be quiet!

be quiet! Pure Power 13 M 550W

Serial Number EUS5081000876

Lab ID BQ55002851

Certification ID 252851

Test Result Report ID: 25PS2851A

Certificate Issue Date: Jun 18, 2025

Scheme: ETA-EMI PSU

115V



230V

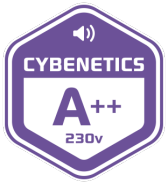


Scheme: LAMBDA PSU

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	Pure Power 13 M 550W
OEM/ODM	FSP
Serial Number	EUS5081000876
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	5-10
Rated Frequency (Hz)	50-60
Rated Power (W)	550
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-LS)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	BQ55002851
Date of receipt	May 9, 2025
Testing Date	Jun 16, 2025
Report Issued Date	Jun 18, 2025
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 24 pin (550mm)	1	1	18-22AWG	No
4+4 pin EPS12V (650mm)	1	1	18AWG	No
2x 6+2 pin PCIe (500mm)	2	2	18AWG	No
12+4 pin PCIe (600mm) (300W)	1	1	16-28AWG	No
SATA (500mm+150mm+150mm)	1	3	16-28AWG	No

SATA (510mm+150mm) / 4-pin Molex (+150mm+145mm)	1	2 / 2	18AWG	No
AC Power Cord (1350mm) - C13 Coupler	1	1	18AWG	-

Protection Features

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	45.8	3	0.3
	Watts	120		550	15	3.6
Total Max. Power (W)		550				

Parts Description

General Data	
Manufacturer (OEM)	FSP
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK085A & Relay
Bridge Rectifier(s)	2x Yangjie GBJ1508 (800V, 15A @ 87°C)
APFC MOSFETs	2x STMicroelectronics STF18N60M2 (650V, 8A @ 100°C, Rds(on): 0.280Ohm)

APFC Boost Diode	1x DSC06C065 (650V, 6A @ 25°C)
Bulk Cap(s)	2x Elite (420V, 270uF each or 540uF combined, 3000h @ 85°C,GSF(M))
Main Switchers	2x Toshiba TK12A60W (600V, 11.5A @ 25°C, Rds(on): 0.3Ohm)
IC Driver	Novosense NSI6602
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CM6901X
Topology	• Primary side: APFC, Half-Bridge & LLC Resonant Converter • Secondary side: [12V] Synchronous Rectification, [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	4x Champion CMR024N04NS (40V, 144A @ 25°C, Rds(on): 2.4mOhm)
5V & 3.3V	DC-DC Converters: 4x Nexperia PSMN3RO-30YLD (30V, 100A @ 25°C, Rds(on): 3.1mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 3x Elite (2,000 @ 105°C, EL) 2x Elite (2-5,000 @ 105°C, ED) 1x Elite (4-10,000 @ 105°C, EY) 2x Elite (3-6,000 @ 105°C, EV) Polymer: 19x Apaq, 8 Elite (CS), 9x Biostar
Supervisor IC	IN1S4241-SDG (OCP, OVP, UVP, SCP, PG)
Fan Controller	Grenergy GR8031
Fan Model	BQ QF2-12025-LS (120mm, 12V, 0.12A, Rifle Bearing Fan)
5VSB Circuit	
Synchronous Rectification Driver	Leadtrend LD8926AA13 Synchronous Rectification IC

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)	90.603%
Average Noise Output (>1450 Load Combinations)	6.00dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	69.680%
Standby Power Consumption	0.0434W
Non-Accredited	
12V Ripple (Full Load)	25.54mV
5V Ripple (Full Load)	14.90mV
3.3V Ripple (Full Load)	16.33mV
5VSB Ripple (Full Load)	19.20mV
12V Load Regulation	0.45%
5V Load Regulation	0.90%
3.3V Load Regulation	1.49%
5VSB Load Regulation	2.04%
Inrush Current	31.290A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.463%
Average Noise Output (>1450 Load Combinations)	6.00dBA
Average PF (>1450 Load Combinations)	0.957
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.581%
Standby Power Consumption	0.1319W
Non-Accredited	

12V Ripple (Full Load)		26.53mV
5V Ripple (Full Load)		14.78mV
3.3V Ripple (Full Load)		15.76mV
5VSB Ripple (Full Load)		18.79mV
12V Load Regulation		0.45%
5V Load Regulation		0.88%
3.3V Load Regulation		1.46%
5VSB Load Regulation		2.00%
Inrush Current		65.170A
12V Transient Response (200%)		11.77V
5V Transient Response (200%)		4.962V
3.3V Transient Response (200%)		3.242V
5VSB Transient Response (200%)		5.020V
Hold-Up Time & PWR_OK Signal		25.30ms
AC Loss to PWR_OK Hold Up Time		23.40ms
PWR_OK Inactive to DC Loss Delay		1.90ms
PSU Timings: T1 (20% / 100%)	67.0ms	68.0ms
PSU Timings: T3 (20% / 100%)	130.0ms	131.0ms
12V OCP (28.6°C / 41.3°C)	58.30A (127.29%), 12.078V	54.00A (117.90%), 12.090V
5V OCP (28.6°C / 41.3°C)	29.4A (147.00%), 5.022V	28A (140.00%), 5.022V
3.3V OCP (28.6°C / 41.3°C)	29.2A (146.00%), 3.295V	29.3A (146.50%), 3.293V
5VSB OCP (28.6°C / 41.3°C)	4.3A (143.33%), 5.029V	4.3A (143.33%), 5.027V
OPP (28.66°C / 40.94°C)	125.93%	124.18%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	25.3
AC Loss to PWR_OK Hold Up Time (ms)	23.4
PWR_OK Inactive to DC Loss Delay (ms)	1.9

