ABYSM GAMING Morpheo GX5 1300W

Serial Number AB1825AB231301LCP0289

Lab ID AB13003149

Certification ID 263149

Test Result Report ID: 26PS3149A

Certificate Issue Date: Feb 6, 2026

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	ABYSM GAMING
Model	Morpheo GX5 1300W
OEM/ODM	Helly
Serial Number	AB1825AB231301LCP0289
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	7.5-15
Rated Frequency (Hz)	50-60
Rated Power (W)	1300
Operating Temperature (Continuous Full Load) (°C)	0 - 50
Type	ATX12V
Cable Design	Fully Modular
Warranty	3 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 140mm
Weight	1.67 kg (3.68 lb)
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225H12F-Z)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	AB13003149
Date of receipt	Jan 19, 2026
Testing Date	Feb 4, 2026
Report Issued Date	Feb 6, 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 (600mm)	1	1	16-22AWG	Tinned Copper
4+4 pin EPS12V (650mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (675mm)	4	4	16AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	1	1	16-24AWG	Tinned Copper
SATA (450mm+120mm+120mm+120mm)	3	12	18AWG	Tinned Copper

Modular Cables				
4-pin Molex (450mm+120mm+120mm+120mm)	1	4	18AWG	Tinned Copper

Protection Features

Under Voltage Protection	✓
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	108	3	0.3
	Watts	120		1296	15	3.6
Total Max. Power (W)		1300				

Parts Description

General Data	
Manufacturer (OEM)	Helly
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF73T-2 20/7 (20 Ohm @ 25°C) & Relay
Bridge Rectifier	2x Willas GBU15J (600V, 15A @ 100°C)
APFC MOSFETs	2x Infineon IPP60R060P7 (650V, 30A @ 100°C, Rds(on): 0.060Ohm)
APFC Boost Diode	Global Power Technology G3S06510A (650V, 10A @ 155°C)
Bulk Cap(s)	2x Nichicon (400V, 680uF each or 1360uF combined, 2000h @ 105°C,GL)
Main Switchers	4x Oriental Semiconductor OSG55R140FF (550V, 14.5A @ 100°C, Rds(on): 140mOhm)

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	12x Hauyi Microelectronics HYG009N04 (40V, 233A @ 100°C, Rds(on): 0.96mOhm)
5V & 3.3V	DC-DC Converters: 2x XSEMI XP3NA3R4MT (30V, 46A @ 100°C, Rds(on): 3.4mOhm) 3x Rectron Semiconductor RMN3N5R0DF (30V, 19.7A @ 70°C, Rds(on): 5mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 4x Nippon Chemi-Con (2000h @ 105°C, KZE) 3x Rubycon (4000h @ 105°C, YXF) Polymer: 23x ChengX (PC), 7x Beryl
Supervisor IC	Weltrend WT7527RA (OVP, UVP, OCP, PG)
Fan Model	Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	1x Diode
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	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	90.207%
Average Noise Output (>1450 Load Combinations)	35.56dBA
Average PF (>1450 Load Combinations)	0.992
Efficiency With 10W (≤500W) or 2% (>500W) Load	72.934%
Standby Power Consumption	0.0536W
Non-Accredited	
12V Ripple (Full Load)	34.21mV
5V Ripple (Full Load)	26.63mV
3.3V Ripple (Full Load)	21.96mV
5VSB Ripple (Full Load)	16.97mV
12V Load Regulation	0.31%
5V Load Regulation	0.50%
3.3V Load Regulation	1.10%
5VSB Load Regulation	1.02%
Inrush Current	12.890A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.428%
Average Noise Output (>1450 Load Combinations)	35.14dBA
Average PF (>1450 Load Combinations)	0.974
Efficiency With 10W (≤500W) or 2% (>500W) Load	73.529%
Standby Power Consumption	0.0866W
Non-Accredited	
12V Ripple (Full Load)	33.60mV
5V Ripple (Full Load)	24.40mV
3.3V Ripple (Full Load)	21.40mV

5VSB Ripple (Full Load)		14.40mV
12V Load Regulation		0.22%
5V Load Regulation		0.48%
3.3V Load Regulation		1.19%
5VSB Load Regulation		1.04%
Inrush Current		24.200A
12V Transient Response (200%)		11.28V
5V Transient Response (200%)		4.883V
3.3V Transient Response (200%)		3.231V
5VSB Transient Response (200%)		4.906V
Hold-Up Time & PWR_OK Signal		24.30ms
AC Loss to PWR_OK Hold Up Time		22.10ms
PWR_OK Inactive to DC Loss Delay		2.20ms
PSU Timings: T1 (20% / 100%)	58.0ms	59.0ms
PSU Timings: T3 (20% / 100%)	125.0ms	123.0ms
12V OCP (28.5°C / 43.3°C)	133.40A (123.52%), 12.173V	127.20A (117.78%), 12.202V
5V OCP (28.5°C / 43.3°C)	31.6A (158.00%), 5.006V	31.3A (156.50%), 5.01V
3.3V OCP (28.5°C / 43.3°C)	34A (170.00%), 3.349V	33.6A (168.00%), 3.348V
5VSB OCP (28.5°C / 43.3°C)	4.3A (143.33%), 4.811V	4.3A (143.33%), 4.798V
OPP (28.80°C / 42.73°C)	131.31%	126.39%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	24.3
AC Loss to PWR_OK Hold Up Time (ms)	22.1
PWR_OK Inactive to DC Loss Delay (ms)	2.2

