be quiet!

be quiet! Power Zone 2 1200W (EU)

Serial Number 030EUH5429900002

Lab ID BQ12003042

Certification ID 253042

Test Result Report ID: 25PS3042A

Certificate Issue Date: Nov 21, 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	be quiet!
Model	Power Zone 2 1200W (EU)
OEM/ODM	HEC
Serial Number	030EUH5429900002
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100 - 240

Rated Current (Arms)	7.5 - 15
Rated Frequency (Hz)	50 - 60
Rated Power (W)	1200
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 160mm
Weight	1.91 kg (4.21 lb)
Cooling	140mm Rifle Bearing Fan (Pure Wings 3, BQ PUW3-14025-HR)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	BQ12003042
Date of receipt	Oct 29, 2025
Testing Date	Nov 20, 2025
Report Issued Date	Nov 21, 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 20+4 pin (600mm)	1	1	16-18AWG	Tinned Copper
4+4 pin EPS12V (700mm)	1	1	18AWG	Tinned Copper
8 pin EPS12V (700mm)	1	1	18AWG	Tinned Copper
6+2 pin PCIe (600mm)	1	1	16AWG	Tinned Copper
2x 6+2 pin PCIe (600mm)	2	2	16-18AWG	Tinned Copper

Modular Cables				
12+4 pin PCIe (700mm) (600W)	2	2	16-26AWG	Tinned Copper
SATA (550mm+150mm+150mm+150mm)	1	4	18AWG	Tinned Copper
SATA (550mm+150mm+150mm) / 4-pin Molex (+150mm)	1	3 / 1	18AWG	Tinned Copper
AC Power Cord (1350mm) - C13 coupler	1	1	18AWG	-

Protection Features

Under Voltage Protection	✓
Over Power Protection	έεΥ
Over Current (+12V) Protection	έεΥ
Over Temperature Protection	έεΥ
Short Circuit Protection	έεΥ
Surge Protection	έεΥ
Inrush Current Protection	έεΥ
Fan Failure Protection	έεΩ

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	100	3	0.3
	Watts	120		1200	15	3.6
Total Max. Power (W)		1200				

Parts Description

General Data	
Manufacturer (OEM)	HEC
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 3x X caps, 2x CM chokes, 1x MOV, 1x Power IntergrationsCAP200DG (X Capacitor Discharge IC)
Inrush Protection	NTC Thermistor SCK 205R0 (5 Ohm) & Relay
Bridge Rectifier	2x PingWei GBU1506P (600V, 15A @ 100°C)
APFC MOSFETs	3x NCEPower NCE65TF099T (650V, 24A @ 100°C, Rds(on): 109mOhm)
APFC Boost Diode	Wolfspeed C6D10065A (650V, 10A @ 155°C)

Bulk Cap(s)	2x Teapo (400V, 470uF or 940uF combined, 2,000h @ 105°C,LS)
Main Switchers	2x Great Power GP47S60 (600V, 47A @ 25°C, Rds(on): 81mOhm)
APFC Controller	Champion CM6500UNX & Champion CM03AX (Remove Phantom Power)
Resonant Controller	Champion CM6901T6X
Topology	Primary side: APFC, Half-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	8x Ping Wei PWC012N04ES (40V, 132A @ 100°C, Rds(on): 1.2mOhm)
5V & 3.3V	DC-DC Converters: no info PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (2-5,000h @105°C, KZE) 11x Teapo (3,000h @105°C, SC) Teapo (1,000h @105°C, SEK) Polymer: 10x Elite (CS), 8x Nippon Chemi-Con, 7x Teapo (CG)
Supervisor IC	Weltrend WT7527RT (OVP, UVP, OCP, PG)
Fan Controller / Microcontroller	Novosense MS51FB9AE
Fan Model	Pure Wings 3, BQPUW3-14025-HR (140mm, 12V, 0.42A, Riffle Bearing Fan)
5VSB Circuit	
Rectification IC	UR1013P
Standby PWM Controller	Excelliance MOS EMB8569D

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)	90.256%
Average Noise Output (>1450 Load Combinations)	23.91dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	65.870%
Standby Power Consumption	0.0447W
Non-Accredited	
12V Ripple (Full Load)	33.88mV
5V Ripple (Full Load)	17.42mV
3.3V Ripple (Full Load)	18.80mV
5VSB Ripple (Full Load)	12.76mV
12V Load Regulation	0.59%
5V Load Regulation	0.38%
3.3V Load Regulation	1.01%
5VSB Load Regulation	2.24%
Inrush Current	32.580A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.051%
Average Noise Output (>1450 Load Combinations)	23.94dBA
Average PF (>1450 Load Combinations)	0.953
Efficiency With 10W (≤500W) or 2% (>500W) Load	66.760%
Standby Power Consumption	0.1116W
Non-Accredited	
12V Ripple (Full Load)	34.15mV
5V Ripple (Full Load)	19.21mV
3.3V Ripple (Full Load)	18.79mV

5VSB Ripple (Full Load)		13.03mV
12V Load Regulation		0.60%
5V Load Regulation		0.38%
3.3V Load Regulation		1.07%
5VSB Load Regulation		2.28%
Inrush Current		65.530A
12V Transient Response (200%)		11.19V
5V Transient Response (200%)		4.892V
3.3V Transient Response (200%)		3.168V
5VSB Transient Response (200%)		4.986V
Hold-Up Time & PWR_OK Signal		18.10ms
AC Loss to PWR_OK Hold Up Time		15.70ms
PWR_OK Inactive to DC Loss Delay		2.40ms
PSU Timings: T1 (20% / 100%)	57.0ms	57.0ms
PSU Timings: T3 (20% / 100%)	125.0ms	120.0ms
12V OCP (29.1°C / 44.7°C)	129.20A (129.20%), 11.982V	109.00A (109.00%), 12.002V
5V OCP (29.1°C / 44.7°C)	30.2A (151.00%), 4.974V	29.5A (147.50%), 4.967V
3.3V OCP (29.1°C / 44.7°C)	31.1A (155.50%), 3.276V	30.3A (151.50%), 3.267V
5VSB OCP (29.1°C / 44.7°C)	4.7A (156.67%), 5.028V	4.7A (156.67%), 5.023V
OPP (29.91°C / 43.66°C)	126.34%	111.58%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	18.1
AC Loss to PWR_OK Hold Up Time (ms)	15.7
PWR_OK Inactive to DC Loss Delay (ms)	2.4

