Cougar GR X2 750

Serial Number -

Lab ID CG75003464

Certification ID 263464

Test Result Report ID: 26PS3464A

Certificate Issue Date: Oct 11, 2026

Scheme: ETA-EMI PSU

115V



230V



115V



230V



Scheme: LAMBDA PSU



Outside Validation Scope



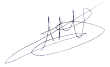
General Information

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	Cougar
Model	GR X2 750
OEM/ODM	RSY
Serial Number	-
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	6-10
Rated Frequency (Hz)	50-60
Rated Power (W)	750
Operating Temperature (Continuous Full Load) (°C)	10 - 42
Type	ATX12V
Cable Design	Fully Modular
Warranty	No info
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 86 x 140 mm
Weight	1232 g
Cooling	120mm Sleeve Bearing Fan (Globe Fan S1202512L)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	CG75003464
Date of receipt	Oct 5, 2026
Testing Date	Oct 9, 2026
Report Issued Date	Oct 11, 2026
Engineer Name	Efstathios Papadopoulos
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	Cable Type
ATX connector 20+4 pin (600mm)	1	1	18-22AWG	Tinned Copper
4+4 pin EPS12V (700mm)	2	2	18AWG	Tinned Copper
6+2 pin PCIe (600mm)	1	1	18AWG	Tinned Copper
6+2 pin PCIe (550mm+150mm)	1	2	18AWG	Tinned Copper
12+4 pin PCIe (600mm) (450W)	1	1	16-24AWG	Copper

SATA (465mm+145mm+145mm) / 4-pin Molex (+145mm)	2	6 / 2	18AWG	Tinned Copper
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-

Protection Features

Over Voltage Protection	✓
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	62.4	3	0.4
	Watts	100		748.8	15	4.8
Total Max. Power (W)		750				

Parts Description

General Data	
Manufacturer (OEM)	RSY
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor 2.5D-11 (2.5 Ohm) & Relay
Bridge Rectifier	HY Electronic GBU1506 (600V, 15A @ 25°C)
APFC MOSFETs	2x Super Semi SSF60R190S2E (600V, 12.6A @ 100°C, Rds(on): 0.19Ohm)
APFC Boost Diode	Diodes Incorporated DSC08A065 (650V, 8A @ 25°C)

Bulk Cap(s)	Rubycon (420V, 330uF, 2000h @ 105°C, MXH)
Main Switchers	4x Shenzhen SIF13N50C (500V, 8A @ 100°C, Rds(on): 0.55Ohm)
APFC Controller	Texas Instruments UCC28180 & Sync Power SPN5003 (reducing no-load consumption)
Resonant Controller	Texas Instruments UCC25600
Topology	Primary side: APFC, Full-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	4x Maplesemi SLP130N04T (40V, 84A @ 100°C, Rds(on): 2.5mOhm)
5V & 3.3V	DC-DC Converters: 4x Infineon BSC0906NS (30V, 63A @ 25°C, Rds(on): 4.5mOhm) PWM Controller(s): 2x AnpecAPW7164
Filtering Capacitors	Electrolytic: 21x Vent (3,000h @ 105°C, CD288HJ) Polymer: 9x NJcon
Supervisor IC	1x INFSitronix IN1S315I
Fan Model	Globe Fan S1202512L (120mm, 12V, 0.18A, Sleeve Bearing Fan)
5VSB Circuit	
Rectifiers	Pingwei PS1060L
PWM controller	Safety-Chip SC2583

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)	89.339%
Average Noise Output (>1450 Load Combinations)	18.20dBA

Average PF (>1450 Load Combinations)	0.989
Efficiency With 10W (≤500W) or 2% (>500W) Load	68.623%
Standby Power Consumption	0.0694W
Non-Accredited	
12V Ripple (Full Load)	42.25mV
5V Ripple (Full Load)	24.63mV
3.3V Ripple (Full Load)	22.83mV
5VSB Ripple (Full Load)	19.29mV
12V Load Regulation	0.91%
5V Load Regulation	2.26%
3.3V Load Regulation	2.82%
5VSB Load Regulation	3.17%
Inrush Current	58.260A

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.370%
Average Noise Output (>1450 Load Combinations)	17.21dBA
Average PF (>1450 Load Combinations)	0.944
Efficiency With 10W (≤500W) or 2% (>500W) Load	73.297%
Standby Power Consumption	0.1345W
Non-Accredited	
12V Ripple (Full Load)	44.04mV
5V Ripple (Full Load)	24.79mV
3.3V Ripple (Full Load)	22.42mV
5VSB Ripple (Full Load)	20.52mV
12V Load Regulation	0.95%
5V Load Regulation	2.24%
3.3V Load Regulation	2.88%
5VSB Load Regulation	3.21%
Inrush Current	81.565A
12V Transient Response (200%)	11.55V

5V Transient Response (200%)		4.916V
3.3V Transient Response (200%)		3.199V
5VSB Transient Response (200%)		4.957V
Hold-Up Time & PWR_OK Signal		14.40ms
AC Loss to PWR_OK Hold Up Time		12.90ms
PWR_OK Inactive to DC Loss Delay		1.50ms
PSU Timings: T1 (20% / 100%)	130.0ms	130.0ms
PSU Timings: T3 (20% / 100%)	124.0ms	125.0ms
12V OCP (28.6°C / 39.5°C)	86.100A (137.98%), 12.052V — shut down	86.400A (138.46%), 12.046V — shut down
5V OCP (28.6°C / 39.5°C)	32.100A (160.50%), 5.036V — shut down	32.000A (160.00%), 5.031V — shut down
3.3V OCP (28.6°C / 39.5°C)	31.100A (155.50%), 3.292V — shut down	30.900A (154.50%), 3.292V — shut down
5VSB OCP (28.6°C / 39.5°C)	4.400A (146.67%), 4.928V — shut down	4.300A (143.33%), 4.975V — shut down
OPP (28.61°C / 41.76°C)	137.58%	127.64%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	14.4
AC Loss to PWR_OK Hold Up Time (ms)	12.9
PWR_OK Inactive to DC Loss Delay (ms)	1.5

Vampire Power

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.00 V	114.97 V	113.85 V	115.01 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	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.16 %	2.00 %	PASS

