relay
Bridge Rectifier	2x GBU-1508 (800V, 15A @ 100°C)
APFC MOSFETs	2x Alpha & Omega AOB160A60L (600V, 15A @ 100°C, Rds(on): 0.16 Ohm)
APFC Boost Diode	Infineon IDH08G65C5 (650V, 8A @ 145°C)
Bulk Cap(s)	Nippon Chemi-Con (420V, 680uF, 2000h @ 105°C, KHE)
Main Switchers	4x Alpha & Omega AOB280A60L (600V, 9A @ 100°C, Rds(on): 0.28 Ohm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CM6901T6X

Topology	Primary side: APFC, Full-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	4x Nexperia PSMN1R4-40YLD (40V, 240A @ 25°C, Rds(on): 1.4 mOhm)
5V & 3.3V	DC-DC Converters: 4x Nexperia PSMN4R0-30YLD (30V, 95A @ 25°C, Rds(on): 4 mOhm) PWM Controller(s): uPI Semi uP3861P
Filtering Capacitors	Electrolytic: 3x Nippon Chemi-Con (1-5,000h @ 105°C, KZE) 4x Nippon Chemi-Con (1-5,000h @ 105°C, W) 4x Rubycon (3-6,000h @ 105°C, YXG) 1x Rubycon (3-6,000h @ 105°C, YXS) Polymer: 25x Nippon Chemi-Con, 3x Nichicon (FPCAP)
Supervisor IC	Weltrend WT7527RA (OVP, UVP, OCP, SCP, PG)
Fan Controller / Micro Controller	Nuvoton M031FB0AE
Fan Model	Hong Hua HA13525H12SF-Z (135mm, 12V, 0.50A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	Dongke DK5V45R10S (45V, 10mOhm)
Standby PWM Controller	Excelliance MOS EM8569C

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)	89.635%
Average Noise Output (>1450 Load Combinations)	22.76dBA
Average PF (>1450 Load Combinations)	0.983
Efficiency With 10W (≤500W) or 2% (>500W) Load	66.951%
Standby Power Consumption	0.0409W
Non-Accredited	
12V Ripple (Full Load)	24.63mV
5V Ripple (Full Load)	11.99mV
3.3V Ripple (Full Load)	11.75mV
5VSB Ripple (Full Load)	12.33mV
12V Load Regulation	0.16%
5V Load Regulation	0.26%
3.3V Load Regulation	0.70%
5VSB Load Regulation	3.78%
Inrush Current	19.810A

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.527%
Average Noise Output (>1450 Load Combinations)	21.09dBA
Average PF (>1450 Load Combinations)	0.940
Efficiency With 10W (≤500W) or 2% (>500W) Load	67.534%
Standby Power Consumption	0.1152W
Non-Accredited	
12V Ripple (Full Load)	25.60mV
5V Ripple (Full Load)	11.99mV
3.3V Ripple (Full Load)	11.65mV

5VSB Ripple (Full Load)		12.84mV
12V Load Regulation		0.14%
5V Load Regulation		0.32%
3.3V Load Regulation		0.70%
5VSB Load Regulation		3.81%
Inrush Current		43.220A
12V Transient Response (200%)		11.37V
5V Transient Response (200%)		4.920V
3.3V Transient Response (200%)		3.245V
5VSB Transient Response (200%)		4.919V
Hold-Up Time & PWR_OK Signal		24.60ms
AC Loss to PWR_OK Hold Up Time		19.90ms
PWR_OK Inactive to DC Loss Delay		4.70ms
PSU Timings: T1 (20% / 100%)	69.0ms	69.0ms
PSU Timings: T3 (20% / 100%)	127.0ms	124.0ms
12V OCP (27.2°C / 41.9°C)	90.80A (129.71%), 12.032V	87.20A (124.57%), 12.043V
5V OCP (27.2°C / 41.9°C)	28.1A (140.50%), 5.026V	28.1A (140.50%), 5.031V
3.3V OCP (27.2°C / 41.9°C)	29.8A (149.00%), 3.29V	29.8A (149.00%), 3.286V
5VSB OCP (27.2°C / 41.9°C)	6.4A (213.33%), 4.81V	6.4A (213.33%), 4.802V
OPP (28.23°C / 42.62°C)	129.52%	120.40%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	24.6
AC Loss to PWR_OK Hold Up Time (ms)	19.9
PWR_OK Inactive to DC Loss Delay (ms)	4.7

Vampire Power

Tables

115V

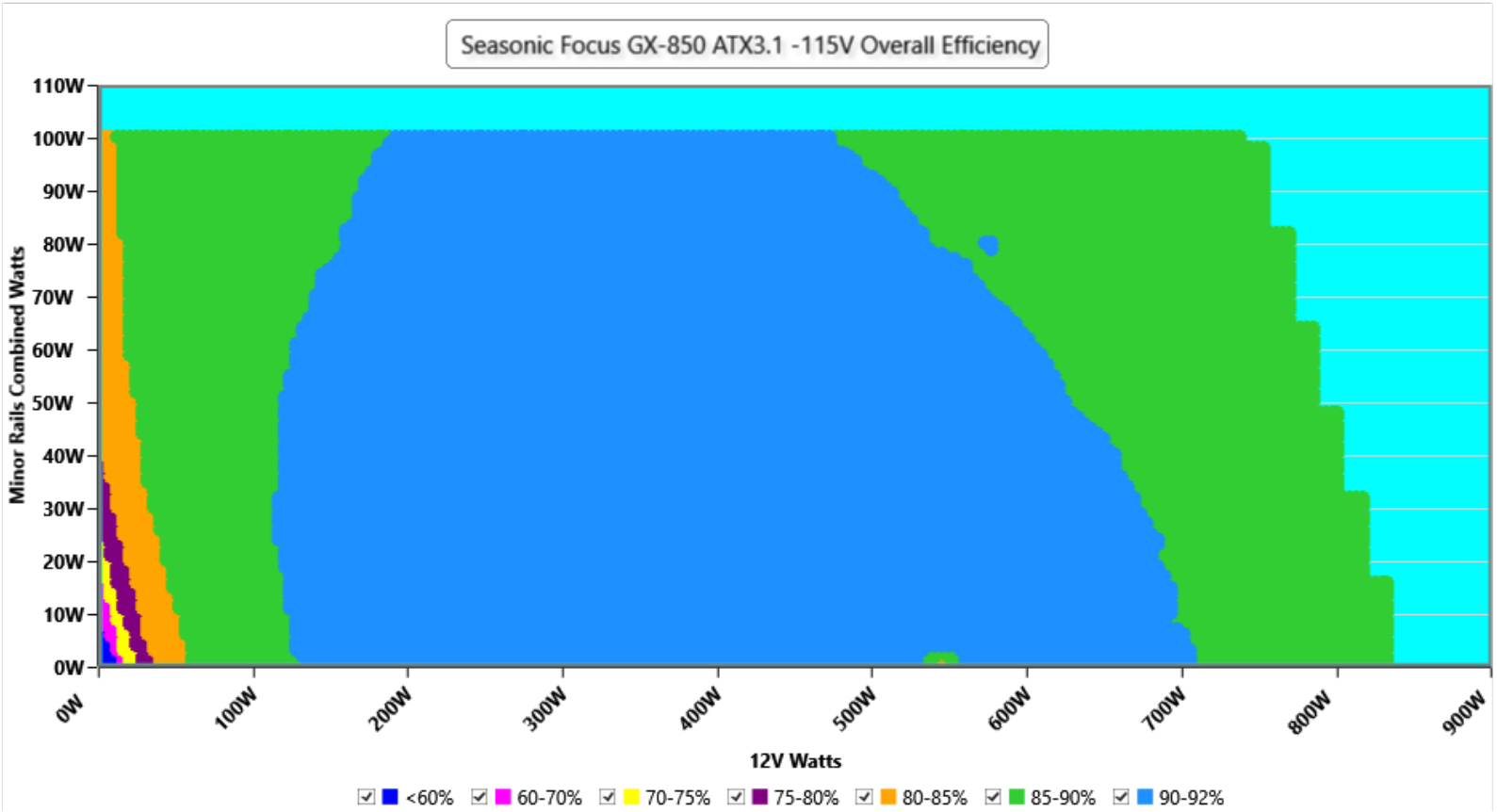
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.04 V	115.02 V	113.85 V	115.06 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.041 W	-0.005 W	N/A	0.082 W	N/A	N/A
Apparent Power:	7.181 W	7.158 W	N/A	7.204 W	N/A	N/A
Power Factor:	0.010	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.11 V	230.07 V	227.70 V	230.13 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:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.115 W	0.074 W	N/A	0.179 W	N/A	N/A
Apparent Power:	22.881 W	22.844 W	N/A	22.919 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