Stromverbrauch im Ruhezustand

Tables

115V

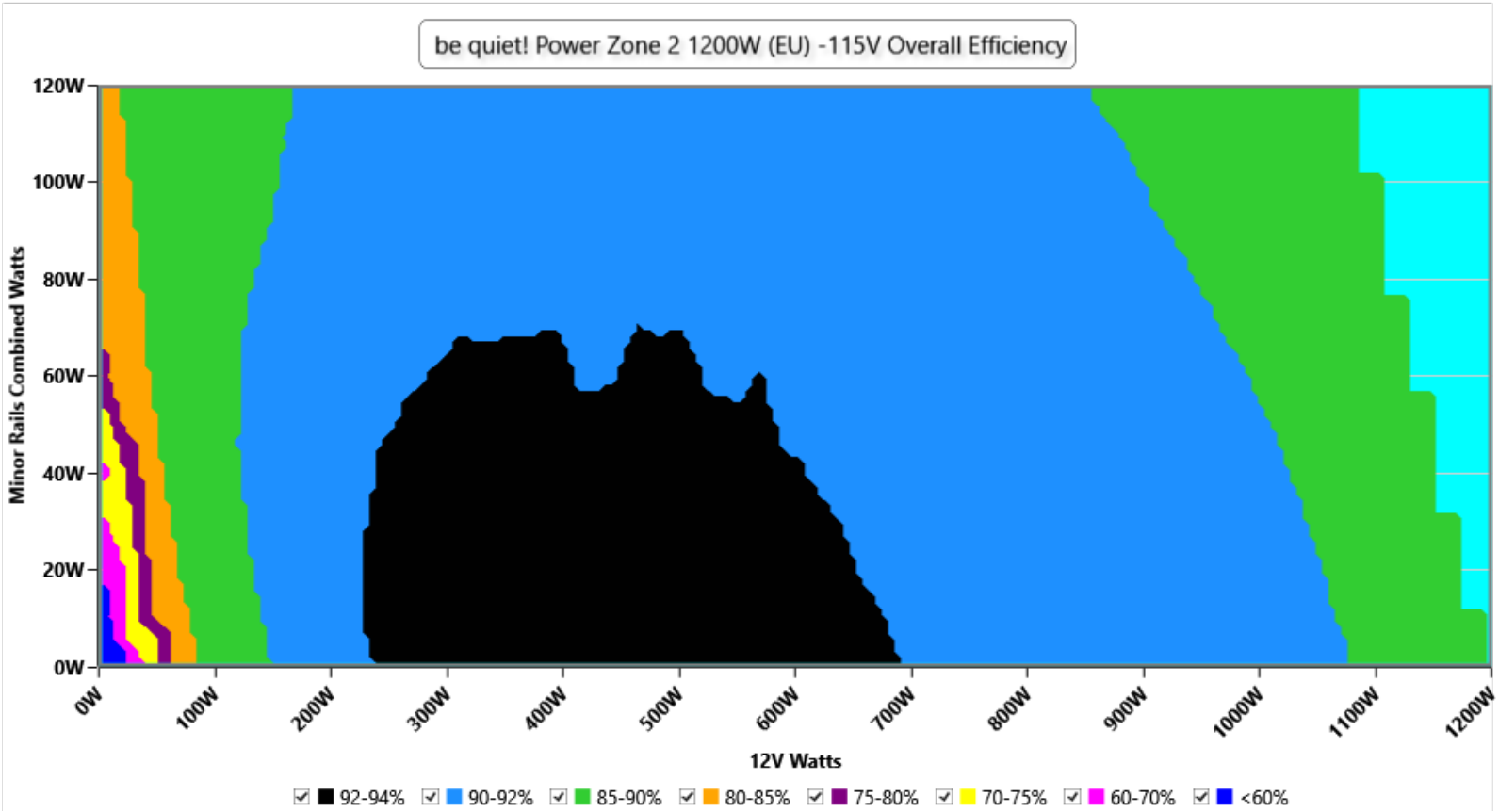
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.04 V	115.01 V	113.85 V	115.14 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.92 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.11 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.045 W	0.000 W	N/A	0.086 W	N/A	N/A
Apparent Power:	13.506 W	13.485 W	N/A	13.533 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.06 V	230.04 V	227.70 V	230.08 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:	0.112 W	0.066 W	N/A	0.195 W	N/A	N/A
Apparent Power:	44.653 W	44.620 W	N/A	44.691 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