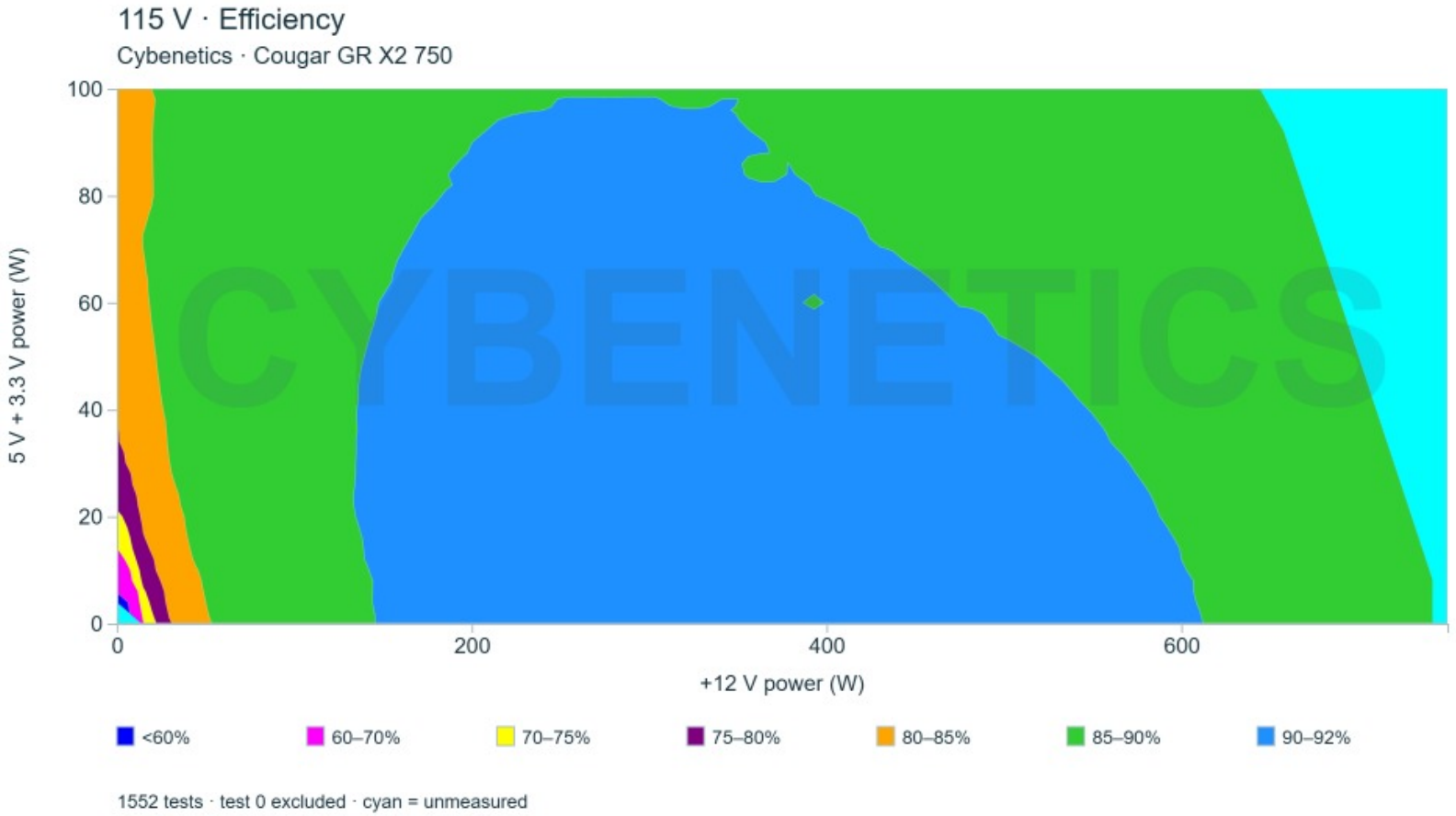
Detailed Results						
Real Power:	0.069 W	0.047 W	N/A	0.098 W	N/A	N/A
Apparent Power:	9.290 W	9.270 W	N/A	9.313 W	N/A	N/A
Power Factor:	0.008	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.00 V	229.97 V	227.70 V	230.01 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:	0.135 W	0.095 W	N/A	0.213 W	N/A	N/A
Apparent Power:	30.411 W	30.377 W	N/A	30.453 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

