Make It Yours.

# Cooler Master Elite Gold 650W

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<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 | Elite Gold 650W |
| OEM/ODM | Huizhou Xin Hui Yuan Tech |
| Serial Number | CM1240650F16012401700354 |
| Product Specifications | |
| Manufacturer-Provided Information | |
| □□□□ (Vrms) | 100-240 |
| □□□□ (Arms) | 5-10 |
| □□□□ (Hz) | 50-60 |

| | |
|---|---|
| □□□□ (W) | 650 |
| Operating Temperature (Continuous Full Load) (°C) | 0 - 40 |
| □□ | ATX12V |
| □□□□ | 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) |
| □□ | 120mm Rifle Bearing Fan (DF1202512RFMN) |
| □□□□□ | ✗ |
| Cybenetics Testing Information | |
| Lab ID | CM65003407 |
| Date of receipt | Aug 19, 2026 |
| Testing Date | Aug 28, 2026 |
| Report Issued Date | Aug 30, 2026 |
| □□□□□ | 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 |  |

## □□□□ (Non-accredited measurements)

| ????? | | | | |
|---|---|---|---|---|
| □□ | □□□ | □□□□□ | **Gauge** | **Cable Type** |
| ATX □□ 24 pin (560mm) | 1 | 1 | 18AWG | Tinned Copper |
| 4+4 pin EPS 12V □□ (600mm+125mm) | 1 | 2 | 18AWG | Tinned Copper |
| 6+2pin 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 | ✗ |

## □□□□

| □ | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| □□□□ | □□ | 20 | 20 | 54.1 | 3 | 0.3 |
| | □ | 100 | | 649.2 | 15 | 3.6 |
| □□□□□ (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<br>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)<br>PWM Controller(s): UPI uP3861P |
| Filtering Capacitors | Electrolytic:<br>3x Nippon Chemi-con (@ 105°C, W)<br>6x Rubycon (@ 105°C, YXJ)<br>1x Rubycon (@ 105°C, ZLH)<br>Polymer:<br>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

| | |
|---|---|
| □□□ (°C /°F) | 28-32 / 82.4-89.6 |
| □□ ErP Lot3/6□□ | ✓ |
| □□ (EU) No 617/2013□□ | ✓ |
| ALPM (Alternative Low Power Mode) compatible | ✓ |
| Conducted Emissions EN 55032 & CISPR 32 | Passed |

## Performance Summary

### 115V

| | |
|---|---|
| Accredited | |
| □□□□ (>1450 load combinations) | 88.648% |
| Average Noise Output (>1450 Load Combinations) | 23.43dBA |
| PF□□□ (>1450 Load Combinations) | 0.989 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 63.115% |
| □□□□□□ | 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 | |
| □□□□ (>1450 load combinations) | 90.603% |
| Average Noise Output (>1450 Load Combinations) | 22.20dBA |
| PF□□□ (>1450 Load Combinations) | 0.955 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 64.278% |
| □□□□□□ | 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 |
| □□□□ & PG□□ | | 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% |

## □□□□ & PG□□

| | |
|---|---|
| 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 |

## Tables

### 115V

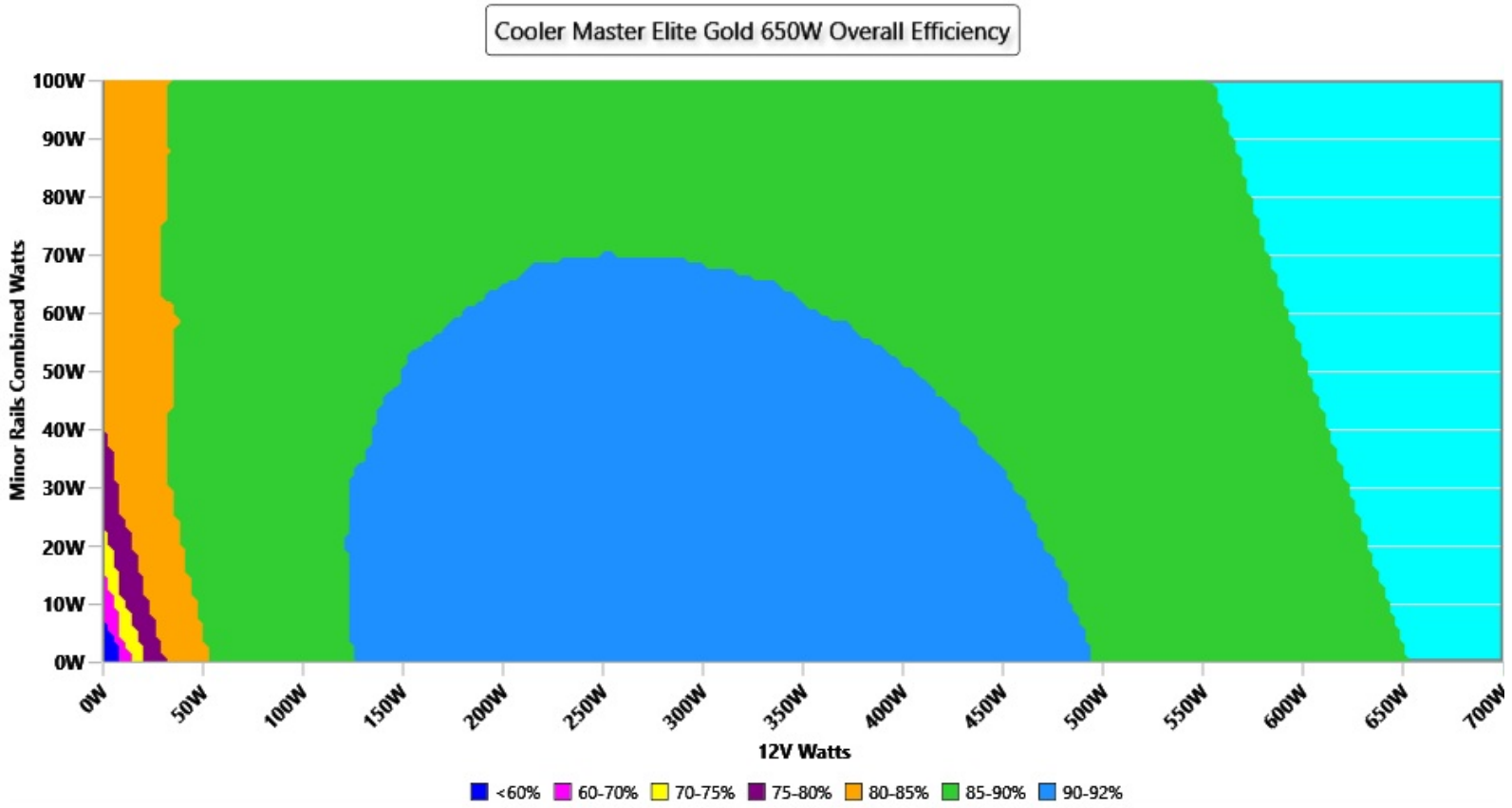
| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 114.98 V | 114.95 V | 113.85 V | 114.99 V | 116.15 V | PASS |
| Mains Frequency: | 60.00 Hz | 60.00 Hz | 59.40 Hz | 60.01 Hz | 60.60 Hz | PASS |
| Mains Voltage 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 |

