be quiet!

be quiet! Pure Power 12 M 850W

Serial Number 344H2489000021

Lab ID BQ85002157

Certification ID 252157

Test Result Report ID: 23PS2157A

Certificate Issue Date: Mar 29, 2023

Scheme: ETA-EMI PSU



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	be quiet!
Model	Pure Power 12 M 850W
OEM/ODM	HEC
Serial Number	344H2489000021
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6

Rated Frequency (Hz)	50-60
Rated Power (W)	850
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Rifle Bearing Fan (BQ QF2-12025-HS)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	BQ85002157
Date of receipt	Feb 17, 2023
Testing Date	Mar 22, 2023
Report Issued Date	Mar 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 (550mm)	1	1	16-20AWG	No
4+4 pin EPS12V (600mm)	1	1	18AWG	No
8 pin EPS12V (600mm)	1	1	18AWG	No
6+2 pin PCIe (500mm+150mm)	2	4	16-18AWG	No
12+4 pin PCIe (600mm) (600W)	1	1	16-28AWG	No
SATA (500mm+150mm+150mm+150mm)	1	4	18AWG	No
SATA (500mm+150mm) / 4-pin Molex (+150mm+150mm)	1	2 /2	18AWG	No

AC Power Cord (1400mm) - C13 coupler	1	1	18AWG	-

Power Specifications

Rail		3.3V	5V	12V(1)	12V(2)	5VSB	-12V
Max. Power	Amps	22	22	40	36	3	0.3
	Watts	120		850		15	3.6
Total Max. Power (W)		850					

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)	89.807%
Average Noise Output (>1450 Load Combinations)	25.03dBA
Average PF (>1450 Load Combinations)	0.983
Efficiency With 10W (≤500W) or 2% (>500W) Load	76.310%
Standby Power Consumption	0.0555W
Non-Accredited	
12V Ripple (Full Load)	23.50mV
5V Ripple (Full Load)	17.54mV
3.3V Ripple (Full Load)	15.39mV

5VSB Ripple (Full Load)	17.41mV
12V Load Regulation	1.11%
5V Load Regulation	0.44%
3.3V Load Regulation	0.58%
5VSB Load Regulation	2.38%
Inrush Current	37.030A

230V

Accredited		
Average Efficiency (>1450 load combinations)		91.772%
Average Noise Output (>1450 Load Combinations)		24.64dBA
Average PF (>1450 Load Combinations)		0.948
Efficiency With 10W (≤500W) or 2% (>500W) Load		77.083%
Standby Power Consumption		0.1000W
Non-Accredited		
12V Ripple (Full Load)		22.88mV
5V Ripple (Full Load)		16.71mV
3.3V Ripple (Full Load)		14.09mV
5VSB Ripple (Full Load)		15.82mV
12V Load Regulation		1.13%
5V Load Regulation		0.46%
3.3V Load Regulation		0.58%
5VSB Load Regulation		2.38%
Inrush Current		61.940A
12V Transient Response (200%)		11.52V
5V Transient Response (200%)		4.876V
3.3V Transient Response (200%)		3.166V
5VSB Transient Response (200%)		4.984V
Hold-Up Time & PWR_OK Signal		23.00ms
AC Loss to PWR_OK Hold Up Time		20.50ms
PWR_OK Inactive to DC Loss Delay		2.50ms
PSU Timings: T1 (20% / 100%)	57.0ms	57.0ms

PSU Timings: T3 (20% / 100%)	121.0ms	123.0ms
OPP (26.63°C / 37.46°C)	133.25%	128.54%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	23
AC Loss to PWR_OK Hold Up Time (ms)	20.5
PWR_OK Inactive to DC Loss Delay (ms)	2.5

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Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.90 V	114.82 V	113.85 V	114.97 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.96 Hz	59.40 Hz	60.03 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.419	1.417	1.340	1.421	1.490	PASS
Mains Voltage THD:	0.21 %	0.16 %	N/A	0.29 %	2.00 %	PASS
Real Power:	0.056 W	0.035 W	N/A	0.081 W	N/A	N/A
Apparent Power:	11.389 W	11.357 W	N/A	11.426 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

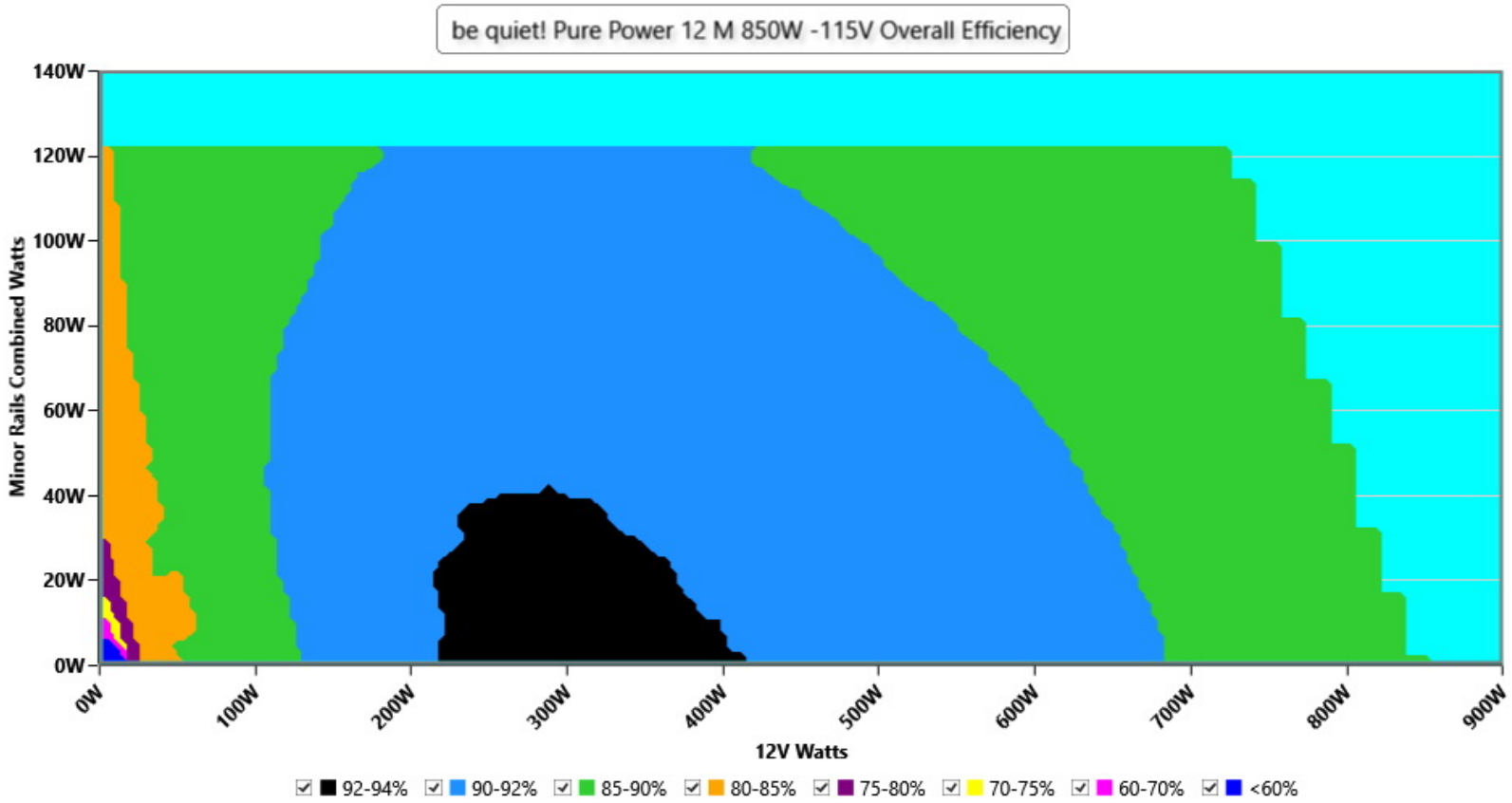
230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.77 V	229.71 V	227.70 V	229.85 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:	1.417	1.415	1.340	1.418	1.490	PASS

