MSI MPG A1250GS PCIE5

Serial Number -

Lab ID MS12503023

Certification ID 253023

Test Result Report ID: 25PS3023A

Certificate Issue Date: Nov 5, 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 A1250GS PCIE5
OEM/ODM	CWT
Serial Number	-
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15

Rated Frequency (Hz)	50-60
Rated Power (W)	1250
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 150mm
Weight	1.76 kg (3.88 lb)
Cooling	135mm Fluid Dynamic Bearing Fan (ZFF132512H)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	MS12503023
Date of receipt	Oct 23, 2025
Testing Date	Nov 5, 2025
Report Issued Date	Nov 5, 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**	Cable Type
ATX connector 24 pin (600mm)	1	1	16-20AWG	Tinned Copper
4+4 pin EPS12V (750mm)	2	2	18AWG	Tinned Copper
6+2 pin PCIe (600mm)	1	1	16AWG	Tinned Copper
12+4 pin PCIe (600mm) (600W)	2	2	16-24AWG	Tinned Copper
SATA (500mm+150mm+150mm+150mm)	2	8	18AWG	Tinned Copper
4-pin Molex (500mm+150mm+150mm+150mm)	1	4	18AWG	Tinned Copper
AC Power Cord (1390mm) - 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	104.1	3	0.3
	Watts	120		1249	15	3.6
Total Max. Power (W)		1250				

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)	89.065%

Average Noise Output (>1450 Load Combinations)	20.88dBA
Average PF (>1450 Load Combinations)	0.990
Efficiency With 10W (≤500W) or 2% (>500W) Load	76.547%
Standby Power Consumption	0.0149W
Non-Accredited	
12V Ripple (Full Load)	27.17mV
5V Ripple (Full Load)	22.71mV
3.3V Ripple (Full Load)	23.52mV
5VSB Ripple (Full Load)	16.95mV
12V Load Regulation	0.93%
5V Load Regulation	1.02%
3.3V Load Regulation	1.63%
5VSB Load Regulation	1.22%
Inrush Current	-

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.034%
Average Noise Output (>1450 Load Combinations)	20.83dBA
Average PF (>1450 Load Combinations)	0.978
Efficiency With 10W (≤500W) or 2% (>500W) Load	60.396%
Standby Power Consumption	0.0787W
Non-Accredited	
12V Ripple (Full Load)	28.26mV
5V Ripple (Full Load)	22.90mV
3.3V Ripple (Full Load)	24.99mV
5VSB Ripple (Full Load)	14.32mV
12V Load Regulation	0.90%
5V Load Regulation	1.00%
3.3V Load Regulation	1.63%
5VSB Load Regulation	1.20%
Inrush Current	-

12V Transient Response (200%)	11.08V	
5V Transient Response (200%)	4.884V	
3.3V Transient Response (200%)	3.214V	
5VSB Transient Response (200%)	4.873V	
Hold-Up Time & PWR_OK Signal	26.80ms	
AC Loss to PWR_OK Hold Up Time	22.80ms	
PWR_OK Inactive to DC Loss Delay	4.00ms	
PSU Timings: T1 (20% / 100%)	96.0ms	68.0ms
PSU Timings: T3 (20% / 100%)	132.0ms	129.0ms
12V OCP (27.5°C / 45.5°C)	127.40A (122.38%), 12.031V	122.80A (117.96%), 12.027V
5V OCP (27.5°C / 45.5°C)	28.8A (130.91%), 5.022V	27.2A (123.64%), 5.011V
3.3V OCP (27.5°C / 45.5°C)	28.6A (130.00%), 3.348V	27.2A (123.64%), 3.337V
5VSB OCP (27.5°C / 45.5°C)	5.2A (173.33%), 5.03V	5.1A (170.00%), 5.031V
OPP (28.55°C / 46.00°C)	124.15%	119.79%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	26.8
AC Loss to PWR_OK Hold Up Time (ms)	22.8
PWR_OK Inactive to DC Loss Delay (ms)	4

Stromverbrauch im Ruhezustand

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.02 V	114.99 V	113.85 V	115.08 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.96 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

