1st Player NGDP 1000W

Serial Number 230722PSNGDP-A0757

Lab ID 1P10002226

Certification ID 252226

Test Result Report ID: 23PS2226A

Certificate Issue Date: Aug 29, 2023

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	1st Player
Model	NGDP 1000W
OEM/ODM	Helly Technology
Serial Number	230722PSNGDP-A0757
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6

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	120mm Fluid Dynamic Bearing Fan (D12BH-12)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	1P10002226
Date of receipt	Jul 31, 2023
Testing Date	Aug 24, 2023
Report Issued Date	Aug 29, 2023
Engineer Name	-
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 20+4 pin (610mm)	1	1	16-22AWG	No
4+4 pin EPS12V (650mm)	2	2	16AWG	No
6+2 pin PCIe (600mm)	4	4	16AWG	No
12+4 pin PCIe (720mm) (600W)	1	1	16-24AWG	No
SATA (450mm+150mm+150mm+150mm)	3	12	18AWG	No
4-pin Molex (450mm+150mm+150mm+150mm)	1	4	18AWG	No
AC Power Cord (1360mm) - C13 coupler	1	1	18AWG	-

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	83	3	0.3
	Watts	120		996	15	3.6
Total Max. Power (W)		1000				

Parts Description

General Data	-
Manufacturer (OEM)	Helly Technology
PCB Type	Double Sided
Primary Side	-
Transient Filter	2x Y caps, 2x X caps, 2x SMDY caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF73T-1 20/6 (20 Ohm) & Relay
Bridge Rectifier(s)	2x GeneSiC GBU15J (600V, 15A @ 100°C) (one of them on heatsink)
APFC MOSFETs	3x Oriental Semiconductor OSG60R180FF (600V, 12.5A @ 100°C, Rds(on): 0.18Ohm)
APFC Boost Diode	1x G3S06510A (650V, 10A @ 154°C)
Bulk Cap(s)	2x Nippon Chemi-Con (400V, 680uF each or 1,360 combined, 2,000h @ 105°C, KMR)
Main Switchers	4x Oriental Semiconductor OSG55R190FF (550V, 12.5A @ 100°C, Rds(on): 0.19Ohm)
APFC Controller	1x
Resonant Controller	Champion CM6901T6X
Topology	Primary side: APFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	-
+12V MOSFETs	8x G013N04G
5V & 3.3V	DC-DC Converters: 2x XSEMI XP3NA3R4MT (30V, 46A @ 100°C, Rds(on): 3.4mOhm) & 3x RMN3N5R0DF (30V, 19.7A @ 70°C, Rds(on): 5mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (2-5,000h @ 105°C, KZE), 3x Rubycon (4-10,000h @ 105°C, YXF) Polymer: 32x
Supervisor IC	Weltrend WT7527 (OCP, OVP, UVP, PG, SCP)
Fan Model	Yate Loon D12BH-12 (120mm, 12V, 0.60A, Fluid Dynamic Bearing Fan)
5VSB Circuit	-

Rectifier	1x 60R20S
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 v3.0 Compliance	✓

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	90.361%
Average Noise Output (>1450 Load Combinations)	30.73dBA
Average PF (>1450 Load Combinations)	0.992
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.907%
Standby Power Consumption	0.0788W
Non-Accredited	
12V Ripple (Full Load)	28.98mV
5V Ripple (Full Load)	20.51mV
3.3V Ripple (Full Load)	23.54mV
5VSB Ripple (Full Load)	21.08mV
12V Load Regulation	0.18%
5V Load Regulation	0.58%
3.3V Load Regulation	1.05%
5VSB Load Regulation	0.99%
Inrush Current	9.160A

230V

Accredited		
Average Efficiency (>1450 load combinations)		92.448%
Average Noise Output (>1450 Load Combinations)		29.78dBA
Average PF (>1450 Load Combinations)		0.972
Efficiency With 10W (≤500W) or 2% (>500W) Load		70.515%
Standby Power Consumption		0.1217W
Non-Accredited		
12V Ripple (Full Load)		27.83mV
5V Ripple (Full Load)		19.44mV
3.3V Ripple (Full Load)		22.22mV
5VSB Ripple (Full Load)		20.13mV
12V Load Regulation		0.20%
5V Load Regulation		0.60%
3.3V Load Regulation		1.05%
5VSB Load Regulation		1.03%
Inrush Current		18.690A
12V Transient Response (200%)		11.47V
5V Transient Response (200%)		4.917V
3.3V Transient Response (200%)		3.247V
5VSB Transient Response (200%)		4.920V
Hold-Up Time & PWR_OK Signal		28.40ms
AC Loss to PWR_OK Hold Up Time		25.80ms
PWR_OK Inactive to DC Loss Delay		2.60ms
PSU Timings: T1 (20% / 100%)	56.0ms	54.0ms
PSU Timings: T3 (20% / 100%)	120.0ms	124.0ms
OPP (28.87°C / 45.02°C)	147.93%	128.13%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	28.4
AC Loss to PWR_OK Hold Up Time (ms)	25.8
PWR_OK Inactive to DC Loss Delay (ms)	2.6



Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.93 V	114.89 V	113.85 V	114.96 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	1.416	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.14 %	0.12 %	N/A	0.19 %	2.00 %	PASS
Real Power:	0.079 W	0.072 W	N/A	0.088 W	N/A	N/A
Apparent Power:	7.558 W	7.541 W	N/A	7.576 W	N/A	N/A
Power Factor:	0.011	N/A	N/A	N/A	N/A	N/A

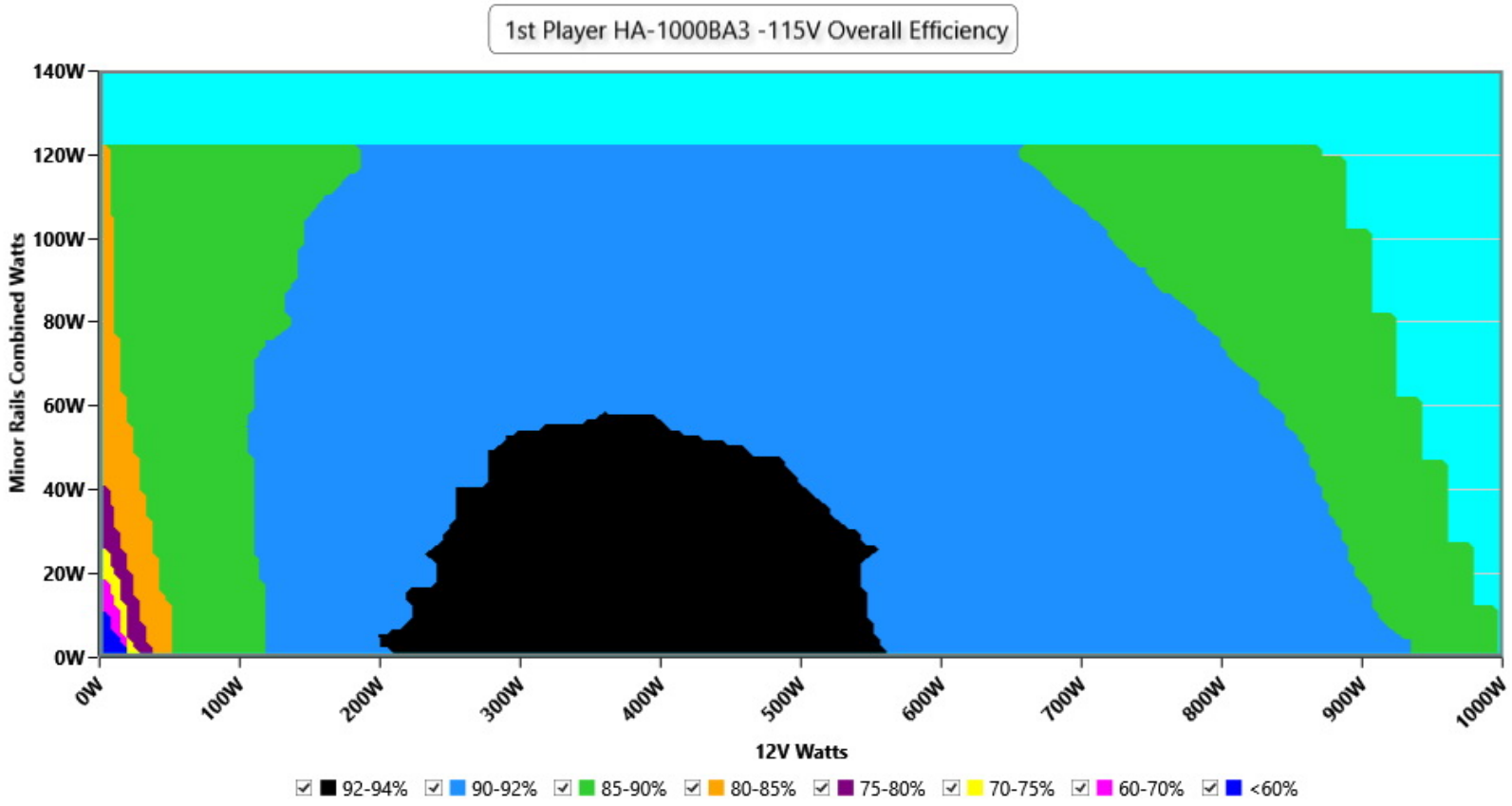
230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.88 V	229.83 V	227.70 V	229.93 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.01 Hz	50.50 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	0.15 %	2.00 %	PASS
Real Power:	0.122 W	0.107 W	N/A	0.137 W	N/A	N/A
Apparent Power:	26.384 W	26.353 W	N/A	26.416 W	N/A	N/A

Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

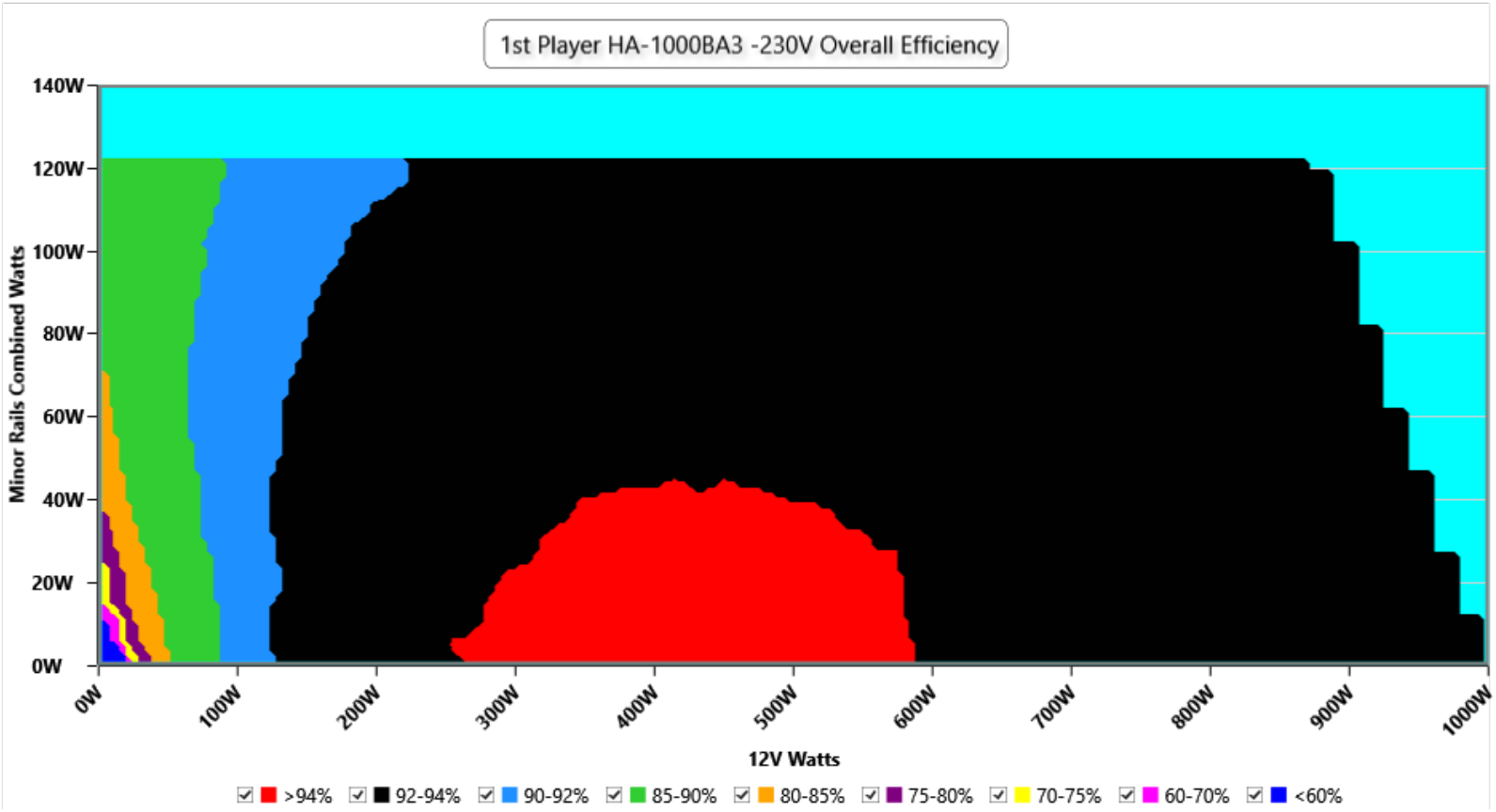
115V



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

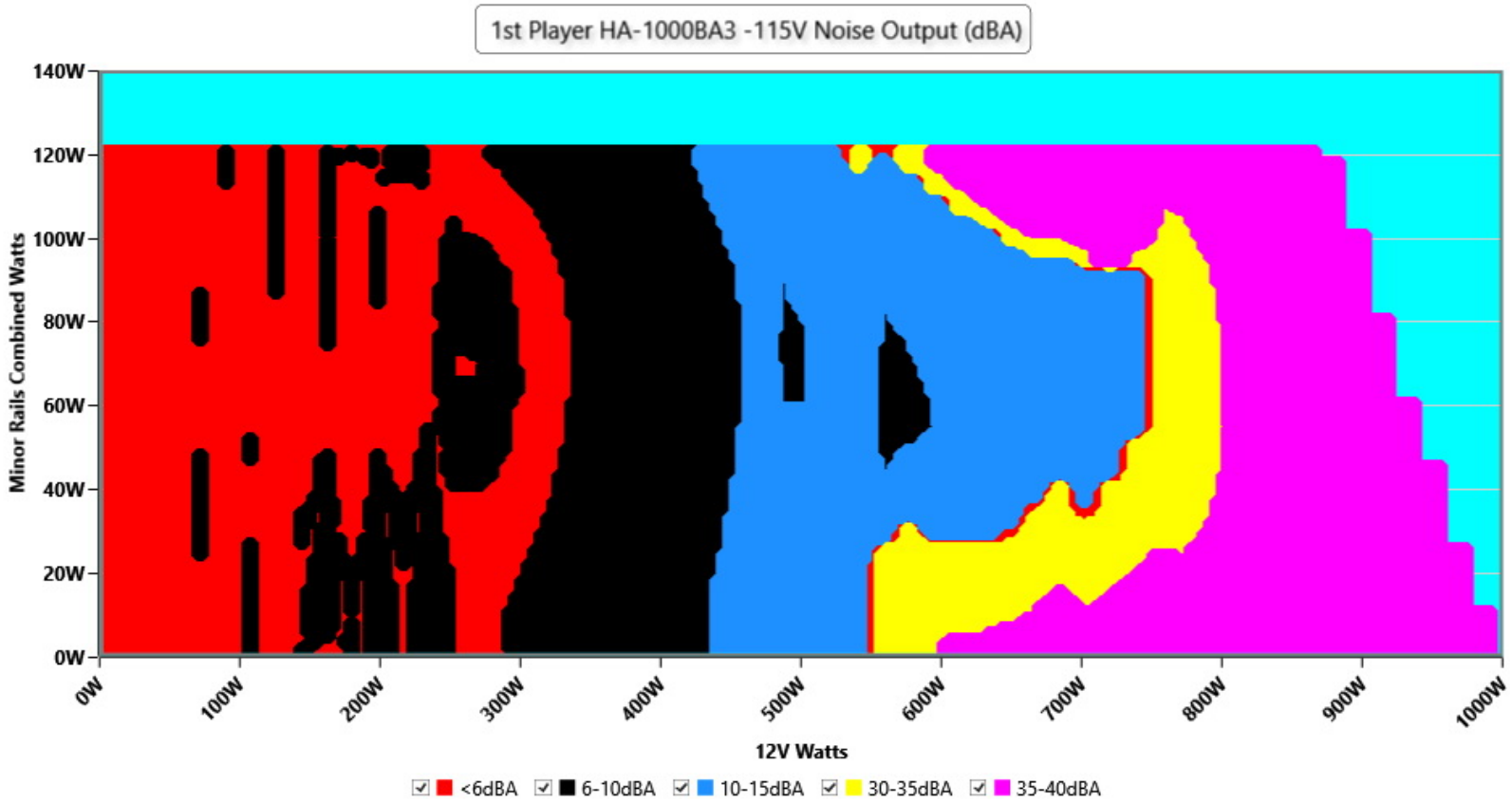


INFO

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

Noise Graph

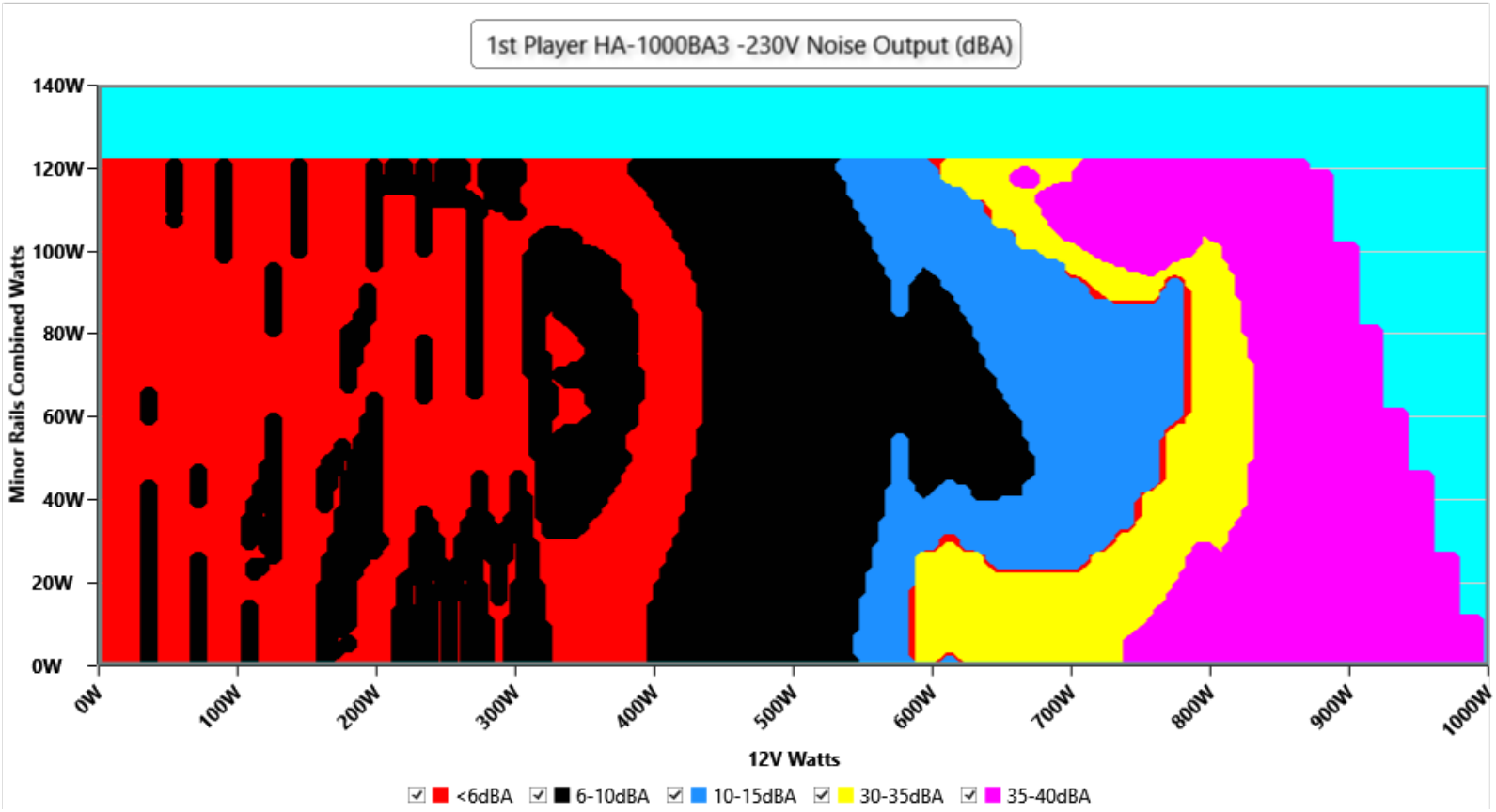
115V



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%	606 RPM · <6.0 