Stromverbrauch im Ruhezustand

Tables

115V

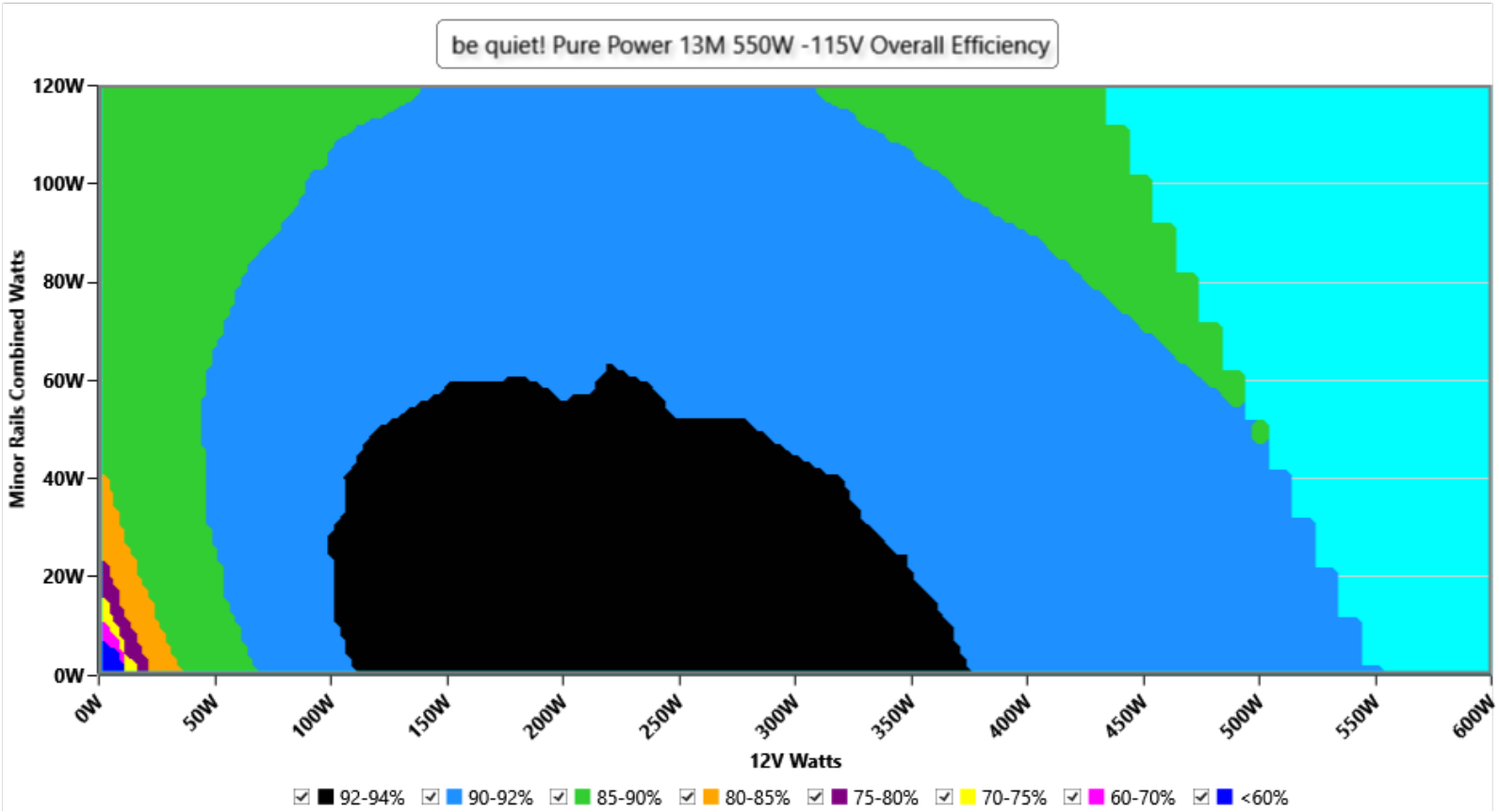
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.84 V	114.78 V	113.85 V	114.88 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.98 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.421	1.419	1.340	1.423	1.490	PASS
Mains Voltage THD:	0.15 %	0.09 %	N/A	0.26 %	2.00 %	PASS
Real Power:	0.043 W	0.017 W	N/A	0.063 W	N/A	N/A
Apparent Power:	8.816 W	8.797 W	N/A	8.836 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:	229.85 V	229.76 V	227.70 V	229.91 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.419	1.418	1.340	1.420	1.490	PASS
Mains Voltage THD:	0.14 %	0.10 %	N/A	0.19 %	2.00 %	PASS
Real Power:	0.132 W	0.111 W	N/A	0.163 W	N/A	N/A
Apparent Power:	29.920 W	29.897 W	N/A	29.945 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