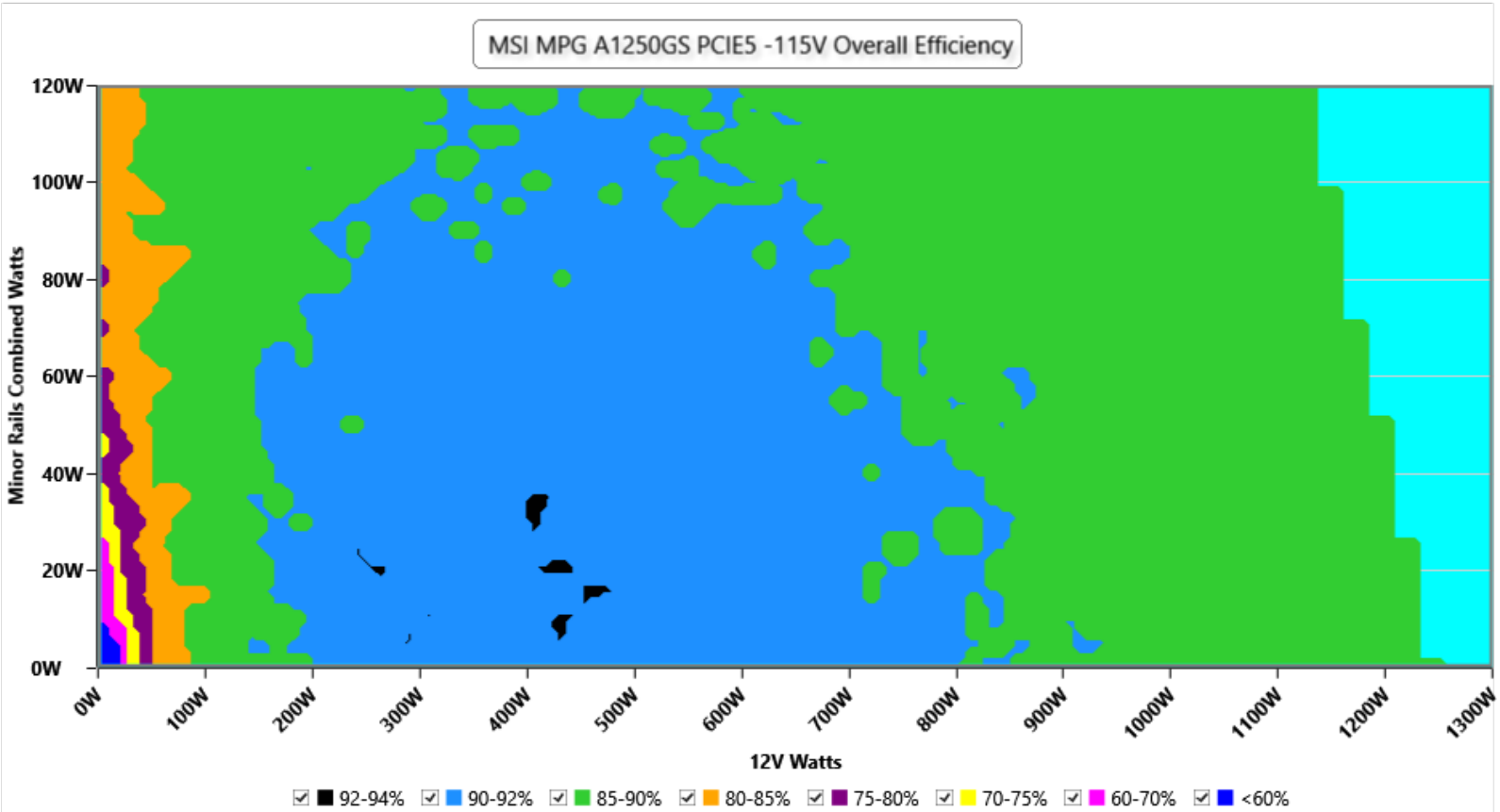
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.015 W	0.001 W	N/A	0.030 W	N/A	N/A
Apparent Power:	12.322 W	12.302 W	N/A	12.343 W	N/A	N/A
Power Factor:	0.001	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.00 V	229.97 V	227.70 V	230.02 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.15 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.079 W	0.041 W	N/A	0.128 W	N/A	N/A
Apparent Power:	40.690 W	40.650 W	N/A	40.726 W	N/A	N/A
Power Factor:	0.001	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

