Make It Yours.

Cooler Master Elite Gold 650W

Serial Number CM1240650F16012401700354

Lab ID CM65003407

Certification ID 263407

Test Result Report ID: 26PS3407A

Certificate Issue Date: Aug 30, 2026

Scheme: ETA-EMI PSU

115V



230V



Scheme: LAMBDA PSU

115V



230V





Aristeidis Bitziopoulos, Certification Body General Manager

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	Cooler Master
Model	Elite Gold 650W
OEM/ODM	Huizhou Xin Hui Yuan Tech
Serial Number	CM1240650F16012401700354
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	5-10
Rated Frequency (Hz)	50-60

Rated Power (W)	650
Operating Temperature (Continuous Full Load) (°C)	0 - 40
Type	ATX12V
Cable Design	Fully Modular
Warranty	10 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 140 mm
Weight	1.40 kg (3.08 lb)
Cooling	120mm Rifle Bearing Fan (DF1202512RFMN)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	CM65003407
Date of receipt	Aug 19, 2026
Testing Date	Aug 28, 2026
Report Issued Date	Aug 30, 2026
DUT Notes	The provided 12V-2x6 cable uses 18AWG for power delivery, but the Intel spec requires 16AWG.
Engineer Name	Efstathios Papadopoulos
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 24 pin (560mm)	1	1	18AWG	Tinned Copper
4+4 pin EPS12V (600mm+125mm)	1	2	18AWG	Tinned Copper
6+2 pin PCIe (500mm+125mm)	1	2	18AWG	Tinned Copper
12+4 pin PCIe (640mm) (450W)	1	1	18-24AWG	Tinned Copper
SATA (400mm+120mm) / 4-pin Molex (+120mm)	2	4 / 2	18AWG	Tinned Copper
AC Power Cord (1380mm) - C13 coupler	1	1	16AWG	-

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	20	20	54.1	3	0.3
	Watts	100		649.2	15	3.6
Total Max. Power (W)		650				

Parts Description

General Data	
Manufacturer (OEM)	Xin Hui Yuan Technology
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF72 5D-15 (5Ohm @ 25°C) & Relay
Bridge Rectifier	1x GBU1510 (1000V, 15A @ 100°C)
APFC MOSFETs	2x CR Micro CRJT190N65G2BF (650V, 12A @ 100°C, Rds(on): 0.408Ohm)
APFC Boost Diode	1x Sanan Semiconductor SDS065J006C3 (650V, 10A @ 135°C)
Bulk Cap(s)	1x Nichicon (420V, 390uF, 2000h @ 105°C, GG)
Main Switchers	4x CR Micro CS10N50FA9R (500V, 6.3A @ 100°C, Rds(on): 0.5Ohm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CM6901T6X

Topology	Primary side: APFC, Full-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	2x Champion CMR011N06NS (60V, 289A)
5V & 3.3V	DC-DC Converters: 4x CR Micro CRSM035N03L6Z (30V, 54A @ 100°C, Rds(on): 3.1mOhm) PWM Controller(s): UPI uP3861P
Filtering Capacitors	Electrolytic: 3x Nippon Chemi-con (@ 105°C, W) 6x Rubycon (@ 105°C, YXJ) 1x Rubycon (@ 105°C, ZLH) Polymer: 17x Nichicon
Supervisor IC	IN1S4241-SDG
Fan Power Switch	D965A Transistor
Fan Model	MARTECH DF1202512RFMN (120mm, 12V, 0.37A, Rifle Bearing Fan)
5VSB Circuit	
Rectifier	Dongke DK5V60R10S
Standby PWM Controller	ExcellianceMOS EM8569C

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	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	88.648%
Average Noise Output (>1450 Load Combinations)	23.43dBA
Average PF (>1450 Load Combinations)	0.989
Efficiency With 10W (≤500W) or 2% (>500W) Load	63.115%
Standby Power Consumption	0.0444W
Non-Accredited	
12V Ripple (Full Load)	40.32mV
5V Ripple (Full Load)	17.11mV
3.3V Ripple (Full Load)	21.05mV
5VSB Ripple (Full Load)	12.03mV
12V Load Regulation	0.44%
5V Load Regulation	0.42%
3.3V Load Regulation	0.92%
5VSB Load Regulation	2.76%
Inrush Current	20.570A

230V

Accredited	
Average Efficiency (>1450 load combinations)	90.603%
Average Noise Output (>1450 Load Combinations)	22.20dBA
Average PF (>1450 Load Combinations)	0.955
Efficiency With 10W (≤500W) or 2% (>500W) Load	64.278%
Standby Power Consumption	0.0788W
Non-Accredited	
12V Ripple (Full Load)	35.94mV
5V Ripple (Full Load)	19.68mV
3.3V Ripple (Full Load)	27.35mV

5VSB Ripple (Full Load)		16.46mV
12V Load Regulation		0.45%
5V Load Regulation		0.60%
3.3V Load Regulation		0.98%
5VSB Load Regulation		2.76%
Inrush Current		68.240A
12V Transient Response (200%)		11.58V
5V Transient Response (200%)		4.985V
3.3V Transient Response (200%)		3.217V
5VSB Transient Response (200%)		5.004V
Hold-Up Time & PWR_OK Signal		16.00ms
AC Loss to PWR_OK Hold Up Time		12.20ms
PWR_OK Inactive to DC Loss Delay		3.80ms
PSU Timings: T1 (20% / 100%)	48.0ms	48.0ms
PSU Timings: T3 (20% / 100%)	133.0ms	132.0ms
12V OCP (25.3°C / 41.6°C)	66.20A (122.37%), 12.136V	66.00A (122.00%), 12.134V
5V OCP (25.3°C / 41.6°C)	23.9A (119.50%), 5.061V	23.8A (119.00%), 5.042V
3.3V OCP (25.3°C / 41.6°C)	23.1A (115.50%), 3.265V	22.7A (113.50%), 3.258V
5VSB OCP (25.3°C / 41.6°C)	5.7A (190.00%), 4.984V	5.7A (190.00%), 4.98V
OPP (28.60°C / 42.20°C)	138.92%	131.17%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	16
AC Loss to PWR_OK Hold Up Time (ms)	12.2
PWR_OK Inactive to DC Loss Delay (ms)	3.8

