be quiet!

be quiet! Dark Power Pro 14 IO 1300W

Serial Number 022EUL6140000683

Lab ID BQ13003313

Certification ID 263313

Test Result Report ID: 26PS3313A

Certificate Issue Date: Jun 17, 2026

Scheme: ETA-EMI PSU

115V



230V

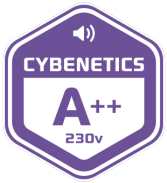


Scheme: LAMBDA PSU

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	Dark Power Pro 14 IO 1300W
OEM/ODM	CWT
Serial Number	022EUL6140000683
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	115-240
Rated Current (Arms)	9-15

Rated Frequency (Hz)	50-60
Rated Power (W)	1300
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 200mm
Weight	2.67 kg (5.89 lb)
Cooling	135mm Fluid Dynamic Bearing Fan (BQ SIW4-13525-HF)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	BQ13003313
Date of receipt	May 11, 2026
Testing Date	Jun 12, 2026
Report Issued Date	Jun 17, 2026
Engineer Name	Ioannis Kalyviotis
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	18AWG	Tinned Copper
4+4 pin EPS12V (700mm)	1	1	16AWG	Tinned Copper
8 pin EPS12V (700mm)	1	1	16AWG	Tinned Copper
2x 6+2 pin PCIe (600mm)	6	6	16AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	1	1	16-24AWG	Tinned Copper
12+4 pin PCIe (600mm) (600W)	1	1	16-24AWG	Tinned Copper
SATA (600mm+150mm) / 4-pin Molex (150mm+150mm)	1	2 / 2	18AWG	Tinned Copper

Modular Cables				
SATA (600mm+150mm+150mm+150mm)	2	8	18AWG	Tinned Copper
SATA (600mm+150mm+150mm)	2	6	18AWG	Tinned Copper
USB 2.0 9-pin (770mm)	1	1	28AWG	-
AC Power Cord (1360mm) - C19 Coupler	1	1	17AWG	-

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	25	25	108.33	3.5	0.5
	Watts	150		1300	17.5	6
Total Max. Power (W)		1300				

Parts Description

General Data	
Manufacturer (OEM)	CWT
PCB Type	Double Sided
Primary Side	
Transient Filter	6x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK-25150 (15 Ohm) & Relay
Bridge Rectifier(s)	2x WeEn WNB2560M (600V, 25A @ 127°C)
APFC MOSFETs	2x Toshiba TK040N60Z1 (600V, 52A @ 25°C, Rds(on): 0.040Ohm) & 2x Toshiba TW015N65C (650V, 82A @ 100°C, Rds(on): 0.021Ohm)

APFC Boost Diode	2x Vishay VS-3C08ET07T-M3 (650V, 8A @ 142°C)
Bulk Cap(s)	3x Rubycon (420V, 470uF, 2,000h @ 105°C, MXE)
Main Switchers	4x Alpha & Omega AOTF29S50 (500V, 18A @ 100°C, Rds(on): 0.15Ohm)
IC Driver	2x Silicon Labs Si8233BD
Digital Controllers	2x Texas Instruments UCD3138A & Sync Power SPN5003 (reducing no-load consumption)
Topology	Primary side: Semi-Digital, Interleaved PFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	12x Onsemi NTMFS5C612N (60V, 168A @ 100°C, Rds(on): 1.5mOhm)
5V & 3.3V	DC-DC Converters: 6x UBIQ Semiconductor QM3054M6 (30V, 61A @ 100°C, Rds(on): 4.8mOhm) PWM Controller(s): 1x uPI Semi UP3861P
Filtering Capacitors	Electrolytic: 4x Nippon Chemi-Con (@ 105°C, W) 7x Rubycon (6~10,000 @ 105°C, YXJ) Polymer: 8x Nippon Chemi-con 25x Nichicon FPCAP Polymer: 10x Nichicon FPCAP, 34x Nippon Chemi-con
Supervisor IC	Weltrend WT7502R (OVP, UVP, SCP, PG) & Weltrend WT7518
Fan Controller / Micro Controller	Nuvoton M252SD2AE
Fan Model	be quiet! Silent Wings BQ SIW4-13525-HF (135mm, 12V, 0.56A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	Leadtrend LD8926AA1 (110V, 15A)
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)	91.819%
Average Noise Output (>1450 Load Combinations)	15.47dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	73.396%
Standby Power Consumption	0.0147W
Non-Accredited	
12V Ripple (Full Load)	37.20mV
5V Ripple (Full Load)	27.69mV
3.3V Ripple (Full Load)	25.73mV
5VSB Ripple (Full Load)	28.08mV
12V Load Regulation	0.26%
5V Load Regulation	0.32%
3.3V Load Regulation	0.33%
5VSB Load Regulation	0.97%
Inrush Current	17.930A

230V

Accredited		
Average Efficiency (>1450 load combinations)		93.444%
Average Noise Output (>1450 Load Combinations)		14.89dBA
Average PF (>1450 Load Combinations)		0.940
Efficiency With 10W (≤500W) or 2% (>500W) Load		75.370%
Standby Power Consumption		0.0728W
Non-Accredited		
12V Ripple (Full Load)		37.45mV
5V Ripple (Full Load)		28.56mV
3.3V Ripple (Full Load)		25.37mV
5VSB Ripple (Full Load)		30.18mV
12V Load Regulation		0.24%
5V Load Regulation		0.34%
3.3V Load Regulation		0.33%
5VSB Load Regulation		0.93%
Inrush Current		40.170A
12V Transient Response (200%)		11.33V
5V Transient Response (200%)		4.901V
3.3V Transient Response (200%)		3.208V
5VSB Transient Response (200%)		4.872V
Hold-Up Time & PWR_OK Signal		26.80ms
AC Loss to PWR_OK Hold Up Time		24.30ms
PWR_OK Inactive to DC Loss Delay		2.50ms
PSU Timings: T1 (20% / 100%)	112.0ms	88.0ms
PSU Timings: T3 (20% / 100%)	128.0ms	130.0ms
12V OCP (27.7°C / 42.2°C)	131.80A (121.67%), 12.105V	131.40A (121.30%), 12.113V
5V OCP (27.7°C / 42.2°C)	27.9A (111.60%), 5.014V	27.9A (111.60%), 5.02V
3.3V OCP (27.7°C / 42.2°C)	27.6A (110.40%), 3.307V	27.5A (110.00%), 3.31V
5VSB OCP (27.7°C / 42.2°C)	6.2A (177.14%), 4.992V	6.1A (174.29%), 4.98V
OPP (27.50°C / 43.40°C)	123.47%	117.74%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	26.8
AC Loss to PWR_OK Hold Up Time (ms)	24.3
PWR_OK Inactive to DC Loss Delay (ms)	2.5

Stromverbrauch im Ruhezustand

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.99 V	114.95 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	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.015 W	-0.001 W	N/A	0.031 W	N/A	N/A
Apparent Power:	15.008 W	14.977 W	N/A	15.038 W	N/A	N/A
Power Factor:	0.001	N/A	N/A	N/A	N/A	N/A

