GIGABYTE™

Gigabyte GP-AE850PM PG5 / PG5 ICE

Serial Number -

Lab ID GB85003057

Certification ID 253057

Test Result Report ID: 25PS3057A

Certificate Issue Date: Dec 8, 2025

Scheme: ETA-EMI PSU

115V



230V

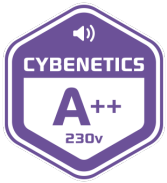


Scheme: LAMBDA PSU

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	Gigabyte
Model	GP-AE850PM PG5 / PG5 ICE
OEM/ODM	XIAMEN CASTEC ELECTRONIC INDUSTRY
Serial Number	-
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	6-12

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	1.61 kg (3.55 lbs)
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225M12F-Z)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	GB85003057
Date of receipt	Nov 7, 2025
Testing Date	Dec 5, 2025
Report Issued Date	Dec 8, 2025
DUT Notes	• The results apply to the ICE models too, as they are identical. • Some protection features need adjustment.
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 20+4 pin (645mm)	1	1	16AWG	Tinned Copper
4+4 pin EPS12V (700mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (750mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (650mm+150mm)	2	4	16AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	1	1	16-26AWG	Tinned Copper

SATA (600mm+150mm+150mm+150mm)	2	8	18AWG	Tinned Copper
4-pin Molex (500mm+145mm+145mm+150mm)	1	4	18AWG	Tinned Copper
AC Power Cord (1370mm) - 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	25	25	70.8	3	0.3
	Watts	125		849.6	15	3.6
Total Max. Power (W)		850				

Parts Description

General Data	
Manufacturer (OEM)	Xiamen Castec Electronic Industry
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor NTC 5D-15 (5 Ohm @ 25°C) & Relay
Bridge Rectifier	2x GBU1506 (600V, 15A @ 100°C)
APFC MOSFETs	2x Infineon IPP60R099P7 (600V, 31A @ 25°C, Rds(on): 0.099Ohm)
APFC Boost Diode	STMicroelectronics STPSC10H065 (650V, 10A @ 135°C)
Bulk Cap(s)	Nippon Chemi-Con (400V, 820uF, 2000h @ 105°C, KMW)

Main Switchers	4x Infineon IPP60R180P7 (600V, 18A @ 25°C, Rds(on): 0.180Ohm)
APFC Controller	Champion CM6500UNX & Champion CM03X (reducing no load consumption)
Resonant Controller	Champion CU6901VACN
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): 1.4mOhm)
5V & 3.3V	DC-DC Converters: no info PWM Controller(s): 2x UPI-Semi uP9303
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (@ 105°C, W) Nippon Chemi-Con (6-10,000h @ 105°C, KY) 4x Rubycon (4-10,000 @ 105°C, YXJ) Rubycon (6-10,000 @ 105°C, ZLH) Rubycon (4-10,000 @ 105°C, YXF) Polymer: 32x Nippon Chemi-Con
Supervisor IC	Weltrend WT7502R (OVP, UVP, OCP, PG)
Fan Model	Hong Hua HA1225M12F-Z (120mm, 12V, 0.45A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	Rectron Semiconductor ES1J (600V, 1A)
Standby PWM Controller	Dongke DK025G (650V, 0.8Ohm)

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)	89.980%
Average Noise Output (>1450 Load Combinations)	12.66dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	68.235%
Standby Power Consumption	0.0319W
Non-Accredited	
12V Ripple (Full Load)	26.19mV
5V Ripple (Full Load)	20.45mV
3.3V Ripple (Full Load)	13.45mV
5VSB Ripple (Full Load)	28.96mV
12V Load Regulation	0.25%
5V Load Regulation	0.64%
3.3V Load Regulation	1.03%
5VSB Load Regulation	1.77%
Inrush Current	32.950A

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.926%
Average Noise Output (>1450 Load Combinations)	12.90dBA
Average PF (>1450 Load Combinations)	0.959
Efficiency With 10W (≤500W) or 2% (>500W) Load	69.202%
Standby Power Consumption	0.0479W
Non-Accredited	
12V Ripple (Full Load)	28.36mV
5V Ripple (Full Load)	13.45mV
3.3V Ripple (Full Load)	12.78mV

5VSB Ripple (Full Load)		24.98mV
12V Load Regulation		0.24%
5V Load Regulation		0.62%
3.3V Load Regulation		1.03%
5VSB Load Regulation		1.77%
Inrush Current		65.580A
12V Transient Response (200%)		11.56V
5V Transient Response (200%)		4.955V
3.3V Transient Response (200%)		3.241V
5VSB Transient Response (200%)		4.983V
Hold-Up Time & PWR_OK Signal		20.20ms
AC Loss to PWR_OK Hold Up Time		16.50ms
PWR_OK Inactive to DC Loss Delay		3.70ms
PSU Timings: T1 (20% / 100%)	70.0ms	69.0ms
PSU Timings: T3 (20% / 100%)	127.0ms	128.0ms
12V OCP (28.6°C / 43.5°C)	92.80A (131.07%), 12.069V	91.60A (129.38%), 12.077V
5V OCP (28.6°C / 43.5°C)	31.5A (126.00%), 4.982V	30.1A (120.40%), 4.829V *Voltage Drop(4.623V @ 30.4A)
3.3V OCP (28.6°C / 43.5°C)	31.7A (126.80%), 3.292V	30.6A (122.40%), 3.289V
5VSB OCP (28.6°C / 43.5°C)	4.1A (136.67%), 4.985V *High Ripple (103.64mV)	3.8A (126.67%), 4.988V *High Ripple (103.64mV)
OPP (28.80°C / 43.40°C)	129.25%	126.91%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	20.2
AC Loss to PWR_OK Hold Up Time (ms)	16.5
PWR_OK Inactive to DC Loss Delay (ms)	3.7

