MSI MPG A1000GS PCIE5

Serial Number G35-DP01611-P200

Lab ID MS10002701

Certification ID 252701

Test Result Report ID: 24PS2701A

Certificate Issue Date: Jan 10, 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	MSI
Model	MPG A1000GS PCIE5
OEM/ODM	CWT
Serial Number	G35-DP01611-P200
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	13

Rated Frequency (Hz)	50-60
Rated Power (W)	1000
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	135mm Fluid Dynamic Bearing Fan (ZFF132512H)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	MS10002701
Date of receipt	Dec 28, 2024
Testing Date	Jan 8, 2025
Report Issued Date	Jan 10, 2025
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**	In Cable Capacitors
ATX connector 24 pin (595mm)	1	1	16-20AWG	No
4+4 pin EPS12V (750mm)	2	2	16AWG	No
6+2 pin PCIe (605mm)	1	1	18AWG	No
12+4 pin PCIe (600mm) (600W)	2	2	16-24AWG	No
SATA (495mm+150mm+150mm+150mm)	2	8	18AWG	No
4-pin Molex (495mm+150mm+150mm+150mm)	1	4	18AWG	No
AC Power Cord (1380mm) - 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	22	22	83.3	3	0.3
	Watts	120		999.6	15	3.6
Total Max. Power (W)		1000				

Parts Description

General Data	
Manufacturer (OEM)	CWT
Platform	CTE
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	1x NTC Thermistor SCK207R0 (7 Ohm) & Relay
Bridge Rectifier(s)	2x GBJ1506 (600V, 15A @ 100°C)
APFC MOSFETs	2x Vishay SiHA105N60EF (600V, 8A @ 100°C, Rds(on): 0.102Ohm)
APFC Boost Diode	1x Vishay VS-3C10ET07T-M3 (650V, 10A @ 140°C)
Bulk Cap(s)	1x Rubycon (420V, 820uF, 2,000h @ 105°C, MXE)

Main Switchers	2x STMicroelectronics STF33N60DM2 (650V, 15.5A @ 100°C, Rds(on): 0.130Ohm)
PFC / PWM Combo Controller	MPS HR1280
Topology	Primary side: APFC, Half-Bridge, LLC Resonant Converter, Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	6x On Semiconductor NTMFS5C430N (40V, 131A @ 100°C, Rds(on): 1.7mOhm)
5V & 3.3V	DC-DC Converters: 2x UBIQ QM3054M6 (30V, 61A @ 100°C, Rds(on): 4.8mOhm) & 2x UBIQ QN3107M6N (30V, 70A @ 100°C, Rds(on): 2.6mOhm) PWM Controller(s):
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (@ 105°C, W) 2x Nippon Chemi-Con (2-5,000h @ 105°C,KZE), 2x Rubycon (3-6,000h @ 105°C, YXS) 1x Rubycon (6-10,000h @ 105°C, ZLH) Polymer: 2x Nippon Chemi-Con, 23x FPCAP
Supervisor IC	-
Fan Controller	Nuvoton MS51FB9AE
Fan Model	ZIC ZFF132512H BAX3 (135mm, 12V, 0.45A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	1x Dongke Semiconductor DK5V45R10S (45V, 10A)
Standby PWM Controller	On Bright OB2365T

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)	88.460%
Average Noise Output (>1450 Load Combinations)	20.79dBA
Average PF (>1450 Load Combinations)	0.990
Efficiency With 10W (≤500W) or 2% (>500W) Load	74.245%
Standby Power Consumption	0.0141W
Non-Accredited	
12V Ripple (Full Load)	29.76mV
5V Ripple (Full Load)	22.16mV
3.3V Ripple (Full Load)	24.60mV
5VSB Ripple (Full Load)	21.67mV
12V Load Regulation	0.65%
5V Load Regulation	0.60%
3.3V Load Regulation	0.70%
5VSB Load Regulation	1.15%
Inrush Current	23.870A

230V

Accredited	
Average Efficiency (>1450 load combinations)	90.817%
Average Noise Output (>1450 Load Combinations)	20.64dBA
Average PF (>1450 Load Combinations)	0.970
Efficiency With 10W (≤500W) or 2% (>500W) Load	74.506%
Standby Power Consumption	0.0781W
Non-Accredited	
12V Ripple (Full Load)	30.92mV
5V Ripple (Full Load)	22.56mV
3.3V Ripple (Full Load)	26.75mV

5VSB Ripple (Full Load)	17.09mV	
12V Load Regulation	0.63%	
5V Load Regulation	0.58%	
3.3V Load Regulation	0.73%	
5VSB Load Regulation	1.07%	
Inrush Current	48.020A	
12V Transient Response (200%)	11.26V	
5V Transient Response (200%)	4.877V	
3.3V Transient Response (200%)	3.146V	
5VSB Transient Response (200%)	4.865V	
Hold-Up Time & PWR_OK Signal	19.00ms	
AC Loss to PWR_OK Hold Up Time	15.70ms	
PWR_OK Inactive to DC Loss Delay	3.30ms	
PSU Timings: T1 (20% / 100%)	64.0ms	65.0ms
PSU Timings: T3 (20% / 100%)	136.0ms	135.0ms
12V OCP (27.7°C / 42.6°C)	105.80A (127.01%), 12.029V	101.60A (121.97%), 12.017V
5V OCP (27.7°C / 42.6°C)	27.8A (126.36%), 5.003V	27.6A (125.45%), 4.997V
3.3V OCP (27.7°C / 42.6°C)	27.2A (123.64%), 3.281V	27.2A (123.64%), 3.28V
5VSB OCP (27.7°C / 42.6°C)	5A (166.67%), 5.035V	5.1A (170.00%), 5.029V
OPP (28.63°C / 42.48°C)	126.71%	113.50%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	19
AC Loss to PWR_OK Hold Up Time (ms)	15.7
PWR_OK Inactive to DC Loss Delay (ms)	3.3