Mains Voltage THD:	0.15 %	0.13 %	N/A	0.18 %	2.00 %	PASS
Real Power:	0.100 W	0.053 W	N/A	0.177 W	N/A	N/A
Apparent Power:	38.599 W	38.516 W	N/A	38.711 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

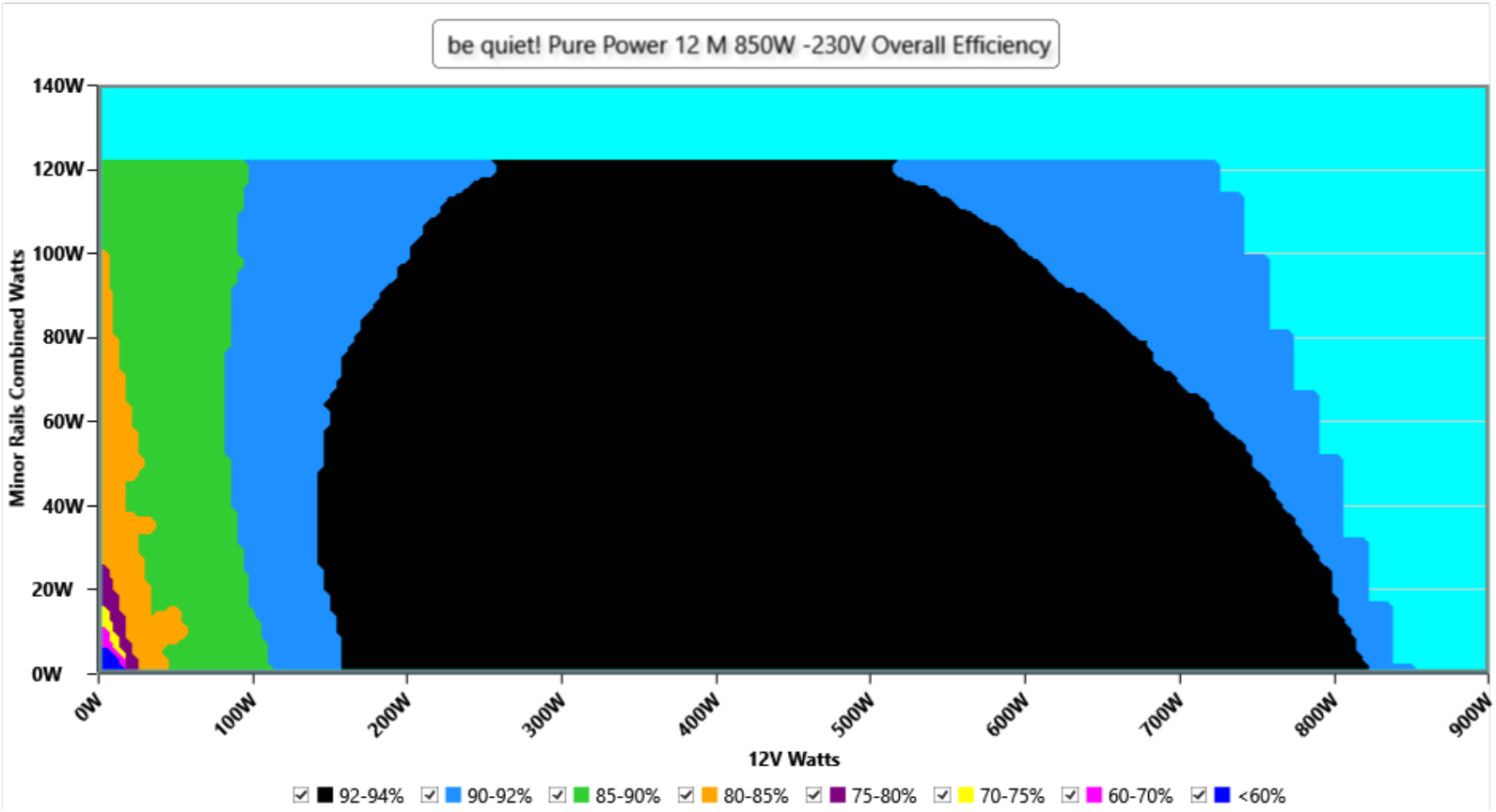
115V



INFO

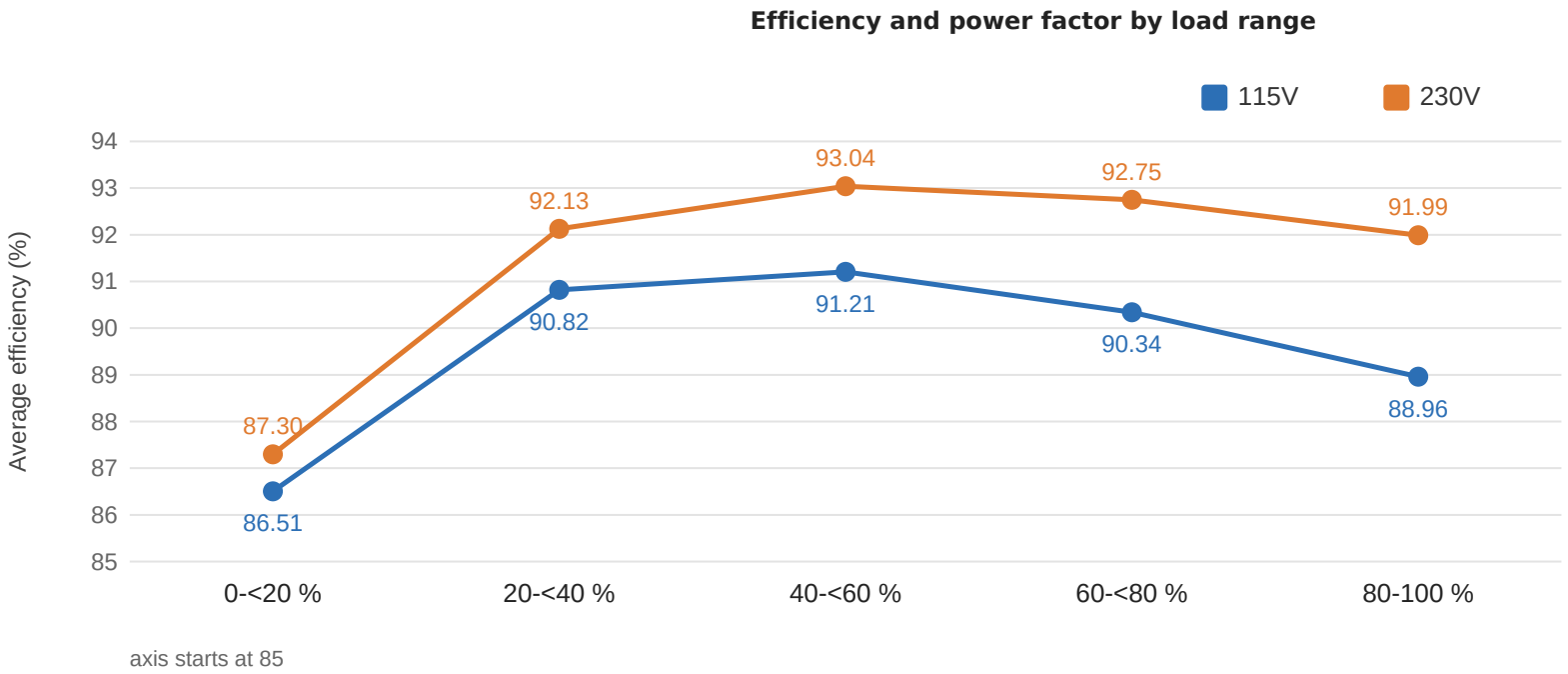
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

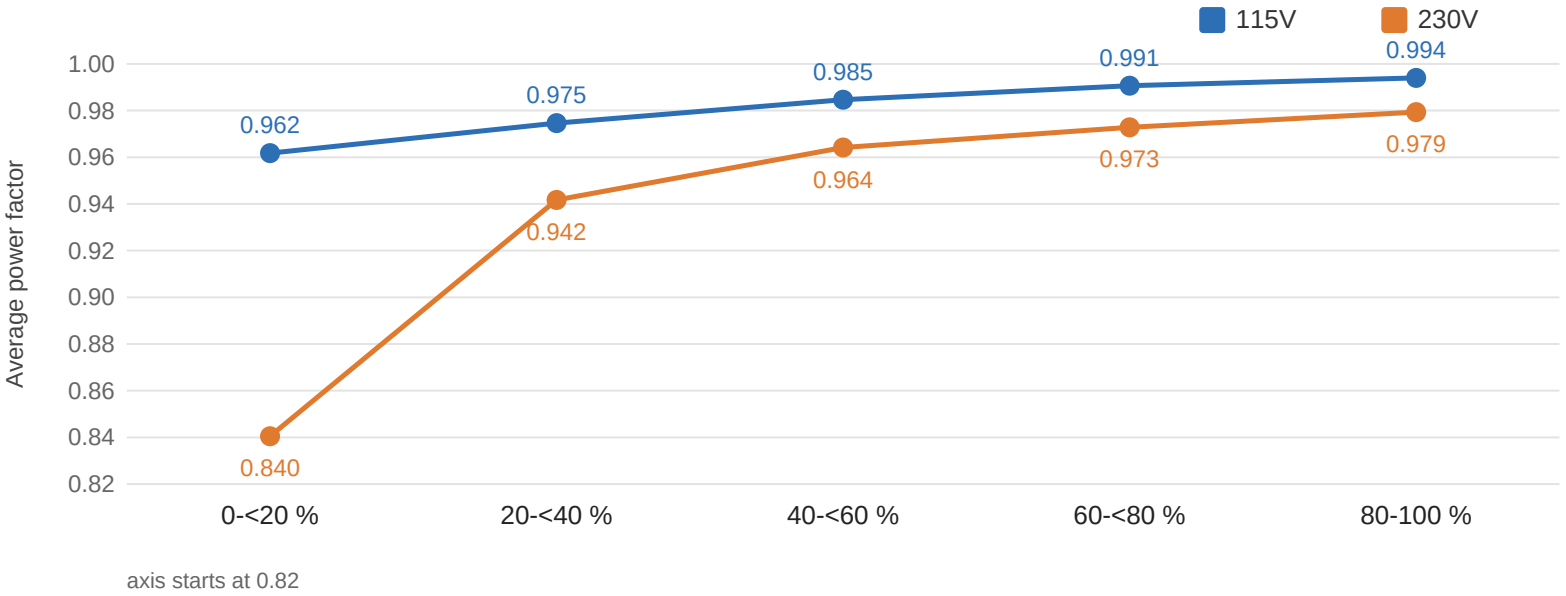


INFO

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 0.82

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	201 / 201	86.51%	87.30%	0.962	0.840
20-<40 %	317 / 317	90.82%	92.13%	0.975	0.942
40-<60 %	320 / 320	91.21%	93.04%	0.985	0.964
60-<80 %	318 / 319	90.34%	92.75%	0.991	0.973
80-100 %	325 / 324	88.96%	91.99%	0.994	0.979
70-100 % (High-Load)	484 / 484	89.32%	92.19%	0.993	0.978
All (published average)	1481 / 1481	89.81%	91.77%	0.983	0.948

