Enermax Revolution D.F.X 1650W

Serial Number 23C2050030090

Lab ID EM16502407

Certification ID 252407

Test Result Report ID: 24PS2407A

Certificate Issue Date: Apr 9, 2024

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	Enermax
Model	Revolution D.F.X 1650W
OEM/ODM	SANR
Serial Number	23C2050030090
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	115-240

Rated Current (Arms)	15-8
Rated Frequency (Hz)	50-60
Rated Power (W)	1650
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	135mm Double Ball Bearing Fan (PFERT-14H)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	EM16502407
Date of receipt	Mar 19, 2024
Testing Date	Apr 6, 2024
Report Issued Date	Apr 9, 2024
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 (650mm)	1	1	16-18AWG	No
4+4 pin EPS12V (600mm)	1	1	16AWG	No
4+4 pin EPS12V (700mm)	1	1	16AWG	No
6+2 pin PCIe (550mm)	1	1	18AWG	No

6+2 pin PCIe (650mm+150mm)	3	6	16-18AWG	No
12+4 pin PCIe (650mm) (600W)	2	2	16-26AWG	No
12+2 pin PCIe (600mm) (600W)	1	1	16-26AWG	No
SATA (450mm+150mm+150mm+150mm)	3	12	18AWG	No
4-pin Molex (500mm+150mm+150mm)	2	6	18AWG	No
SATA (450mm+150mm) / 4-pin Molex (+150mm)	1	2 / 1	18AWG	No
FDD Adapter (+110mm)	1	1	20AWG	No
RGB Cable (660mm+90mm)	1	2	26AWG	No
AC Power Cord (1080mm) - C19 coupler	1	1	16AWG	-

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	137.5	3	0.3
	Watts	150		1650	15	3.6
Total Max. Power (W)		1650				

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)	90.038%

Average Noise Output (>1450 Load Combinations)	31.94dBA
Average PF (>1450 Load Combinations)	0.994
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.051%
Standby Power Consumption	0.0605W
Non-Accredited	
12V Ripple (Full Load)	44.30mV
5V Ripple (Full Load)	34.22mV
3.3V Ripple (Full Load)	32.49mV
5VSB Ripple (Full Load)	19.46mV
12V Load Regulation	0.19%
5V Load Regulation	0.39%
3.3V Load Regulation	0.67%
5VSB Load Regulation	1.76%
Inrush Current	31.600A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.259%
Average Noise Output (>1450 Load Combinations)	32.07dBA
Average PF (>1450 Load Combinations)	0.962
Efficiency With 10W (≤500W) or 2% (>500W) Load	70.753%
Standby Power Consumption	0.1439W
Non-Accredited	
12V Ripple (Full Load)	44.59mV
5V Ripple (Full Load)	37.45mV
3.3V Ripple (Full Load)	34.15mV
5VSB Ripple (Full Load)	19.02mV
12V Load Regulation	0.17%
5V Load Regulation	0.39%
3.3V Load Regulation	0.67%
5VSB Load Regulation	1.71%
Inrush Current	51.120A

12V Transient Response (200%)		11.14V
5V Transient Response (200%)		4.963V
3.3V Transient Response (200%)		3.162V
5VSB Transient Response (200%)		4.819V
Hold-Up Time & PWR_OK Signal		23.20ms
AC Loss to PWR_OK Hold Up Time		19.50ms
PWR_OK Inactive to DC Loss Delay		3.70ms
PSU Timings: T1 (20% / 100%)	130.0ms	124.0ms
PSU Timings: T3 (20% / 100%)	114.0ms	114.0ms
OPP (28.10°C / 43.86°C)	116.90%	111.80%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	23.2
AC Loss to PWR_OK Hold Up Time (ms)	19.5
PWR_OK Inactive to DC Loss Delay (ms)	3.7

Stromverbrauch im Ruhezustand

Tables

115V

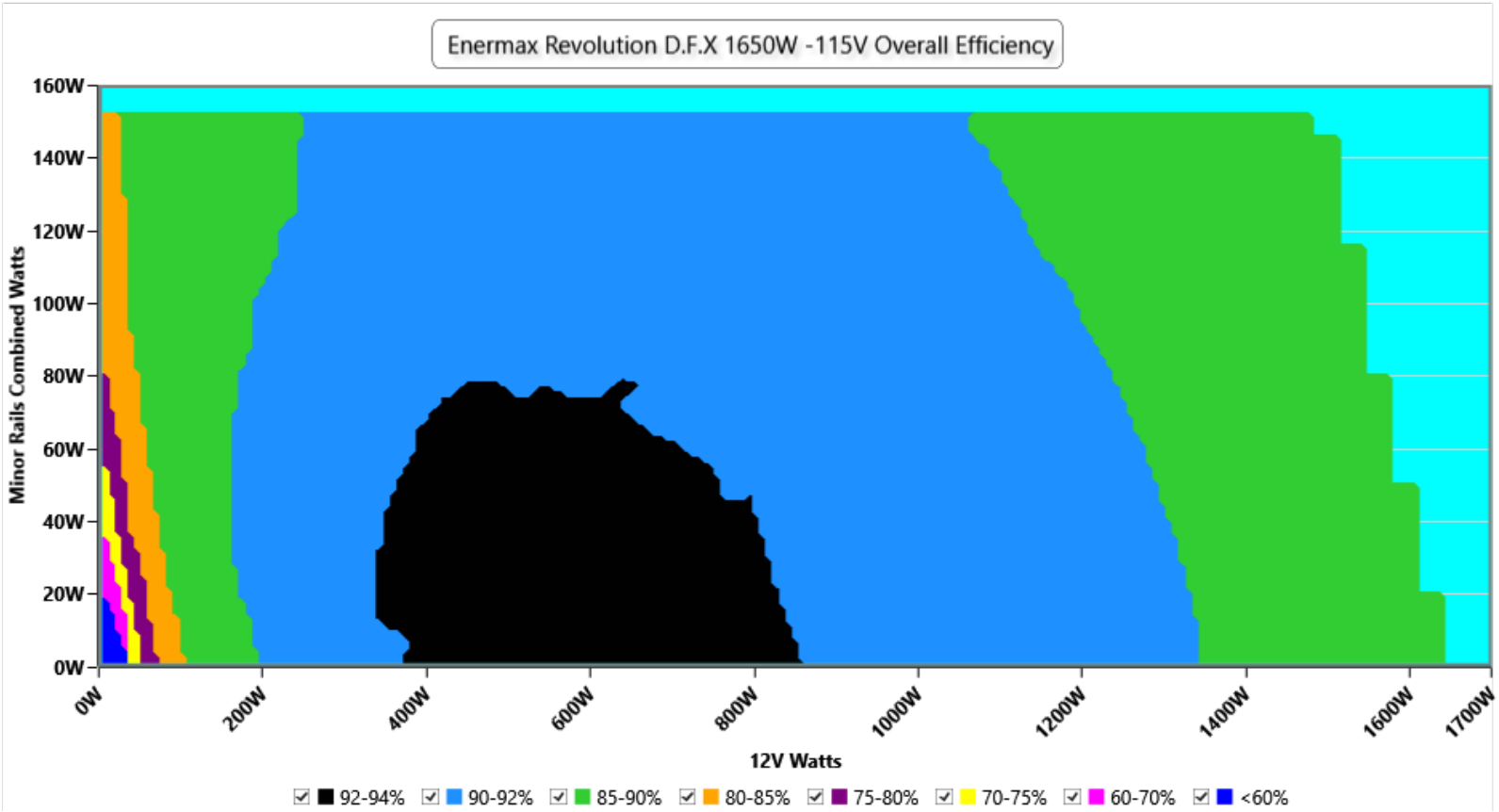
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.85 V	114.77 V	113.85 V	114.94 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.96 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.422	1.420	1.340	1.424	1.490	PASS
Mains Voltage THD:	0.15 %	0.10 %	N/A	0.27 %	2.00 %	PASS
Real Power:	0.061 W	0.051 W	N/A	0.069 W	N/A	N/A
Apparent Power:	10.554 W	10.535 W	N/A	10.576 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.84 V	229.74 V	227.70 V	229.96 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	1.417	1.340	1.420	1.490	PASS
Mains Voltage THD:	0.14 %	0.10 %	N/A	0.26 %	2.00 %	PASS
Real Power:	0.144 W	0.117 W	N/A	0.182 W	N/A	N/A
Apparent Power:	35.707 W	35.677 W	N/A	35.736 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