Vampire Power

Tables

115V

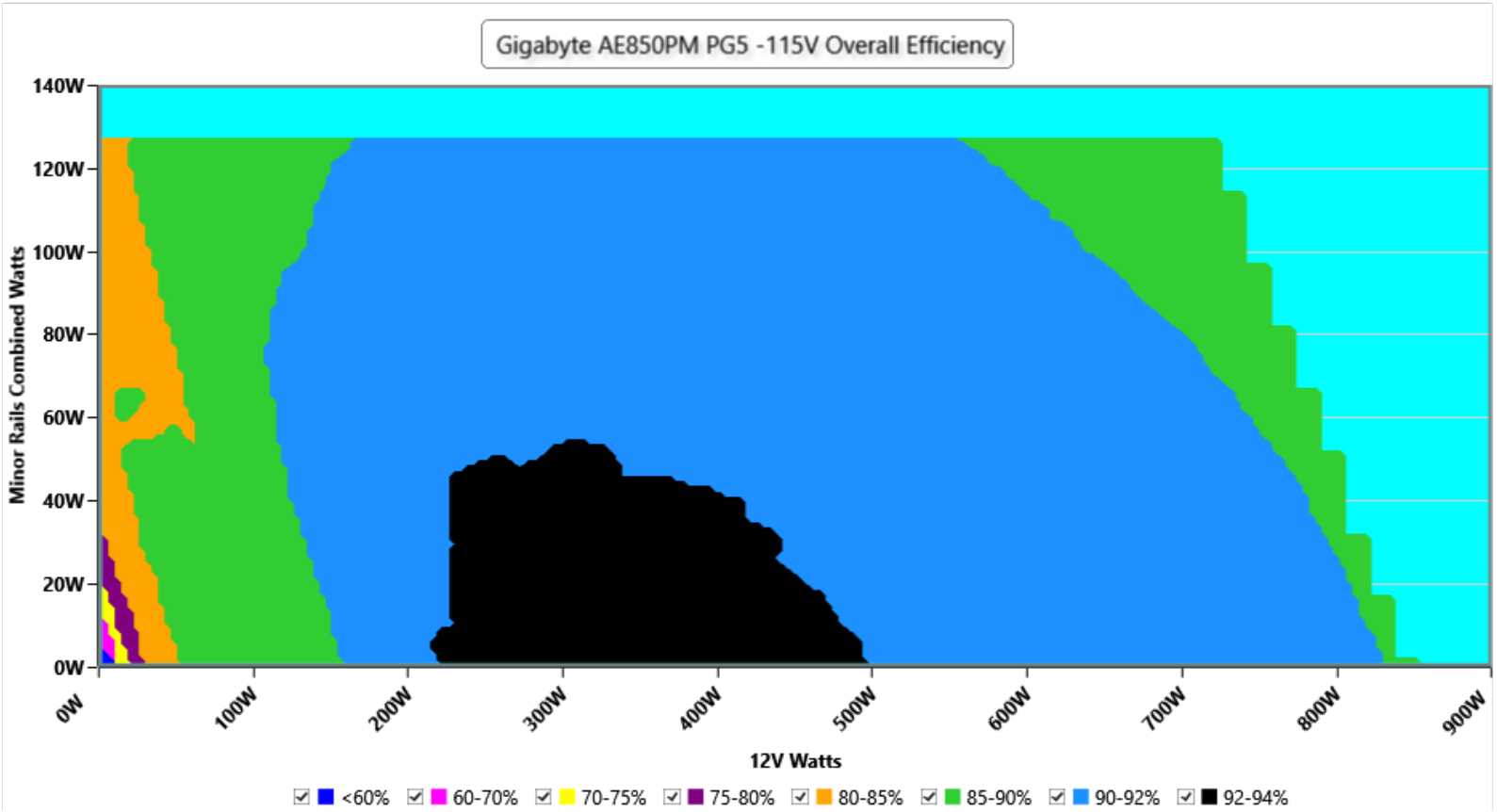
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.01 V	115.00 V	113.85 V	115.05 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.032 W	0.015 W	N/A	0.052 W	N/A	N/A
Apparent Power:	8.832 W	8.807 W	N/A	8.857 W	N/A	N/A
Power Factor:	0.004	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	230.01 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:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.048 W	0.014 W	N/A	0.100 W	N/A	N/A
Apparent Power:	28.733 W	28.693 W	N/A	28.767 W	N/A	N/A
Power Factor:	0.001	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