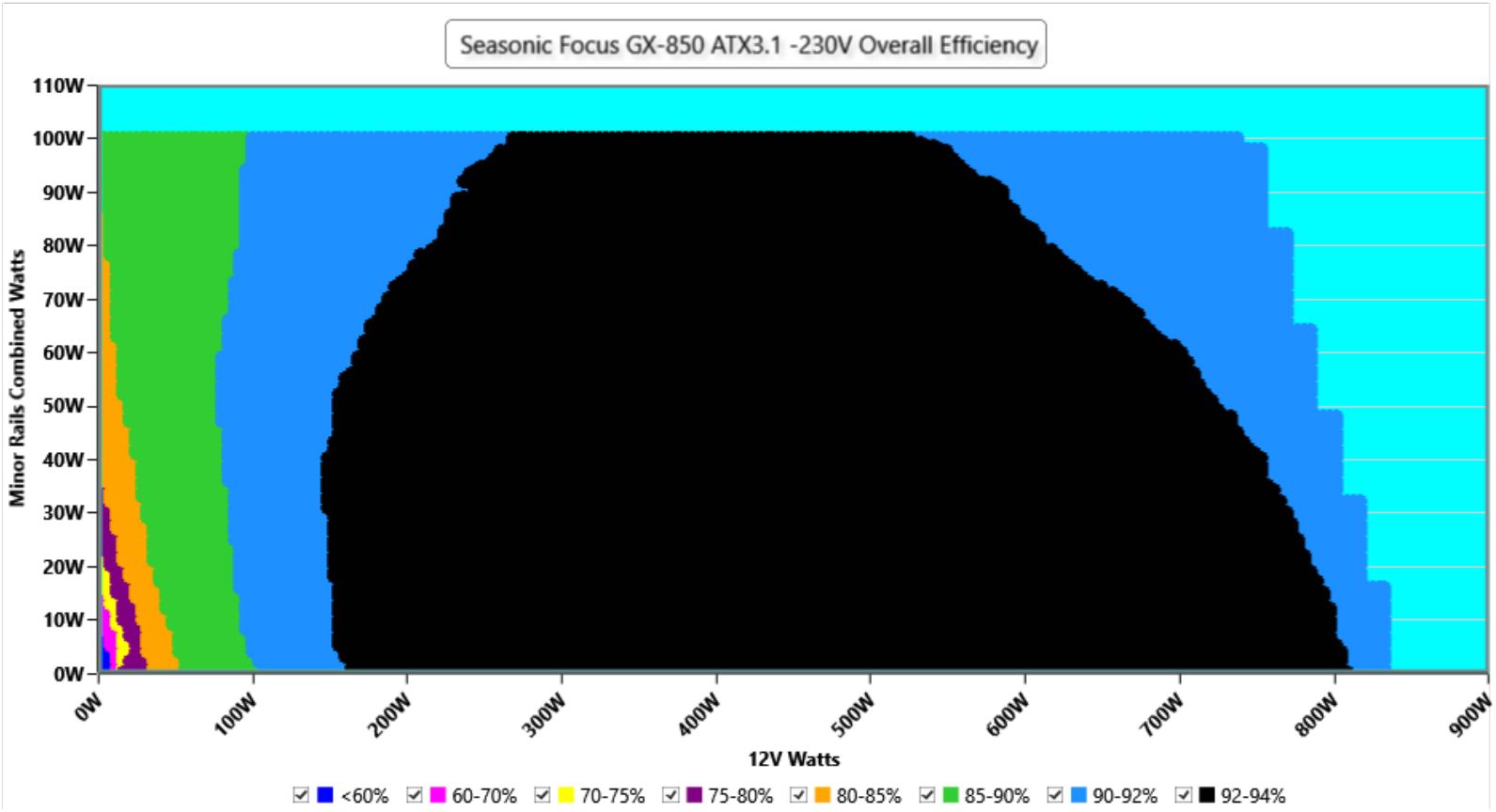
115V



INFO

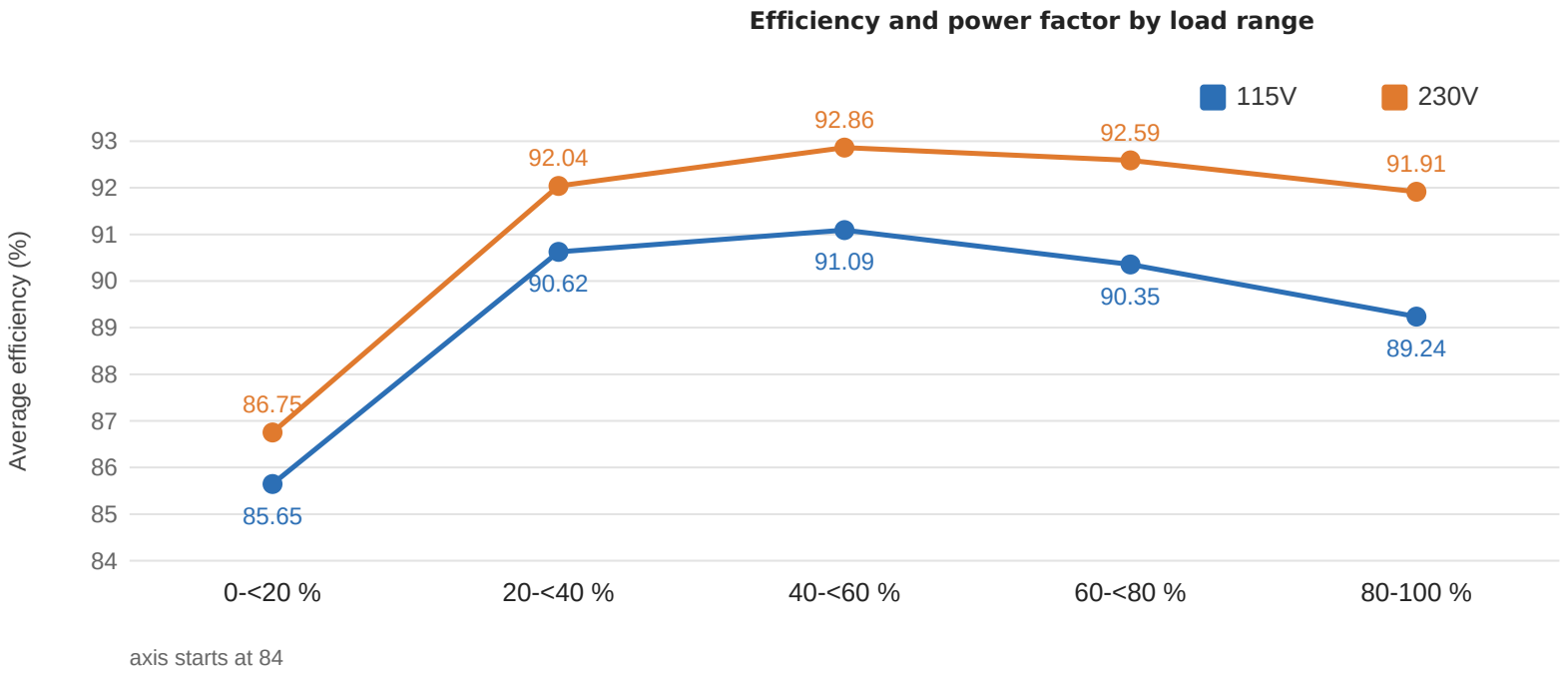
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

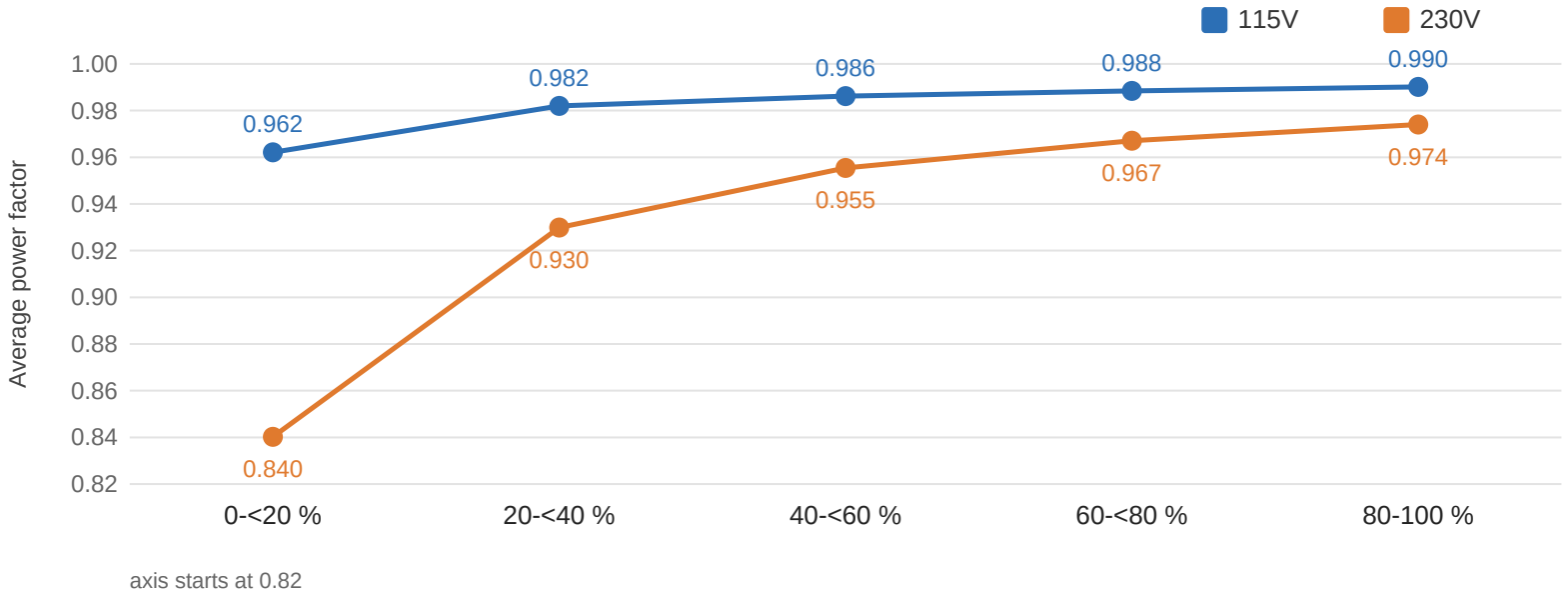


INFO

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



axis starts at 84



axis starts at 0.82

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	228 / 228	85.65%	86.75%	0.962	0.840
20-<40 %	331 / 331	90.62%	92.04%	0.982	0.930
40-<60 %	327 / 327	91.09%	92.86%	0.986	0.955
60-<80 %	333 / 333	90.35%	92.59%	0.988	0.967
80-100 %	333 / 333	89.24%	91.91%	0.990	0.974
70-100 % (High-Load)	504 / 504	89.55%	92.10%	0.990	0.972
All (published average)	1552 / 1552	89.64%	91.53%	0.983	0.940