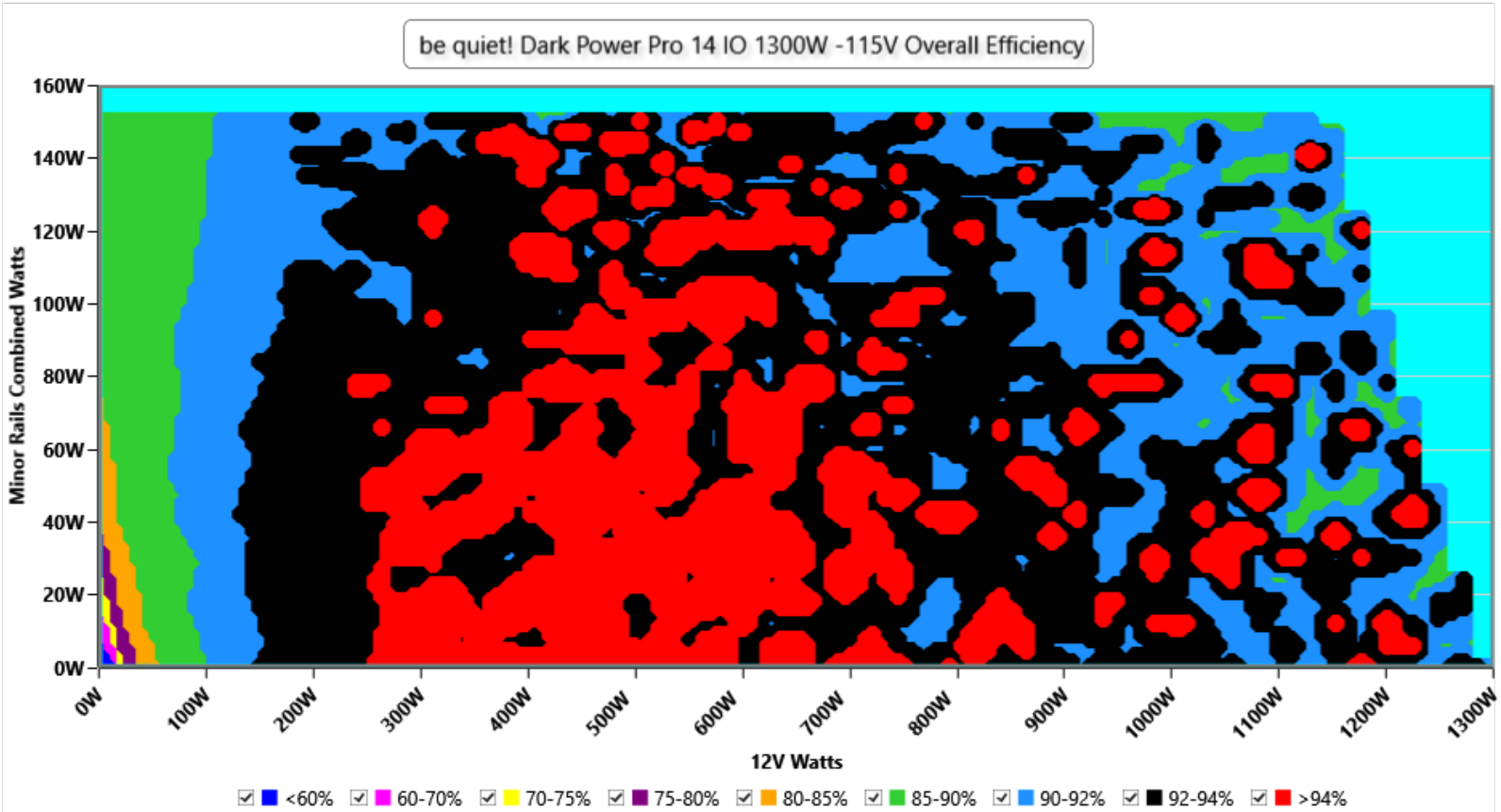
230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.00 V	229.99 V	227.70 V	230.03 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:	1.415	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:	0.073 W	0.035 W	N/A	0.138 W	N/A	N/A
Apparent Power:	49.762 W	49.712 W	N/A	49.810 W	N/A	N/A

Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

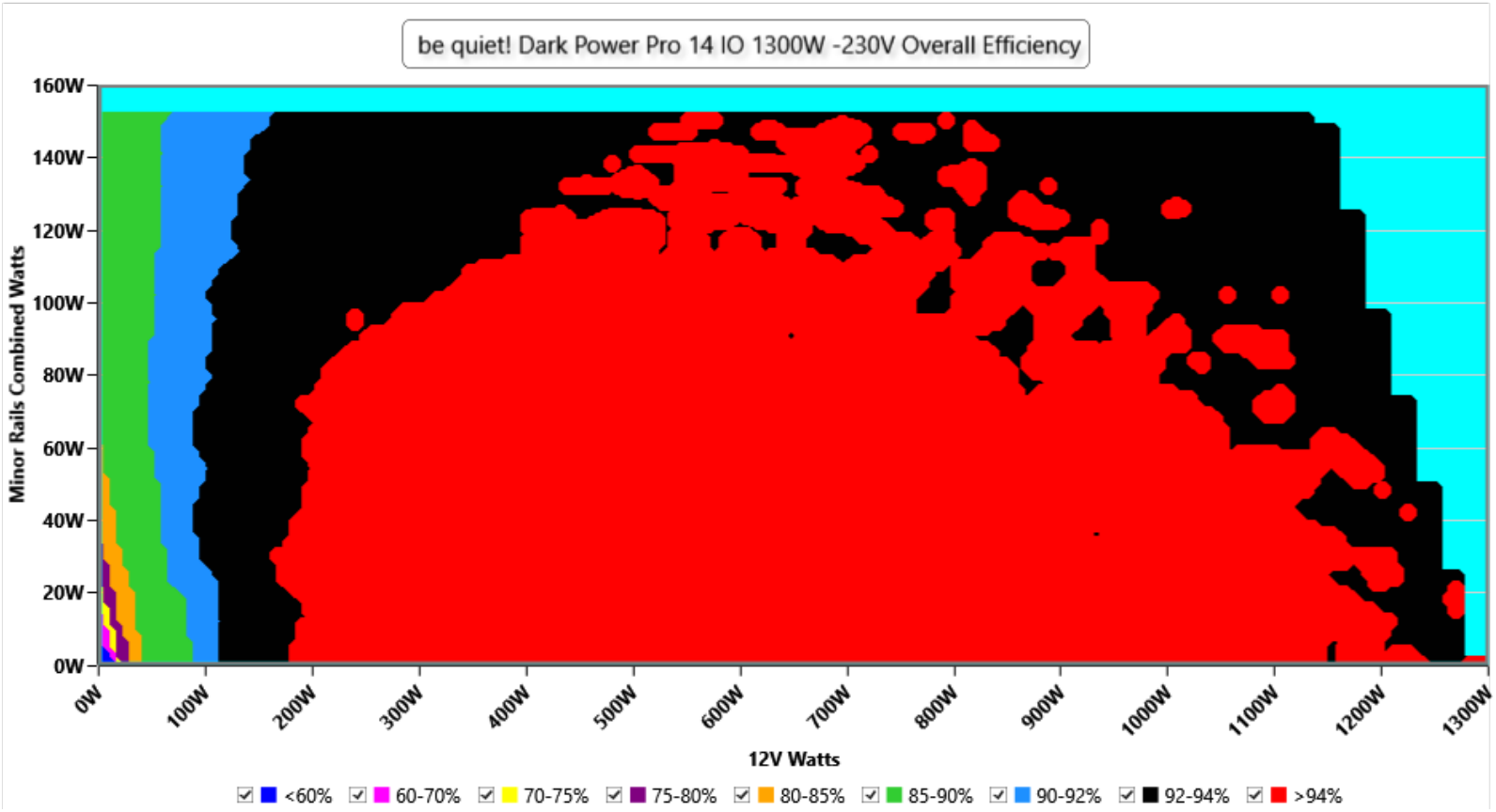
115V



INFO

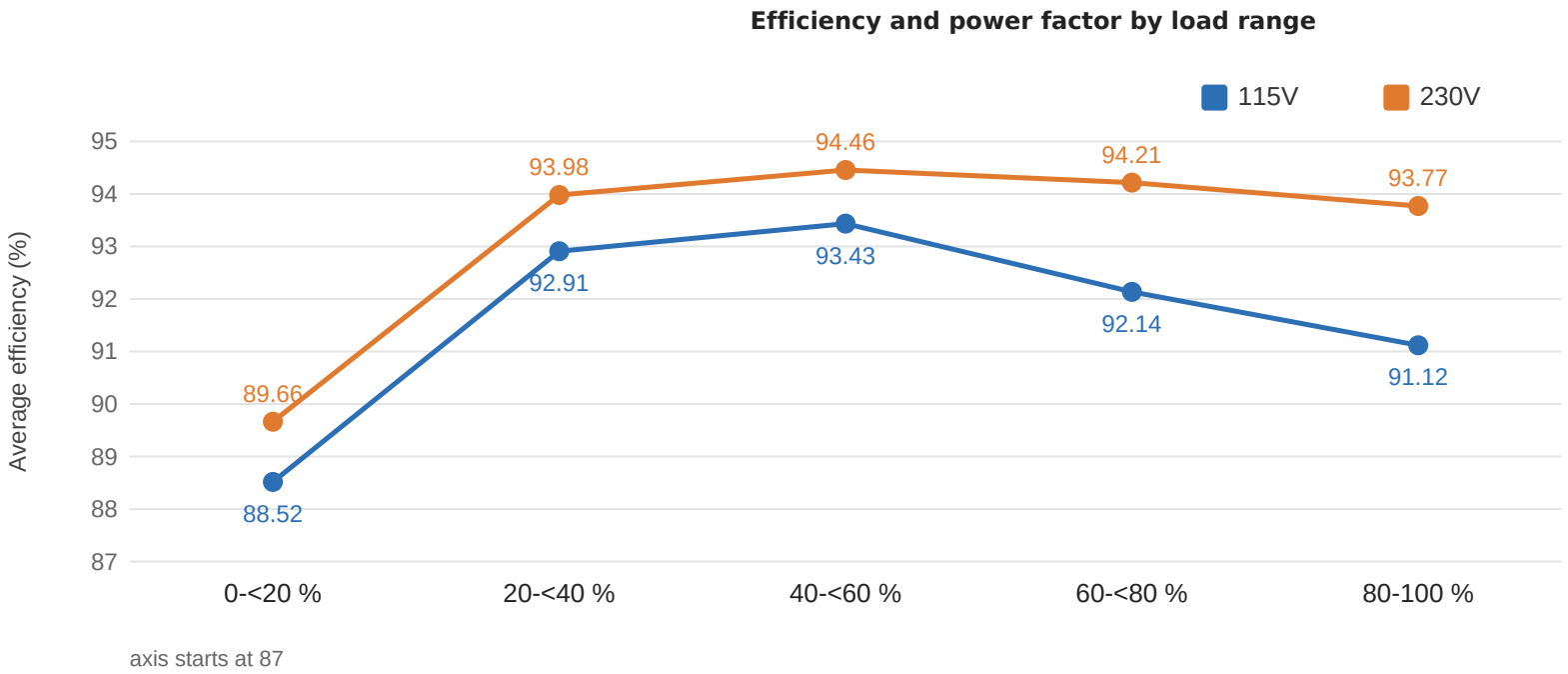
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

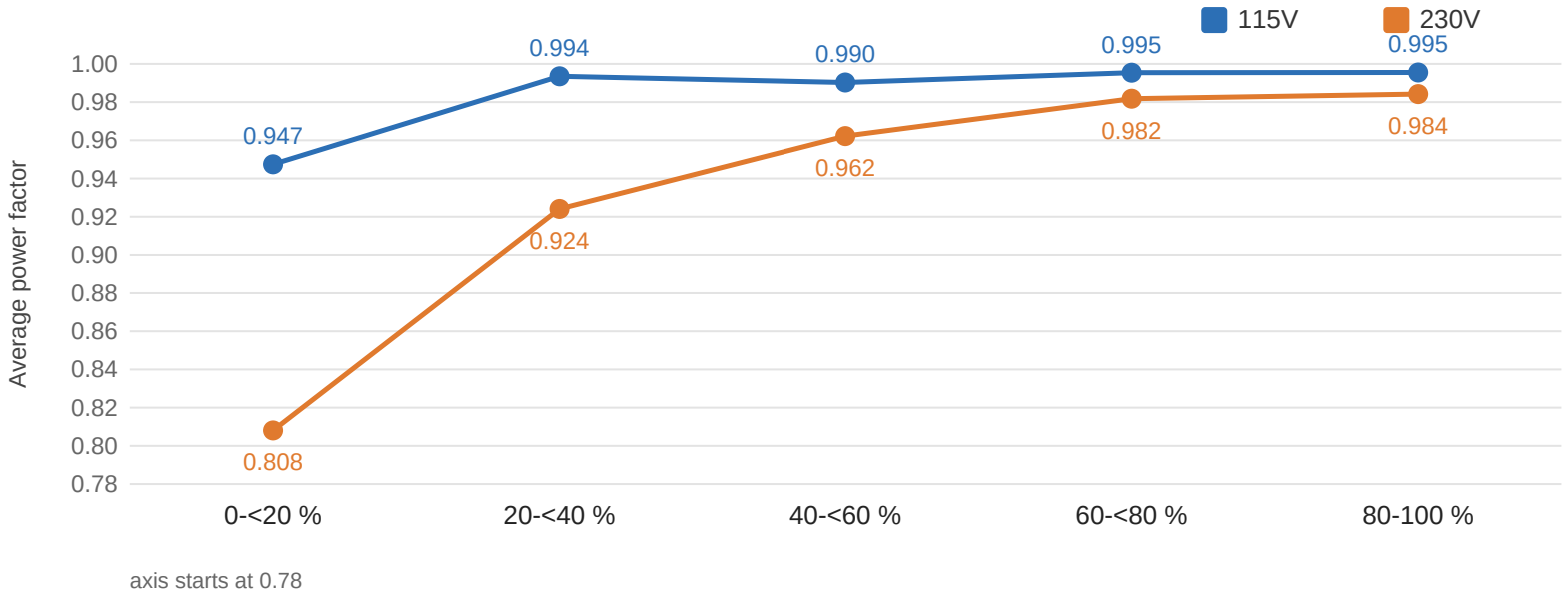


INFO

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 87



axis starts at 0.78

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	235 / 235	88.52%	89.66%	0.947	0.808
20-<40 %	340 / 340	92.91%	93.98%	0.994	0.924
40-<60 %	334 / 334	93.43%	94.46%	0.990	0.962
60-<80 %	334 / 334	92.14%	94.21%	0.995	0.982
80-100 %	341 / 341	91.12%	93.77%	0.995	0.984
70-100 % (High-Load)	506 / 506	91.38%	93.87%	0.995	0.984
All (published average)	1584 / 1584	91.82%	93.44%	0.987	0.940