Stromverbrauch im Ruhezustand

Tables

115V

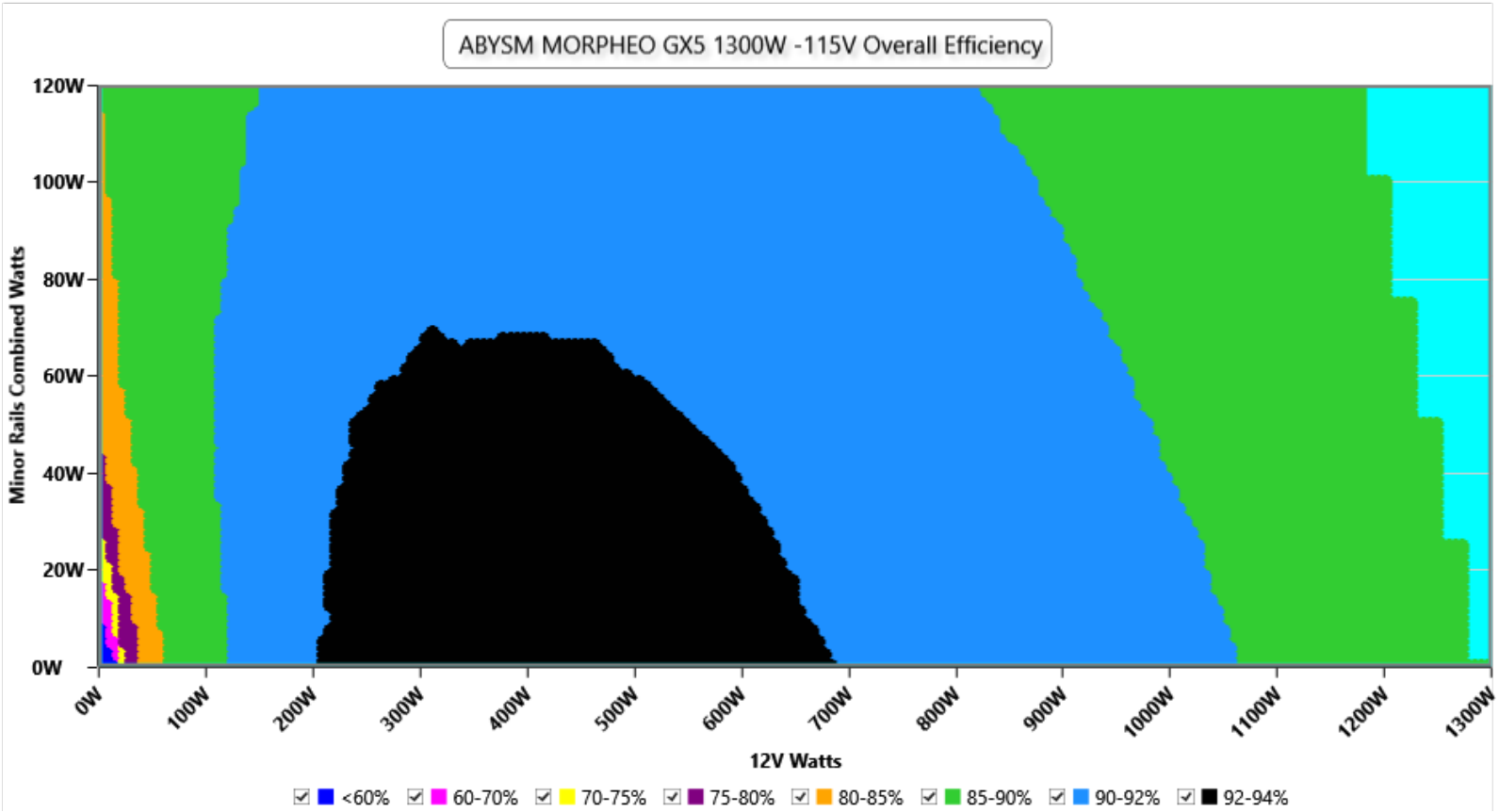
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.05 V	115.02 V	113.85 V	115.06 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.94 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.15 %	2.00 %	PASS
Real Power:	0.054 W	0.035 W	N/A	0.076 W	N/A	N/A
Apparent Power:	7.215 W	7.194 W	N/A	7.235 W	N/A	N/A
Power Factor:	0.008	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.12 V	230.09 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:	0.087 W	0.051 W	N/A	0.177 W	N/A	N/A
Apparent Power:	23.114 W	23.077 W	N/A	23.152 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