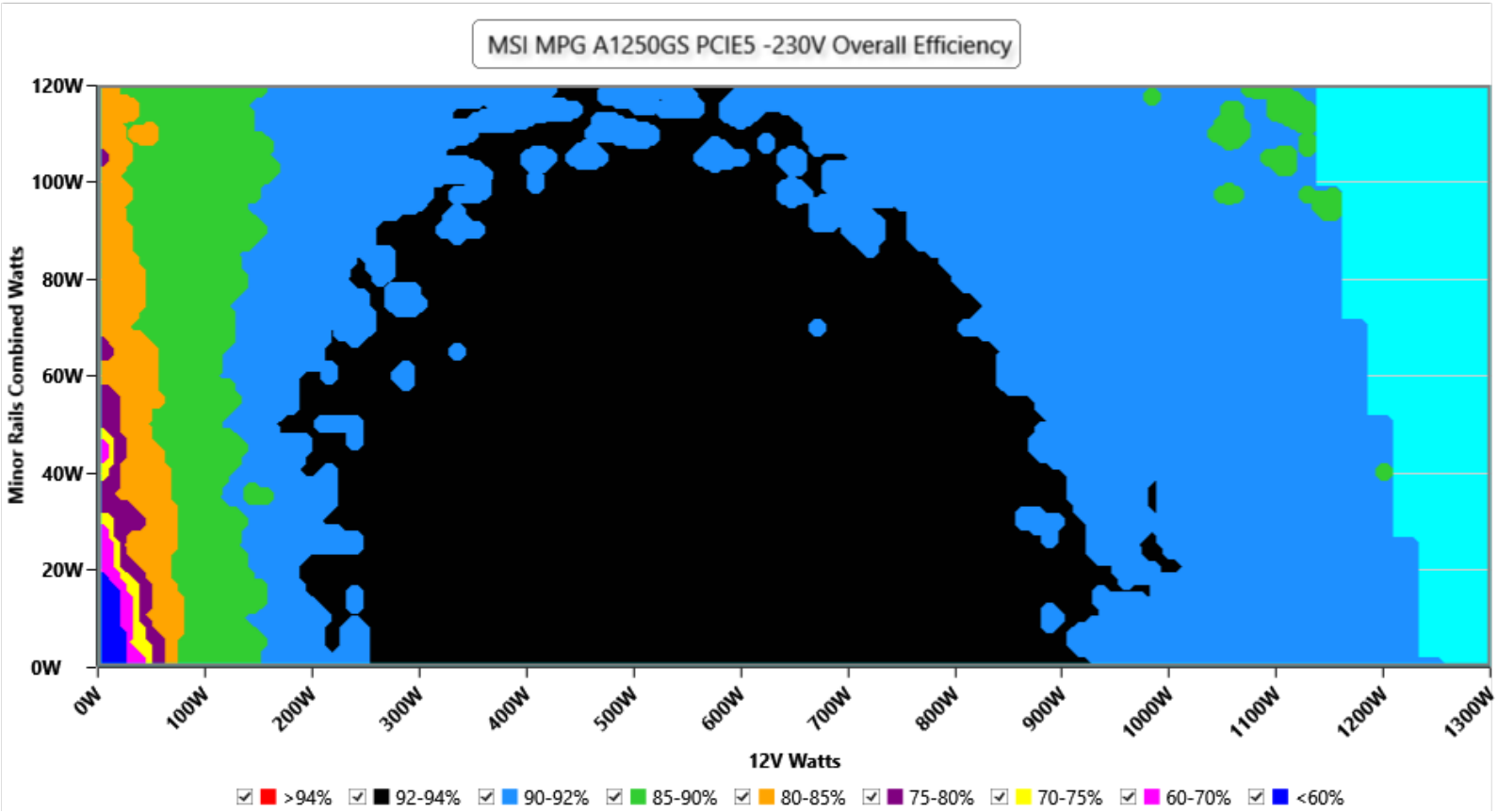
115V



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

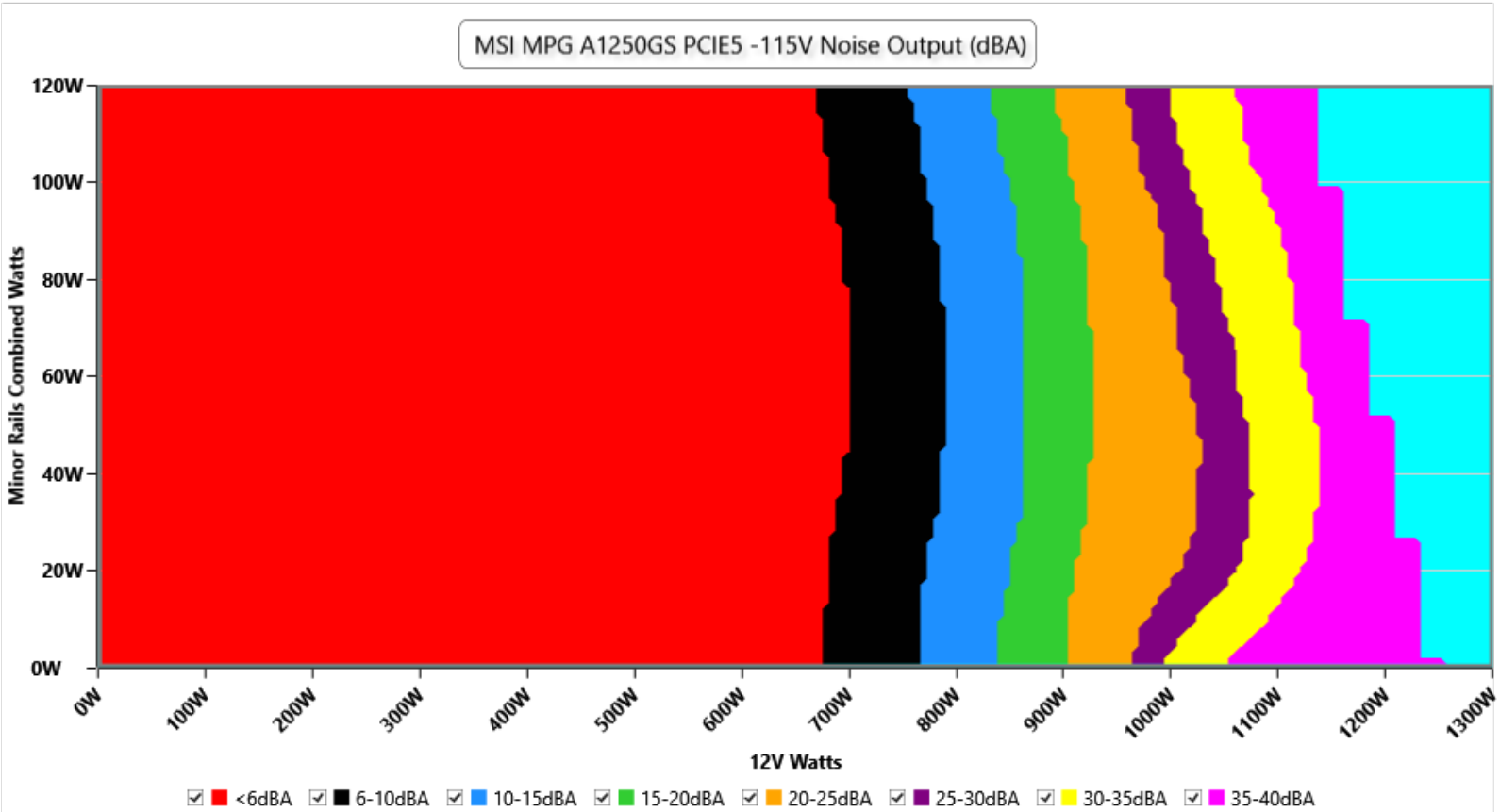


INFO

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

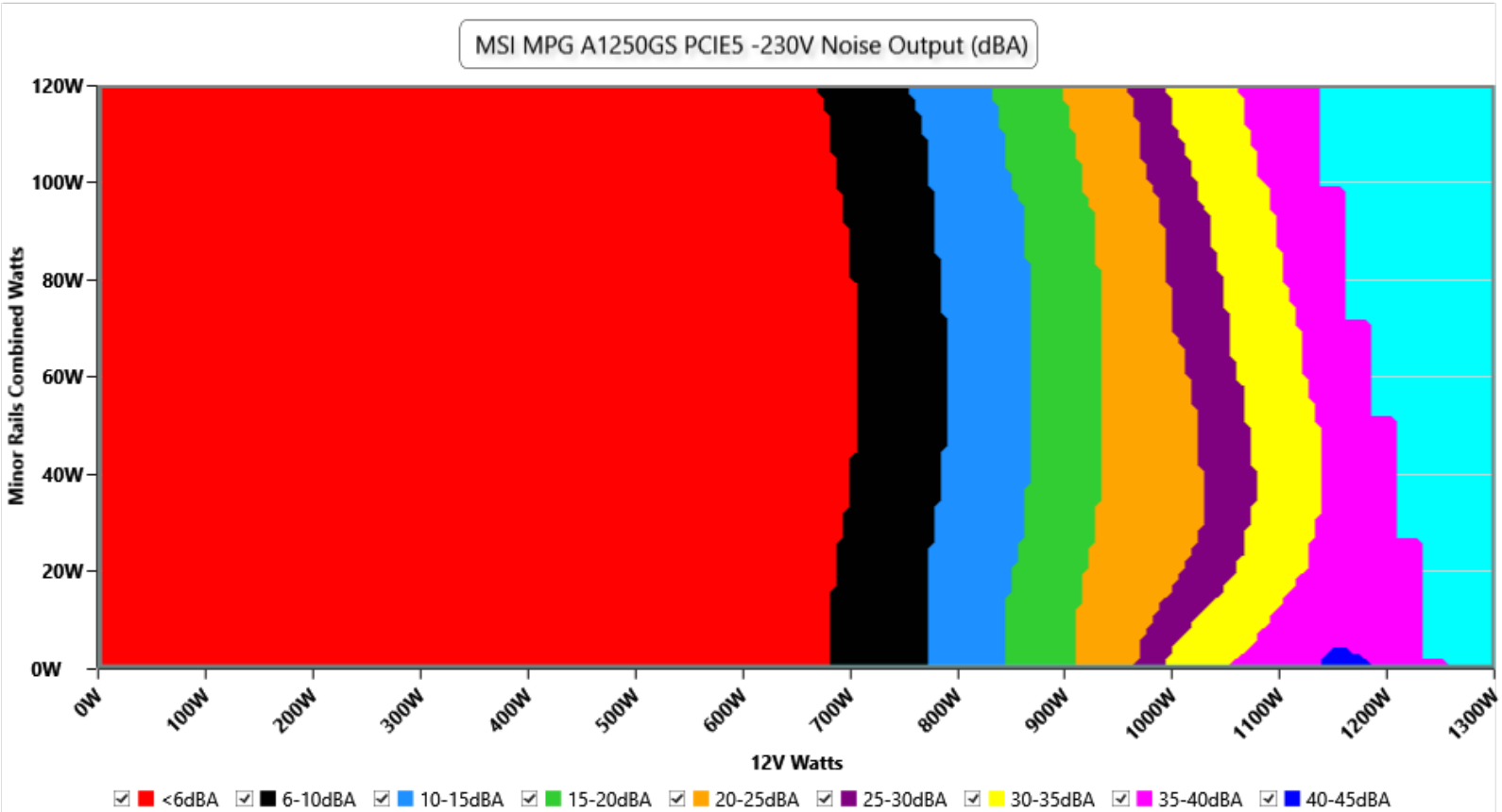
115V



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

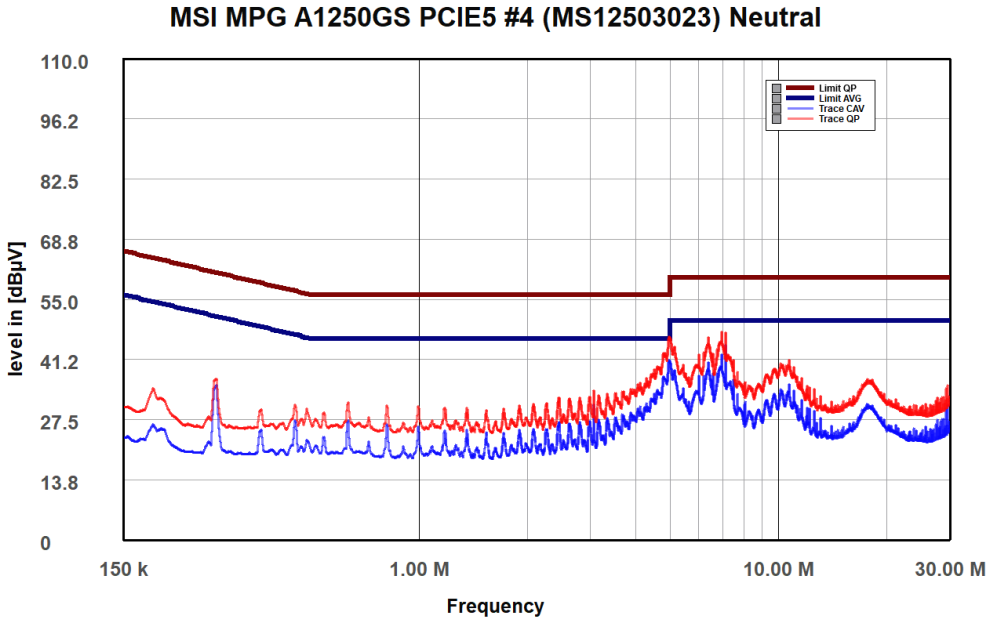
230V



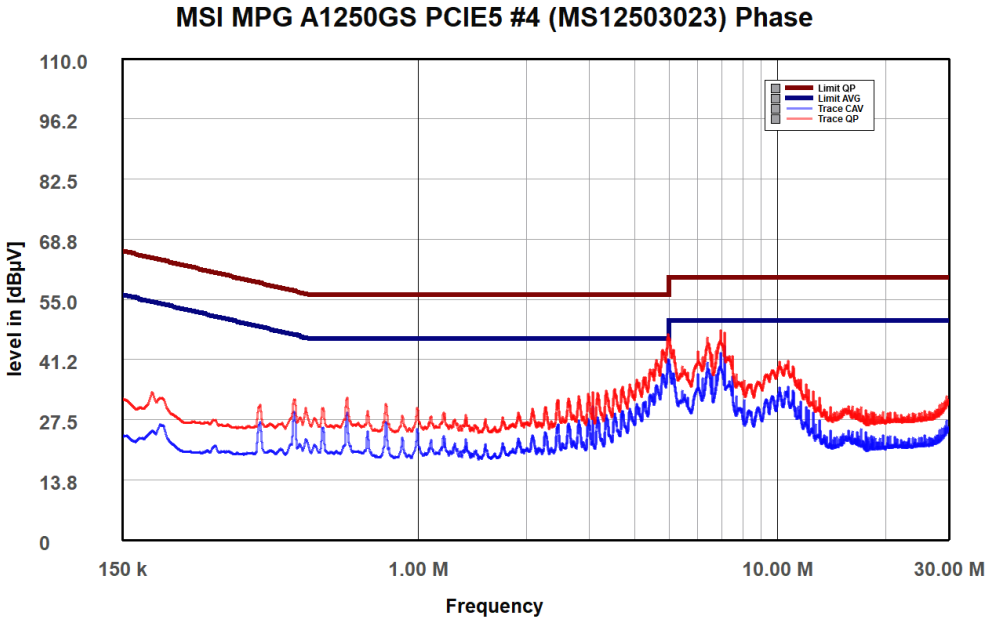
INFO

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

Conducted Emissions EN 55032 & CISPR 32