Vampire Power

Tables

115V

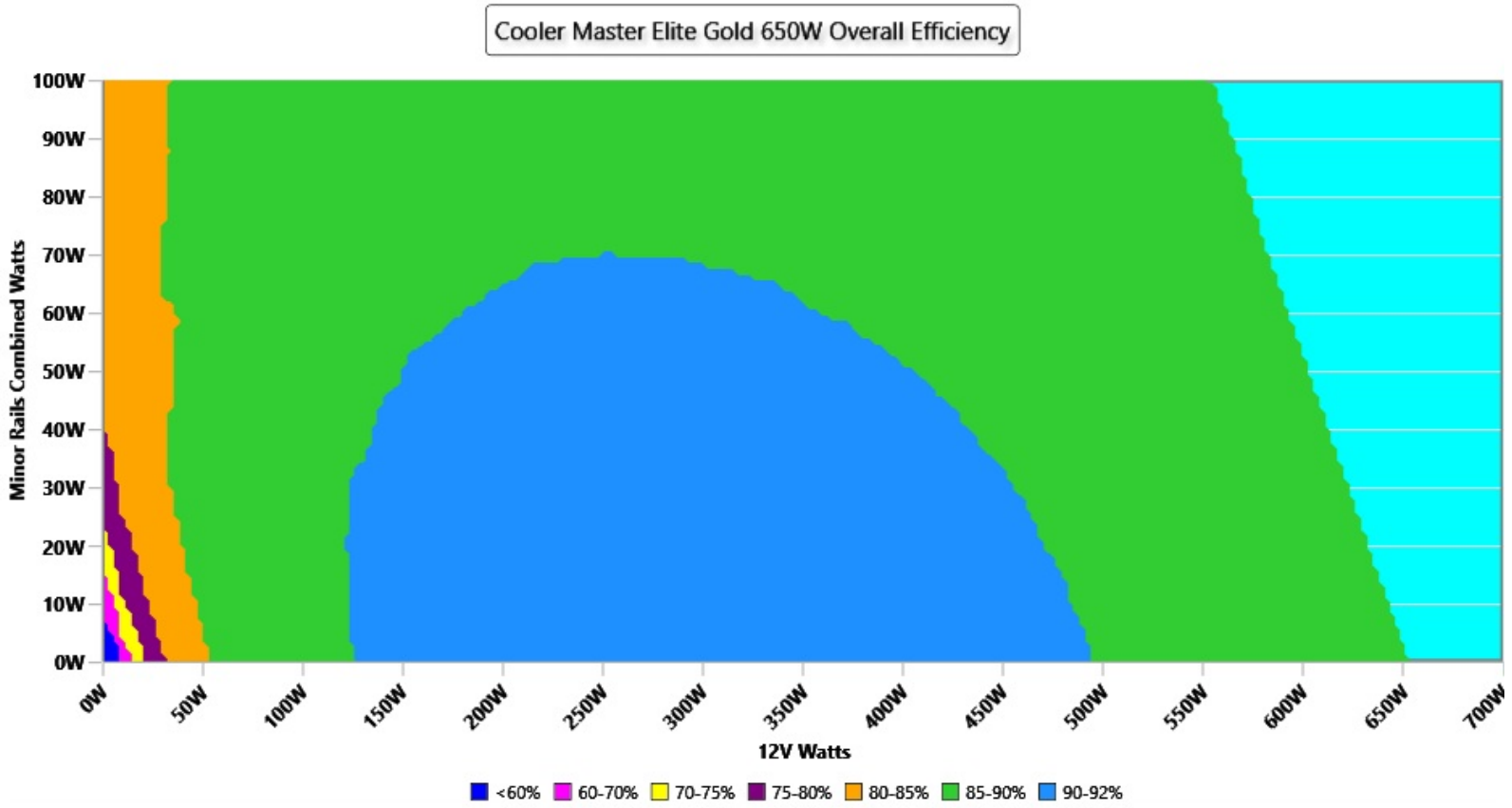
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.98 V	114.95 V	113.85 V	114.99 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	60.00 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.13 %	0.09 %	N/A	0.19 %	2.00 %	PASS
Real Power:	0.044 W	-0.006 W	N/A	0.073 W	N/A	N/A
Apparent Power:	6.581 W	6.553 W	N/A	6.609 W	N/A	N/A
Power Factor:	0.009	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.99 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:	0.079 W	0.041 W	N/A	0.124 W	N/A	N/A
Apparent Power:	20.562 W	20.521 W	N/A	20.603 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

