



**Make It Yours.**

## Cooler Master G500 Gold

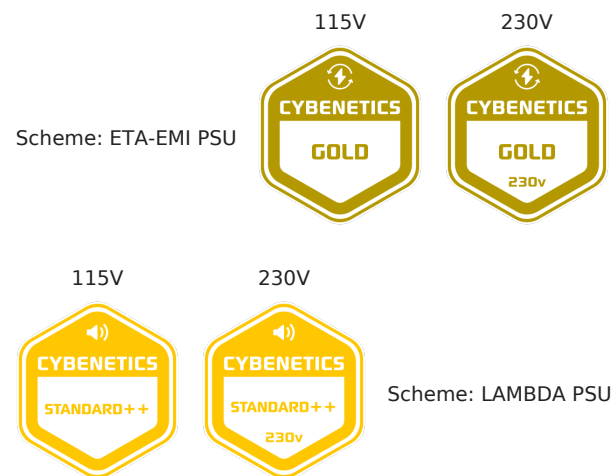
Serial Number

Lab ID CM50001881

Certification ID 251881

Test Result Report ID: 21PS1881A

Certificate Issue Date: Jul 30, 2021



A handwritten signature in blue ink, appearing to read "A. Bitziopoulos", is written over a faint circular stamp.

Aristeidis Bitziopoulos, Certification Body General Manager

## General Information

### Test Equipment

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Electronic Loads      | Chroma 63601-5 x2<br>Chroma 63600-2<br>Chroma 63640-80-80 x10<br>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                             | G500 Gold                        |
| OEM/ODM                           | Xin Hui Yuan Tech (Fusion Power) |
| Serial Number                     |                                  |
| Product Specifications            |                                  |
| Manufacturer-Provided Information |                                  |
| Rated Voltage (Vrms)              | 100-240                          |
| Rated Current (Arms)              | 10-5                             |
| Rated Frequency (Hz)              | 50-60                            |

|                                                   |                                                                                     |
|---------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated Power (W)                                   | 500                                                                                 |
| Operating Temperature (Continuous Full Load) (°C) |                                                                                     |
| Type                                              | ATX12V                                                                              |
| Cable Design                                      | Fixed cables                                                                        |
| Warranty                                          | -                                                                                   |
| Cybenetics Measurements                           |                                                                                     |
| Dimensions (W x H x D)                            |                                                                                     |
| Weight                                            |                                                                                     |
| Cooling                                           | 120mm Rifle Bearing Fan<br>(EFS-12E12M)                                             |
| Semi-Passive Operation                            | X                                                                                   |
| Cybenetics Testing Information                    |                                                                                     |
| Lab ID                                            | CM50001881                                                                          |
| Date of receipt                                   | Jul 21, 2021                                                                        |
| Testing Date                                      | Jul 28, 2021                                                                        |
| Report Issued Date                                | Jul 30, 2021                                                                        |
| 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 20+4 pin (560mm)                | 1           | 1                       | 18-22AWG | No                  |
| 8 pin EPS12V (640mm)/ 4+4 pin EPS12V (+125mm) | 1           | 1 / 1                   | 18AWG    | No                  |
| 6+2 pin PCIe (590mm+125mm)                    | 1           | 2                       | 18AWG    | No                  |
| SATA (550mm+125mm+125mm)                      | 2           | 6                       | 18AWG    | No                  |
| 4-pin Molex (520mm+125mm+125mm)               | 1           | 3                       | 18AWG    | No                  |
| Modular Cables                                |             |                         |          |                     |
| AC Power Cord (1400mm) - C13 coupler          | 1           | 1                       | 17AWG    | -                   |

Power Specifications

|                      |       |      |    |       |      |      |
|----------------------|-------|------|----|-------|------|------|
| Rail                 |       | 3.3V | 5V | 12V   | 5VSB | -12V |
| Max. Power           | Amps  | 20   | 20 | 41.6  | 3    | 0.3  |
|                      | Watts | 100  |    | 499.2 | 15   | 3.6  |
| Total Max. Power (W) |       | 500  |    |       |      |      |

Parts Description

|                      |                                                                                                                                    |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| General Data         |                                                                                                                                    |
| Manufacturer (OEM)   | Xin Hui Yuan Tech (Fusion Power)                                                                                                   |
| PCB Type             | Double Sided                                                                                                                       |
| Primary Side         |                                                                                                                                    |
| Transient Filter     | 4x Y caps, 2x X caps, 2x CM chokes, 1x MOV                                                                                         |
| Inrush Protection    | 1x NTC Thermistor MF72-5D15 (5 Ohm) & Relay                                                                                        |
| Bridge Rectifier(s)  | 1x GBU1006 (600V, 10A @ 100°C)                                                                                                     |
| APFC MOSFETs         | 2x SemiHow HCS60R350S (600V, 7A @ 100°C, Rds(on): 0.35Ohm)                                                                         |
| APFC Boost Diode     | 1x NXP BYC8-600 (600V, 8A @ 109°C)                                                                                                 |
| Bulk Cap(s)          | 1x Ltec (400V, 330uF, 2,000h @ 85°C, LP)                                                                                           |
| Main Switchers       | 4x Great Power GPT10N50AD (500V, 9.7A @ 100°C, Rds(on): 0.7Ohm)                                                                    |
| APFC Controller      | Champion CM6500UNX                                                                                                                 |
| Resonant Controller  | Champion CM6901T6X                                                                                                                 |
| Topology             | Primary side:APFC, Full-Bridge & LLC converter<br>Secondary side: Synchronous Rectification & DC-DC converters                     |
| Secondary Side       |                                                                                                                                    |
| +12V MOSFETs         | 2x Excelliance MOS EMP16N04HS (40V, 100A @ 100°C, Rds(on): 1.6mOhm)                                                                |
| 5V & 3.3V            | DC-DC Converters: 4x Excelliance MOS EMB04N03A (30V, 55A @ 100°C, Rds(on): 4mOhm)<br>PWM Controller(s): 2x Excelliance MOS EM5301F |
| Filtering Capacitors | Electrolytic: 5x Chengx (2-4,000h @ 105°C, GR), 2x Elite (4-10,000h @ 105°C, EY), 6x (105°C, WE)<br>Polymer: 5x Elite, 2x FPCAP    |
| Supervisor IC        | IN1S313I-SAG                                                                                                                       |
| Fan Model            | Ever Cool EFS-12E12M (120mm, 12V, 0.25A, Rifle Bearing Fan)                                                                        |
| 5VSB Circuit         |                                                                                                                                    |

|                        |                              |
|------------------------|------------------------------|
| Rectifier              | 1x 45R10C                    |
| Standby PWM Controller | Excelliance MOS Corp 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 | ✓                 |