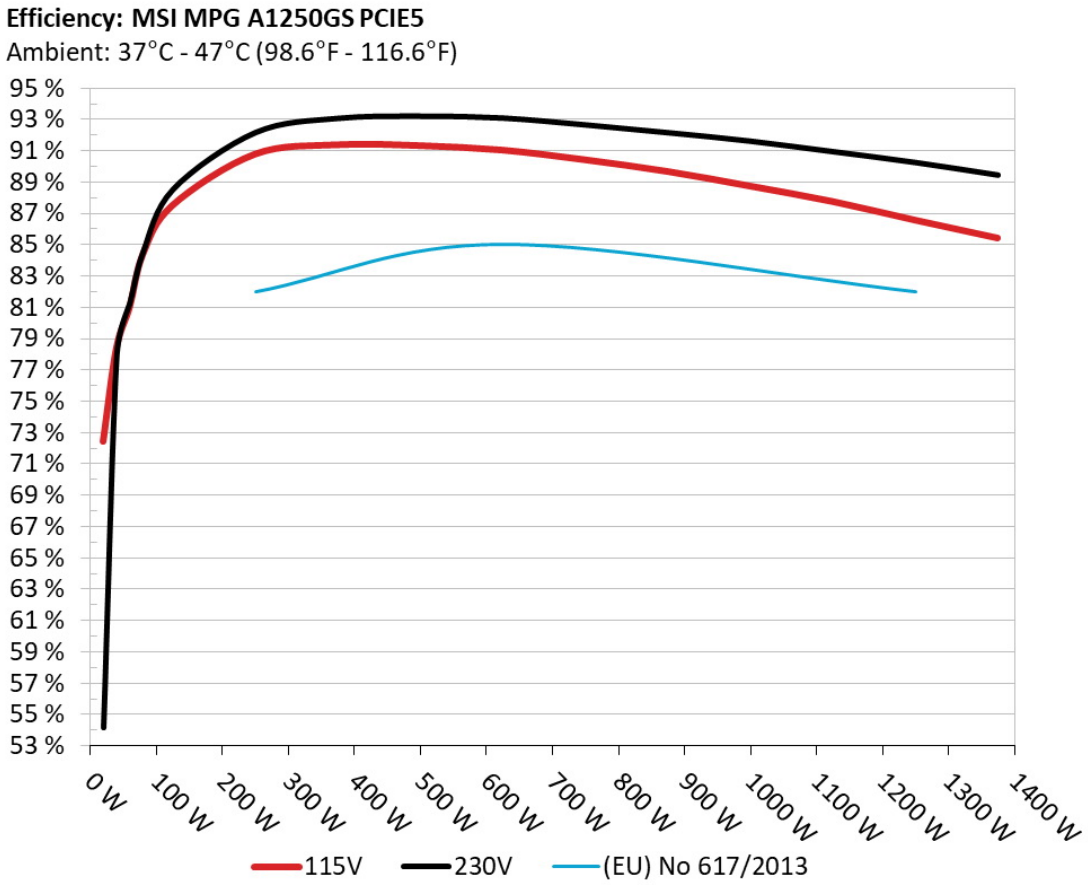
NEUTRAL



PHASE

Indicative Performance

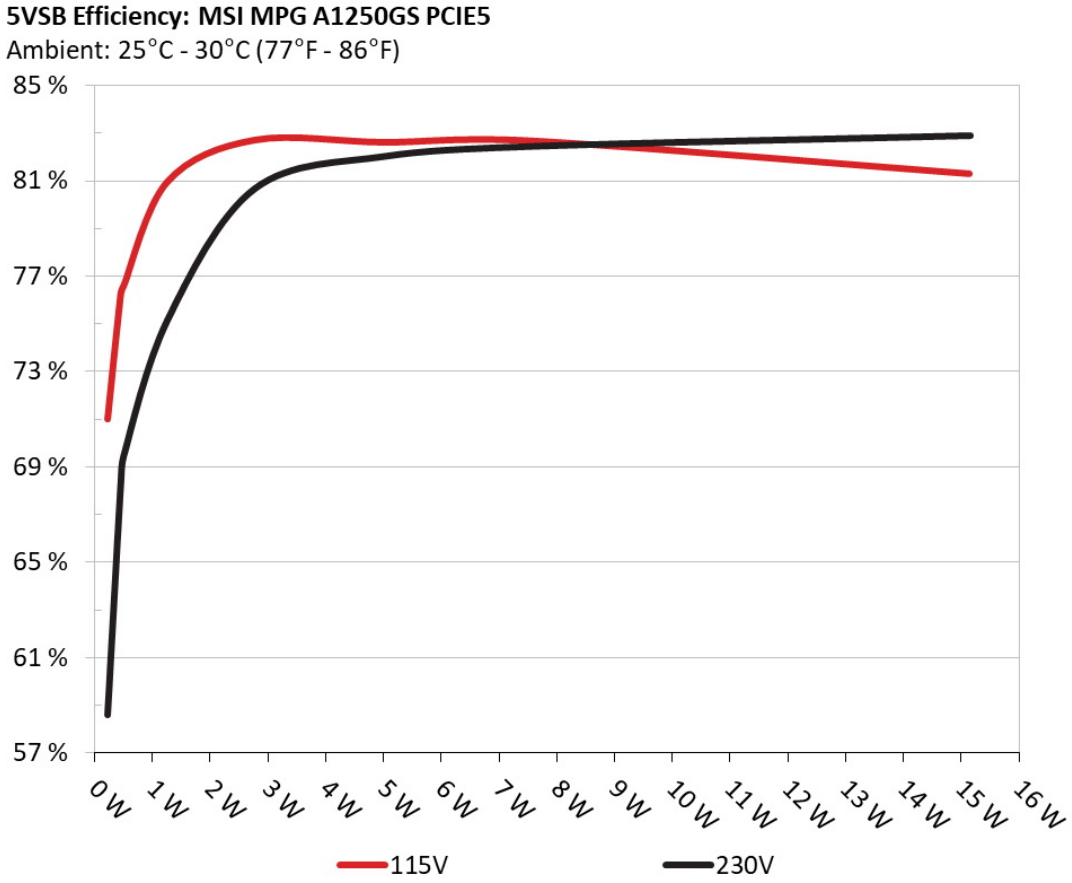
Efficiency under high ambient temperature



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**	0.227W	71.027%	0.026
	5.046V	0.32W		115.11V
2	**0.09A**	0.454W	76.262%	0.048
	5.046V	0.595W		115.09V
3	**0.55A**	2.776W	82.725%	0.233
	5.047V	3.356W		115.08V
4	**1A**	5.048W	82.628%	0.345
	5.048V	6.109W		115.09V
5	**1.5A**	7.574W	82.688%	0.415