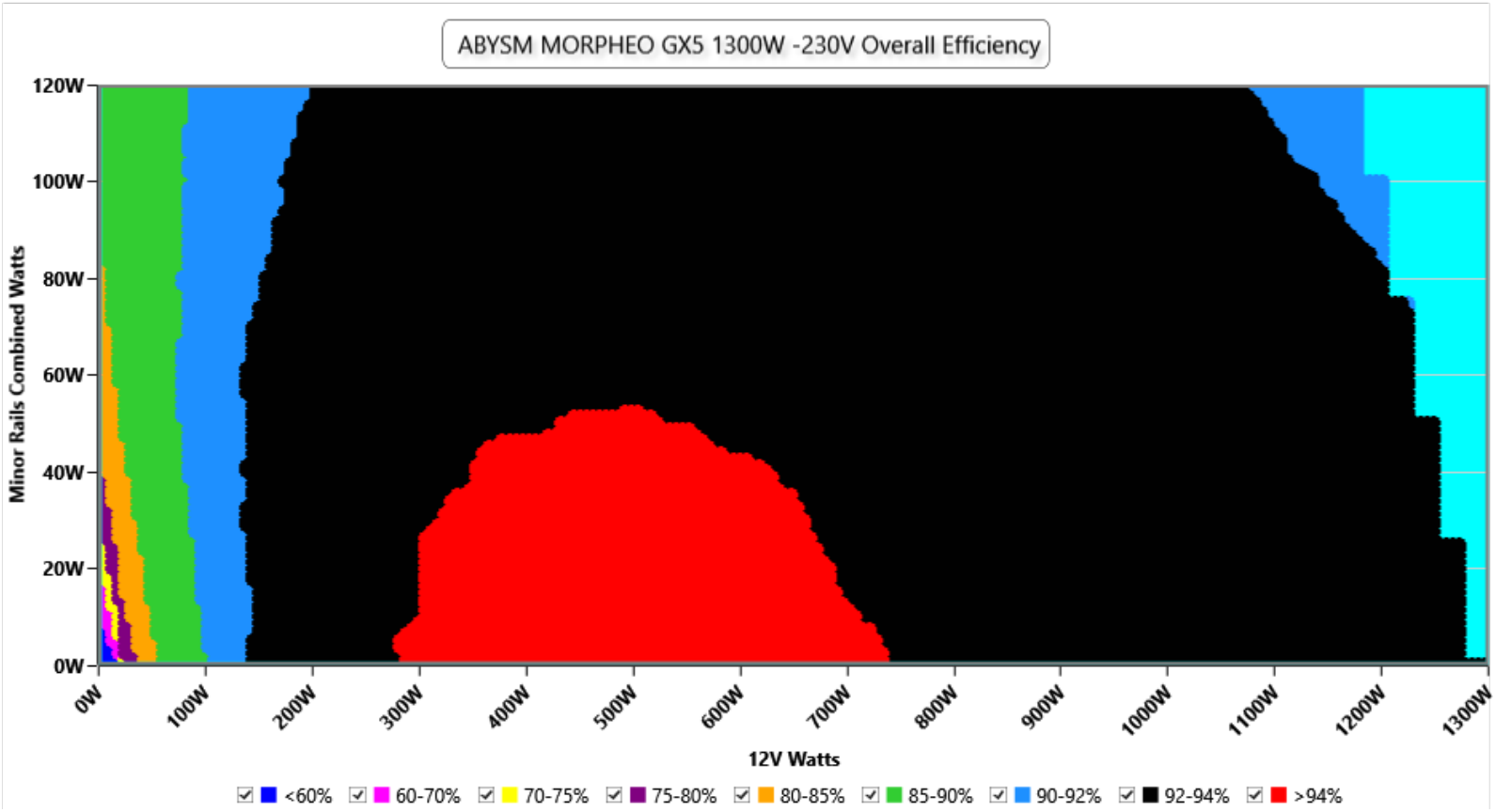
115V



INFO

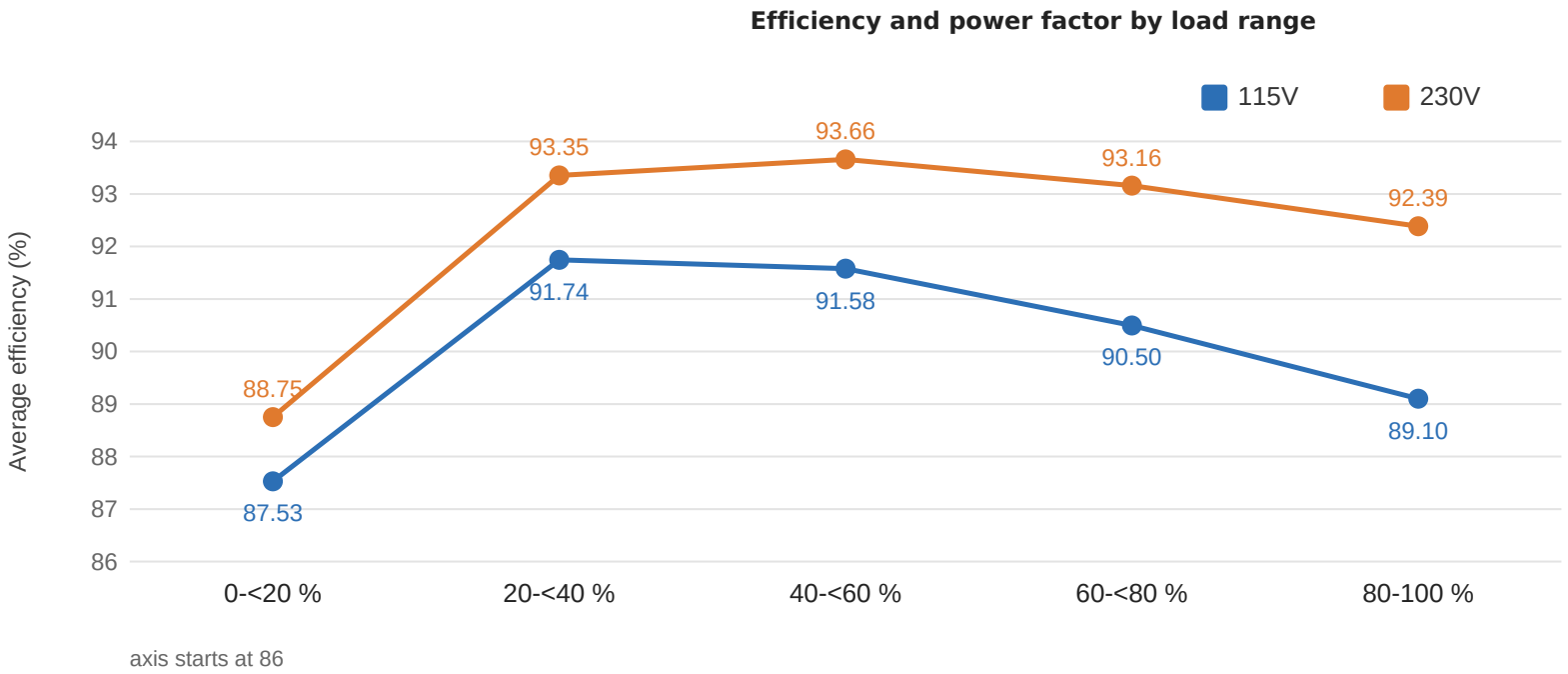
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

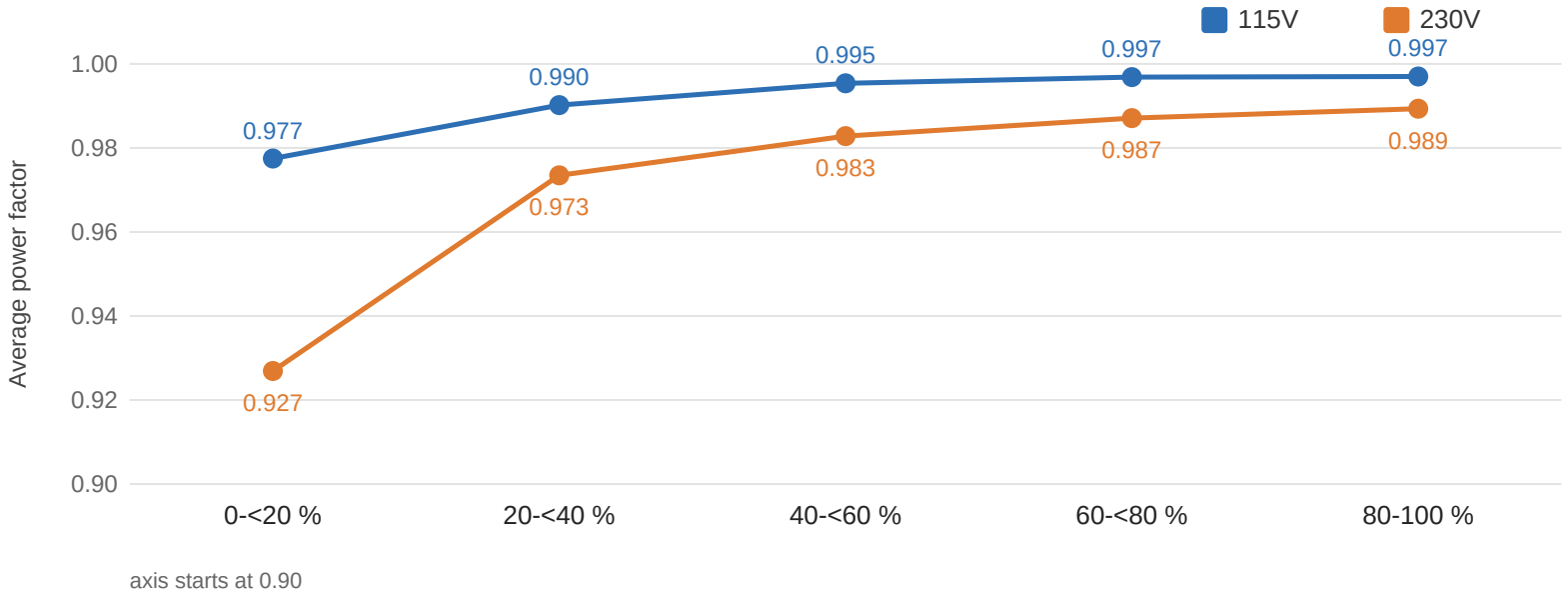


INFO

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 86



axis starts at 0.90

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	251 / 251	87.53%	88.75%	0.977	0.927
20-<40 %	325 / 325	91.74%	93.35%	0.990	0.973
40-<60 %	324 / 324	91.58%	93.66%	0.995	0.983
60-<80 %	325 / 325	90.50%	93.16%	0.997	0.987
80-100 %	330 / 330	89.10%	92.39%	0.997	0.989
70-100 % (High-Load)	493 / 493	89.45%	92.58%	0.997	0.989
All (published average)	1555 / 1555	90.21%	92.43%	0.992	0.974