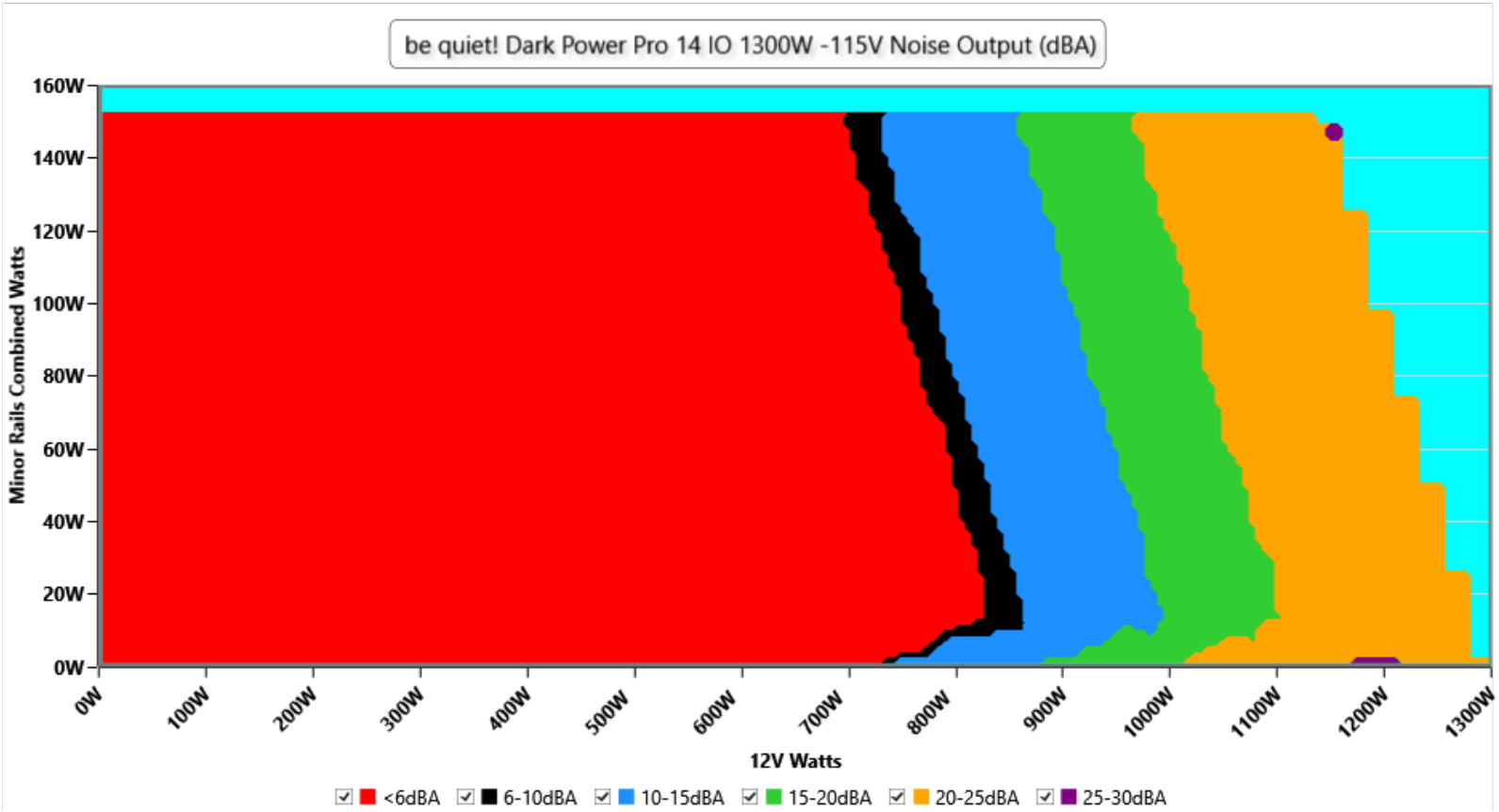
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1584 (115V) and 1584 (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 1300 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

