Make It Yours.

Cooler Master G GOLD 650 V2 (MWE GOLD 650 V3 Non-Modular)

Serial Number MPE6502ACAAGEU2250300002

Lab ID CM65002765

Certification ID 252765

Test Result Report ID: 25PS2765A

Certificate Issue Date: Mar 13, 2025

Scheme: ETA-EMI PSU

115V 230V



Scheme: LAMBDA PSU

115V 230V





Outside Validation Scope



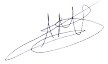
General Information

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	Cooler Master
Model	G GOLD 650 V2 (MWE GOLD 650 V3 Non-Modular)
OEM/ODM	Gospower
Serial Number	MPE6502ACAAGEU2250300002
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)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225H12F-Z)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	CM65002765
Date of receipt	Mar 6, 2025
Testing Date	Mar 13, 2025
Report Issued Date	Mar 13, 2025
DUT Notes	Some protection features need adjustment.
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Captive Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	In Cable Capacitors
ATX connector 24 pin (500mm)	1	1	18-22AWG	No
8 pin EPS12V (575mm) / 4+4 pin EPS12V(+120mm)	1	2	18AWG	No
6+2 pin PCIe (515mm+120mm)	2	4	16-18AWG	No
SATA (410mm+150mm+150mm)	2	6	18AWG	No
4-pin Molex (400mm+150mm+150mm)	1	3	18AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-

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	3	0.3
	Watts	120		648	15	3.6
Total Max. Power (W)		650				

Parts Description

General Data	
Manufacturer (OEM)	Gospower
PCB Type	Single-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	1x NTC Thermistor 5D-15 (5 Ohms @ 25°C) & Relay
Bridge Rectifier(s)	1x GBU2508 (800V, 25A @ 98°C)
APFC MOSFETs	2x Oriental Semiconductor OSG60R074FSZF (650V, 30A @ 100°C, Rds(on): 0.074Ohm)
APFC Boost Diode	1x Sanan SDS065J010C3 (650V, 10A @ 155°C)
Bulk Cap(s)	1x CapXon (420V, 560uF , 2,000h @ 85°C, LP)

Main Switchers	2x Sanrise Tech SRC60R140B (600V, 11.2A @ 125°C, Rds(on): 140mOhm)
APFC Controller	1x Champion CM6500UNX
Resonant Controller	Champion CU6901VAC
Topology	Primary side: APFC, Half-Bridge & LLC Resonant converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	4x Ncepower NCEP40T17A (40V, 120A @ 100°C, Rds(on): 2.4mOhm)
5V & 3.3V	DC-DC Converters: 4x CR Micro CRTD055N03LC (30V, 61A @ 100°C, Rds(on): 5.5mOhm) PWM Controller(s): Anpec APW7159C
Filtering Capacitors	Electrolytic: 15x CapXon (2-5,000h @105°C, KF) Polymer: 9x CapXon
Supervisor IC	-
Fan Model	Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Fluid Dynamic Bearing Fan)
5VSB	
Rectifier	RS1M (1000V, 1A)
Standby PWM Controller	On-Bright OB2365SP

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)	87.328%
Average Noise Output (>1450 Load Combinations)	24.10dBA
Average PF (>1450 Load Combinations)	0.984
Efficiency With 10W (≤500W) or 2% (>500W) Load	75.334%
Standby Power Consumption	0.0534W
Non-Accredited	
12V Ripple (Full Load)	52.45mV
5V Ripple (Full Load)	18.99mV
3.3V Ripple (Full Load)	16.29mV
5VSB Ripple (Full Load)	44.45mV
12V Load Regulation	1.51%
5V Load Regulation	3.39%
3.3V Load Regulation	4.92%
5VSB Load Regulation	4.28%
Inrush Current	65.920A

230V

Accredited	
Average Efficiency (>1450 load combinations)	89.115%
Average Noise Output (>1450 Load Combinations)	23.84dBA
Average PF (>1450 Load Combinations)	0.933
Efficiency With 10W (≤500W) or 2% (>500W) Load	73.665%
Standby Power Consumption	0.1637W
Non-Accredited	
12V Ripple (Full Load)	53.29mV
5V Ripple (Full Load)	18.98mV
3.3V Ripple (Full Load)	15.94mV

5VSB Ripple (Full Load)		36.38mV
12V Load Regulation		1.46%
5V Load Regulation		3.39%
3.3V Load Regulation		4.13%
5VSB Load Regulation		4.13%
Inrush Current		133.100A
12V Transient Response (150%)		11.73V
5V Transient Response (150%)		4.947V
3.3V Transient Response (150%)		3.186V
5VSB Transient Response (150%)		4.980V
Hold-Up Time & PWR_OK Signal		21.30ms
AC Loss to PWR_OK Hold Up Time		19.40ms
PWR_OK Inactive to DC Loss Delay		1.90ms
PSU Timings: T1 (20% / 100%)	50.0ms	49.0ms
PSU Timings: T3 (20% / 100%)	115.0ms	115.0ms
12V OCP (28.4°C / 41.4°C)	79.80A (147.78%), 11.877V	79.80A (147.78%), 11.884V
5V OCP (28.4°C / 41.4°C)	27.3A (136.50%), 4.906V *High ripple (73.93mV)	27.4A (137.00%), 4.91V *High ripple (70.32mV)
3.3V OCP (28.4°C / 41.4°C)	25.7A (128.50%), 3.264V	26A (130.00%), 3.223V
5VSB OCP (28.4°C / 41.4°C)	4.5A (150.00%), 4.968V	4.4A (146.67%), 4.969V *High ripple (65.19mV)
OPP (27.78°C / 41.95°C)	144.47%	144.01%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	21.3
AC Loss to PWR_OK Hold Up Time (ms)	19.4
PWR_OK Inactive to DC Loss Delay (ms)	1.9