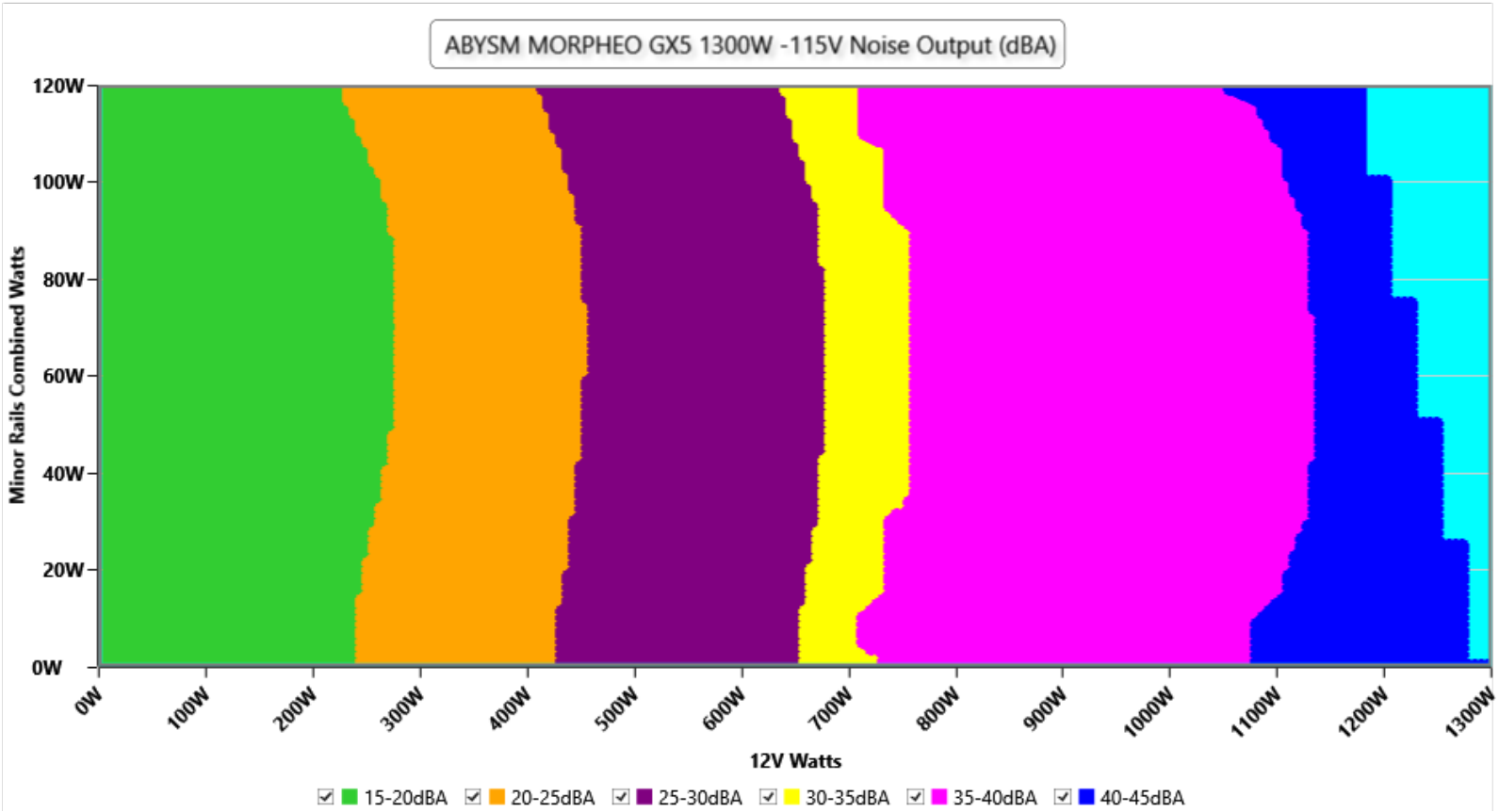
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1555 (115V) and 1555 (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 1300 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