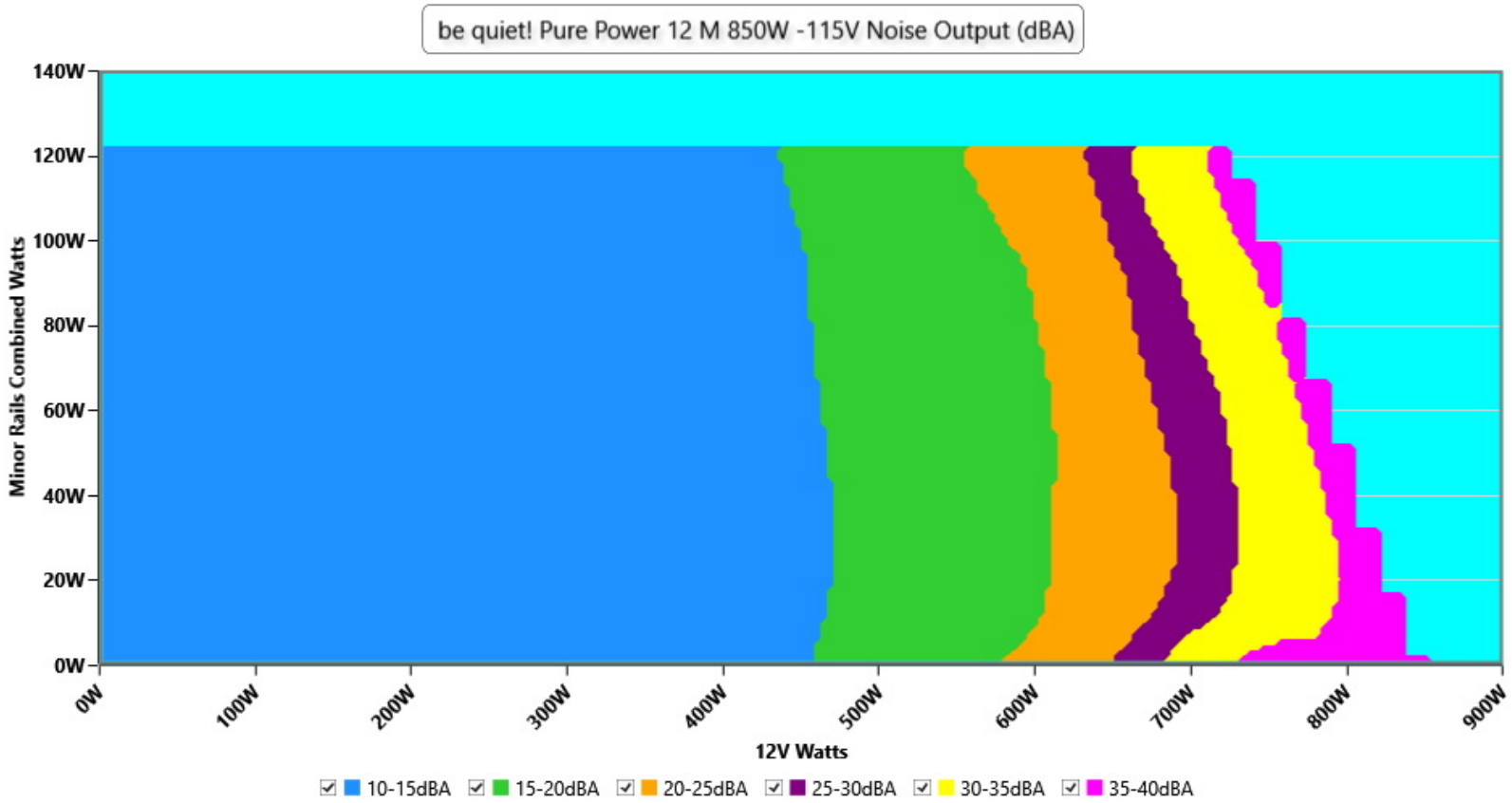
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1481 (115V) and 1481 (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 850 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