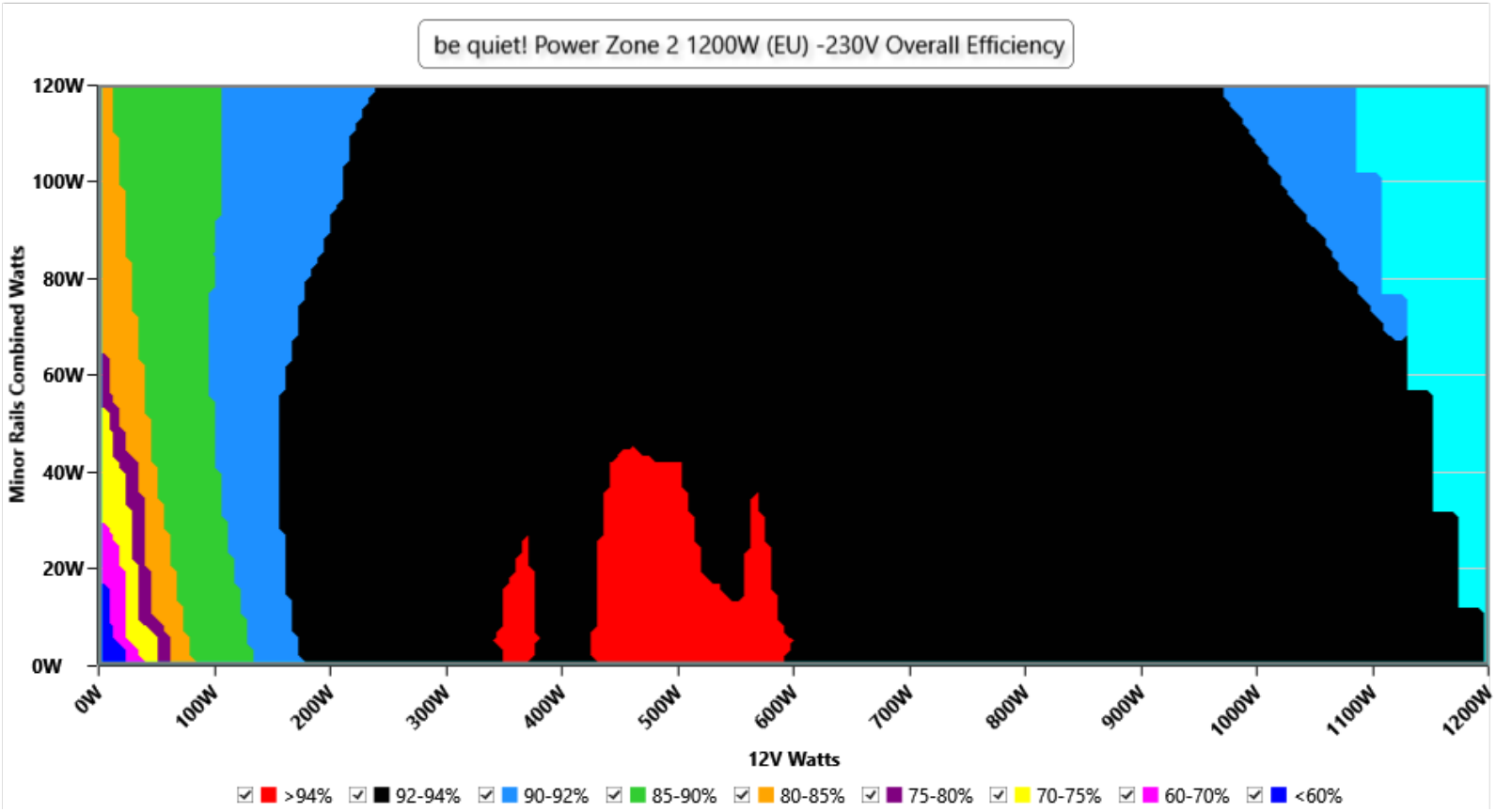
115V



INFO

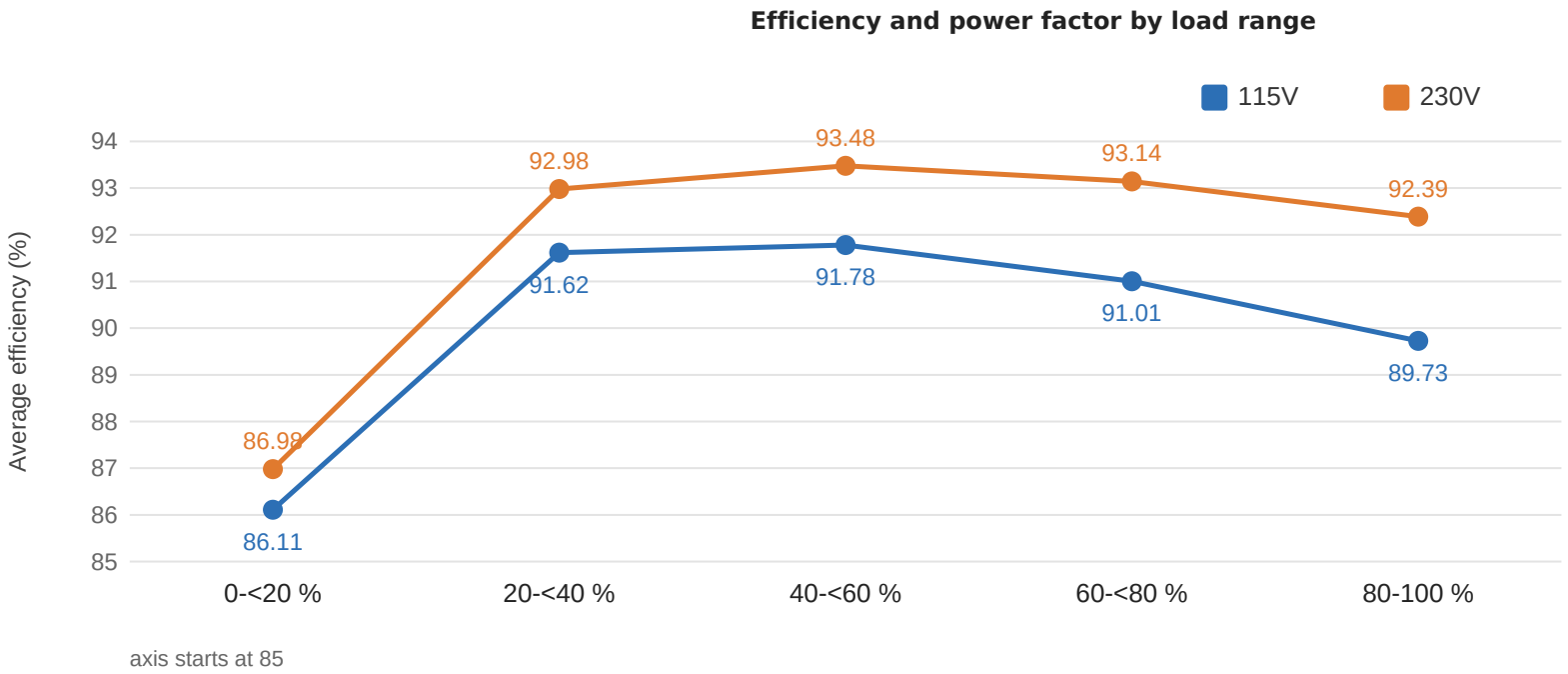
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

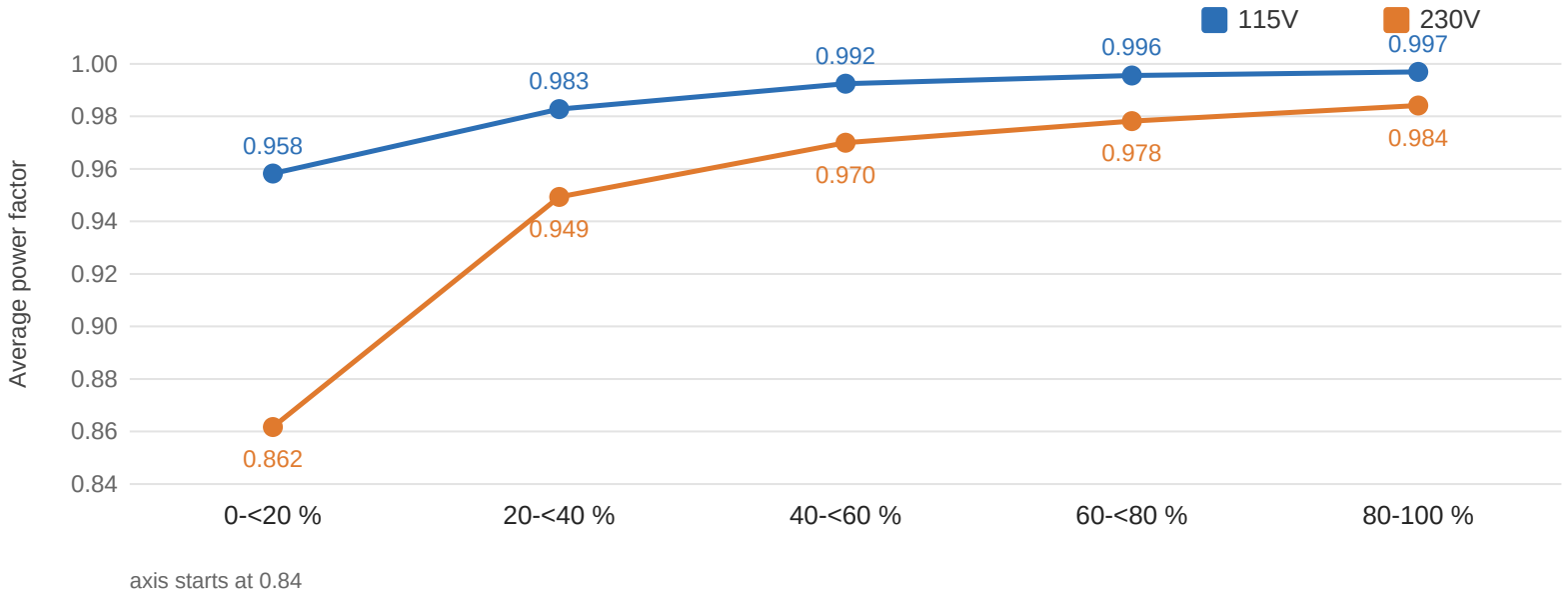


INFO

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



axis starts at 85



axis starts at 0.84

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	245 / 245	86.11%	86.98%	0.958	0.862
20-<40 %	328 / 328	91.62%	92.98%	0.983	0.949
40-<60 %	327 / 327	91.78%	93.48%	0.992	0.970
60-<80 %	328 / 328	91.01%	93.14%	0.996	0.978
80-100 %	331 / 331	89.73%	92.39%	0.997	0.984
70-100 % (High-Load)	497 / 497	90.08%	92.60%	0.997	0.983
All (published average)	1559 / 1559	90.26%	92.05%	0.987	0.953