### Performance Summary

#### 115V

|                                                |          |
|------------------------------------------------|----------|
| Accredited                                     |          |
| Average Efficiency (>1450 load combinations)   | 87.160%  |
| Average Noise Output (>1450 Load Combinations) | 30.78dBA |
| Average PF (>1450 Load Combinations)           | 0.979    |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 53.913%  |
| Standby Power Consumption                      | 0.0498W  |
| Non-Accredited                                 |          |
| 12V Ripple (Full Load)                         | 54.43mV  |
| 5V Ripple (Full Load)                          | 30.54mV  |
| 3.3V Ripple (Full Load)                        | 35.77mV  |
| 5VSB Ripple (Full Load)                        | 20.93mV  |
| 12V Load Regulation                            | 0.05%    |
| 5V Load Regulation                             | 3.49%    |
| 3.3V Load Regulation                           | 5.04%    |
| 5VSB Load Regulation                           | 4.26%    |
| Inrush Current                                 | 66.650A  |

## 230V

|                                                |          |         |
|------------------------------------------------|----------|---------|
| Accredited                                     |          |         |
| Average Efficiency (>1450 load combinations)   | 89.105%  |         |
| Average Noise Output (>1450 Load Combinations) | 32.23dBA |         |
| Average PF (>1450 Load Combinations)           | 0.935    |         |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | -        |         |
| Standby Power Consumption                      | 0.1080W  |         |
| Non-Accredited                                 |          |         |
| 12V Ripple (Full Load)                         | 54.23mV  |         |
| 5V Ripple (Full Load)                          | 31.33mV  |         |
| 3.3V Ripple (Full Load)                        | 35.35mV  |         |
| 5VSB Ripple (Full Load)                        | 20.90mV  |         |
| 12V Load Regulation                            | 0.09%    |         |
| 5V Load Regulation                             | 3.53%    |         |
| 3.3V Load Regulation                           | 4.48%    |         |
| 5VSB Load Regulation                           | 4.28%    |         |
| Inrush Current                                 | 79.560A  |         |
| Hold-Up Time & PWR_OK Signal                   | 19.90ms  |         |
| AC Loss to PWR_OK Hold Up Time                 | 16.60ms  |         |
| PWR_OK Inactive to DC Loss Delay               | 3.30ms   |         |
| PSU Timings: T1 (20% / 100%)                   | 42.0ms   | 42.0ms  |
| PSU Timings: T3 (20% / 100%)                   | 132.0ms  | 132.0ms |
| OPP (24.34°C / 45.64°C)                        | 135.28%  | 122.76% |

## Hold-Up Time & PWR\_OK Signal

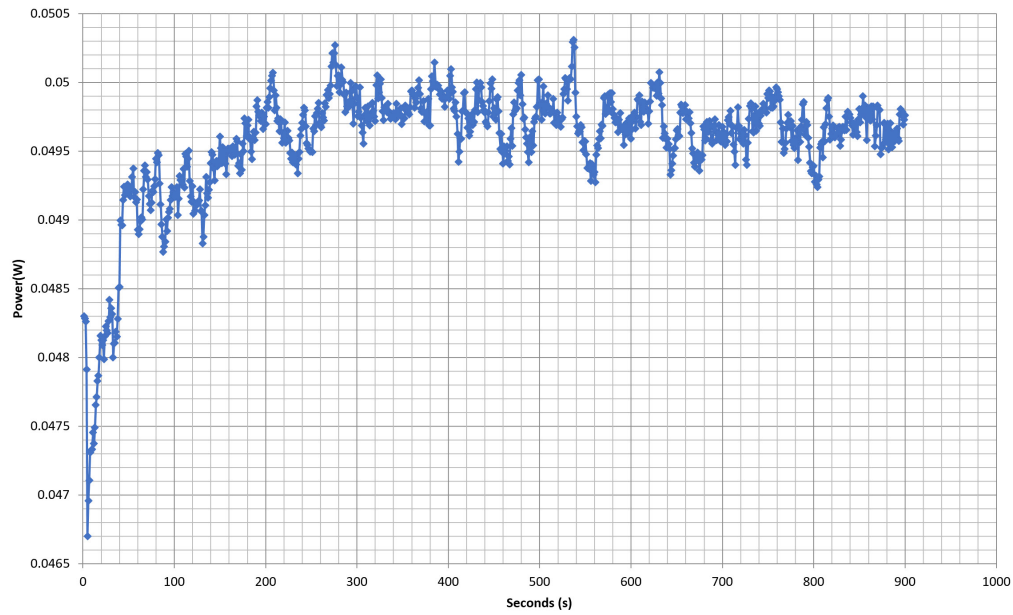
|                                       |      |
|---------------------------------------|------|
| Hold-Up Time (ms)                     | 19.9 |
| AC Loss to PWR_OK Hold Up Time (ms)   | 16.6 |
| PWR_OK Inactive to DC Loss Delay (ms) | 3.3  |