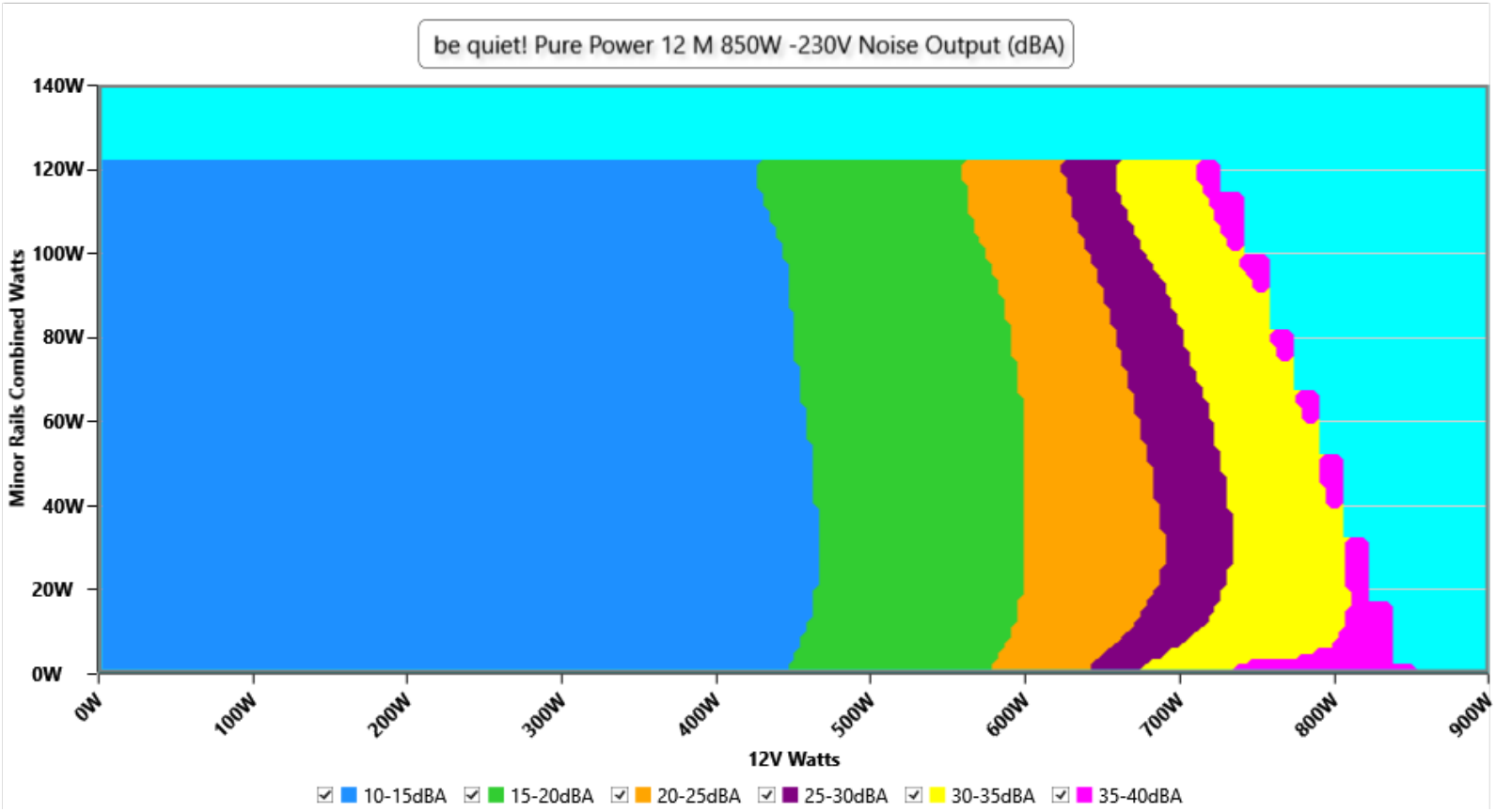
115V



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

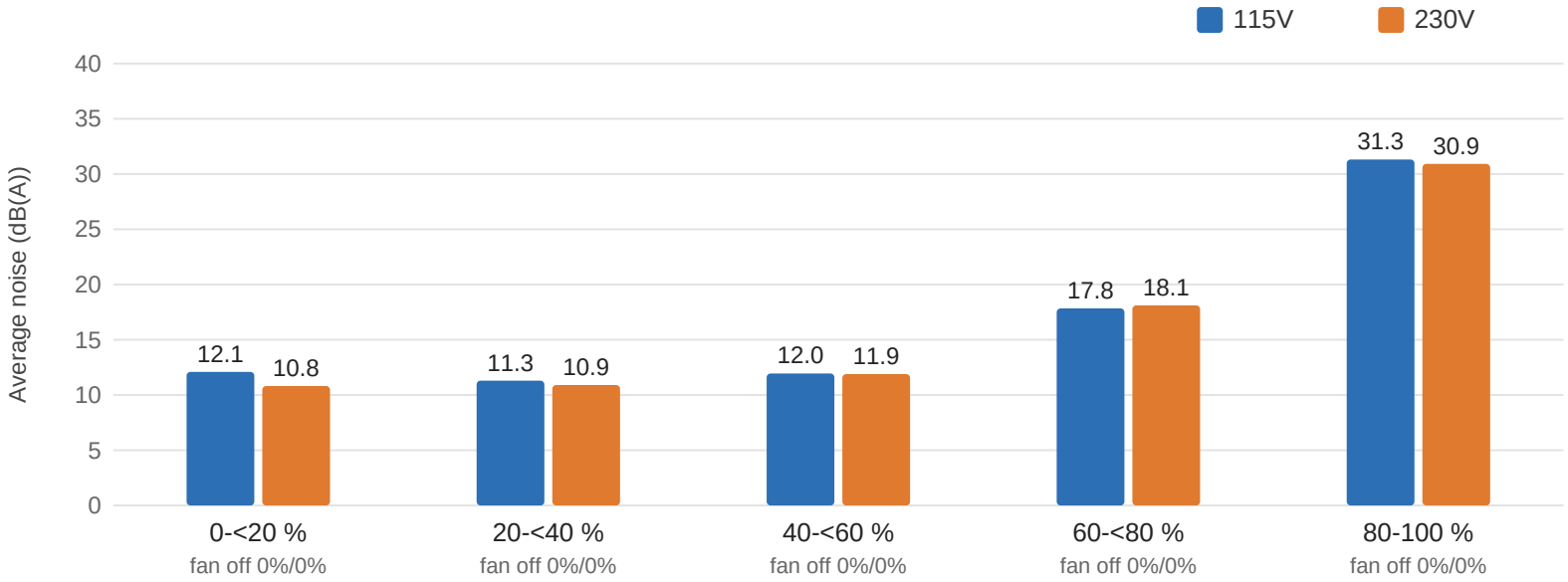
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **29.7 dB(A)** at 115V and **29.3 dB(A)** at 230V · loudest point 37.6 dB(A)

Efficiency 89.32% / 92.19% · power factor 0.993 / 0.978 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	12.1 (13.0)	10.8 (10.8)	0% / 0%
20-<40 %	11.3 (13.0)	10.9 (13.0)	0% / 0%
40-<60 %	12.0 (17.2)	11.9 (17.2)	0% / 0%
60-<80 %	17.8 (28.0)	18.1 (29.1)	0% / 0%
80-100 %	31.3 (37.6)	30.9 (36.3)	0% / 0%
70-100 % (High-Load)	29.7 (37.6)	29.3 (36.3)	0% / 0%
All (published average)	25.0 (37.6)	24.7 (36.3)	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 1481 (115V) and 1481 (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 850 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%	743 RPM · 12.8 dB(A) · 40.5 °C	743 RPM · 12.8 dB(A) · 40.5 °C	**+0.0 dB(A)**
20%	742 RPM · 12.8 dB(A) · 40.7 °C	742 RPM · 12.8 dB(A) · 40.7 °C	**+0.0 dB(A)**
50%	859 RPM · 17.3 dB(A) · 42.3 °C	859 RPM · 17.3 dB(A) · 42.3 °C	**+0.0 dB(A)**
100%	1859 RPM · 40.6 dB(A) · 45.4 °C	1859 RPM · 40.6 dB(A) · 45.4 °C	**+0.0 dB(A)**

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	744 RPM · 12.7 dB(A) · 40.5 °C	744 RPM · 12.7 dB(A) · 40.5 °C	**+0.0 dB(A)**
20%	743 RPM · 12.8 dB(A) · 40.7 °C	743 RPM · 12.8 dB(A) · 40.7 °C	**+0.0 dB(A)**
50%	860 RPM · 17.3 dB(A) · 42.4 °C	860 RPM · 17.3 dB(A) · 42.4 °C	**+0.0 dB(A)**
100%	1860 RPM · 40.6 dB(A) · 45.2 °C	1860 RPM · 40.6 dB(A) · 45.2 °C	**+0.0 dB(A)**