Vampire Power

Tables

115V

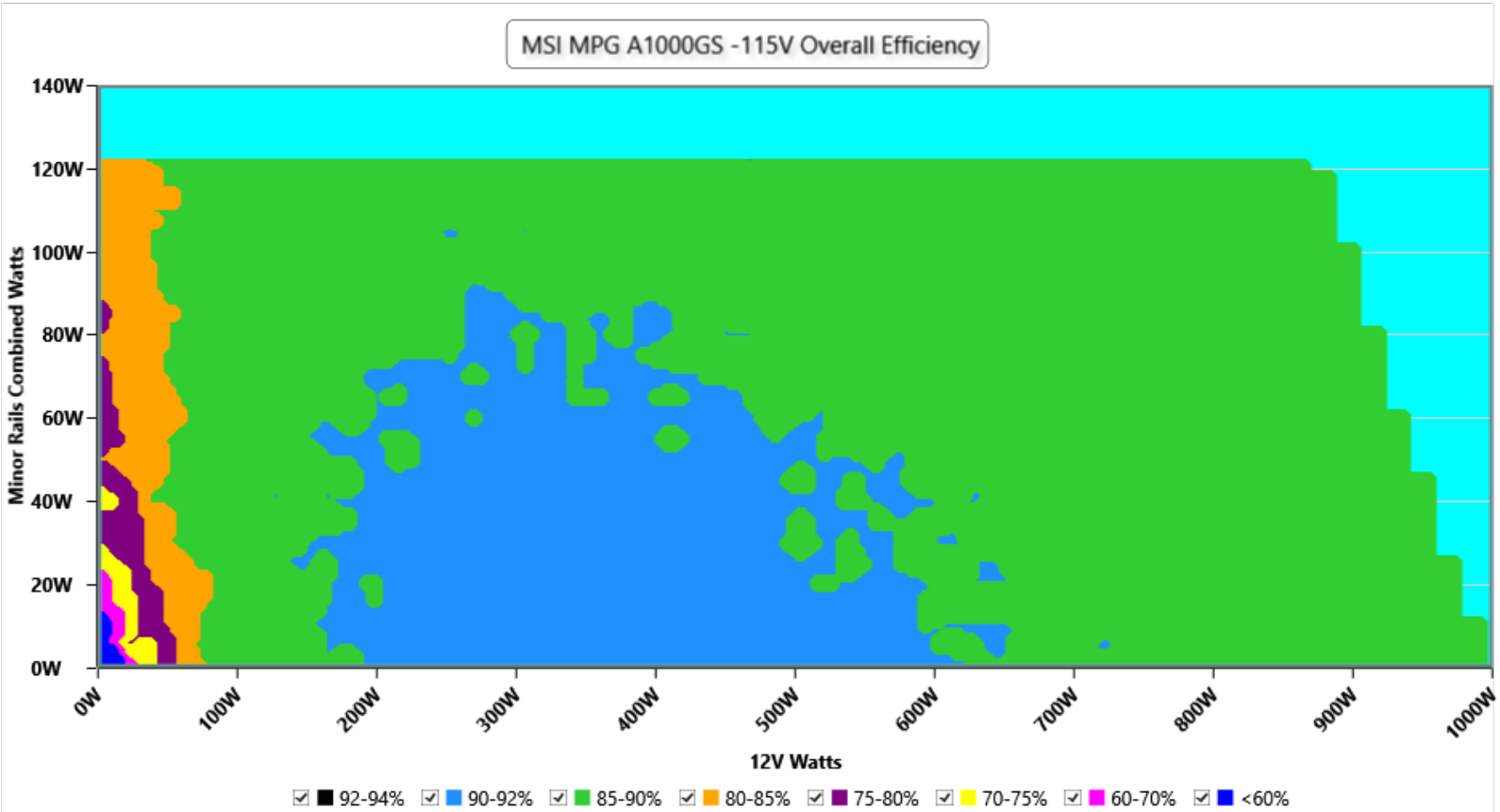
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.05 V	115.01 V	113.85 V	115.08 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.13 %	0.09 %	N/A	0.18 %	2.00 %	PASS
Real Power:	0.014 W	-0.004 W	N/A	0.033 W	N/A	N/A
Apparent Power:	10.489 W	10.238 W	N/A	10.759 W	N/A	N/A
Power Factor:	0.001	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.99 V	230.90 V	227.70 V	231.05 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.417	1.416	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.17 %	0.15 %	N/A	0.25 %	2.00 %	PASS
Real Power:	0.078 W	0.041 W	N/A	0.135 W	N/A	N/A
Apparent Power:	35.312 W	34.702 W	N/A	35.907 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