## Graphs

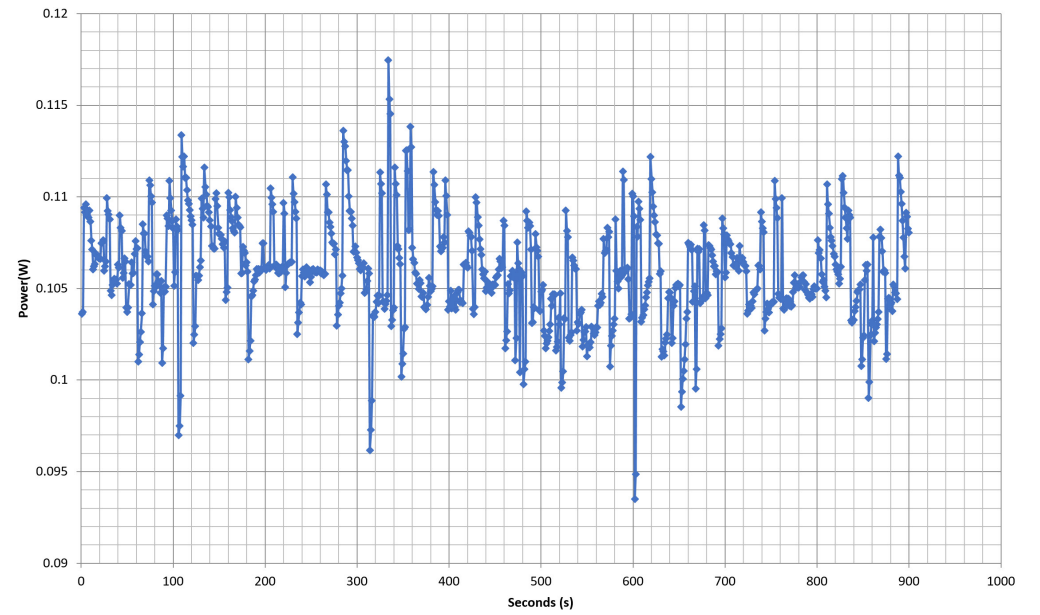
115V

Power - 27/07/2021 - 11:38



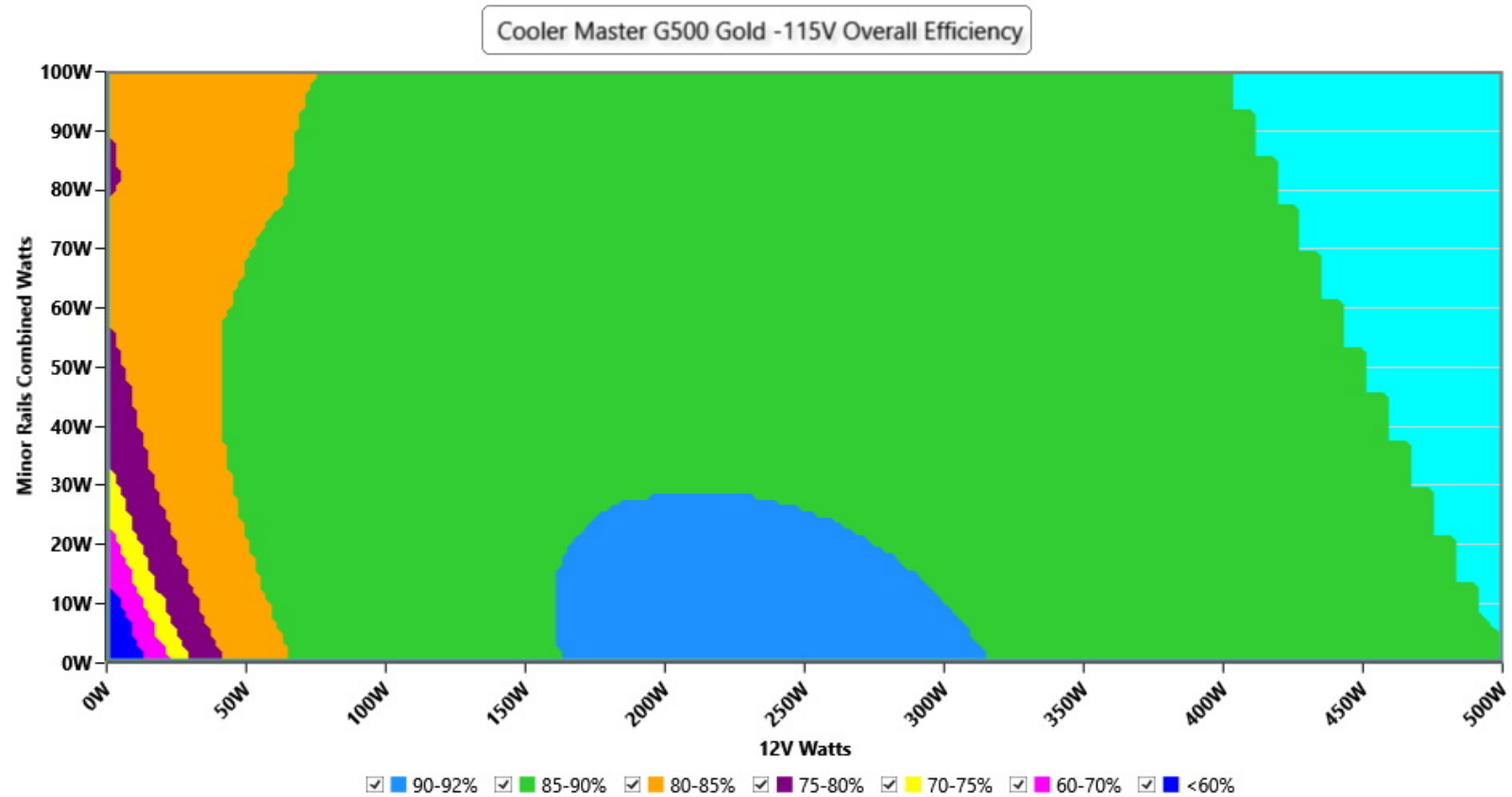
230V

Power - 27/07/2021 - 11:38



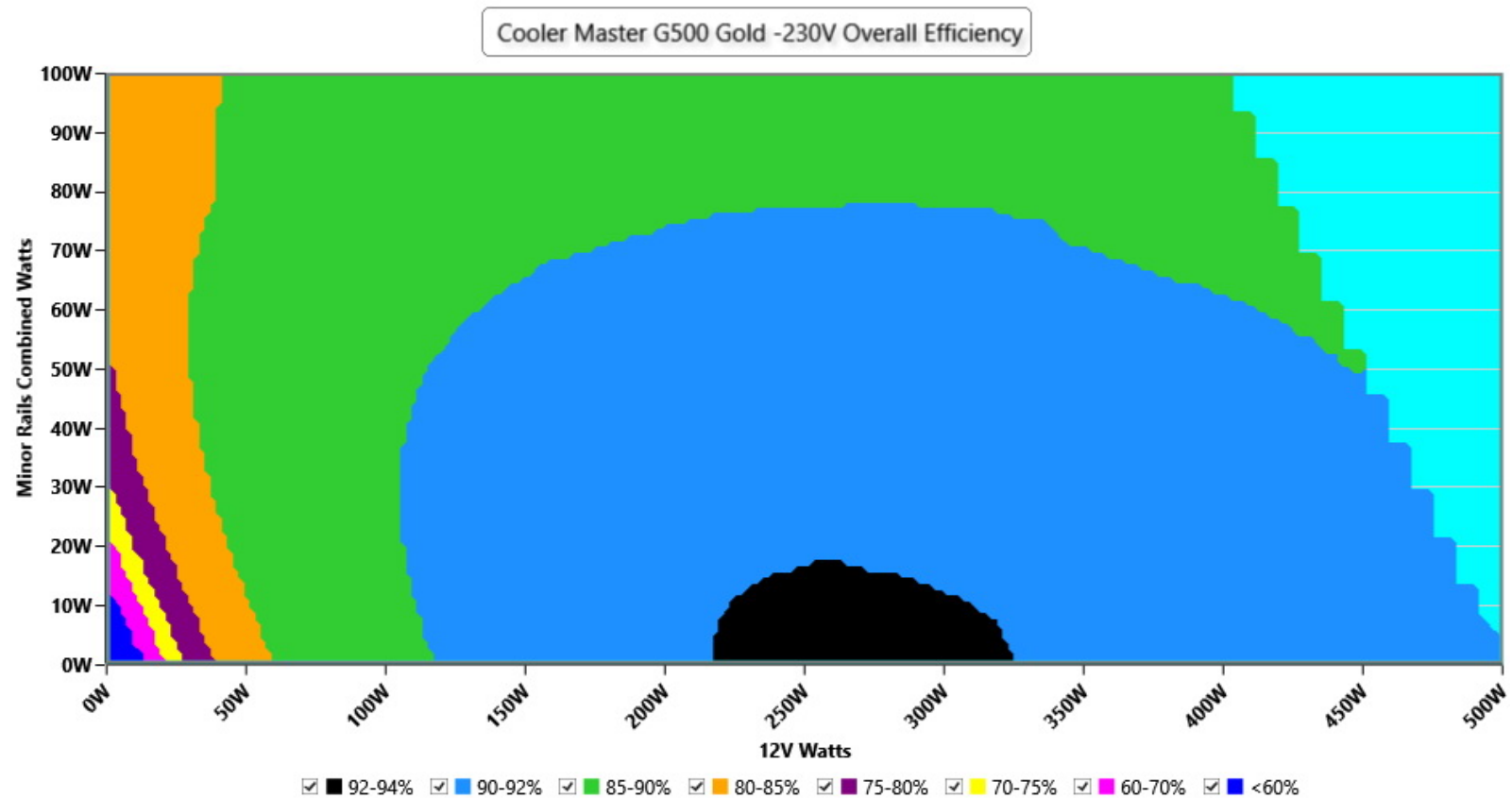
## Efficiency Graph

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