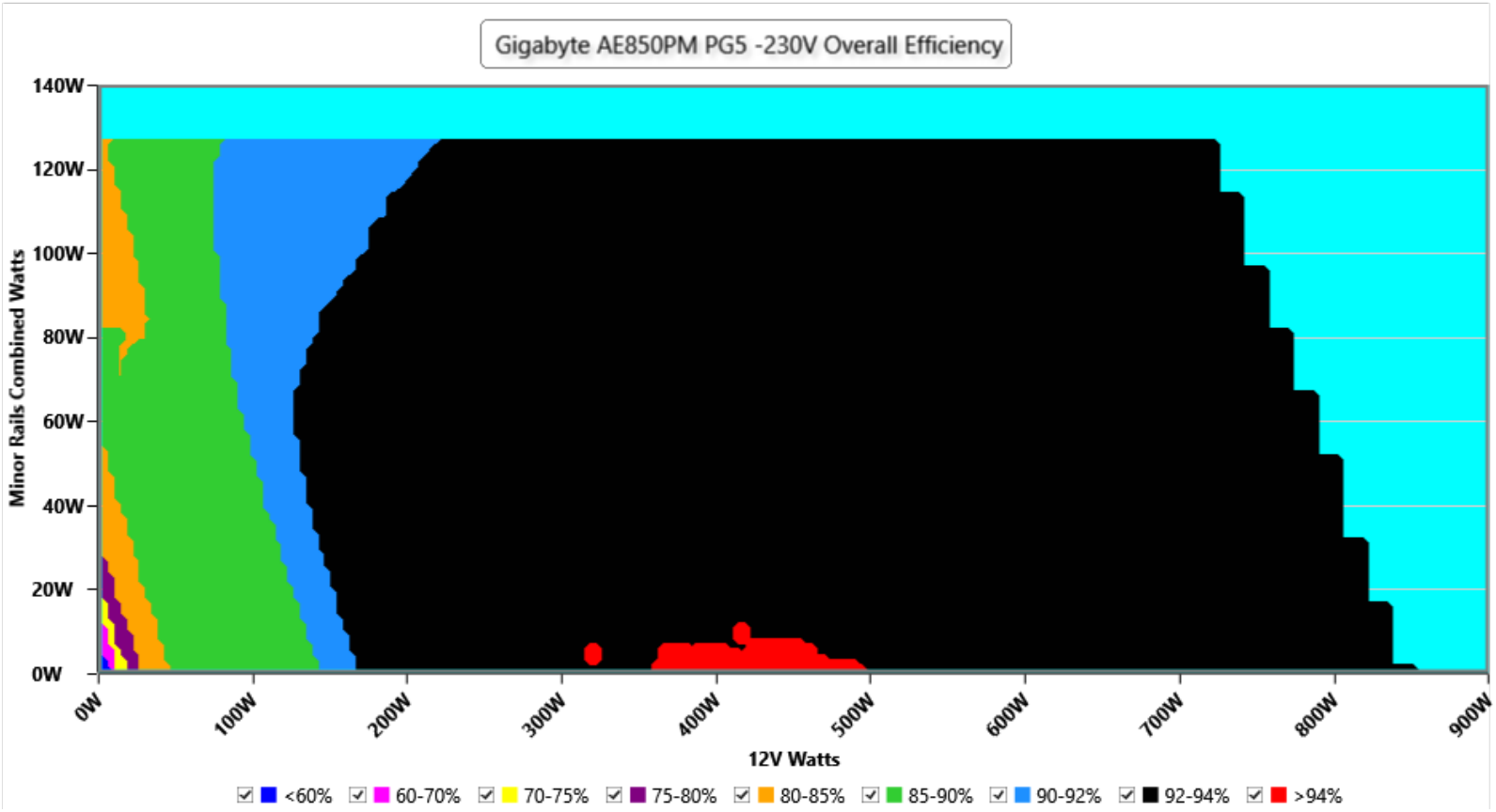
115V



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

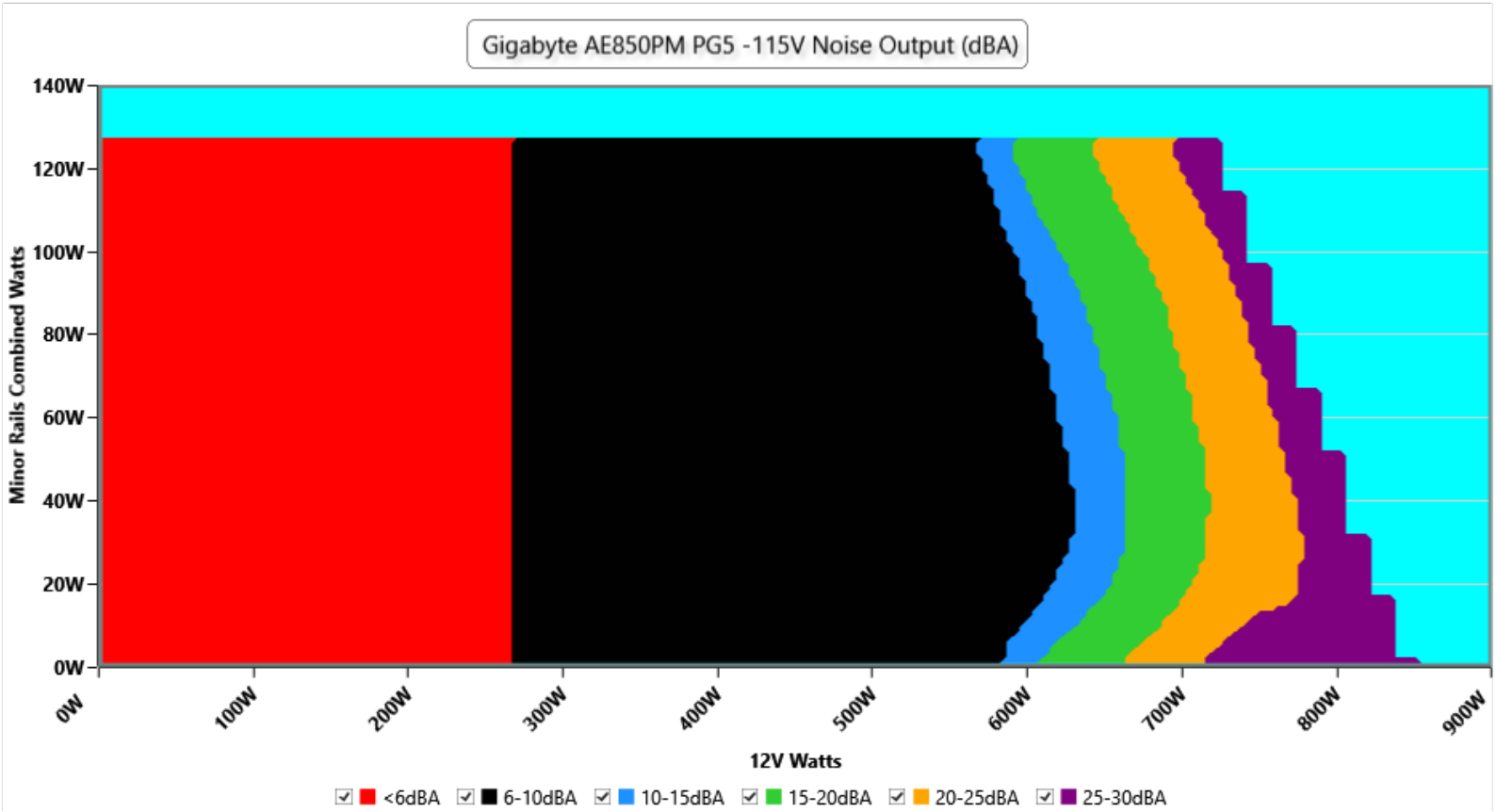


INFO

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

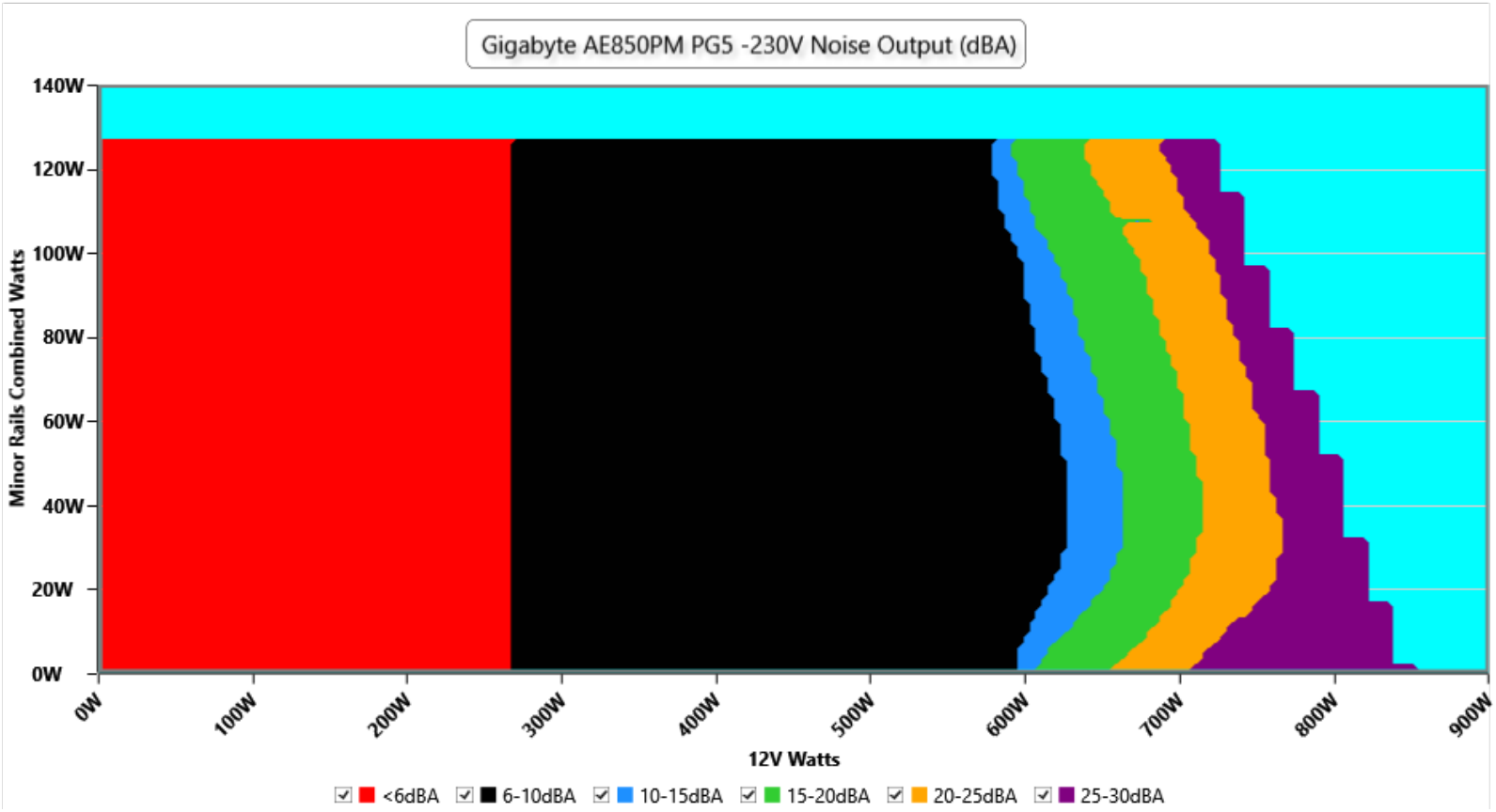
115V



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) · 39.6 °C	0 RPM · <6.0 dB(A) · 52.9 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 37.4 °C	0 RPM · <6.0 dB(A) · 54.2 °C	fan off in both
50%	569 RPM · 7.4 dB(A) · 30.9 °C	605 RPM · 6.9 dB(A) · 42.0 °C	**-0.5 dB(A)**
100%	1078 RPM · 23.8 dB(A) · 30.1 °C	1840 RPM · 40.2 dB(A) · 45.9 °C	**+16.4 dB(A)**