Vampire Power

Tables

115V

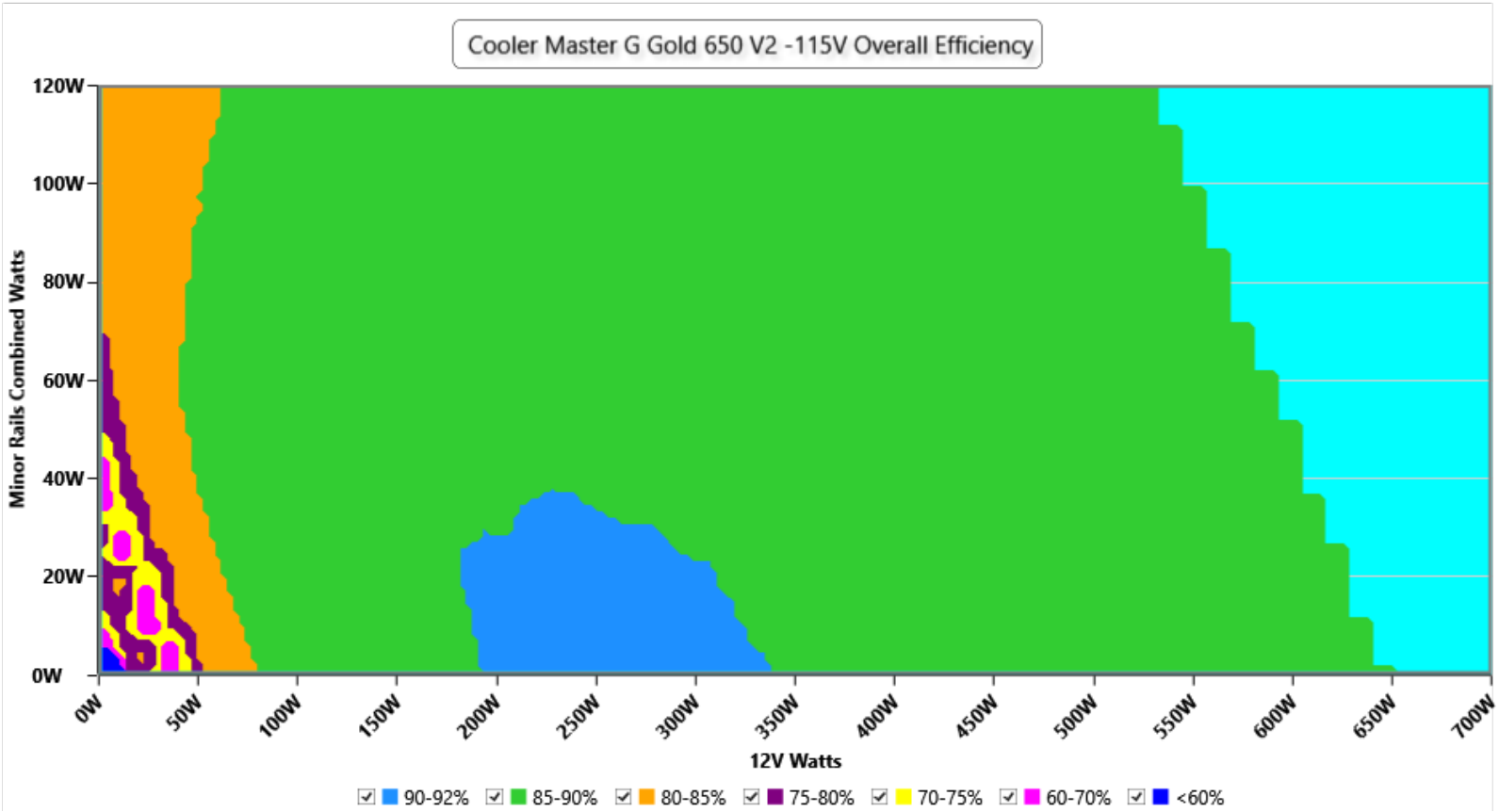
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.05 V	115.01 V	113.85 V	115.09 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.13 %	0.09 %	N/A	0.20 %	2.00 %	PASS
Real Power:	0.053 W	0.009 W	N/A	0.087 W	N/A	N/A
Apparent Power:	14.447 W	14.373 W	N/A	14.509 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	231.00 V	230.90 V	227.70 V	231.07 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:	1.417	1.416	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.17 %	0.15 %	N/A	0.27 %	2.00 %	PASS
Real Power:	0.164 W	0.123 W	N/A	0.211 W	N/A	N/A
Apparent Power:	49.569 W	49.324 W	N/A	49.807 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