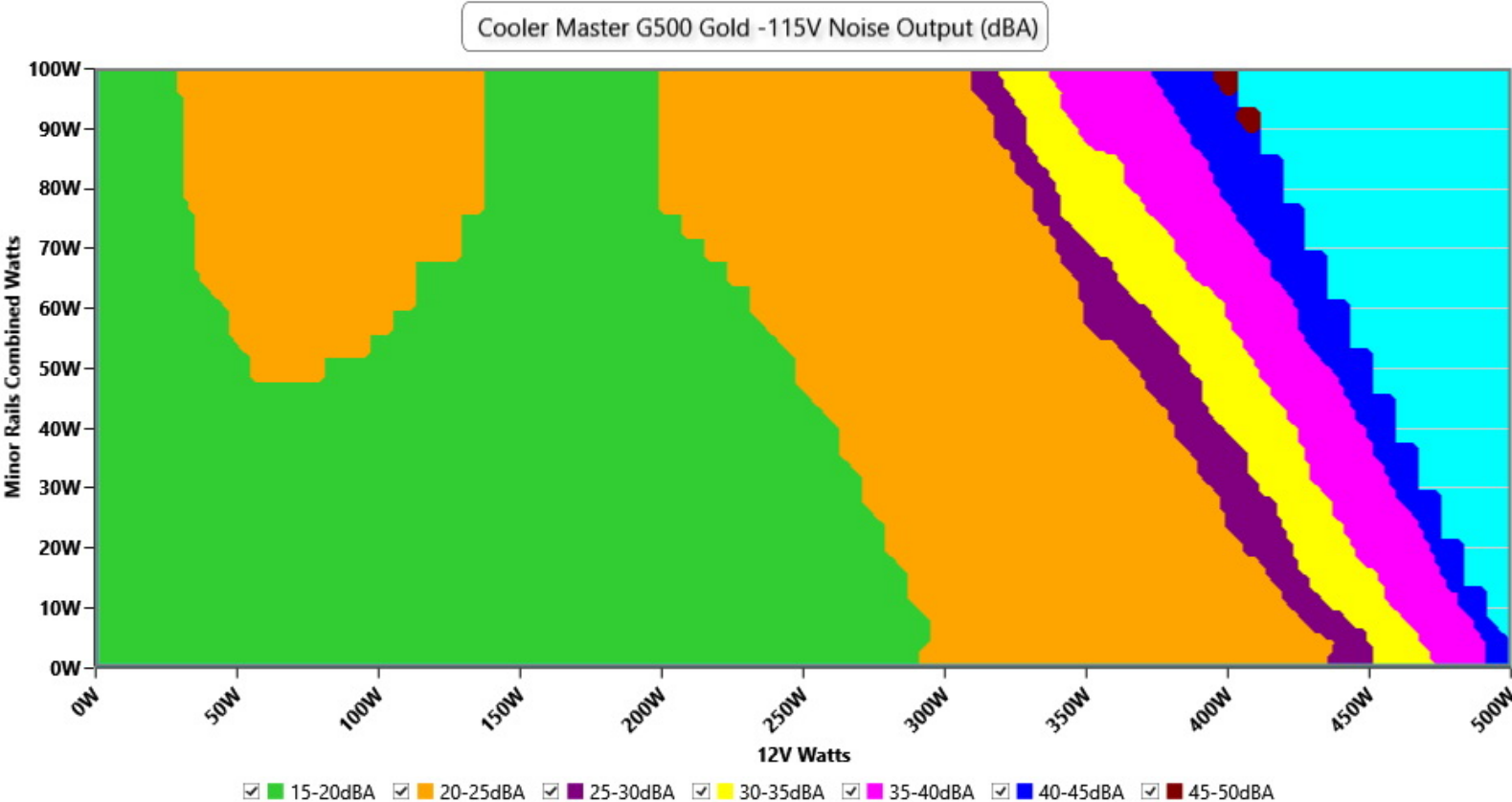


### INFO

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

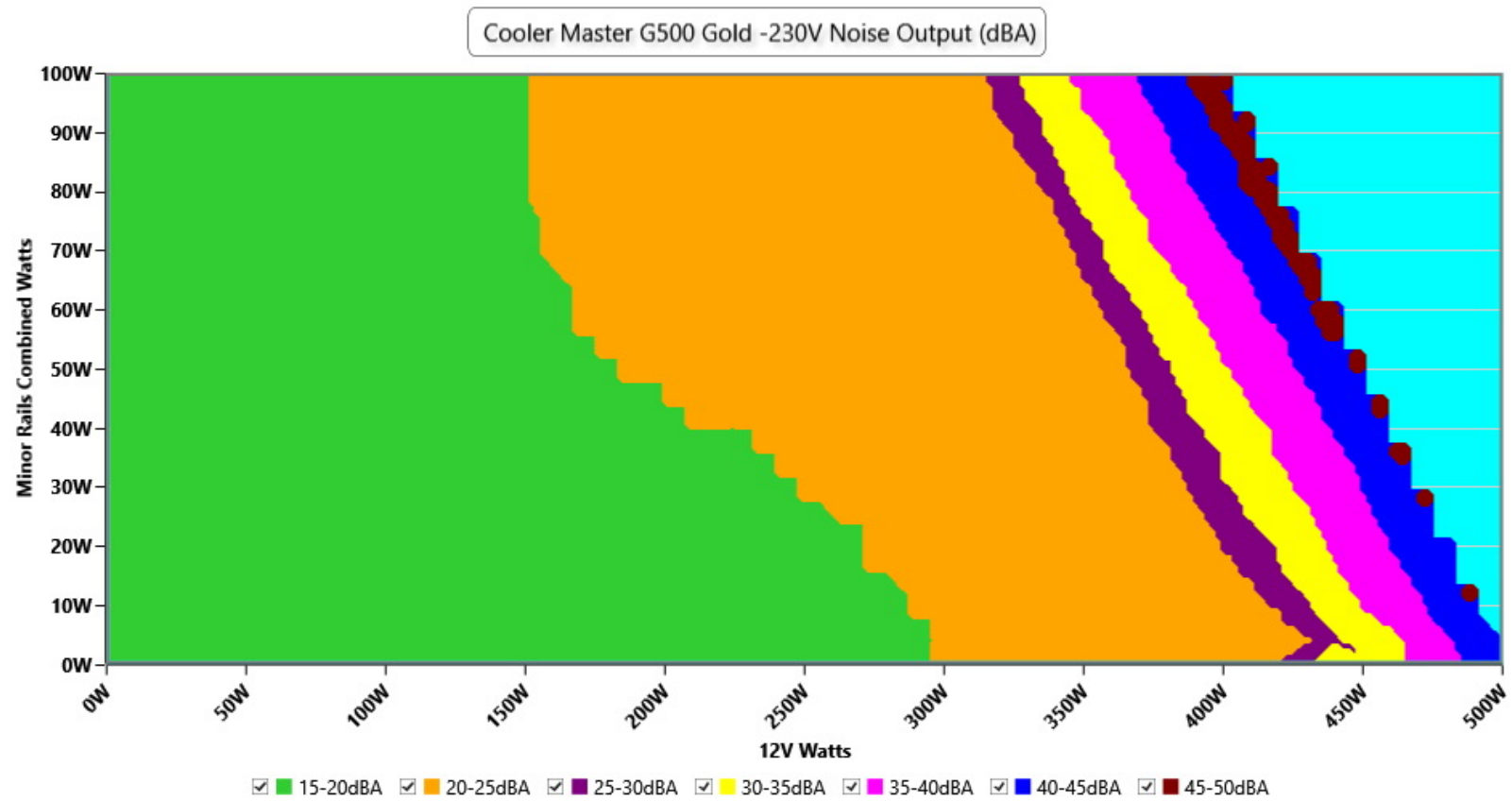
# Noise Graph

115V



## INFO

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