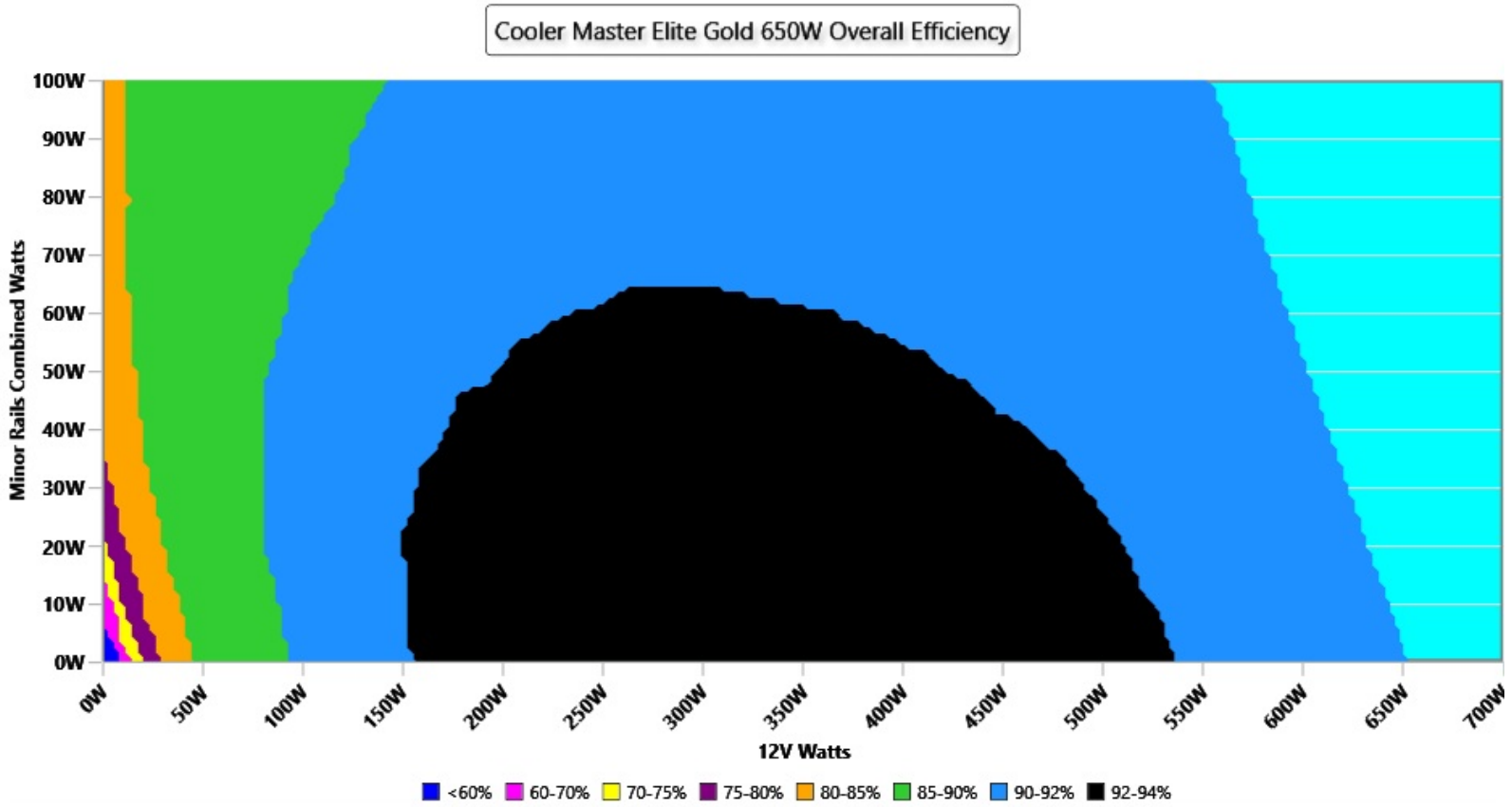
115V



INFO

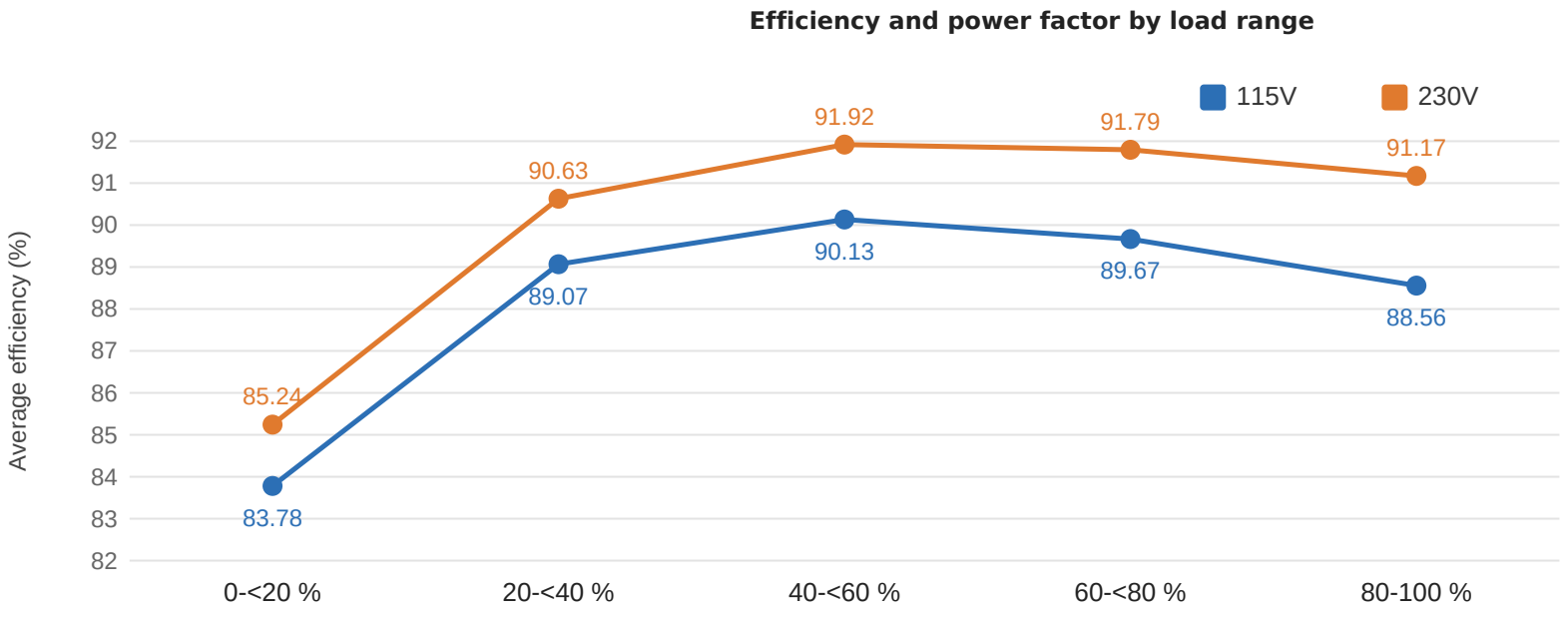
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

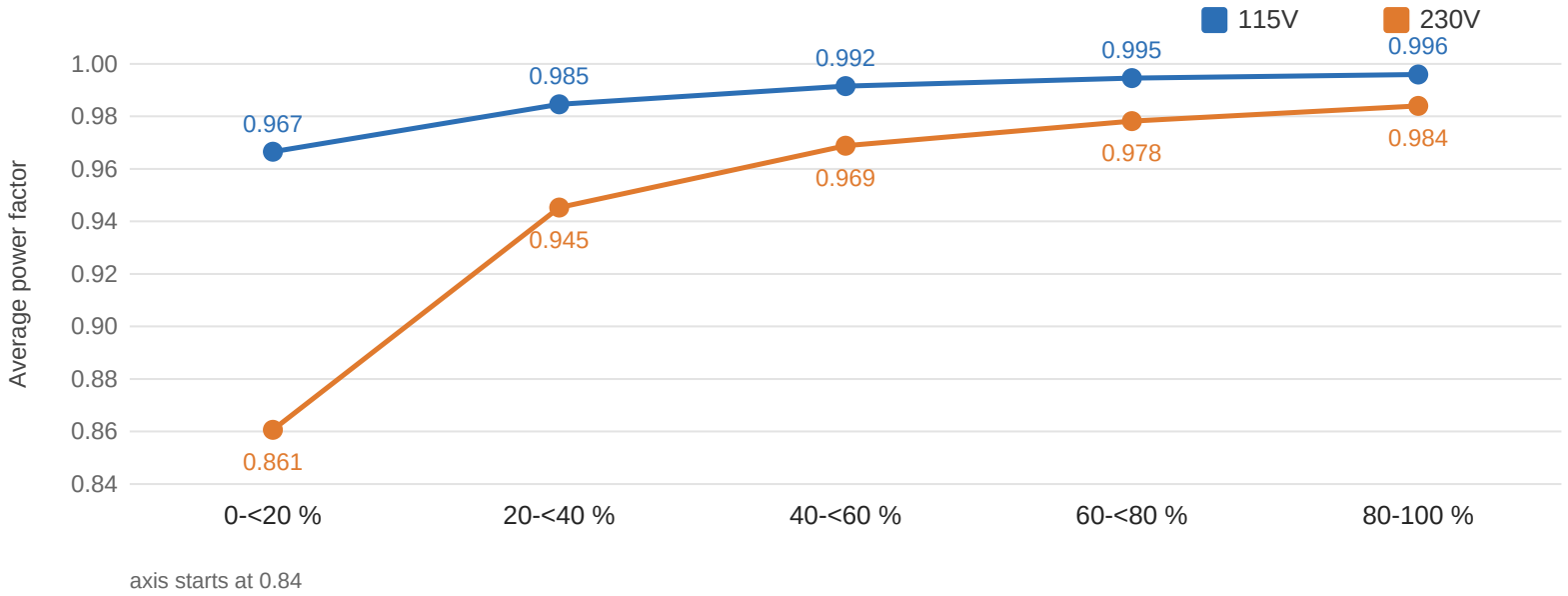


INFO

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 82



axis starts at 0.84

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	195 / 195	83.78%	85.24%	0.967	0.861
20-<40 %	340 / 340	89.07%	90.63%	0.985	0.945
40-<60 %	332 / 332	90.13%	91.92%	0.992	0.969
60-<80 %	339 / 339	89.67%	91.79%	0.995	0.978
80-100 %	343 / 343	88.56%	91.17%	0.996	0.984
70-100 % (High-Load)	517 / 509	88.86%	91.34%	0.996	0.983
All (published average)	1549 / 1549	88.65%	90.60%	0.989	0.955

