CORSAIR

Corsair CX650 (ATXv3.1)

Serial Number 4655

Lab ID CR65003297

Certification ID 263297

Test Result Report ID: 26PS3297A

Certificate Issue Date: May 28, 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	Corsair
Model	CX650 (ATXv3.1)
OEM/ODM	HEC
Serial Number	4655
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	5-10
Rated Frequency (Hz)	47-63
Rated Power (W)	650
Operating Temperature (Continuous Full Load) (°C)	0 - 40
Type	ATX12V
Cable Design	Fixed cables
Warranty	5 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 125mm
Weight	1.70 kg (3.75 lb)
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225H12F-Z)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	CR65003297
Date of receipt	May 6, 2026
Testing Date	May 25, 2026
Report Issued Date	May 28, 2026
Engineer Name	Ioannis Kalyviotis
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

`Captive Cables`				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	Cable Type
ATX connector 24 pin (610mm)	1	1	16-20AWG	Tinned Copper
8 pin EPS12V (530mm) / 4+4 pin EPS12V (+100mm)	1	1 / 1	18AWG	Tinned Copper
6+2 pin PCIe (520mm+100mm)	1	2	18AWG	Tinned Copper
12+2 pin PCIe (630mm) (450W)	1	1	16-24AWG	Tinned Copper
SATA (400mm+100mm+100mm)	1	3	18AWG	Tinned Copper

Captive Cables				
4-pin Molex (420mm+100mm)	1	2	18AWG	Tinned Copper
Modular Cables				
AC Power Cord (1400mm) - 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	54	3	0.3
	Watts	100		650	15	3.6
Total Max. Power (W)		650				

Parts Description

General Data	
Manufacturer (OEM)	HEC
PCB Type	Double-Sided
Primary Side	
Transient Filter	5x Y caps, X caps (1x 0.68uF X2 legible, others not), 2x CM chokes, 1x MOV (marking not legible)
Inrush Protection	NTC Thermistor 3D-15 (3 Ohm @ 25°C)
Bridge Rectifier(s)	1x MCC GBU10K (800V, 10A @ 100°C)
APFC MOSFETs	2x Pingwei PWE180N65MFS (650V, 13A @ 100°C, Rds(on): 0.18 Ohm)
APFC Boost Diode	1x Hestia Power H3S065A004 (marking partly legible)

Bulk Cap(s)	1x Teapo (400V, 330uF, 2,000h @ 105°C, LG)
Main Switchers	2x CRMicro CS13N50F A9R (500V, 13A @ 25°C, Rds(on): 0.5 Ohm)
PFC/LLC Combo Controller	Monolithic Power Systems HR1280
Topology	Primary side: APFC, Half-Bridge & LLC Resonant converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	4x (marking not legible)
SR Controller	MPS MP6924B
5V & 3.3V	DC-DC Converters: Potens Semiconductor PDC39F2BX, other DC-DC MOSFETs not legible PWM Controller(s): 2x ANPEC APW7164
Filtering Capacitors	Electrolytic: Teapo (1-3,000h @ 105°C, SC), 1x unidentified (marking not legible) Polymer: 5x (FG, maker not printed)
Supervisor IC	IN1T70312-SDG
Fan Model	Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	1x PS1060L SBR (60V, 10A)
Standby PWM Controller	Grenergy GR9877BU

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	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	87.406%
Average Noise Output (>1450 Load Combinations)	36.81dBA
Average PF (>1450 Load Combinations)	0.991
Efficiency With 10W (≤500W) or 2% (>500W) Load	65.018%
Standby Power Consumption	0.0538W
Non-Accredited	
12V Ripple (Full Load)	79.19mV
5V Ripple (Full Load)	23.65mV
3.3V Ripple (Full Load)	31.24mV
5VSB Ripple (Full Load)	18.12mV
12V Load Regulation	0.68%
5V Load Regulation	2.19%
3.3V Load Regulation	2.85%
5VSB Load Regulation	1.00%
Inrush Current	32.950A

230V

Accredited	
Average Efficiency (>1450 load combinations)	89.745%
Average Noise Output (>1450 Load Combinations)	35.89dBA
Average PF (>1450 Load Combinations)	0.955
Efficiency With 10W (≤500W) or 2% (>500W) Load	66.117%
Standby Power Consumption	0.0985W
Non-Accredited	
12V Ripple (Full Load)	94.86mV
5V Ripple (Full Load)	27.10mV
3.3V Ripple (Full Load)	33.30mV

5VSB Ripple (Full Load)		22.45mV
12V Load Regulation		0.65%
5V Load Regulation		2.14%
3.3V Load Regulation		2.79%
5VSB Load Regulation		1.00%
Inrush Current		70.000A
12V Transient Response (200%)		11.33V
5V Transient Response (200%)		4.897V
3.3V Transient Response (200%)		3.214V
5VSB Transient Response (200%)		5.003V
Hold-Up Time & PWR_OK Signal		14.10ms
AC Loss to PWR_OK Hold Up Time		11.70ms
PWR_OK Inactive to DC Loss Delay		2.40ms
PSU Timings: T1 (20% / 100%)	78.0ms	77.0ms
PSU Timings: T3 (20% / 100%)	118.0ms	116.0ms
12V OCP (27.5°C / 42.1°C)	63.60A (117.78%), 11.945V *High Ripple (126.57mV)	59.20A (109.63%), 11.947V
5V OCP (27.5°C / 42.1°C)	25.8A (129.00%), 4.947V	24.6A (123.00%), 4.95V
3.3V OCP (27.5°C / 42.1°C)	27A (135.00%), 3.271V	25.8A (129.00%), 3.279V
5VSB OCP (27.5°C / 42.1°C)	4A (133.33%), 4.995V	4A (133.33%), 4.998V
OPP (27.23°C / 44.74°C)	115.77%	111.16%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	14.1
AC Loss to PWR_OK Hold Up Time (ms)	11.7
PWR_OK Inactive to DC Loss Delay (ms)	2.4