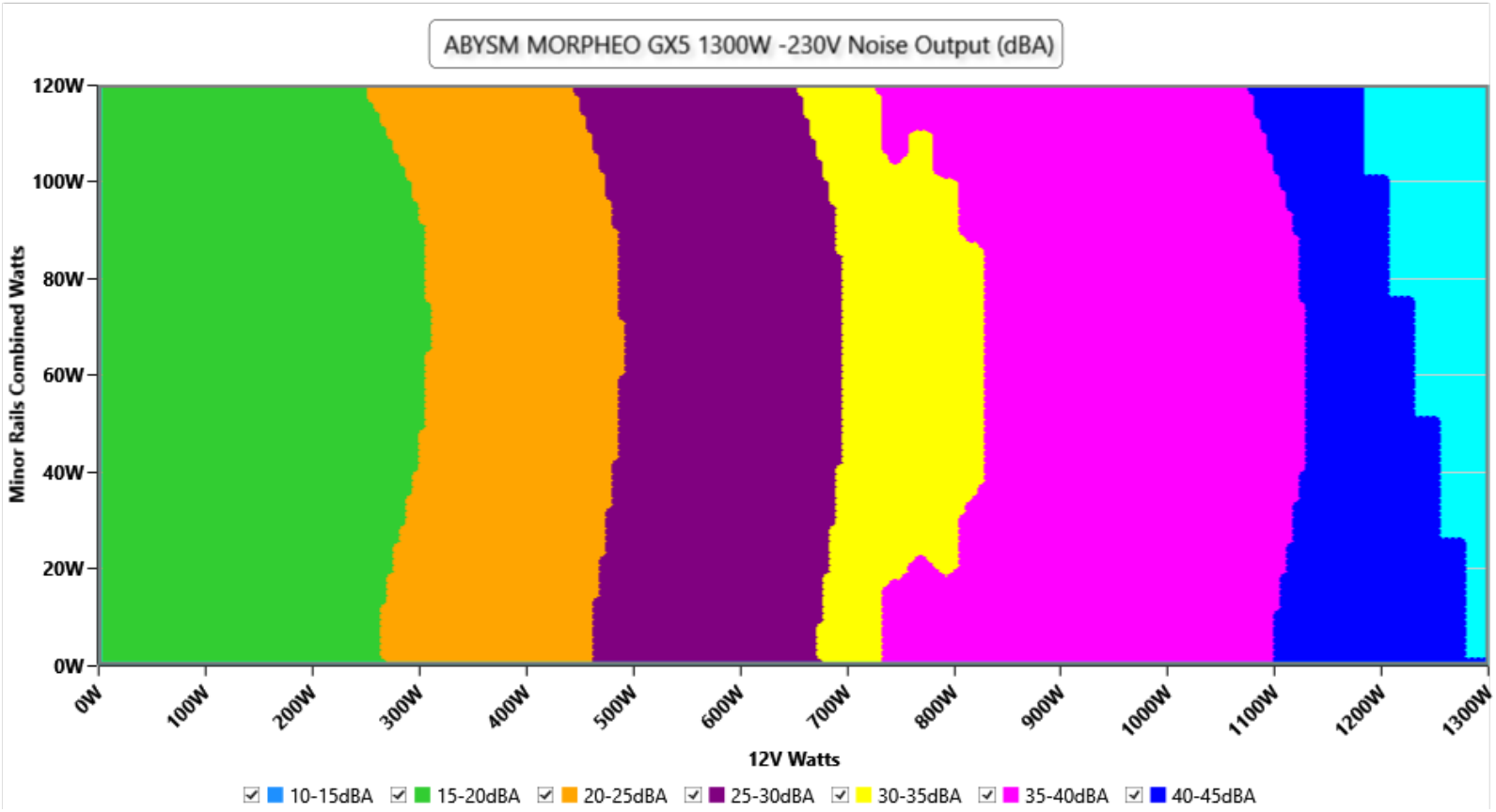
115V



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

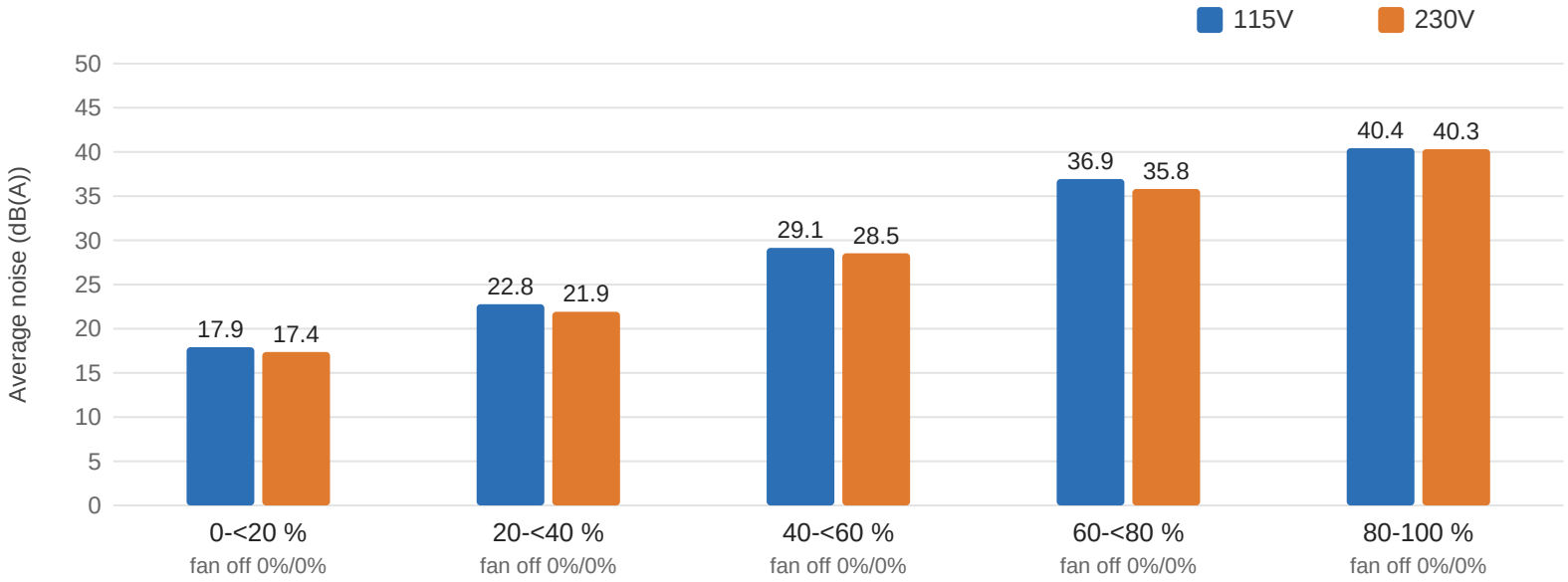
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **39.7 dB(A)** at 115V and **39.5 dB(A)** at 230V · loudest point 41.4 dB(A)

Efficiency 89.45% / 92.58% · power factor 0.997 / 0.989 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	17.9 (19.6)	17.4 (19.6)	0% / 0%
20-<40 %	22.8 (27.5)	21.9 (26.2)	0% / 0%
40-<60 %	29.1 (37.4)	28.5 (35.7)	0% / 0%
60-<80 %	36.9 (39.8)	35.8 (39.7)	0% / 0%
80-100 %	40.4 (41.4)	40.3 (41.4)	0% / 0%
70-100 % (High-Load)	39.7 (41.4)	39.5 (41.4)	0% / 0%
All (published average)	35.6 (41.4)	35.1 (41.4)	0% / 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 1555 (115V) and 1555 (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 1300 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". Below 6 dB(A), the floor of our sound meter, the table and the chart show <6.0. In the averages a stopped fan counts as 5 dB(A),

as in the published average.

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%	774 RPM · 12.2 dB(A) · 30.4 °C	1339 RPM · 29.5 dB(A) · 40.3 °C	**+17.3 dB(A)**
20%	934 RPM · 17.6 dB(A) · 30.5 °C	1374 RPM · 30.1 dB(A) · 40.5 °C	**+12.5 dB(A)**
50%	1234 RPM · 27.1 dB(A) · 30.8 °C	1710 RPM · 37.4 dB(A) · 42.2 °C	**+10.3 dB(A)**
100%	1992 RPM · 41.4 dB(A) · 31.0 °C	2154 RPM · 43.8 dB(A) · 45.0 °C	**+2.4 dB(A)**

230V

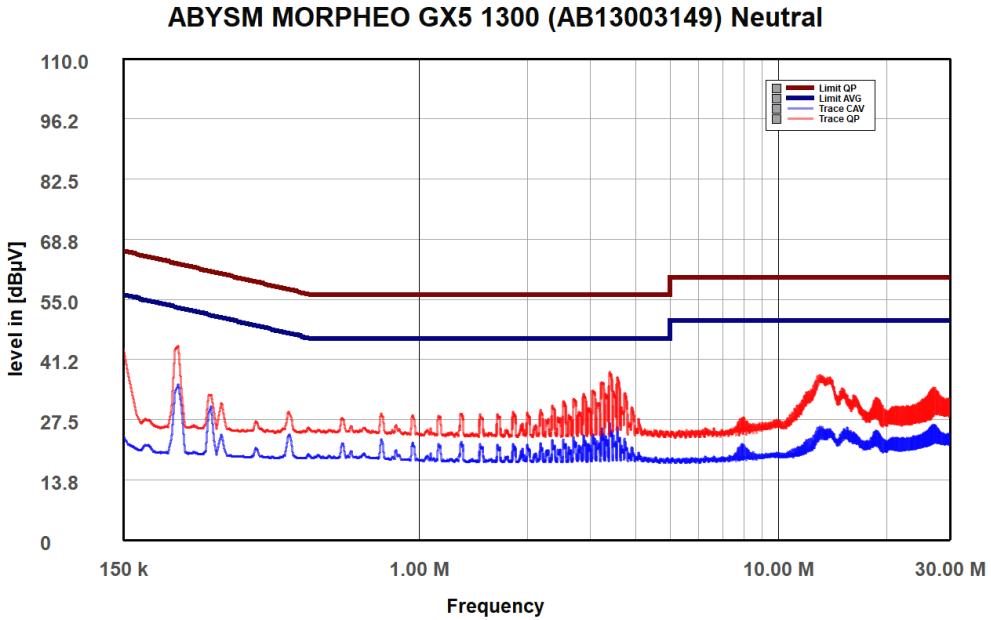
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	885 RPM · 16.3 dB(A) · 30.7 °C	1278 RPM · 28.3 dB(A) · 40.2 °C	**+12.0 dB(A)**
20%	941 RPM · 17.8 dB(A) · 30.1 °C	1322 RPM · 29.3 dB(A) · 40.7 °C	**+11.5 dB(A)**
50%	1176 RPM · 25.5 dB(A) · 31.0 °C	1756 RPM · 37.6 dB(A) · 42.5 °C	**+12.1 dB(A)**
100%	1959 RPM · 41.1 dB(A) · 30.8 °C	2151 RPM · 43.8 dB(A) · 45.7 °C	**+2.7 dB(A)**