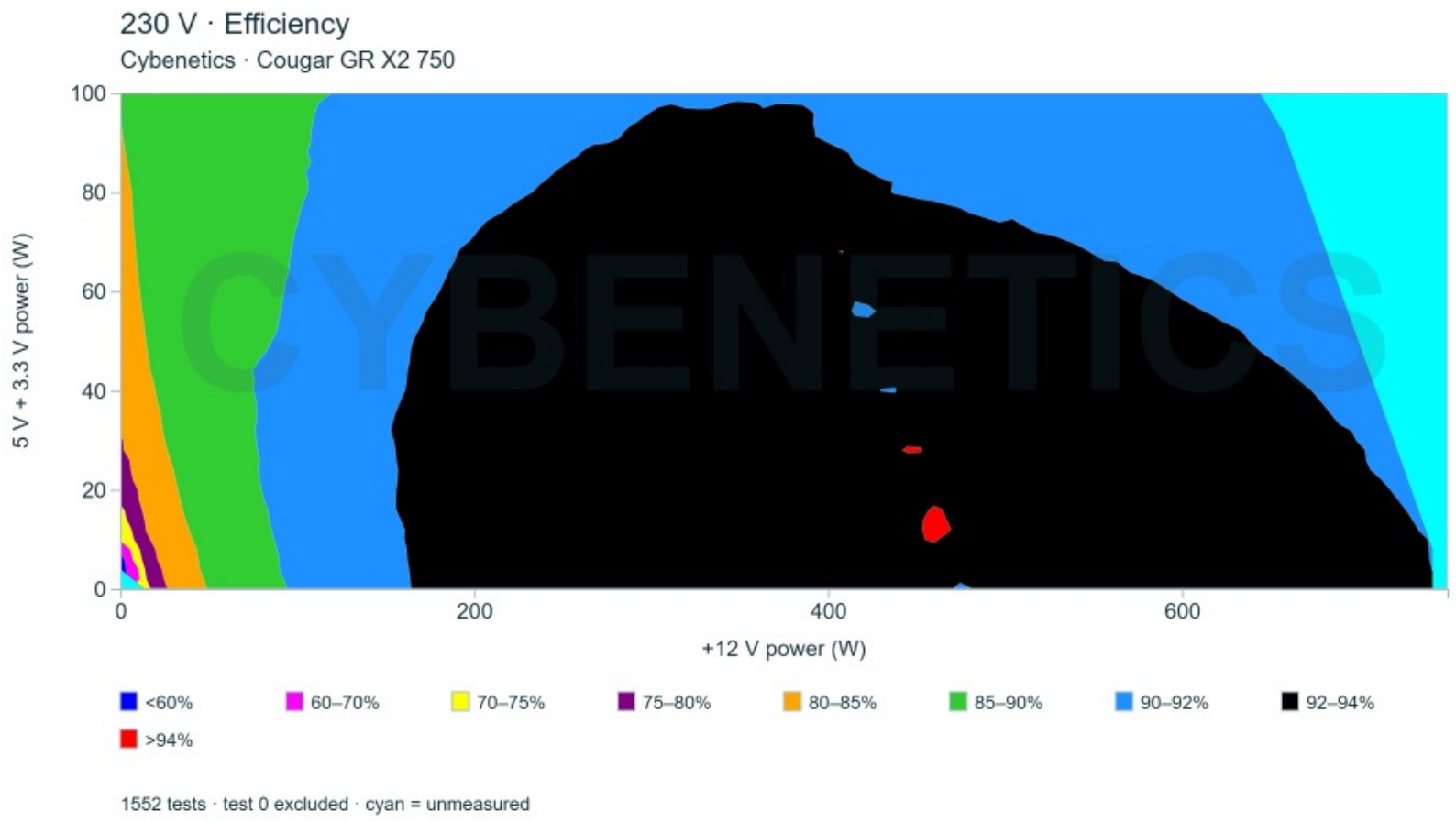
115V



INFO

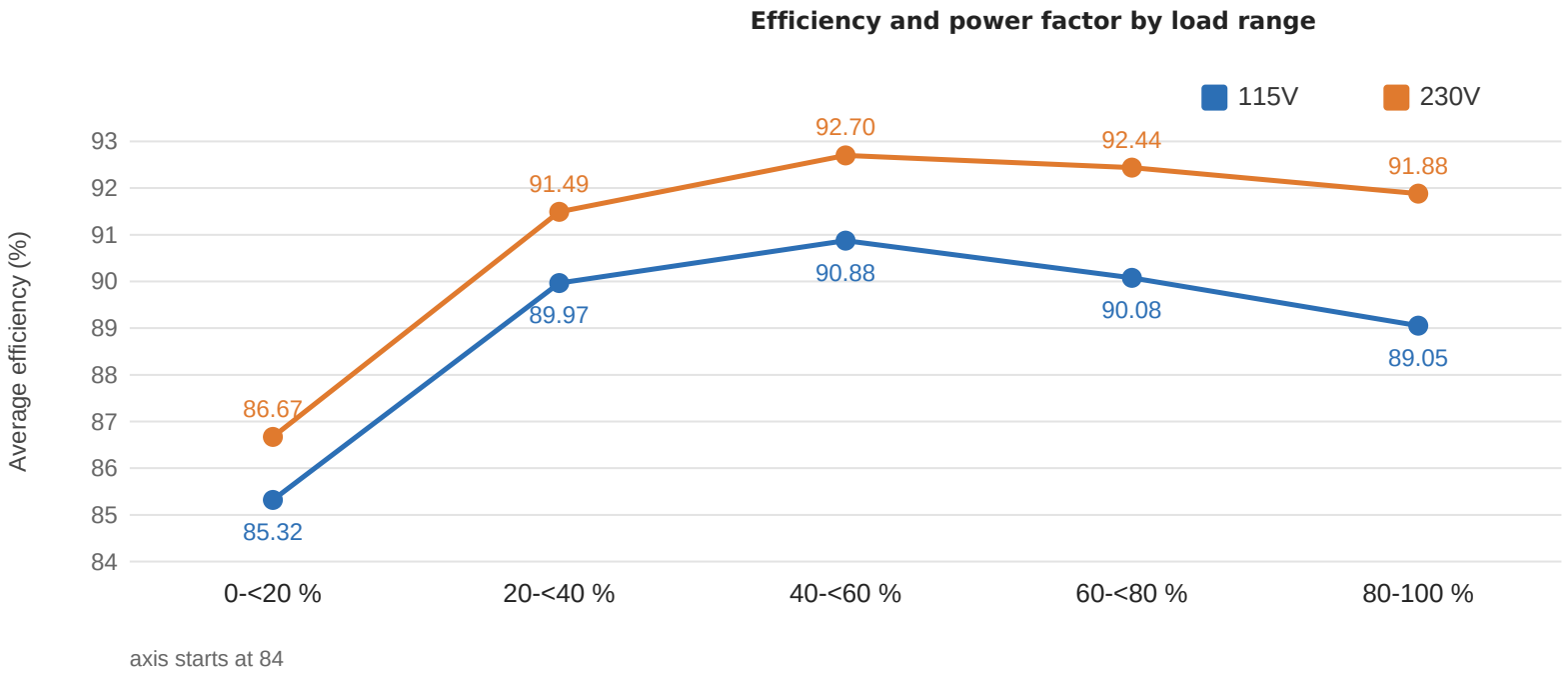
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

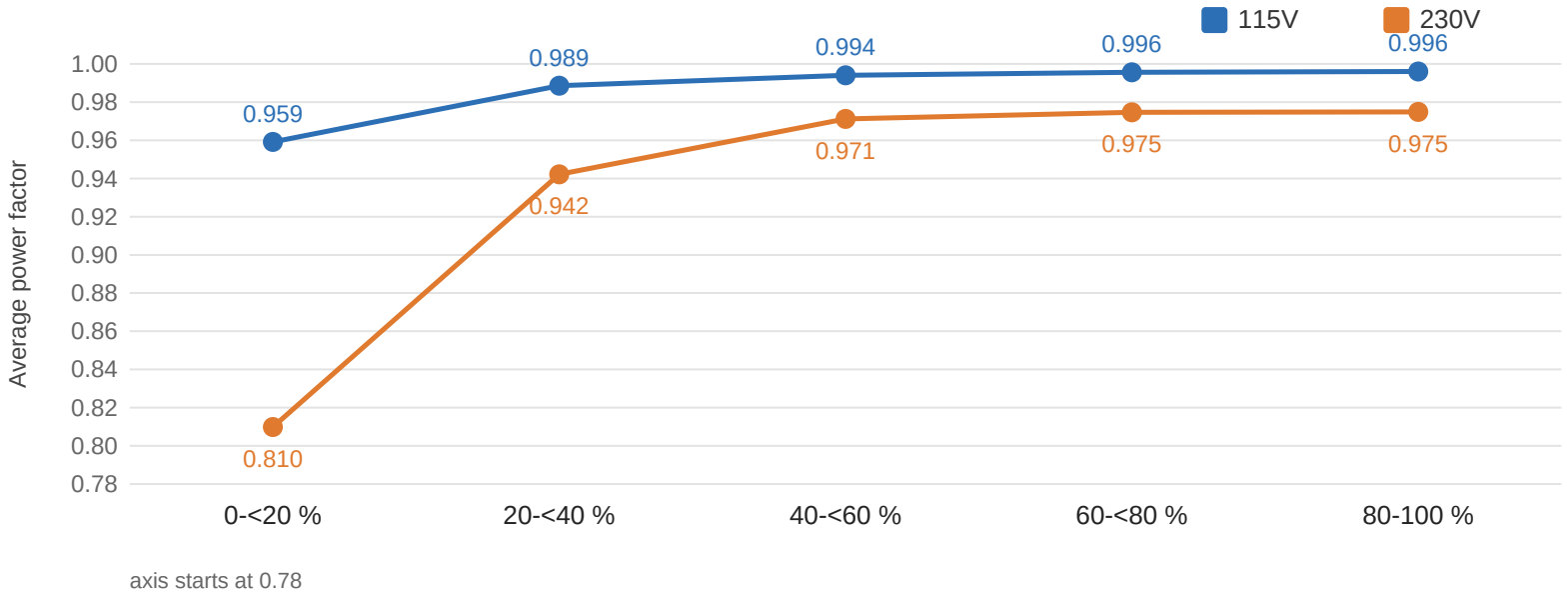


INFO

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



axis starts at 84



axis starts at 0.78

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	215 / 215	85.32%	86.67%	0.959	0.810
20-<40 %	333 / 333	89.97%	91.49%	0.989	0.942
40-<60 %	331 / 331	90.88%	92.70%	0.994	0.971
60-<80 %	332 / 332	90.08%	92.44%	0.996	0.975
80-100 %	341 / 341	89.05%	91.88%	0.996	0.975
70-100 % (High-Load)	504 / 504	89.30%	92.01%	0.996	0.975
All (published average)	1552 / 1552	89.34%	91.37%	0.989	0.944