Stromverbrauch im Ruhezustand

Tables

115V

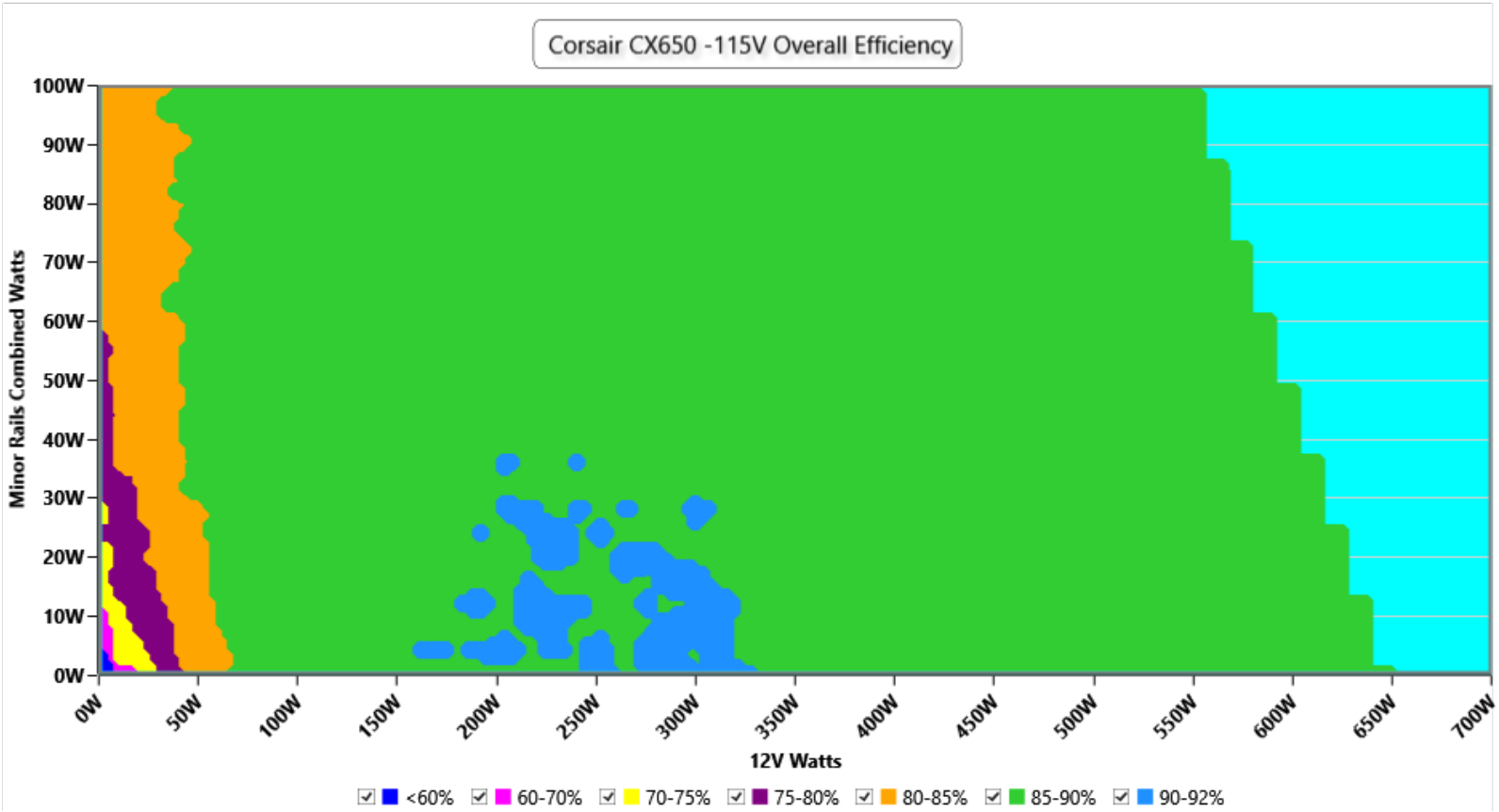
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.99 V	114.96 V	113.85 V	115.00 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.054 W	0.031 W	N/A	0.077 W	N/A	N/A
Apparent Power:	8.690 W	8.669 W	N/A	8.712 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:	229.98 V	229.95 V	227.70 V	229.99 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:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.099 W	0.053 W	N/A	0.139 W	N/A	N/A
Apparent Power:	28.275 W	28.240 W	N/A	28.313 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