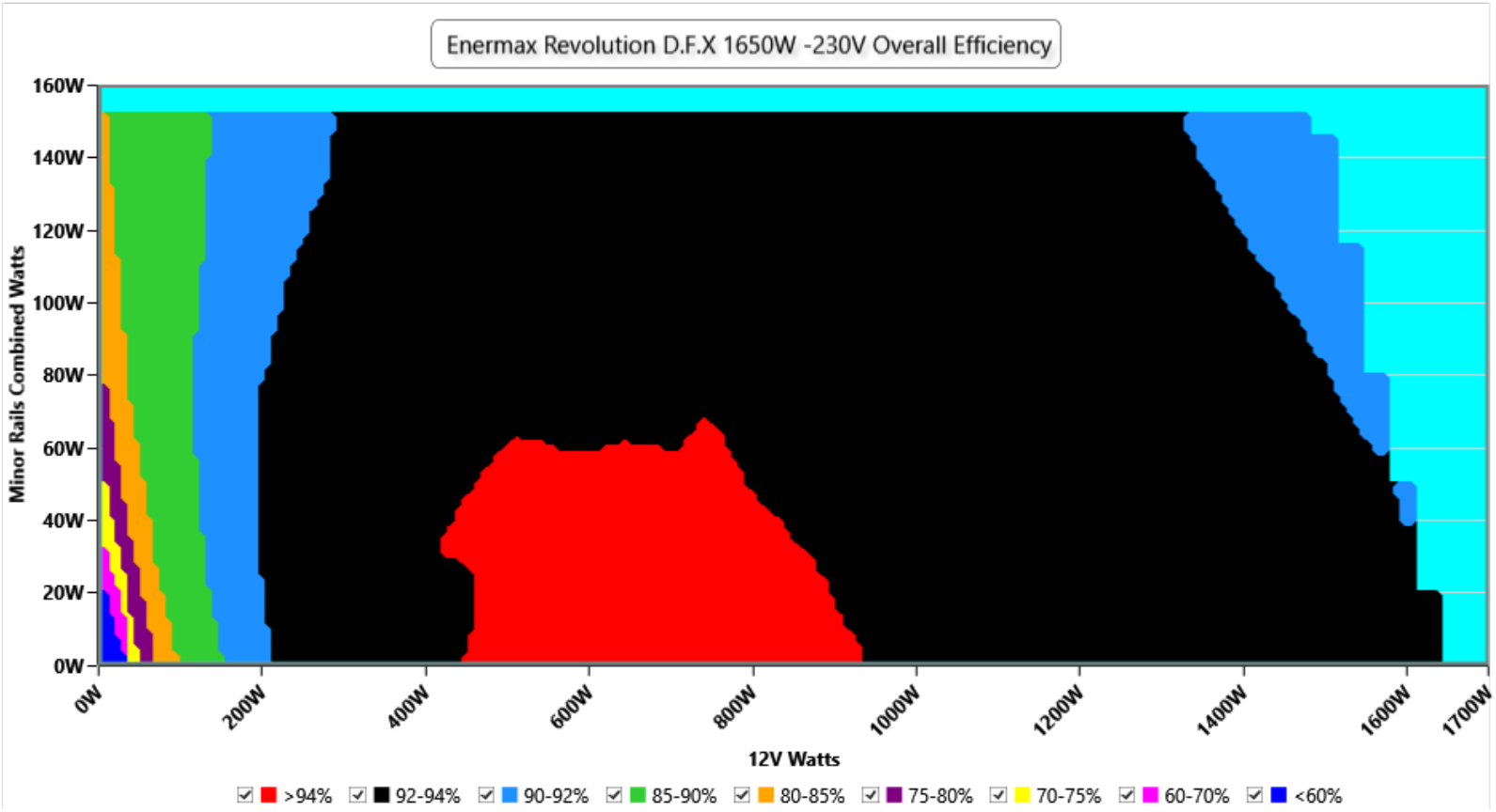
115V



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



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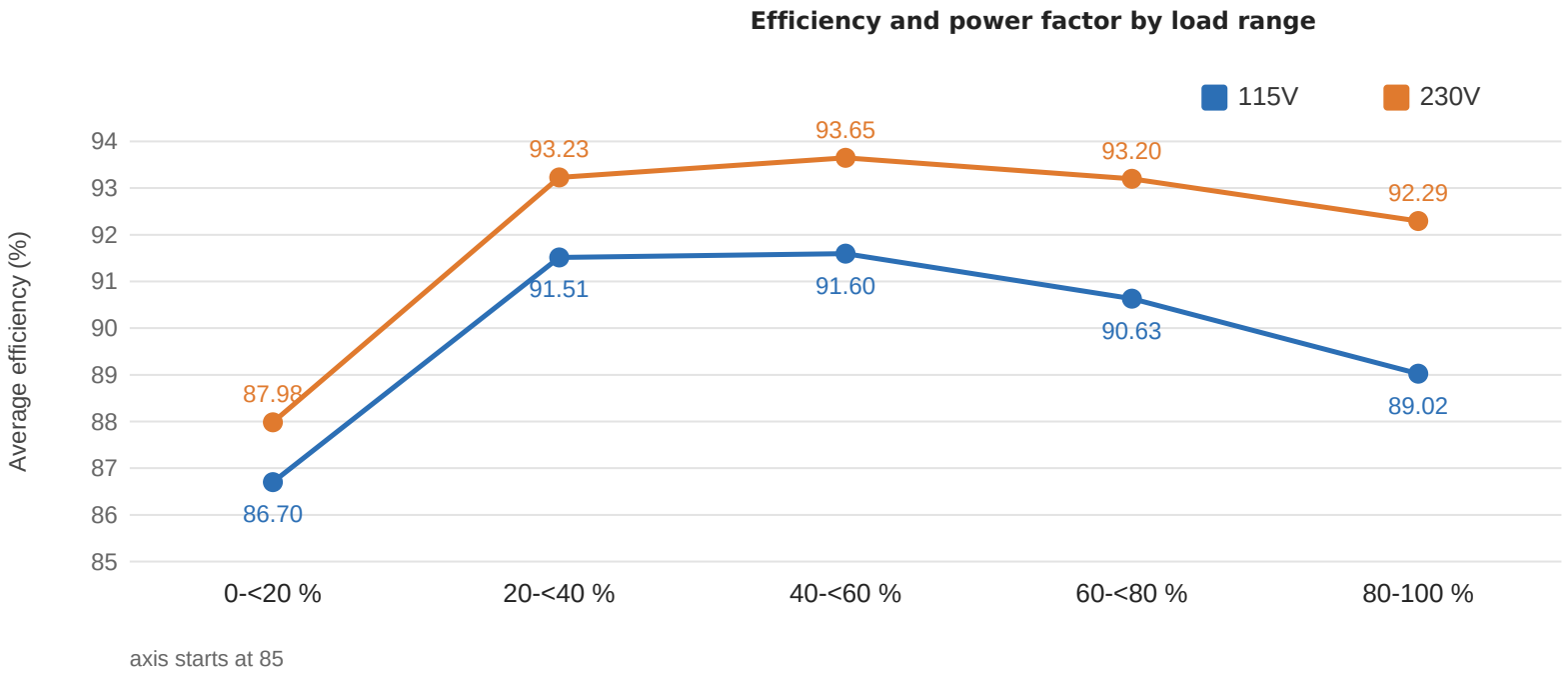
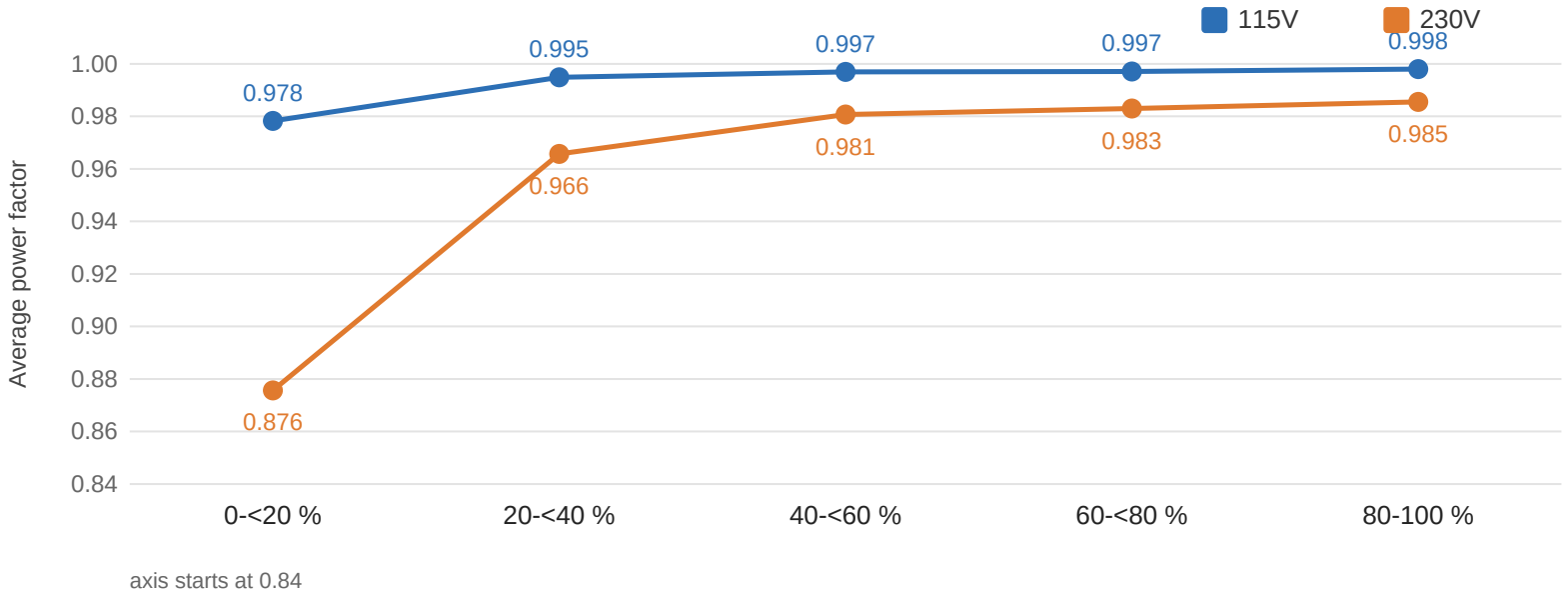


axis starts at 85



axis starts at 0.84

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	249 / 249	86.70%	87.98%	0.978	0.876
20-<40 %	320 / 320	91.51%	93.23%	0.995	0.966
40-<60 %	319 / 319	91.60%	93.65%	0.997	0.981
60-<80 %	320 / 320	90.63%	93.20%	0.997	0.983
80-100 %	324 / 324	89.02%	92.29%	0.998	0.985
70-100 % (High-Load)	485 / 485	89.46%	92.54%	0.998	0.985
All (published average)	1532 / 1532	90.04%	92.26%	0.994	0.962