	5.049V	9.16W		115.12V
6	**3A**	15.147W	81.314%	0.499
	5.048V	18.628W		115.12V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.227W	58.597%	0.01
	5.046V	0.388W		230.22V
2	**0.09A**	0.454W	68.284%	0.016
	5.046V	0.666W		230.22V
3	**0.55A**	2.776W	80.66%	0.083
	5.046V	3.442W		230.22V
4	**1A**	5.048W	82.017%	0.141
	5.047V	6.156W		230.21V
5	**1.5A**	7.573W	82.427%	0.198
	5.048V	9.189W		230.21V
6	**3.001A**	15.156W	82.876%	0.314
	5.051V	18.289W		230.21V

Protection Features

OCP (Normal @ 27.5°C)	12V: 127.40A (122.38%), 12.031V 5V: 28.8A (130.91%), 5.022V 3.3V: 28.6A (130.00%), 3.348V 5VSB: 5.2A (173.33%), 5.03V
OCP (Hot @ 45.5°C)	12V: 122.80A (117.96%), 12.027V 5V: 27.2A (123.64%), 5.011V 3.3V: 27.2A (123.64%), 3.337V 5VSB: 5.1A (170.00%), 5.031V
OPP (Normal @ 28.6°C)	1551.82W (124.15%)
OPP (Hot @ 46.0°C)	1497.41W (119.79%)
OTP	✓ (88°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Full Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

Supplementary Tests (For Reference)