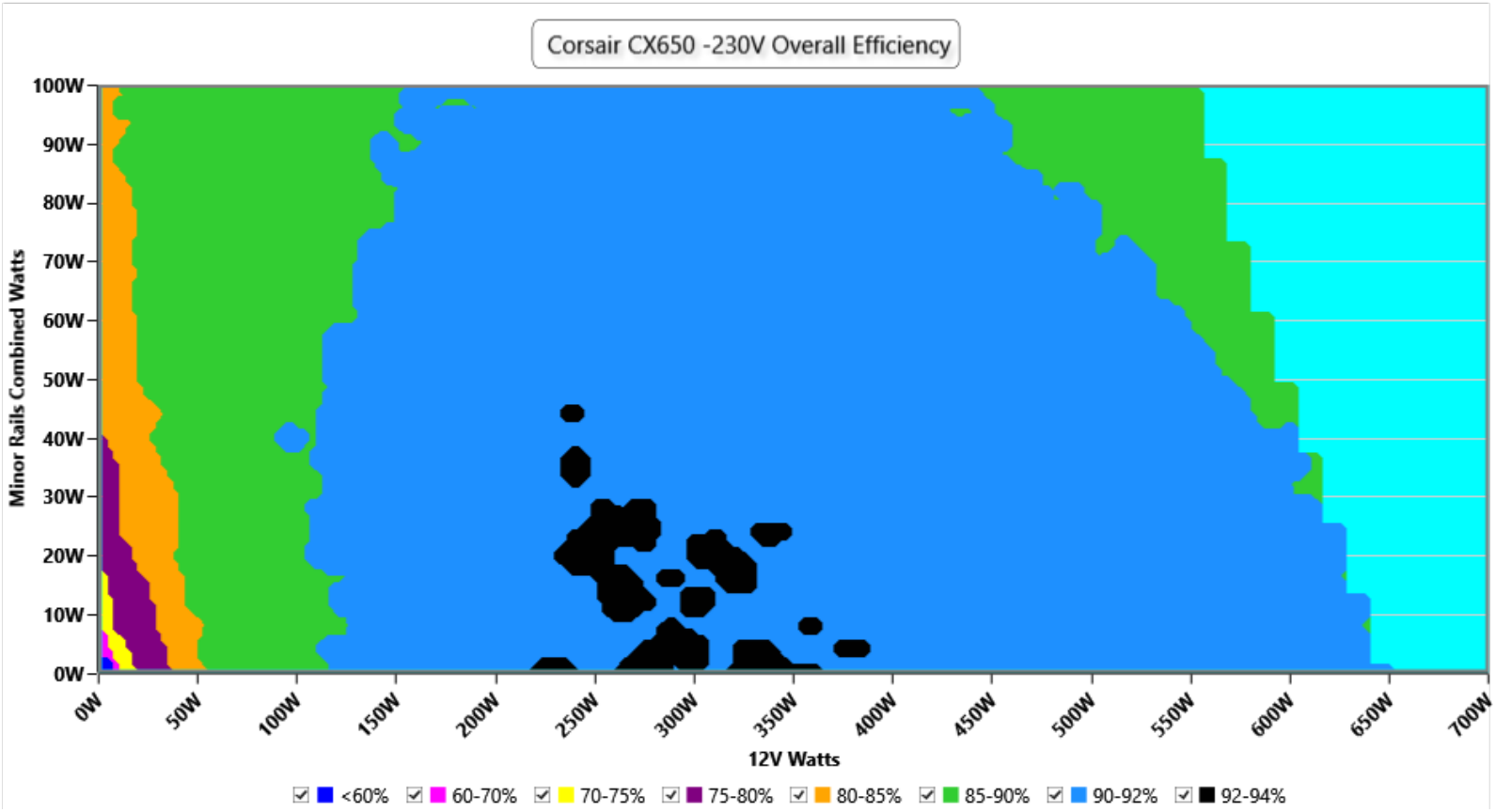
115V



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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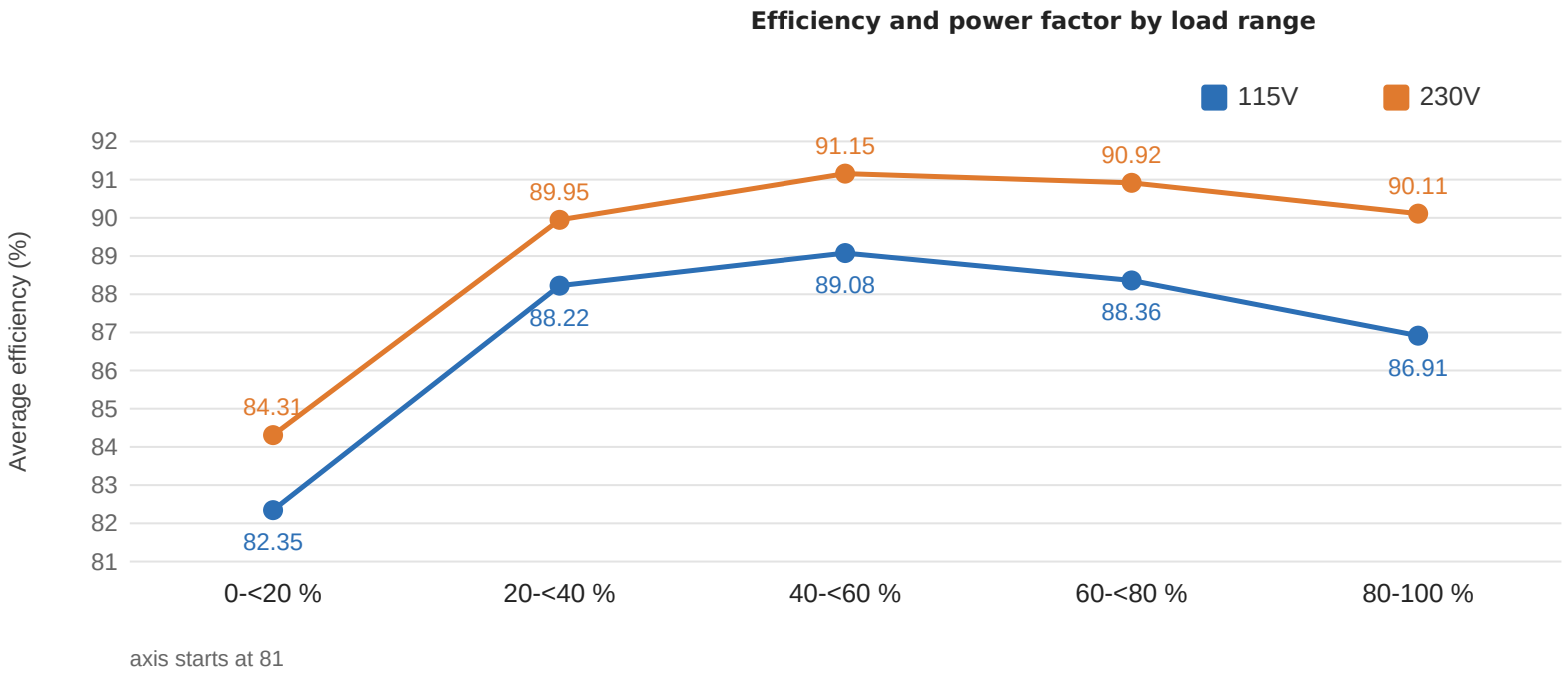
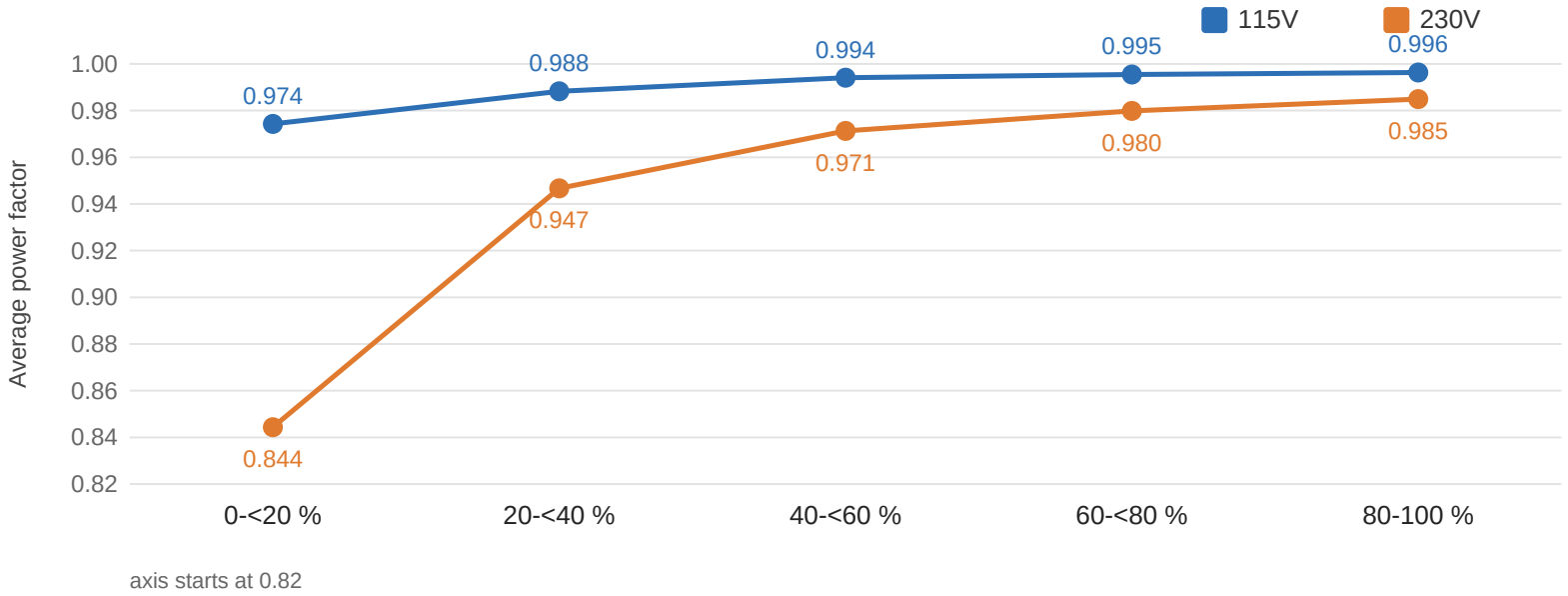


axis starts at 81



axis starts at 0.82

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	195 / 195	82.35%	84.31%	0.974	0.844
20-<40 %	340 / 340	88.22%	89.95%	0.988	0.947
40-<60 %	332 / 332	89.08%	91.15%	0.994	0.971
60-<80 %	339 / 339	88.36%	90.92%	0.995	0.980
80-100 %	343 / 343	86.91%	90.11%	0.996	0.985
70-100 % (High-Load)	509 / 509	87.29%	90.33%	0.996	0.984
All (published average)	1549 / 1549	87.41%	89.75%	0.991	0.955