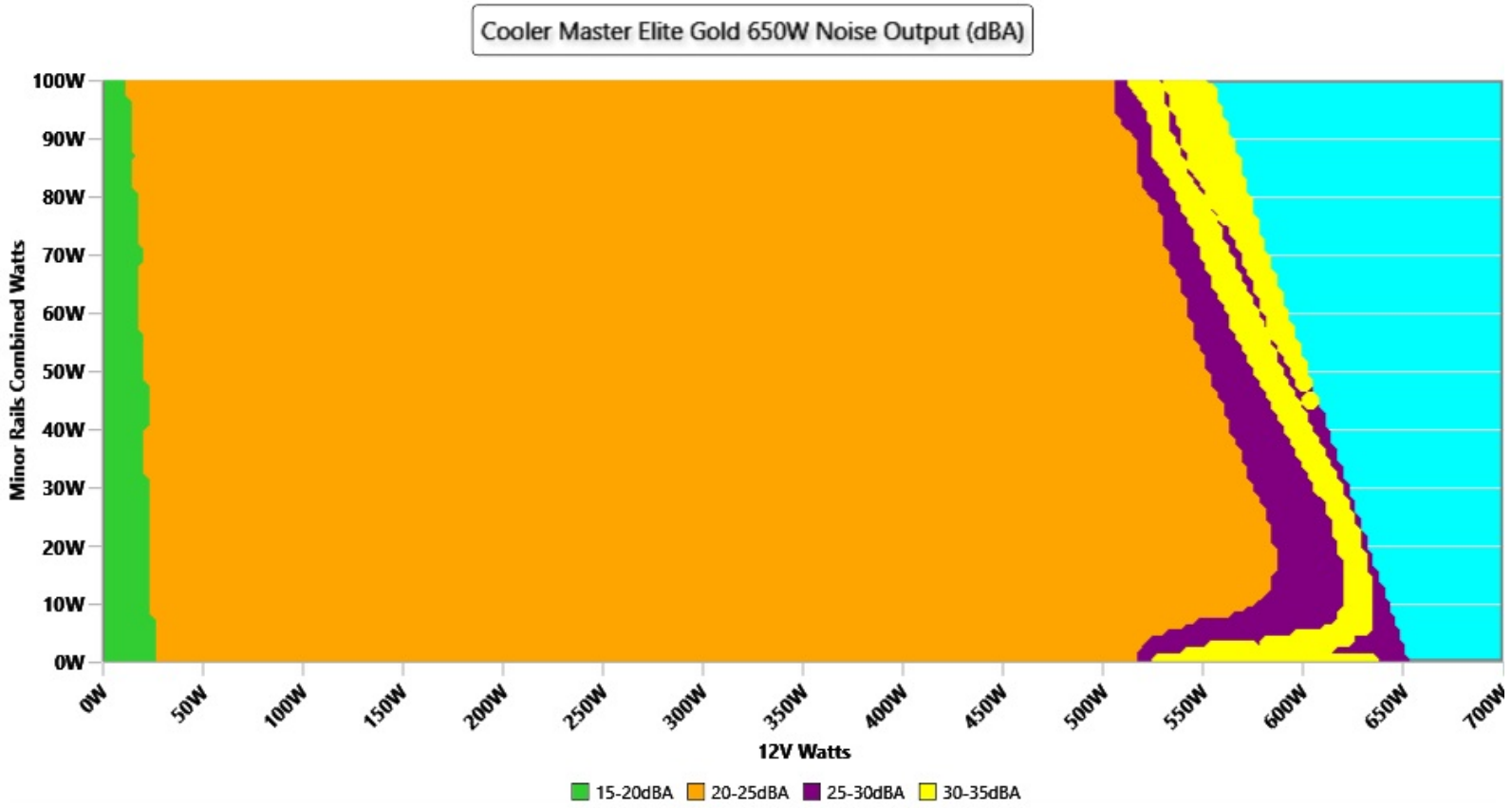
INFO

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

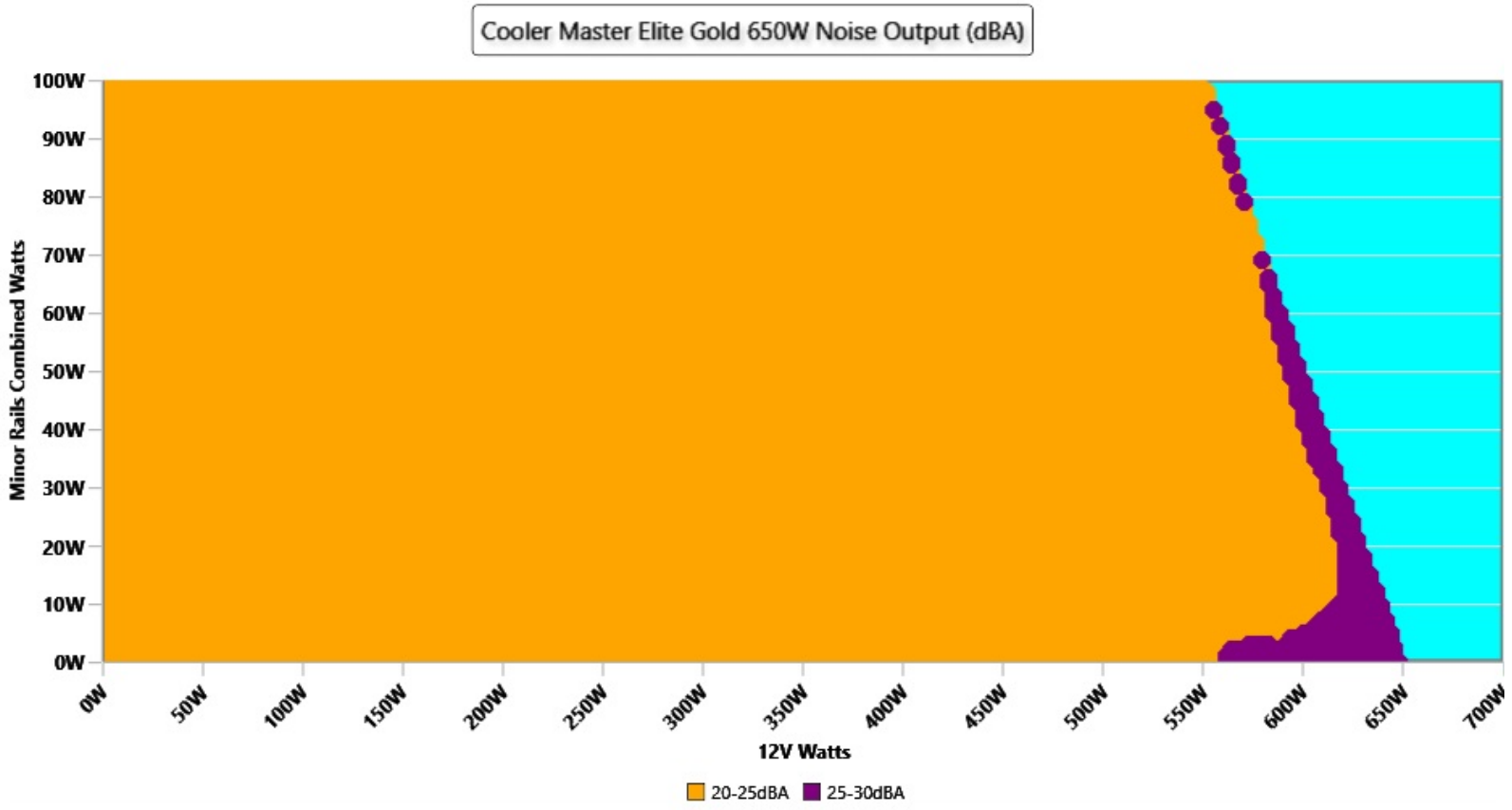
115V



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



INFO

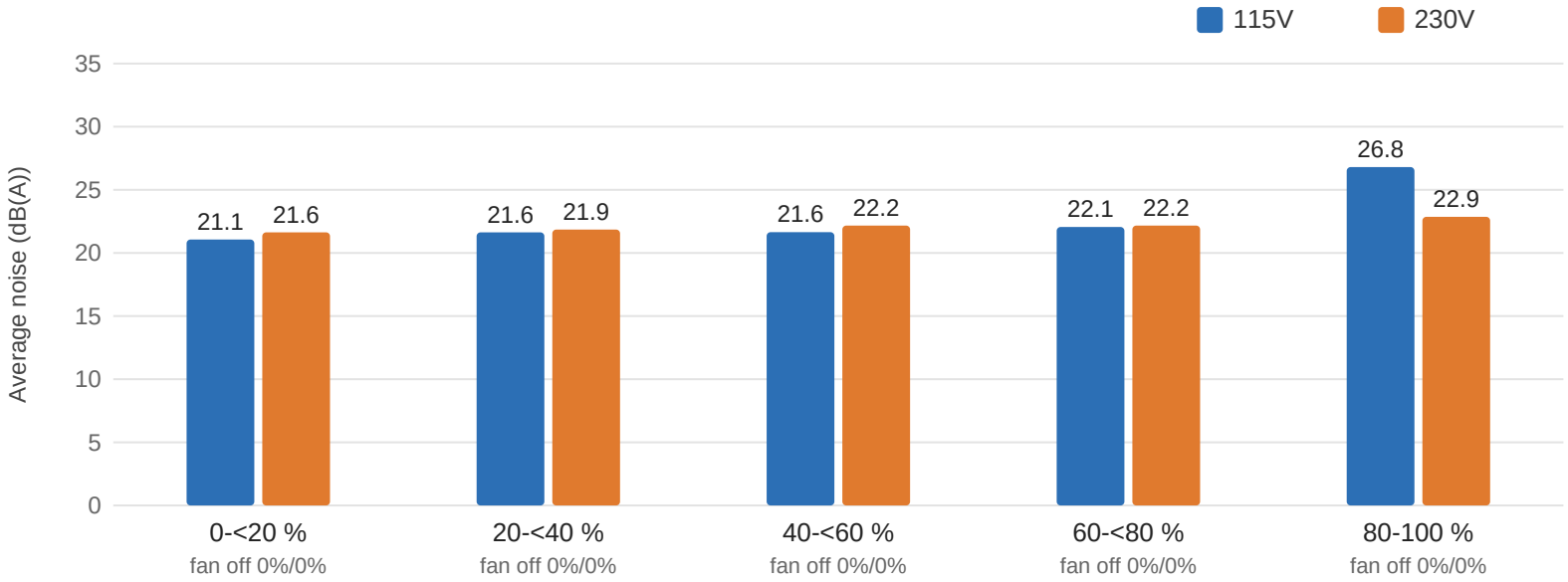
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **25.7 dB(A)** at 115V and **22.6 dB(A)** at 230V · loudest point 34.5 dB(A)

Efficiency 88.86% / 91.34% · power factor 0.996 / 0.983 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	21.1 (21.6)	21.6 (21.6)	0% / 0%
20-<40 %	21.6 (21.6)	21.9 (22.2)	0% / 0%
40-<60 %	21.6 (22.2)	22.2 (22.2)	0% / 0%
60-<80 %	22.1 (22.2)	22.2 (22.2)	0% / 0%
80-100 %	26.8 (34.5)	22.9 (29.0)	0% / 0%
70-100 % (High-Load)	25.7 (34.5)	22.6 (29.0)	0% / 0%
All (published average)	23.4 (34.5)	22.2 (29.0)	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".