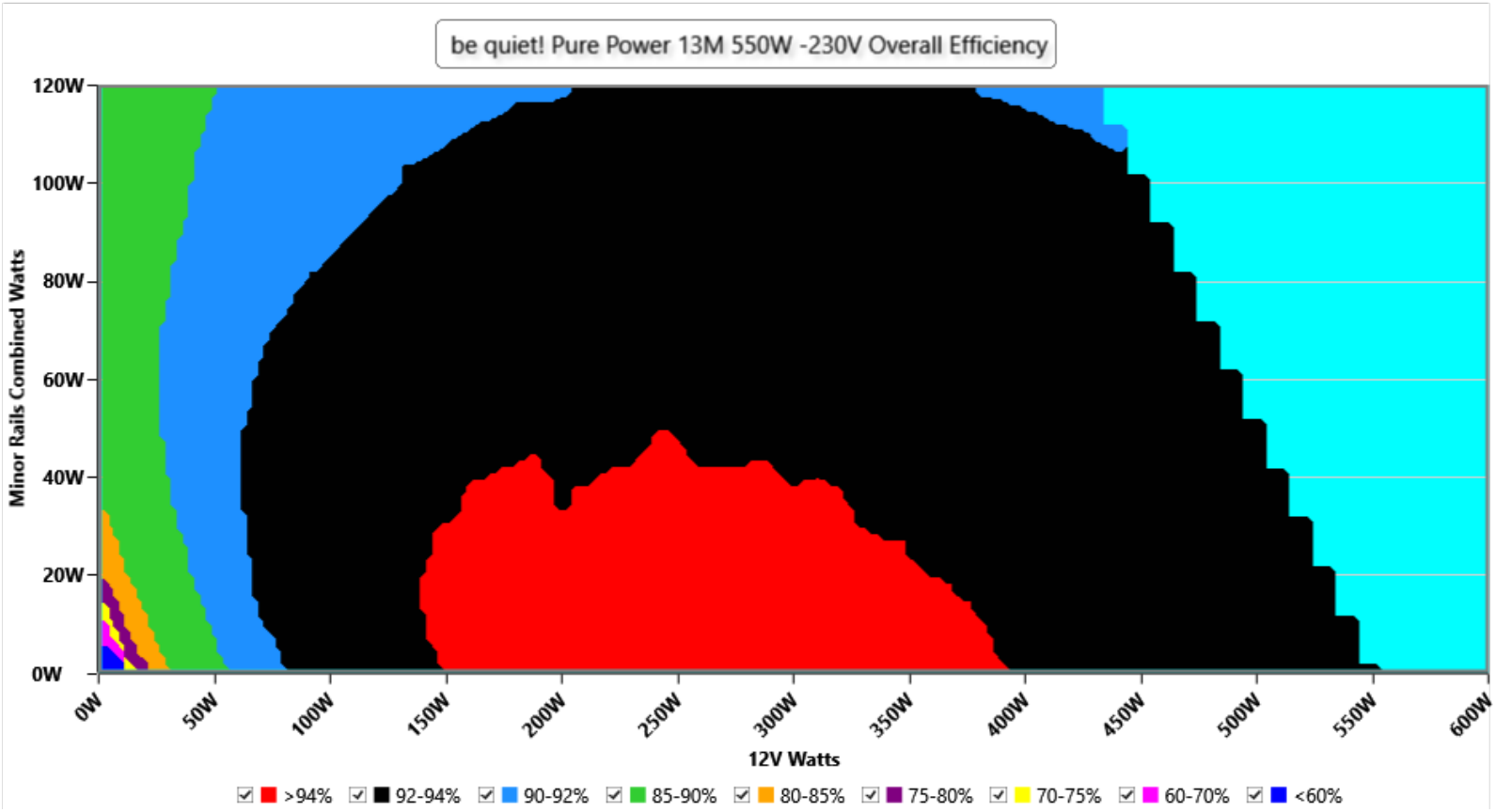
115V



INFO

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

230V

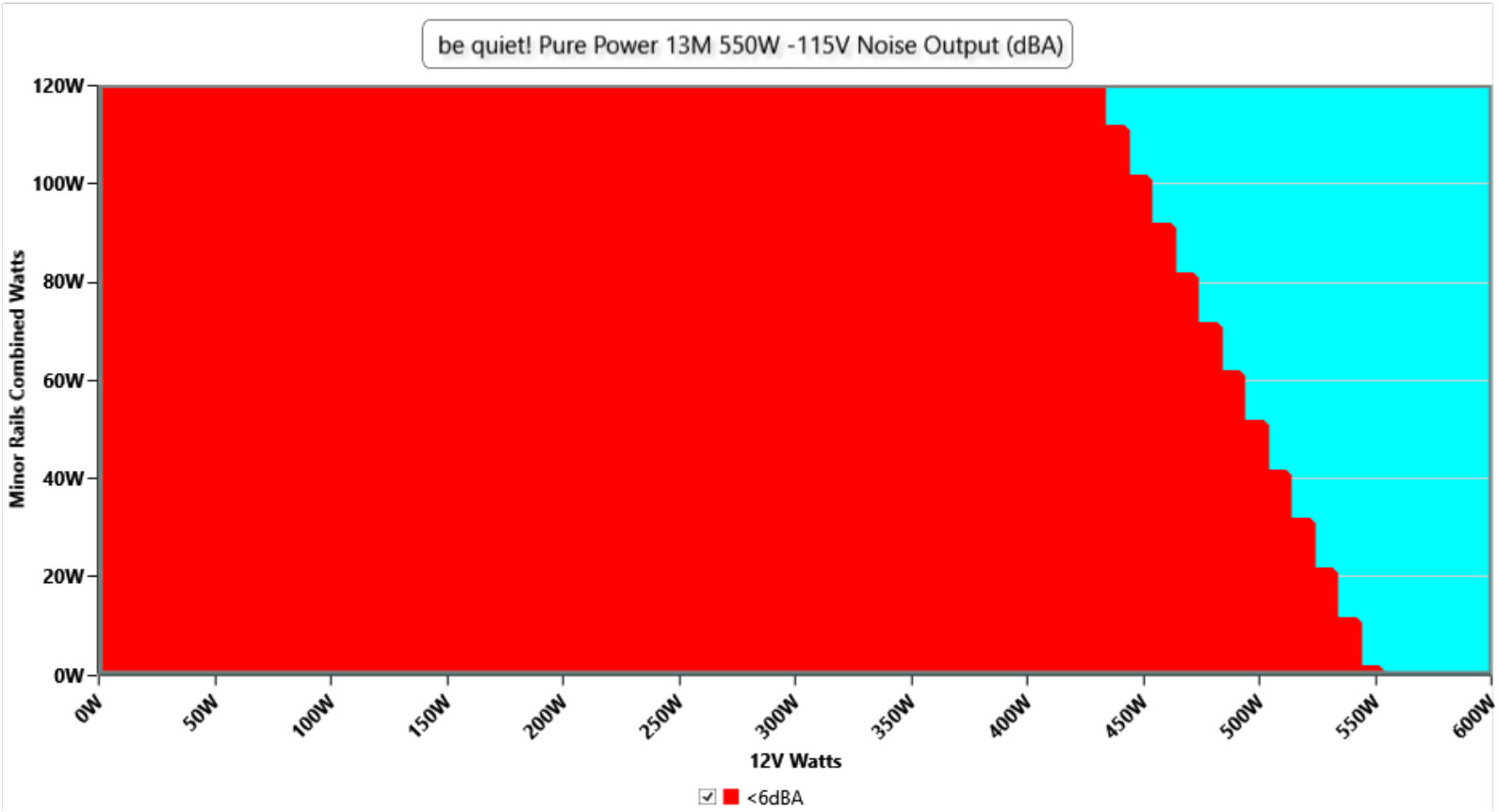


INFO

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

Noise Graph

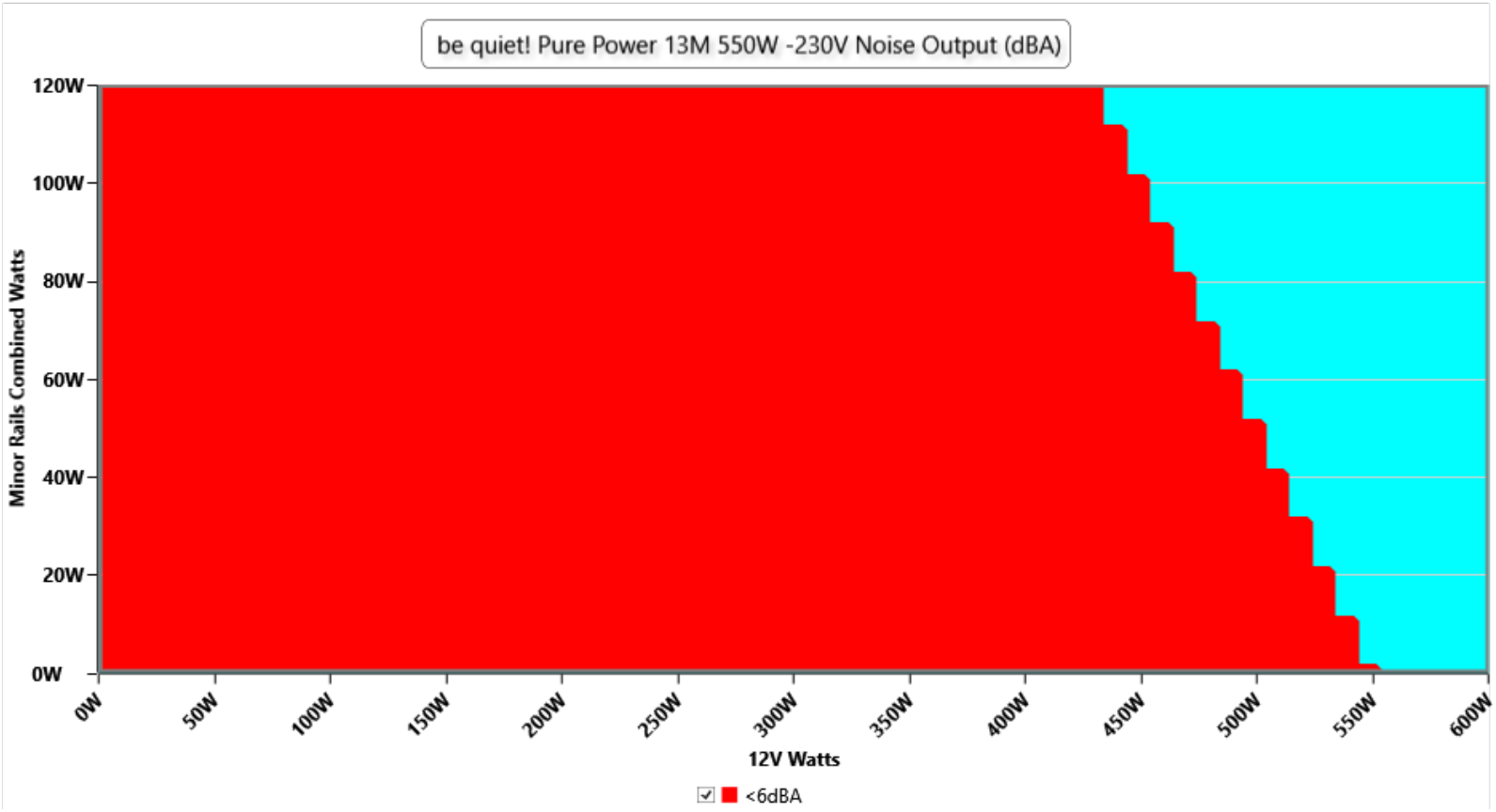
115V



INFO

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

230V



INFO

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

Noise under high ambient temperature (indicative)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 33.5 °C	0 RPM · <6.0 dB(A) · 44.3 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 31.3 °C	0 RPM · <6.0 dB(A) · 46.3 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 31.4 °C	609 RPM · <6.0 dB(A) · 42.4 °C	<6.0 in both
100%	575 RPM · <6.0 dB(A) · 30.9 °C	687 RPM · 8.7 dB(A) · 45.5 °C	<6.0 → 8.7 dB(A)