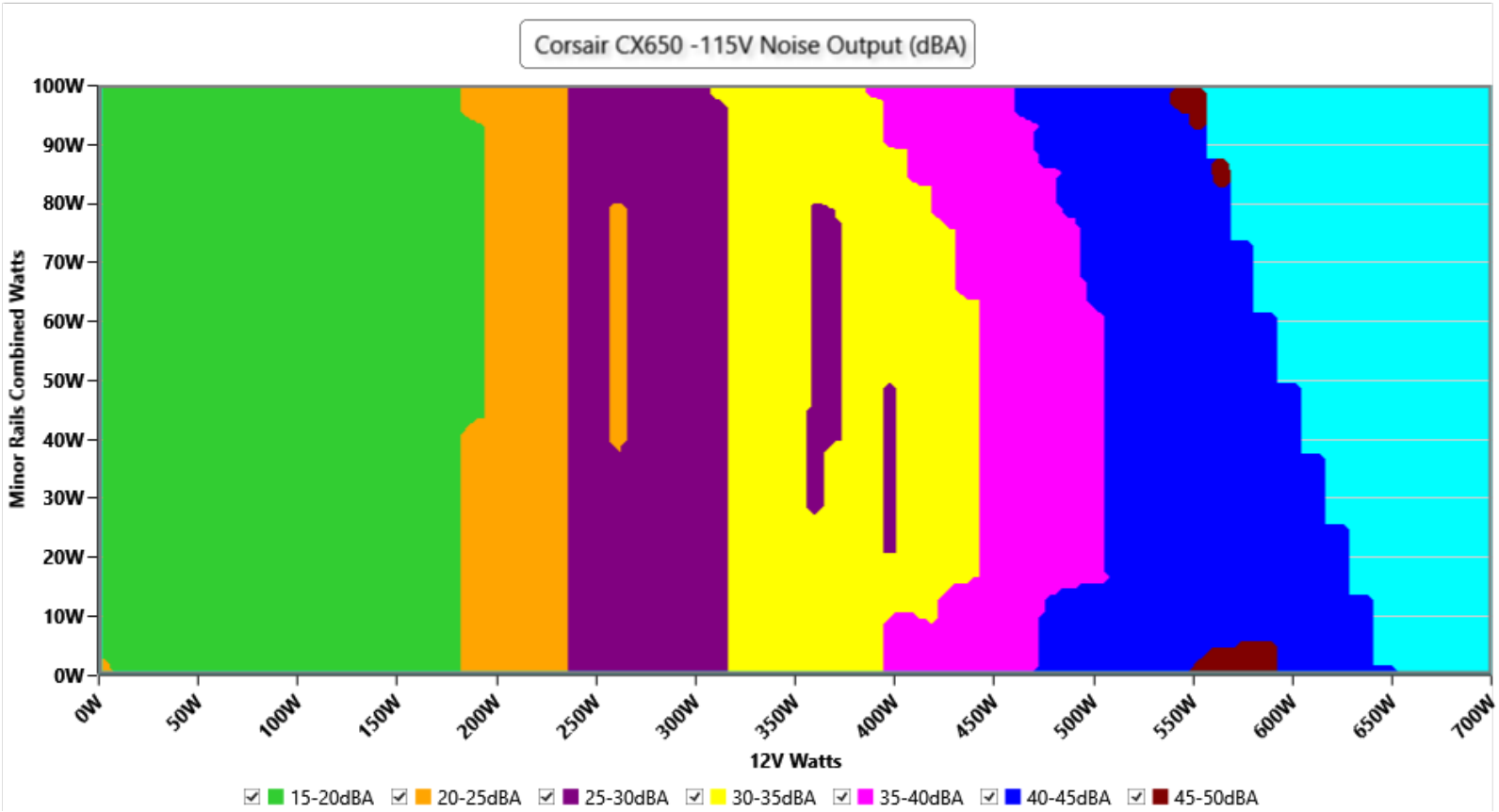
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1549 (115V) and 1549 (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 650 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