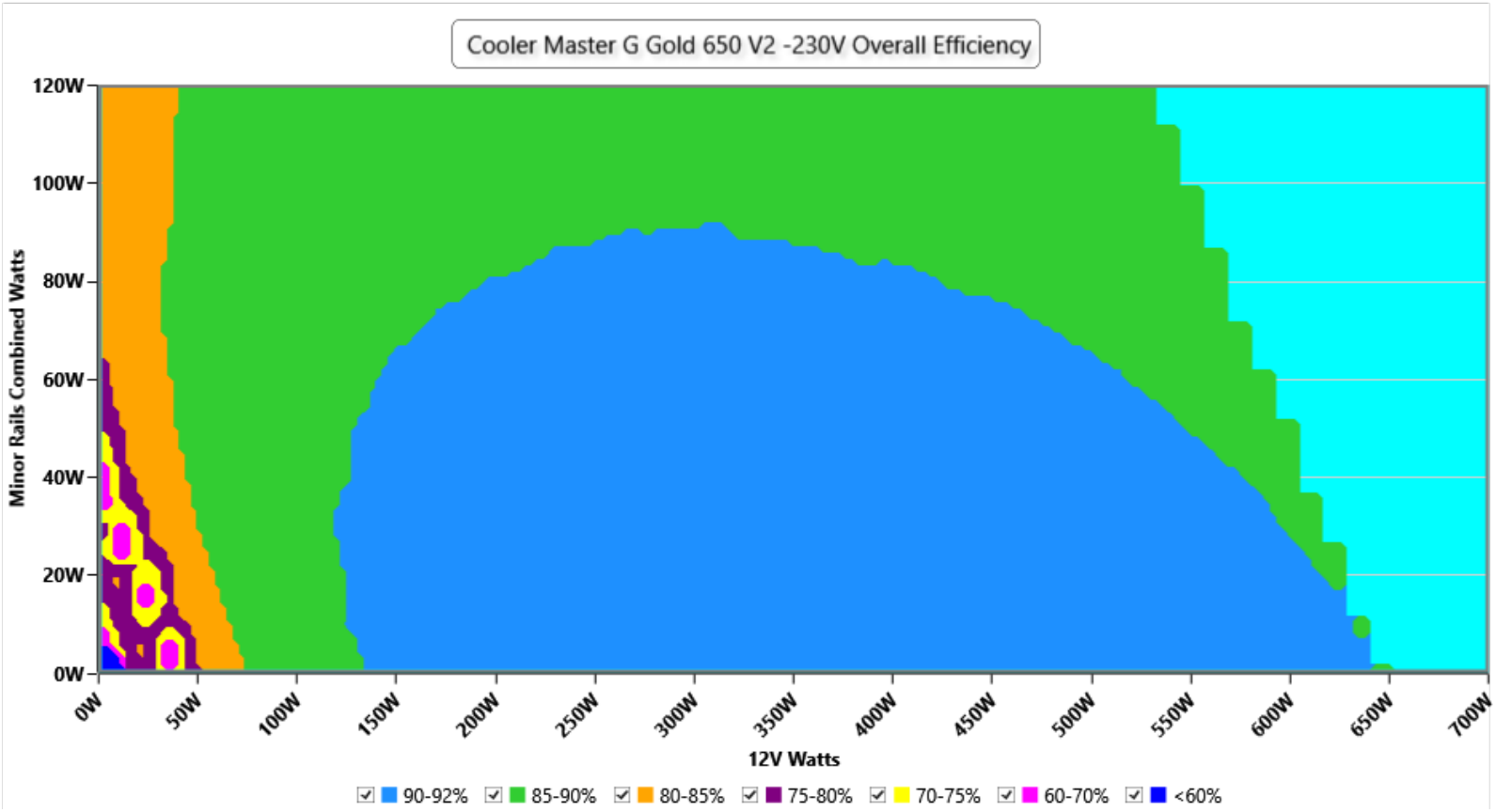
115V



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

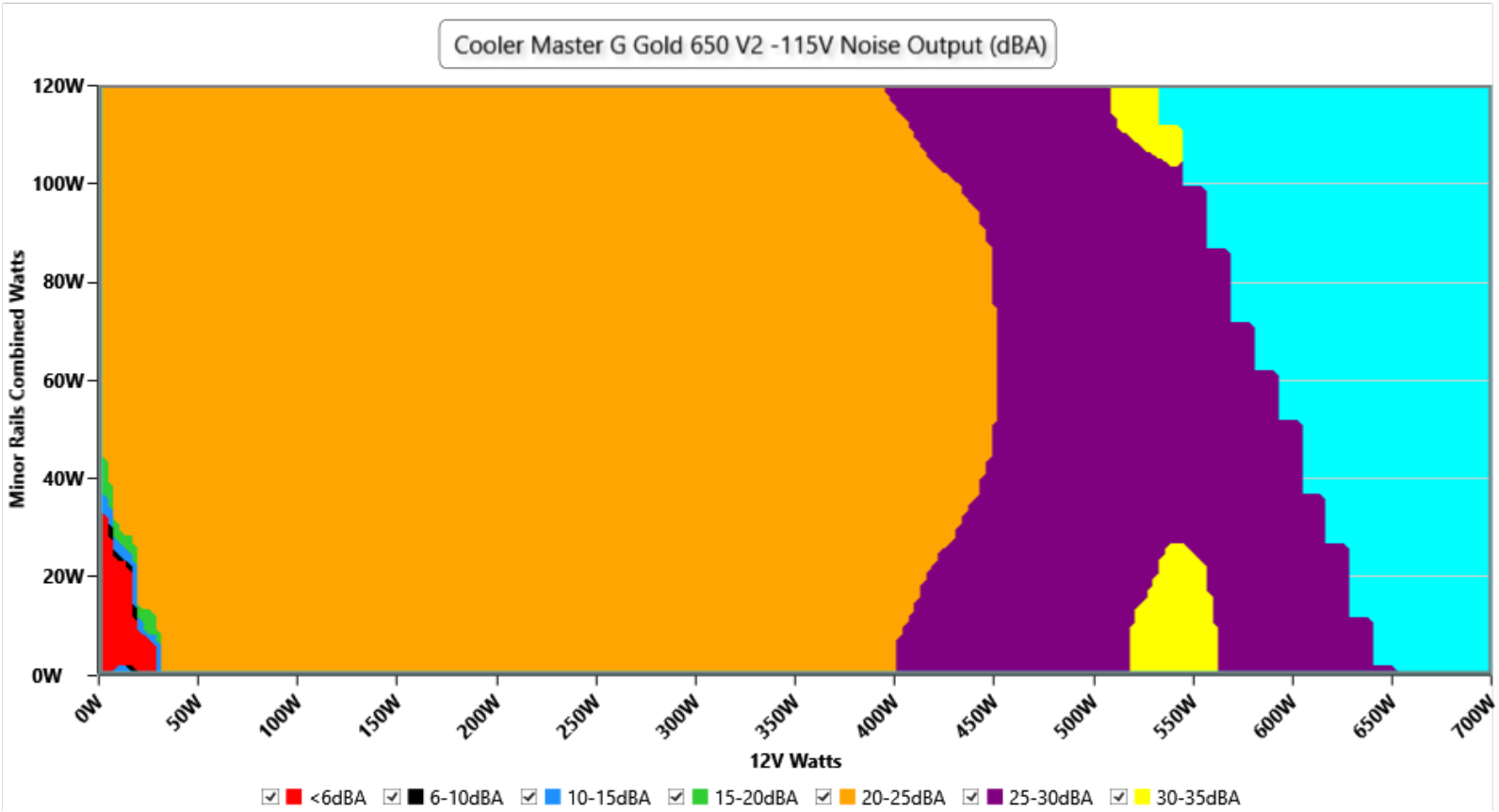


INFO

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Noise Graph

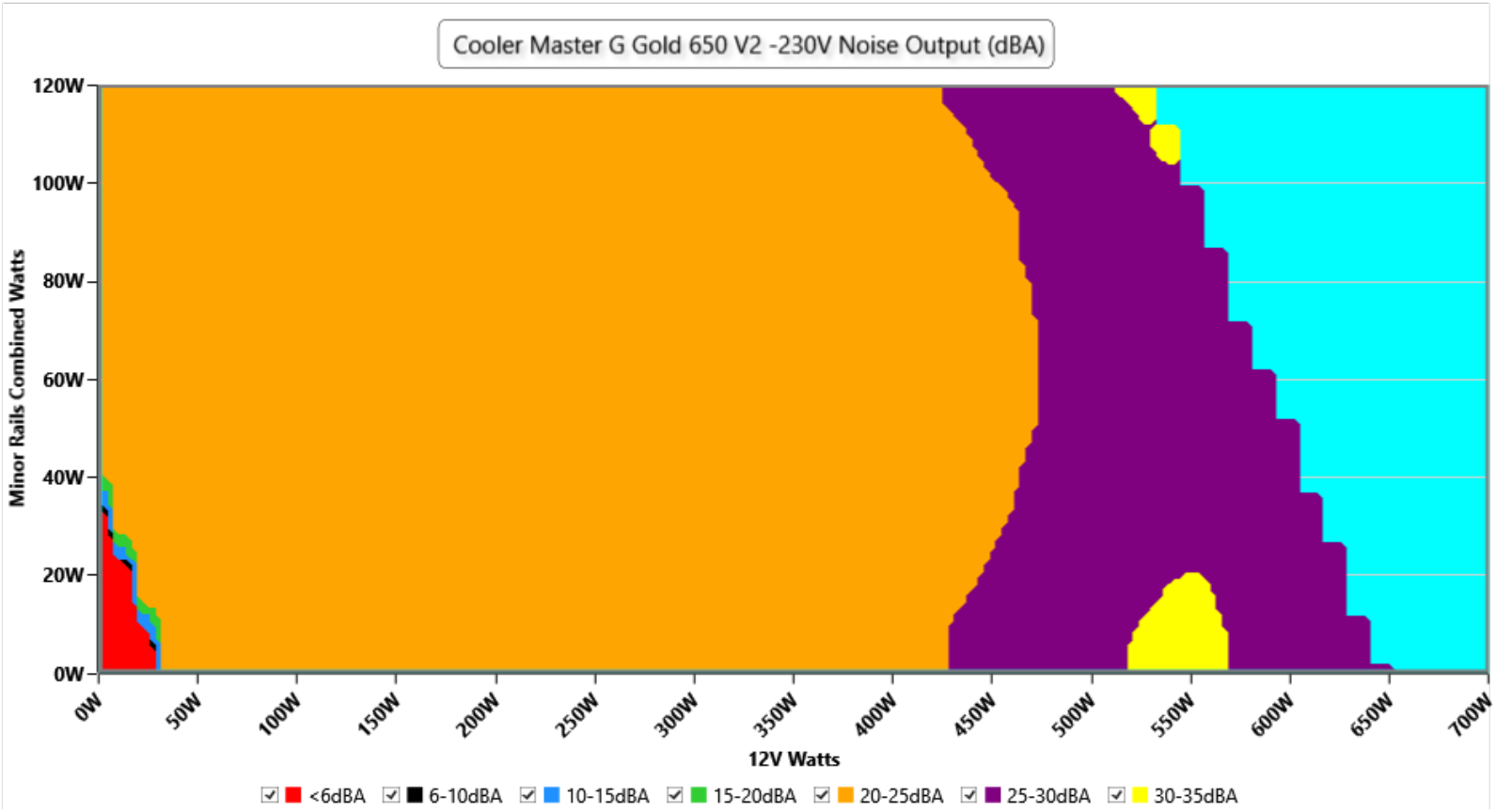
115V



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%	995 RPM · 20.1 dB(A) · 29.3 °C	1116 RPM · 23.6 dB(A) · 40.4 °C	**+3.5 dB(A)**