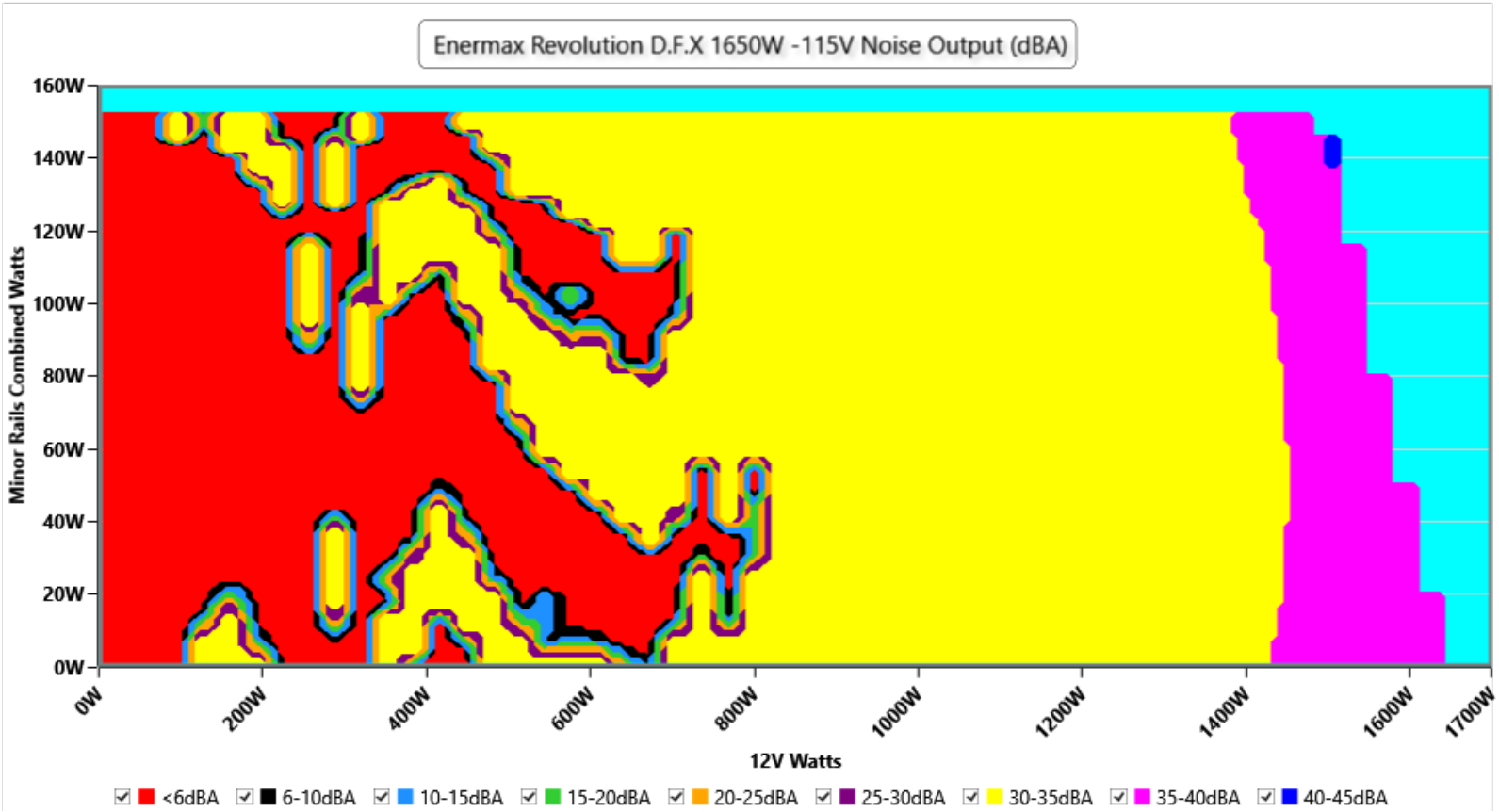
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1532 (115V) and 1532 (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 1650 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