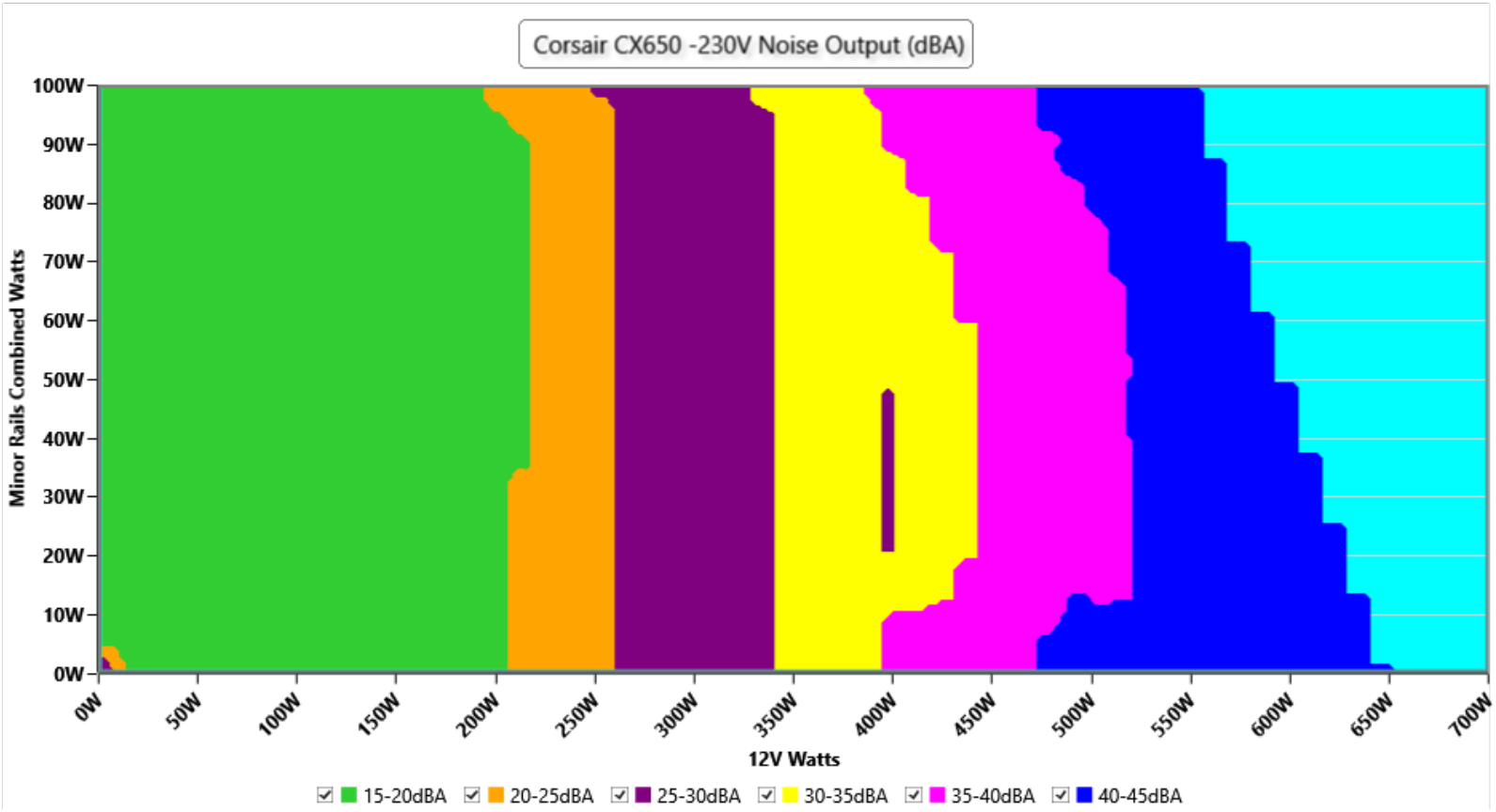
115V



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



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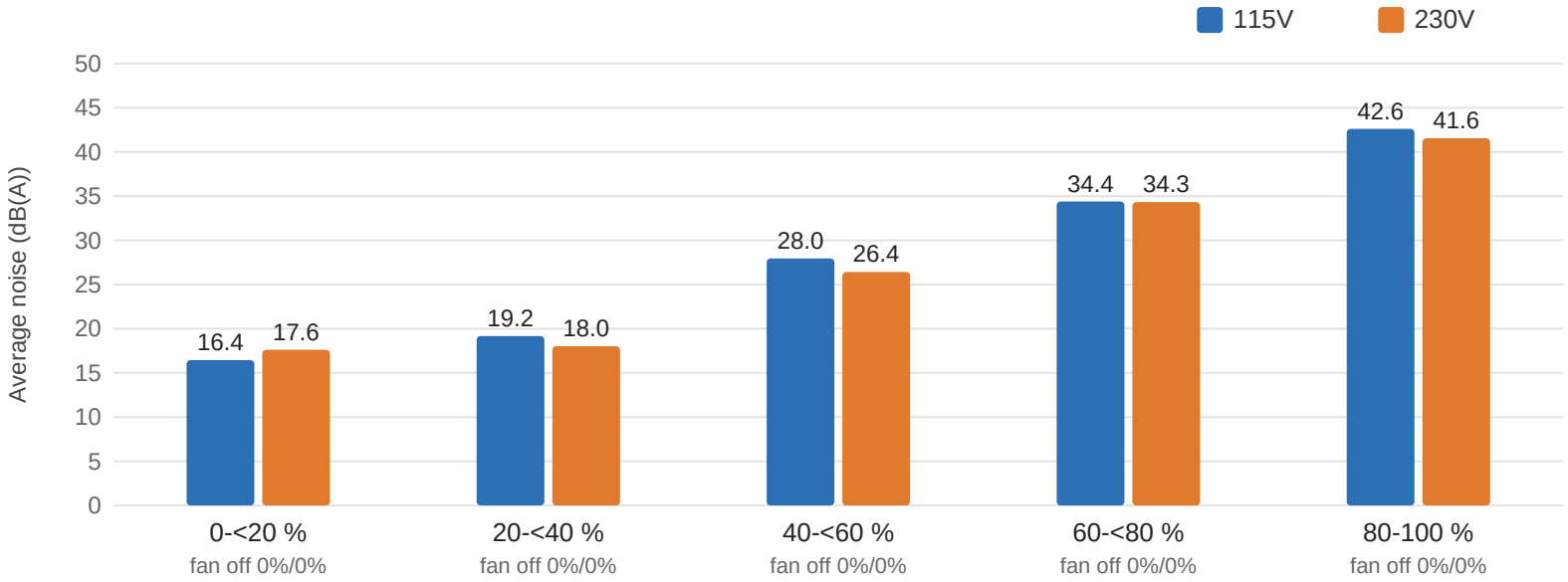
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **41.3 dB(A)** at 115V and **40.4 dB(A)** at 230V · loudest point 48.7 dB(A)

Efficiency 87.29% / 90.33% · power factor 0.996 / 0.984 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	16.4 (17.3)	17.6 (19.5)	0% / 0%
20-<40 %	19.2 (25.4)	18.0 (23.1)	0% / 0%
40-<60 %	28.0 (32.2)	26.4 (32.2)	0% / 0%
60-<80 %	34.4 (42.5)	34.3 (41.8)	0% / 0%
80-100 %	42.6 (48.7)	41.6 (44.5)	0% / 0%
70-100 % (High-Load)	41.3 (48.7)	40.4 (44.5)	0% / 0%
All (published average)	36.8 (48.7)	35.9 (44.5)	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 1549 (115V) and 1549 (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 650 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%	621 RPM · 17.0 dB(A) · 29.9 °C	757 RPM · 21.0 dB(A) · 40.4 °C	**+4.0 dB(A)**
20%	635 RPM · 17.3 dB(A) · 30.5 °C	846 RPM · 24.3 dB(A) · 40.8 °C	**+7.0 dB(A)**
50%	827 RPM · 24.0 dB(A) · 30.8 °C	1244 RPM · 35.0 dB(A) · 42.1 °C	**+11.0 dB(A)**
100%	2093 RPM · 48.6 dB(A) · 31.0 °C	2018 RPM · 47.0 dB(A) · 45.2 °C	**-1.6 dB(A)**

230V

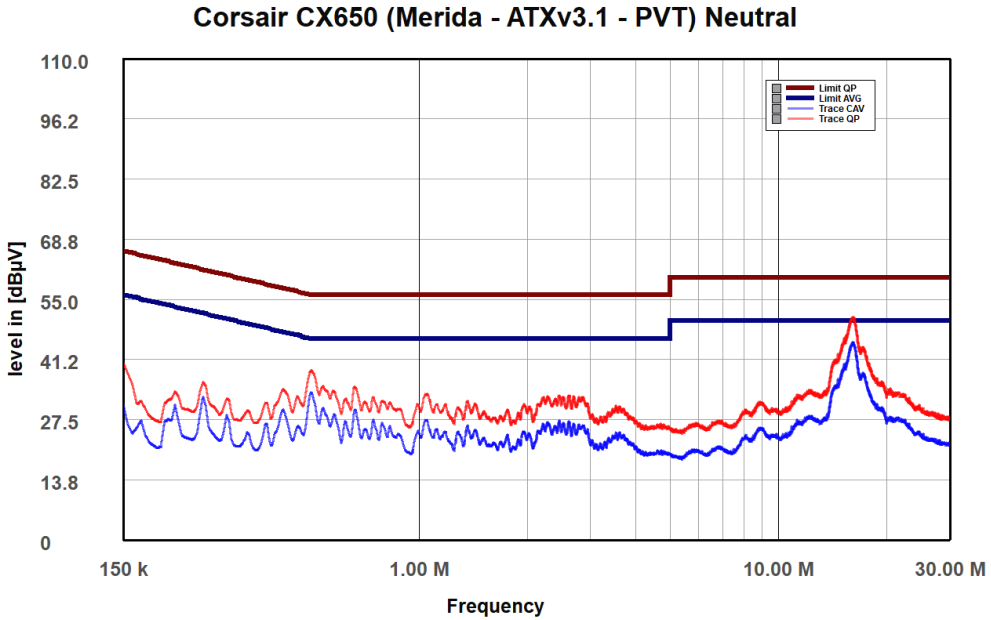
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	607 RPM · 16.7 dB(A) · 30.7 °C	760 RPM · 20.9 dB(A) · 40.1 °C	**+4.2 dB(A)**
20%	653 RPM · 17.7 dB(A) · 30.4 °C	910 RPM · 26.0 dB(A) · 40.8 °C	**+8.3 dB(A)**
50%	827 RPM · 24.0 dB(A) · 30.5 °C	1243 RPM · 35.0 dB(A) · 42.4 °C	**+11.0 dB(A)**
100%	2092 RPM · 48.6 dB(A) · 30.2 °C	2099 RPM · 48.7 dB(A) · 45.5 °C	**+0.1 dB(A)**