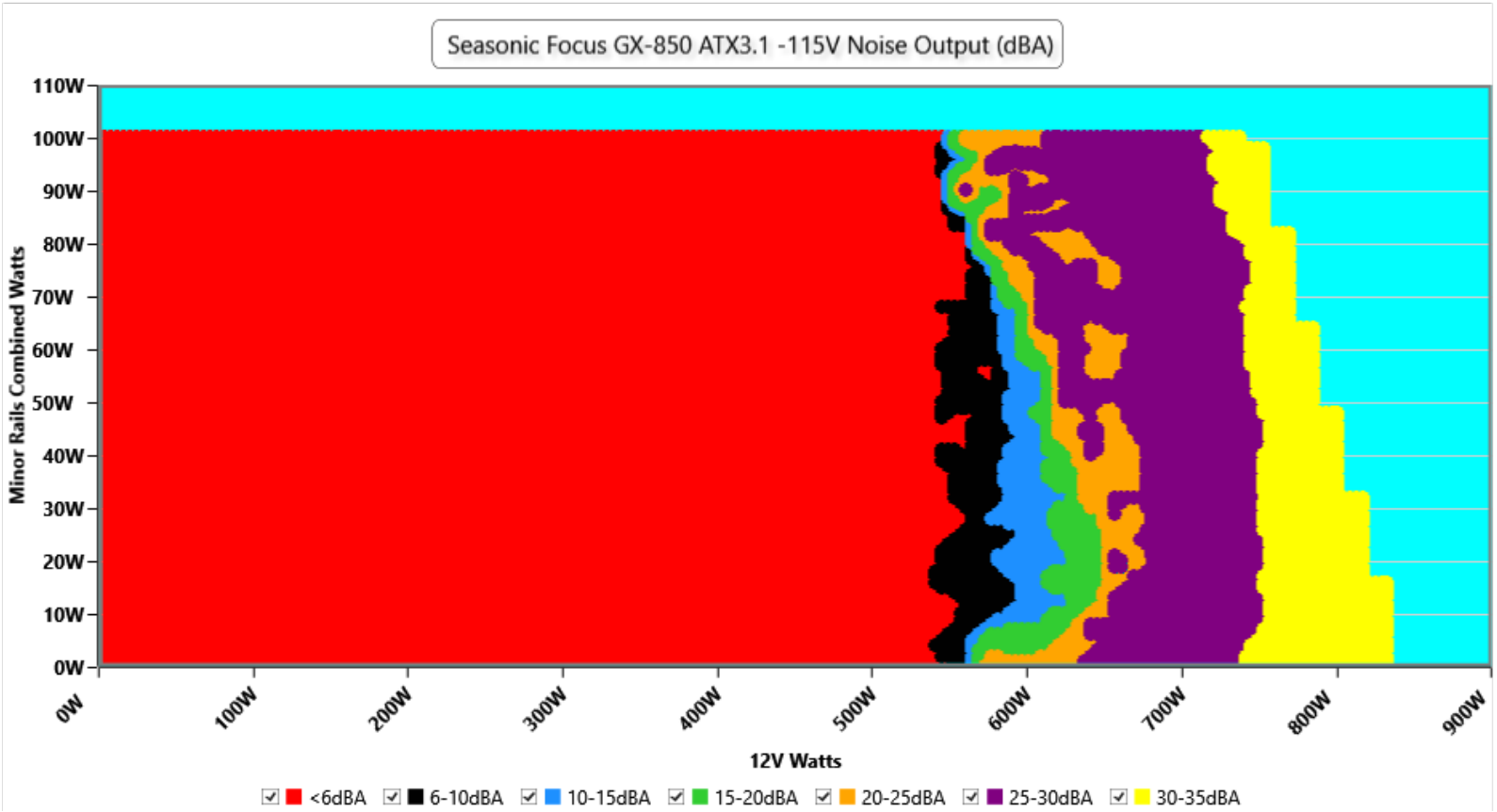
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1552 (115V) and 1552 (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 850 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.