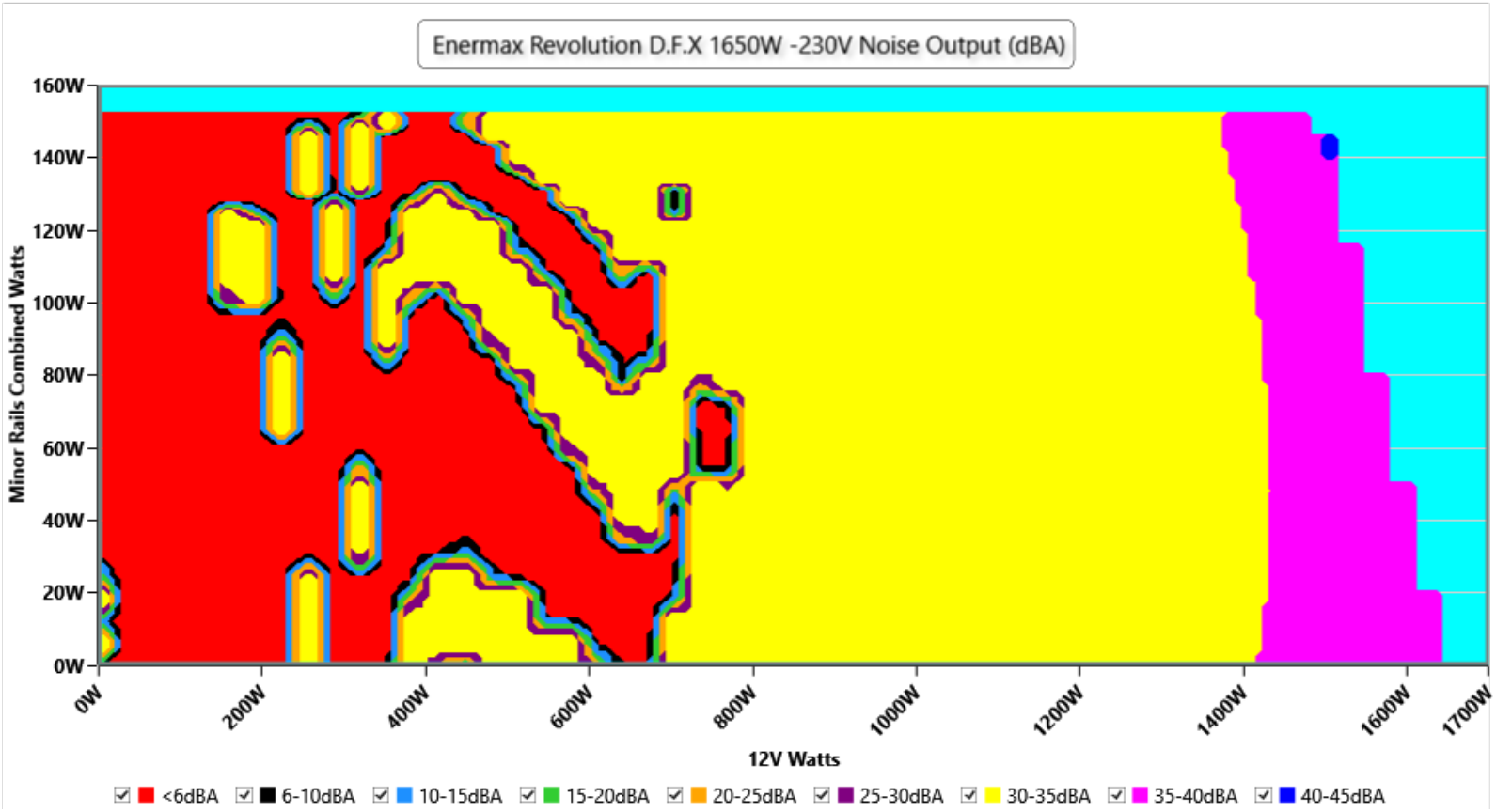
115V



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

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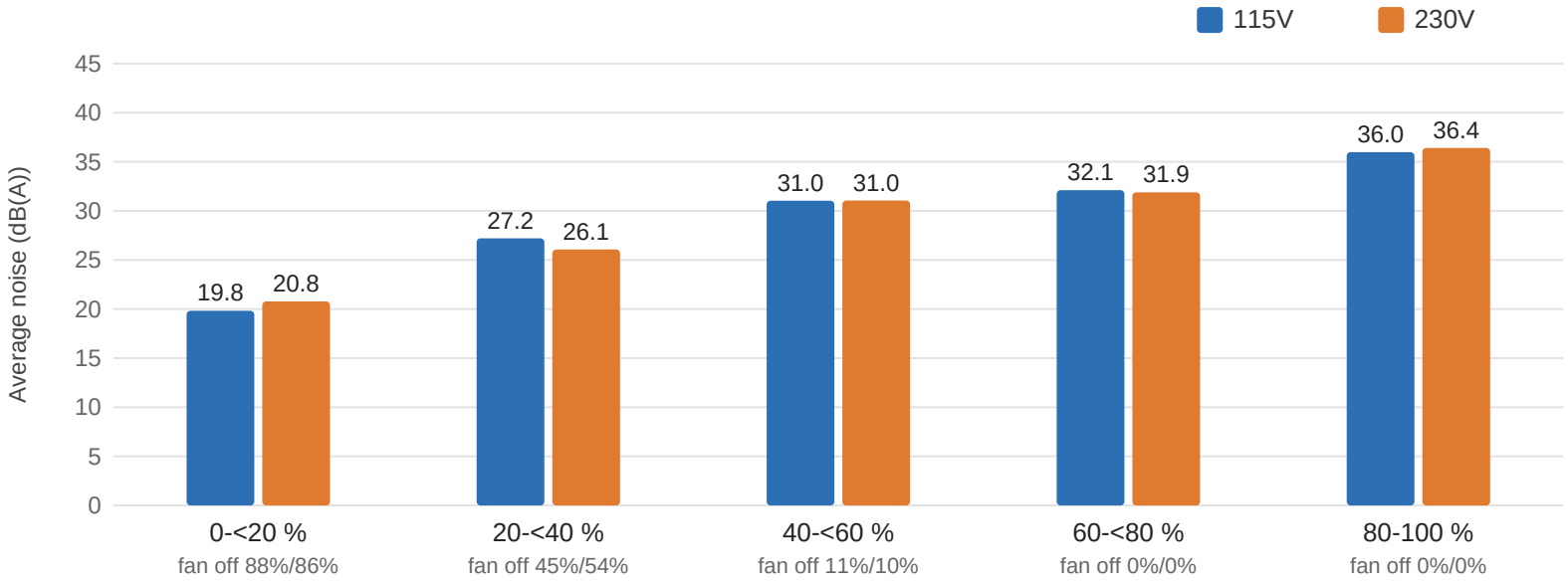
Noise by load range

High-Load Index (70-100 % load)

Noise **35.0 dB(A)** at 115V and **35.4 dB(A)** at 230V · loudest point 40.1 dB(A)

Efficiency 89.46% / 92.54% · power factor 0.998 / 0.985 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	19.8 (32.5)	20.8 (32.5)	88% / 86%
20-<40 %	27.2 (32.5)	26.1 (32.5)	45% / 54%
40-<60 %	31.0 (32.5)	31.0 (32.5)	11% / 10%
60-<80 %	32.1 (32.5)	31.9 (32.5)	0% / 0%
80-100 %	36.0 (40.1)	36.4 (40.1)	0% / 0%
70-100 % (High-Load)	35.0 (40.1)	35.4 (40.1)	0% / 0%
All (published average)	32.0 (40.1)	32.1 (40.1)	26% / 27%