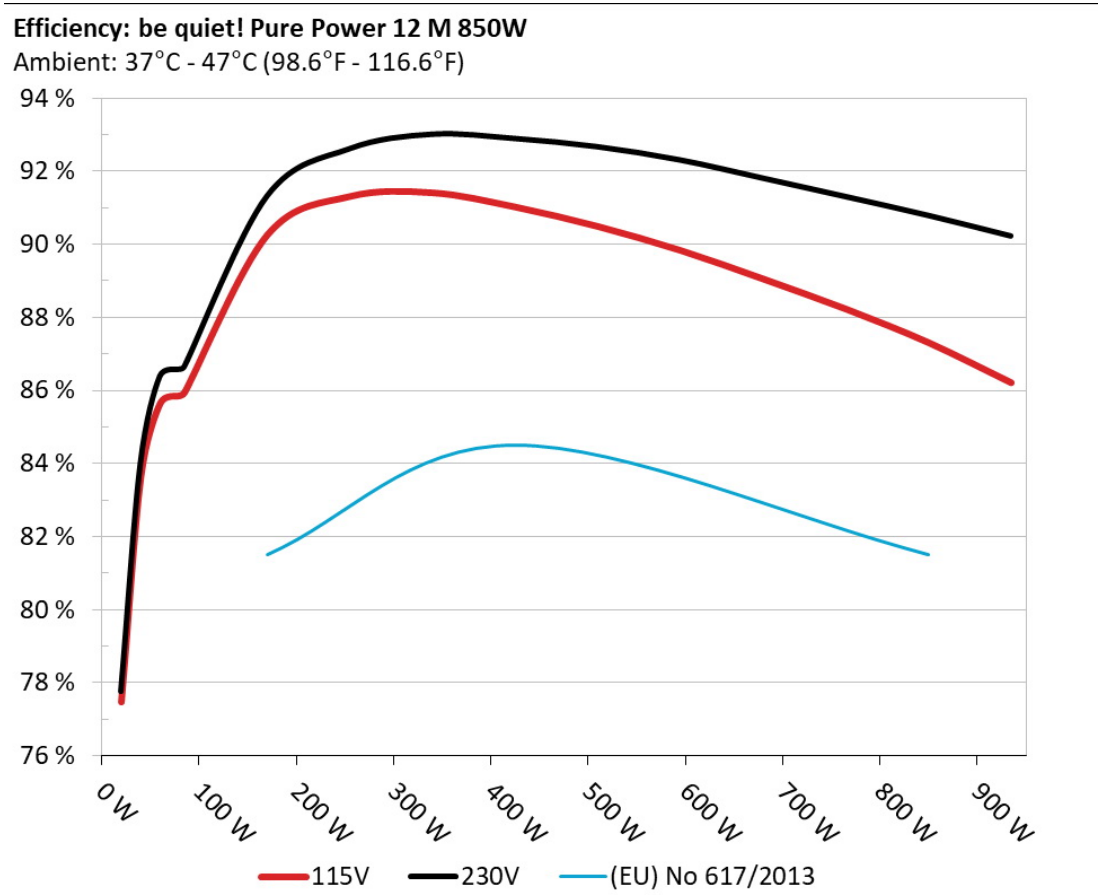
INFO

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: 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.

Indicative Performance

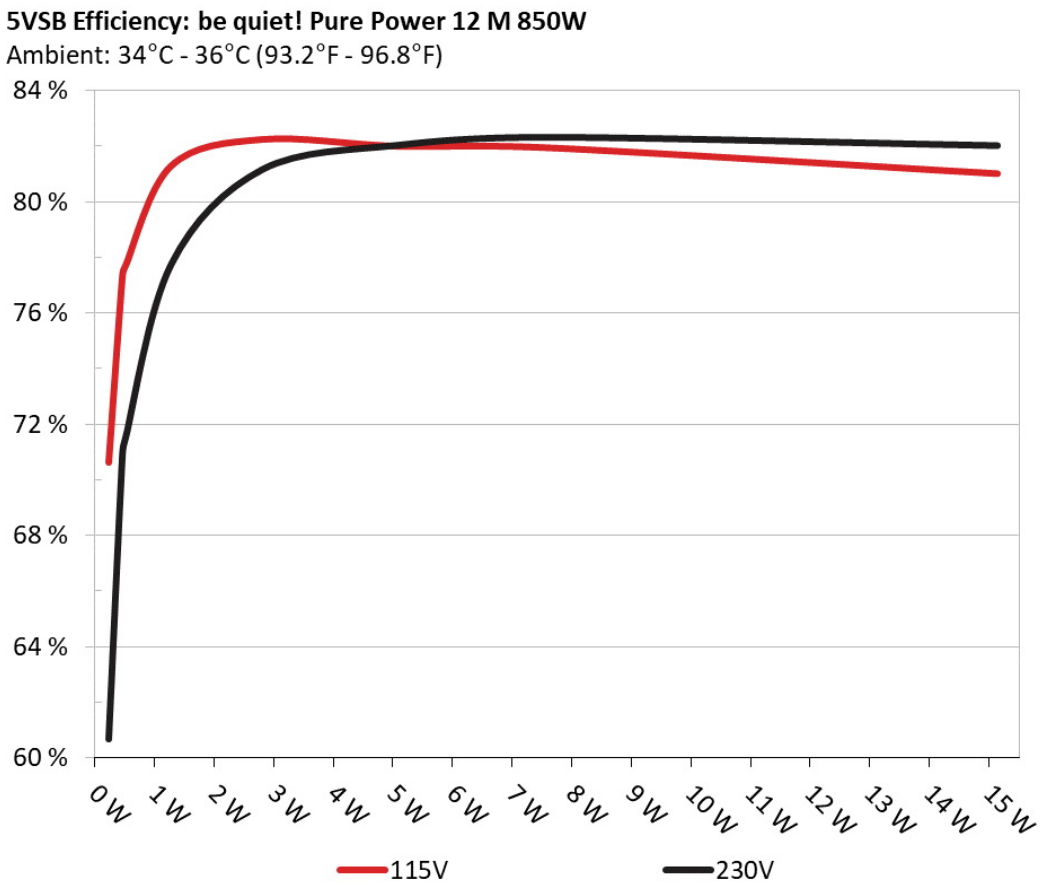
Efficiency under high ambient temperature