### INFO

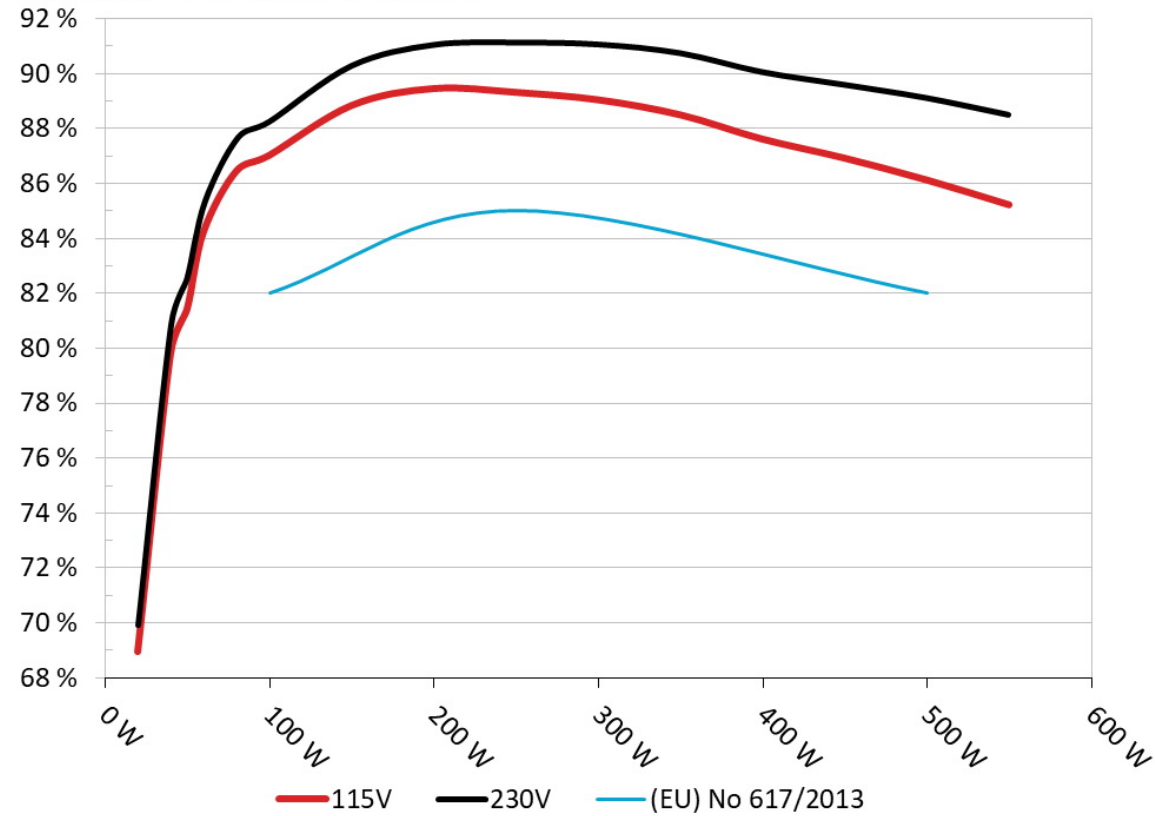
The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

## Indicative Performance

### Efficiency under high ambient temperature

#### Efficiency: Cooler Master G500 Gold

Ambient: 37°C - 47°C (98.6°F - 116.6°F)