dB(A) · 40.1 °C	606 RPM · <6.0 dB(A) · 40.1 °C	fan off in both
20%	638 RPM · 7.1 dB(A) · 40.9 °C	638 RPM · 7.1 dB(A) · 40.9 °C	**+0.0 dB(A)**
50%	1560 RPM · 35.9 dB(A) · 42.7 °C	1560 RPM · 35.9 dB(A) · 42.7 °C	**+0.0 dB(A)**
100%	1934 RPM · 42.2 dB(A) · 46.0 °C	1934 RPM · 42.2 dB(A) · 46.0 °C	**+0.0 dB(A)**

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	608 RPM · <6.0 dB(A) · 40.0 °C	608 RPM · <6.0 dB(A) · 40.0 °C	fan off in both
20%	654 RPM · 7.3 dB(A) · 40.9 °C	654 RPM · 7.3 dB(A) · 40.9 °C	**+0.0 dB(A)**
50%	1559 RPM · 35.9 dB(A) · 42.7 °C	1559 RPM · 35.9 dB(A) · 42.7 °C	**+0.0 dB(A)**
100%	1936 RPM · 42.2 dB(A) · 45.1 °C	1936 RPM · 42.2 dB(A) · 45.1 °C	**+0.0 dB(A)**

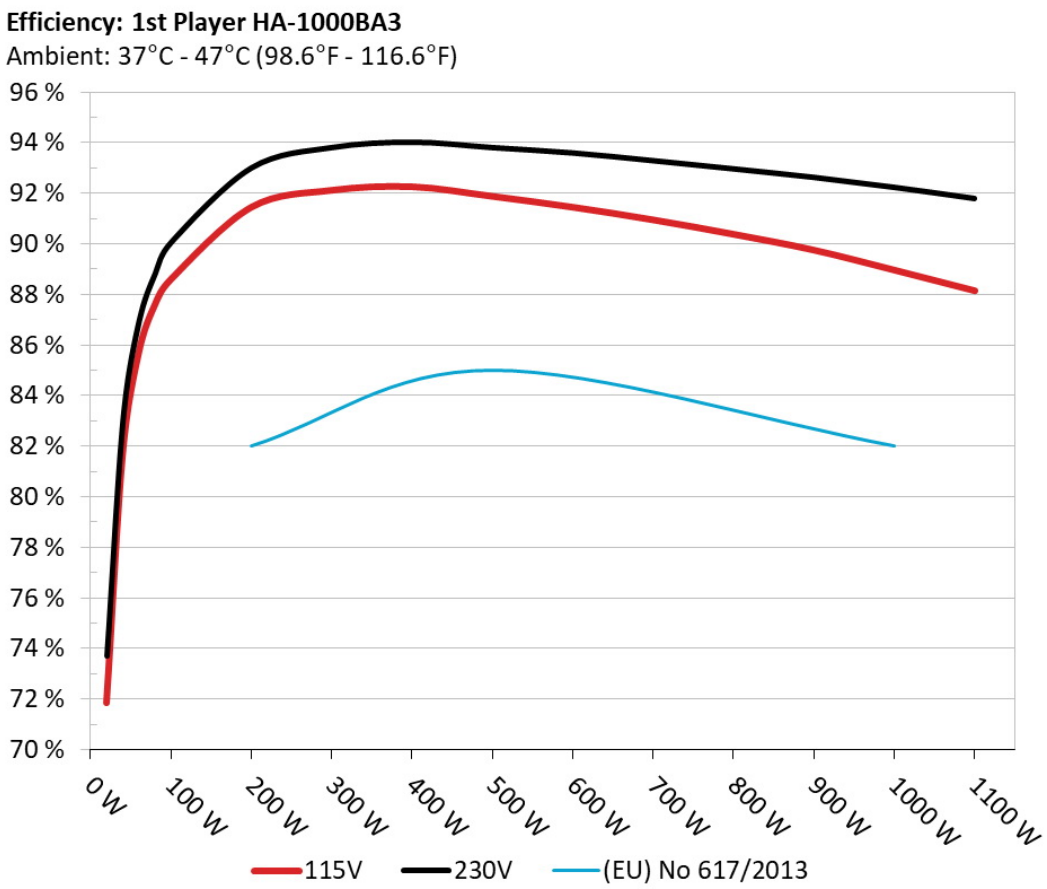
INFO

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.