230V

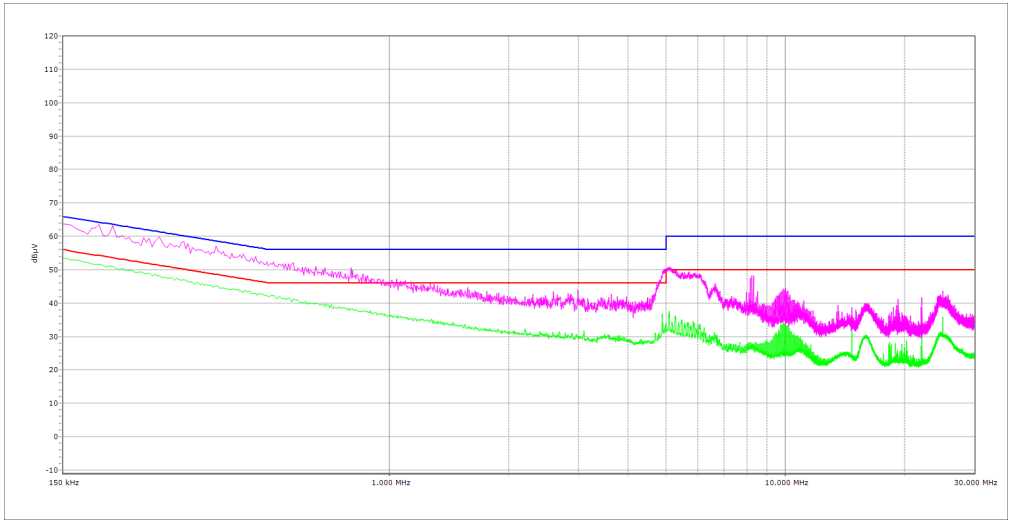
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 31.7 °C	0 RPM · <6.0 dB(A) · 45.7 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 31.7 °C	0 RPM · <6.0 dB(A) · 46.9 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 31.9 °C	615 RPM · <6.0 dB(A) · 42.2 °C	<6.0 in both
100%	585 RPM · <6.0 dB(A) · 30.9 °C	662 RPM · 7.6 dB(A) · 45.5 °C	<6.0 → 7.6 dB(A)

INFO

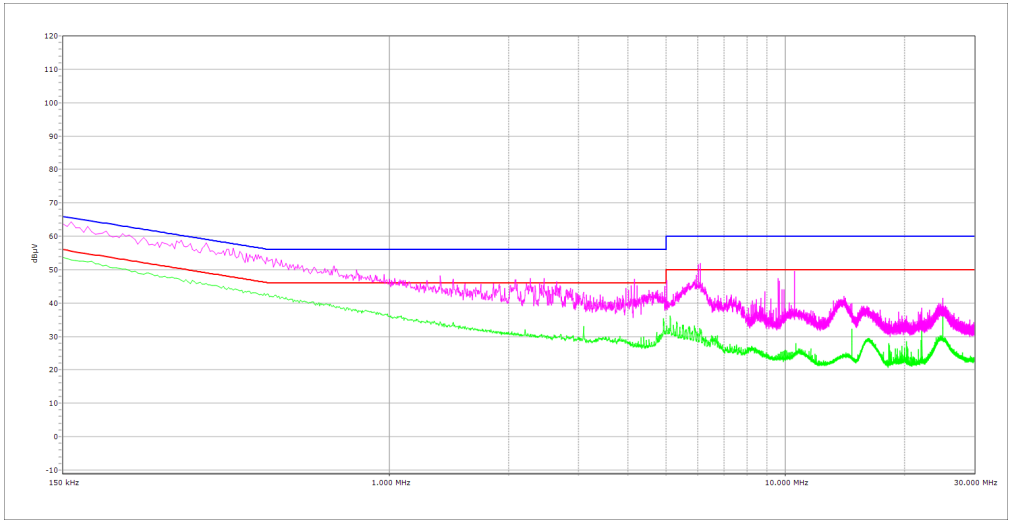
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