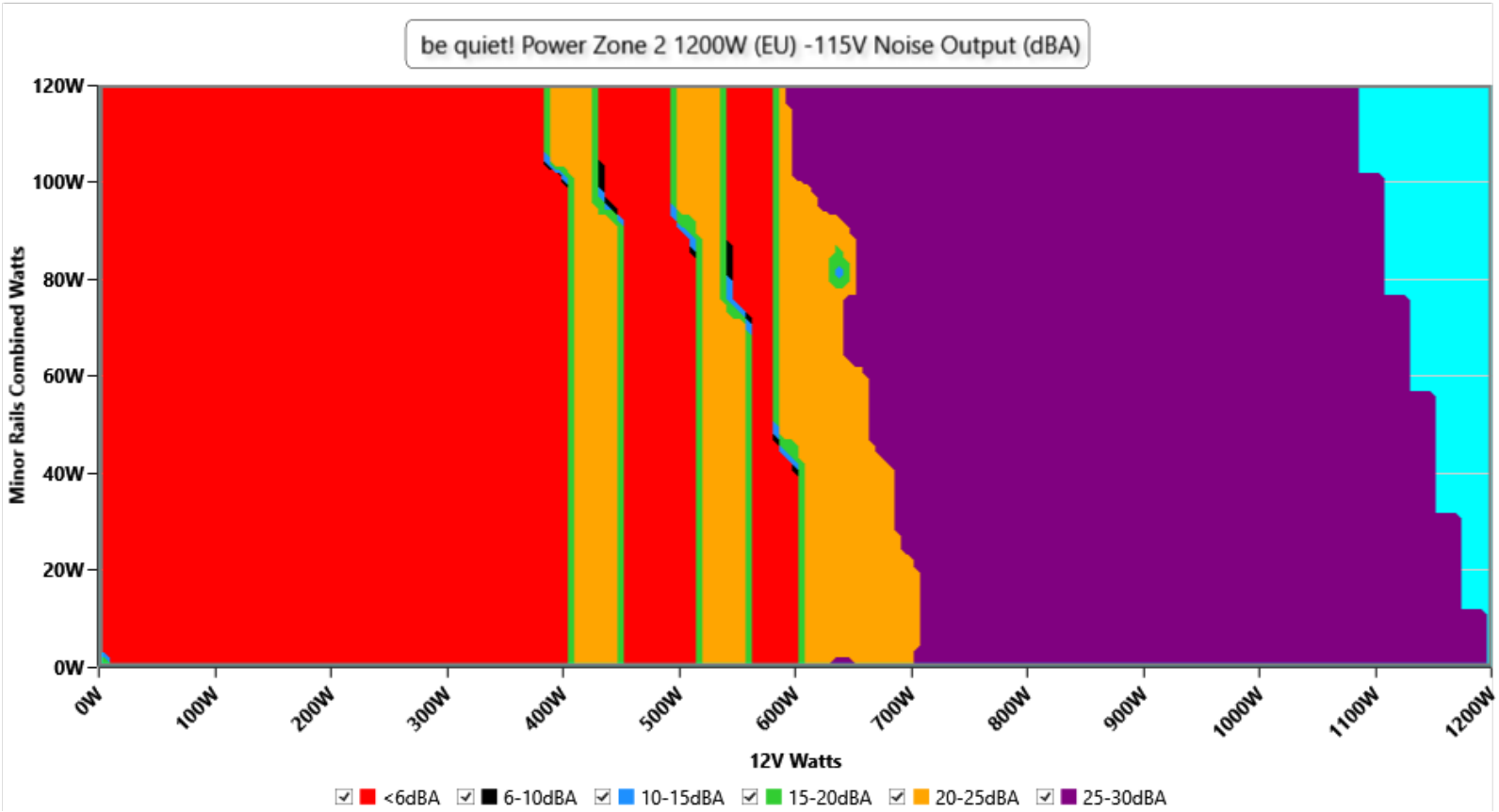
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1559 (115V) and 1559 (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 1200 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