20%	1004 RPM · 20.3 dB(A) · 30.0 °C	1127 RPM · 23.9 dB(A) · 40.8 °C	**+3.6 dB(A)**
50%	1017 RPM · 20.8 dB(A) · 30.5 °C	1218 RPM · 26.3 dB(A) · 42.4 °C	**+5.5 dB(A)**
100%	1260 RPM · 27.7 dB(A) · 31.4 °C	1841 RPM · 40.0 dB(A) · 45.9 °C	**+12.3 dB(A)**

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	995 RPM · 20.1 dB(A) · 30.8 °C	1121 RPM · 23.7 dB(A) · 40.4 °C	**+3.6 dB(A)**
20%	1004 RPM · 20.3 dB(A) · 30.7 °C	1128 RPM · 23.9 dB(A) · 41.0 °C	**+3.6 dB(A)**
50%	1014 RPM · 20.7 dB(A) · 30.4 °C	1196 RPM · 25.9 dB(A) · 42.4 °C	**+5.2 dB(A)**
100%	1247 RPM · 27.2 dB(A) · 30.3 °C	1867 RPM · 40.4 dB(A) · 45.5 °C	**+13.2 dB(A)**

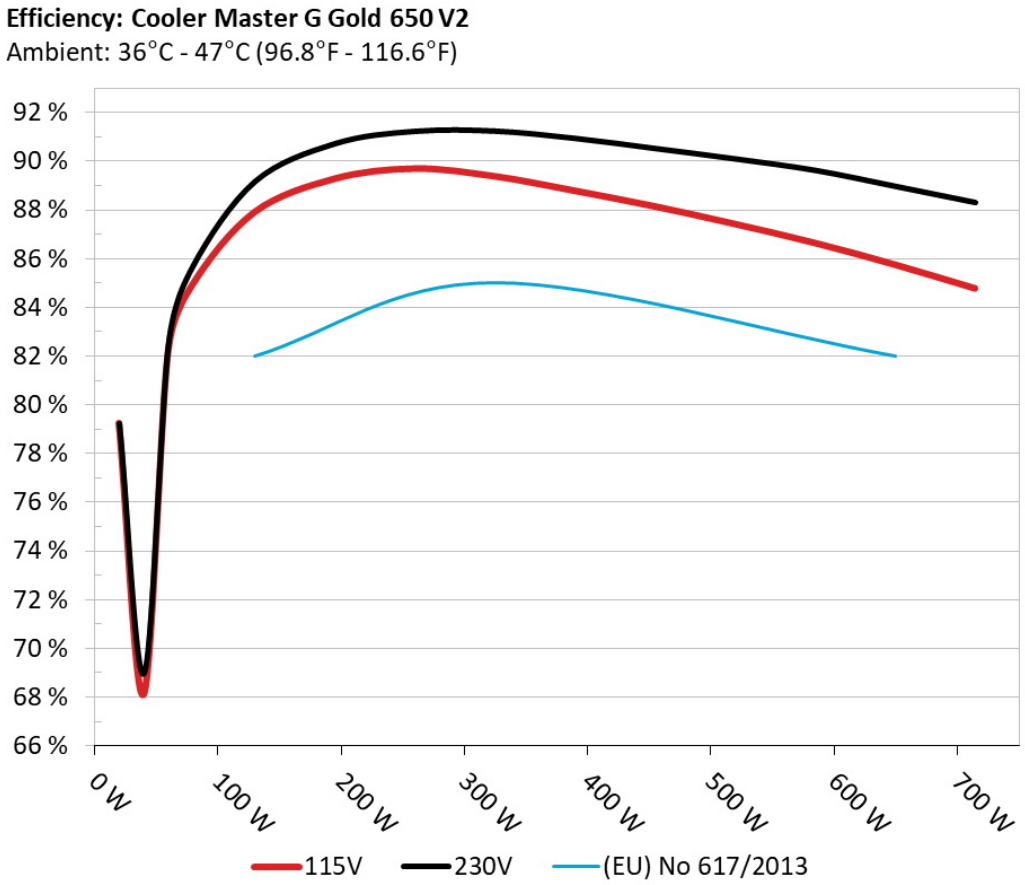
INFO

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, with the fan stopped; 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