Indicative Performance

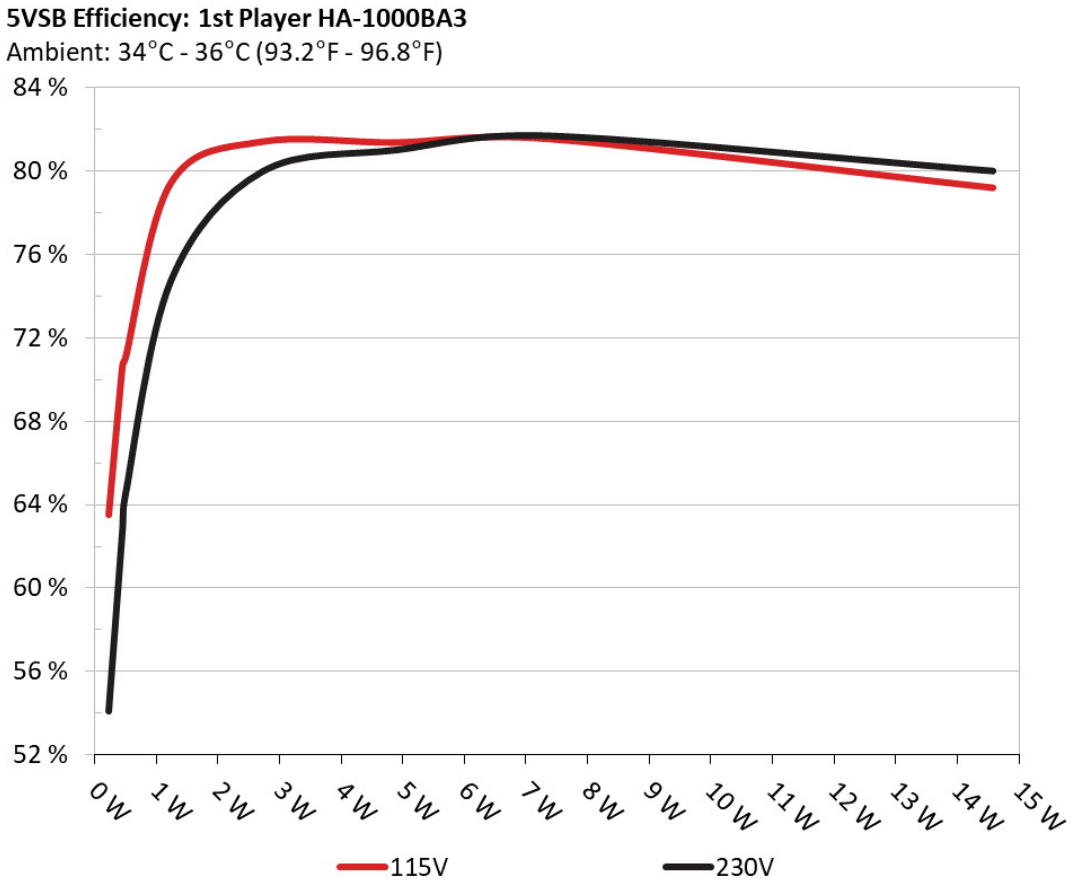
Efficiency under high ambient temperature



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	63.993%	0.046
	4.945V	0.347W		114.93V
2	0.09A	0.445W	71.142%	0.081
	4.944V	0.626W		114.94V
3	0.55A	2.712W	81.878%	0.33
	4.931V	3.312W		114.94V
4	1A	4.918W	81.836%	0.446
	4.918V	6.01W		114.93V
5	1.5A	7.357W	82.011%	0.506
	4.904V	8.971W		114.94V
6	3A	14.587W	79.665%	0.561
	4.862V	18.31W		114.93V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.222W	54.616%	0.015
	4.946V	0.407W		229.9V
2	0.09A	0.445W	63.301%	0.027
	4.944V	0.703W		229.89V
3	0.55A	2.712W	80.473%	0.122
	4.931V	3.37W		229.89V
4	1A	4.919W	81.524%	0.204
	4.918V	6.033W		229.89V
5	1.5A	7.357W	82.197%	0.274
	4.904V	8.95W		229.89V
6	3A	14.587W	80.511%	0.385
	4.862V	18.117W		229.89V