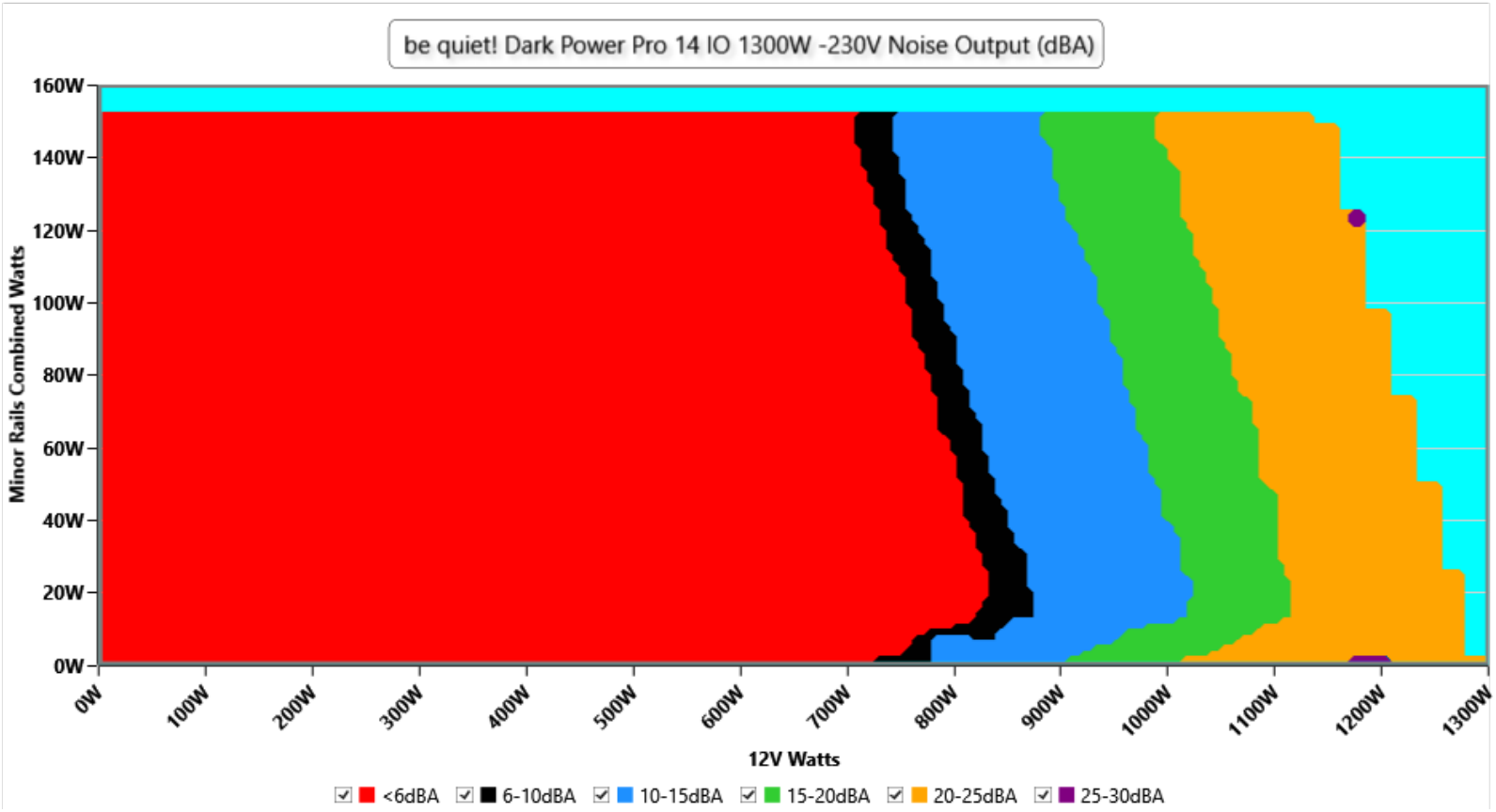
115V



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

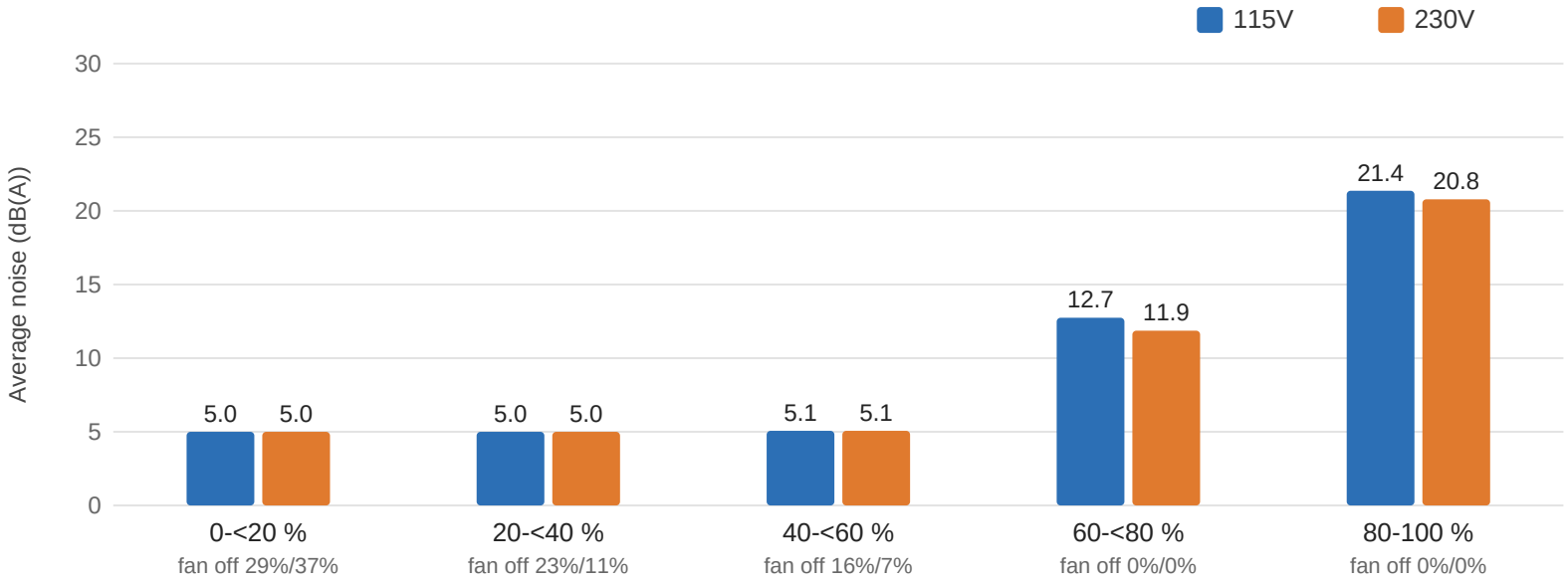
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **20.1 dB(A)** at 115V and **19.5 dB(A)** at 230V · loudest point 25.5 dB(A)

Efficiency 91.38% / 93.87% · power factor 0.995 / 0.984 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	5.0 (5.0)	5.0 (5.0)	29% / 37%
20-<40 %	5.0 (5.0)	5.0 (5.0)	23% / 11%
40-<60 %	5.1 (11.3)	5.1 (9.1)	16% / 7%
60-<80 %	12.7 (20.0)	11.9 (20.0)	0% / 0%
80-100 %	21.4 (25.5)	20.8 (25.5)	0% / 0%
70-100 % (High-Load)	20.1 (25.5)	19.5 (25.5)	0% / 0%
All (published average)	15.5 (25.5)	14.9 (25.5)	13% / 9%

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 1584 (115V) and 1584 (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 1300 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".

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) · 32.5 °C	0 RPM · <6.0 dB(A) · 48.5 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 31.9 °C	0 RPM · <6.0 dB(A) · 48.7 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 32.5 °C	0 RPM · <6.0 dB(A) · 48.8 °C	fan off in both
100%	1072 RPM · 23.6 dB(A) · 30.6 °C	1346 RPM · 30.3 dB(A) · 45.8 °C	**+6.7 dB(A)**

230V

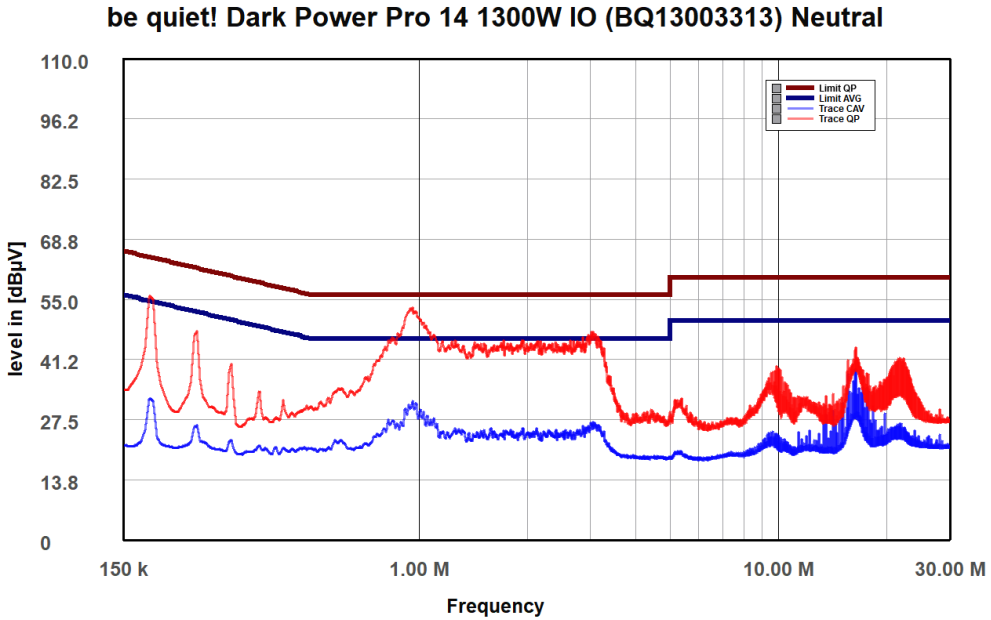
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 33.6 °C	0 RPM · <6.0 dB(A) · 44.1 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.8 °C	0 RPM · <6.0 dB(A) · 44.7 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 35.7 °C	0 RPM · <6.0 dB(A) · 47.6 °C	fan off in both
100%	1075 RPM · 23.6 dB(A) · 30.6 °C	1322 RPM · 30.7 dB(A) · 45.8 °C	**+7.1 dB(A)**