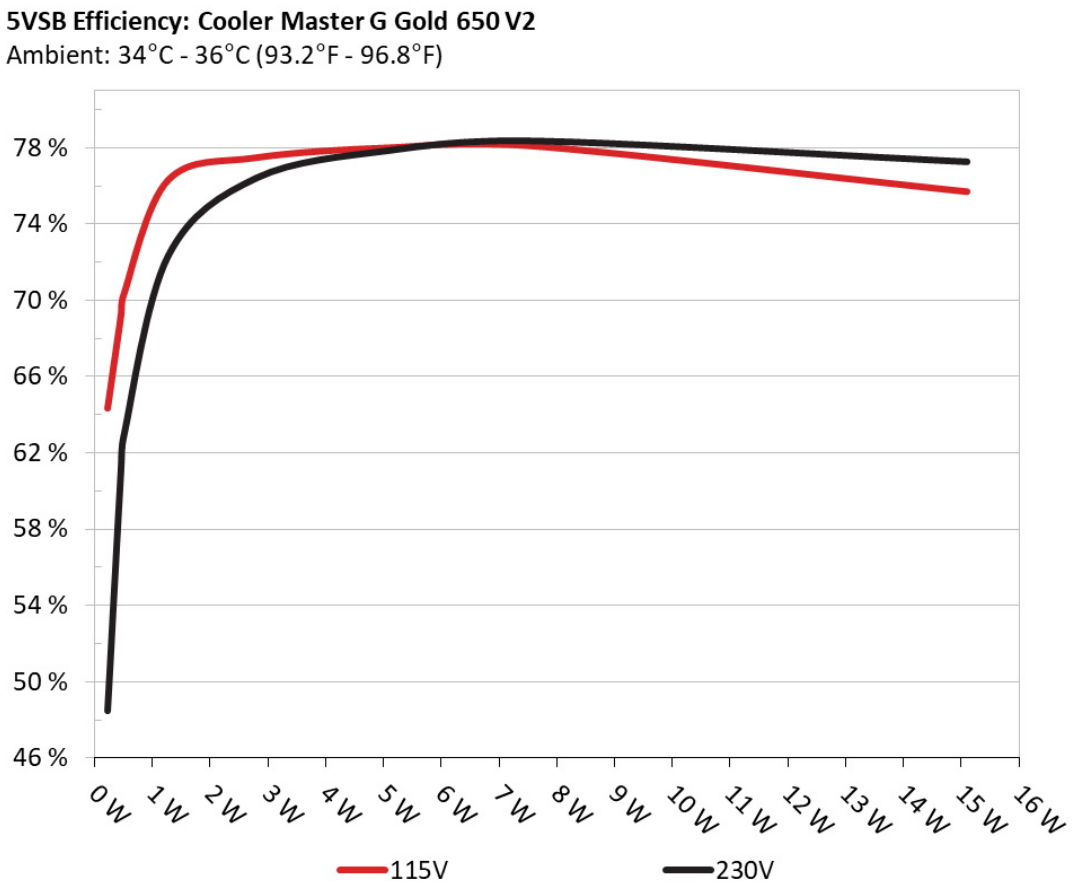
Efficiency under high ambient temperature



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**	0.231W	64.337%	0.021
	5.127V	0.305W		114.87V
2	**0.09A**	0.461W	69.201%	0.046
	5.126V	0.666W		114.88V
3	**0.55A**	2.812W	77.511%	0.216
	5.112V	3.628W		114.88V
4	**1A**	5.098W	78.033%	0.321
	5.097V	6.533W		114.87V
5	**1.5A**	7.622W	78.109%	0.382
	5.081V	9.758W		114.87V
6	**3A**	15.095W	75.719%	0.468
	5.031V	19.935W		114.87V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.231W	48.456%	0.01
	5.129V	0.478W		229.97V
2	**0.09A**	0.461W	61.035%	0.015
	5.127V	0.757W		229.97V
3	**0.55A**	2.812W	76.409%	0.073
	5.113V	3.68W		229.95V
4	**1A**	5.098W	77.842%	0.125
	5.098V	6.548W		229.95V
5	**1.5A**	7.622W	78.343%	0.177
	5.082V	9.731W		229.95V
6	**3A**	15.098W	77.253%	0.29
	5.033V	19.545W		229.95V