INFO

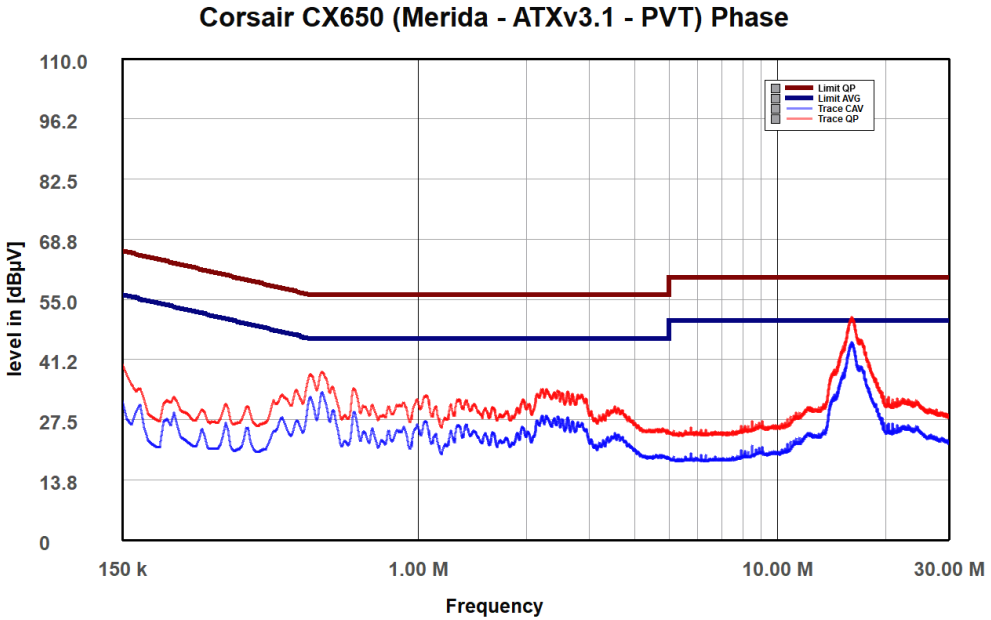
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



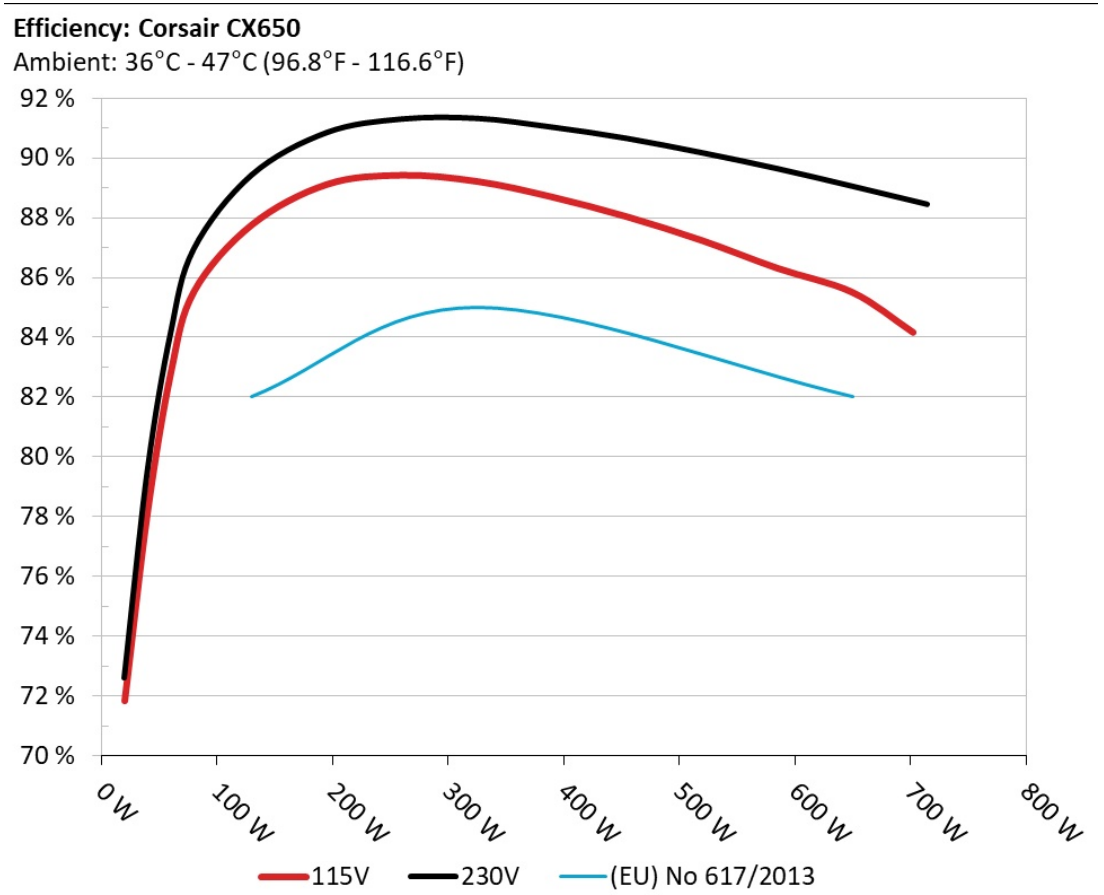
NEUTRAL



PHASE

Indicative Performance

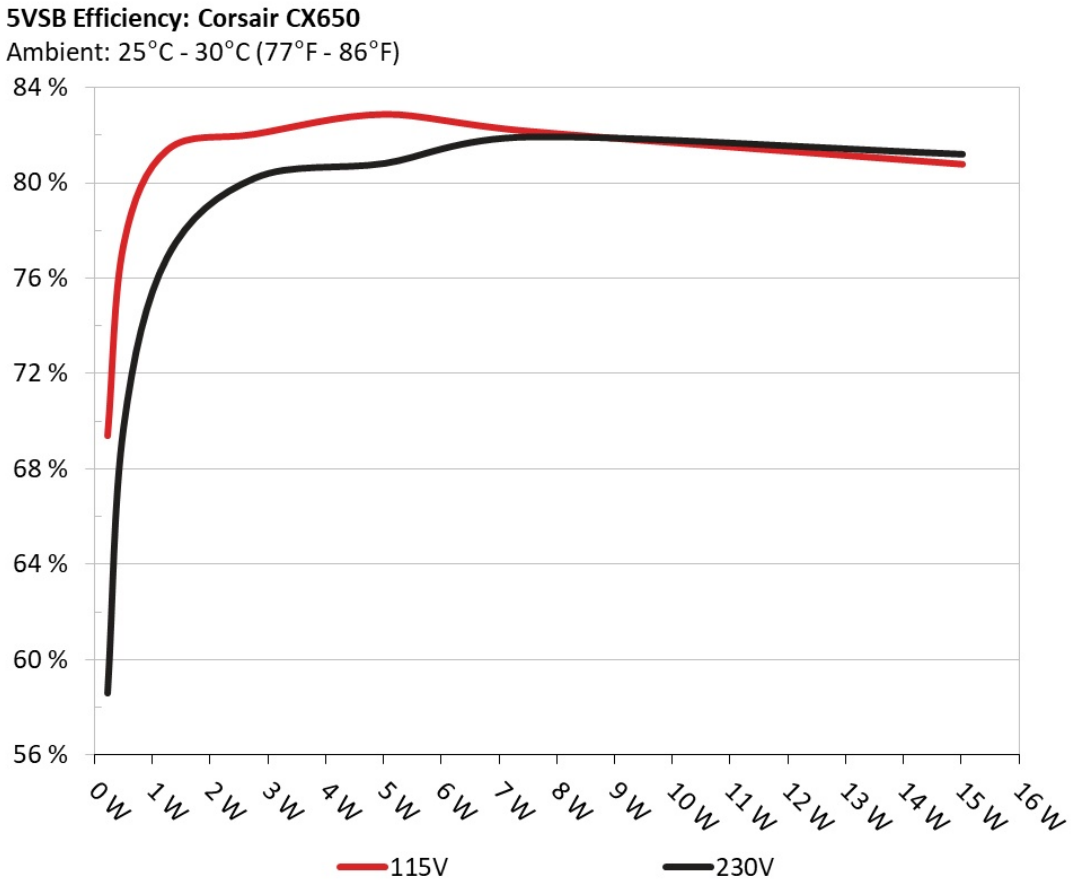
Efficiency under high ambient temperature