INFO

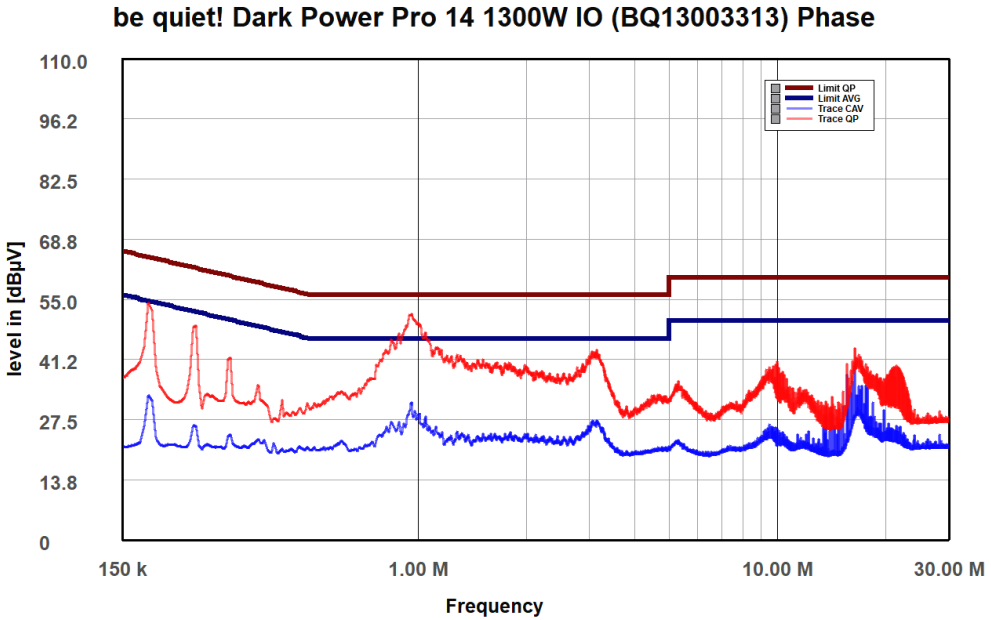
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



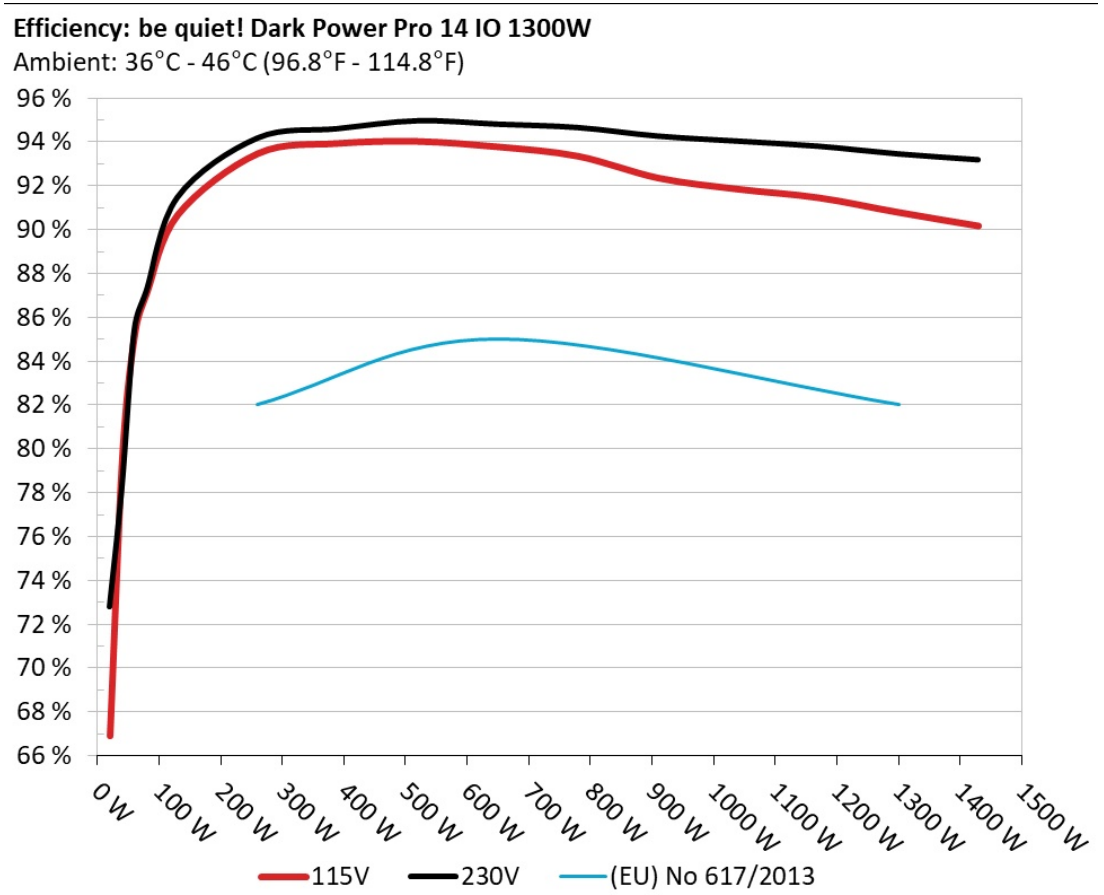
NEUTRAL



PHASE

Indicative Performance

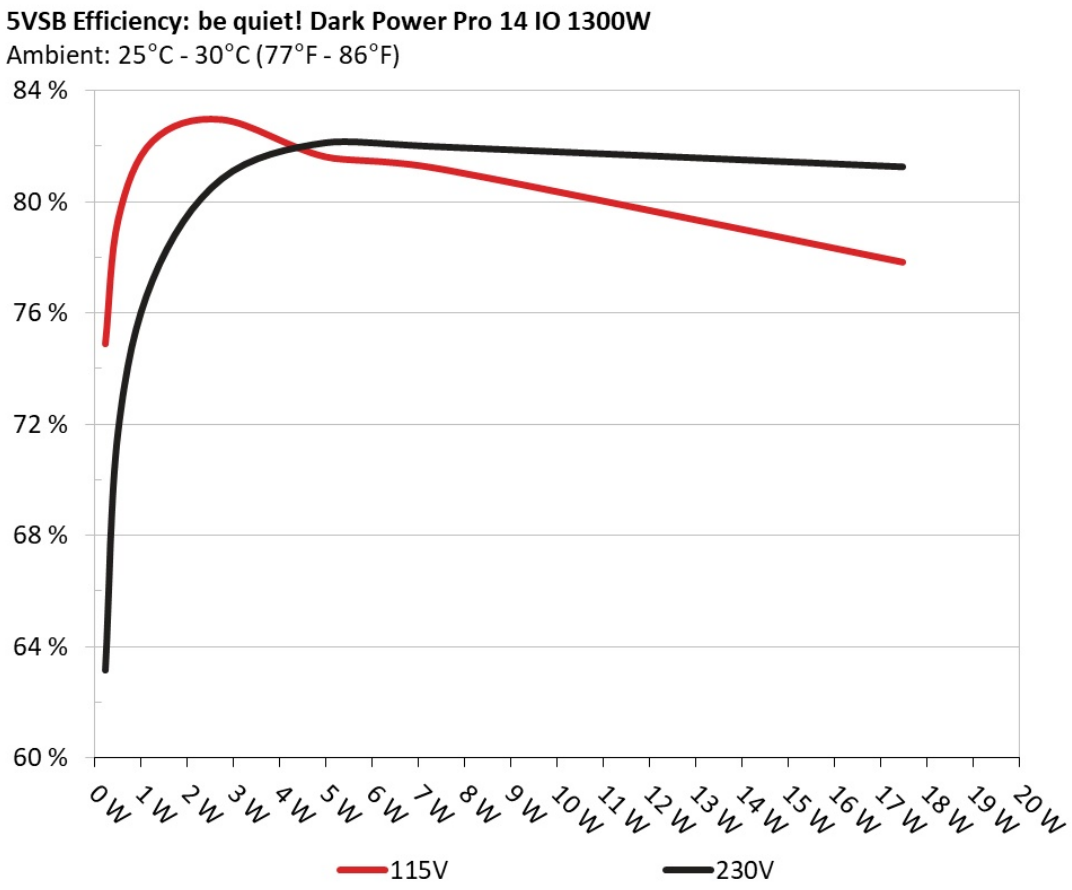
Efficiency under high ambient temperature