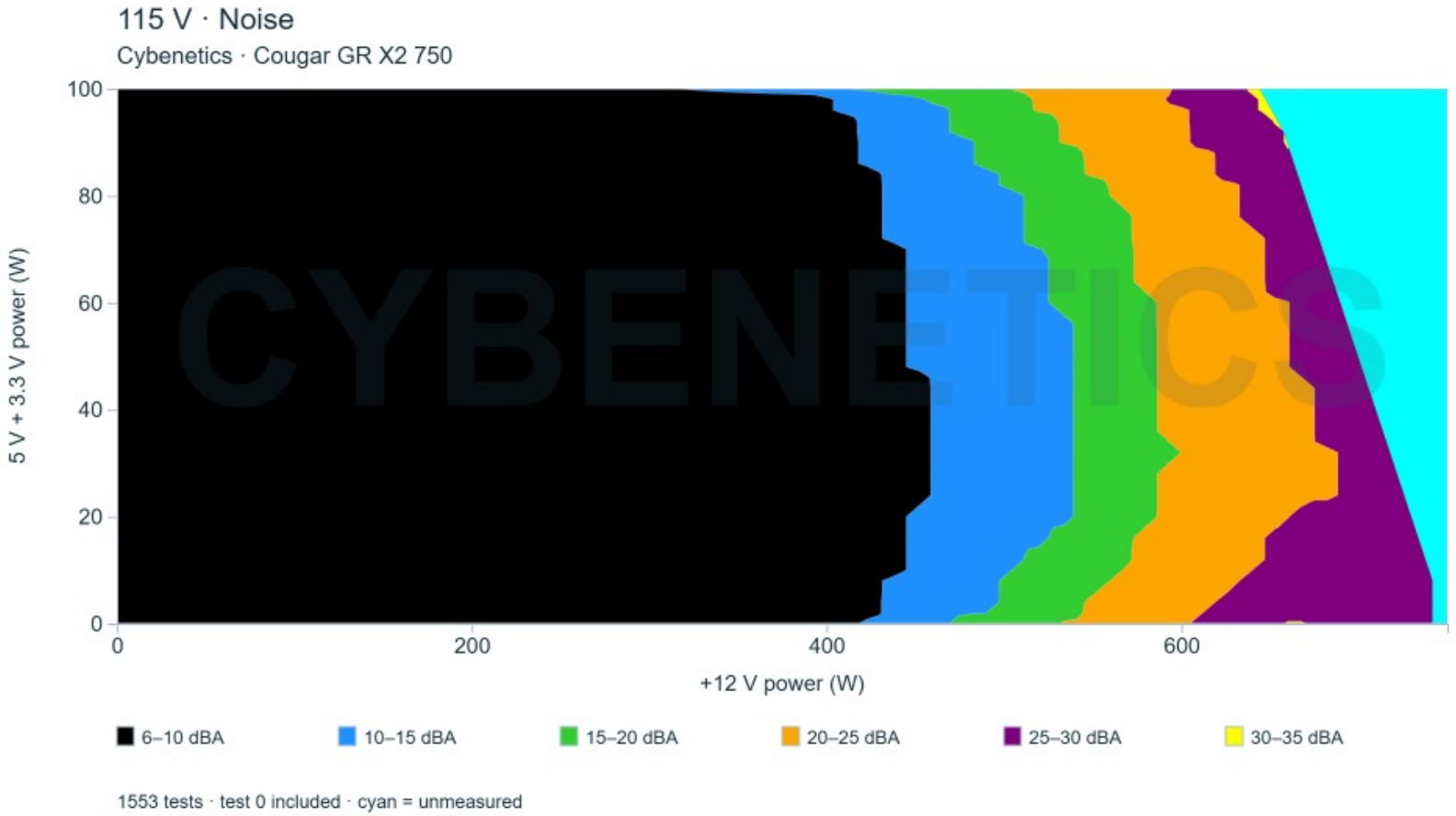
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1552 (115V) and 1552 (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 750 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