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%	657 RPM · 21.7 dB(A) · 30.0 °C	1399 RPM · 36.6 dB(A) · 40.2 °C	**+14.9 dB(A)**
20%	664 RPM · 21.8 dB(A) · 30.3 °C	1404 RPM · 36.6 dB(A) · 40.8 °C	**+14.8 dB(A)**
50%	672 RPM · 21.8 dB(A) · 29.9 °C	1404 RPM · 36.6 dB(A) · 42.5 °C	**+14.8 dB(A)**
100%	691 RPM · 22.1 dB(A) · 31.0 °C	1722 RPM · 39.2 dB(A) · 45.1 °C	**+17.1 dB(A)**

230V

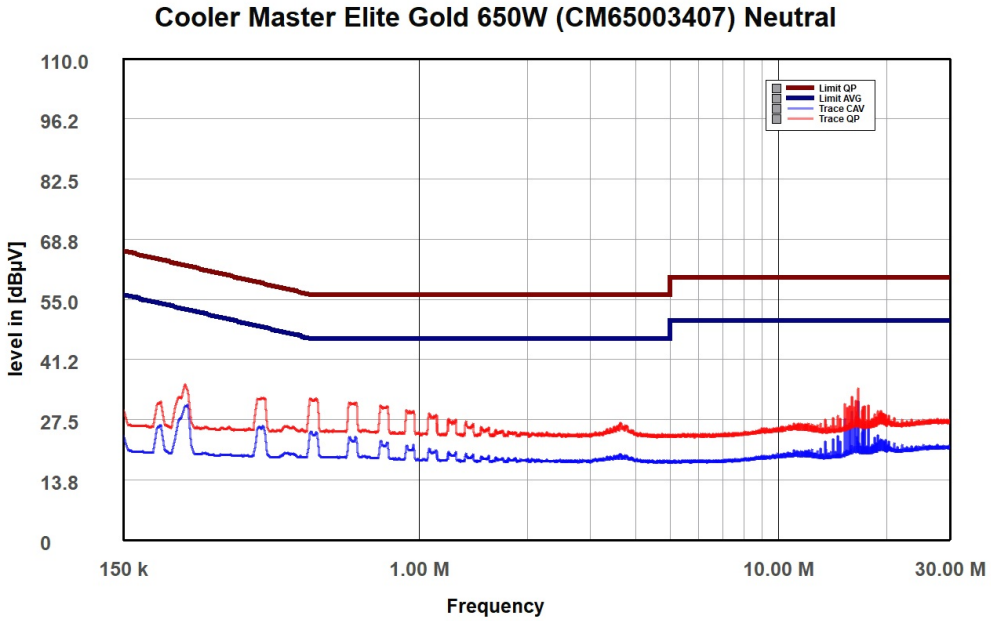
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	662 RPM · 21.8 dB(A) · 30.2 °C	1371 RPM · 34.7 dB(A) · 40.2 °C	**+12.9 dB(A)**
20%	665 RPM · 21.8 dB(A) · 30.2 °C	1371 RPM · 34.7 dB(A) · 40.9 °C	**+12.9 dB(A)**
50%	672 RPM · 21.8 dB(A) · 29.8 °C	1383 RPM · 35.6 dB(A) · 42.2 °C	**+13.8 dB(A)**
100%	692 RPM · 22.1 dB(A) · 31.4 °C	1746 RPM · 39.7 dB(A) · 45.7 °C	**+17.6 dB(A)**

INFO

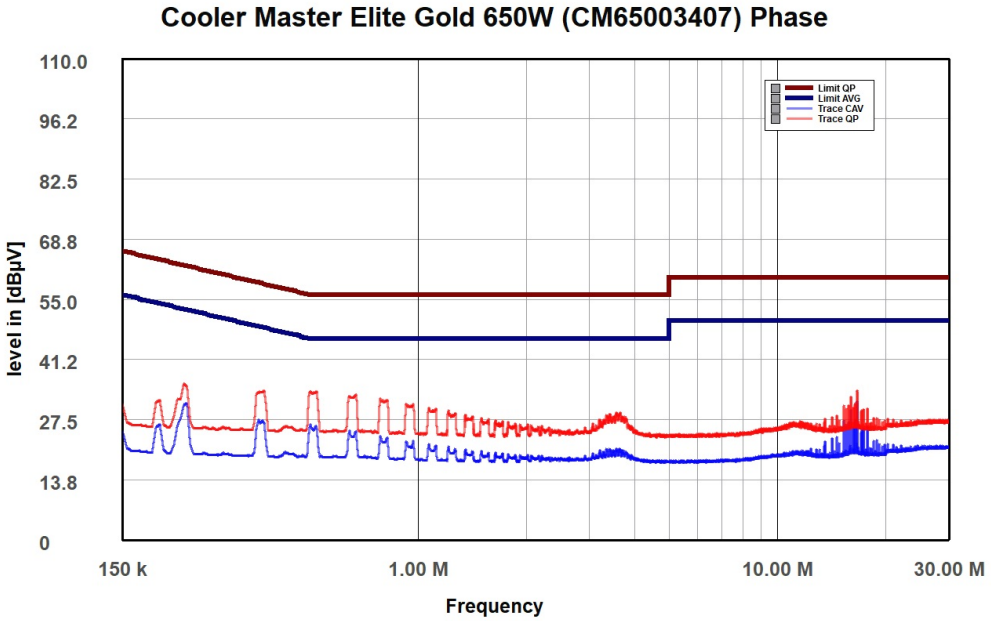
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