Noise Graph

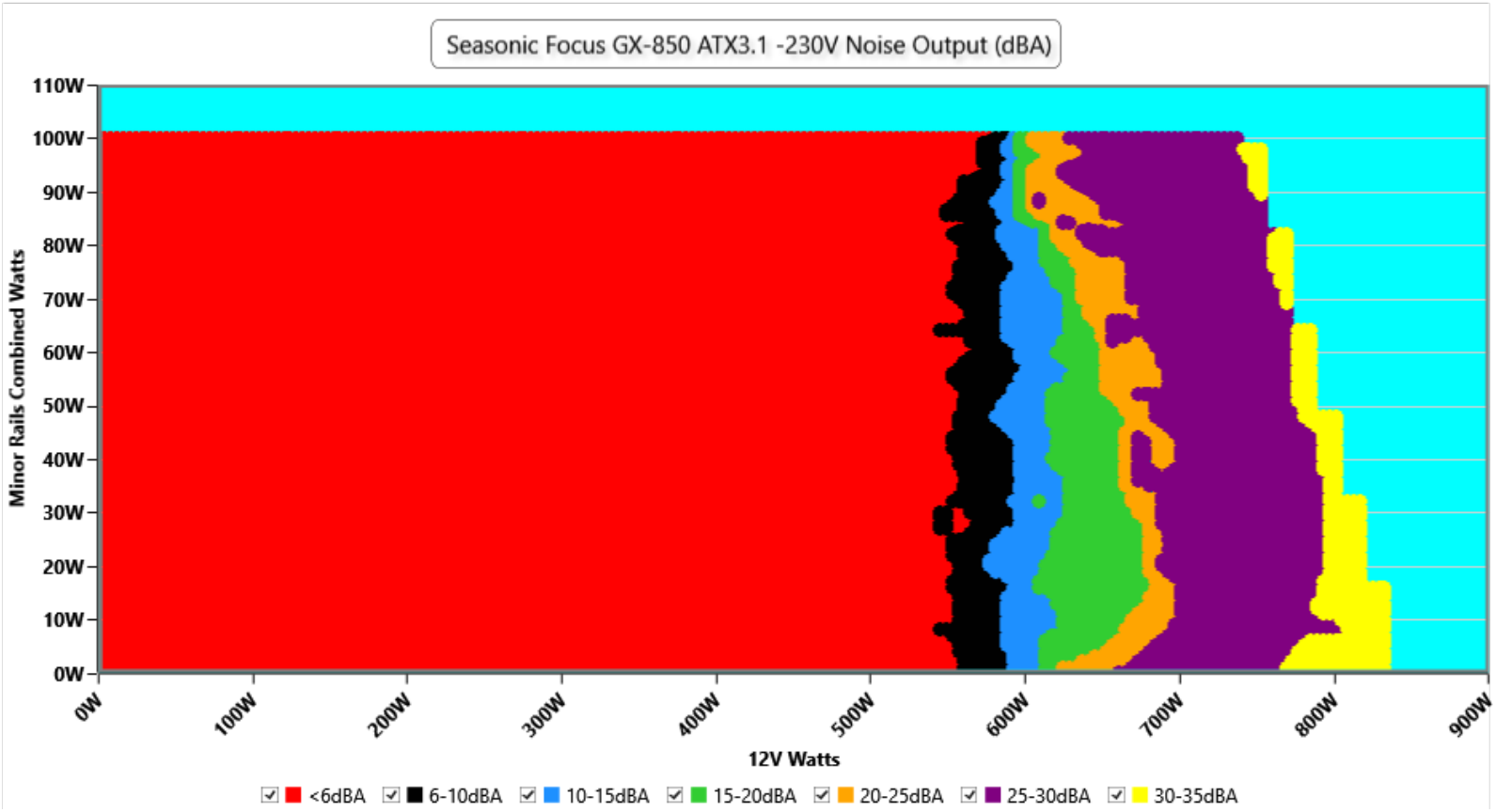
115V



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

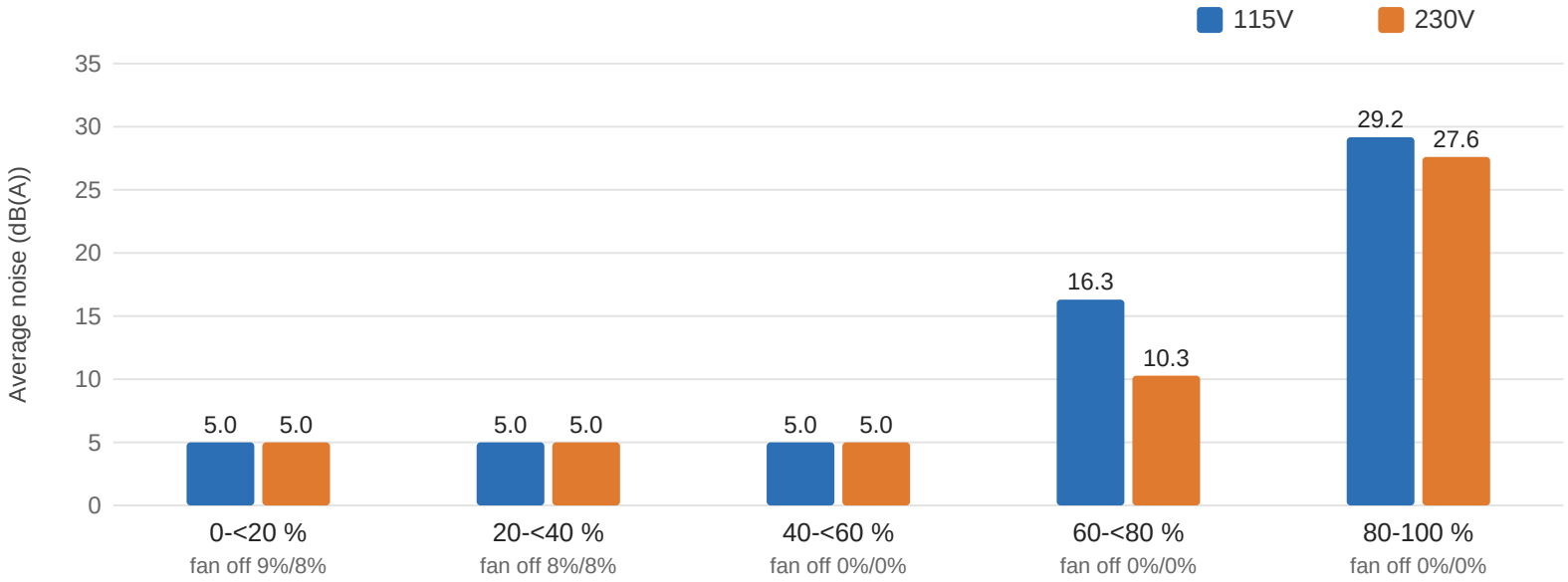
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **27.6 dB(A)** at 115V and **25.9 dB(A)** at 230V · loudest point 32.2 dB(A)

Efficiency 89.55% / 92.10% · power factor 0.990 / 0.972 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	5.0 (5.0)	5.0 (5.0)	9% / 8%
20-<40 %	5.0 (5.0)	5.0 (5.0)	8% / 8%
40-<60 %	5.0 (5.0)	5.0 (5.0)	0% / 0%
60-<80 %	16.3 (26.0)	10.3 (26.0)	0% / 0%
80-100 %	29.2 (32.2)	27.6 (31.0)	0% / 0%
70-100 % (High-Load)	27.6 (32.2)	25.9 (31.0)	0% / 0%
All (published average)	22.7 (32.2)	21.1 (31.0)	3% / 3%

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 1552 (115V) and 1552 (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 850 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)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 32.9 °C	0 RPM · <6.0 dB(A) · 42.9 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.9 °C	0 RPM · <6.0 dB(A) · 43.7 °C	fan off in both
50%	388 RPM · <6.0 dB(A) · 30.0 °C	408 RPM · <6.0 dB(A) · 42.1 °C	fan off in both
100%	826 RPM · 23.3 dB(A) · 30.6 °C	1450 RPM · 39.9 dB(A) · 45.6 °C	**+16.6 dB(A)**

230V

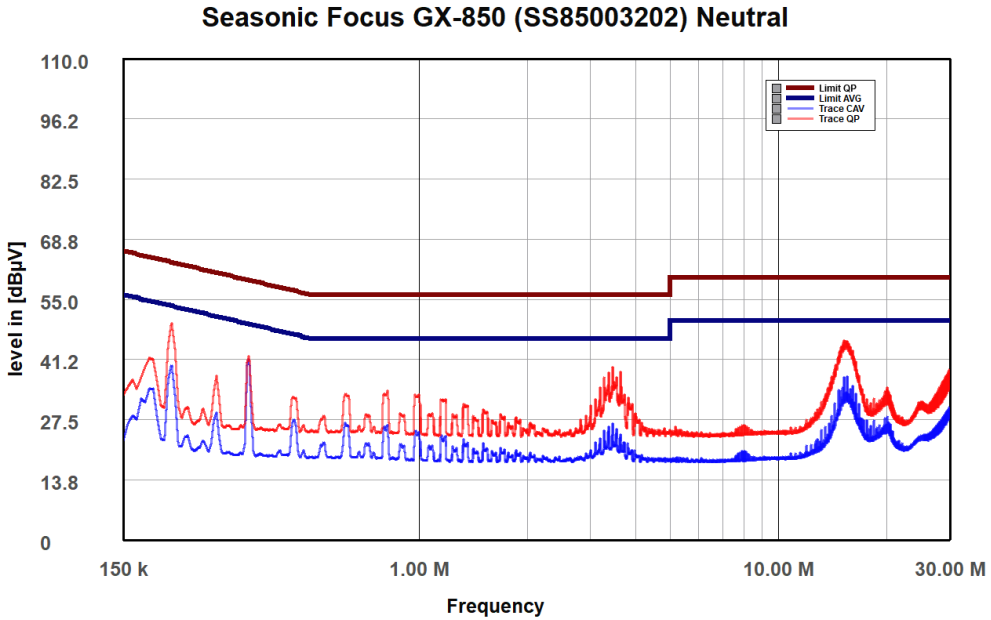
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 32.4 °C	0 RPM · <6.0 dB(A) · 46.4 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.1 °C	0 RPM · <6.0 dB(A) · 46.6 °C	fan off in both
50%	382 RPM · <6.0 dB(A) · 30.8 °C	405 RPM · <6.0 dB(A) · 42.1 °C	fan off in both
100%	835 RPM · 23.7 dB(A) · 30.9 °C	1442 RPM · 39.5 dB(A) · 46.0 °C	**+15.8 dB(A)**