Protection Features

OCP (Normal @ 28.4°C)	12V: 79.80A (147.78%), 11.877V 5V: 27.3A (136.50%), 4.906V *High ripple (73.93mV) 3.3V: 25.7A (128.50%), 3.264V 5VSB: 4.5A (150.00%), 4.968V
OCP (Hot @ 41.4°C)	12V: 79.80A (147.78%), 11.884V 5V: 27.4A (137.00%), 4.91V *High ripple (70.32mV) 3.3V: 26A (130.00%), 3.223V 5VSB: 4.4A (146.67%), 4.969V *High ripple (65.19mV)
OPP (Normal @ 27.8°C)	939.04W (144.47%)
OPP (Hot @ 42.0°C)	936.07W (144.01%)
OTP	✓ (115°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
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%	**3.558A**	**1.948A**	**1.981A**	**0.984A**	64.999	82.012%	1116	23.6	40.44°C	0.952
	12.197V	5.135V	3.331V	5.083V	79.26				42.69°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
20%	**8.136A**	**2.932A**	**2.987A**	**1.185A**	129.928	87.912%	1127	23.9	40.78°C	0.977
	12.172V	5.117V	3.314V	5.065V	147.8				42.94°C	114.83V
30%	**13.081A**	**3.429A**	**3.499A**	**1.387A**	194.928	89.286%	1139	24.3	41.24°C	0.985
	12.146V	5.104V	3.301V	5.048V	218.32				44.29°C	114.81V
40%	**18.040A**	**3.93A**	**4.015A**	**1.59A**	260.014	89.703%	1148	24.7	41.55°C	0.99
	12.129V	5.09V	3.288V	5.03V	289.859				45.87°C	114.78V
50%	**22.663A**	**4.93A**	**5.046A**	**1.796A**	325.005	89.383%	1218	26.3	42.39°C	0.986
	12.112V	5.071V	3.27V	5.011V	363.607				47.56°C	114.77V
60%	**27.245A**	**5.939A**	**6.087A**	**2A**	389.329	88.794%	1307	28.7	42.8°C	0.986
	12.095V	5.053V	3.253V	4.992V	438.46				47.51°C	114.74V
70%	**31.924A**	**6.955A**	**7.142A**	**2.212A**	454.65	88.149%	1442	31.6	43.38°C	0.989
	12.077V	5.033V	3.235V	4.973V	515.777				48.58°C	114.72V
80%	**36.617A**	**7.975A**	**8.206A**	**2.32A**	519.438	87.428%	1549	33.5	43.74°C	0.991
	12.058V	5.015V	3.217V	4.956V	594.131				49.01°C	114.69V
90%	**41.722A**	**8.498A**	**8.739A**	**2.429A**	584.854	86.641%	1722	37.6	44.65°C	0.992
	12.040V	5V	3.203V	4.941V	675.034				50.79°C	114.67V
100%	**46.577A**	**9.025A**	**9.303A**	**3.056A**	649.683	85.75%	1841	40	45.86°C	0.993
	12.023V	4.986V	3.192V	4.909V	757.658				51.91°C	114.64V
110%	**51.315A**	**10.071A**	**10.48A**	**3.064A**	714.308	84.78%	2001	42.3	46.22°C	0.993
	12.005V	4.964V	3.177V	4.895V	842.541				53.17°C	114.61V
CL1	**0.114A**	**14.429A**	**14.689A**	**0.001A**	121.291	80.76%	1365	29.9	42.07°C	0.977
	12.164V	5.004V	3.247V	5.076V	150.18				46.83°C	114.83V
CL2	**0.113A**	**20.072A**	**0A**	**0.001A**	101.361	79.201%	1230	26.7	40°C	0.974
	12.192V	4.98V	3.321V	5.094V	127.979				44.22°C	114.84V
CL3	**0.113A**	**0A**	**20.246A**	**0.001A**	67.382	72.115%	1314	28.8	41.99°C	0.959
	12.186V	5.126V	3.26V	5.09V	93.441				44.82°C	114.86V
CL4	**53.984A**	**0A**	**0A**	**0.001A**	649.512	87.16%	1749	38.1	45.7°C	0.992
	12.031V	5.082V	3.266V	5.031V	745.203				50.32°C	114.64V

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%	**3.558A**	**1.948A**	**1.978A**	**0.984A**	65.006	82.588%	1121	23.7	40.36°C	0.73
	12.199V	5.135V	3.337V	5.083V	78.708				42.51°C	229.95V
20%	**8.135A**	**2.932A**	**2.979A**	**1.184A**	129.941	89.154%	1128	23.9	40.95°C	0.87
	12.174V	5.117V	3.323V	5.066V	145.752				43.51°C	229.93V
30%	**13.079A**	**3.429A**	**3.488A**	**1.386A**	194.942	90.713%	1136	24.2	41.17°C	0.921
	12.148V	5.104V	3.312V	5.049V	214.903				44.02°C	229.92V
40%	**18.037A**	**3.93A**	**4A**	**1.59A**	260.03	91.219%	1142	24.4	41.88°C	0.943
	12.132V	5.091V	3.3V	5.032V	285.066				44.45°C	229.91V
50%	**22.657A**	**4.93A**	**5.021A**	**1.795A**	325.028	91.225%	1196	25.9	42.4°C	0.956
	12.116V	5.072V	3.286V	5.014V	356.29				46.46°C	229.9V
60%	**27.240A**	**5.937A**	**6.052A**	**2A**	389.395	90.928%	1267	27.9	42.51°C	0.963
	12.099V	5.054V	3.272V	4.996V	428.243				46.16°C	229.89V
70%	**31.915A**	**6.954A**	**7.094A**	**2.211A**	454.71	90.513%	1410	31	43.08°C	0.968
	12.082V	5.035V	3.257V	4.977V	502.367				47.02°C	229.88V
80%	**36.601A**	**7.975A**	**8.142A**	**2.318A**	519.491	90.086%	1582	34.1	43.67°C	0.971
	12.065V	5.015V	3.242V	4.961V	576.659				48.47°C	229.87V
90%	**41.699A**	**8.497A**	**8.667A**	**2.426A**	584.904	89.613%	1703	37.2	44.03°C	0.974
	12.048V	5.002V	3.23V	4.946V	652.701				49.28°C	229.85V
100%	**46.545A**	**9.023A**	**9.229A**	**3.053A**	649.726	88.956%	1867	40.4	45.46°C	0.976
	12.032V	4.987V	3.218V	4.914V	730.386				50.7°C	229.85V
110%	**51.277A**	**10.065A**	**10.398A**	**3.061A**	714.351	88.297%	1992	42.3	46.93°C	0.978
	12.014V	4.967V	3.202V	4.901V	809.034				51.39°C	229.83V
CL1	**0.115A**	**14.444A**	**14.606A**	**0.001A**	121.298	81.816%	1375	30.1	41.18°C	0.872
	12.168V	4.998V	3.265V	5.077V	148.261				46.8°C	229.93V
CL2	**0.114A**	**20.106A**	**0A**	**0.001A**	101.366	79.995%	1250	27.3	41.13°C	0.845
	12.193V	4.972V	3.322V	5.095V	126.713				44.91°C	229.94V
CL3	**0.113A**	**0A**	**20.145A**	**0.001A**	67.385	73.029%	1260	27.7	42.31°C	0.773
	12.187V	5.127V	3.276V	5.091V	92.273				44.46°C	229.94V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL4	**53.957A**	**0A**	**0A**	**0.001A**	649.542	90.046%	1760	38.4	46.33°C	0.975
	12.038V	5.085V	3.269V	5.034V	721.35				49.05°C	229.84V