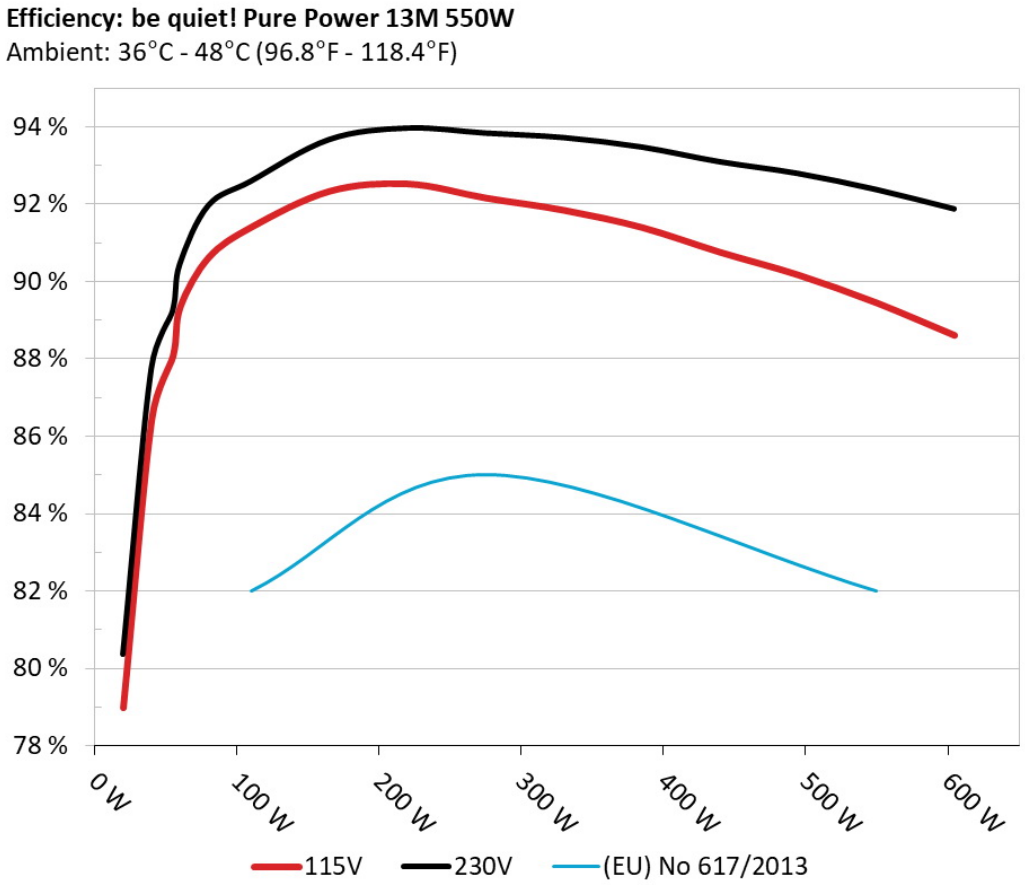
NEUTRAL



PHASE

Indicative Performance

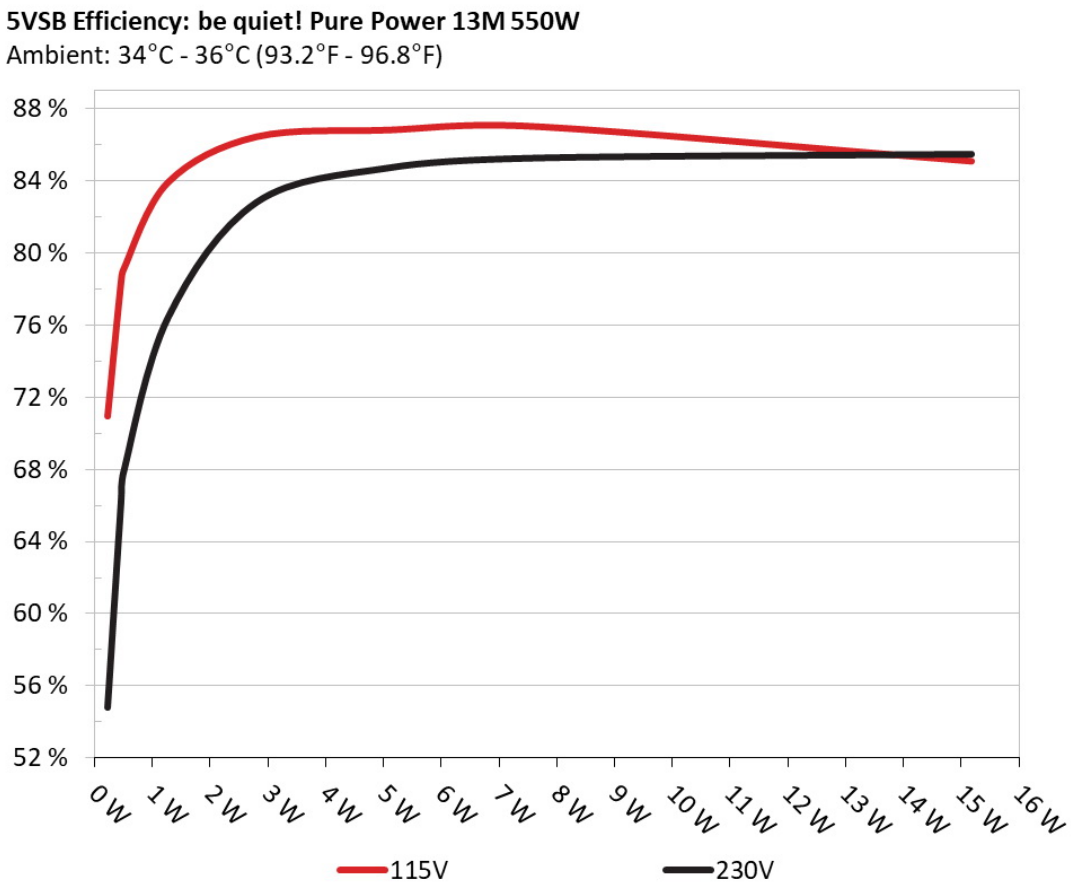
Efficiency under high ambient temperature



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	70.928%	0.037
	5.111V	0.324W		114.94V
2	**0.09A**	0.46W	78.332%	0.065
	5.11V	0.587W		114.95V
3	**0.55A**	2.806W	86.466%	0.278
	5.102V	3.245W		114.93V
4	**1A**	5.094W	86.837%	0.379
	5.094V	5.866W		114.92V
5	**1.5A**	7.628W	87.036%	0.42
	5.085V	8.764W		114.92V
6	**3A**	15.173W	85.11%	0.49
	5.058V	17.828W		114.91V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.23W	54.793%	0.01
	5.11V	0.342W		242.26V
2	**0.09A**	0.46W	66.091%	0.022
	5.11V	0.667W		229.8V
3	**0.55A**	2.806W	82.814%	0.108
	5.102V	3.389W		229.89V
4	**1A**	5.094W	84.726%	0.178
	5.094V	6.013W		229.89V
5	**1.5A**	7.628W	85.267%	0.24
	5.085V	8.947W		229.89V
6	**3A**	15.173W	85.482%	0.33
	5.058V	17.75W		229.89V