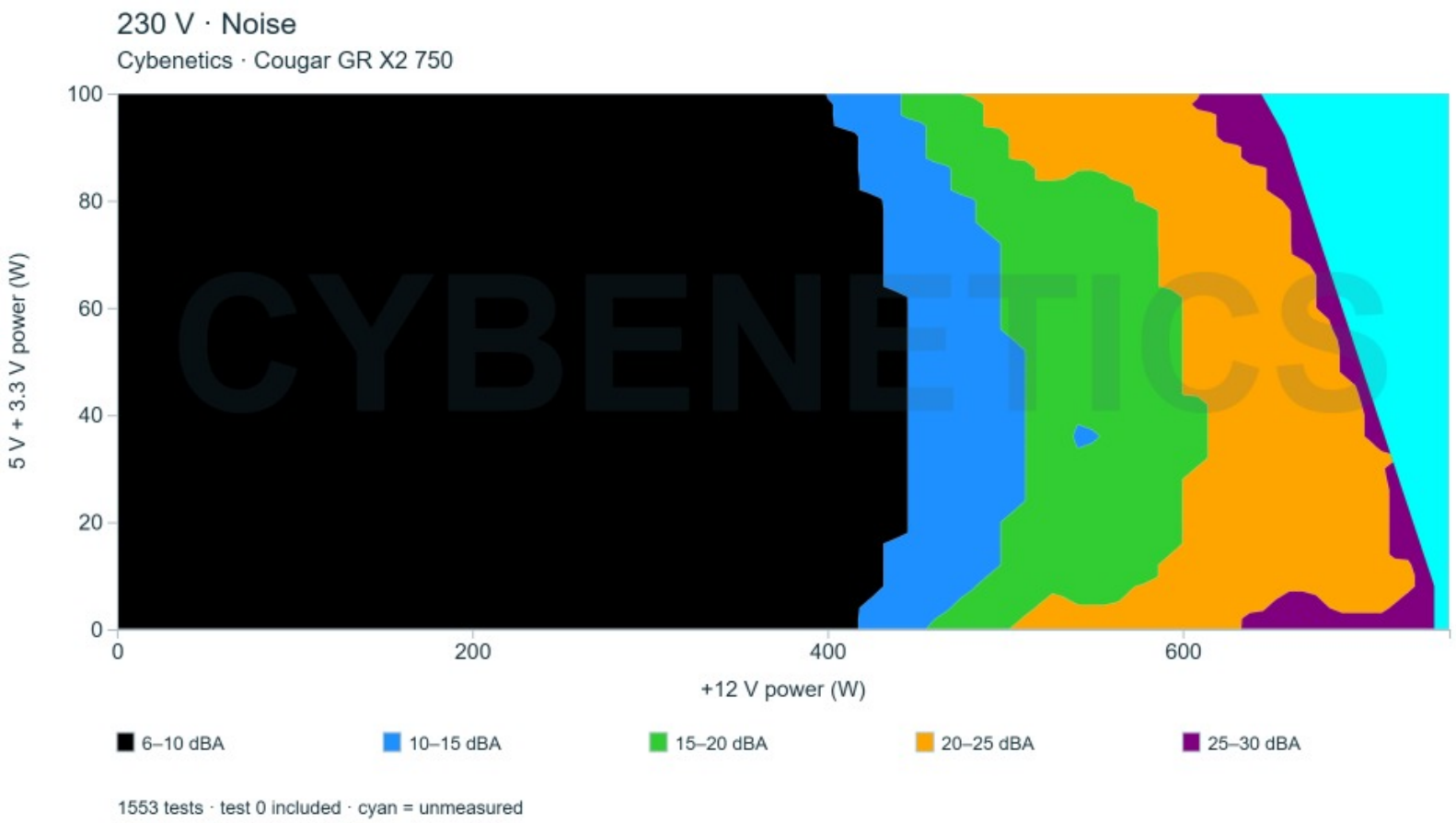
115V



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

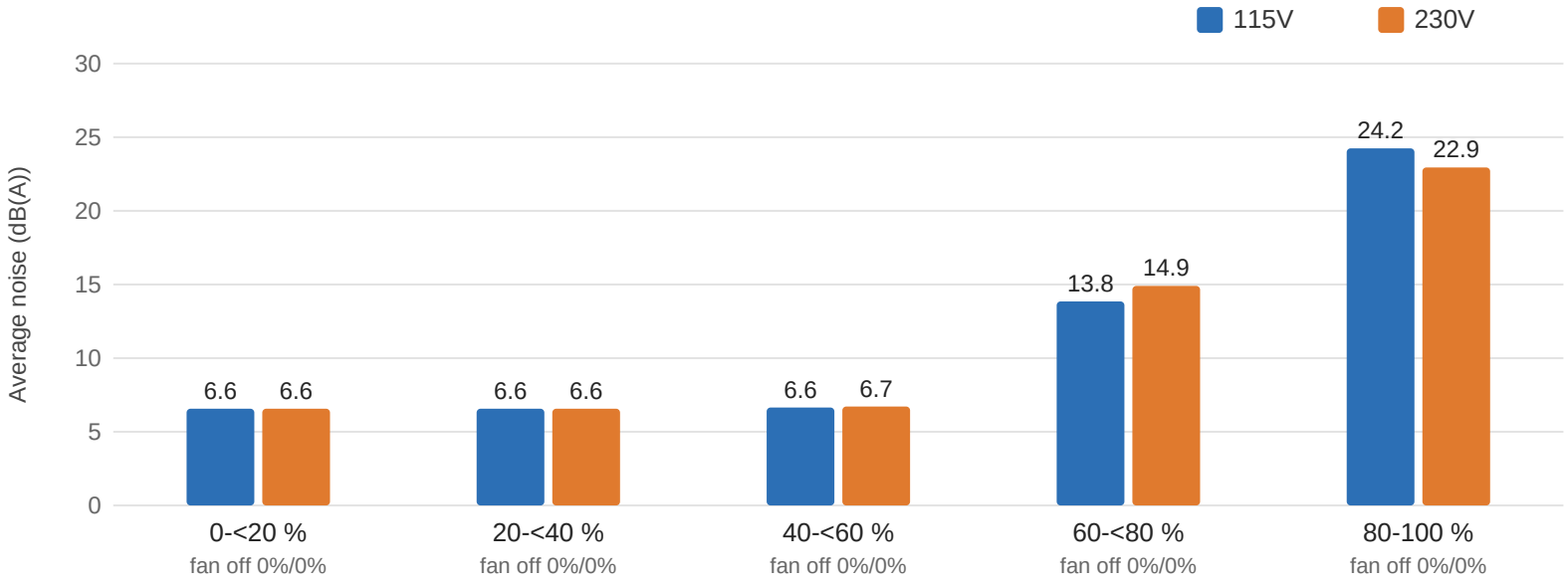
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **22.8 dB(A)** at 115V and **21.7 dB(A)** at 230V · loudest point 30.3 dB(A)

Efficiency 89.30% / 92.01% · power factor 0.996 / 0.975 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	6.6 (6.6)	6.6 (6.6)	0% / 0%
20-<40 %	6.6 (6.6)	6.6 (6.6)	0% / 0%
40-<60 %	6.6 (10.9)	6.7 (13.5)	0% / 0%
60-<80 %	13.8 (22.9)	14.9 (22.9)	0% / 0%
80-100 %	24.2 (30.3)	22.9 (27.4)	0% / 0%
70-100 % (High-Load)	22.8 (30.3)	21.7 (27.4)	0% / 0%
All (published average)	18.2 (30.3)	17.2 (27.4)	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 1552 (115V) and 1552 (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 750 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%	498 RPM · 6.6 dB(A) · 30.1 °C	530 RPM · 8.9 dB(A) · 40.1 °C	**+2.3 dB(A)**
20%	505 RPM · 7.5 dB(A) · 30.2 °C	539 RPM · 11.1 dB(A) · 40.6 °C	**+3.6 dB(A)**
50%	513 RPM · 7.5 dB(A) · 30.5 °C	551 RPM · 10.9 dB(A) · 42.2 °C	**+3.4 dB(A)**
100%	1092 RPM · 27.0 dB(A) · 30.0 °C	1574 RPM · 39.7 dB(A) · 45.2 °C	**+12.7 dB(A)**

230V

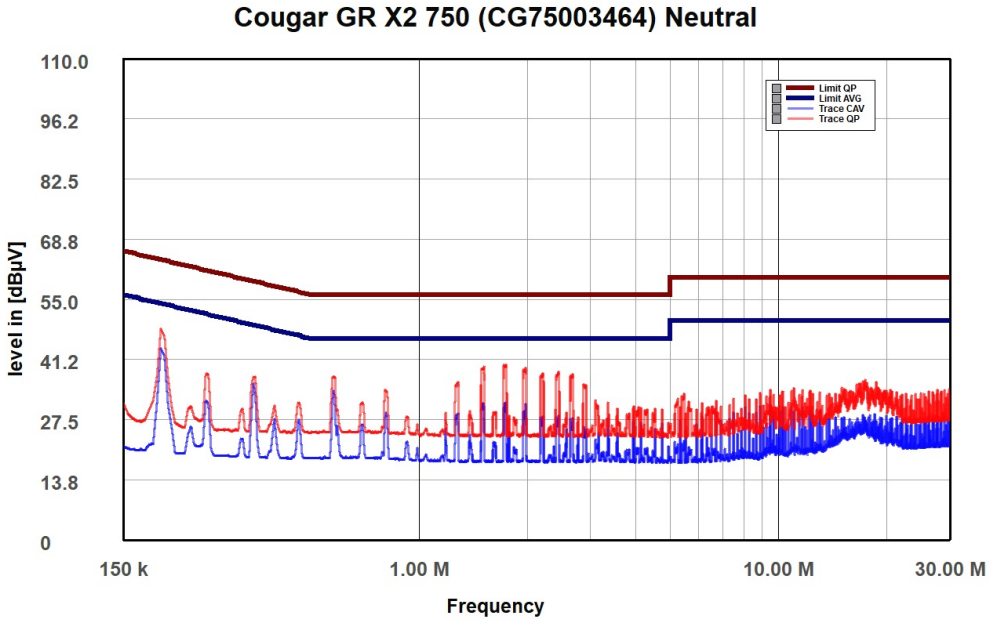
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	516 RPM · 7.5 dB(A) · 30.9 °C	526 RPM · 7.5 dB(A) · 40.1 °C	**+0.0 dB(A)**
20%	512 RPM · 7.5 dB(A) · 30.1 °C	536 RPM · 8.9 dB(A) · 40.3 °C	**+1.4 dB(A)**
50%	511 RPM · 7.5 dB(A) · 30.8 °C	549 RPM · 11.1 dB(A) · 42.1 °C	**+3.6 dB(A)**
100%	1067 RPM · 26.3 dB(A) · 30.4 °C	1615 RPM · 39.4 dB(A) · 45.4 °C	**+13.1 dB(A)**

INFO

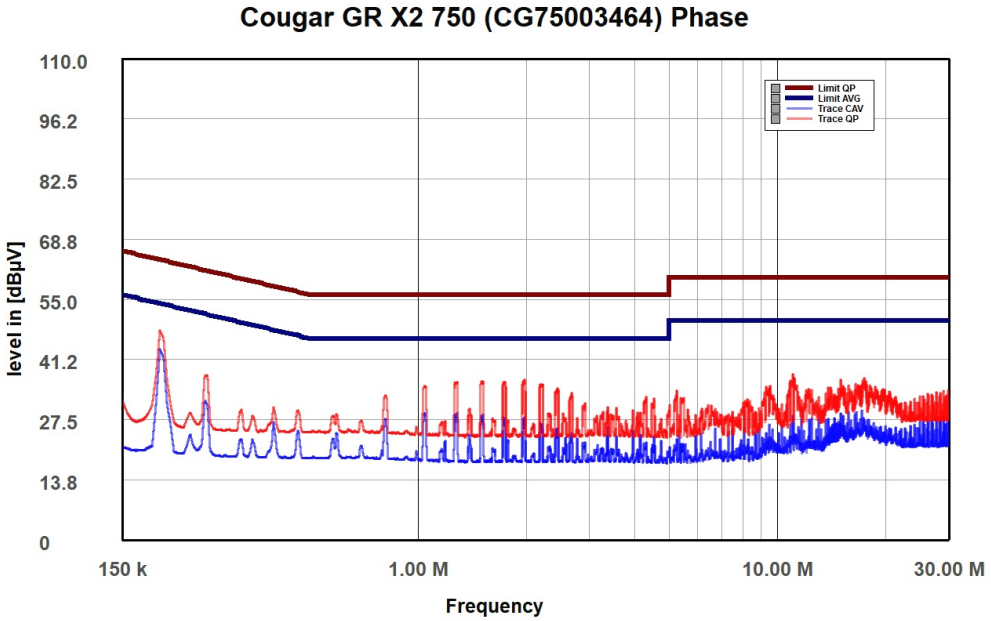
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