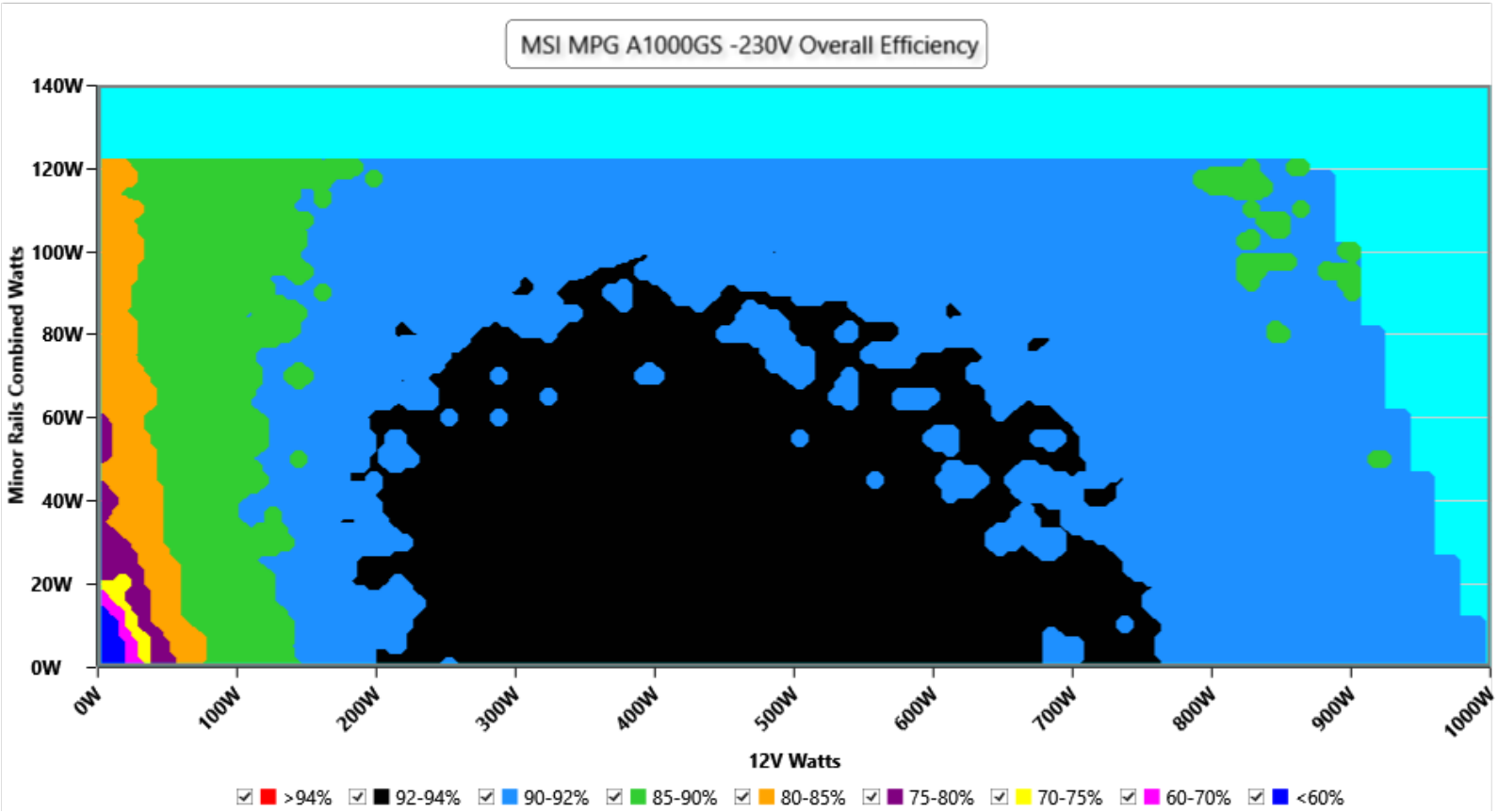
115V



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

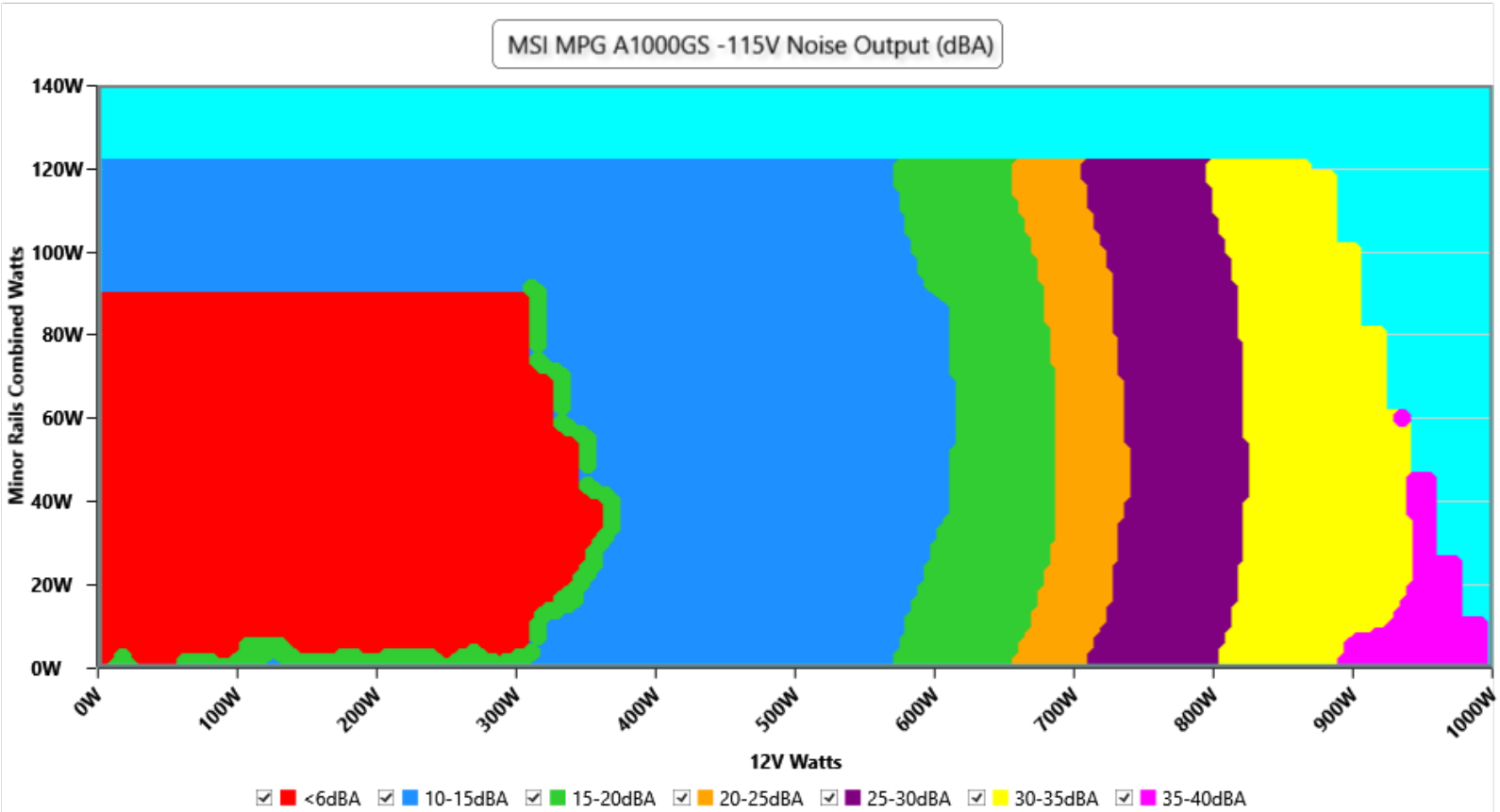


INFO

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

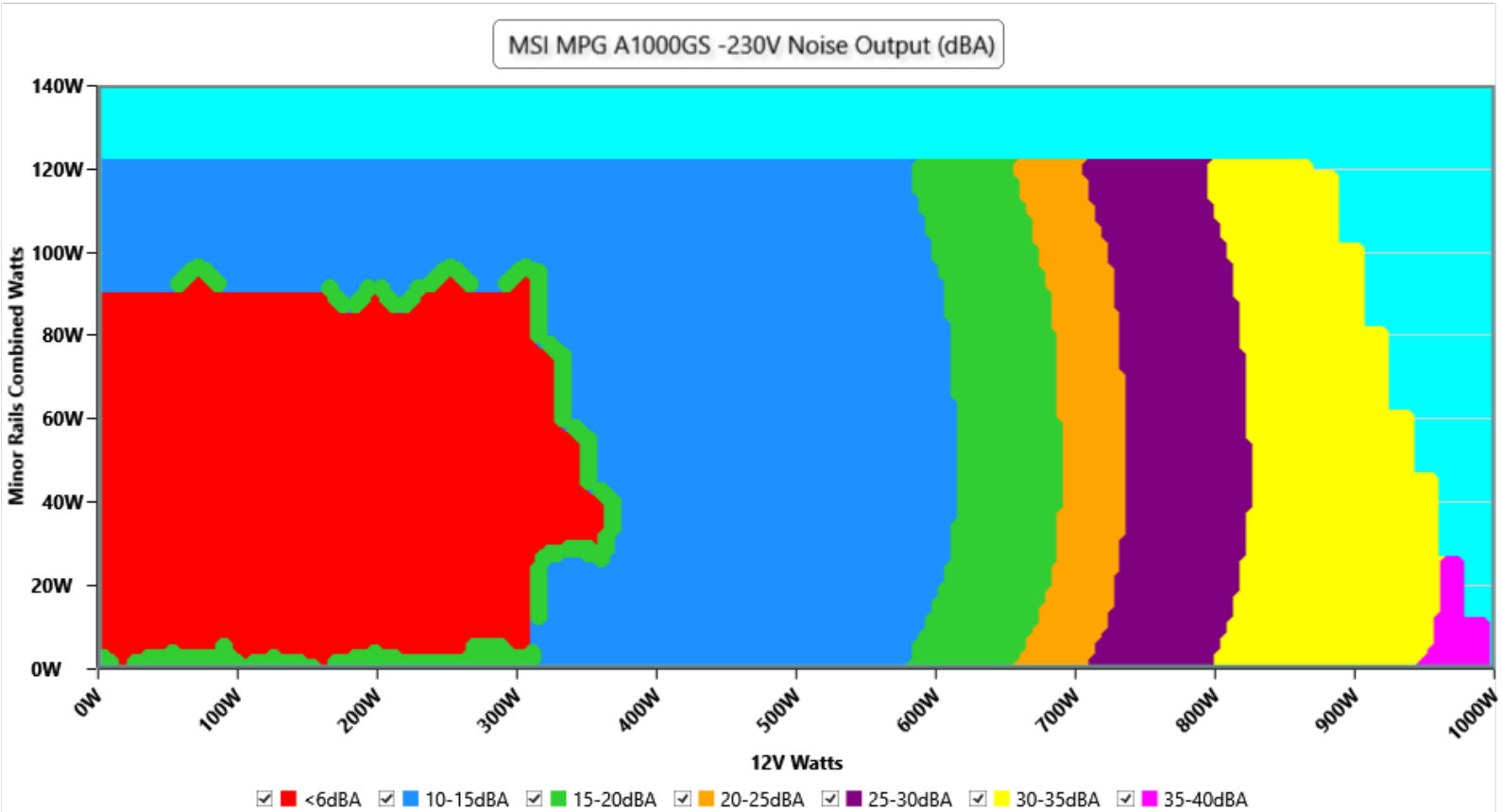
115V



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