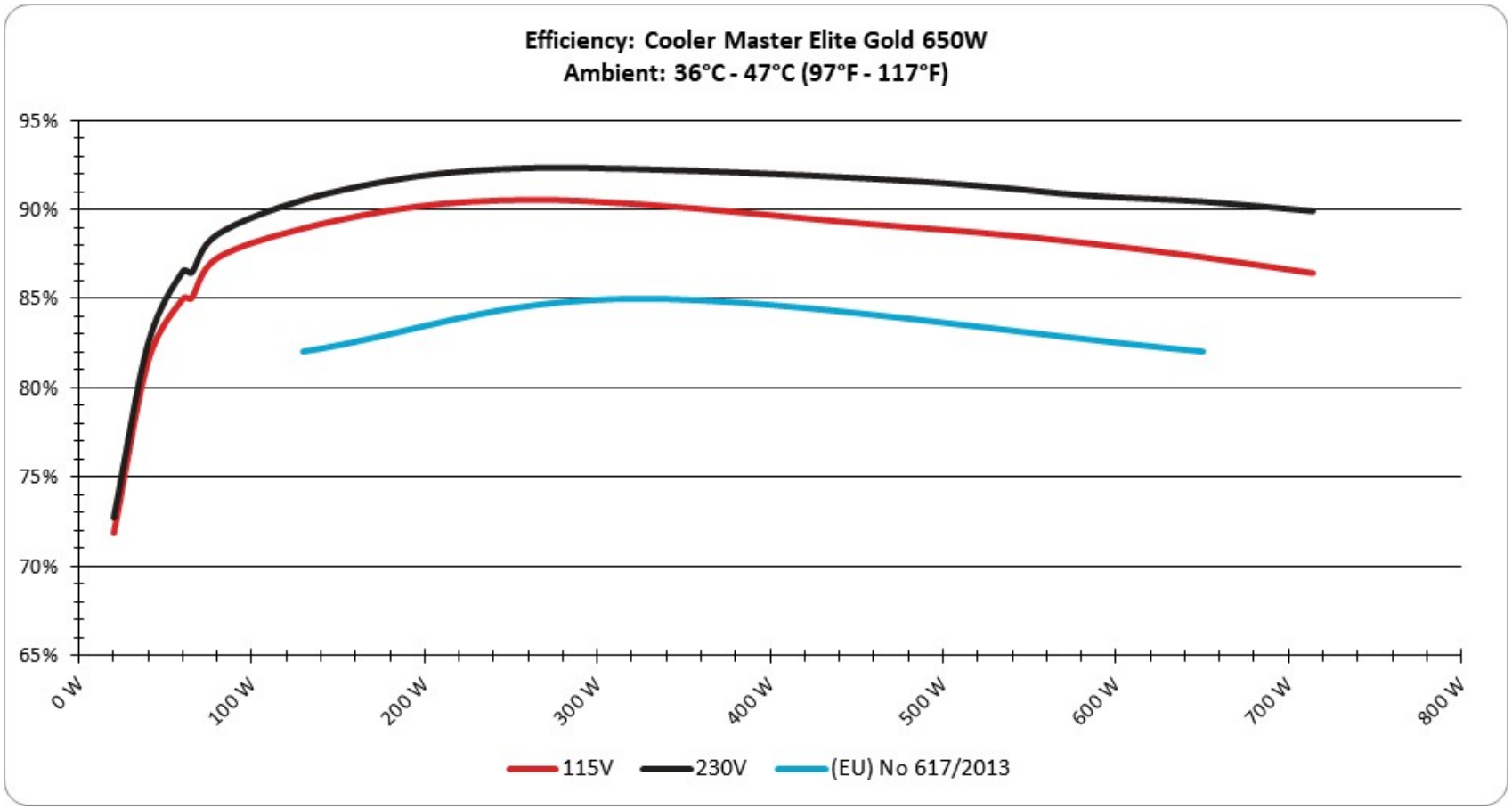
NEUTRAL



PHASE

Indicative Performance

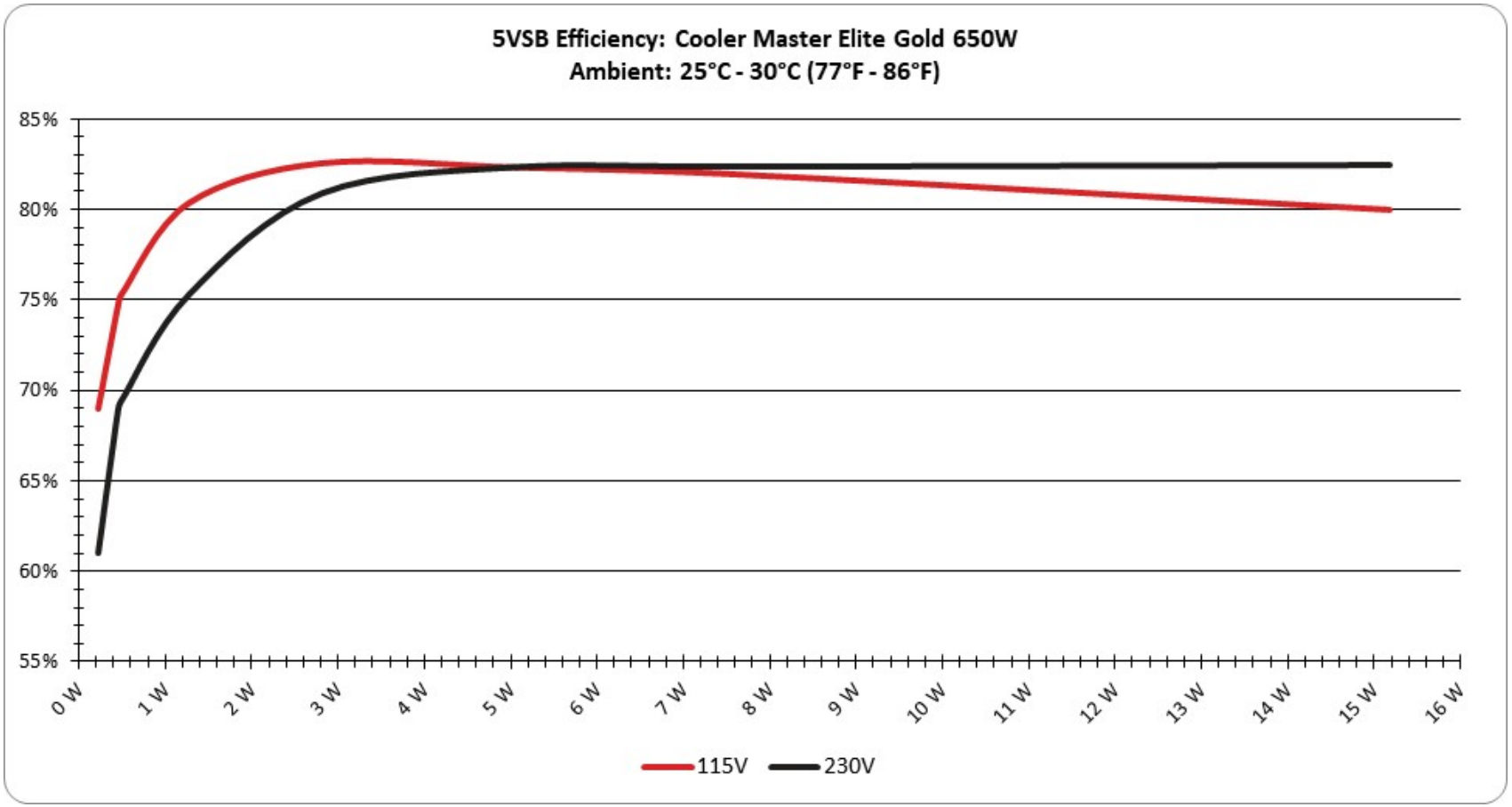
Efficiency under high ambient temperature