230V

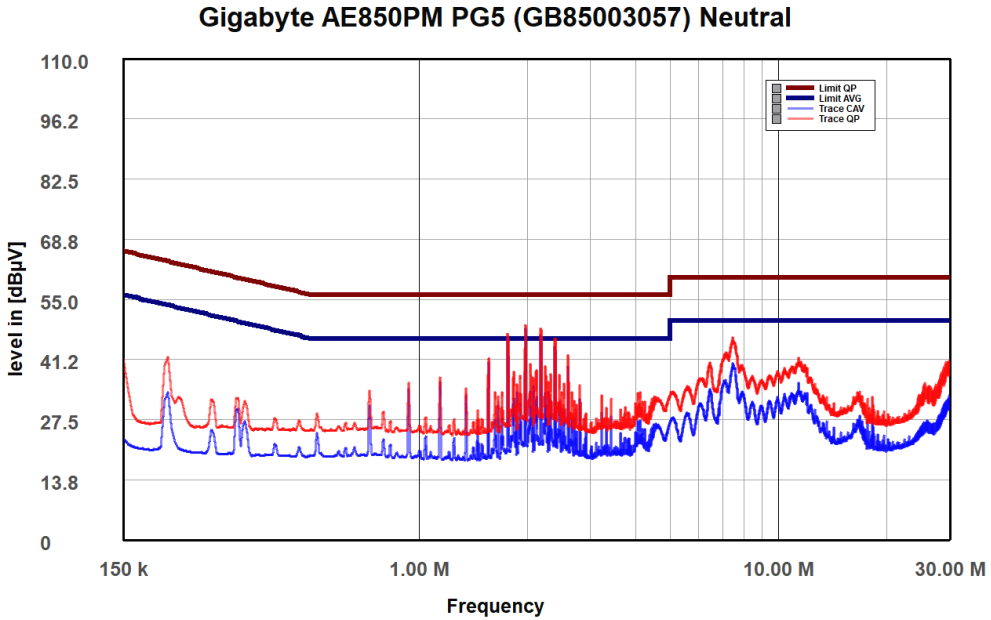
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 31.7 °C	0 RPM · <6.0 dB(A) · 47.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 32.0 °C	0 RPM · <6.0 dB(A) · 48.0 °C	fan off in both
50%	588 RPM · 6.1 dB(A) · 30.6 °C	605 RPM · 6.9 dB(A) · 42.4 °C	**+0.8 dB(A)**
100%	1040 RPM · 22.9 dB(A) · 30.1 °C	1838 RPM · 40.2 dB(A) · 45.6 °C	**+17.3 dB(A)**

INFO

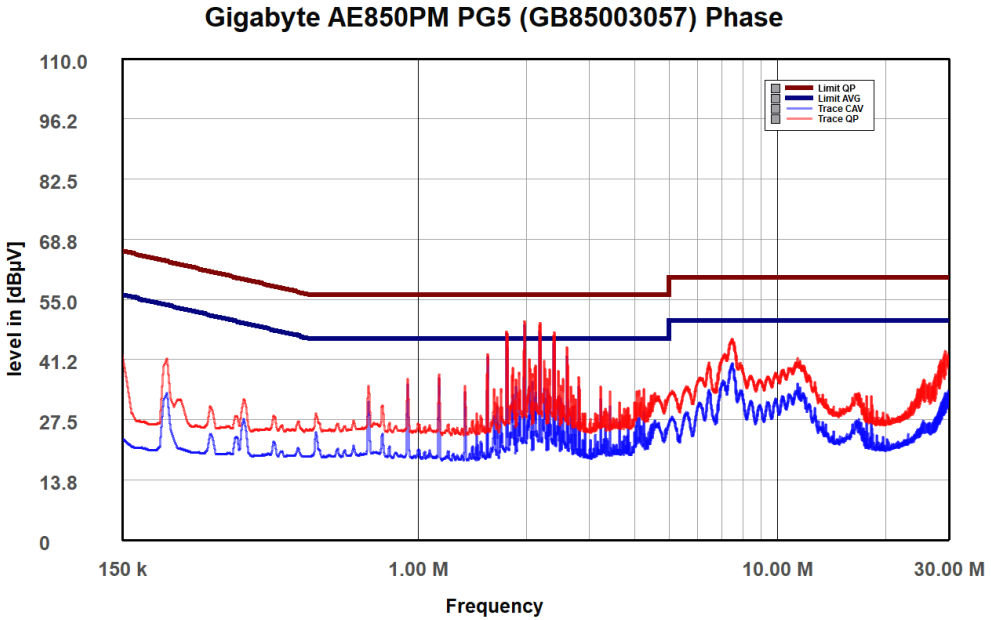
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