INFO

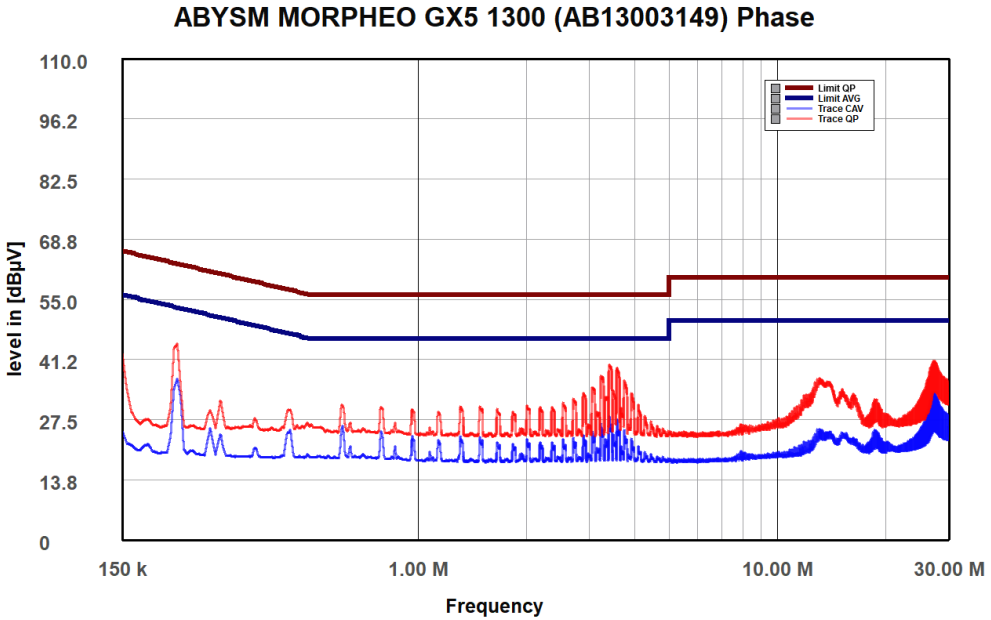
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



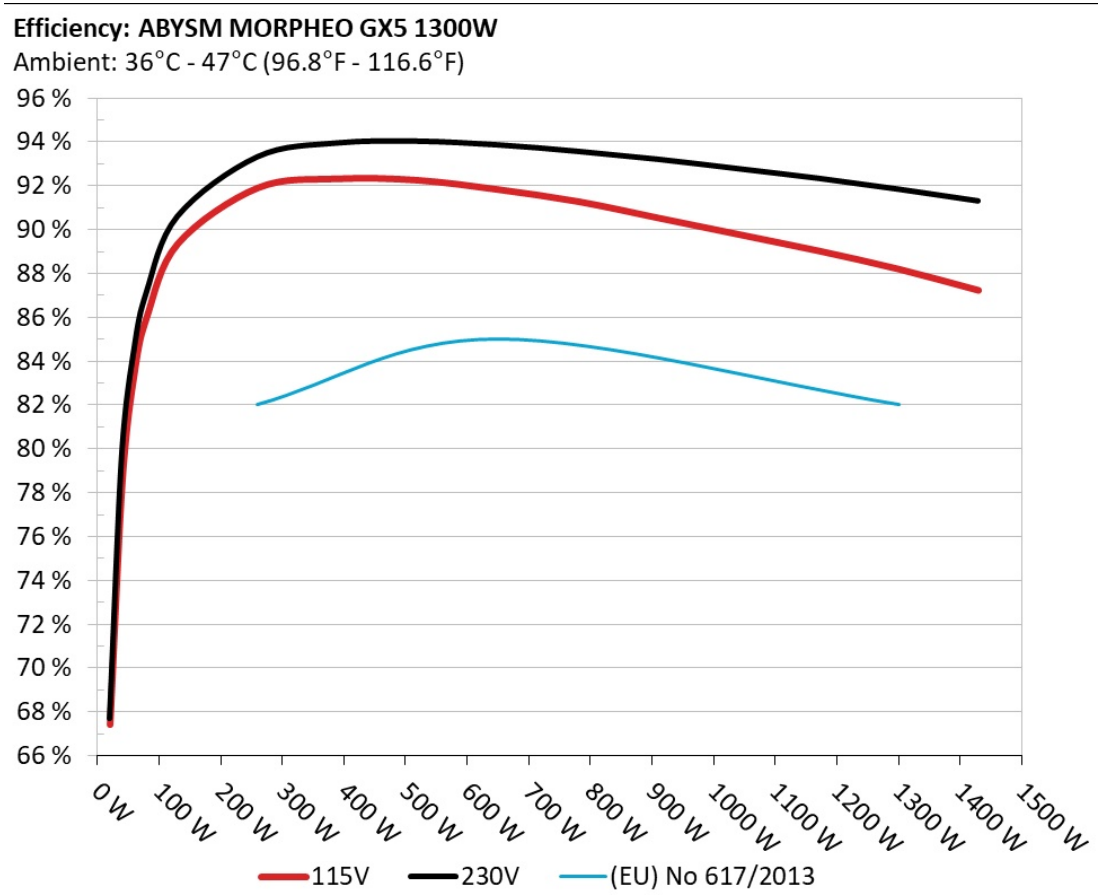
NEUTRAL



PHASE

Indicative Performance

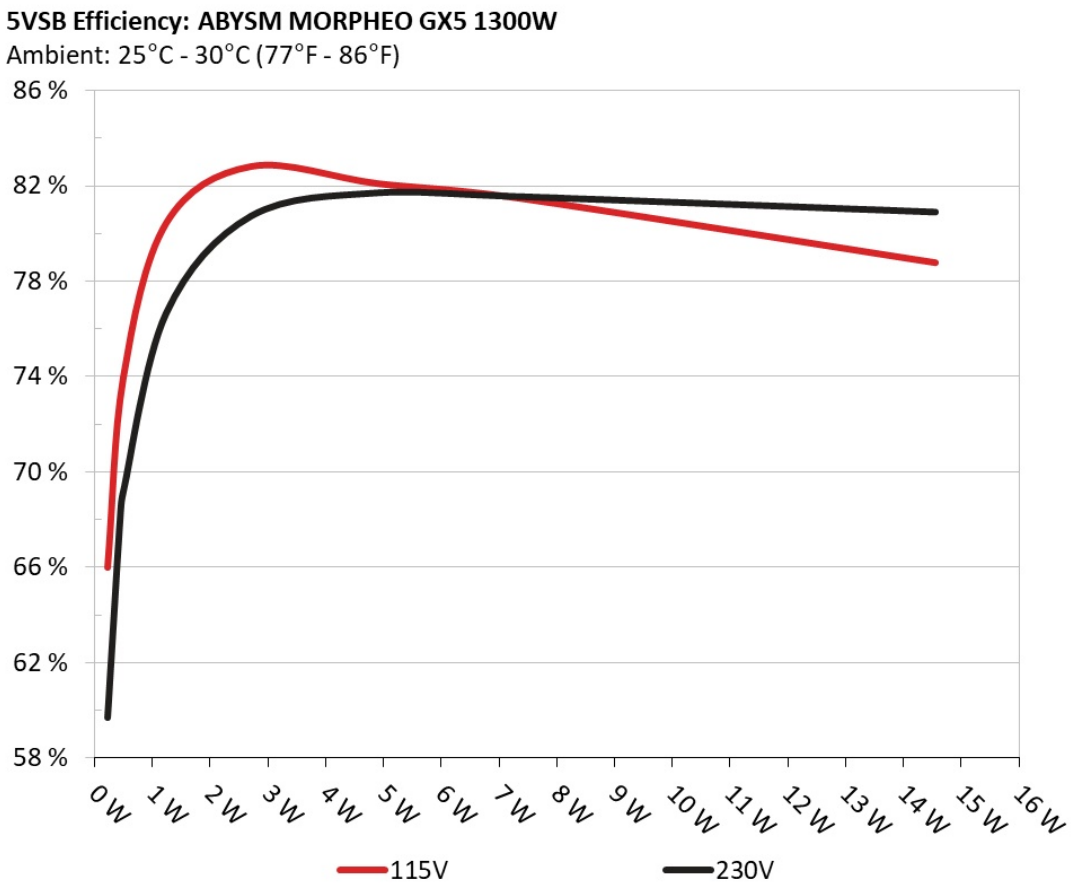
Efficiency under high ambient temperature