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 1532 (115V) and 1532 (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 1650 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) · 44.4 °C	0 RPM · <6.0 dB(A) · 44.4 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.2 °C	0 RPM · <6.0 dB(A) · 45.2 °C	fan off in both
50%	1227 RPM · 32.0 dB(A) · 42.1 °C	1227 RPM · 32.0 dB(A) · 42.1 °C	**+0.0 dB(A)**
100%	2103 RPM · 47.4 dB(A) · 45.9 °C	2103 RPM · 47.4 dB(A) · 45.9 °C	**+0.0 dB(A)**

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 44.6 °C	0 RPM · <6.0 dB(A) · 44.6 °C	fan off in both
20%	1222 RPM · 31.9 dB(A) · 40.8 °C	1222 RPM · 31.9 dB(A) · 40.8 °C	**+0.0 dB(A)**
50%	1229 RPM · 32.1 dB(A) · 42.2 °C	1229 RPM · 32.1 dB(A) · 42.2 °C	**+0.0 dB(A)**
100%	2079 RPM · 47.3 dB(A) · 45.6 °C	2079 RPM · 47.3 dB(A) · 45.6 °C	**+0.0 dB(A)**

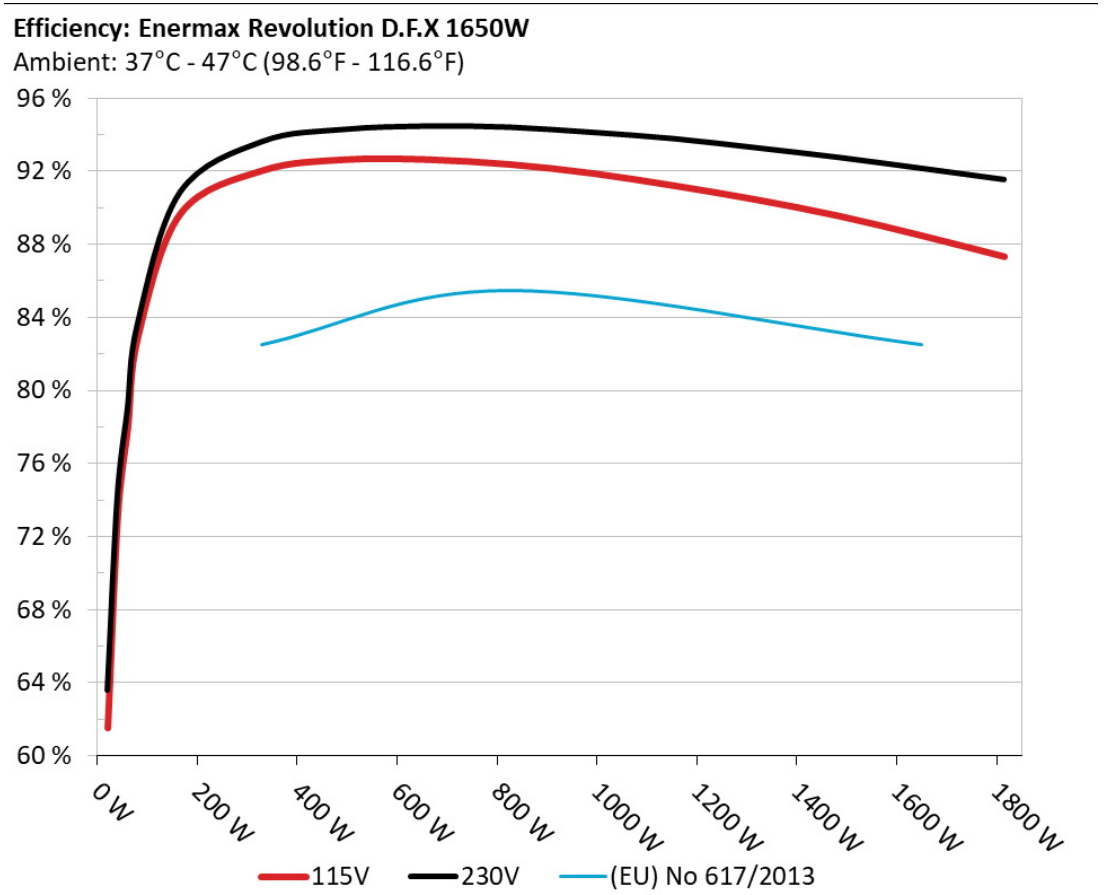
INFO

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

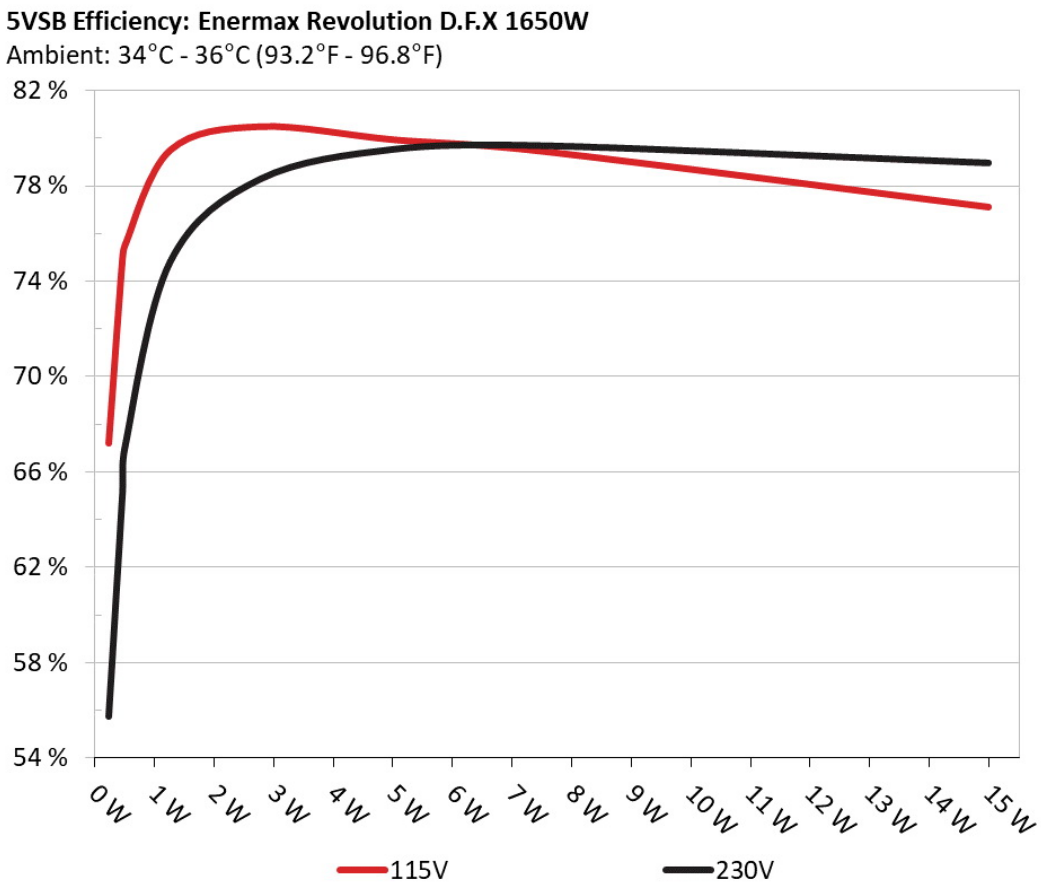
Efficiency under high ambient temperature