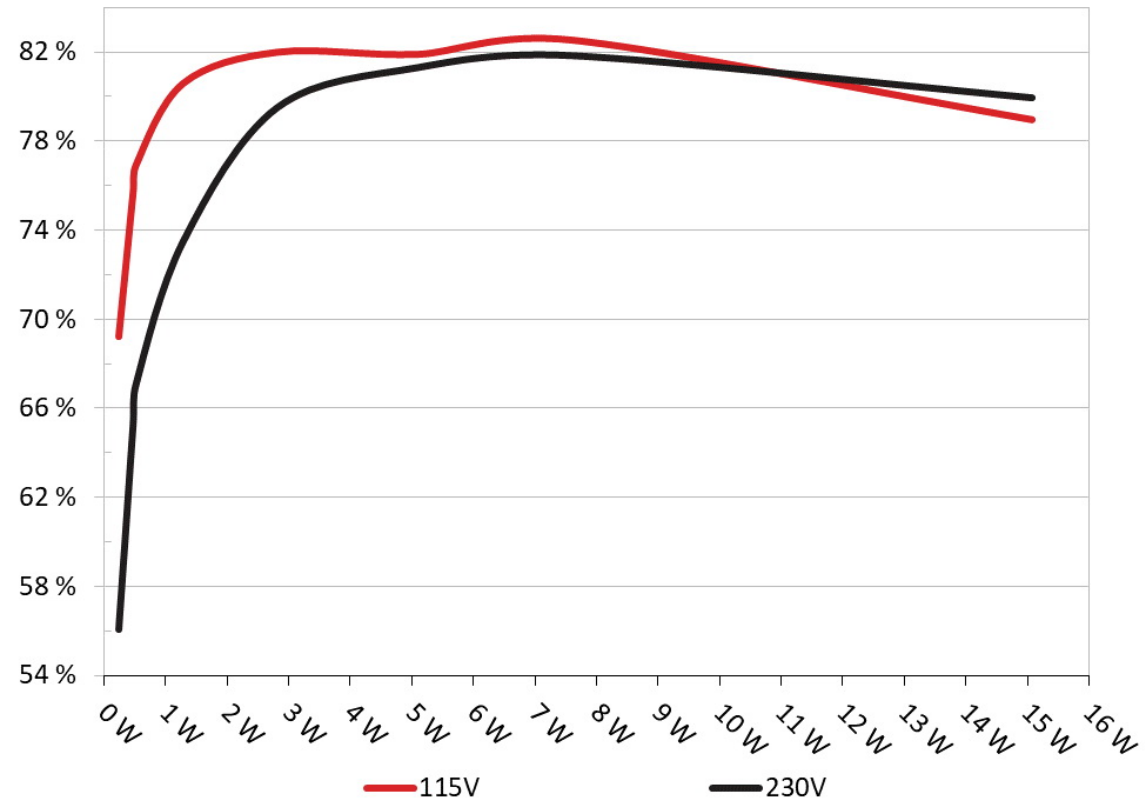
#### INFO

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

### 5VSB Efficiency: Cooler Master G500 Gold

Ambient: 34°C - 36°C (93.2°F - 96.8°F)



### INFO

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

### 5VSB Efficiency (ERP LOT 3/6 & CEC)

#### 115V

| Test # | 5VSB   | DC/AC (Watts) | Efficiency | PF/AC Volts |
|--------|--------|---------------|------------|-------------|
| 1      | 0.045A | 0.23W         | 69.224%    | 0.053       |
|        | 5.122V | 0.332W        |            | 115.16V     |
| 2      | 0.09A  | 0.461W        | 75.660%    | 0.095       |
|        | 5.121V | 0.609W        |            | 115.16V     |
| 5      | 0.55A  | 2.807W        | 81.996%    | 0.325       |
|        | 5.105V | 3.423W        |            | 115.17V     |
| 6      | 1A     | 5.09W         | 81.901%    | 0.398       |
|        | 5.09V  | 6.215W        |            | 115.17V     |
| 7      | 1.5A   | 7.611W        | 82.535%    | 0.434       |
|        | 5.074V | 9.221W        |            | 115.17V     |
| 8      | 2.999A | 15.065W       | 78.964%    | 0.483       |
|        | 5.023V | 19.079W       |            | 115.17V     |

#### 230V

| Test # | 5VSB   | DC/AC (Watts) | Efficiency | PF/AC Volts |
|--------|--------|---------------|------------|-------------|
| 1      | 0.045A | 0.23W         | 56.049%    | 0.02        |
|        | 5.121V | 0.41W         |            | 230.33V     |
| 2      | 0.09A  | 0.461W        | 65.202%    | 0.034       |
|        | 5.12V  | 0.707W        |            | 230.32V     |
| 3      | 0.55A  | 2.807W        | 79.497%    | 0.153       |
|        | 5.105V | 3.531W        |            | 230.33V     |
| 4      | 1A     | 5.09W         | 81.292%    | 0.232       |
|        | 5.09V  | 6.261W        |            | 230.33V     |
| 5      | 1.5A   | 7.611W        | 81.823%    | 0.288       |
|        | 5.074V | 9.302W        |            | 230.32V     |
| 6      | 2.999A | 15.069W       | 79.934%    | 0.372       |
|        | 5.024V | 18.852W       |            | 230.33V     |

## Supplementary Tests (For Reference)

### Typical Load Tests

#### 115V

| Test | 12V     | 5V      | 3.3V    | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|---------|---------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| 10%  | 2.344A  | 1.982A  | 1.979A  | 0.984A | 49.994        | 81.427%    | 653             | 20.2              | 40.13°C        | 0.949       |
|      | 12.117V | 5.047V  | 3.335V  | 5.078V | 61.398        |            |                 |                   | 44.53°C        | 115.19V     |
| 20%  | 5.697A  | 2.983A  | 2.985A  | 1.186A | 99.933        | 87.026%    | 659             | 20.3              | 40.97°C        | 0.97        |
|      | 12.117V | 5.029V  | 3.316V  | 5.06V  | 114.831       |            |                 |                   | 45.85°C        | 115.18V     |
| 30%  | 9.400A  | 3.49A   | 3.497A  | 1.388A | 149.963       | 88.844%    | 664             | 21.8              | 41.32°C        | 0.978       |
|      | 12.118V | 5.015V  | 3.303V  | 5.043V | 168.794       |            |                 |                   | 46.54°C        | 115.18V     |
| 40%  | 13.104A | 3.999A  | 4.015A  | 1.592A | 199.999       | 89.459%    | 665             | 21.8              | 41.47°C        | 0.982       |
|      | 12.119V | 5.001V  | 3.288V  | 5.026V | 223.566       |            |                 |                   | 47.21°C        | 115.18V     |
| 50%  | 16.458A | 5.018A  | 5.046A  | 1.798A | 249.947       | 89.319%    | 670             | 21.2              | 42.56°C        | 0.983       |
|      | 12.119V | 4.983V  | 3.27V   | 5.007V | 279.837       |            |                 |                   | 48.97°C        | 115.18V     |
| 60%  | 19.820A | 6.043A  | 6.09A   | 2A     | 299.953       | 89.047%    | 675             | 20.0              | 42.6°C         | 0.984       |
|      | 12.117V | 4.965V  | 3.252V  | 4.988V | 336.847       |            |                 |                   | 49.57°C        | 115.18V     |
| 70%  | 23.184A | 7.078A  | 7.129A  | 2.213A | 350.005       | 88.497%    | 677             | 20.1              | 43.27°C        | 0.984       |
|      | 12.117V | 4.946V  | 3.241V  | 4.968V | 395.501       |            |                 |                   | 50.86°C        | 115.18V     |
| 80%  | 26.535A | 8.003A  | 8.185A  | 2.321A | 398.873       | 87.629%    | 1137            | 33.7              | 43.56°C        | 0.985       |
|      | 12.118V | 4.928V  | 3.225V  | 4.952V | 455.184       |            |                 |                   | 51.89°C        | 115.17V     |
| 90%  | 30.287A | 8.653A  | 8.713A  | 2.43A  | 449.649       | 86.923%    | 1767            | 46.9              | 44.56°C        | 0.986       |
|      | 12.123V | 4.911V  | 3.213V  | 4.937V | 517.293       |            |                 |                   | 53.68°C        | 115.17V     |
| 100% | 33.785A | 9.192A  | 9.292A  | 3.058A | 499.259       | 86.134%    | 1797            | 46.4              | 46.09°C        | 0.987       |
|      | 12.123V | 4.895V  | 3.195V  | 4.904V | 579.631       |            |                 |                   | 56.18°C        | 115.17V     |
| 110% | 37.214A | 10.257A | 10.515A | 3.066A | 549.472       | 85.228%    | 1805            | 46.4              | 46.54°C        | 0.988       |
|      | 12.124V | 4.875V  | 3.166V  | 4.89V  | 644.71        |            |                 |                   | 57.28°C        | 115.17V     |
| CL1  | 0.114A  | 12.164A | 12.445A | 0A     | 101.276       | 81.287%    | 698             | 22.4              | 41.98°C        | 0.973       |
|      | 12.096V | 4.949V  | 3.189V  | 5.071V | 124.591       |            |                 |                   | 48.47°C        | 115.19V     |