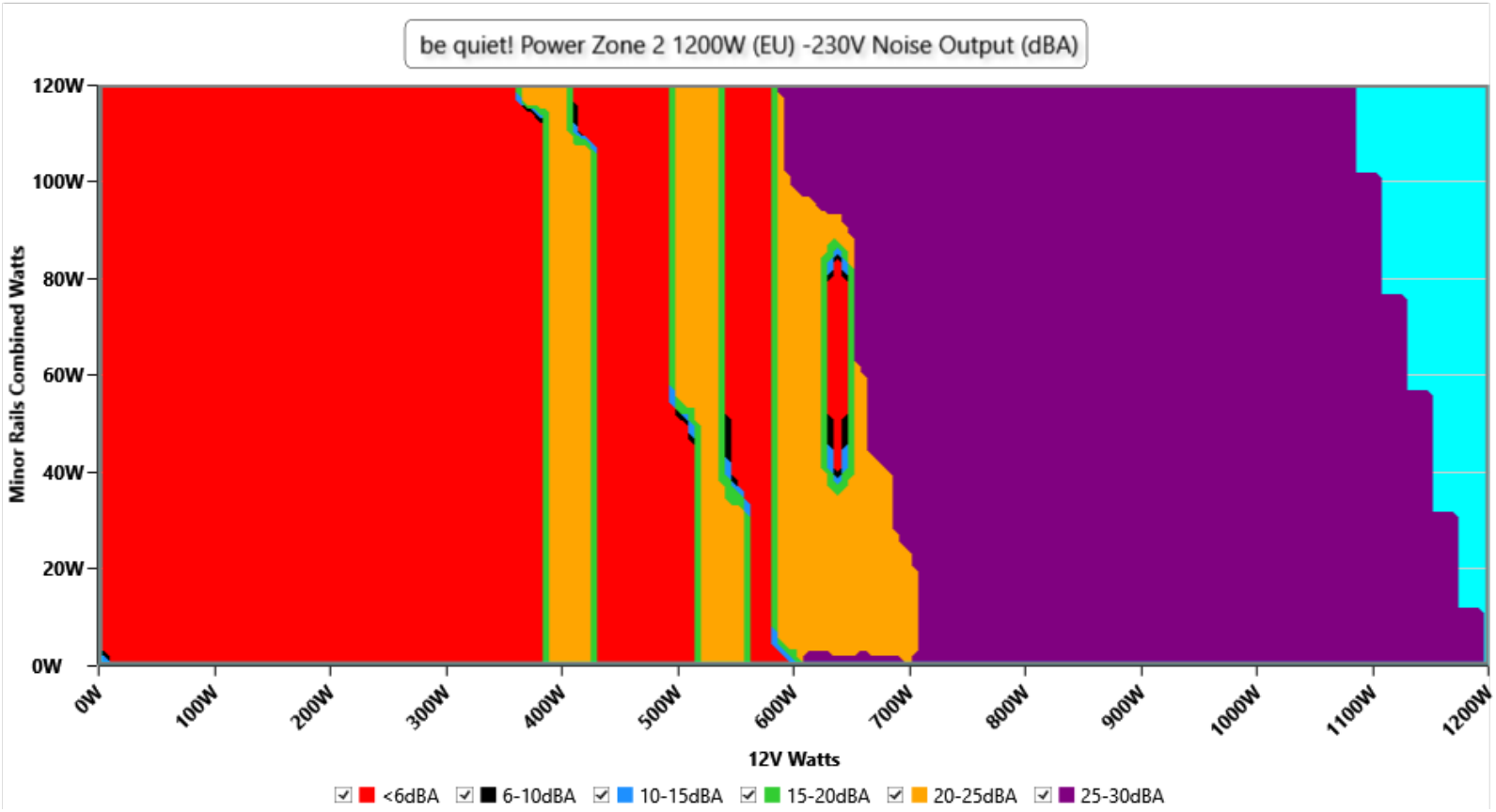
115V



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

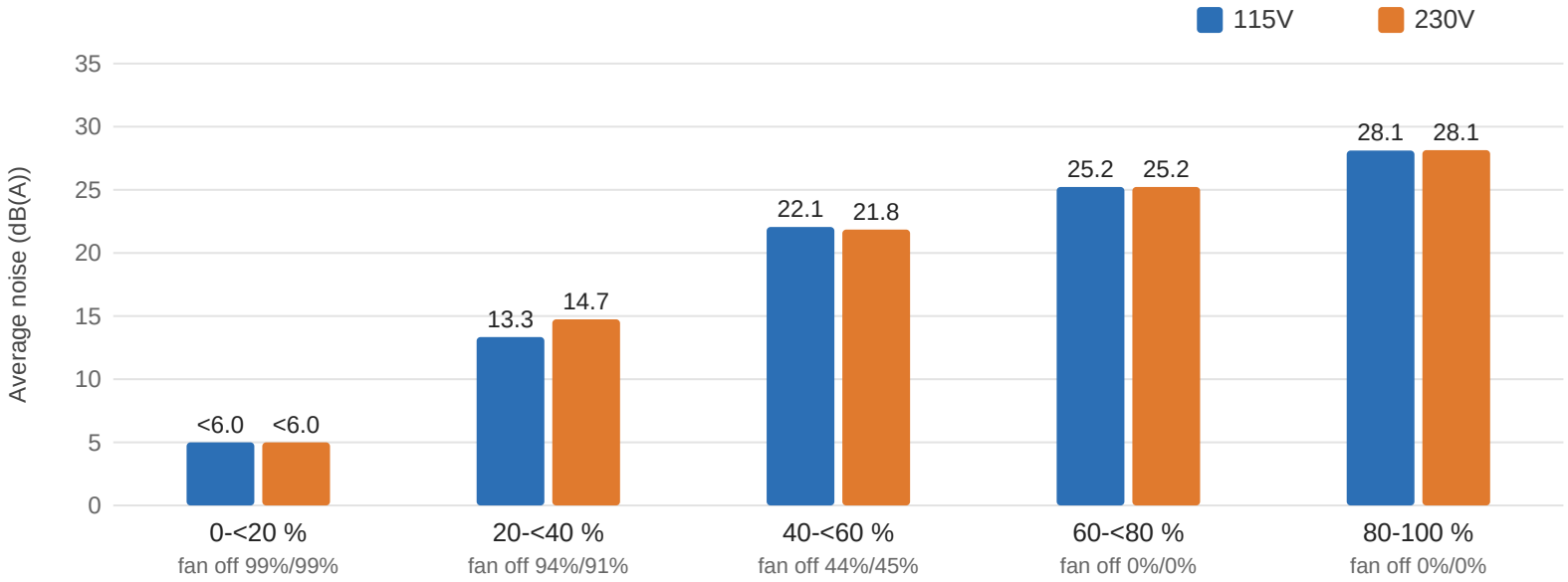


INFO

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 **27.4 dB(A)** at 115V and **27.4 dB(A)** at 230V · loudest point 29.6 dB(A)
Efficiency 90.08% / 92.60% · power factor 0.997 / 0.983 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	<6.0 (<6.0)	<6.0 (<6.0)	99% / 99%
20-<40 %	13.3 (24.8)	14.7 (24.8)	94% / 91%
40-<60 %	22.1 (25.2)	21.8 (25.2)	44% / 45%
60-<80 %	25.2 (26.6)	25.2 (26.6)	0% / 0%
80-100 %	28.1 (29.6)	28.1 (29.6)	0% / 0%
70-100 % (High-Load)	27.4 (29.6)	27.4 (29.6)	0% / 0%
All (published average)	23.9 (29.6)	23.9 (29.6)	45% / 44%

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 1559 (115V) and 1559 (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 1200 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%	0 RPM · <6.0 dB(A) · 34.2 °C	0 RPM · <6.0 dB(A) · 45.8 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 35.3 °C	0 RPM · <6.0 dB(A) · 48.0 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 37.8 °C	1000 RPM · 25.2 dB(A) · 42.4 °C	fan starts (<6.0 → 25.2)
100%	1097 RPM · 28.9 dB(A) · 30.1 °C	1893 RPM · 44.0 dB(A) · 45.9 °C	**+15.1 dB(A)**

230V

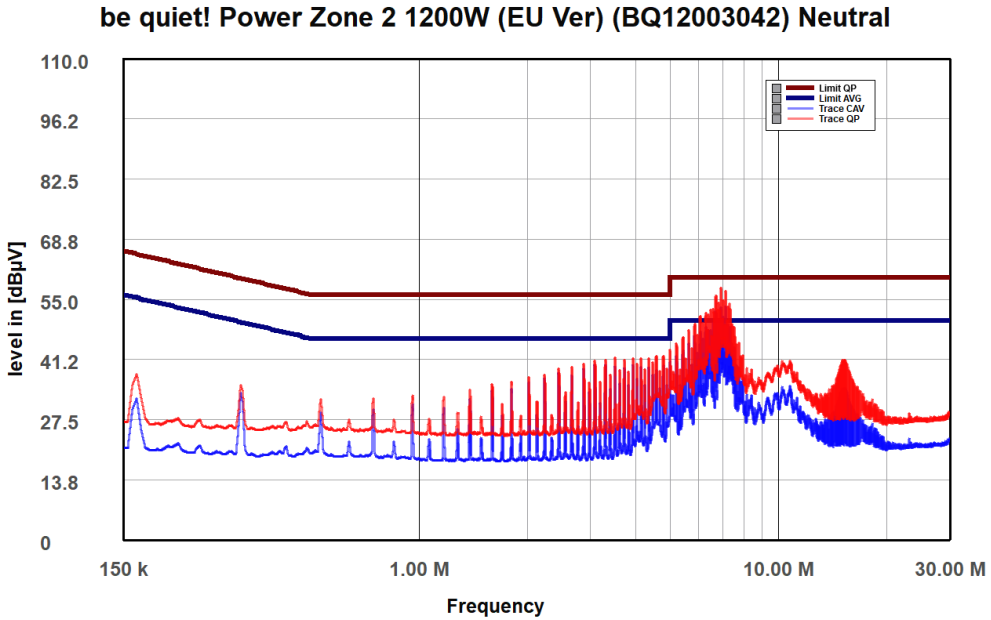
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 32.3 °C	0 RPM · <6.0 dB(A) · 45.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.4 °C	0 RPM · <6.0 dB(A) · 46.8 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 37.2 °C	1010 RPM · 25.7 dB(A) · 42.2 °C	fan starts (<6.0 → 25.7)
100%	1131 RPM · 29.3 dB(A) · 30.3 °C	1901 RPM · 43.9 dB(A) · 45.3 °C	**+14.6 dB(A)**