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**	0.231W	68.94%	0.053
	5.138V	0.335W		115.1V
2	**0.09A**	0.462W	74.718%	0.095
	5.137V	0.619W		115.09V
3	**0.55A**	2.818W	82.571%	0.334
	5.125V	3.413W		115.09V
4	**1A**	5.113W	82.332%	0.415
	5.113V	6.21W		115.09V
5	**1.5A**	7.649W	81.948%	0.452
	5.1V	9.334W		115.08V
6	**3A**	15.179W	79.987%	0.507
	5.06V	18.977W		115.08V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.231W	61.038%	0.019
	5.137V	0.379W		230.3V
2	**0.09A**	0.462W	68.962%	0.034
	5.137V	0.67W		230.31V
3	**0.55A**	2.818W	80.881%	0.156
	5.125V	3.484W		230.31V
4	**1A**	5.112W	82.336%	0.238
	5.113V	6.209W		230.3V
5	**1.5A**	7.649W	82.351%	0.294
	5.099V	9.288W		230.3V
6	**3A**	15.176W	82.441%	0.378
	5.059V	18.408W		230.3V

Protection Features

OCP (Normal @ 25.3°C)	12V: 66.20A (122.37%), 12.136V 5V: 23.9A (119.50%), 5.061V 3.3V: 23.1A (115.50%), 3.265V 5VSB: 5.7A (190.00%), 4.984V
OCP (Hot @ 41.6°C)	12V: 66.00A (122.00%), 12.134V 5V: 23.8A (119.00%), 5.042V 3.3V: 22.7A (113.50%), 3.258V 5VSB: 5.7A (190.00%), 4.98V
OPP (Normal @ 28.6°C)	902.99W (138.92%)
OPP (Hot @ 42.2°C)	852.60W (131.17%)
OTP	✓ (150°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 EN 55032 & 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%	**3.574A**	**1.985A**	**2A**	**0.98A**	64.996	85.04%	1399	36.6	40.18°C	0.962
	12.143V	5.038V	3.299V	5.103V	76.43				42.58°C	115.08V
20%	**8.159A**	**2.978A**	**3.004A**	**1.178A**	129.919	88.97%	1404	36.6	40.76°C	0.983
	12.137V	5.036V	3.296V	5.092V	146.026				44.1°C	115.06V
30%	**13.096A**	**3.476A**	**3.507A**	**1.378A**	194.918	90.183%	1411	36.3	41.07°C	0.983
	12.132V	5.034V	3.293V	5.081V	216.137				45.18°C	115.04V
40%	**18.043A**	**3.975A**	**4.012A**	**1.578A**	259.998	90.569%	1417	35.9	41.98°C	0.988
	12.127V	5.032V	3.29V	5.07V	287.073				47.03°C	115.01V
50%	**22.645A**	**4.971A**	**5.02A**	**1.779A**	324.987	90.315%	1404	36.6	42.46°C	0.991
	12.121V	5.03V	3.287V	5.058V	359.836				48.62°C	114.99V
60%	**27.195A**	**5.968A**	**6.031A**	**1.982A**	389.272	89.809%	1411	36.3	42.56°C	0.993
	12.115V	5.027V	3.283V	5.046V	433.442				49.71°C	114.97V
70%	**31.835A**	**6.966A**	**7.044A**	**2.185A**	454.598	89.224%	1418	35.9	43.06°C	0.994
	12.109V	5.025V	3.28V	5.033V	509.505				51.14°C	114.95V
80%	**36.484A**	**7.965A**	**8.058A**	**2.289A**	519.428	88.743%	1430	35.9	43.89°C	0.995
	12.102V	5.021V	3.276V	5.023V	585.318				53.91°C	114.93V
90%	**41.524A**	**8.459A**	**8.548A**	**2.393A**	584.824	88.12%	1481	35.5	44.09°C	0.996
	12.098V	5.023V	3.275V	5.015V	663.671				52.1°C	114.9V
100%	**46.310A**	**8.958A**	**9.072A**	**3.004A**	649.652	87.356%	1722	39.2	45.07°C	0.996
	12.092V	5.023V	3.273V	4.992V	743.682				52.31°C	114.88V
110%	**50.972A**	**9.963A**	**10.188A**	**3.009A**	714.271	86.451%	1753	39.7	46.87°C	0.996
	12.085V	5.018V	3.268V	4.985V	826.218				55.64°C	114.86V
CL1	**0.113A**	**11.977A**	**12.1A**	**0A**	101.271	82.429%	1422	35.9	40.83°C	0.978
	12.140V	5.026V	3.281V	5.112V	122.859				47.66°C	115.06V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	**0.113A**	**19.892A**	**0A**	**0A**	101.36	80.541%	1420	35.9	40.24°C	0.979
	12.143V	5.026V	3.279V	5.118V	125.849				47.17°C	115.07V
CL3	**0.113A**	**0A**	**20.097A**	**0A**	67.371	74.666%	1417	35.9	40.03°C	0.968
	12.140V	5.008V	3.284V	5.114V	90.229				46.51°C	115.09V
CL4	**53.726A**	**0A**	**0A**	**0A**	649.481	88.056%	1659	38.2	48.09°C	0.996
	12.089V	5.017V	3.28V	5.086V	737.578				53.77°C	114.89V