| Test | 12V     | 5V      | 3.3V    | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|---------|---------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| CL2  | 0.114A  | 20.294A | 0A      | 0A     | 101.38        | 79.157%    | 677             | 20.1              | 42.63°C        | 0.974       |
|      | 12.098V | 4.928V  | 3.305V  | 5.081V | 128.076       |            |                 |                   | 50.36°C        | 115.19V     |
| CL3  | 0.114A  | 0A      | 20.704A | 0A     | 67.373        | 71.597%    | 695             | 22.3              | 44.14°C        | 0.965       |
|      | 12.093V | 5.022V  | 3.188V  | 5.078V | 94.101        |            |                 |                   | 52.74°C        | 115.19V     |
| CL4  | 41.189A | 0.001A  | 0.001A  | 0.002A | 499.928       | 87.642%    | 1792            | 47.0              | 45.68°C        | 0.987       |
|      | 12.137V | 4.986V  | 3.273V  | 5.035V | 570.419       |            |                 |                   | 55.43°C        | 115.17V     |

The results above are not used in the certification process

## 230V

| Test | 12V     | 5V     | 3.3V   | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|--------|--------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| 10%  | 2.344A  | 1.981A | 1.975A | 0.985A | 49.997        | 82.542%    | 664             | 21.8              | 40.3°C         | 0.761       |
|      | 12.114V | 5.048V | 3.342V | 5.078V | 60.572        |            |                 |                   | 44.86°C        | 230.37V     |
| 20%  | 5.699A  | 2.983A | 2.976A | 1.186A | 99.939        | 88.247%    | 666             | 21.8              | 40.99°C        | 0.874       |
|      | 12.114V | 5.03V  | 3.326V | 5.059V | 113.248       |            |                 |                   | 46.14°C        | 230.37V     |
| 30%  | 9.404A  | 3.49A  | 3.485A | 1.388A | 149.971       | 90.281%    | 669             | 21.2              | 41.06°C        | 0.918       |
|      | 12.114V | 5.016V | 3.314V | 5.042V | 166.116       |            |                 |                   | 46.77°C        | 230.37V     |
| 40%  | 13.110A | 3.999A | 3.999A | 1.592A | 200.007       | 91.045%    | 671             | 20.6              | 42°C           | 0.939       |
|      | 12.114V | 5.002V | 3.301V | 5.025V | 219.68        |            |                 |                   | 48.23°C        | 230.37V     |
| 50%  | 16.466A | 5.018A | 5.023A | 1.798A | 249.954       | 91.132%    | 675             | 20.0              | 42.37°C        | 0.952       |
|      | 12.112V | 4.983V | 3.285V | 5.006V | 274.277       |            |                 |                   | 49.18°C        | 230.37V     |
| 60%  | 19.831A | 6.043A | 6.057A | 2A     | 299.959       | 91.063%    | 678             | 20.1              | 43°C           | 0.96        |
|      | 12.111V | 4.965V | 3.269V | 4.987V | 329.397       |            |                 |                   | 50.48°C        | 230.37V     |
| 70%  | 23.195A | 7.078A | 7.092A | 2.214A | 350.01        | 90.744%    | 683             | 20.7              | 43.12°C        | 0.965       |
|      | 12.110V | 4.946V | 3.258V | 4.967V | 385.712       |            |                 |                   | 51.31°C        | 230.37V     |
| 80%  | 26.554A | 8.003A | 8.132A | 2.322A | 398.91        | 90.064%    | 1268            | 36.9              | 44.35°C        | 0.969       |
|      | 12.111V | 4.928V | 3.245V | 4.951V | 442.918       |            |                 |                   | 53.06°C        | 230.37V     |
| 90%  | 30.315A | 8.654A | 8.664A | 2.431A | 449.684       | 89.594%    | 1755            | 46.4              | 44.39°C        | 0.971       |
|      | 12.113V | 4.911V | 3.231V | 4.936V | 501.913       |            |                 |                   | 53.69°C        | 230.37V     |

| Test | 12V     | 5V      | 3.3V    | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|---------|---------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| 100% | 33.813A | 9.194A  | 9.239A  | 3.059A | 499.298       | 89.116%    | 1793            | 47.0              | 45.58°C        | 0.974       |
|      | 12.114V | 4.894V  | 3.214V  | 4.903V | 560.281       |            |                 |                   | 55.88°C        | 230.37V     |
| 110% | 37.257A | 10.257A | 10.394A | 3.068A | 549.51        | 88.499%    | 1802            | 46.4              | 46.61°C        | 0.976       |
|      | 12.111V | 4.875V  | 3.203V  | 4.889V | 620.918       |            |                 |                   | 57.34°C        | 230.37V     |
| CL1  | 0.114A  | 12.161A | 12.163A | 0A     | 101.281       | 83.002%    | 703             | 22.5              | 41.91°C        | 0.884       |
|      | 12.096V | 4.95V   | 3.263V  | 5.071V | 122.022       |            |                 |                   | 48.52°C        | 230.37V     |
| CL2  | 0.114A  | 20.31A  | 0A      | 0A     | 101.387       | 80.425%    | 675             | 20.0              | 43.19°C        | 0.888       |
|      | 12.098V | 4.924V  | 3.304V  | 5.081V | 126.065       |            |                 |                   | 50.78°C        | 230.37V     |
| CL3  | 0.114A  | 0A      | 20.675A | 0A     | 67.375        | 72.672%    | 694             | 22.3              | 44.78°C        | 0.845       |
|      | 12.093V | 5.022V  | 3.192V  | 5.078V | 92.711        |            |                 |                   | 53.86°C        | 230.36V     |
| CL4  | 41.229A | 0.001A  | 0.001A  | 0.002A | 499.952       | 90.594%    | 1792            | 47.0              | 45.42°C        | 0.973       |
|      | 12.126V | 4.985V  | 3.273V  | 5.034V | 551.861       |            |                 |                   | 55.83°C        | 230.36V     |