INFO

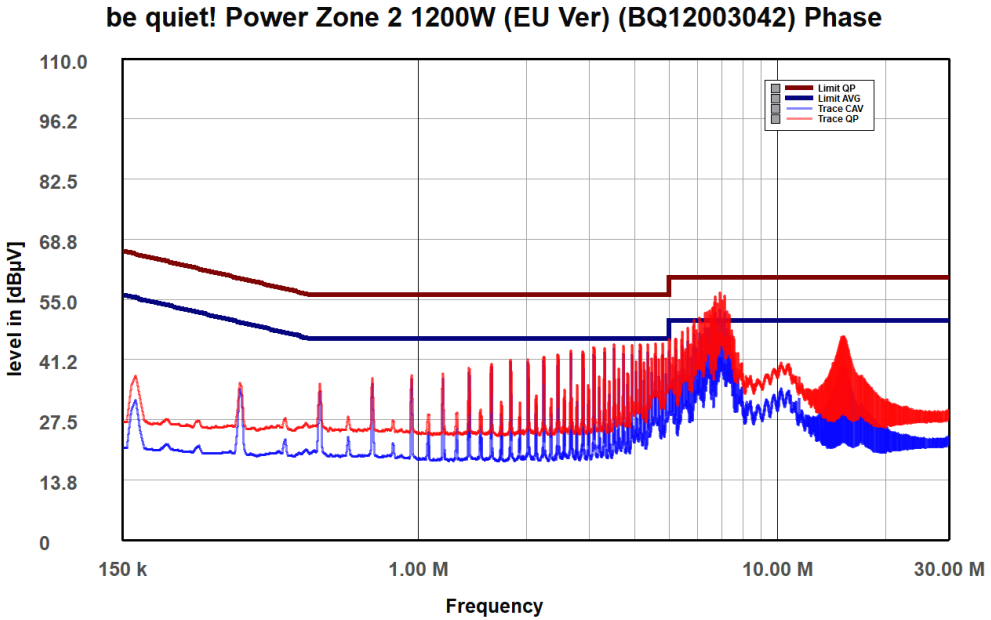
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



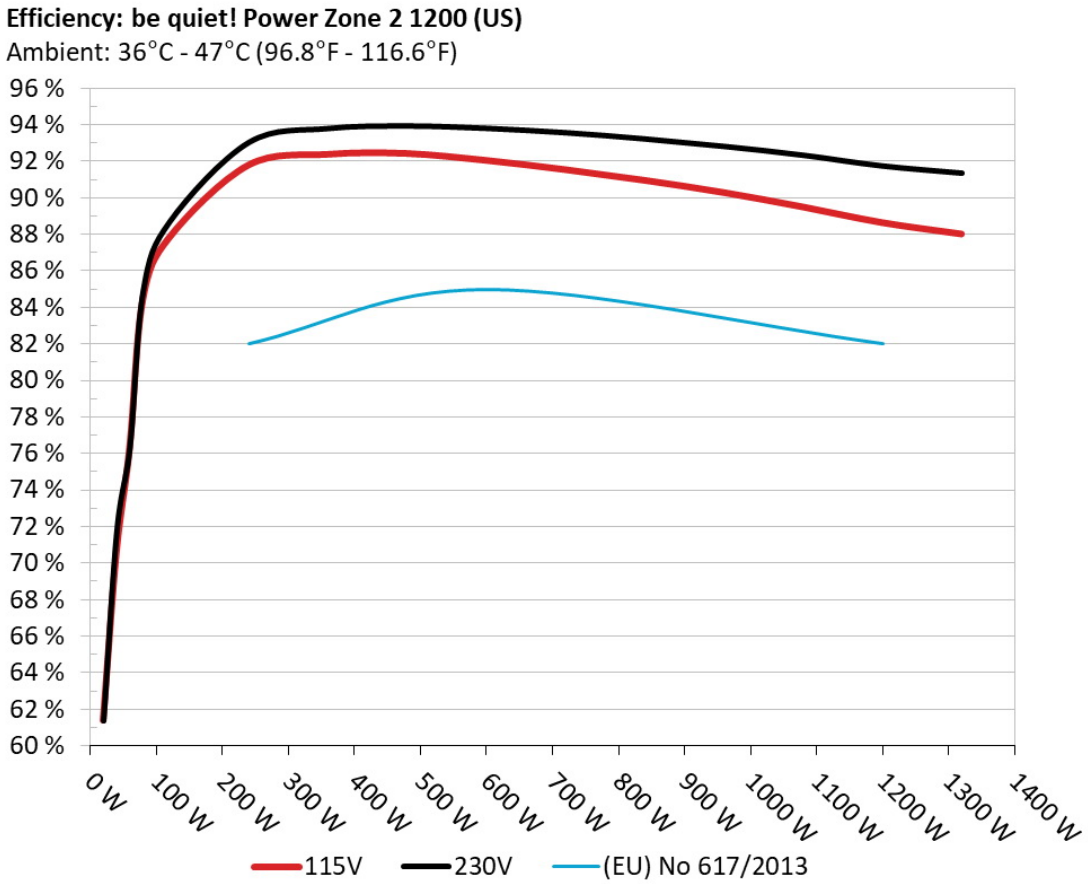
NEUTRAL



PHASE

Indicative Performance

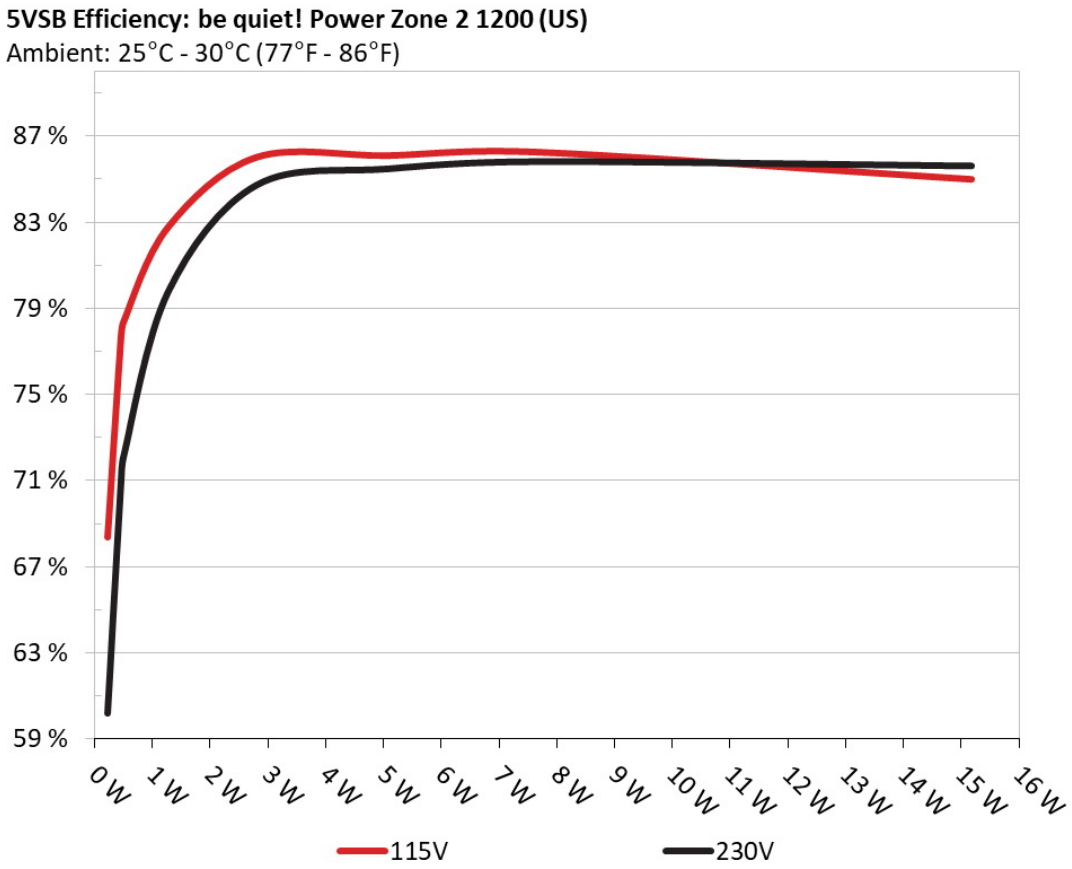
Efficiency under high ambient temperature