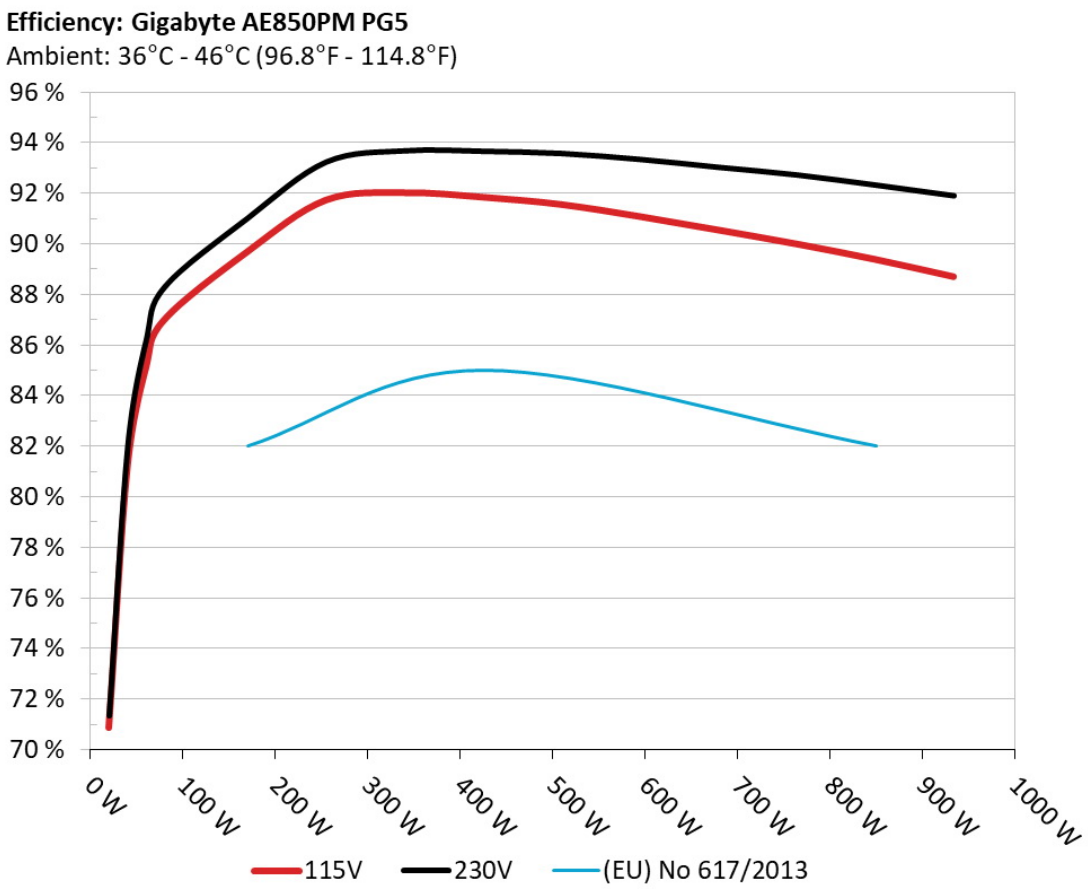
NEUTRAL



PHASE

Indicative Performance

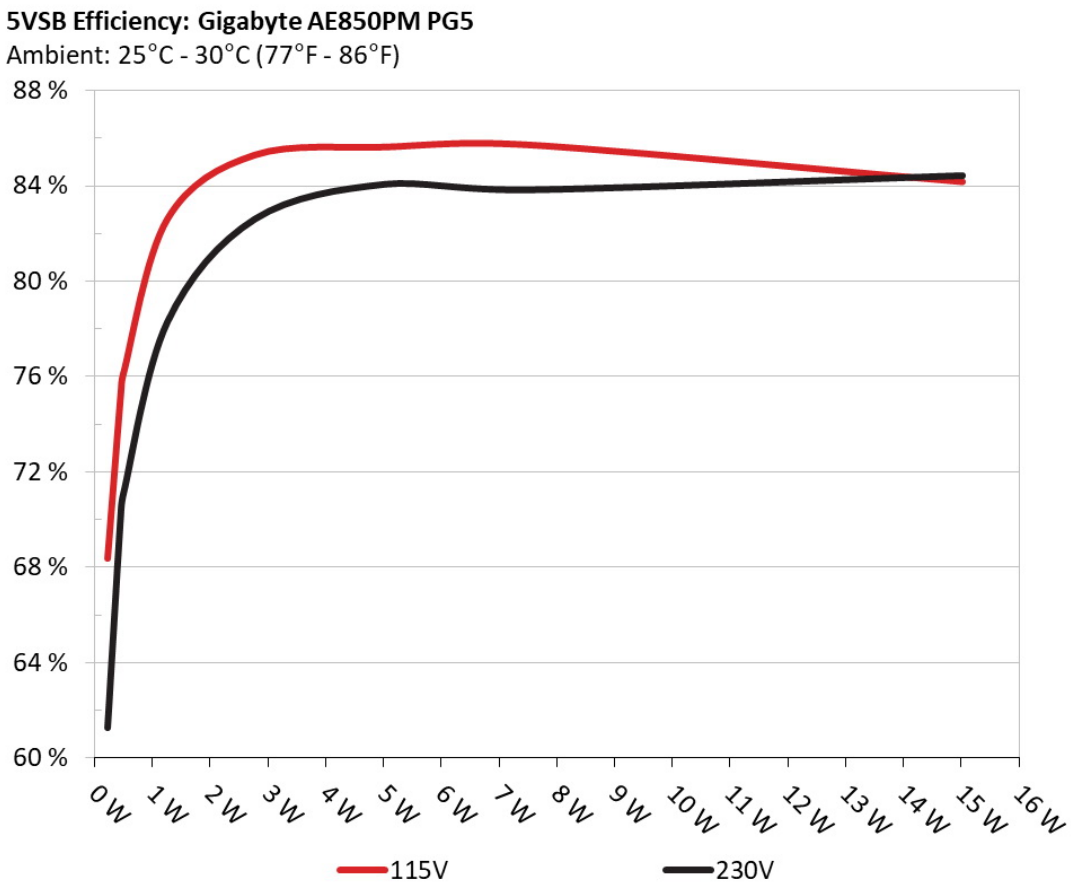
Efficiency under high ambient temperature



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**	0.228W	68.378%	0.038
	5.056V	0.334W		115.08V
2	**0.09A**	0.455W	75.287%	0.069
	5.055V	0.605W		115.08V
3	**0.55A**	2.776W	85.32%	0.276
	5.048V	3.253W		115.08V
4	**1A**	5.04W	85.653%	0.37
	5.04V	5.885W		115.08V
5	**1.5A**	7.548W	85.737%	0.415
	5.032V	8.805W		115.07V
6	**3A**	15.02W	84.193%	0.477
	5.006V	17.84W		115.07V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.228W	61.269%	0.013
	5.056V	0.372W		230.25V
2	**0.09A**	0.455W	70.213%	0.023
	5.055V	0.648W		230.24V
3	**0.55A**	2.776W	82.602%	0.112
	5.048V	3.36W		230.22V
4	**1A**	5.04W	84.065%	0.182
	5.04V	5.995W		230.21V
5	**1.5A**	7.548W	83.829%	0.244
	5.031V	9.004W		230.21V
6	**3A**	15.02W	84.421%	0.34
	5.006V	17.795W		230.21V