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**	0.224W	74.894%	0.02
	4.987V	0.3W		115.04V
2	**0.09A**	0.449W	78.935%	0.038
	4.988V	0.569W		115.04V
3	**0.1A**	0.499W	79.354%	0.042
	4.988V	0.629W		115.05V
4	**0.25A**	1.247W	82.185%	0.098
	4.988V	1.517W		115.05V
5	**0.55A**	2.744W	82.959%	0.193
	4.989V	3.307W		115.04V
6	**1A**	4.99W	81.618%	0.297
	4.99V	6.114W		115.04V
7	**1.5A**	7.487W	81.179%	0.374
	4.991V	9.223W		115.04V
8	**3.5A**	17.484W	77.834%	0.526
	4.996V	22.462W		115.04V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.224W	63.138%	0.007
	4.985V	0.356W		230.01V
2	**0.09A**	0.449W	70.829%	0.013
	4.986V	0.635W		230.01V
3	**0.1A**	0.499W	71.728%	0.014
	4.986V	0.696W		230V
4	**0.25A**	1.246W	77.188%	0.032
	4.987V	1.615W		230.01V

5	**0.55A**	2.743W	80.828%	0.067
	4.987V	3.394W		230.02V
6	**1A**	4.988W	82.126%	0.115
	4.988V	6.074W		230V
7	**1.5A**	7.484W	81.977%	0.163
	4.989V	9.129W		230.01V
8	**3.5A**	17.476W	81.26%	0.309
	4.993V	21.509W		230V

Protection Features

OCP (Normal @ 27.7°C)	12V: 131.80A (121.67%), 12.105V 5V: 27.9A (111.60%), 5.014V 3.3V: 27.6A (110.40%), 3.307V 5VSB: 6.2A (177.14%), 4.992V
OCP (Hot @ 42.2°C)	12V: 131.40A (121.30%), 12.113V 5V: 27.9A (111.60%), 5.02V 3.3V: 27.5A (110.00%), 3.31V 5VSB: 6.1A (174.29%), 4.98V
OPP (Normal @ 27.5°C)	1605.09W (123.47%)
OPP (Hot @ 43.4°C)	1530.68W (117.74%)
OTP	✓ (145°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 (Typical 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%	**8.920A**	**1.982A**	**1.986A**	**1.004A**	129.99	90.67%	0	<6.0	48.49°C	0.988
	12.151V	5.045V	3.323V	4.981V	143.373				40.06°C	115.01V
20%	**18.855A**	**2.974A**	**2.981A**	**1.206A**	259.945	93.463%	0	<6.0	48.67°C	0.992
	12.148V	5.043V	3.321V	4.975V	278.12				40.55°C	114.96V
30%	**29.108A**	**3.47A**	**3.478A**	**1.409A**	389.553	93.924%	0	<6.0	48.44°C	0.994
	12.145V	5.043V	3.321V	4.969V	414.746				41.06°C	114.92V
40%	**39.394A**	**3.967A**	**3.976A**	**1.612A**	519.521	94.014%	0	<6.0	47.79°C	0.993
	12.142V	5.042V	3.32V	4.963V	552.604				41.54°C	114.88V
50%	**49.357A**	**4.96A**	**4.971A**	**1.816A**	649.675	93.769%	0	<6.0	48.75°C	0.989
	12.139V	5.041V	3.319V	4.956V	693.07				42.02°C	114.83V
60%	**59.328A**	**5.954A**	**5.967A**	**2A**	779.719	93.338%	541	<6.0	42.83°C	0.992
	12.136V	5.039V	3.318V	4.957V	835.9				57.79°C	114.79V
70%	**69.316A**	**6.95A**	**6.966A**	**2.22A**	909.888	92.345%	743	12.7	43.22°C	0.996
	12.130V	5.036V	3.317V	4.954V	985.669				59.19°C	114.74V
80%	**79.305A**	**7.945A**	**7.964A**	**2.323A**	1039.511	91.837%	862	18.6	43.69°C	0.996
	12.126V	5.034V	3.315V	4.949V	1132.483				60.24°C	114.68V
90%	**89.684A**	**8.444A**	**8.449A**	**2.427A**	1169.753	91.446%	1055	23.2	44.76°C	0.996
	12.123V	5.032V	3.314V	4.945V	1280.216				61.66°C	114.63V
100%	**99.604A**	**8.942A**	**8.965A**	**3.542A**	1299.44	90.779%	1346	30.3	45.78°C	0.996
	12.121V	5.031V	3.313V	4.94V	1431.684				63.51°C	114.57V
110%	**109.639A**	**9.942A**	**10.056A**	**3.546A**	1429.643	90.159%	1487	32.9	46.02°C	0.996
	12.120V	5.028V	3.311V	4.934V	1586.432				63.44°C	114.52V
CL1	**0.115A**	**17.982A**	**18.007A**	**0A**	151.291	85.364%	441	<6.0	40.13°C	0.989
	12.143V	5.021V	3.31V	4.972V	177.23				53.61°C	115V

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**	**24.894A**	**0A**	**0A**	126.23	83.502%	941	19.8	41.54°C	0.988
	12.146V	5.015V	3.323V	4.978V	151.192				51.55°C	115V
CL3	**0.114A**	**0A**	**24.928A**	**0A**	83.897	78.248%	966	21.0	41.45°C	0.982
	12.146V	5.05V	3.31V	4.978V	107.218				49.3°C	115.02V
CL4	**107.164A**	**0A**	**0A**	**0A**	1299.922	91.364%	1153	25.5	45.04°C	0.996
	12.130V	5.048V	3.322V	4.943V	1423.181				60.05°C	114.58V