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**	**0.485A**	**0.493A**	**0.195A**	19.996	79.241%	0	<6.0	37.08°C	0.772
	12.157V	5.155V	3.349V	5.119V	25.232				36.72°C	114.88V
40W	**2.678A**	**0.68A**	**0.691A**	**0.293A**	39.997	68.088%	1060	22.2	37.78°C	0.926
	12.204V	5.15V	3.345V	5.112V	58.742				38.63°C	114.86V
60W	**4.142A**	**0.874A**	**0.889A**	**0.392A**	59.997	82.253%	1090	22.9	38.01°C	0.949
	12.198V	5.146V	3.341V	5.105V	72.94				39.71°C	114.86V
80W	**5.602A**	**1.07A**	**1.088A**	**0.49A**	79.938	84.957%	1104	23.5	39.08°C	0.959
	12.193V	5.142V	3.336V	5.099V	94.094				39.63°C	114.85V

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	**1.221A**	**0.485A**	**0.492A**	**0.195A**	20.006	79.221%	0	<6.0	38.51°C	0.362
	12.167V	5.156V	3.351V	5.117V	25.257				36.33°C	229.95V
40W	**2.678A**	**0.679A**	**0.69A**	**0.294A**	40.004	68.971%	1099	23.2	37.37°C	0.634
	12.208V	5.151V	3.347V	5.11V	58.003				43.02°C	229.95V
60W	**4.142A**	**0.874A**	**0.888A**	**0.392A**	60.003	82.553%	1104	23.5	38.79°C	0.705
	12.200V	5.147V	3.344V	5.105V	72.686				41.43°C	229.94V
80W	**5.602A**	**1.07A**	**1.087A**	**0.49A**	79.95	85.708%	1109	23.5	39.32°C	0.777
	12.196V	5.142V	3.34V	5.099V	93.278				41.66°C	229.94V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	9.07mV	10.61mV	8.33mV	20.03mV	Pass
20% Load	39.01mV	10.20mV	7.86mV	19.25mV	Pass
30% Load	41.68mV	12.05mV	9.72mV	21.47mV	Pass
40% Load	38.04mV	12.05mV	9.41mV	22.76mV	Pass
50% Load	37.65mV	13.39mV	10.91mV	23.64mV	Pass
60% Load	37.55mV	13.39mV	10.86mV	28.39mV	Pass
70% Load	36.98mV	14.22mV	12.56mV	28.91mV	Pass
80% Load	37.45mV	17.46mV	13.55mV	30.09mV	Pass
90% Load	37.55mV	18.03mV	13.75mV	32.42mV	Pass
100% Load	52.45mV	18.99mV	16.29mV	44.45mV	Pass
110% Load	54.87mV	21.27mV	16.51mV	44.24mV	Pass
Crossload1	51.52mV	24.64mV	17.76mV	27.25mV	Pass
Crossload2	36.11mV	36.94mV	10.96mV	25.71mV	Pass
Crossload3	12.89mV	12.62mV	19.13mV	21.16mV	Pass
Crossload4	48.67mV	13.84mV	10.82mV	34.51mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	9.59mV	10.87mV	8.89mV	21.01mV	Pass
20% Load	44.73mV	11.13mV	9.05mV	20.95mV	Pass
30% Load	43.32mV	11.64mV	9.31mV	22.14mV	Pass
40% Load	40.80mV	11.80mV	10.03mV	22.45mV	Pass
50% Load	39.56mV	12.31mV	10.34mV	23.44mV	Pass
60% Load	39.10mV	13.09mV	11.27mV	24.10mV	Pass

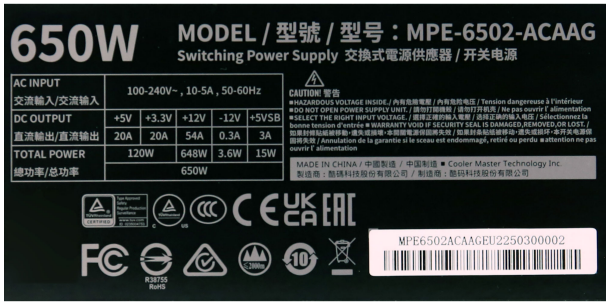
Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	38.01mV	15.04mV	11.22mV	24.67mV	Pass
80% Load	38.58mV	16.33mV	13.18mV	26.22mV	Pass
90% Load	39.15mV	17.83mV	13.76mV	26.74mV	Pass
100% Load	53.29mV	18.98mV	15.94mV	36.38mV	Pass
110% Load	54.06mV	21.56mV	16.39mV	35.30mV	Pass
Crossload1	55.04mV	25.28mV	18.13mV	24.70mV	Pass
Crossload2	40.95mV	36.89mV	10.75mV	24.62mV	Pass
Crossload3	14.28mV	11.90mV	21.51mV	20.49mV	Pass
Crossload4	49.67mV	13.28mV	11.24mV	25.17mV	Pass

The results above are not used in the certification process

Cooler Master G GOLD 650 V2 (MWE GOLD 650 V3 Non-Modular)



Top side



Power specifications label

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

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com