Protection Features

OCP (Normal @ 28.6°C)	12V: 92.80A (131.07%), 12.069V 5V: 31.5A (126.00%), 4.982V 3.3V: 31.7A (126.80%), 3.292V 5VSB: 4.1A (136.67%), 4.985V *High Ripple (103.64mV)
OCP (Hot @ 43.5°C)	12V: 91.60A (129.38%), 12.077V 5V: 30.1A (120.40%), 4.829V *Voltage Drop(4.623V @ 30.4A) 3.3V: 30.6A (122.40%), 3.289V 5VSB: 3.8A (126.67%), 4.988V *High Ripple (103.64mV)
OPP (Normal @ 28.8°C)	1098.61W (129.25%)
OPP (Hot @ 43.4°C)	1078.70W (126.91%)
OTP	✓ (110°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%	**5.242A**	**1.985A**	**1.986A**	**0.993A**	85.011	86.886%	0	<6.0	52.91°C	0.964
	12.095V	5.039V	3.324V	5.035V	97.843				40.27°C	115.04V
20%	**11.500A**	**2.981A**	**2.982A**	**1.194A**	169.961	89.707%	0	<6.0	54.15°C	0.981
	12.092V	5.033V	3.32V	5.027V	189.464				40.87°C	115V
30%	**18.111A**	**3.482A**	**3.482A**	**1.395A**	254.974	91.75%	0	<6.0	55.62°C	0.987
	12.087V	5.027V	3.317V	5.02V	277.907				41.24°C	114.97V
40%	**24.730A**	**3.985A**	**3.984A**	**1.596A**	340.069	92.041%	0	<6.0	58.71°C	0.989
	12.085V	5.021V	3.314V	5.012V	369.475				41.78°C	114.94V
50%	**30.991A**	**4.985A**	**4.985A**	**1.799A**	424.929	91.864%	605	6.9	42.03°C	0.991
	12.081V	5.017V	3.31V	5.005V	462.564				66.75°C	114.91V
60%	**37.228A**	**5.985A**	**5.988A**	**2A**	509.455	91.577%	628	7.5	42.75°C	0.991
	12.078V	5.014V	3.307V	4.997V	556.314				69.98°C	114.87V
70%	**43.530A**	**6.985A**	**6.993A**	**2.205A**	594.764	91.098%	1031	22.6	43.43°C	0.992
	12.075V	5.012V	3.304V	4.989V	652.884				72.66°C	114.84V
80%	**49.841A**	**7.984A**	**7.998A**	**2.308A**	679.576	90.565%	1369	31.1	43.77°C	0.993
	12.072V	5.01V	3.3V	4.984V	750.38				72.48°C	114.81V
90%	**56.549A**	**8.486A**	**8.49A**	**2.411A**	764.991	90.01%	1616	35.8	44.86°C	0.994
	12.069V	5.009V	3.298V	4.978V	849.898				72.7°C	114.77V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**62.995A**	**8.988A**	**9.014A**	**3.023A**	849.785	89.403%	1840	40.2	45.87°C	0.994
	12.065V	5.007V	3.294V	4.964V	950.524				72.94°C	114.74V
110%	**69.307A**	**9.991A**	**10.117A**	**3.025A**	934.321	88.721%	1975	42.0	46.28°C	0.995
	12.063V	5.004V	3.291V	4.96V	1053.092				74.81°C	114.71V
CL1	**0.116A**	**15.032A**	**14.984A**	**0A**	126.296	82.043%	210	<6.0	51.02°C	0.979
	12.098V	5.009V	3.31V	5.042V	153.939				40.79°C	115.02V
CL2	**0.116A**	**25.148A**	**0A**	**0A**	126.258	80.144%	0	<6.0	56.69°C	0.98
	12.104V	4.967V	3.321V	5.048V	157.544				40.54°C	115.02V
CL3	**0.114A**	**0A**	**25.069A**	**0A**	83.88	77.086%	0	<6.0	60.98°C	0.97
	12.102V	5.012V	3.29V	5.04V	108.814				39.88°C	115.03V
CL4	**70.401A**	**0A**	**0A**	**0A**	849.522	89.969%	1788	39.2	46.66°C	0.994
	12.067V	5.018V	3.307V	5.022V	944.237				73.33°C	114.75V

The results above are not used in the certification process

230V

est	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	**5.242A**	**1.985A**	**1.986A**	**0.993A**	85.008	88.108%	0	<6.0	47.15°C	0.855
	12.095V	5.038V	3.324V	5.035V	96.481				40.31°C	230.22V
20%	**11.498A**	**2.982A**	**2.982A**	**1.194A**	169.951	91.016%	0	<6.0	48°C	0.928
	12.092V	5.032V	3.32V	5.027V	186.727				40.67°C	230.21V
30%	**18.110A**	**3.483A**	**3.482A**	**1.395A**	254.96	93.234%	0	<6.0	49.8°C	0.953
	12.088V	5.026V	3.317V	5.02V	273.464				41.24°C	230.2V
40%	**24.727A**	**3.985A**	**3.983A**	**1.596A**	340.048	93.676%	0	<6.0	51.03°C	0.966
	12.086V	5.02V	3.314V	5.012V	363.004				41.86°C	230.19V