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	68.365%	0.025
	5.111V	0.337W		115.09V
2	**0.09A**	0.46W	77.605%	0.044
	5.11V	0.593W		115.09V
3	**0.55A**	2.806W	86.025%	0.209
	5.101V	3.262W		115.09V
4	**1A**	5.094W	86.106%	0.313
	5.093V	5.915W		115.08V
5	**1.5A**	7.627W	86.268%	0.377
	5.085V	8.842W		115.08V
6	**3A**	15.175W	85.003%	0.466
	5.058V	17.854W		115.08V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.23W	60.179%	0.009
	5.111V	0.384W		230.24V
2	**0.09A**	0.46W	70.855%	0.015
	5.11V	0.65W		230.29V
3	**0.55A**	2.806W	84.74%	0.073
	5.101V	3.313W		230.25V
4	**1A**	5.093W	85.495%	0.125
	5.093V	5.956W		230.25V
5	**1.5A**	7.626W	85.827%	0.176
	5.084V	8.886W		230.24V
6	**3.001A**	15.171W	85.629%	0.286
	5.056V	17.717W		230.24V

Protection Features

OCP (Normal @ 29.1°C)	12V: 129.2A (129.2%), 11.982V 5V: 30.2A (151%), 4.974V 3.3V: 31.1A (155.5%), 3.276V 5VSB: 4.7A (156.67%), 5.028V
OCP (Hot @ 44.7°C)	12V: 109A (109%), 12.002V 5V: 29.5A (147.5%), 4.967V 3.3V: 30.3A (151.5%), 3.267V 5VSB: 4.7A (156.67%), 5.023V
OPP (Normal @ 29.9°C)	1516.05W (126.34%)
OPP (Hot @ 43.7°C)	1338.98W (111.58%)
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%	**8.141A**	**2.002A**	**2A**	**0.981A**	119.999	87.836%	0	<6.0	45.75°C	0.958
	12.087V	4.997V	3.3V	5.098V	136.618				40.45°C	115.03V
20%	**17.295A**	**3.003A**	**3.003A**	**1.179A**	239.963	91.807%	0	<6.0	48°C	0.972
	12.087V	4.995V	3.297V	5.088V	261.379				40.86°C	114.98V
30%	**26.752A**	**3.505A**	**3.506A**	**1.379A**	359.216	92.401%	0	<6.0	51.63°C	0.984
	12.080V	4.994V	3.295V	5.078V	388.759				41.46°C	114.94V
40%	**36.311A**	**4.007A**	**4.01A**	**1.578A**	479.582	92.445%	0	<6.0	55.38°C	0.99
	12.072V	4.992V	3.292V	5.069V	518.776				41.83°C	114.9V
50%	**45.492A**	**5.011A**	**5.018A**	**1.779A**	599.34	92.072%	1000	25.2	42.36°C	0.993
	12.065V	4.99V	3.289V	5.059V	650.947				53.29°C	114.86V
60%	**54.750A**	**6.016A**	**6.029A**	**1.981A**	719.861	91.561%	1004	25.5	42.76°C	0.995
	12.056V	4.988V	3.285V	5.049V	786.212				53.61°C	114.81V
70%	**63.951A**	**7.021A**	**7.042A**	**2.183A**	839.572	90.978%	1063	26.8	43.46°C	0.996
	12.048V	4.987V	3.281V	5.039V	922.836				54.87°C	114.77V
80%	**73.234A**	**8.025A**	**8.056A**	**2.286A**	959.548	90.31%	1066	27	43.95°C	0.997
	12.039V	4.984V	3.277V	5.031V	1062.506				56.89°C	114.72V
90%	**82.854A**	**8.529A**	**8.551A**	**2.389A**	1079.352	89.523%	1224	31.5	44.79°C	0.997
	12.031V	4.983V	3.274V	5.024V	1205.665				58.67°C	114.67V
100%	**92.291A**	**9.034A**	**9.08A**	**2.997A**	1199.367	88.662%	1893	44	45.88°C	0.998
	12.023V	4.981V	3.271V	5.006V	1352.74				57.3°C	114.64V
110%	**101.675A**	**10.041A**	**10.191A**	**3A**	1319.942	88.036%	1414	35.3	46.37°C	0.998
	12.015V	4.979V	3.267V	5V	1499.331				60.1°C	114.64V
CL1	**0.116A**	**14.486A**	**14.525A**	**0A**	121.295	82.462%	1008	25.6	40.07°C	0.96
	12.073V	4.984V	3.284V	5.109V	147.091				52.59°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
CL2	**0.115A**	**20.067A**	**0A**	**0A**	101.371	81.46%	0	<6.0	41.2°C	0.958
	12.082V	4.982V	3.304V	5.116V	124.43				40.69°C	115.1V
CL3	**0.115A**	**0A**	**20.13A**	**0A**	67.381	74.837%	0	<6.0	42.03°C	0.968
	12.079V	4.996V	3.278V	5.111V	90.039				40.69°C	115.11V
CL4	**99.702A**	**0A**	**0A**	**0A**	1199.932	89.143%	1875	43	46.75°C	0.998
	12.035V	4.991V	3.286V	5.071V	1346.053				56.02°C	114.72V