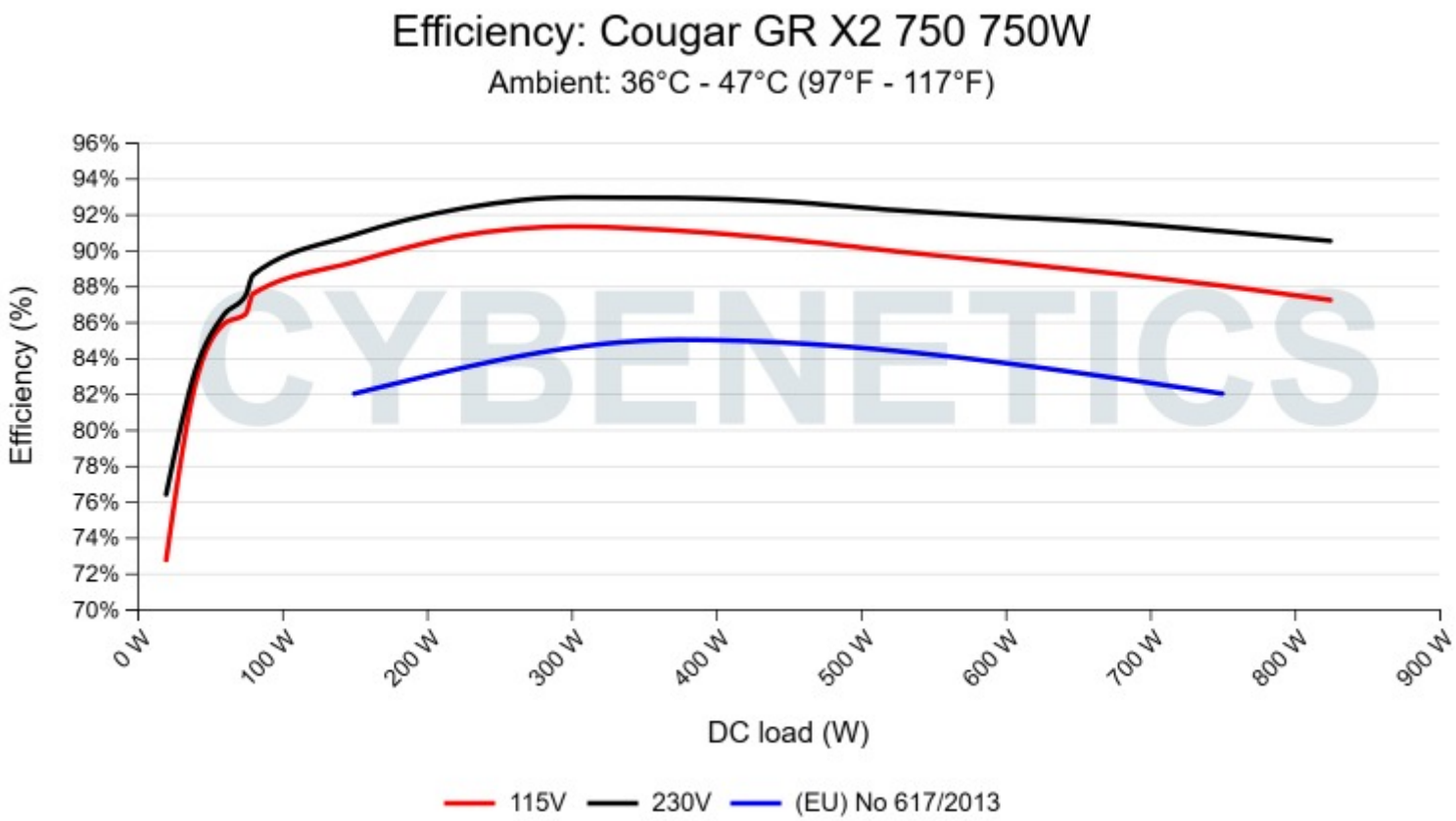
NEUTRAL



PHASE

Indicative Performance

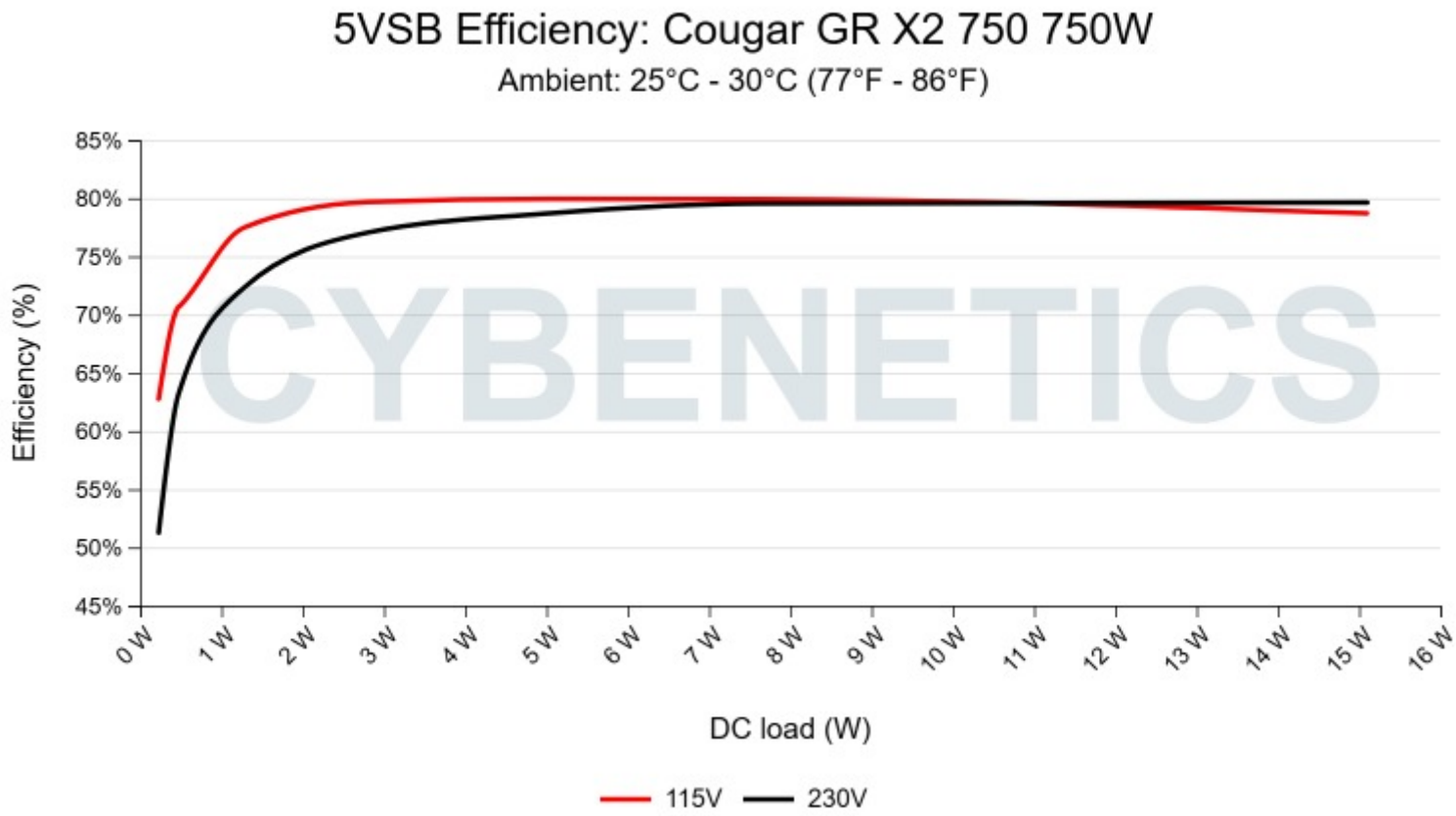
Efficiency under high ambient temperature