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%	**8.919A**	**1.981A**	**1.986A**	**1.004A**	129.986	91.475%	0	<6.0	44.13°C	0.726
	12.152V	5.046V	3.323V	4.98V	142.099				40.29°C	230V
20%	**18.851A**	**2.974A**	**2.98A**	**1.206A**	259.935	94.176%	0	<6.0	44.68°C	0.78
	12.150V	5.044V	3.322V	4.974V	276.018				40.76°C	229.97V
30%	**29.098A**	**3.47A**	**3.478A**	**1.409A**	389.52	94.606%	0	<6.0	45.35°C	0.836
	12.147V	5.043V	3.321V	4.969V	411.737				41.14°C	229.95V
40%	**39.380A**	**3.967A**	**3.976A**	**1.612A**	519.487	94.965%	0	<6.0	46.65°C	0.896
	12.145V	5.042V	3.32V	4.963V	547.034				41.73°C	229.93V
50%	**49.341A**	**4.96A**	**4.971A**	**1.816A**	649.637	94.812%	0	<6.0	47.57°C	0.916
	12.143V	5.041V	3.319V	4.956V	685.191				42.08°C	229.91V
60%	**59.312A**	**5.954A**	**5.968A**	**2A**	779.686	94.656%	509	<6.0	42.83°C	0.966
	12.139V	5.039V	3.318V	4.958V	823.692				54.45°C	229.89V
70%	**69.288A**	**6.95A**	**6.966A**	**2.22A**	909.844	94.268%	743	12.7	43.25°C	0.986
	12.135V	5.037V	3.317V	4.954V	965.206				56.46°C	229.86V
80%	**79.268A**	**7.943A**	**7.963A**	**2.323A**	1039.45	94.038%	861	18.6	43.54°C	0.986
	12.131V	5.034V	3.315V	4.95V	1105.388				56.7°C	229.84V
90%	**89.644A**	**8.442A**	**8.448A**	**2.426A**	1169.686	93.807%	1030	22.6	44.58°C	0.987
	12.128V	5.033V	3.314V	4.945V	1246.976				57.65°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
100%	**99.569A**	**8.942A**	**8.964A**	**3.542A**	1299.419	93.456%	1322	30.7	45.75°C	0.988
	12.124V	5.031V	3.313V	4.941V	1390.428				59.15°C	229.79V
110%	**109.635A**	**9.942A**	**10.057A**	**3.546A**	1429.645	93.189%	1280	28.7	46.21°C	0.988
	12.120V	5.028V	3.311V	4.935V	1534.555				58.2°C	229.83V
CL1	**0.116A**	**17.98A**	**18.008A**	**0A**	151.291	86.162%	499	<6.0	41.12°C	0.746
	12.143V	5.021V	3.31V	4.972V	175.592				53.64°C	229.99V
CL2	**0.115A**	**24.892A**	**0A**	**0A**	126.239	84.233%	941	19.8	41.45°C	0.731
	12.146V	5.016V	3.323V	4.977V	149.873				51.57°C	229.99V
CL3	**0.114A**	**0A**	**24.929A**	**0A**	83.902	78.581%	976	21.6	40.88°C	0.818
	12.146V	5.05V	3.31V	4.977V	106.78				50.21°C	230V
CL4	**107.160A**	**0A**	**0A**	**0A**	1299.921	93.944%	1152	25.5	45.07°C	0.988
	12.130V	5.049V	3.322V	4.943V	1383.63				56.12°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	**1.222A**	**0.495A**	**0.497A**	**0.2A**	19.993	66.89%	0	<6.0	47.77°C	0.659
	12.149V	5.046V	3.323V	4.988V	29.908				36.02°C	115.04V
40W	**2.690A**	**0.693A**	**0.695A**	**0.301A**	39.996	79.61%	0	<6.0	46.88°C	0.702
	12.152V	5.047V	3.324V	4.986V	50.246				37.02°C	115.04V
60W	**4.158A**	**0.891A**	**0.893A**	**0.401A**	59.995	85.193%	0	<6.0	48.65°C	0.723
	12.152V	5.047V	3.324V	4.985V	70.422				38.34°C	115.03V
80W	**5.621A**	**1.09A**	**1.092A**	**0.502A**	79.937	87.118%	0	<6.0	48.68°C	0.978
	12.152V	5.047V	3.324V	4.984V	91.759				39.37°C	115.03V

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	**1.222A**	**0.495A**	**0.496A**	**0.2A**	19.994	72.82%	0	<6.0	36.23°C	0.156
	12.152V	5.047V	3.323V	4.987V	27.456				36°C	230.01V
40W	**2.690A**	**0.693A**	**0.695A**	**0.301A**	39.995	78.28%	0	<6.0	38.94°C	0.282
	12.153V	5.048V	3.324V	4.985V	51.091				37.32°C	230.01V
60W	**4.158A**	**0.891A**	**0.893A**	**0.401A**	59.994	85.4%	0	<6.0	40.45°C	0.321
	12.153V	5.048V	3.324V	4.984V	70.245				38.14°C	230.01V
80W	**5.620A**	**1.089A**	**1.092A**	**0.502A**	79.934	87.229%	0	<6.0	42.15°C	0.784
	12.153V	5.048V	3.324V	4.983V	91.637				39.09°C	230V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	36.48mV	27.54mV	25.58mV	25.06mV	Pass
20% Load	37.60mV	28.00mV	25.63mV	25.42mV	Pass
30% Load	37.60mV	27.95mV	25.37mV	25.83mV	Pass
40% Load	39.60mV	28.00mV	26.14mV	25.88mV	Pass
50% Load	46.50mV	29.22mV	26.04mV	27.27mV	Pass
60% Load	42.05mV	28.51mV	26.14mV	27.01mV	Pass
70% Load	33.92mV	28.66mV	27.37mV	26.14mV	Pass
80% Load	34.43mV	29.63mV	26.40mV	27.21mV	Pass
90% Load	35.15mV	28.92mV	26.55mV	27.26mV	Pass
100% Load	37.20mV	27.69mV	25.73mV	28.08mV	Pass
110% Load	35.91mV	27.38mV	24.96mV	27.26mV	Pass
Crossload1	36.12mV	28.97mV	26.96mV	25.57mV	Pass
Crossload2	34.02mV	32.24mV	24.66mV	26.75mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	32.44mV	28.40mV	30.23mV	25.93mV	Pass
Crossload4	37.45mV	28.61mV	27.47mV	26.34mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	33.66mV	26.67mV	24.76mV	24.45mV	Pass
20% Load	37.71mV	27.89mV	24.76mV	24.96mV	Pass
30% Load	38.11mV	28.46mV	25.68mV	25.93mV	Pass
40% Load	39.65mV	28.82mV	25.37mV	25.73mV	Pass
50% Load	38.42mV	28.66mV	25.12mV	26.70mV	Pass
60% Load	38.42mV	27.54mV	24.61mV	26.14mV	Pass
70% Load	34.74mV	29.22mV	29.36mV	26.19mV	Pass
80% Load	33.72mV	28.82mV	26.14mV	26.55mV	Pass
90% Load	34.43mV	29.53mV	25.83mV	26.24mV	Pass
100% Load	37.45mV	28.56mV	25.37mV	30.18mV	Pass
110% Load	33.61mV	24.73mV	23.53mV	24.76mV	Pass
Crossload1	34.18mV	28.30mV	27.47mV	26.34mV	Pass
Crossload2	34.38mV	32.59mV	25.22mV	27.78mV	Pass
Crossload3	32.90mV	27.69mV	29.52mV	25.22mV	Pass
Crossload4	37.96mV	29.94mV	25.93mV	25.42mV	Pass

The results above are not used in the certification process

be quiet! Dark Power Pro 14 IO 1300W



Top side



Power specifications label



Fan



PSU Internals

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

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