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%	6.458A	2.004A	1.97A	1.004A	100.015	88.611%	606	<6.0	40.05°C	0.971
	12.142V	4.991V	3.35V	4.981V	112.872				44.26°C	114.94V
20%	13.929A	3.008A	2.958A	1.206A	199.973	91.465%	638	7.1	40.92°C	0.984
	12.138V	4.987V	3.347V	4.977V	218.635				45.46°C	114.89V
30%	21.752A	3.51A	3.454A	1.408A	300.037	92.136%	682	8.9	41.48°C	0.991
	12.136V	4.986V	3.344V	4.973V	325.652				46.51°C	114.87V
40%	29.542A	4.013A	3.951A	1.61A	399.673	92.278%	750	12.2	41.91°C	0.994
	12.134V	4.984V	3.341V	4.969V	433.121				47.31°C	114.85V
50%	36.999A	5.02A	4.945A	1.812A	499.385	91.899%	1560	35.9	42.72°C	0.995
	12.132V	4.981V	3.337V	4.966V	543.409				48.78°C	114.82V
60%	44.530A	6.028A	5.94A	2A	599.847	91.468%	1621	36.9	42.92°C	0.996
	12.129V	4.978V	3.333V	4.963V	655.801				49.44°C	114.79V
70%	51.992A	7.037A	6.937A	2.218A	699.635	90.967%	1730	38.6	43.39°C	0.997
	12.127V	4.975V	3.33V	4.96V	769.112				50.42°C	114.77V
80%	59.527A	8.046A	7.934A	2.319A	799.639	90.398%	1808	40.0	44.23°C	0.997
	12.124V	4.973V	3.327V	4.96V	884.579				52.32°C	114.74V
90%	67.393A	8.552A	8.423A	2.421A	899.437	89.773%	1900	41.1	44.72°C	0.997
	12.122V	4.97V	3.324V	4.957V	1001.908				53.81°C	114.72V
100%	75.062A	9.058A	8.943A	3.033A	999.451	88.982%	1934	42.2	45.96°C	0.998
	12.120V	4.969V	3.321V	4.946V	1123.204				56.01°C	114.68V
110%	82.665A	10.069A	10.036A	3.032A	1100.064	88.161%	1943	42.3	47.28°C	0.998
	12.118V	4.967V	3.317V	4.947V	1247.793				58.22°C	114.65V
CL1	0.115A	14.517A	14.246A	0A	121.309	83.573%	1694	38.1	44.58°C	0.98
	12.143V	4.974V	3.348V	5.043V	145.154				49.99°C	114.9V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	0.115A	20.133A	0A	0.001A	101.419	82.208%	1542	35.5	42.85°C	0.974
	12.146V	4.968V	3.354V	5.069V	123.368				50.01°C	114.92V
CL3	0.115A	0A	19.706A	0A	67.382	78.827%	798	13.9	41.4°C	0.963
	12.140V	4.998V	3.349V	4.992V	85.484				50.47°C	114.93V
CL4	82.482A	0A	0A	0.001A	1000.191	89.364%	1939	42.4	47.25°C	0.998
	12.125V	4.986V	3.326V	4.974V	1119.231				58.21°C	114.68V

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%	6.460A	2.004A	1.97A	1.004A	100.025	90.064%	608	<6.0	39.99°C	0.903
	12.141V	4.99V	3.35V	4.98V	111.069				44.21°C	229.9V
20%	13.930A	3.008A	2.958A	1.206A	199.99	93.006%	654	7.3	40.91°C	0.957
	12.138V	4.988V	3.347V	4.977V	215.025				45.58°C	229.89V
30%	21.753A	3.511A	3.455A	1.408A	300.055	93.808%	700	9.9	41.33°C	0.973
	12.136V	4.985V	3.343V	4.973V	319.858				46.39°C	229.89V
40%	29.550A	4.014A	3.952A	1.61A	399.757	94.018%	752	12.2	41.83°C	0.98
	12.134V	4.984V	3.34V	4.969V	425.199				47.41°C	229.87V
50%	37.008A	5.021A	4.946A	1.813A	499.459	93.808%	1559	35.9	42.69°C	0.984
	12.131V	4.98V	3.337V	4.965V	532.423				48.81°C	229.85V
60%	44.539A	6.029A	5.942A	2A	599.914	93.595%	1619	36.9	42.84°C	0.987
	12.128V	4.977V	3.333V	4.962V	640.964				49.38°C	229.84V
70%	52.002A	7.038A	6.939A	2.218A	699.728	93.291%	1771	39.3	43.06°C	0.989
	12.127V	4.975V	3.33V	4.96V	750.055				50.09°C	229.83V
80%	59.542A	8.048A	7.937A	2.32A	799.745	92.968%	1813	40.0	44.05°C	0.99
	12.123V	4.972V	3.326V	4.959V	860.231				52.13°C	229.82V
90%	67.409A	8.554A	8.426A	2.422A	899.536	92.632%	1909	41.5	44.55°C	0.99
	12.121V	4.97V	3.323V	4.956V	971.089				53.64°C	229.81V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	75.081A	9.062A	8.947A	3.034A	999.558	92.24%	1936	42.2	45.06°C	0.991
	12.118V	4.968V	3.32V	4.944V	1083.647				55.11°C	229.81V
110%	82.683A	10.073A	10.04A	3.034A	1100.171	91.797%	1945	42.3	46.94°C	0.992
	12.116V	4.966V	3.316V	4.946V	1198.486				57.88°C	229.78V
CL1	0.116A	14.521A	14.249A	0A	121.329	85.054%	1702	38.0	44.95°C	0.929
	12.142V	4.973V	3.347V	5.042V	142.645				50.44°C	229.9V
CL2	0.115A	20.139A	0A	0.001A	101.435	83.72%	1566	35.9	43.66°C	0.914
	12.145V	4.967V	3.354V	5.068V	121.155				50.71°C	229.9V
CL3	0.115A	0A	19.714A	0A	67.393	79.066%	1554	35.4	42.5°C	0.868
	12.139V	4.996V	3.347V	4.99V	85.233				51.52°C	229.9V
CL4	82.500A	0A	0A	0.001A	1000.287	92.691%	1941	42.5	46.79°C	0.991
	12.124V	4.986V	3.325V	4.973V	1079.165				57.73°C	229.79V