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**	0.222W	66.004%	0.049
	4.938V	0.337W		115.09V
2	**0.09A**	0.445W	74.831%	0.084
	4.936V	0.595W		115.09V
3	**0.55A**	2.708W	82.823%	0.334
	4.923V	3.27W		115.08V
4	**1A**	4.911W	82.101%	0.45
	4.91V	5.982W		115.08V
5	**1.5A**	7.345W	81.494%	0.511
	4.896V	9.012W		115.08V
6	**3A**	14.559W	78.79%	0.587
	4.852V	18.479W		115.07V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.222W	59.674%	0.017
	4.937V	0.372W		230.23V
2	**0.09A**	0.445W	68.272%	0.029
	4.936V	0.652W		230.23V
3	**0.55A**	2.708W	80.719%	0.14
	4.923V	3.355W		230.23V
4	**1A**	4.911W	81.692%	0.227
	4.91V	6.012W		230.26V
5	**1.5A**	7.345W	81.533%	0.3
	4.896V	9.008W		230.29V
6	**3A**	14.559W	80.885%	0.418
	4.853V	17.999W		230.3V

Protection Features

OCP (Normal @ 28.5°C)	12V: 133.4A (123.52%), 12.173V 5V: 31.6A (158%), 5.006V 3.3V: 34A (170%), 3.349V 5VSB: 4.3A (143.33%), 4.811V
OCP (Hot @ 43.3°C)	12V: 127.2A (117.78%), 12.202V 5V: 31.3A (156.5%), 5.01V 3.3V: 33.6A (168%), 3.348V 5VSB: 4.3A (143.33%), 4.798V
OPP (Normal @ 28.8°C)	1707W (131.31%)
OPP (Hot @ 42.7°C)	1643.01W (126.39%)
OTP	✓ (140°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%	**8.893A**	**1.999A**	**1.961A**	**1.001A**	129.986	89.367%	1339	29.5	40.25°C	0.978
	12.187V	5.003V	3.366V	4.993V	145.454				45.14°C	115.06V
20%	**18.793A**	**3A**	**2.944A**	**1.202A**	259.943	91.916%	1374	30.1	40.54°C	0.985
	12.188V	5V	3.362V	4.99V	282.802				45.57°C	115.01V
30%	**29.010A**	**3.502A**	**3.439A**	**1.404A**	389.571	92.329%	1407	30.6	41.13°C	0.991
	12.186V	4.998V	3.359V	4.985V	421.942				46.21°C	114.97V
40%	**39.258A**	**4.004A**	**3.935A**	**1.606A**	519.54	92.262%	1461	31.9	41.65°C	0.994
	12.184V	4.996V	3.355V	4.98V	563.116				46.74°C	114.92V
50%	**49.181A**	**5.008A**	**4.925A**	**1.808A**	649.694	91.838%	1710	37.4	42.16°C	0.996
	12.183V	4.993V	3.351V	4.977V	707.436				46.76°C	114.88V
60%	**59.100A**	**6.012A**	**5.916A**	**2A**	779.778	91.289%	1822	39	42.61°C	0.996
	12.183V	4.991V	3.347V	4.975V	854.18				49.28°C	114.83V
70%	**68.987A**	**7.018A**	**6.91A**	**2.213A**	909.926	90.539%	2007	41.1	43.26°C	0.997
	12.189V	4.988V	3.344V	4.972V	1005.01				53.18°C	114.78V
80%	**78.882A**	**8.022A**	**7.904A**	**2.314A**	1039.512	89.792%	2131	43.5	43.65°C	0.997
	12.191V	4.986V	3.34V	4.971V	1157.698				55.06°C	114.73V
90%	**89.165A**	**8.527A**	**8.393A**	**2.416A**	1169.733	89.04%	2149	43.8	44.15°C	0.997
	12.193V	4.984V	3.336V	4.968V	1313.721				58°C	114.69V
100%	**99.179A**	**9.033A**	**8.911A**	**3.027A**	1299.326	88.213%	2154	43.8	45.01°C	0.997
	12.196V	4.982V	3.333V	4.955V	1472.939				61.32°C	114.65V
110%	**109.144A**	**10.039A**	**10.002A**	**3.026A**	1429.51	87.241%	2161	43.9	46.28°C	0.997
	12.197V	4.98V	3.329V	4.957V	1638.579				64.1°C	114.6V
CL1	**0.115A**	**14.453A**	**14.195A**	**0A**	121.299	83.13%	1875	39.8	40.79°C	0.979
	12.194V	4.995V	3.36V	5.067V	145.911				42.84°C	115.06V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	**0.114A**	**20.013A**	**0A**	**0A**	101.365	82.202%	1406	30.6	40.37°C	0.977
	12.184V	4.995V	3.369V	5.097V	123.306				42.09°C	115.06V
CL3	**0.113A**	**0A**	**19.651A**	**0A**	67.379	77.387%	1395	30.5	40.79°C	0.966
	12.178V	5.005V	3.358V	5V	87.064				41.14°C	115.08V
CL4	**106.686A**	**0A**	**0A**	**0A**	1299.868	88.823%	2157	43.8	45.05°C	0.997
	12.184V	4.991V	3.34V	4.976V	1463.443				58.42°C	114.66V

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%	**8.897A**	**1.999A**	**1.961A**	**1.002A**	129.999	90.606%	1278	28.3	40.2°C	0.933
	12.185V	5.003V	3.365V	4.992V	143.479				43.15°C	230.26V
20%	**18.798A**	**3A**	**2.945A**	**1.203A**	259.96	93.323%	1322	29.3	40.65°C	0.964
	12.186V	5.001V	3.361V	4.989V	278.556				44.06°C	230.24V
30%	**29.013A**	**3.501A**	**3.44A**	**1.405A**	389.598	93.952%	1392	30.5	41.43°C	0.975
	12.186V	4.999V	3.357V	4.984V	414.676				45.09°C	230.22V
40%	**39.249A**	**4.003A**	**3.936A**	**1.607A**	519.548	94.032%	1660	36	41.7°C	0.98
	12.187V	4.997V	3.354V	4.979V	552.519				45.49°C	230.2V
50%	**49.163A**	**5.007A**	**4.926A**	**1.809A**	649.689	93.866%	1756	37.6	42.48°C	0.983
	12.188V	4.994V	3.35V	4.976V	692.146				46.9°C	230.18V
60%	**59.066A**	**6.011A**	**5.919A**	**2A**	779.765	93.569%	1846	39.6	42.55°C	0.986
	12.190V	4.992V	3.346V	4.974V	833.354				47.3°C	230.15V
70%	**68.969A**	**7.016A**	**6.914A**	**2.213A**	909.898	93.208%	1964	41.2	43.31°C	0.988
	12.191V	4.99V	3.341V	4.971V	976.208				48.75°C	230.14V
80%	**78.865A**	**8.019A**	**7.91A**	**2.314A**	1039.501	92.781%	2082	42.4	43.81°C	0.989
	12.194V	4.988V	3.337V	4.97V	1120.374				49.6°C	230.12V
90%	**89.152A**	**8.523A**	**8.399A**	**2.416A**	1169.733	92.344%	2146	43.7	44.98°C	0.99
	12.195V	4.986V	3.334V	4.967V	1266.707				51.28°C	230.09V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**99.158A**	**9.029A**	**8.919A**	**3.028A**	1299.33	91.849%	2151	43.8	45.65°C	0.991
	12.199V	4.983V	3.33V	4.954V	1414.646				53.62°C	230.07V
110%	**109.101A**	**10.037A**	**10.012A**	**3.028A**	1429.514	91.31%	2160	43.9	46.8°C	0.991
	12.202V	4.981V	3.325V	4.955V	1565.558				55.52°C	230.04V
CL1	**0.115A**	**14.443A**	**14.21A**	**0A**	121.303	84.433%	1883	39.8	41.15°C	0.934
	12.194V	4.999V	3.356V	5.066V	143.67				45.1°C	230.26V
CL2	**0.115A**	**19.993A**	**0A**	**0A**	101.375	83.238%	1709	37.4	40.93°C	0.922
	12.191V	5V	3.369V	5.097V	121.789				43.68°C	230.27V
CL3	**0.114A**	**0A**	**19.674A**	**0A**	67.384	78.033%	1674	36.5	41.13°C	0.889
	12.184V	5.004V	3.354V	5V	86.354				42.94°C	230.27V
CL4	**106.587A**	**0A**	**0A**	**0A**	1299.881	92.295%	2154	43.8	45.93°C	0.99
	12.195V	4.99V	3.339V	4.975V	1408.406				53.3°C	230.07V