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%	**3.575A**	**1.986A**	**2.001A**	**0.98A**	65	86.429%	1371	34.7	40.17°C	0.841
	12.142V	5.036V	3.298V	5.103V	75.206				42.21°C	230.29V
20%	**8.160A**	**2.979A**	**3.004A**	**1.179A**	129.935	90.506%	1371	34.7	40.89°C	0.918
	12.137V	5.036V	3.295V	5.091V	143.564				41.67°C	230.26V
30%	**13.096A**	**3.475A**	**3.507A**	**1.378A**	194.932	91.813%	1370	34.7	41.13°C	0.946
	12.132V	5.036V	3.294V	5.081V	212.315				42.08°C	230.25V
40%	**18.045A**	**3.974A**	**4.012A**	**1.578A**	260.01	92.287%	1378	35.6	41.65°C	0.961
	12.126V	5.033V	3.291V	5.07V	281.74				44.15°C	230.25V
50%	**22.648A**	**4.97A**	**5.019A**	**1.779A**	325.004	92.221%	1383	35.6	42.19°C	0.969
	12.120V	5.031V	3.288V	5.058V	352.419				44.78°C	230.25V
60%	**27.204A**	**5.967A**	**6.03A**	**1.982A**	389.343	92.002%	1413	36.3	42.72°C	0.975
	12.113V	5.028V	3.284V	5.046V	423.192				46.05°C	230.24V
70%	**31.837A**	**6.962A**	**7.04A**	**2.185A**	454.61	91.713%	1411	36.3	43.22°C	0.978
	12.109V	5.028V	3.282V	5.034V	495.685				44.96°C	230.23V
80%	**36.481A**	**7.966A**	**8.059A**	**2.288A**	519.394	91.304%	1456	35.0	43.86°C	0.982
	12.102V	5.02V	3.276V	5.025V	568.863				50.96°C	230.22V
90%	**41.534A**	**8.472A**	**8.557A**	**2.393A**	584.822	90.737%	1541	36.6	44.24°C	0.984
	12.094V	5.016V	3.272V	5.014V	644.521				54.37°C	230.21V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**46.312A**	**8.964A**	**9.076A**	**3.004A**	649.585	90.41%	1746	39.7	45.65°C	0.986
	12.090V	5.019V	3.272V	4.993V	718.491				51.77°C	230.2V
110%	**50.972A**	**9.965A**	**10.184A**	**3.008A**	714.218	89.872%	1794	41.2	46.29°C	0.987
	12.084V	5.017V	3.269V	4.986V	794.702				52.67°C	230.19V
CL1	**0.114A**	**11.976A**	**12.088A**	**0A**	101.273	83.831%	1126	30.1	40.2°C	0.901
	12.139V	5.026V	3.284V	5.112V	120.805				44.12°C	230.29V
CL2	**0.113A**	**19.873A**	**0A**	**0A**	101.351	82.048%	1262	33.9	40.92°C	0.904
	12.141V	5.03V	3.282V	5.119V	123.526				39.6°C	230.29V
CL3	**0.113A**	**0A**	**20.103A**	**0A**	67.371	75.639%	694	22.1	41.56°C	0.867
	12.138V	5.012V	3.283V	5.115V	89.069				42.95°C	230.3V
CL4	**53.733A**	**0A**	**0A**	**0A**	649.477	91.257%	1155	29.6	45.72°C	0.986
	12.087V	5.02V	3.28V	5.087V	711.702				46.46°C	230.21V

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**	**0.496A**	**0.5A**	**0.195A**	19.994	71.841%	680	21.9	36.02°C	0.898
	12.143V	5.042V	3.303V	5.13V	27.831				37.82°C	115.1V
40W	**2.691A**	**0.694A**	**0.7A**	**0.293A**	39.993	81.569%	683	21.9	37.19°C	0.941
	12.145V	5.04V	3.301V	5.126V	49.03				39.62°C	115.09V
60W	**4.161A**	**0.893A**	**0.899A**	**0.39A**	59.993	85.012%	1387	35.6	38.14°C	0.959
	12.143V	5.041V	3.302V	5.121V	70.57				40.15°C	115.09V
80W	**5.626A**	**1.091A**	**1.1A**	**0.488A**	79.931	87.304%	1393	36.6	39.05°C	0.969
	12.141V	5.038V	3.3V	5.117V	91.554				41.2°C	115.08V

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**	**0.499A**	**0.195A**	19.99	72.707%	1370	34.7	36.75°C	0.64
	12.144V	5.046V	3.304V	5.131V	27.494				39.9°C	230.34V
40W	**2.691A**	**0.694A**	**0.7A**	**0.292A**	39.99	82.525%	1388	35.6	37.54°C	0.77
	12.144V	5.041V	3.301V	5.126V	48.459				39.6°C	230.33V
60W	**4.161A**	**0.893A**	**0.9A**	**0.39A**	59.991	86.509%	1407	36.3	38.22°C	0.83
	12.143V	5.036V	3.298V	5.121V	69.346				43.94°C	230.33V
80W	**5.625A**	**1.092A**	**1.101A**	**0.488A**	79.925	88.566%	1413	36.3	39.16°C	0.869
	12.141V	5.034V	3.297V	5.116V	90.243				44.49°C	230.33V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	36.61mV	14.32mV	22.60mV	9.96mV	Pass
20% Load	37.43mV	13.96mV	20.37mV	10.12mV	Pass
30% Load	37.28mV	14.32mV	18.31mV	10.64mV	Pass
40% Load	35.94mV	22.57mV	26.13mV	11.77mV	Pass
50% Load	32.58mV	14.79mV	23.22mV	11.00mV	Pass
60% Load	33.00mV	15.61mV	23.53mV	10.99mV	Pass
70% Load	33.36mV	15.56mV	25.08mV	11.61mV	Pass
80% Load	31.40mV	15.45mV	21.93mV	11.87mV	Pass
90% Load	32.17mV	16.07mV	21.15mV	11.82mV	Pass
100% Load	40.32mV	17.11mV	21.05mV	12.03mV	Pass
110% Load	36.40mV	17.21mV	23.79mV	13.21mV	Pass
Crossload1	36.30mV	15.15mV	15.20mV	11.30mV	Pass
Crossload2	37.17mV	15.81mV	15.10mV	11.41mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	36.92mV	14.47mV	16.08mV	10.94mV	Pass
Crossload4	34.85mV	16.07mV	16.96mV	13.21mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	37.95mV	15.71mV	25.28mV	12.29mV	Pass
20% Load	38.15mV	15.61mV	29.16mV	12.90mV	Pass
30% Load	38.20mV	16.28mV	26.32mV	14.19mV	Pass
40% Load	35.32mV	16.59mV	25.91mV	14.51mV	Pass
50% Load	32.48mV	16.69mV	26.58mV	14.25mV	Pass
60% Load	33.00mV	17.67mV	35.47mV	14.35mV	Pass
70% Load	33.72mV	16.74mV	26.94mV	14.92mV	Pass
80% Load	33.15mV	17.41mV	35.27mV	15.23mV	Pass
90% Load	34.08mV	17.72mV	26.01mV	15.90mV	Pass
100% Load	35.94mV	19.68mV	27.35mV	16.46mV	Pass
110% Load	36.50mV	19.52mV	26.48mV	17.34mV	Pass
Crossload1	38.41mV	17.36mV	25.54mV	17.04mV	Pass
Crossload2	37.89mV	20.97mV	26.58mV	16.88mV	Pass
Crossload3	37.58mV	18.81mV	27.46mV	17.34mV	Pass
Crossload4	35.83mV	16.90mV	26.58mV	19.61mV	Pass

The results above are not used in the certification process

Cooler Master Elite Gold 650W



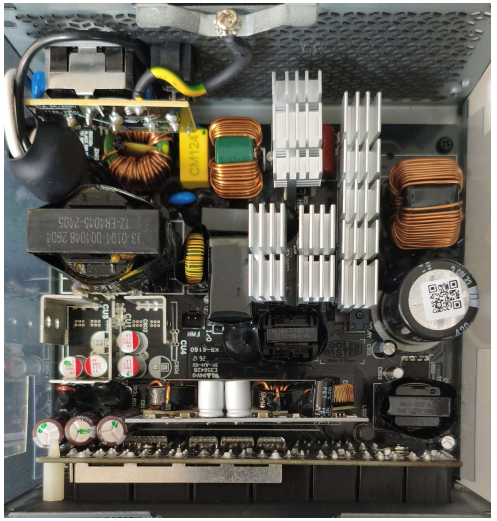
Top side



Power specifications label



Fan



PSU Internals

All data and graphs included in this test report can be used by any individual on the following conditions:

› It should be mentioned that the test results are provided by Cybenetics

› The link to the original test results document should be provided in any case

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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