INFO

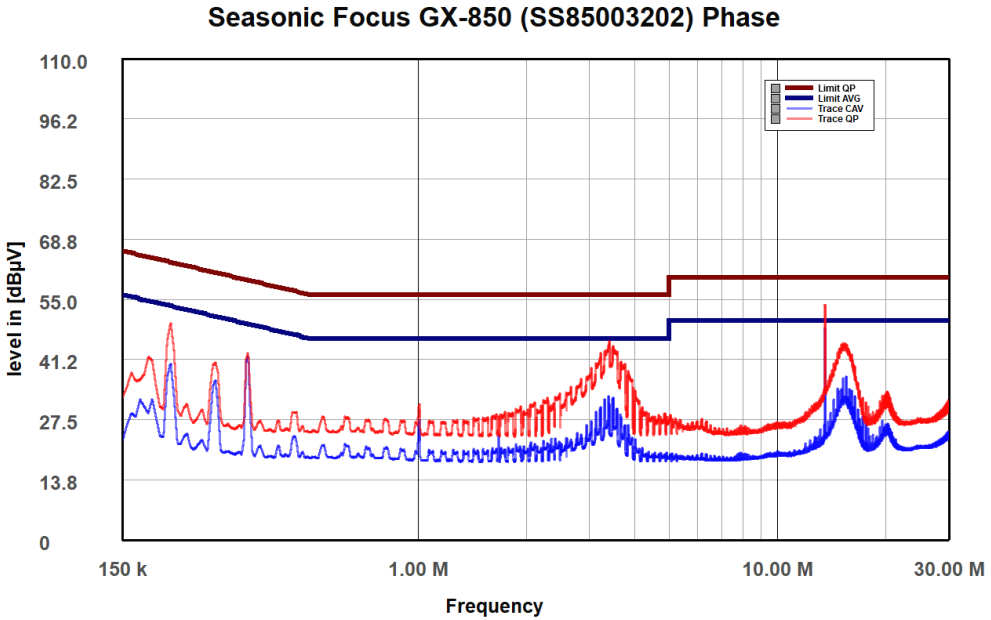
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative 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



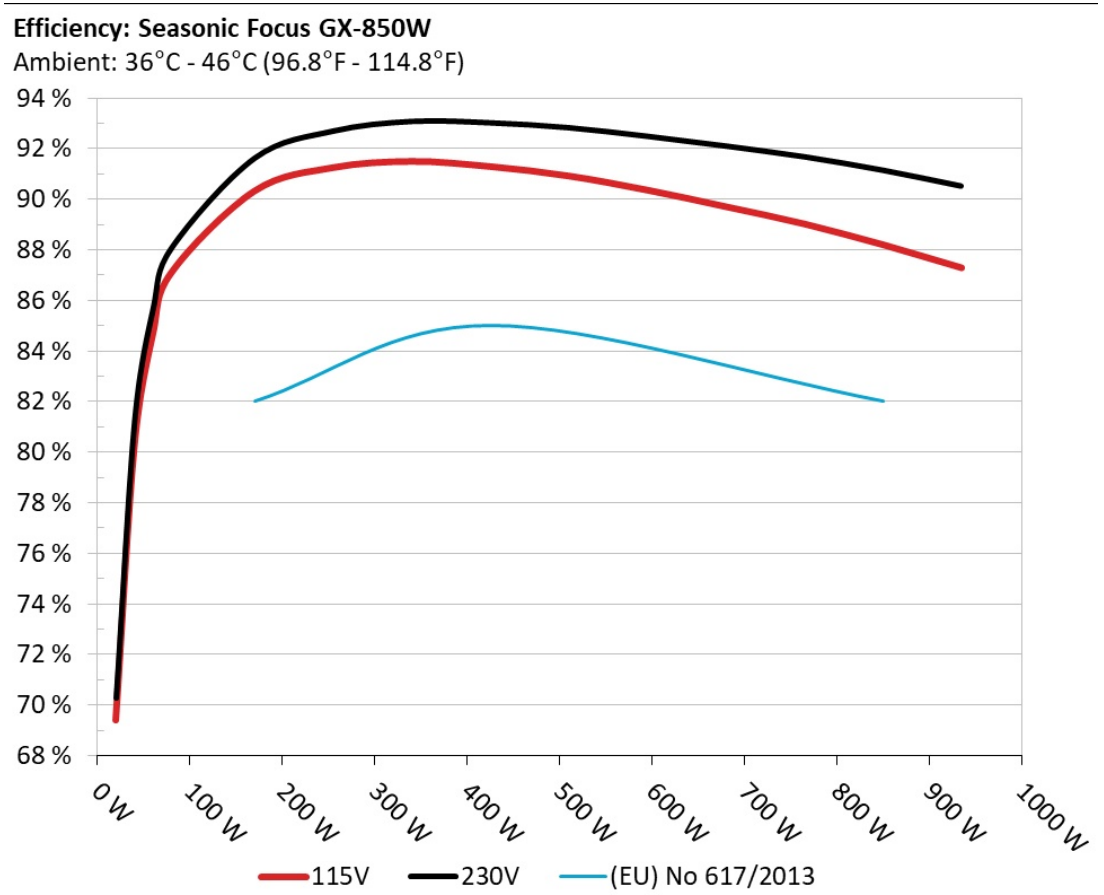
NEUTRAL



PHASE

Indicative Performance

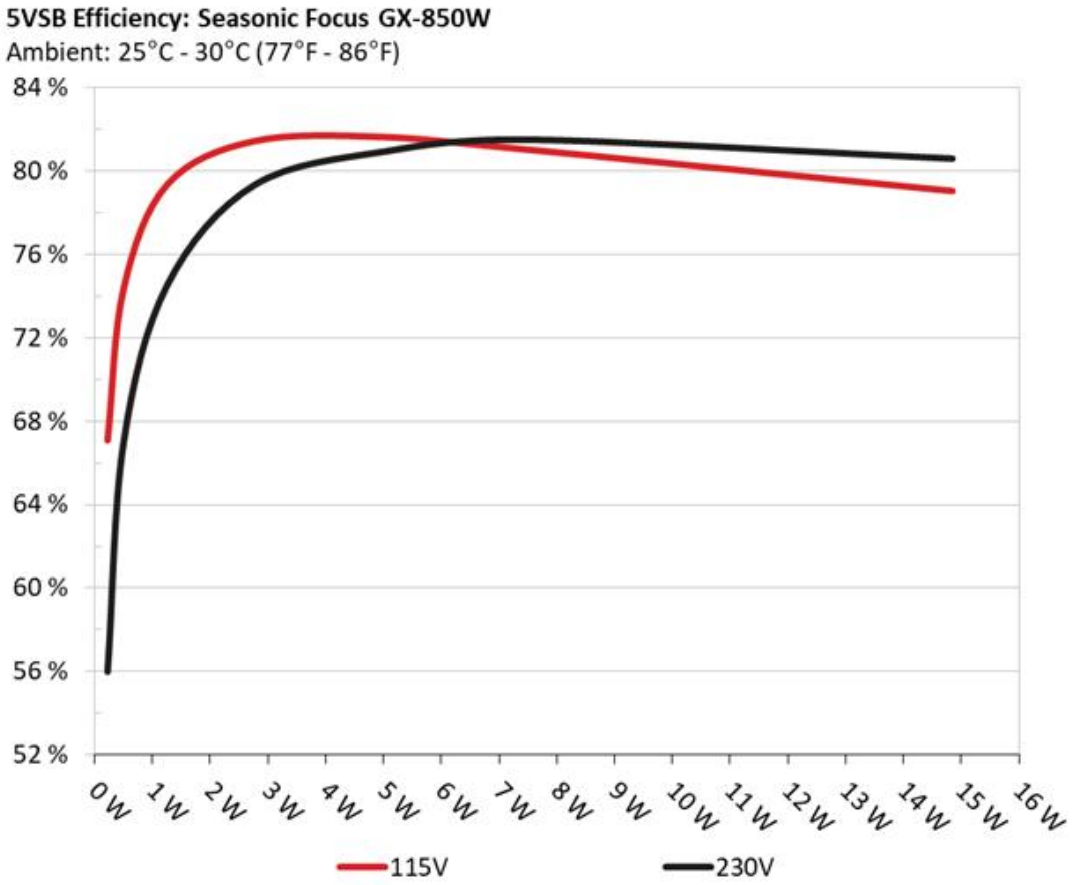
Efficiency under high ambient temperature