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	70.112%	0.029
	5.113V	0.328W		114.87V
2	0.09A	0.46W	76.86%	0.053
	5.112V	0.599W		114.88V
3	0.55A	2.806W	81.76%	0.248
	5.102V	3.432W		114.87V
4	1A	5.092W	81.509%	0.352
	5.092V	6.247W		114.87V
5	1.5A	7.621W	81.457%	0.406
	5.081V	9.357W		114.87V
6	3A	15.142W	80.524%	0.48
	5.048V	18.804W		114.87V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.23W	60.188%	0.01
	5.113V	0.383W		229.77V
2	0.09A	0.46W	70.441%	0.017
	5.112V	0.654W		229.77V
3	0.55A	2.806W	80.662%	0.09
	5.102V	3.478W		229.77V
4	1A	5.092W	81.54%	0.152
	5.092V	6.245W		229.77V
5	1.5A	7.621W	81.82%	0.205
	5.081V	9.314W		229.77V
6	2.999A	15.142W	81.521%	0.316
	5.048V	18.573W		229.77V

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%	5.216A	2.007A	2A	0.982A	84.992	86.439%	743	12.8	40.51°C	0.958
	12.154V	4.983V	3.3V	5.092V	98.327				44.54°C	114.85V
20%	11.462A	3.012A	3.002A	1.181A	169.918	90.757%	742	12.8	40.67°C	0.971
	12.128V	4.98V	3.297V	5.08V	187.225				45.01°C	114.82V
30%	18.069A	3.515A	3.504A	1.381A	254.922	91.813%	745	12.7	41.53°C	0.975
	12.113V	4.979V	3.296V	5.069V	277.653				46.28°C	114.79V
40%	24.694A	4.018A	4.006A	1.581A	340.005	91.913%	779	14.6	41.57°C	0.98
	12.100V	4.978V	3.295V	5.059V	369.924				46.58°C	114.76V
50%	30.963A	5.025A	5.011A	1.783A	424.776	91.522%	859	17.3	42.29°C	0.985
	12.087V	4.976V	3.293V	5.049V	464.125				47.73°C	114.74V
60%	37.226A	6.032A	6.017A	1.985A	509.336	90.992%	942	20.7	42.57°C	0.988
	12.075V	4.974V	3.291V	5.038V	559.76				48.62°C	114.7V
70%	43.566A	7.041A	7.024A	2.188A	594.654	90.333%	1104	25.2	43.36°C	0.991
	12.063V	4.972V	3.289V	5.027V	658.292				50.39°C	114.67V
80%	49.928A	8.001A	8.031A	2.291A	679.265	89.552%	1581	26.2	43.56°C	0.993
	12.049V	4.97V	3.287V	5.019V	758.521				51.65°C	114.63V
90%	56.708A	8.554A	8.522A	2.395A	764.93	88.721%	1862	40.7	44.39°C	0.994
	12.034V	4.968V	3.286V	5.011V	862.175				53.42°C	114.6V
100%	63.225A	9.06A	9.043A	3.006A	849.75	87.799%	1859	40.6	45.36°C	0.995
	12.021V	4.966V	3.284V	4.991V	967.835				55.45°C	114.56V
110%	69.620A	10.07A	10.145A	3.01A	934.33	86.705%	1859	40.6	46.56°C	0.996
	12.009V	4.965V	3.283V	4.984V	1077.598				57.47°C	114.53V
CL1	0.115A	14.553A	14.543A	0A	121.297	84.179%	921	19.7	40.32°C	0.975
	12.161V	4.961V	3.281V	5.101V	144.095				45.81°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	22.155A	0A	0A	111.298	82.857%	851	17.2	40.71°C	0.974
	12.169V	4.961V	3.294V	5.106V	134.326				47.74°C	114.83V
CL3	0.113A	0A	22.104A	0A	73.994	77.525%	813	15.6	40.22°C	0.958
	12.171V	4.982V	3.285V	5.105V	95.446				49.29°C	114.85V
CL4	70.669A	0A	0A	0A	849.552	88.323%	1864	40.7	45.59°C	0.995
	12.022V	4.988V	3.302V	5.068V	961.869				56.58°C	114.57V

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%	5.214A	2.007A	2A	0.982A	84.993	87.129%	744	12.7	40.45°C	0.83
	12.157V	4.983V	3.299V	5.092V	97.548				44.54°C	229.76V
20%	11.462A	3.012A	3.003A	1.181A	169.917	91.794%	743	12.8	40.68°C	0.918
	12.129V	4.98V	3.297V	5.081V	185.108				45.01°C	229.75V
30%	18.066A	3.515A	3.504A	1.381A	254.911	93.097%	746	12.9	41.05°C	0.945
	12.114V	4.979V	3.296V	5.07V	273.811				45.92°C	229.73V
40%	24.691A	4.018A	4.006A	1.581A	339.983	93.495%	783	14.7	41.87°C	0.956
	12.101V	4.977V	3.295V	5.06V	363.641				46.88°C	229.72V
50%	30.955A	5.025A	5.011A	1.782A	424.706	93.376%	860	17.3	42.38°C	0.966
	12.088V	4.975V	3.293V	5.05V	454.832				47.85°C	229.7V
60%	37.216A	6.032A	6.016A	1.985A	509.253	93.153%	946	20.9	42.74°C	0.97
	12.076V	4.973V	3.291V	5.039V	546.678				48.79°C	229.69V
70%	43.554A	7.041A	7.023A	2.187A	594.561	92.79%	1110	25.4	43.04°C	0.973
	12.064V	4.971V	3.289V	5.028V	640.759				50.14°C	229.67V
80%	49.916A	8A	8.03A	2.29A	679.159	92.293%	1563	35.6	43.61°C	0.977
	12.050V	4.969V	3.287V	5.02V	735.875				51.66°C	229.66V
90%	56.695A	8.555A	8.521A	2.394A	764.825	91.785%	1863	40.7	44.04°C	0.98
	12.035V	4.967V	3.286V	5.012V	833.28				53.07°C	229.64V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	63.213A	9.061A	9.042A	3.004A	849.639	91.27%	1860	40.6	45.22°C	0.982
	12.022V	4.965V	3.284V	4.992V	930.905				55.32°C	229.62V
110%	69.609A	10.071A	10.143A	3.008A	934.225	90.71%	1859	40.6	46.6°C	0.983
	12.009V	4.964V	3.283V	4.986V	1029.902				57.59°C	229.61V
CL1	0.114A	14.554A	14.541A	0A	121.285	85.104%	917	19.6	40.4°C	0.891
	12.159V	4.96V	3.281V	5.102V	142.517				45.89°C	229.74V
CL2	0.113A	22.163A	0A	0A	111.296	83.711%	849	17.2	40.52°C	0.881
	12.168V	4.96V	3.294V	5.107V	132.953				47.57°C	229.75V
CL3	0.113A	0A	22.102A	0A	73.991	78.198%	813	15.6	40.52°C	0.825
	12.171V	4.983V	3.285V	5.106V	94.621				49.58°C	229.76V
CL4	70.658A	0A	0A	0A	849.407	91.867%	1869	40.9	45.18°C	0.982
	12.022V	4.99V	3.303V	5.068V	924.605				56.16°C	229.63V