Protection Features

OCP (Normal @ 28.6°C)	12V: 58.3A (127.29%), 12.078V 5V: 29.4A (147%), 5.022V 3.3V: 29.2A (146%), 3.295V 5VSB: 4.3A (143.33%), 5.029V
OCP (Hot @ 41.3°C)	12V: 54A (117.9%), 12.09V 5V: 28A (140%), 5.022V 3.3V: 29.3A (146.5%), 3.293V 5VSB: 4.3A (143.33%), 5.027V
OPP (Normal @ 28.7°C)	692.59W (125.93%)
OPP (Hot @ 40.9°C)	683.02W (124.18%)
OTP	✓ (151°C @ Heat Sink)
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%	**2.753A**	**1.977A**	**1.977A**	**0.983A**	55.009	88.069%	0	<6.0	44.31°C	0.956
	12.135V	5.058V	3.339V	5.087V	62.463				40.13°C	114.89V
20%	**6.518A**	**2.969A**	**2.97A**	**1.182A**	109.959	91.399%	0	<6.0	46.33°C	0.976
	12.129V	5.053V	3.334V	5.078V	120.306				40.51°C	114.88V
30%	**10.632A**	**3.466A**	**3.469A**	**1.381A**	164.96	92.331%	0	<6.0	47.18°C	0.98
	12.124V	5.05V	3.33V	5.07V	178.661				41.12°C	114.86V
40%	**14.758A**	**3.964A**	**3.969A**	**1.581A**	220.05	92.521%	0	<6.0	50.83°C	0.986
	12.119V	5.046V	3.326V	5.062V	237.84				41.96°C	114.84V
50%	**18.540A**	**4.961A**	**4.971A**	**1.782A**	275.051	92.156%	609	<6.0	42.42°C	0.989
	12.112V	5.04V	3.32V	5.052V	298.463				50.37°C	114.82V
60%	**22.328A**	**5.961A**	**5.975A**	**1.983A**	330.053	91.839%	612	<6.0	42.73°C	0.992
	12.103V	5.034V	3.314V	5.044V	359.378				51.13°C	114.8V
70%	**26.117A**	**6.962A**	**6.983A**	**2.185A**	385.061	91.394%	614	<6.0	43.01°C	0.993
	12.097V	5.029V	3.309V	5.035V	421.319				54.12°C	114.78V
80%	**29.913A**	**7.961A**	**7.992A**	**2.288A**	439.625	90.756%	618	<6.0	43.68°C	0.995
	12.092V	5.024V	3.304V	5.027V	484.403				56.85°C	114.76V
90%	**34.098A**	**8.464A**	**8.487A**	**2.391A**	494.652	90.168%	621	6.3	44.44°C	0.995
	12.087V	5.021V	3.3V	5.02V	548.593				59.62°C	114.74V
100%	**38.089A**	**8.969A**	**9.014A**	**2.998A**	549.854	89.446%	687	8.7	45.48°C	0.996
	12.081V	5.017V	3.295V	5.004V	614.733				61.94°C	114.72V
110%	**41.950A**	**9.976A**	**10.123A**	**3.002A**	604.852	88.603%	907	18.5	48.09°C	0.997
	12.075V	5.011V	3.29V	4.998V	682.653				63.65°C	114.7V
CL1	**0.114A**	**14.363A**	**14.44A**	**0A**	121.285	86.362%	625	7.3	41.62°C	0.977
	12.127V	5.026V	3.304V	5.088V	140.44				51.06°C	114.86V

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**	**19.84A**	**0A**	**0A**	101.349	85.036%	622	6.5	41.67°C	0.976
	12.134V	5.038V	3.326V	5.094V	119.185				49.74°C	114.87V
CL3	**0.114A**	**0A**	**19.929A**	**0A**	67.396	80.6%	619	<6.0	41.78°C	0.971
	12.134V	5.046V	3.312V	5.095V	83.619				47.59°C	114.88V
CL4	**45.468A**	**0A**	**0A**	**0A**	549.567	90.497%	623	6.7	45.78°C	0.996
	12.087V	5.043V	3.323V	5.066V	607.276				58.73°C	114.71V

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%	**2.753A**	**1.977A**	**1.977A**	**0.983A**	55.01	89.236%	0	<6.0	45.67°C	0.808
	12.135V	5.059V	3.339V	5.087V	61.646				40.13°C	229.88V
20%	**6.518A**	**2.969A**	**2.97A**	**1.182A**	109.959	92.587%	0	<6.0	46.87°C	0.916
	12.130V	5.054V	3.334V	5.078V	118.762				40.89°C	229.87V
30%	**10.630A**	**3.465A**	**3.469A**	**1.381A**	164.946	93.663%	0	<6.0	49.12°C	0.947
	12.125V	5.05V	3.33V	5.07V	176.107				41.22°C	229.86V
40%	**14.754A**	**3.963A**	**3.968A**	**1.581A**	220.019	93.96%	612	<6.0	41.88°C	0.962
	12.120V	5.047V	3.326V	5.061V	234.163				44.54°C	229.85V
50%	**18.538A**	**4.961A**	**4.97A**	**1.781A**	275.011	93.83%	615	<6.0	42.21°C	0.971
	12.110V	5.039V	3.32V	5.053V	293.096				45.36°C	229.84V
60%	**22.323A**	**5.96A**	**5.974A**	**1.983A**	330.006	93.713%	616	<6.0	42.66°C	0.976
	12.104V	5.034V	3.315V	5.044V	352.145				46.58°C	229.83V
70%	**26.110A**	**6.96A**	**6.981A**	**2.185A**	385.004	93.469%	618	<6.0	43.12°C	0.979
	12.098V	5.029V	3.309V	5.035V	411.906				48.52°C	229.82V
80%	**29.901A**	**7.959A**	**7.99A**	**2.287A**	439.474	93.092%	620	6.1	43.96°C	0.982
	12.093V	5.025V	3.304V	5.028V	472.09				49.82°C	229.81V
90%	**34.086A**	**8.462A**	**8.484A**	**2.39A**	494.489	92.789%	622	6.5	44.7°C	0.985
	12.087V	5.021V	3.3V	5.021V	532.918				51.57°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%	**38.075A**	**8.967A**	**9.01A**	**2.997A**	549.685	92.373%	662	7.6	45.46°C	0.986
	12.081V	5.018V	3.296V	5.005V	595.068				53.5°C	229.79V
110%	**41.933A**	**9.973A**	**10.119A**	**3A**	604.679	91.871%	876	17	46.38°C	0.988
	12.076V	5.012V	3.291V	4.999V	658.184				54.87°C	229.78V
CL1	**0.114A**	**14.359A**	**14.435A**	**0A**	121.283	87.471%	624	6.9	41.08°C	0.931
	12.127V	5.027V	3.305V	5.088V	138.655				47.8°C	229.86V
CL2	**0.114A**	**19.839A**	**0A**	**0A**	101.351	86.123%	622	6.5	41.73°C	0.915
	12.133V	5.039V	3.327V	5.094V	117.681				46.83°C	229.87V
CL3	**0.114A**	**0A**	**19.926A**	**0A**	67.393	81.68%	620	6.1	41.32°C	0.866
	12.134V	5.047V	3.313V	5.095V	82.509				45.31°C	229.87V
CL4	**45.466A**	**0A**	**0A**	**0A**	549.534	93.229%	625	7.3	45.26°C	0.986
	12.087V	5.043V	3.323V	5.066V	589.442				51.92°C	229.79V