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	**1.221A**	**0.499A**	**0.49A**	**0.2A**	19.996	67.422%	940	17.8	36.28°C	0.916
	12.158V	5.007V	3.37V	5.006V	29.658				38.4°C	115.1V
40W	**2.684A**	**0.699A**	**0.686A**	**0.3A**	39.997	78.577%	1046	21.7	37.6°C	0.947
	12.174V	5.007V	3.37V	5.005V	50.9				39.61°C	115.09V
60W	**4.150A**	**0.899A**	**0.881A**	**0.4A**	59.997	83.558%	1057	22.1	38.47°C	0.964
	12.174V	5.007V	3.369V	5.003V	71.802				39.08°C	115.08V
80W	**5.609A**	**1.099A**	**1.078A**	**0.5A**	79.935	86.041%	1174	25.4	39.18°C	0.966
	12.178V	5.005V	3.368V	5V	92.905				41.63°C	115.08V

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	**1.220A**	**0.499A**	**0.49A**	**0.2A**	20.002	67.713%	1112	23.6	36.62°C	0.668
	12.173V	5.007V	3.37V	5.006V	29.535				38.95°C	230.28V
40W	**2.684A**	**0.699A**	**0.686A**	**0.3A**	40.002	79.855%	1129	24.1	37.31°C	0.797
	12.178V	5.007V	3.37V	5.004V	50.093				38.93°C	230.28V
60W	**4.150A**	**0.899A**	**0.882A**	**0.4A**	60.001	84.599%	1140	24.4	38.27°C	0.861
	12.178V	5.007V	3.369V	5.003V	70.924				39.51°C	230.28V
80W	**5.609A**	**1.099A**	**1.078A**	**0.5A**	79.945	87.156%	1179	25.6	39.19°C	0.896
	12.180V	5.005V	3.368V	5V	91.728				40.52°C	230.27V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	25.52mV	16.38mV	15.56mV	11.20mV	Pass
20% Load	27.01mV	19.27mV	15.62mV	12.34mV	Pass
30% Load	26.96mV	18.81mV	16.39mV	12.08mV	Pass
40% Load	25.93mV	20.45mV	17.37mV	12.80mV	Pass
50% Load	27.53mV	20.71mV	18.15mV	13.37mV	Pass
60% Load	26.97mV	21.64mV	18.82mV	14.14mV	Pass
70% Load	27.32mV	23.13mV	18.98mV	14.97mV	Pass
80% Load	29.39mV	23.96mV	20.32mV	15.28mV	Pass
90% Load	30.73mV	25.40mV	21.62mV	16.21mV	Pass
100% Load	34.21mV	26.63mV	21.96mV	16.97mV	Pass
110% Load	35.27mV	29.50mV	24.63mV	19.15mV	Pass
Crossload1	27.57mV	17.45mV	17.06mV	11.55mV	Pass
Crossload2	27.58mV	24.21mV	16.55mV	16.72mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	26.24mV	16.23mV	18.41mV	10.58mV	Pass
Crossload4	32.38mV	24.64mV	21.42mV	16.24mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	26.71mV	18.24mV	16.29mV	10.79mV	Pass
20% Load	26.86mV	18.19mV	16.45mV	11.72mV	Pass
30% Load	28.46mV	19.06mV	16.81mV	11.82mV	Pass
40% Load	27.58mV	19.78mV	17.01mV	12.54mV	Pass
50% Load	27.38mV	21.33mV	18.25mV	12.49mV	Pass
60% Load	27.79mV	22.25mV	18.46mV	12.85mV	Pass
70% Load	28.41mV	22.98mV	19.24mV	13.99mV	Pass
80% Load	29.70mV	23.55mV	19.96mV	14.25mV	Pass
90% Load	31.71mV	24.47mV	21.46mV	14.19mV	Pass
100% Load	33.60mV	24.40mV	21.40mV	14.40mV	Pass
110% Load	34.29mV	27.62mV	21.37mV	15.05mV	Pass
Crossload1	27.24mV	18.04mV	16.98mV	11.58mV	Pass
Crossload2	28.41mV	24.11mV	16.75mV	15.64mV	Pass
Crossload3	28.20mV	16.59mV	18.56mV	10.63mV	Pass
Crossload4	31.97mV	23.07mV	20.33mV	13.22mV	Pass

The results above are not used in the certification process

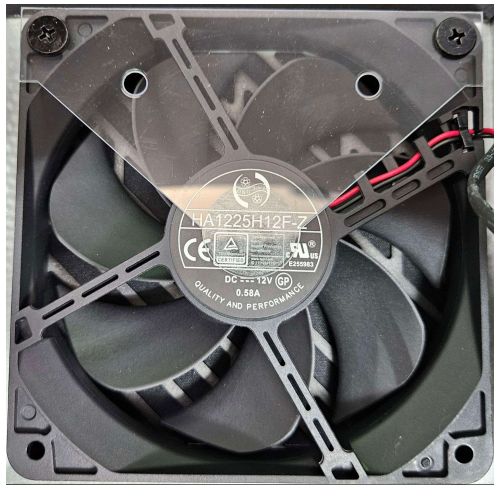
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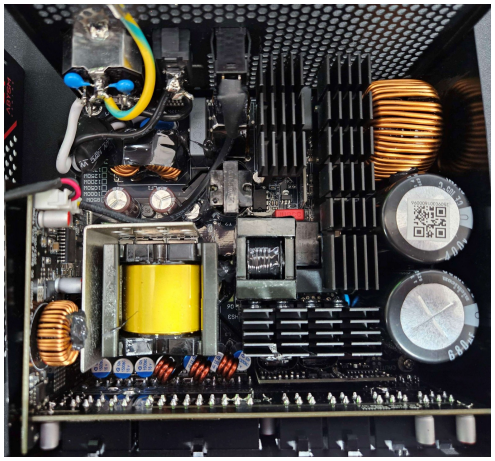
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Power specifications label



Fan



PSU Internals

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