The results above are not used in the certification process

## Light Load Tests

### 115V

| Test | 12V     | 5V     | 3.3V   | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|--------|--------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| 20W  | 1.224A  | 0.493A | 0.492A | 0.196A | 19.992        | 68.957%    | 632             | 19.4              | 36.82°C        | 0.88        |
|      | 12.121V | 5.066V | 3.356V | 5.113V | 28.992        |            |                 |                   | 39.24°C        | 115.19V     |
| 40W  | 2.696A  | 0.692A | 0.689A | 0.294A | 39.993        | 79.826%    | 639             | 18.8              | 37.1°C         | 0.934       |
|      | 12.122V | 5.061V | 3.35V  | 5.106V | 50.1          |            |                 |                   | 39.87°C        | 115.19V     |
| 60W  | 4.168A  | 0.89A  | 0.888A | 0.392A | 59.992        | 84.245%    | 646             | 20.0              | 38.49°C        | 0.954       |
|      | 12.121V | 5.056V | 3.345V | 5.099V | 71.212        |            |                 |                   | 41.69°C        | 115.18V     |
| 80W  | 5.636A  | 1.089A | 1.087A | 0.491A | 79.941        | 86.454%    | 650             | 20.3              | 39.63°C        | 0.964       |
|      | 12.121V | 5.05V  | 3.339V | 5.092V | 92.467        |            |                 |                   | 43.53°C        | 115.18V     |

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  | 1.240A  | 0.5A   | 0.5A   | 0.2A   | 20.261        | 69.912%    | 634             | 19.4              | 36.84°C        | 0.579       |
|      | 12.121V | 5.067V | 3.358V | 5.113V | 28.981        |            |                 |                   | 39.14°C        | 230.35V     |
| 40W  | 2.720A  | 0.7A   | 0.7A   | 0.3A   | 40.384        | 80.89%     | 643             | 19.3              | 37.32°C        | 0.717       |
|      | 12.120V | 5.061V | 3.353V | 5.106V | 49.924        |            |                 |                   | 40.21°C        | 230.35V     |
| 60W  | 4.224A  | 0.9A   | 0.9A   | 0.4A   | 60.793        | 85.328%    | 647             | 20.3              | 38.21°C        | 0.795       |
|      | 12.119V | 5.056V | 3.348V | 5.098V | 71.246        |            |                 |                   | 41.57°C        | 230.35V     |
| 80W  | 5.704A  | 1.1A   | 1.1A   | 0.5A   | 80.898        | 87.666%    | 657             | 20.2              | 39.41°C        | 0.844       |
|      | 12.118V | 5.051V | 3.343V | 5.091V | 92.28         |            |                 |                   | 43.55°C        | 230.36V     |

The results above are not used in the certification process

## Ripple Measurements

## 115V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 12.84mV | 11.44mV | 11.63mV | 7.84mV  | Pass      |
| 20% Load   | 19.37mV | 13.62mV | 10.97mV | 8.96mV  | Pass      |
| 30% Load   | 23.47mV | 15.09mV | 12.99mV | 9.87mV  | Pass      |
| 40% Load   | 26.91mV | 16.21mV | 14.31mV | 10.52mV | Pass      |
| 50% Load   | 30.20mV | 19.51mV | 17.64mV | 12.09mV | Pass      |
| 60% Load   | 31.42mV | 21.29mV | 21.94mV | 13.10mV | Pass      |
| 70% Load   | 32.18mV | 22.77mV | 21.79mV | 14.27mV | Pass      |
| 80% Load   | 34.25mV | 25.31mV | 27.40mV | 16.45mV | Pass      |
| 90% Load   | 36.68mV | 29.83mV | 30.38mV | 18.06mV | Pass      |
| 100% Load  | 54.43mV | 30.54mV | 35.77mV | 20.93mV | Pass      |
| 110% Load  | 60.24mV | 33.36mV | 36.02mV | 23.13mV | Pass      |
| Crossload1 | 26.32mV | 22.38mV | 26.38mV | 13.91mV | Pass      |
| Crossload2 | 20.23mV | 23.27mV | 23.61mV | 13.16mV | Pass      |

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| Crossload3 | 16.64mV | 17.94mV | 26.14mV | 13.21mV | Pass      |
| Crossload4 | 53.46mV | 25.15mV | 27.25mV | 23.28mV | Pass      |

The results above are not used in the certification process

## 230V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 13.04mV | 11.44mV | 10.06mV | 7.84mV  | Pass      |
| 20% Load   | 19.98mV | 13.42mV | 11.78mV | 9.11mV  | Pass      |
| 30% Load   | 24.59mV | 15.19mV | 13.55mV | 9.87mV  | Pass      |
| 40% Load   | 28.74mV | 16.52mV | 14.91mV | 11.08mV | Pass      |
| 50% Load   | 30.51mV | 18.85mV | 18.00mV | 12.20mV | Pass      |
| 60% Load   | 32.63mV | 20.99mV | 20.32mV | 13.41mV | Pass      |
| 70% Load   | 34.35mV | 23.43mV | 23.11mV | 15.08mV | Pass      |
| 80% Load   | 35.42mV | 25.92mV | 27.60mV | 16.75mV | Pass      |
| 90% Load   | 37.60mV | 29.27mV | 31.09mV | 18.72mV | Pass      |
| 100% Load  | 54.23mV | 31.33mV | 35.35mV | 20.90mV | Pass      |
| 110% Load  | 59.79mV | 33.15mV | 37.56mV | 22.94mV | Pass      |
| Crossload1 | 26.43mV | 21.65mV | 25.04mV | 13.76mV | Pass      |
| Crossload2 | 21.34mV | 23.43mV | 24.16mV | 13.16mV | Pass      |
| Crossload3 | 16.84mV | 19.82mV | 26.09mV | 13.31mV | Pass      |
| Crossload4 | 53.53mV | 26.67mV | 27.28mV | 23.82mV | Pass      |

The results above are not used in the certification process

Cooler Master G500 Gold



Top side

500W

MOD Switch

|             |                                   |       |        |      |       |
|-------------|-----------------------------------|-------|--------|------|-------|
| AC INPUT    | 100-240V~, 10-5A, 50-60Hz         |       |        |      |       |
| 交流輸入/交流输入   | 200-240V~, 6A, 50-60Hz, 适用于中国地区使用 |       |        |      |       |
| DC OUTPUT   | +5V                               | +3.3V | +12V   | -12V | +5VSB |
| 直流輸出/直流输出   | 20A                               | 20A   | 41.6A  | 0.3A | 3A    |
| TOTAL POWER | 100W                              |       | 499.2W | 3.6W | 15W   |
| 總功率/总功率     | 500W                              |       |        |      |       |

80 PLUS

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