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**	0.23W	62.76%	0.039
	5.115V	0.367W		114.87V
2	**0.09A**	0.46W	70.524%	0.068
	5.112V	0.653W		114.89V
3	**0.55A**	2.805W	79.658%	0.269
	5.1V	3.522W		114.88V
4	**1A**	5.089W	79.939%	0.345
	5.088V	6.366W		114.87V
5	**1.5A**	7.614W	79.91%	0.391
	5.076V	9.53W		114.87V
6	**3A**	15.097W	78.689%	0.455
	5.032V	19.185W		114.87V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.23W	51.27%	0.014
	5.114V	0.449W		229.89V
2	**0.09A**	0.46W	62.815%	0.023
	5.114V	0.733W		229.88V
3	**0.55A**	2.806W	77.046%	0.108
	5.101V	3.641W		229.89V
4	**1A**	5.089W	78.712%	0.176
	5.089V	6.466W		229.89V
5	**1.5A**	7.614W	79.53%	0.221
	5.076V	9.574W		229.89V
6	**3A**	15.102W	79.619%	0.321
	5.034V	18.968W		229.89V

Protection Features

OCP (Normal @ 28.6°C)	12V: 86.1A (137.98%), 12.052V — shut down 5V: 32.1A (160.5%), 5.036V — shut down 3.3V: 31.1A (155.5%), 3.292V — shut down 5VSB: 4.4A (146.67%), 4.928V — shut down
OCP (Hot @ 39.5°C)	12V: 86.4A (138.46%), 12.046V — shut down 5V: 32A (160%), 5.031V — shut down 3.3V: 30.9A (154.5%), 3.292V — shut down 5VSB: 4.3A (143.33%), 4.975V — shut down
OVP (per rail)	12V: 14.288V (✓) 5V: 5.874V (✓) 3.3V: 3.857V (✓)
OPP (Normal @ 28.6°C)	1031.82W (137.58%) — shut down
OPP (Hot @ 41.8°C)	957.31W (127.64%) — shut down
OTP	✓ (110°C @ 12V Heatsink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Accurate but short
UVP (Typical Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN 55032 & 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%	**4.391A**	**1.975A**	**1.97A**	**0.984A**	74.999	86.435%	530	8.9	40.14°C	0.964
	12.162V	5.062V	3.35V	5.081V	86.769				41.09°C	114.85V
20%	**9.796A**	**2.969A**	**2.964A**	**1.184A**	149.92	89.325%	539	11.1	40.64°C	0.982
	12.150V	5.051V	3.34V	5.068V	167.837				43.14°C	114.83V
30%	**15.558A**	**3.471A**	**3.466A**	**1.385A**	224.917	90.809%	541	11.1	41.25°C	0.989
	12.140V	5.042V	3.332V	5.055V	247.681				44.12°C	114.81V
40%	**21.337A**	**3.974A**	**3.971A**	**1.587A**	299.999	91.307%	544	11.1	41.81°C	0.992
	12.129V	5.032V	3.324V	5.042V	328.56				46.29°C	114.77V
50%	**26.723A**	**4.98A**	**4.979A**	**1.79A**	374.323	91.074%	551	10.9	42.15°C	0.994
	12.118V	5.02V	3.314V	5.028V	411.009				46.66°C	114.76V
60%	**32.168A**	**5.991A**	**5.992A**	**1.995A**	449.278	90.579%	743	15.3	42.68°C	0.995
	12.107V	5.008V	3.304V	5.014V	496.007				49.38°C	114.71V
70%	**37.623A**	**7.007A**	**7.013A**	**2.2A**	524.21	89.919%	1001	24.6	43.32°C	0.996
	12.096V	4.996V	3.294V	4.999V	582.981				50.47°C	114.69V
80%	**43.153A**	**8.027A**	**8.039A**	**2.306A**	599.403	89.322%	1208	30.6	43.79°C	0.996
	12.085V	4.982V	3.283V	4.988V	671.056				52.04°C	114.68V
90%	**49.028A**	**8.546A**	**8.55A**	**2.412A**	674.439	88.692%	1420	34.7	44.35°C	0.996
	12.074V	4.972V	3.274V	4.976V	760.426				53.16°C	114.63V
100%	**54.711A**	**9.069A**	**9.096A**	**3.03A**	749.66	88.007%	1574	39.7	45.2°C	0.996
	12.063V	4.961V	3.265V	4.951V	851.82				53.88°C	114.62V
110%	**60.276A**	**10.105A**	**10.235A**	**3.036A**	824.69	87.21%	1781	42.8	45.3°C	0.996
	12.051V	4.948V	3.253V	4.941V	945.638				55.35°C	114.57V
CL1	**0.114A**	**11.99A**	**11.947A**	**0A**	101.284	83.202%	877	20.6	41.81°C	0.975
	12.152V	5.021V	3.323V	5.093V	121.732				53.02°C	114.83V

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**	**19.939A**	**0A**	**0A**	101.33	81.908%	597	10.7	41.1°C	0.975
	12.155V	5.013V	3.335V	5.097V	123.713				49.36°C	114.84V
CL3	**0.113A**	**0A**	**19.86A**	**0A**	67.375	76.052%	548	11.1	40.44°C	0.965
	12.156V	5.049V	3.323V	5.096V	88.591				48.75°C	114.84V
CL4	**62.045A**	**0A**	**0A**	**0A**	748.702	89.063%	1320	33.1	45.47°C	0.996
	12.067V	5V	3.29V	5.045V	840.64				51.48°C	114.61V