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	0.227W	67.215%	0.032
	5.044V	0.338W		114.86V
2	0.09A	0.454W	74.824%	0.057
	5.043V	0.607W		114.86V
3	0.55A	2.77W	80.468%	0.269
	5.036V	3.442W		114.85V
4	1A	5.029W	79.912%	0.39
	5.029V	6.293W		114.84V
5	1.5A	7.532W	79.426%	0.463
	5.021V	9.482W		114.84V
6	3A	14.99W	77.101%	0.536
	4.996V	19.442W		114.84V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.227W	55.74%	0.01
	5.045V	0.408W		229.85V
2	0.09A	0.454W	64.947%	0.017
	5.044V	0.699W		229.84V
3	0.55A	2.77W	78.27%	0.083
	5.036V	3.539W		229.85V
4	1A	5.029W	79.524%	0.143
	5.029V	6.324W		229.84V
5	1.5A	7.532W	79.666%	0.202
	5.021V	9.454W		229.85V
6	3A	14.992W	78.948%	0.329
	4.997V	18.99W		229.84V

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%	11.995A	1.967A	2.002A	0.995A	164.963	89.163%	0	<6.0	44.36°C	0.987
	11.952V	5.083V	3.297V	5.027V	185.013				40.12°C	114.79V
20%	25.036A	2.953A	3.005A	1.195A	329.976	91.547%	0	<6.0	45.21°C	0.99
	11.946V	5.08V	3.295V	5.02V	360.444				40.7°C	114.73V
30%	38.398A	3.447A	3.508A	1.397A	494.416	92.141%	1222	31.9	41.08°C	0.996
	11.937V	5.077V	3.293V	5.013V	536.587				46.12°C	114.68V
40%	51.842A	3.941A	4.011A	1.598A	659.622	92.144%	1224	31.9	41.54°C	0.996
	11.929V	5.076V	3.291V	5.006V	715.86				47.05°C	114.62V
50%	64.905A	4.927A	5.016A	1.801A	824.972	91.881%	1227	32.0	42.12°C	0.997
	11.932V	5.074V	3.29V	4.999V	897.871				48.19°C	114.57V
60%	77.898A	5.914A	6.023A	2A	989.46	91.392%	1232	32.2	42.7°C	0.997
	11.935V	5.073V	3.288V	4.991V	1082.66				49.22°C	114.5V
70%	91.010A	6.901A	7.031A	2.208A	1154.822	90.71%	1235	32.2	43.14°C	0.997
	11.929V	5.072V	3.286V	4.984V	1273.106				50.24°C	114.44V
80%	104.022A	7.887A	8.038A	2.311A	1319.627	89.94%	1494	39.4	43.9°C	0.998
	11.937V	5.071V	3.284V	4.978V	1467.236				51.97°C	114.38V
90%	117.503A	8.382A	8.528A	2.414A	1485.051	89.045%	1826	43.7	44.24°C	0.998
	11.936V	5.07V	3.283V	4.972V	1667.763				53.34°C	114.31V
100%	130.736A	8.877A	9.05A	3.027A	1649.852	87.977%	2103	47.4	45.89°C	0.998
	11.933V	5.069V	3.282V	4.957V	1875.342				55.95°C	114.24V
110%	143.791A	9.866A	10.152A	3.029A	1814.476	86.834%	2257	49.6	46.76°C	0.996
	11.935V	5.068V	3.28V	4.952V	2089.591				57.68°C	114.16V
CL1	0.118A	17.815A	18.186A	0A	151.31	83.366%	1238	32.3	40.89°C	0.988
	11.949V	5.069V	3.277V	5.047V	181.506				46.42°C	114.78V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	0.117A	24.603A	0A	0A	126.25	82.552%	1245	32.4	40.92°C	0.986
	11.947V	5.075V	3.295V	5.047V	152.934				47.99°C	114.79V
CL3	0.117A	0A	25.149A	0A	83.891	75.243%	1222	31.9	40.82°C	0.97
	11.943V	5.084V	3.28V	5.047V	111.495				49.91°C	114.81V
CL4	138.216A	0A	0A	0.001A	1649.603	88.667%	1923	45.5	45.43°C	0.998
	11.935V	5.088V	3.3V	5.007V	1860.47				56.35°C	114.25V