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**	0.228W	67.088%	0.05
	5.054V	0.339W		114.97V
2	**0.09A**	0.455W	73.757%	0.09
	5.053V	0.617W		114.97V
3	**0.55A**	2.771W	81.45%	0.327
	5.036V	3.401W		114.96V
4	**1A**	5.021W	81.643%	0.413
	5.02V	6.15W		114.96V
5	**1.5A**	7.504W	81.035%	0.455
	5.001V	9.26W		114.95V
6	**3A**	14.842W	79.054%	0.52
	4.947V	18.774W		114.95V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.228W	55.986%	0.018
	5.054V	0.407W		230.06V
2	**0.09A**	0.455W	65.817%	0.031
	5.052V	0.692W		230.06V
3	**0.55A**	2.77W	79.353%	0.143
	5.035V	3.491W		230.05V
4	**1A**	5.021W	80.96%	0.223
	5.019V	6.201W		230.05V
5	**1.5A**	7.504W	81.527%	0.285
	5.001V	9.205W		230.05V
6	**3.001A**	14.842W	80.621%	0.378
	4.946V	18.409W		230.05V

Protection Features

OCP (Normal @ 27.2°C)	12V: 90.80A (129.71%), 12.032V 5V: 28.1A (140.50%), 5.026V 3.3V: 29.8A (149.00%), 3.29V 5VSB: 6.4A (213.33%), 4.81V
OCP (Hot @ 41.9°C)	12V: 87.20A (124.57%), 12.043V 5V: 28.1A (140.50%), 5.031V 3.3V: 29.8A (149.00%), 3.286V 5VSB: 6.4A (213.33%), 4.802V
OPP (Normal @ 28.2°C)	1100.91W (129.52%)
OPP (Hot @ 42.6°C)	1023.40W (120.40%)
OTP	✓ (128°C @ 12V Heatsink)
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%	**5.268A**	**1.986A**	**1.991A**	**0.998A**	85.003	86.865%	0	<6.0	42.86°C	0.964
	12.034V	5.036V	3.315V	5.011V	97.857				40.16°C	114.95V
20%	**11.554A**	**2.98A**	**2.989A**	**1.201A**	169.959	90.321%	0	<6.0	43.73°C	0.976
	12.035V	5.035V	3.313V	4.997V	188.171				40.53°C	114.93V
30%	**18.186A**	**3.477A**	**3.489A**	**1.405A**	254.974	91.248%	0	<6.0	45.88°C	0.982
	12.037V	5.035V	3.31V	4.982V	279.431				41.03°C	114.9V
40%	**24.824A**	**3.975A**	**3.99A**	**1.611A**	340.07	91.494%	380	<6.0	41.59°C	0.985
	12.039V	5.032V	3.308V	4.967V	371.686				56.49°C	114.88V
50%	**31.108A**	**4.971A**	**4.992A**	**1.818A**	425.093	91.291%	408	<6.0	42.14°C	0.987
	12.041V	5.031V	3.306V	4.952V	465.641				60.35°C	114.85V
60%	**37.348A**	**5.966A**	**5.995A**	**2.001A**	509.52	90.92%	492	<6.0	42.87°C	0.988
	12.044V	5.03V	3.303V	4.936V	560.407				65.57°C	114.83V
70%	**43.653A**	**6.962A**	**7A**	**2.237A**	594.976	90.358%	562	9.5	43.31°C	0.989
	12.046V	5.029V	3.3V	4.919V	658.465				69.17°C	114.8V
80%	**49.965A**	**7.958A**	**8.006A**	**2.345A**	679.824	89.703%	954	27.7	43.62°C	0.99
	12.047V	5.027V	3.297V	4.906V	757.858				65.4°C	114.77V
90%	**56.676A**	**8.459A**	**8.497A**	**2.452A**	765.267	89.015%	1109	32.5	44.42°C	0.991
	12.047V	5.025V	3.295V	4.894V	859.704				66.2°C	114.75V
100%	**63.124A**	**8.959A**	**9.02A**	**3.086A**	850.081	88.195%	1450	39.9	45.61°C	0.992
	12.046V	5.023V	3.293V	4.862V	963.865				67.06°C	114.74V
110%	**69.442A**	**9.959A**	**10.12A**	**3.091A**	934.683	87.286%	1874	47	46.44°C	0.992
	12.044V	5.021V	3.29V	4.854V	1070.831				67.89°C	114.7V
CL1	**0.116A**	**11.952A**	**12.015A**	**0A**	101.316	84.274%	482	<6.0	40.28°C	0.966
	12.049V	5.037V	3.304V	5.036V	120.222				63.25°C	114.93V

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**	**19.852A**	**0A**	**0A**	101.402	82.97%	673	16.1	41.21°C	0.967
	12.047V	5.037V	3.31V	5.04V	122.217				59.19°C	114.93V
CL3	**0.116A**	**0A**	**20.019A**	**0A**	67.398	77.153%	702	17.6	40.89°C	0.956
	12.043V	5.042V	3.297V	5.039V	87.359				55.5°C	114.93V
CL4	**70.566A**	**0A**	**0A**	**0A**	849.772	89.008%	1146	33.4	45.57°C	0.991
	12.043V	5.029V	3.299V	4.991V	954.72				62.53°C	114.71V