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%	**4.391A**	**1.975A**	**1.97A**	**0.984A**	74.998	87.475%	526	7.5	40.12°C	0.786
	12.162V	5.063V	3.35V	5.081V	85.736				41.93°C	229.87V
20%	**9.796A**	**2.969A**	**2.963A**	**1.184A**	149.919	90.841%	536	8.9	40.3°C	0.902
	12.150V	5.051V	3.34V	5.067V	165.034				42.67°C	229.87V
30%	**15.558A**	**3.471A**	**3.466A**	**1.385A**	224.916	92.319%	540	11.1	41.03°C	0.945
	12.140V	5.042V	3.332V	5.054V	243.63				43.24°C	229.86V
40%	**21.339A**	**3.974A**	**3.971A**	**1.587A**	299.999	92.934%	545	11.1	41.87°C	0.964
	12.128V	5.032V	3.324V	5.041V	322.81				45°C	229.86V
50%	**26.725A**	**4.979A**	**4.979A**	**1.791A**	374.335	92.904%	549	11.1	42.11°C	0.973
	12.117V	5.021V	3.314V	5.027V	402.926				46.15°C	229.84V
60%	**32.173A**	**5.989A**	**5.994A**	**1.995A**	449.267	92.685%	717	14.8	42.72°C	0.974
	12.105V	5.009V	3.304V	5.013V	484.722				48.07°C	229.82V
70%	**37.625A**	**7.005A**	**7.015A**	**2.201A**	524.176	92.215%	964	22.9	43.44°C	0.975
	12.095V	4.997V	3.293V	4.998V	568.425				49.1°C	229.8V
80%	**43.155A**	**8.024A**	**8.041A**	**2.306A**	599.38	91.847%	1165	30.4	43.84°C	0.975
	12.084V	4.984V	3.282V	4.986V	652.586				49.33°C	229.79V
90%	**49.026A**	**8.544A**	**8.553A**	**2.412A**	674.425	91.532%	1336	33.4	44.49°C	0.975
	12.074V	4.973V	3.273V	4.975V	736.817				50.04°C	229.8V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**54.722A**	**9.068A**	**9.1A**	**3.031A**	749.653	91.04%	1615	39.4	45.42°C	0.975
	12.060V	4.962V	3.263V	4.949V	823.432				53.26°C	229.76V
110%	**60.284A**	**10.102A**	**10.239A**	**3.037A**	824.68	90.504%	1791	42.8	46.67°C	0.974
	12.050V	4.949V	3.252V	4.939V	911.205				54.04°C	229.76V
CL1	**0.114A**	**11.984A**	**11.959A**	**0A**	101.281	84.944%	599	10.7	40.61°C	0.85
	12.153V	5.023V	3.319V	5.092V	119.232				49.76°C	229.88V
CL2	**0.114A**	**19.922A**	**0A**	**0A**	101.329	83.621%	568	11.1	40.62°C	0.853
	12.156V	5.017V	3.332V	5.096V	121.177				48.4°C	229.88V
CL3	**0.113A**	**0A**	**19.866A**	**0A**	67.376	77.121%	543	11.1	40.03°C	0.79
	12.157V	5.048V	3.322V	5.096V	87.364				46.18°C	229.88V
CL4	**62.041A**	**0A**	**0A**	**0A**	748.697	92.032%	1182	30.4	45.37°C	0.975
	12.068V	4.999V	3.287V	5.044V	813.523				46.47°C	229.77V

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	**1.220A**	**0.493A**	**0.491A**	**0.196A**	19.994	72.741%	510	7.5	36.93°C	0.832
	12.173V	5.073V	3.357V	5.108V	27.486				37.82°C	114.86V
40W	**2.686A**	**0.69A**	**0.688A**	**0.294A**	39.996	82.475%	515	7.5	37.65°C	0.91
	12.169V	5.071V	3.356V	5.104V	48.494				38.54°C	114.85V
60W	**4.154A**	**0.888A**	**0.885A**	**0.392A**	59.996	85.883%	519	7.5	38.26°C	0.951
	12.165V	5.068V	3.354V	5.099V	69.858				39.04°C	114.85V
80W	**5.616A**	**1.086A**	**1.083A**	**0.491A**	79.929	87.552%	527	8.9	39.03°C	0.967
	12.162V	5.065V	3.351V	5.095V	91.294				40.13°C	114.84V

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**	**0.493A**	**0.491A**	**0.196A**	19.992	76.389%	489	6.7	36.2°C	0.503
	12.174V	5.073V	3.357V	5.108V	26.171				37.45°C	229.91V
40W	**2.686A**	**0.69A**	**0.688A**	**0.294A**	39.994	83.242%	506	7.5	37.46°C	0.664
	12.169V	5.071V	3.356V	5.103V	48.045				37.82°C	229.87V
60W	**4.154A**	**0.887A**	**0.885A**	**0.392A**	59.994	86.405%	517	7.5	38.31°C	0.747
	12.165V	5.069V	3.354V	5.099V	69.434				39.39°C	229.88V
80W	**5.616A**	**1.085A**	**1.083A**	**0.491A**	79.927	88.603%	521	7.5	38.86°C	0.796
	12.162V	5.066V	3.351V	5.094V	90.208				40.49°C	229.89V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.15mV	20.27mV	21.03mV	23.35mV	Pass
20% Load	27.57mV	19.97mV	17.90mV	16.93mV	Pass
30% Load	30.18mV	20.99mV	18.42mV	17.75mV	Pass
40% Load	34.63mV	21.20mV	19.55mV	17.14mV	Pass
50% Load	37.90mV	22.68mV	20.06mV	18.47mV	Pass
60% Load	40.92mV	22.84mV	19.44mV	17.65mV	Pass
70% Load	42.71mV	21.81mV	20.16mV	18.83mV	Pass
80% Load	42.96mV	23.61mV	21.24mV	18.93mV	Pass
90% Load	42.30mV	23.51mV	21.29mV	19.24mV	Pass
100% Load	42.25mV	24.63mV	22.83mV	19.29mV	Pass
110% Load	44.19mV	25.61mV	25.60mV	20.11mV	Pass
Crossload1	26.14mV	19.14mV	17.96mV	16.52mV	Pass
Crossload2	28.90mV	23.04mV	18.57mV	17.44mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	23.17mV	17.34mV	19.29mV	16.52mV	Pass
Crossload4	41.83mV	19.61mV	20.93mV	17.96mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	21.38mV	19.71mV	16.98mV	16.01mV	Pass
20% Load	26.65mV	19.14mV	17.39mV	16.62mV	Pass
30% Load	41.84mV	20.94mV	18.31mV	16.63mV	Pass
40% Load	35.44mV	20.32mV	18.16mV	17.04mV	Pass
50% Load	41.73mV	23.15mV	22.83mV	17.65mV	Pass
60% Load	42.14mV	21.40mV	19.70mV	17.45mV	Pass
70% Load	43.68mV	21.96mV	20.98mV	18.37mV	Pass
80% Load	44.65mV	23.87mV	20.73mV	18.88mV	Pass
90% Load	43.83mV	23.35mV	21.60mV	19.45mV	Pass
100% Load	44.04mV	24.79mV	22.42mV	20.52mV	Pass
110% Load	45.47mV	25.04mV	25.29mV	19.81mV	Pass
Crossload1	26.39mV	18.99mV	18.16mV	17.44mV	Pass
Crossload2	27.77mV	22.07mV	17.65mV	17.70mV	Pass
Crossload3	22.04mV	17.81mV	18.93mV	16.63mV	Pass
Crossload4	43.88mV	20.12mV	21.09mV	17.70mV	Pass

The results above are not used in the certification process

Cougar GR X2 750



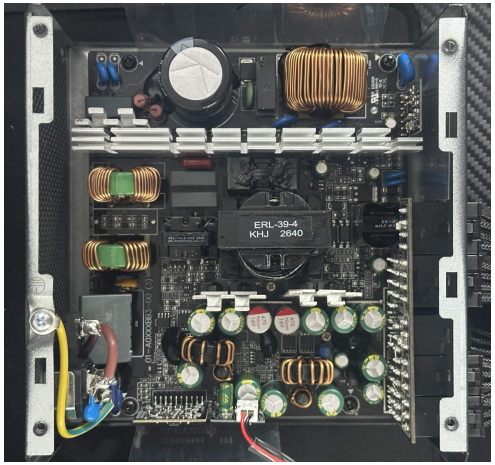
Top side



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