50%	**30.984A**	**4.984A**	**4.984A**	**1.798A**	424.861	93.657%	605	6.9	42.37°C	0.973
	12.081V	5.017V	3.311V	5.005V	453.633				58.05°C	230.18V
60%	**37.223A**	**5.983A**	**5.987A**	**2A**	509.389	93.568%	612	7	42.65°C	0.978
	12.078V	5.016V	3.308V	4.998V	544.405				59.5°C	230.17V
70%	**43.525A**	**6.983A**	**6.992A**	**2.205A**	594.697	93.336%	852	16.3	43.45°C	0.981
	12.075V	5.013V	3.304V	4.99V	637.157				62.28°C	230.15V
80%	**49.835A**	**7.982A**	**7.997A**	**2.307A**	679.513	93.024%	1180	26.3	43.21°C	0.983
	12.072V	5.011V	3.301V	4.984V	730.474				62.39°C	230.14V
90%	**56.547A**	**8.484A**	**8.488A**	**2.41A**	764.933	92.72%	1483	33.3	44.67°C	0.985
	12.069V	5.009V	3.298V	4.979V	824.988				62.29°C	230.12V
100%	**62.991A**	**8.987A**	**9.013A**	**3.022A**	849.74	92.32%	1838	40.2	45.61°C	0.986
	12.066V	5.007V	3.295V	4.964V	920.428				63.19°C	230.1V
110%	**69.302A**	**9.99A**	**10.114A**	**3.024A**	934.31	91.898%	1973	42	46.28°C	0.987
	12.064V	5.005V	3.292V	4.96V	1016.681				64.91°C	230.09V
CL1	**0.114A**	**15.028A**	**14.978A**	**0A**	126.278	83.639%	0	<6.0	56.8°C	0.909
	12.092V	5.01V	3.311V	5.043V	150.981				41.17°C	230.24V
CL2	**0.114A**	**25.011A**	**0A**	**0A**	126.243	81.665%	0	<6.0	50.04°C	0.911
	12.098V	4.992V	3.323V	5.049V	154.586				40.36°C	230.24V
CL3	**0.114A**	**0A**	**25.041A**	**0A**	83.875	78.246%	0	<6.0	45.13°C	0.87
	12.095V	5.015V	3.294V	5.041V	107.195				41.12°C	230.25V
CL4	**70.379A**	**0A**	**0A**	**0A**	849.462	92.971%	1702	37.9	45.7°C	0.986
	12.070V	5.016V	3.304V	5.022V	913.694				60.09°C	230.11V

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	**1.228A**	**0.497A**	**0.496A**	**0.198A**	20.005	70.878%	0	<6.0	50.26°C	0.875
	12.095V	5.029V	3.328V	5.052V	28.225				36.28°C	115.07V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
40W	**2.703A**	**0.696A**	**0.694A**	**0.297A**	40.005	81.163%	0	<6.0	49.56°C	0.929
	12.095V	5.028V	3.327V	5.049V	49.293				37.14°C	115.06V
60W	**4.178A**	**0.895A**	**0.893A**	**0.396A**	60.005	85.103%	0	<6.0	50.93°C	0.949
	12.094V	5.027V	3.326V	5.047V	70.512				38.28°C	115.05V
80W	**5.649A**	**1.094A**	**1.092A**	**0.496A**	79.956	87.008%	0	<6.0	52.85°C	0.962
	12.094V	5.027V	3.325V	5.044V	91.891				39.49°C	115.04V

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	**1.228A**	**0.497A**	**0.496A**	**0.198A**	20.003	71.352%	0	<6.0	40.1°C	0.573
	12.095V	5.03V	3.329V	5.052V	28.036				36.24°C	230.22V
40W	**2.704A**	**0.696A**	**0.694A**	**0.297A**	40.004	81.991%	0	<6.0	41.25°C	0.721
	12.094V	5.029V	3.327V	5.049V	48.789				37.46°C	230.22V
60W	**4.178A**	**0.895A**	**0.893A**	**0.396A**	60.004	86.189%	0	<6.0	43.27°C	0.799
	12.094V	5.028V	3.326V	5.047V	69.621				38.74°C	230.22V
80W	**5.649A**	**1.094A**	**1.092A**	**0.496A**	79.952	88.292%	0	<6.0	45.48°C	0.845
	12.094V	5.027V	3.325V	5.044V	90.555				39.14°C	230.22V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	13.61mV	10.97mV	9.15mV	7.90mV	Pass
20% Load	30.01mV	12.57mV	9.67mV	8.15mV	Pass
30% Load	22.43mV	12.26mV	9.78mV	11.25mV	Pass
40% Load	24.54mV	13.14mV	9.78mV	9.03mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
50% Load	27.07mV	13.34mV	11.01mV	8.93mV	Pass
60% Load	27.99mV	13.09mV	10.70mV	13.93mV	Pass
70% Load	28.51mV	12.62mV	11.01mV	15.23mV	Pass
80% Load	28.25mV	13.65mV	11.94mV	18.94mV	Pass
90% Load	28.15mV	13.86mV	13.50mV	28.44mV	Pass
100% Load	26.19mV	20.45mV	13.45mV	28.96mV	Pass
110% Load	26.91mV	11.23mV	13.34mV	31.07mV	Pass
Crossload1	21.07mV	15.97mV	13.06mV	13.97mV	Pass
Crossload2	23.87mV	21.79mV	11.94mV	13.94mV	Pass
Crossload3	14.28mV	22.41mV	16.29mV	14.92mV	Pass
Crossload4	26.92mV	10.45mV	10.69mV	20.72mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	16.03mV	11.90mV	11.64mV	9.24mV	Pass
20% Load	33.05mV	13.86mV	11.79mV	9.91mV	Pass
30% Load	25.16mV	13.45mV	11.90mV	11.61mV	Pass
40% Load	27.27mV	14.11mV	12.36mV	10.79mV	Pass
50% Load	29.95mV	14.58mV	12.46mV	15.07mV	Pass
60% Load	32.64mV	15.15mV	12.82mV	10.48mV	Pass
70% Load	31.24mV	14.27mV	12.72mV	24.26mV	Pass
80% Load	31.66mV	15.09mV	14.48mV	25.39mV	Pass
90% Load	31.40mV	15.66mV	13.96mV	25.03mV	Pass
100% Load	28.36mV	13.45mV	12.78mV	24.98mV	Pass
110% Load	27.79mV	12.98mV	13.75mV	25.86mV	Pass
Crossload1	27.06mV	18.41mV	15.51mV	15.61mV	Pass
Crossload2	24.08mV	23.95mV	13.39mV	16.16mV	Pass
Crossload3	16.35mV	23.39mV	17.84mV	17.04mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload4	31.09mV	11.45mV	12.27mV	15.42mV	Pass

The results above are not used in the certification process

Gigabyte GP-AE850PM PG5 / PG5 ICE



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

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com