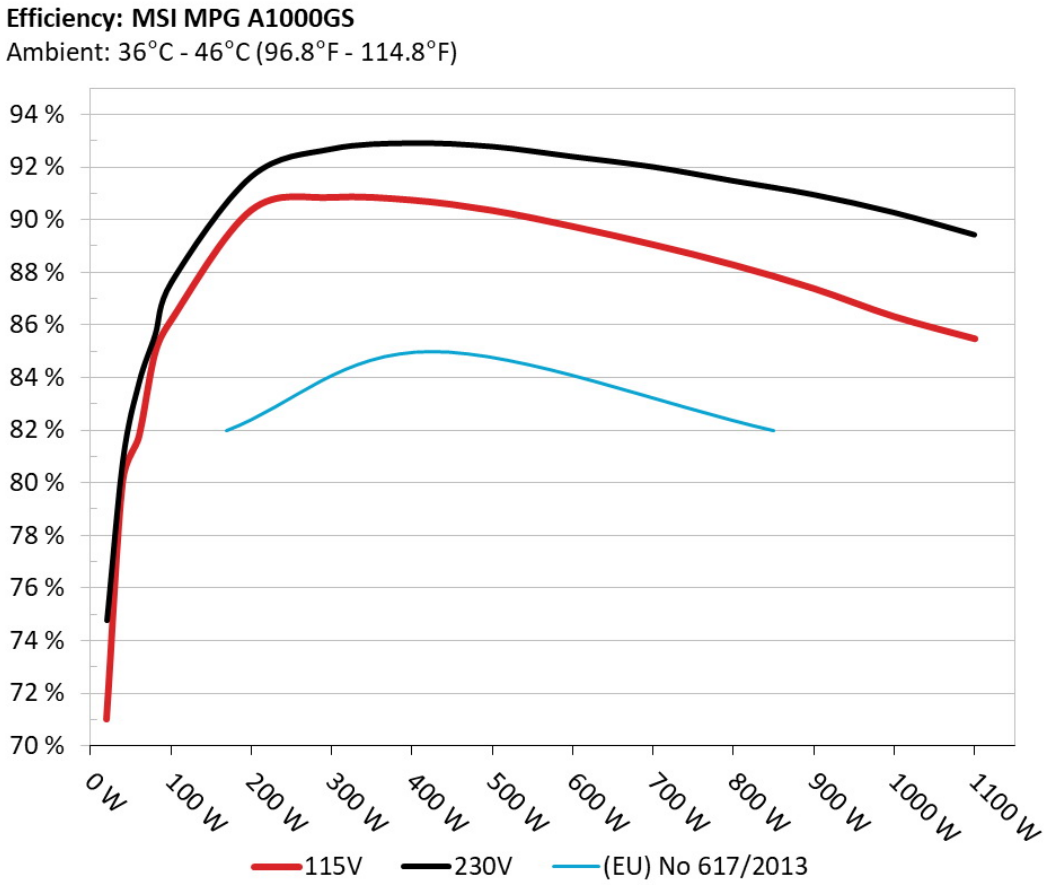


INFO

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

Indicative Performance

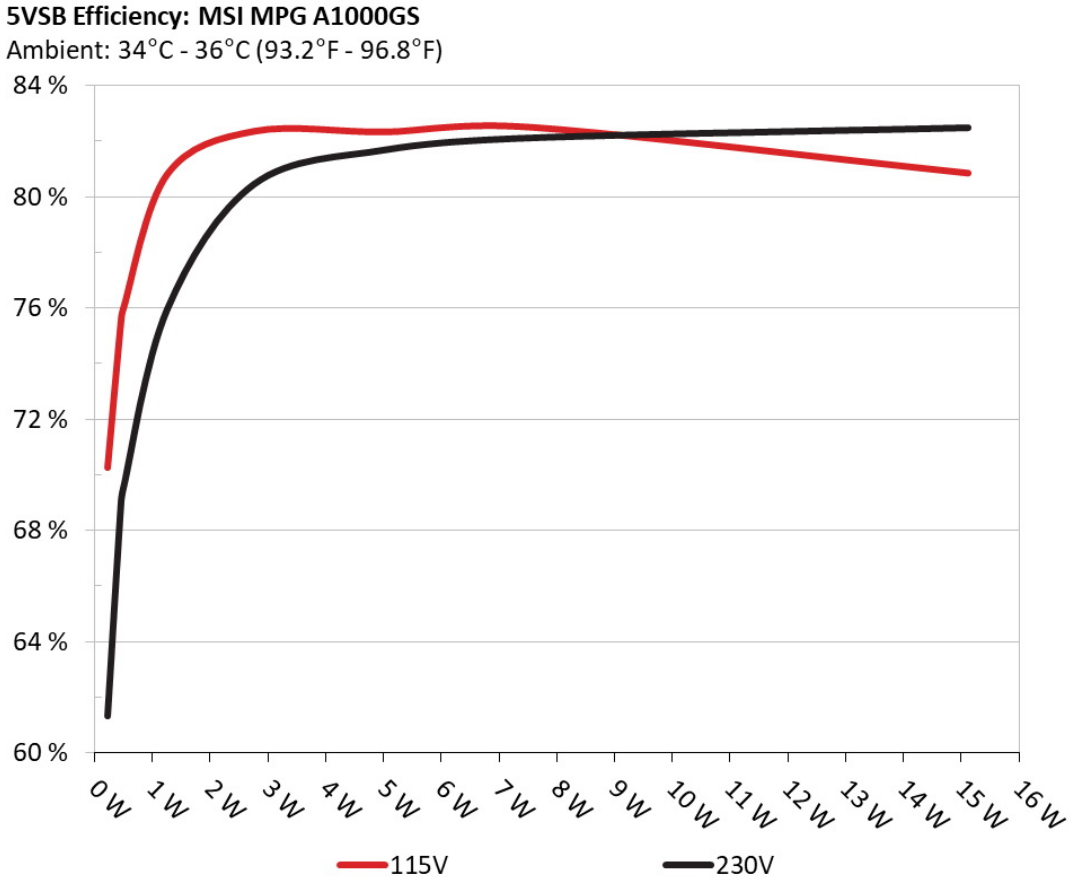
Efficiency under high ambient temperature



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**	0.227W	70.243%	0.031
	5.031V	0.324W		114.85V
2	**0.09A**	0.453W	75.412%	0.058
	5.031V	0.601W		114.85V
3	**0.55A**	2.768W	82.367%	0.261
	5.033V	3.361W		114.84V
4	**1A**	5.034W	82.34%	0.368
	5.033V	6.114W		114.83V
5	**1.5A**	7.553W	82.509%	0.419
	5.034V	9.154W		114.83V
6	**3A**	15.113W	80.857%	0.501
	5.037V	18.691W		114.83V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.227W	61.335%	0.011
	5.031V	0.373W		229.83V
2	**0.09A**	0.453W	68.827%	0.019
	5.031V	0.659W		229.83V
3	**0.55A**	2.768W	80.461%	0.096
	5.033V	3.44W		229.82V
4	**1A**	5.034W	81.685%	0.161
	5.034V	6.163W		229.83V
5	**1.5A**	7.553W	82.114%	0.222
	5.035V	9.198W		229.83V
6	**3A**	15.115W	82.478%	0.324
	5.038V	18.326W		229.83V