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%	11.996A	1.967A	2.002A	0.995A	164.966	90.338%	0	<6.0	44.62°C	0.877
	11.952V	5.083V	3.297V	5.027V	182.61				40.33°C	229.82V
20%	25.047A	2.953A	3.005A	1.195A	329.978	93.141%	1222	31.9	40.77°C	0.943
	11.941V	5.079V	3.294V	5.02V	354.28				45.34°C	229.79V
30%	38.401A	3.447A	3.508A	1.397A	494.405	93.805%	1223	31.9	41.23°C	0.967
	11.936V	5.076V	3.292V	5.013V	527.056				46.23°C	229.77V
40%	51.812A	3.941A	4.011A	1.598A	659.599	93.989%	1225	32.0	41.72°C	0.978
	11.935V	5.075V	3.291V	5.006V	701.782				47.24°C	229.74V
50%	64.887A	4.927A	5.016A	1.801A	824.94	93.925%	1229	32.1	42.17°C	0.981
	11.935V	5.074V	3.289V	4.999V	878.298				48.18°C	229.71V
60%	77.891A	5.914A	6.023A	2A	989.429	93.647%	1232	32.2	42.81°C	0.982
	11.935V	5.073V	3.288V	4.991V	1056.555				49.35°C	229.68V
70%	90.955A	6.901A	7.03A	2.207A	1154.781	93.295%	1235	32.2	43.29°C	0.983
	11.936V	5.072V	3.286V	4.984V	1237.768				50.37°C	229.65V
80%	104.021A	7.887A	8.038A	2.31A	1319.604	92.796%	1465	37.9	43.67°C	0.985
	11.937V	5.071V	3.284V	4.978V	1422.042				51.72°C	229.63V
90%	117.497A	8.382A	8.528A	2.414A	1485.021	92.267%	1790	43.1	44.44°C	0.986
	11.937V	5.07V	3.283V	4.972V	1609.484				53.47°C	229.6V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	130.714A	8.876A	9.049A	3.026A	1649.841	91.67%	2079	47.3	45.57°C	0.987
	11.935V	5.069V	3.282V	4.958V	1799.76				55.66°C	229.57V
110%	143.792A	9.865A	10.151A	3.029A	1814.463	91.058%	2253	49.5	46.65°C	0.988
	11.935V	5.068V	3.28V	4.953V	1992.645				57.59°C	229.54V
CL1	0.118A	17.814A	18.185A	0A	151.302	84.533%	1237	32.2	40.2°C	0.876
	11.949V	5.069V	3.277V	5.047V	178.989				45.68°C	229.82V
CL2	0.117A	24.603A	0A	0A	126.246	83.361%	1246	32.4	40.44°C	0.854
	11.946V	5.075V	3.295V	5.047V	151.447				47.54°C	229.83V
CL3	0.116A	0A	25.148A	0A	83.887	76.442%	1222	31.9	40.1°C	0.804
	11.941V	5.084V	3.28V	5.047V	109.739				49.19°C	229.83V
CL4	138.233A	0A	0A	0.001A	1649.583	92.221%	1875	44.7	45.59°C	0.987
	11.933V	5.088V	3.3V	5.007V	1788.739				56.54°C	229.57V

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	1.244A	0.491A	0.499A	0.198A	20	61.04%	0	<6.0	39.65°C	0.834
	11.935V	5.089V	3.304V	5.044V	32.765				36.59°C	114.84V
40W	2.738A	0.688A	0.699A	0.298A	40	72.68%	0	<6.0	40.47°C	0.915
	11.938V	5.088V	3.303V	5.042V	55.037				37.17°C	114.83V
60W	4.232A	0.885A	0.9A	0.397A	60	77.466%	0	<6.0	41.79°C	0.953
	11.940V	5.086V	3.301V	5.04V	77.454				38.04°C	114.83V
80W	5.720A	1.081A	1.1A	0.496A	79.944	82.387%	0	<6.0	43.01°C	0.966
	11.944V	5.085V	3.3V	5.037V	97.035				39.03°C	114.82V

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	1.244A	0.491A	0.499A	0.198A	20	63.062%	0	<6.0	39.64°C	0.444
	11.931V	5.089V	3.304V	5.043V	31.715				36.59°C	229.84V
40W	2.740A	0.688A	0.699A	0.298A	40.001	73.683%	0	<6.0	40.64°C	0.612
	11.935V	5.088V	3.303V	5.041V	54.29				37.4°C	229.84V
60W	4.232A	0.885A	0.9A	0.397A	60.002	78.416%	0	<6.0	41.55°C	0.727
	11.938V	5.086V	3.301V	5.039V	76.518				38.06°C	229.84V
80W	5.720A	1.082A	1.1A	0.496A	79.95	83.082%	0	<6.0	43.06°C	0.775
	11.942V	5.085V	3.3V	5.037V	96.23				39.2°C	229.84V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.55mV	13.75mV	14.06mV	10.06mV	Pass
20% Load	23.68mV	13.39mV	13.70mV	9.70mV	Pass
30% Load	20.76mV	14.01mV	15.08mV	11.80mV	Pass
40% Load	21.33mV	13.96mV	14.78mV	12.11mV	Pass
50% Load	21.33mV	14.78mV	15.34mV	12.78mV	Pass
60% Load	23.07mV	21.14mV	20.78mV	13.55mV	Pass
70% Load	24.55mV	28.95mV	29.34mV	14.26mV	Pass
80% Load	26.04mV	31.36mV	31.19mV	14.67mV	Pass
90% Load	25.06mV	33.36mV	32.78mV	14.78mV	Pass
100% Load	44.30mV	34.22mV	32.49mV	19.46mV	Pass
110% Load	47.79mV	27.03mV	29.79mV	24.80mV	Pass
Crossload1	36.06mV	17.31mV	16.26mV	12.05mV	Pass
Crossload2	21.58mV	22.63mV	14.98mV	11.65mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	18.82mV	13.39mV	16.78mV	11.34mV	Pass
Crossload4	44.08mV	32.33mV	30.73mV	19.07mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	30.33mV	13.14mV	12.67mV	9.13mV	Pass
20% Load	30.64mV	13.29mV	13.65mV	8.93mV	Pass
30% Load	23.02mV	13.80mV	14.42mV	10.11mV	Pass
40% Load	20.31mV	13.24mV	13.70mV	10.62mV	Pass
50% Load	21.33mV	14.98mV	14.37mV	12.16mV	Pass
60% Load	23.53mV	22.53mV	21.34mV	12.42mV	Pass
70% Load	25.57mV	30.18mV	27.96mV	12.88mV	Pass
80% Load	27.42mV	31.77mV	31.81mV	14.11mV	Pass
90% Load	28.29mV	32.90mV	33.25mV	14.93mV	Pass
100% Load	44.59mV	37.45mV	34.15mV	19.02mV	Pass
110% Load	46.55mV	32.85mV	33.77mV	19.02mV	Pass
Crossload1	42.30mV	17.98mV	16.07mV	12.19mV	Pass
Crossload2	28.39mV	22.07mV	15.60mV	11.59mV	Pass
Crossload3	27.27mV	13.86mV	17.55mV	12.47mV	Pass
Crossload4	45.92mV	39.83mV	30.94mV	18.38mV	Pass

The results above are not used in the certification process

Enermax Revolution D.F.X 1650W



Top side



Power specifications label

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CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com