The results above are not used in the certification process

Light Load Tests

115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	**1.224A**	**0.494A**	**0.493A**	**0.196A**	20.002	78.967%	0	<6.0	41.6°C	0.883
	12.135V	5.062V	3.344V	5.106V	25.329				36.21°C	114.92V
40W	**2.694A**	**0.692A**	**0.691A**	**0.294A**	40.003	86.438%	0	<6.0	40.62°C	0.942
	12.134V	5.061V	3.343V	5.102V	46.281				37.39°C	114.91V
60W	**4.165A**	**0.889A**	**0.889A**	**0.392A**	60.003	89.334%	0	<6.0	41.73°C	0.957
	12.133V	5.06V	3.342V	5.099V	67.167				38.98°C	114.9V
80W	**5.632A**	**1.087A**	**1.087A**	**0.491A**	79.959	90.612%	0	<6.0	44.81°C	0.973
	12.132V	5.059V	3.34V	5.095V	88.243				39.06°C	114.9V

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	**1.224A**	**0.494A**	**0.493A**	**0.196A**	20.004	80.36%	0	<6.0	39.89°C	0.576
	12.135V	5.062V	3.344V	5.105V	24.894				36.79°C	229.91V
40W	**2.694A**	**0.692A**	**0.691A**	**0.294A**	40.005	87.753%	0	<6.0	40.95°C	0.729
	12.134V	5.061V	3.343V	5.102V	45.589				37.52°C	229.89V
60W	**4.166A**	**0.889A**	**0.889A**	**0.392A**	60.004	90.444%	0	<6.0	42.23°C	0.824
	12.133V	5.06V	3.342V	5.098V	66.346				38.17°C	229.88V
80W	**5.632A**	**1.087A**	**1.087A**	**0.491A**	79.96	91.956%	0	<6.0	43.71°C	0.873
	12.131V	5.059V	3.34V	5.095V	86.955				39.35°C	229.88V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	28.34mV	15.99mV	17.65mV	16.42mV	Pass
20% Load	27.06mV	17.07mV	17.03mV	17.04mV	Pass
30% Load	23.99mV	16.14mV	17.65mV	17.55mV	Pass
40% Load	24.10mV	15.84mV	17.04mV	16.52mV	Pass
50% Load	25.32mV	15.79mV	17.24mV	16.47mV	Pass
60% Load	25.32mV	15.94mV	16.68mV	16.98mV	Pass
70% Load	25.73mV	15.89mV	17.08mV	18.41mV	Pass
80% Load	27.06mV	15.89mV	18.01mV	18.47mV	Pass
90% Load	27.37mV	16.09mV	17.85mV	19.69mV	Pass
100% Load	25.54mV	14.90mV	16.33mV	19.20mV	Pass
110% Load	27.88mV	15.13mV	16.40mV	19.29mV	Pass
Crossload1	26.17mV	17.43mV	16.59mV	16.98mV	Pass
Crossload2	27.22mV	17.73mV	16.78mV	18.62mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	27.78mV	15.84mV	18.26mV	18.67mV	Pass
Crossload4	25.72mV	16.19mV	17.06mV	18.11mV	Pass

The results above are not used in the certification process

230V

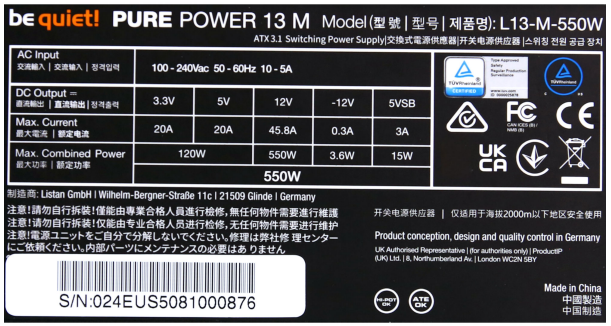
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	29.78mV	16.40mV	16.93mV	15.19mV	Pass
20% Load	27.63mV	15.43mV	17.03mV	16.52mV	Pass
30% Load	25.73mV	16.30mV	17.39mV	17.34mV	Pass
40% Load	23.94mV	15.22mV	16.42mV	17.29mV	Pass
50% Load	24.61mV	16.40mV	17.34mV	16.47mV	Pass
60% Load	25.73mV	15.63mV	16.37mV	16.83mV	Pass
70% Load	25.68mV	15.28mV	16.47mV	18.41mV	Pass
80% Load	26.76mV	16.14mV	18.21mV	17.60mV	Pass
90% Load	28.14mV	15.84mV	17.19mV	18.52mV	Pass
100% Load	26.53mV	14.78mV	15.76mV	18.79mV	Pass
110% Load	27.20mV	16.39mV	18.04mV	20.85mV	Pass
Crossload1	24.16mV	14.78mV	17.09mV	16.12mV	Pass
Crossload2	27.06mV	19.16mV	16.93mV	17.85mV	Pass
Crossload3	29.22mV	15.53mV	17.29mV	18.16mV	Pass
Crossload4	27.86mV	16.08mV	16.96mV	16.89mV	Pass

The results above are not used in the certification process

be quiet! Pure Power 13 M 550W



Top side



Power specifications label

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