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

est #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.227W	69.41%	0.038
	5.044V	0.326W		115.07V
2	**0.09A**	0.454W	76.492%	0.068
	5.043V	0.594W		115.08V
3	**0.55A**	2.77W	82.035%	0.276
	5.037V	3.376W		115.07V
4	**1A**	5.031W	82.866%	0.353
	5.031V	6.072W		115.08V
5	**1.5A**	7.538W	82.153%	0.397
	5.025V	9.176W		115.07V
6	**3A**	15.022W	80.776%	0.456
	5.007V	18.597W		115.07V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.227W	58.594%	0.014
	5.041V	0.388W		230.26V
2	**0.09A**	0.454W	68.42%	0.024
	5.041V	0.663W		230.26V
3	**0.55A**	2.769W	80.185%	0.116
	5.035V	3.454W		230.25V
4	**1A**	5.03W	80.808%	0.187
	5.03V	6.225W		230.25V
5	**1.5A**	7.537W	81.916%	0.241
	5.024V	9.201W		230.25V
6	**3A**	15.02W	81.19%	0.334
	5.006V	18.499W		230.24V

Protection Features

OCP (Normal @ 27.5°C)	12V: 63.6A (117.78%), 11.945V *High Ripple (126.57mV) 5V: 25.8A (129%), 4.947V 3.3V: 27A (135%), 3.271V 5VSB: 4A (133.33%), 4.995V
OCP (Hot @ 42.1°C)	12V: 59.2A (109.63%), 11.947V 5V: 24.6A (123%), 4.95V 3.3V: 25.8A (129%), 3.279V 5VSB: 4A (133.33%), 4.998V
OPP (Normal @ 27.2°C)	752.51W (115.77%)
OPP (Hot @ 44.7°C)	722.57W (111.16%)
OTP	✓ (120°C @ Secondary Side)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Accurate but short
UVP (Full Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC

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%	**3.620A**	**1.986A**	**1.972A**	**0.993A**	65.012	83.149%	757	21	40.39°C	0.975
	11.992V	5.038V	3.347V	5.036V	78.202				42.95°C	115.05V
20%	**8.265A**	**2.985A**	**2.966A**	**1.193A**	129.956	87.762%	846	24.3	40.78°C	0.989
	11.985V	5.026V	3.338V	5.032V	148.082				44.39°C	115.03V
30%	**13.268A**	**3.489A**	**3.469A**	**1.392A**	194.962	89.115%	988	28.4	41.5°C	0.986
	11.977V	5.017V	3.33V	5.028V	218.759				45.05°C	115.01V
40%	**18.285A**	**3.995A**	**3.975A**	**1.593A**	260.051	89.42%	1121	32.2	41.54°C	0.993
	11.968V	5.007V	3.321V	5.024V	290.846				45.83°C	114.98V
50%	**22.954A**	**5.005A**	**4.983A**	**1.793A**	325.053	89.213%	1244	35	42.07°C	0.994
	11.961V	4.996V	3.312V	5.02V	364.359				46.07°C	114.97V
60%	**27.580A**	**6.021A**	**5.997A**	**1.994A**	389.48	88.697%	1407	38.1	42.95°C	0.995
	11.953V	4.984V	3.302V	5.015V	439.01				46.58°C	114.94V
70%	**32.285A**	**7.042A**	**7.018A**	**2.196A**	454.765	88.032%	1669	42.2	43.26°C	0.996
	11.945V	4.972V	3.292V	5.011V	516.589				47.68°C	114.91V
80%	**37.001A**	**8.065A**	**8.044A**	**2.297A**	519.574	87.239%	1850	44.9	43.9°C	0.996
	11.937V	4.96V	3.282V	5.008V	595.588				47.58°C	114.89V
90%	**42.133A**	**8.586A**	**8.556A**	**2.398A**	584.978	86.31%	2096	48.6	44.36°C	0.996
	11.926V	4.95V	3.272V	5.005V	677.121				49.81°C	114.86V
100%	**46.988A**	**9.11A**	**9.104A**	**3.003A**	649.749	85.505%	2018	47	45.2°C	0.997
	11.919V	4.939V	3.262V	4.996V	759.745				51.46°C	114.83V
110%	**50.518A**	**9.472A**	**10.02A**	**3.004A**	702.193	84.168%	2103	48.7	46.08°C	0.828
	11.943V	4.972V	3.289V	5.013V	834.275				50.05°C	114.88V
CL1	**0.117A**	**12.072A**	**11.943A**	**0A**	101.297	82.528%	1119	32.1	40.27°C	0.985
	11.980V	4.987V	3.324V	5.047V	122.746				43.71°C	115.04V

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**	**20.11A**	**0A**	**0A**	101.377	80.861%	986	28.3	41.16°C	0.986
	11.984V	4.971V	3.343V	5.05V	125.371				43.86°C	115.04V
CL3	**0.117A**	**0A**	**19.904A**	**0A**	67.387	76.274%	985	28.3	40.3°C	0.977
	11.985V	5.02V	3.315V	5.046V	88.36				42.76°C	115.04V
CL4	**54.482A**	**0A**	**0A**	**0A**	649.641	86.102%	2105	48.7	44.96°C	0.997
	11.924V	4.982V	3.287V	5.036V	754.608				50.13°C	114.84V