Typical Load Tests

115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	**8.503A**	**1.983A**	**1.96A**	**0.992A**	124.953	87.541%	0	<6.0	41.17°C	0.969
	12.155V	5.044V	3.368V	5.039V	142.782				40.08°C	115.09V
20%	**18.037A**	**2.978A**	**2.944A**	**1.192A**	249.953	90.819%	0	<6.0	44.19°C	0.984
	12.145V	5.038V	3.362V	5.033V	268.683				40.7°C	112.56V
30%	**27.883A**	**3.478A**	**3.441A**	**1.393A**	374.38	91.418%	0	<6.0	44.98°C	0.994
	12.134V	5.033V	3.357V	5.027V	408.734				41.48°C	114.83V
40%	**37.806A**	**3.978A**	**3.938A**	**1.593A**	499.521	91.362%	343	<6.0	41.88°C	0.995
	12.123V	5.029V	3.352V	5.021V	546.741				76.51°C	114.97V
50%	**47.422A**	**4.977A**	**4.931A**	**1.795A**	624.858	91.076%	461	<6.0	42.17°C	0.995
	12.111V	5.024V	3.347V	5.015V	686.057				78.4°C	114.93V
60%	**56.997A**	**5.979A**	**5.926A**	**1.997A**	749.395	90.457%	611	9.8	42.61°C	0.995
	12.098V	5.019V	3.341V	5.008V	828.448				76.93°C	114.88V
70%	**66.653A**	**6.983A**	**6.926A**	**2.2A**	874.675	89.708%	792	18.7	43.46°C	0.995
	12.086V	5.014V	3.336V	5.001V	974.968				75.67°C	114.84V
80%	**76.331A**	**7.986A**	**7.927A**	**2.303A**	999.462	88.773%	1120	29.8	43.62°C	0.995
	12.074V	5.008V	3.33V	4.995V	1125.833				73.6°C	114.79V
90%	**86.413A**	**8.492A**	**8.42A**	**2.406A**	1124.868	87.784%	1590	40.5	44.86°C	0.995
	12.063V	5.004V	3.325V	4.989V	1281.383				70.86°C	114.74V
100%	**96.252A**	**8.999A**	**8.945A**	**3.01A**	1249.7	86.592%	2136	48.6	45.05°C	0.995
	12.052V	5V	3.32V	4.983V	1443.155				69.41°C	114.69V
110%	**105.988A**	**10.009A**	**10.046A**	**3.015A**	1374.322	85.45%	2252	49.7	46.7°C	0.995
	12.039V	4.995V	3.314V	4.976V	1608.434				73.37°C	114.63V
CL1	**0.116A**	**14.379A**	**14.21A**	**0A**	121.297	82.096%	386	<6.0	41.99°C	0.971
	12.137V	5.021V	3.357V	5.027V	147.743				65.54°C	115.09V

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**	**21.934A**	**0A**	**0A**	111.331	80.691%	359	<6.0	40.58°C	0.969
	12.146V	5.012V	3.355V	5.033V	137.964				63.51°C	115.09V
CL3	**0.114A**	**0A**	**21.651A**	**0A**	73.981	74.915%	354	<6.0	40.47°C	0.955
	12.146V	5.016V	3.353V	5.029V	98.05				60.48°C	114.2V
CL4	**103.580A**	**0A**	**0A**	**0A**	1249.471	87.233%	1830	44.4	44.87°C	0.995
	12.063V	5.007V	3.326V	4.986V	1432.333				65.9°C	114.65V

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%	**8.503A**	**1.983A**	**1.959A**	**0.992A**	124.955	88.494%	0	<6.0	41.73°C	0.915
	12.154V	5.042V	3.369V	5.039V	141.206				40.12°C	230.35V
20%	**18.038A**	**2.978A**	**2.944A**	**1.192A**	249.959	92.13%	0	<6.0	40.62°C	0.972
	12.144V	5.037V	3.363V	5.033V	271.29				38.47°C	230.33V
30%	**27.885A**	**3.478A**	**3.44A**	**1.393A**	374.399	93.036%	0	<6.0	41.28°C	0.982
	12.133V	5.032V	3.358V	5.027V	402.399				38.22°C	230.31V
40%	**37.808A**	**3.979A**	**3.937A**	**1.593A**	499.539	93.176%	344	<6.0	41.54°C	0.989
	12.123V	5.028V	3.353V	5.022V	536.092				63.44°C	230.28V
50%	**47.423A**	**4.978A**	**4.929A**	**1.795A**	624.882	93.055%	443	<6.0	42.24°C	0.991
	12.111V	5.024V	3.348V	5.015V	671.475				65.82°C	230.26V
60%	**56.997A**	**5.98A**	**5.925A**	**1.997A**	749.415	92.62%	611	9.8	42.73°C	0.992
	12.099V	5.018V	3.342V	5.008V	809.079				66.35°C	230.24V
70%	**66.656A**	**6.985A**	**6.924A**	**2.2A**	874.698	92.123%	803	19.2	43.11°C	0.994
	12.086V	5.012V	3.337V	5.001V	949.454				65.92°C	230.22V
80%	**76.324A**	**7.988A**	**7.925A**	**2.303A**	999.464	91.582%	1057	28	43.76°C	0.995
	12.075V	5.007V	3.331V	4.995V	1091.326				64.64°C	230.21V
90%	**86.412A**	**8.493A**	**8.418A**	**2.406A**	1124.878	90.91%	1539	39.7	44.95°C	0.995
	12.063V	5.004V	3.326V	4.989V	1237.267				62.72°C	230.19V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**96.250A**	**9A**	**8.943A**	**3.01A**	1249.715	90.218%	2014	46.8	45.34°C	0.996
	12.052V	5V	3.321V	4.984V	1385.154				61.24°C	230.17V
110%	**105.982A**	**10.009A**	**10.044A**	**3.014A**	1374.331	89.42%	2250	49.7	46.16°C	0.996
	12.040V	4.995V	3.315V	4.977V	1536.925				62.38°C	230.15V
CL1	**0.116A**	**14.381A**	**14.209A**	**0A**	121.299	82.922%	366	<6.0	41.76°C	0.92
	12.138V	5.02V	3.357V	5.027V	146.304				60.73°C	230.36V
CL2	**0.114A**	**21.939A**	**0A**	**0A**	111.332	81.468%	362	<6.0	40.54°C	0.91
	12.147V	5.011V	3.356V	5.033V	136.704				59.44°C	230.36V
CL3	**0.114A**	**0A**	**21.652A**	**0A**	73.982	74.971%	358	<6.0	40.76°C	0.866
	12.147V	5.015V	3.353V	5.029V	98.678				57.98°C	230.36V
CL4	**103.577A**	**0A**	**0A**	**0A**	1249.467	90.838%	2046	47.1	45.43°C	0.996
	12.063V	5.005V	3.326V	4.986V	1375.531				62.31°C	230.16V