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%	**5.267A**	**1.985A**	**1.991A**	**0.998A**	85.011	87.972%	0	<6.0	46.39°C	0.828
	12.039V	5.039V	3.315V	5.01V	96.636				40.05°C	230.02V
20%	**11.552A**	**2.978A**	**2.989A**	**1.202A**	169.987	91.628%	0	<6.0	46.61°C	0.902
	12.039V	5.038V	3.312V	4.995V	185.519				40.75°C	230.02V
30%	**18.184A**	**3.476A**	**3.49A**	**1.406A**	255.004	92.696%	0	<6.0	47.32°C	0.93
	12.040V	5.037V	3.31V	4.981V	275.096				41.16°C	230.01V
40%	**24.823A**	**3.974A**	**3.99A**	**1.611A**	340.103	93.078%	395	<6.0	41.6°C	0.945
	12.041V	5.034V	3.309V	4.966V	365.397				54.79°C	230V
50%	**31.113A**	**4.97A**	**4.991A**	**1.819A**	425.169	93.023%	405	<6.0	42.12°C	0.955
	12.041V	5.032V	3.306V	4.951V	457.058				56.23°C	229.99V
60%	**37.358A**	**5.966A**	**5.995A**	**2.001A**	509.583	92.83%	407	<6.0	42.76°C	0.962
	12.043V	5.03V	3.304V	4.936V	548.941				58.62°C	229.98V
70%	**43.667A**	**6.963A**	**7A**	**2.237A**	595.047	92.49%	506	<6.0	43.15°C	0.967
	12.044V	5.029V	3.301V	4.919V	643.361				60.74°C	229.97V
80%	**49.984A**	**7.96A**	**8.005A**	**2.344A**	679.894	92.104%	930	27.3	43.85°C	0.971
	12.043V	5.026V	3.298V	4.906V	738.184				60.64°C	229.95V
90%	**56.695A**	**8.46A**	**8.496A**	**2.452A**	765.34	91.677%	1085	31.8	44.01°C	0.974
	12.044V	5.025V	3.296V	4.894V	834.816				62.13°C	229.94V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**63.139A**	**8.96A**	**9.019A**	**3.086A**	850.159	91.147%	1442	39.5	45.98°C	0.976
	12.044V	5.023V	3.293V	4.861V	932.736				63.37°C	229.92V
110%	**69.458A**	**9.96A**	**10.121A**	**3.091A**	934.746	90.524%	1839	46.5	46.35°C	0.978
	12.043V	5.021V	3.29V	4.853V	1032.599				63.21°C	229.91V
CL1	**0.118A**	**11.956A**	**12.013A**	**0A**	101.326	85.191%	483	<6.0	41.93°C	0.857
	12.049V	5.036V	3.305V	5.035V	118.936				58.98°C	230.01V
CL2	**0.116A**	**19.855A**	**0A**	**0A**	101.409	83.888%	674	16.1	41.42°C	0.86
	12.047V	5.037V	3.311V	5.04V	120.888				55.48°C	230.01V
CL3	**0.116A**	**0A**	**20.023A**	**0A**	67.404	77.913%	702	17.6	40.49°C	0.816
	12.041V	5.042V	3.296V	5.039V	86.513				52.62°C	230.01V
CL4	**70.591A**	**0A**	**0A**	**0A**	849.855	91.908%	1100	32.2	45.85°C	0.976
	12.040V	5.028V	3.299V	4.991V	924.686				56.89°C	229.91V

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	**1.234A**	**0.497A**	**0.498A**	**0.198A**	20	69.402%	0	<6.0	37.33°C	0.878
	12.027V	5.031V	3.316V	5.046V	28.816				36.99°C	114.97V
40W	**2.718A**	**0.696A**	**0.697A**	**0.298A**	40	80.227%	0	<6.0	42.67°C	0.934
	12.029V	5.032V	3.316V	5.041V	49.859				37.8°C	114.97V
60W	**4.200A**	**0.894A**	**0.896A**	**0.397A**	60	84.659%	0	<6.0	42.94°C	0.954
	12.031V	5.034V	3.315V	5.036V	70.872				38.26°C	114.95V
80W	**5.678A**	**1.092A**	**1.095A**	**0.497A**	79.955	87.087%	0	<6.0	42.8°C	0.961
	12.033V	5.035V	3.315V	5.031V	91.809				39.14°C	114.95V

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	**1.234A**	**0.496A**	**0.498A**	**0.198A**	20.013	70.282%	0	<6.0	38.84°C	0.554
	12.037V	5.037V	3.316V	5.046V	28.474				36.36°C	230.03V
40W	**2.716A**	**0.695A**	**0.697A**	**0.298A**	40.009	81.259%	0	<6.0	39.74°C	0.694
	12.038V	5.038V	3.315V	5.041V	49.235				37.59°C	230.03V
60W	**4.198A**	**0.894A**	**0.896A**	**0.397A**	60.008	85.676%	0	<6.0	39.97°C	0.778
	12.038V	5.038V	3.315V	5.035V	70.04				38.65°C	230.02V
80W	**5.678A**	**1.092A**	**1.095A**	**0.497A**	79.979	88.076%	0	<6.0	43.47°C	0.821
	12.038V	5.039V	3.315V	5.03V	90.806				39.16°C	230.02V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	21.93mV	10.20mV	5.55mV	10.44mV	Pass
20% Load	23.20mV	10.35mV	5.85mV	10.65mV	Pass
30% Load	23.81mV	10.25mV	6.00mV	11.05mV	Pass
40% Load	22.39mV	10.35mV	6.05mV	12.33mV	Pass
50% Load	22.85mV	11.07mV	6.21mV	11.87mV	Pass
60% Load	22.80mV	10.51mV	6.51mV	12.07mV	Pass
70% Load	22.59mV	10.56mV	6.51mV	12.53mV	Pass
80% Load	22.69mV	11.12mV	10.58mV	12.79mV	Pass
90% Load	24.22mV	11.37mV	11.19mV	12.48mV	Pass
100% Load	24.63mV	11.99mV	11.75mV	12.33mV	Pass
110% Load	31.75mV	22.75mV	15.00mV	23.84mV	Pass
Crossload1	24.22mV	12.39mV	11.95mV	10.90mV	Pass
Crossload2	22.59mV	11.33mV	5.44mV	11.11mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	22.24mV	12.04mV	15.16mV	11.16mV	Pass
Crossload4	25.44mV	11.53mV	6.81mV	11.87mV	Pass

The results above are not used in the certification process

230V

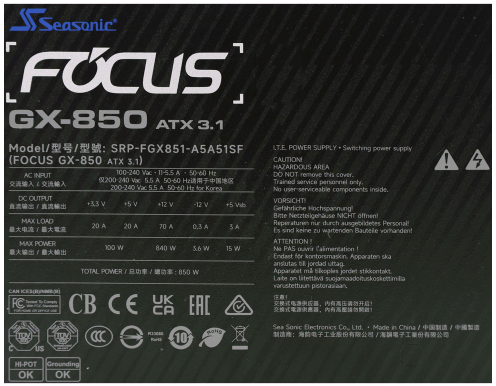
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.69mV	10.15mV	5.44mV	10.19mV	Pass
20% Load	24.52mV	10.15mV	5.85mV	10.34mV	Pass
30% Load	25.24mV	9.95mV	5.65mV	10.70mV	Pass
40% Load	22.54mV	10.20mV	6.05mV	10.75mV	Pass
50% Load	23.71mV	11.02mV	6.46mV	14.52mV	Pass
60% Load	23.46mV	11.07mV	6.51mV	11.62mV	Pass
70% Load	56.23mV	48.30mV	20.80mV	34.74mV	Pass
80% Load	23.40mV	10.92mV	10.83mV	12.18mV	Pass
90% Load	24.68mV	12.50mV	11.44mV	12.63mV	Pass
100% Load	25.60mV	11.99mV	11.65mV	12.84mV	Pass
110% Load	26.00mV	11.83mV	12.31mV	13.25mV	Pass
Crossload1	25.03mV	10.76mV	11.75mV	10.50mV	Pass
Crossload2	23.46mV	10.51mV	5.34mV	10.60mV	Pass
Crossload3	21.78mV	11.53mV	15.05mV	11.00mV	Pass
Crossload4	25.09mV	11.22mV	6.81mV	12.33mV	Pass

The results above are not used in the certification process

Seasonic Focus GX-850 (ATX3.1)



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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