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%	**3.618A**	**1.985A**	**1.971A**	**0.993A**	64.996	84.705%	760	20.9	40.09°C	0.824
	11.993V	5.039V	3.348V	5.037V	76.742				42.82°C	230.31V
20%	**8.263A**	**2.984A**	**2.965A**	**1.192A**	129.927	89.429%	910	26	40.83°C	0.92
	11.983V	5.027V	3.339V	5.033V	145.281				44.2°C	230.28V
30%	**13.269A**	**3.488A**	**3.468A**	**1.392A**	194.934	90.851%	989	28.4	41.34°C	0.948
	11.974V	5.017V	3.331V	5.029V	214.556				43.78°C	230.25V
40%	**18.279A**	**3.994A**	**3.973A**	**1.592A**	260.007	91.305%	1121	32.2	41.8°C	0.963
	11.970V	5.008V	3.322V	5.025V	284.771				45.81°C	230.24V
50%	**22.945A**	**5.003A**	**4.981A**	**1.793A**	324.975	91.326%	1243	35	42.38°C	0.972
	11.963V	4.997V	3.313V	5.021V	355.83				45.23°C	230.24V
60%	**27.553A**	**6.017A**	**5.995A**	**1.993A**	389.194	91.037%	1406	38.1	42.76°C	0.977
	11.955V	4.986V	3.303V	5.017V	427.506				44.56°C	230.24V
70%	**32.256A**	**7.037A**	**7.015A**	**2.194A**	454.475	90.656%	1614	41.7	43.23°C	0.98
	11.947V	4.974V	3.293V	5.013V	501.316				45.63°C	230.23V
80%	**36.971A**	**8.059A**	**8.04A**	**2.295A**	519.296	90.176%	1800	44.5	43.87°C	0.983
	11.939V	4.962V	3.283V	5.01V	575.873				45.7°C	230.22V
90%	**42.091A**	**8.58A**	**8.552A**	**2.396A**	584.699	89.643%	2095	48.6	44.22°C	0.986
	11.932V	4.952V	3.273V	5.007V	652.238				46.53°C	230.22V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**46.945A**	**9.104A**	**9.098A**	**3.001A**	649.443	89.055%	2099	48.7	45.54°C	0.986
	11.924V	4.942V	3.264V	4.997V	729.238				47.63°C	230.23V
110%	**51.684A**	**10.14A**	**10.235A**	**3.002A**	714.07	88.454%	2106	48.7	46.77°C	0.987
	11.915V	4.929V	3.253V	4.996V	807.085				48.54°C	230.22V
CL1	**0.115A**	**12.064A**	**11.938A**	**0A**	101.263	84.319%	985	28.3	40.18°C	0.899
	11.988V	4.989V	3.325V	5.048V	120.091				42.3°C	230.3V
CL2	**0.115A**	**20.095A**	**0A**	**0A**	101.342	82.477%	984	28.1	40.73°C	0.901
	11.992V	4.974V	3.344V	5.051V	122.883				42.15°C	230.31V
CL3	**0.115A**	**0A**	**19.895A**	**0A**	67.371	77.772%	985	28.3	41.7°C	0.85
	11.986V	5.022V	3.317V	5.047V	86.63				42.51°C	230.32V
CL4	**54.437A**	**0A**	**0A**	**0A**	649.313	89.891%	2098	48.7	46.21°C	0.986
	11.927V	4.984V	3.287V	5.037V	722.355				47.71°C	230.23V

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	**1.238A**	**0.495A**	**0.492A**	**0.198A**	20.01	71.849%	726	20.5	36.04°C	0.899
	11.999V	5.047V	3.355V	5.046V	27.901				37.34°C	115.07V
40W	**2.724A**	**0.694A**	**0.689A**	**0.297A**	40.008	78.23%	730	20.5	37.5°C	0.956
	12.000V	5.046V	3.354V	5.045V	51.161				38.66°C	115.06V
60W	**4.214A**	**0.893A**	**0.886A**	**0.397A**	60.008	82.837%	752	21.2	38.63°C	0.975
	11.992V	5.043V	3.351V	5.043V	72.42				40.62°C	115.06V
80W	**5.698A**	**1.092A**	**1.084A**	**0.496A**	79.96	85.535%	755	21	39.47°C	0.98
	11.991V	5.04V	3.348V	5.042V	93.483				41.76°C	115.05V

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	**1.236A**	**0.495A**	**0.492A**	**0.198A**	19.979	72.61%	715	20.1	36.41°C	0.575
	12.001V	5.048V	3.355V	5.047V	27.523				36.93°C	230.34V
40W	**2.722A**	**0.693A**	**0.689A**	**0.297A**	39.981	79.539%	739	20.9	37.4°C	0.73
	12.002V	5.047V	3.354V	5.046V	50.256				38.73°C	230.35V
60W	**4.212A**	**0.892A**	**0.886A**	**0.396A**	59.982	84.135%	754	21.1	38.23°C	0.806
	11.995V	5.044V	3.351V	5.044V	71.306				40.59°C	230.35V
80W	**5.693A**	**1.091A**	**1.084A**	**0.496A**	79.902	86.947%	756	21	39.46°C	0.857
	11.993V	5.042V	3.348V	5.043V	91.903				40.3°C	230.34V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	24.49mV	16.18mV	29.06mV	11.25mV	Pass
20% Load	20.67mV	15.97mV	30.20mV	11.20mV	Pass
30% Load	24.54mV	16.64mV	30.72mV	11.87mV	Pass
40% Load	30.88mV	24.21mV	28.39mV	15.64mV	Pass
50% Load	34.18mV	17.62mV	28.70mV	17.03mV	Pass
60% Load	39.75mV	18.39mV	24.98mV	13.26mV	Pass
70% Load	47.38mV	20.55mV	32.01mV	14.76mV	Pass
80% Load	57.28mV	23.03mV	37.08mV	16.88mV	Pass
90% Load	68.52mV	23.91mV	40.80mV	16.00mV	Pass
100% Load	79.19mV	23.65mV	31.24mV	18.12mV	Pass
110% Load	100.18mV	45.13mV	47.20mV	31.17mV	Pass
Crossload1	24.13mV	23.39mV	35.27mV	10.89mV	Pass
Crossload2	24.18mV	29.21mV	37.23mV	11.15mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	29.85mV	21.48mV	40.75mV	10.74mV	Pass
Crossload4	80.43mV	17.57mV	18.67mV	12.49mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	28.56mV	18.70mV	32.89mV	13.89mV	Pass
20% Load	25.06mV	18.80mV	33.30mV	15.07mV	Pass
30% Load	26.19mV	19.99mV	33.82mV	15.12mV	Pass
40% Load	31.91mV	19.42mV	31.39mV	16.72mV	Pass
50% Load	38.92mV	20.04mV	31.24mV	19.05mV	Pass
60% Load	45.63mV	22.41mV	31.13mV	16.00mV	Pass
70% Load	55.01mV	22.98mV	33.35mV	17.55mV	Pass
80% Load	64.34mV	25.14mV	38.73mV	19.98mV	Pass
90% Load	77.18mV	26.64mV	41.73mV	21.21mV	Pass
100% Load	94.86mV	27.10mV	33.30mV	22.45mV	Pass
110% Load	118.89mV	26.69mV	35.47mV	22.24mV	Pass
Crossload1	25.93mV	24.57mV	36.04mV	12.80mV	Pass
Crossload2	26.19mV	31.53mV	37.44mV	42.58mV	Pass
Crossload3	31.86mV	19.17mV	42.19mV	11.98mV	Pass
Crossload4	94.61mV	21.02mV	22.65mV	45.84mV	Pass

The results above are not used in the certification process

Corsair CX650 (ATXv3.1)



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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