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**	**0.495A**	**0.489A**	**0.198A**	20	72.43%	0	<6.0	37.99°C	0.822
	12.164V	5.051V	3.374V	5.044V	27.685				36.83°C	115.12V
40W	**2.689A**	**0.693A**	**0.685A**	**0.297A**	40	78.388%	0	<6.0	39.33°C	0.912
	12.158V	5.05V	3.373V	5.043V	51.065				37.68°C	115.11V
60W	**4.155A**	**0.891A**	**0.881A**	**0.397A**	60	81.023%	0	<6.0	40.18°C	0.943
	12.161V	5.048V	3.372V	5.042V	74.079				38.43°C	115.11V
80W	**5.619A**	**1.09A**	**1.077A**	**0.496A**	79.943	84.393%	0	<6.0	40.69°C	0.956
	12.159V	5.047V	3.37V	5.041V	94.338				39.22°C	114.56V

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	**1.221A**	**0.495A**	**0.489A**	**0.198A**	20.001	54.135%	0	<6.0	37.38°C	0.43
	12.161V	5.05V	3.375V	5.044V	27.59				36.9°C	230.35V
40W	**2.689A**	**0.693A**	**0.685A**	**0.297A**	40.001	77.965%	0	<6.0	38.11°C	0.683
	12.157V	5.048V	3.374V	5.043V	51.348				37.06°C	230.35V
60W	**4.156A**	**0.892A**	**0.88A**	**0.397A**	60	81.273%	0	<6.0	39.57°C	0.792
	12.161V	5.047V	3.373V	5.042V	74.002				38.76°C	230.35V
80W	**5.619A**	**1.09A**	**1.076A**	**0.496A**	79.942	84.505%	0	<6.0	41.93°C	0.856
	12.159V	5.046V	3.372V	5.041V	94.652				39.28°C	230.34V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	18.51mV	18.13mV	17.37mV	12.28mV	Pass
20% Load	16.71mV	16.49mV	16.55mV	11.15mV	Pass
30% Load	17.53mV	16.64mV	17.27mV	10.12mV	Pass
40% Load	17.43mV	16.13mV	17.17mV	10.53mV	Pass
50% Load	17.89mV	17.73mV	18.05mV	10.74mV	Pass
60% Load	19.64mV	18.50mV	18.46mV	11.51mV	Pass
70% Load	22.74mV	18.39mV	19.39mV	12.34mV	Pass
80% Load	23.98mV	20.55mV	20.89mV	14.04mV	Pass
90% Load	26.55mV	23.08mV	22.44mV	15.95mV	Pass
100% Load	27.17mV	22.71mV	23.52mV	16.95mV	Pass
110% Load	29.11mV	23.24mV	24.08mV	18.28mV	Pass
Crossload1	17.56mV	17.82mV	19.85mV	13.40mV	Pass
Crossload2	17.69mV	22.67mV	18.36mV	13.57mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	18.51mV	18.55mV	20.63mV	13.57mV	Pass
Crossload4	26.42mV	20.27mV	21.15mV	13.38mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	16.19mV	16.90mV	16.08mV	10.58mV	Pass
20% Load	17.07mV	16.79mV	17.07mV	10.63mV	Pass
30% Load	17.53mV	17.47mV	17.63mV	10.89mV	Pass
40% Load	18.77mV	17.93mV	18.41mV	11.61mV	Pass
50% Load	19.90mV	18.39mV	19.39mV	11.97mV	Pass
60% Load	20.93mV	20.04mV	21.62mV	11.82mV	Pass
70% Load	23.30mV	20.92mV	20.27mV	13.01mV	Pass
80% Load	25.00mV	20.87mV	22.24mV	13.37mV	Pass
90% Load	26.35mV	22.93mV	23.32mV	14.19mV	Pass
100% Load	28.26mV	22.90mV	24.99mV	14.32mV	Pass
110% Load	31.24mV	22.95mV	24.63mV	14.96mV	Pass
Crossload1	16.60mV	16.39mV	19.46mV	11.49mV	Pass
Crossload2	18.41mV	21.48mV	17.58mV	13.47mV	Pass
Crossload3	17.27mV	17.77mV	20.79mV	12.18mV	Pass
Crossload4	27.25mV	21.54mV	21.92mV	13.72mV	Pass

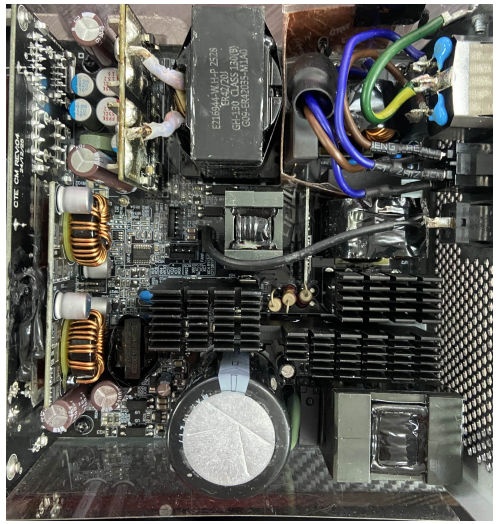
The results above are not used in the certification process

MSI MPG A1250GS PCIE5

Top side

Power specifications label

Third Photo



Fourth Photo

Cybenetics bietet freiwillige Zertifizierungsprogramme für Netzteile – ETA für Effizienz, LAMBDA für Lautstärke und SAFE für Sicherheit und korrekten Betrieb – sowie für Kühlprodukte mit DELTA für die Schalldämmung von Gehäusen und PHI für Luftstrom und statischen Druck von Lüftern

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com