Protection Features

OCP (Normal @ 27.7°C)	12V: 105.80A (127.01%), 12.029V 5V: 27.8A (126.36%), 5.003V 3.3V: 27.2A (123.64%), 3.281V 5VSB: 5A (166.67%), 5.035V
OCP (Hot @ 42.6°C)	12V: 101.60A (121.97%), 12.017V 5V: 27.6A (125.45%), 4.997V 3.3V: 27.2A (123.64%), 3.28V 5VSB: 5.1A (170.00%), 5.029V
OPP (Normal @ 28.6°C)	1267.07W (126.71%)
OPP (Hot @ 42.5°C)	1135.02W (113.50%)
OTP	✓ (97°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
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%	**6.488A**	**1.982A**	**1.996A**	**0.995A**	99.99	86.168%	0	<6.0	51.61°C	0.971
	12.084V	5.044V	3.307V	5.026V	116.07				40.29°C	114.81V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20%	**13.999A**	**2.976A**	**2.996A**	**1.195A**	199.941	90.381%	0	<6.0	55.61°C	0.993
	12.075V	5.041V	3.304V	5.021V	221.233				40.88°C	114.78V
30%	**21.868A**	**3.473A**	**3.498A**	**1.396A**	299.988	90.868%	0	<6.0	62.56°C	0.983
	12.069V	5.038V	3.302V	5.015V	317.897				41.07°C	114.72V
40%	**29.708A**	**3.972A**	**4A**	**1.597A**	399.525	90.764%	406	12	41.99°C	0.987
	12.061V	5.035V	3.3V	5.01V	374.938				56.57°C	114.68V
50%	**37.223A**	**4.967A**	**5.004A**	**1.799A**	499.235	90.373%	487	10.7	42.24°C	0.997
	12.055V	5.033V	3.298V	5.004V	550.87				55.34°C	114.5V
60%	**44.819A**	**5.964A**	**6.009A**	**2A**	599.777	89.759%	721	16.2	42.71°C	0.997
	12.048V	5.03V	3.295V	4.999V	668.223				52.78°C	114.69V
70%	**52.356A**	**6.962A**	**7.016A**	**2.203A**	699.511	89.07%	934	24.5	43.25°C	0.997
	12.041V	5.028V	3.293V	4.993V	785.347				52.43°C	114.64V
80%	**59.974A**	**7.961A**	**8.023A**	**2.307A**	799.52	88.298%	1087	29.2	43.72°C	0.997
	12.032V	5.024V	3.29V	4.986V	905.459				53.05°C	114.59V
90%	**67.944A**	**8.463A**	**8.515A**	**2.41A**	899.328	87.4%	1328	35.8	44.08°C	0.997
	12.023V	5.021V	3.288V	4.98V	1029.07				53°C	114.55V
100%	**75.732A**	**8.967A**	**9.039A**	**3.016A**	999.341	86.331%	1731	43.6	45.44°C	0.997
	12.012V	5.018V	3.286V	4.973V	1157.597				53.69°C	114.5V
110%	**83.420A**	**9.972A**	**10.152A**	**3.02A**	1099.922	85.484%	1749	43.8	46.03°C	0.997
	12.007V	5.014V	3.28V	4.968V	1287.069				54.59°C	114.47V
CL1	**0.116A**	**14.392A**	**14.505A**	**0A**	121.297	82.036%	521	10.8	41.32°C	0.985
	12.065V	5.017V	3.288V	5.015V	147.865				51.55°C	114.8V
CL2	**0.115A**	**21.942A**	**0A**	**0A**	111.296	80.754%	405	12	40.41°C	0.981
	12.074V	5.009V	3.294V	5.018V	137.869				50.58°C	114.8V
CL3	**0.114A**	**0A**	**22.102A**	**0A**	73.98	74.036%	403	12.1	41.15°C	0.968
	12.076V	5.022V	3.285V	5.018V	99.923				51.36°C	114.81V
CL4	**83.134A**	**0A**	**0A**	**0.001A**	999.919	87.157%	1494	39.1	45.27°C	0.997
	12.027V	5.034V	3.296V	4.973V	1147.292				53.47°C	114.51V

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%	**6.486A**	**1.983A**	**1.997A**	**0.995A**	99.982	87.609%	0	<6.0	50.79°C	0.889
	12.084V	5.042V	3.305V	5.026V	114.129				40.03°C	229.82V
20%	**13.997A**	**2.977A**	**2.998A**	**1.195A**	199.927	91.638%	0	<6.0	52.96°C	0.958
	12.076V	5.039V	3.303V	5.021V	218.19				40.92°C	229.8V
30%	**21.866A**	**3.475A**	**3.499A**	**1.396A**	299.968	92.685%	0	<6.0	56.32°C	0.97
	12.070V	5.036V	3.3V	5.015V	323.655				41.26°C	229.79V
40%	**29.699A**	**3.973A**	**4.002A**	**1.597A**	399.459	92.904%	403	12.1	41.85°C	0.977
	12.063V	5.033V	3.298V	5.01V	430				51.22°C	229.77V
50%	**37.218A**	**4.969A**	**5.006A**	**1.799A**	499.199	92.774%	491	10.7	42.15°C	0.983
	12.056V	5.031V	3.296V	5.005V	538.378				51.77°C	229.74V
60%	**44.811A**	**5.966A**	**6.012A**	**2A**	599.732	92.393%	726	16.3	42.54°C	0.987
	12.049V	5.029V	3.294V	4.999V	649.098				48.72°C	229.74V
70%	**52.345A**	**6.964A**	**7.019A**	**2.203A**	699.456	92.002%	915	23.8	43.3°C	0.989
	12.042V	5.026V	3.291V	4.994V	760.29				48.89°C	229.72V
80%	**59.960A**	**7.963A**	**8.027A**	**2.306A**	799.467	91.471%	1086	29.2	43.55°C	0.99
	12.034V	5.023V	3.289V	4.988V	873.976				49.29°C	229.71V
90%	**67.921A**	**8.465A**	**8.518A**	**2.409A**	899.266	90.95%	1267	34.8	44.23°C	0.991
	12.026V	5.02V	3.287V	4.982V	988.772				49.87°C	229.68V
100%	**75.697A**	**8.968A**	**9.042A**	**3.014A**	999.31	90.271%	1581	41.3	45.38°C	0.992
	12.017V	5.018V	3.284V	4.976V	1106.961				48.25°C	229.67V
110%	**83.431A**	**9.974A**	**10.147A**	**3.019A**	1099.924	89.423%	2047	47.7	46.22°C	0.993
	12.005V	5.013V	3.281V	4.969V	1229.986				49.41°C	229.66V
CL1	**0.116A**	**14.393A**	**14.51A**	**0A**	121.295	83.116%	583	11.3	41.85°C	0.921
	12.064V	5.016V	3.287V	5.015V	145.948				48.16°C	229.81V
CL2	**0.115A**	**21.943A**	**0A**	**0A**	111.296	81.959%	406	12	40.32°C	0.913
	12.073V	5.009V	3.293V	5.019V	135.827				48.53°C	229.82V
CL3	**0.114A**	**0A**	**22.109A**	**0A**	73.98	75.044%	403	12.1	41.85°C	0.864
	12.077V	5.021V	3.284V	5.019V	98.596				50.02°C	229.82V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL4	**83.115A**	**0A**	**0A**	**0A**	999.887	90.902%	1441	37.5	45.25°C	0.993
	12.030V	5.031V	3.295V	4.975V	1100.124				49.48°C	229.67V