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	0.501A	0.499A	0.196A	19.984	78.245%	730	12	36.51°C	0.452
	12.140V	4.988V	3.303V	5.111V	25.536				39.58°C	229.77V
40W	2.692A	0.702A	0.7A	0.294A	39.986	84.488%	733	12.2	37.46°C	0.642
	12.139V	4.986V	3.302V	5.108V	47.329				40.79°C	229.77V
60W	4.162A	0.902A	0.899A	0.392A	59.987	86.872%	735	12.4	38.23°C	0.751
	12.140V	4.985V	3.301V	5.105V	69.05				41.76°C	229.77V
80W	5.620A	1.103A	1.1A	0.49A	79.923	87.063%	740	13.1	39.1°C	0.819
	12.153V	4.984V	3.301V	5.104V	91.801				42.92°C	229.76V

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	0.501A	0.499A	0.196A	19.984	78.245%	730	12	36.51°C	0.452
	12.140V	4.988V	3.303V	5.111V	25.536				39.58°C	229.77V
40W	2.692A	0.702A	0.7A	0.294A	39.986	84.488%	733	12.2	37.46°C	0.642
	12.139V	4.986V	3.302V	5.108V	47.329				40.79°C	229.77V
60W	4.162A	0.902A	0.899A	0.392A	59.987	86.872%	735	12.4	38.23°C	0.751
	12.140V	4.985V	3.301V	5.105V	69.05				41.76°C	229.77V
80W	5.620A	1.103A	1.1A	0.49A	79.923	87.063%	740	13.1	39.1°C	0.819
	12.153V	4.984V	3.301V	5.104V	91.801				42.92°C	229.76V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	11.00mV	13.39mV	12.23mV	12.79mV	Pass
20% Load	26.44mV	13.79mV	11.92mV	13.25mV	Pass
30% Load	15.79mV	14.20mV	11.56mV	12.63mV	Pass
40% Load	14.22mV	13.74mV	11.61mV	13.10mV	Pass
50% Load	13.92mV	14.46mV	12.07mV	12.94mV	Pass
60% Load	13.56mV	14.51mV	13.25mV	13.04mV	Pass
70% Load	14.53mV	14.40mV	13.04mV	13.61mV	Pass
80% Load	15.81mV	14.61mV	13.30mV	14.99mV	Pass
90% Load	16.17mV	15.99mV	14.27mV	13.97mV	Pass
100% Load	23.50mV	17.54mV	15.39mV	17.41mV	Pass
110% Load	25.70mV	17.68mV	16.57mV	18.80mV	Pass
Crossload1	28.92mV	19.12mV	17.75mV	14.96mV	Pass
Crossload2	17.40mV	20.54mV	17.65mV	14.32mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	17.09mV	15.89mV	16.17mV	11.56mV	Pass
Crossload4	22.56mV	16.50mV	11.85mV	18.94mV	Pass

The results above are not used in the certification process

230V

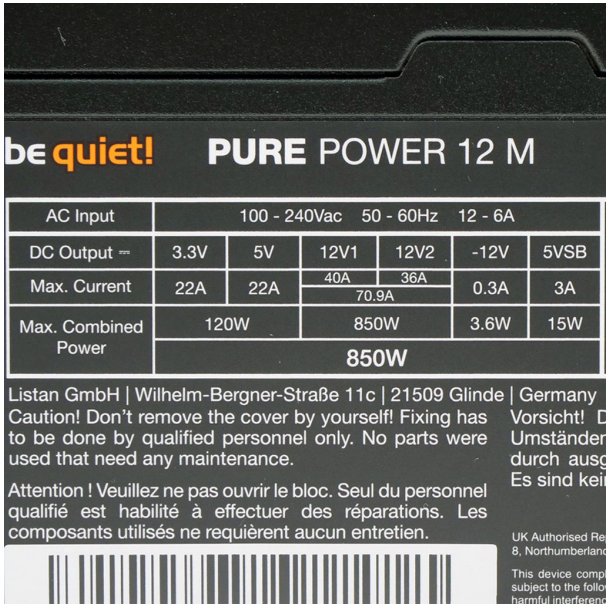
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	10.75mV	13.79mV	10.95mV	12.17mV	Pass
20% Load	25.97mV	14.00mV	12.38mV	12.02mV	Pass
30% Load	16.00mV	13.64mV	11.41mV	12.48mV	Pass
40% Load	13.92mV	14.30mV	12.99mV	12.58mV	Pass
50% Load	14.48mV	15.33mV	12.02mV	13.40mV	Pass
60% Load	14.94mV	14.71mV	13.45mV	13.91mV	Pass
70% Load	15.30mV	14.81mV	12.84mV	13.96mV	Pass
80% Load	15.45mV	15.23mV	14.22mV	13.86mV	Pass
90% Load	16.27mV	15.48mV	14.07mV	14.12mV	Pass
100% Load	22.88mV	16.71mV	14.09mV	15.82mV	Pass
110% Load	24.70mV	16.46mV	15.42mV	15.37mV	Pass
Crossload1	34.67mV	17.43mV	17.84mV	13.70mV	Pass
Crossload2	18.21mV	21.36mV	18.26mV	13.76mV	Pass
Crossload3	16.12mV	16.19mV	17.03mV	12.02mV	Pass
Crossload4	22.30mV	16.73mV	12.48mV	14.02mV	Pass

The results above are not used in the certification process

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Top side



Power specifications label