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%	**8.139A**	**2.001A**	**1.999A**	**0.981A**	119.98	88.696%	0	<6.0	45.16°C	0.864
	12.088V	4.997V	3.301V	5.098V	135.27				40.01°C	230.38V
20%	**17.292A**	**3.003A**	**3.002A**	**1.179A**	239.933	93.05%	0	<6.0	46.84°C	0.932
	12.088V	4.995V	3.297V	5.088V	257.855				40.88°C	230.37V
30%	**26.743A**	**3.505A**	**3.506A**	**1.378A**	359.106	93.812%	0	<6.0	48.25°C	0.95
	12.080V	4.994V	3.295V	5.078V	382.797				41.39°C	230.36V
40%	**36.303A**	**4.007A**	**4.01A**	**1.578A**	479.467	93.951%	1007	25.6	41.77°C	0.965
	12.073V	4.992V	3.292V	5.069V	510.343				50.71°C	230.34V
50%	**45.485A**	**5.011A**	**5.019A**	**1.779A**	599.224	93.824%	1010	25.7	42.23°C	0.97
	12.063V	4.99V	3.288V	5.058V	638.673				50.47°C	230.32V
60%	**54.741A**	**6.015A**	**6.029A**	**1.981A**	719.745	93.583%	1011	25.7	42.57°C	0.975
	12.056V	4.988V	3.284V	5.049V	769.098				52.32°C	230.3V
70%	**63.945A**	**7.02A**	**7.042A**	**2.183A**	839.462	93.244%	1069	27	43.41°C	0.979
	12.047V	4.987V	3.28V	5.039V	900.286				52.65°C	230.29V
80%	**73.230A**	**8.024A**	**8.056A**	**2.286A**	959.447	92.835%	1071	27	43.88°C	0.982
	12.039V	4.984V	3.276V	5.031V	1033.498				53.7°C	230.27V
90%	**82.849A**	**8.528A**	**8.552A**	**2.389A**	1079.256	92.352%	1519	36.8	44.48°C	0.985
	12.031V	4.983V	3.274V	5.023V	1168.629				53.6°C	230.26V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**92.290A**	**9.033A**	**9.081A**	**2.997A**	1199.276	91.762%	1901	43.9	45.32°C	0.987
	12.023V	4.981V	3.27V	5.005V	1306.941				53.38°C	230.23V
110%	**101.684A**	**10.038A**	**10.194A**	**3.001A**	1319.903	91.368%	1911	43.4	46.07°C	0.989
	12.014V	4.98V	3.266V	4.999V	1444.609				55.27°C	230.19V
CL1	**0.116A**	**14.481A**	**14.533A**	**0A**	121.292	83.398%	1021	25.9	40.37°C	0.873
	12.073V	4.986V	3.282V	5.109V	145.439				53.01°C	230.36V
CL2	**0.115A**	**20.063A**	**0A**	**0A**	101.374	81.602%	829	19.2	40.88°C	0.853
	12.081V	4.983V	3.303V	5.115V	124.227				49.44°C	230.32V
CL3	**0.115A**	**0A**	**20.151A**	**0A**	67.383	75.053%	0	<6.0	41.87°C	0.794
	12.079V	4.996V	3.275V	5.111V	89.785				41.22°C	230.29V
CL4	**99.715A**	**0A**	**0A**	**0A**	1199.904	92.253%	1898	43.9	46.16°C	0.987
	12.033V	4.99V	3.285V	5.07V	1300.669				53.2°C	230.07V

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**	**0.5A**	**0.499A**	**0.195A**	20.001	61.411%	0	<6.0	41.34°C	0.87
	12.094V	5V	3.304V	5.118V	32.57				36.78°C	115.07V
40W	**2.704A**	**0.7A**	**0.699A**	**0.293A**	40.001	70.598%	0	<6.0	41.99°C	0.931
	12.092V	5V	3.304V	5.115V	56.662				37.77°C	115.06V
60W	**4.179A**	**0.9A**	**0.899A**	**0.391A**	60.002	76.307%	0	<6.0	43°C	0.963
	12.091V	4.999V	3.303V	5.113V	78.633				38.74°C	115.05V
80W	**5.651A**	**1.101A**	**1.099A**	**0.489A**	79.949	84.428%	0	<6.0	44.07°C	0.965
	12.090V	4.998V	3.302V	5.109V	94.695				39.32°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**	**0.5A**	**0.499A**	**0.195A**	20.001	61.345%	0	<6.0	41.02°C	0.492
	12.095V	5V	3.305V	5.119V	32.607				36.45°C	230.36V
40W	**2.703A**	**0.7A**	**0.699A**	**0.293A**	39.998	71.725%	0	<6.0	40.53°C	0.662
	12.094V	4.999V	3.305V	5.116V	55.763				37.51°C	230.37V
60W	**4.178A**	**0.9A**	**0.899A**	**0.391A**	59.997	76.398%	0	<6.0	42.08°C	0.759
	12.093V	4.999V	3.304V	5.113V	78.532				38.04°C	230.38V
80W	**5.649A**	**1.1A**	**1.099A**	**0.489A**	79.934	84.897%	0	<6.0	43.5°C	0.805
	12.091V	4.998V	3.303V	5.11V	94.156				39.31°C	230.38V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	12.89mV	11.13mV	11.33mV	9.13mV	Pass
20% Load	22.68mV	11.49mV	12.05mV	9.76mV	Pass
30% Load	22.32mV	11.44mV	12.15mV	9.39mV	Pass
40% Load	23.05mV	12.00mV	12.10mV	9.91mV	Pass
50% Load	24.23mV	15.30mV	16.34mV	10.17mV	Pass
60% Load	26.35mV	15.25mV	16.24mV	10.58mV	Pass
70% Load	28.20mV	16.80mV	18.36mV	11.56mV	Pass
80% Load	31.04mV	17.67mV	18.20mV	13.06mV	Pass
90% Load	33.15mV	18.39mV	18.20mV	11.82mV	Pass
100% Load	33.88mV	17.42mV	18.80mV	12.76mV	Pass
110% Load	36.52mV	18.51mV	18.44mV	12.65mV	Pass
Crossload1	12.18mV	14.81mV	16.99mV	8.56mV	Pass
Crossload2	11.91mV	12.57mV	11.02mV	8.15mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	13.66mV	11.44mV	13.86mV	9.09mV	Pass
Crossload4	32.97mV	16.28mV	17.28mV	16.77mV	Pass

The results above are not used in the certification process

230V

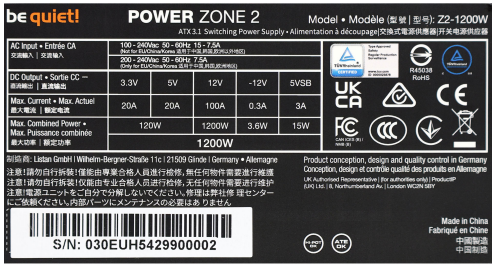
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	13.97mV	11.90mV	12.62mV	9.39mV	Pass
20% Load	24.02mV	12.73mV	12.62mV	10.17mV	Pass
30% Load	31.91mV	35.39mV	37.34mV	39.74mV	Pass
40% Load	23.77mV	15.97mV	16.55mV	10.27mV	Pass
50% Load	25.57mV	16.90mV	16.65mV	11.10mV	Pass
60% Load	26.81mV	17.05mV	17.99mV	11.51mV	Pass
70% Load	29.08mV	18.39mV	18.41mV	11.98mV	Pass
80% Load	31.19mV	18.29mV	19.14mV	12.54mV	Pass
90% Load	33.31mV	18.49mV	19.80mV	12.49mV	Pass
100% Load	34.15mV	19.21mV	18.79mV	13.03mV	Pass
110% Load	36.26mV	18.89mV	19.65mV	12.80mV	Pass
Crossload1	13.92mV	17.04mV	17.93mV	9.57mV	Pass
Crossload2	15.05mV	18.50mV	15.31mV	11.20mV	Pass
Crossload3	13.56mV	12.47mV	14.43mV	10.17mV	Pass
Crossload4	34.19mV	17.46mV	18.74mV	12.84mV	Pass

The results above are not used in the certification process

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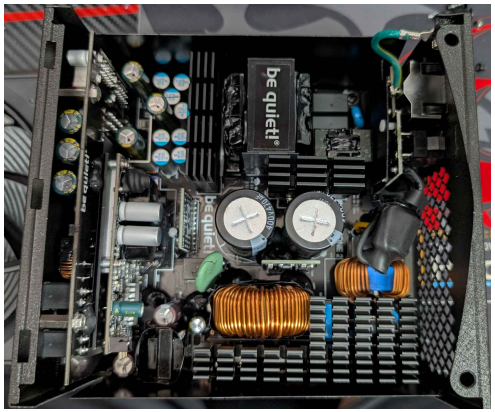
Top side



Power specifications label



Fan



PSU Internal

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