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**	**0.495A**	**0.499A**	**0.199A**	19.996	70.996%	0	<6.0	44.69°C	0.85
	12.089V	5.048V	3.309V	5.03V	28.207				36.05°C	114.82V
40W	**2.704A**	**0.693A**	**0.698A**	**0.298A**	39.998	80.046%	0	<6.0	46.11°C	0.925
	12.090V	5.048V	3.309V	5.029V	50.01				37.42°C	114.82V
60W	**4.180A**	**0.891A**	**0.897A**	**0.398A**	59.998	81.724%	0	<6.0	47.39°C	0.955
	12.088V	5.047V	3.309V	5.028V	73.438				38.04°C	114.82V
80W	**5.652A**	**1.09A**	**1.097A**	**0.497A**	79.939	84.887%	0	<6.0	49.96°C	0.964
	12.086V	5.046V	3.308V	5.027V	94.217				39.79°C	114.81V

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**	**0.495A**	**0.499A**	**0.199A**	19.996	74.767%	0	<6.0	41.9°C	0.486
	12.092V	5.047V	3.308V	5.029V	26.744				36.56°C	229.82V
40W	**2.704A**	**0.694A**	**0.698A**	**0.298A**	39.996	80.894%	0	<6.0	43.53°C	0.685
	12.091V	5.045V	3.307V	5.028V	49.494				37.18°C	229.83V
60W	**4.180A**	**0.892A**	**0.898A**	**0.398A**	59.996	83.81%	0	<6.0	45.44°C	0.793
	12.088V	5.045V	3.307V	5.027V	71.58				38.18°C	229.82V
80W	**5.651A**	**1.09A**	**1.098A**	**0.497A**	79.932	85.617%	0	<6.0	47.47°C	0.852
	12.087V	5.044V	3.307V	5.026V	93.362				39.14°C	229.82V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	18.77mV	15.45mV	15.65mV	10.00mV	Pass
20% Load	17.75mV	15.04mV	15.34mV	9.75mV	Pass
30% Load	18.62mV	15.96mV	17.24mV	10.78mV	Pass
40% Load	19.85mV	17.29mV	17.65mV	10.57mV	Pass
50% Load	20.25mV	18.37mV	18.27mV	11.29mV	Pass
60% Load	21.02mV	18.22mV	18.93mV	12.42mV	Pass
70% Load	22.20mV	19.71mV	20.78mV	14.73mV	Pass
80% Load	22.86mV	20.17mV	22.63mV	16.32mV	Pass
90% Load	25.62mV	21.71mV	23.65mV	17.04mV	Pass
100% Load	29.76mV	22.16mV	24.60mV	21.67mV	Pass
110% Load	27.39mV	22.46mV	24.87mV	25.38mV	Pass
Crossload1	21.22mV	18.14mV	22.92mV	13.28mV	Pass
Crossload2	20.26mV	22.43mV	19.44mV	12.67mV	Pass
Crossload3	20.81mV	19.81mV	21.91mV	13.24mV	Pass
Crossload4	29.97mV	20.58mV	21.32mV	18.28mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	19.33mV	17.50mV	15.90mV	10.88mV	Pass
20% Load	17.70mV	15.40mV	16.93mV	10.72mV	Pass
30% Load	19.03mV	16.89mV	18.93mV	11.34mV	Pass
40% Load	20.20mV	18.12mV	18.47mV	11.23mV	Pass
50% Load	20.87mV	18.17mV	17.96mV	11.60mV	Pass
60% Load	22.81mV	19.86mV	19.96mV	13.03mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	22.04mV	20.02mV	21.19mV	14.11mV	Pass
80% Load	23.47mV	21.25mV	23.55mV	15.03mV	Pass
90% Load	25.32mV	21.25mV	25.24mV	14.47mV	Pass
100% Load	30.92mV	22.56mV	26.75mV	17.09mV	Pass
110% Load	31.98mV	23.32mV	25.76mV	19.27mV	Pass
Crossload1	18.49mV	19.64mV	22.56mV	13.41mV	Pass
Crossload2	19.33mV	21.66mV	19.65mV	12.52mV	Pass
Crossload3	19.53mV	19.71mV	22.17mV	12.78mV	Pass
Crossload4	29.10mV	21.30mV	21.22mV	16.86mV	Pass

The results above are not used in the certification process

MSI MPG A1000GS PCIE5

Top side

Power specifications label

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