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	1.224A	0.5A	0.492A	0.2A	20.005	71.854%	0	<6.0	39.91°C	0.885
	12.142V	4.998V	3.356V	4.995V	27.84				36.82°C	114.95V
40W	2.692A	0.7A	0.688A	0.3A	40.007	81.712%	0	<6.0	41.27°C	0.938
	12.142V	4.997V	3.355V	4.994V	48.958				37.94°C	114.95V
60W	4.162A	0.901A	0.886A	0.401A	60.006	85.708%	0	<6.0	42.42°C	0.956
	12.142V	4.996V	3.354V	4.991V	70.017				38.6°C	114.93V
80W	5.628A	1.101A	1.083A	0.501A	79.965	87.592%	0	<6.0	43.69°C	0.964
	12.142V	4.995V	3.353V	4.989V	91.289				39.77°C	114.93V

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	1.224A	0.5A	0.492A	0.2A	20.007	73.716%	0	<6.0	39.85°C	0.565
	12.142V	4.997V	3.355V	4.995V	27.248				36.78°C	229.91V
40W	2.692A	0.7A	0.688A	0.3A	40.007	83.042%	0	<6.0	40.43°C	0.737
	12.143V	4.998V	3.355V	4.994V	48.183				37.12°C	229.91V
60W	4.162A	0.901A	0.886A	0.401A	60.009	86.938%	0	<6.0	41.23°C	0.828
	12.142V	4.996V	3.354V	4.992V	69.027				37.72°C	229.9V
80W	5.628A	1.102A	1.083A	0.501A	79.972	88.825%	607	<6.0	38.4°C	0.876
	12.141V	4.993V	3.351V	4.987V	90.033				42.29°C	229.9V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	10.54mV	9.35mV	11.30mV	9.57mV	Pass
20% Load	12.13mV	10.68mV	13.09mV	11.00mV	Pass
30% Load	12.99mV	11.59mV	13.86mV	11.82mV	Pass
40% Load	14.43mV	12.20mV	14.01mV	12.89mV	Pass
50% Load	14.23mV	13.79mV	18.26mV	14.23mV	Pass
60% Load	15.71mV	14.15mV	17.23mV	14.89mV	Pass
70% Load	16.43mV	14.25mV	17.80mV	15.35mV	Pass
80% Load	18.06mV	16.96mV	19.89mV	16.17mV	Pass
90% Load	18.93mV	18.49mV	19.99mV	17.96mV	Pass
100% Load	28.98mV	20.51mV	23.54mV	21.08mV	Pass
110% Load	30.50mV	21.05mV	22.64mV	20.89mV	Pass
Crossload1	18.41mV	14.36mV	16.08mV	15.63mV	Pass
Crossload2	12.49mV	13.89mV	13.45mV	15.10mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	10.34mV	8.73mV	16.82mV	10.75mV	Pass
Crossload4	29.24mV	16.08mV	21.67mV	16.84mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	10.49mV	9.50mV	11.61mV	9.62mV	Pass
20% Load	11.21mV	10.68mV	12.68mV	10.80mV	Pass
30% Load	12.79mV	11.90mV	13.96mV	11.67mV	Pass
40% Load	13.61mV	13.59mV	13.60mV	12.69mV	Pass
50% Load	14.33mV	13.94mV	15.55mV	13.82mV	Pass
60% Load	15.66mV	14.45mV	16.57mV	14.28mV	Pass
70% Load	16.73mV	14.30mV	17.44mV	14.64mV	Pass
80% Load	17.04mV	17.47mV	18.82mV	16.79mV	Pass
90% Load	18.93mV	18.80mV	20.25mV	17.50mV	Pass
100% Load	27.83mV	19.44mV	22.22mV	20.13mV	Pass
110% Load	29.95mV	20.61mV	22.81mV	20.12mV	Pass
Crossload1	18.55mV	13.61mV	15.18mV	15.11mV	Pass
Crossload2	11.46mV	13.64mV	13.50mV	14.99mV	Pass
Crossload3	11.82mV	8.73mV	16.41mV	10.13mV	Pass
Crossload4	27.30mV	17.24mV	21.45mV	16.19mV	Pass

The results above are not used in the certification process

1st Player NGDP 1000W



Top side



Power specifications label