## □□□□□□

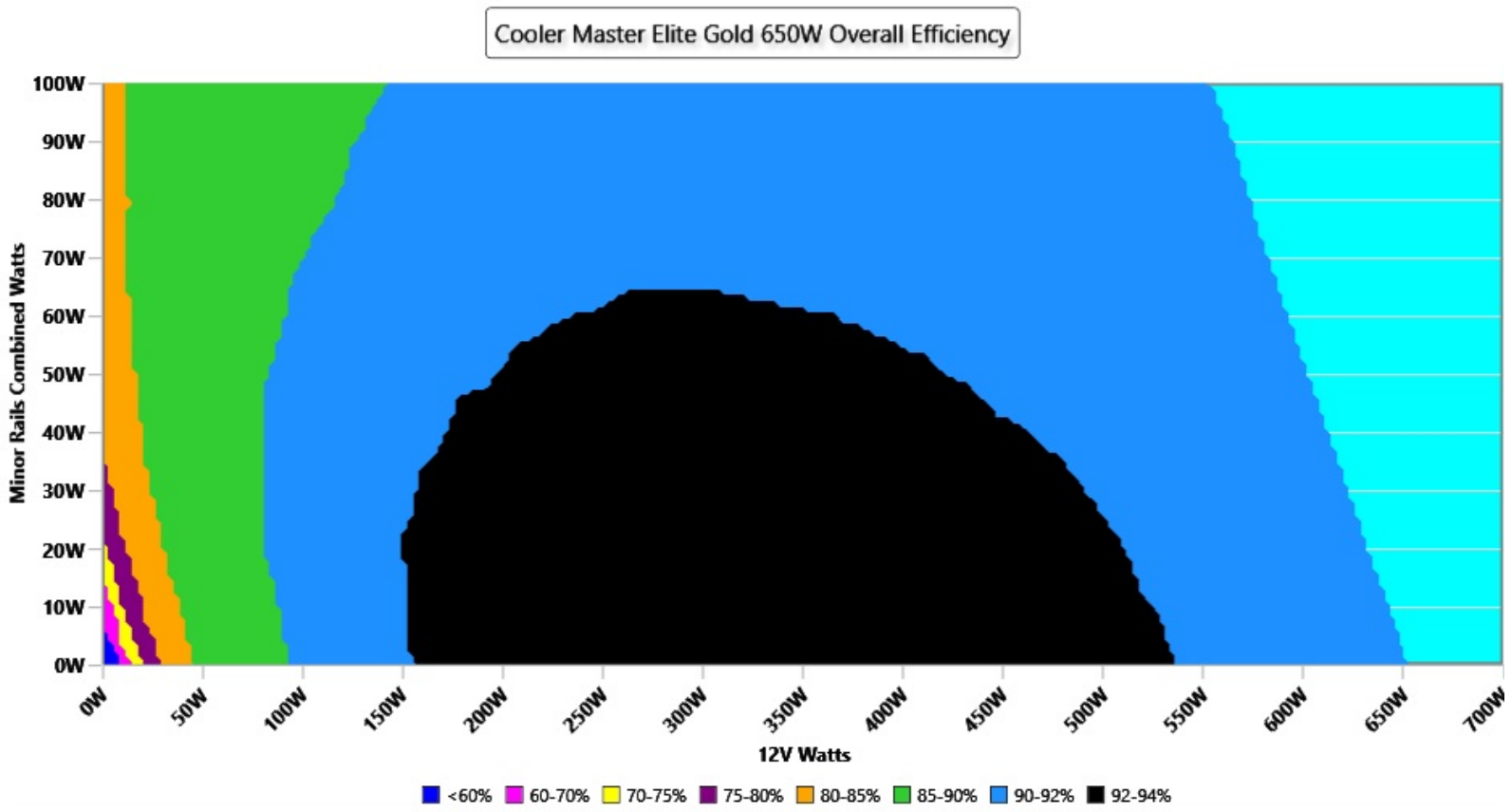
**115V**



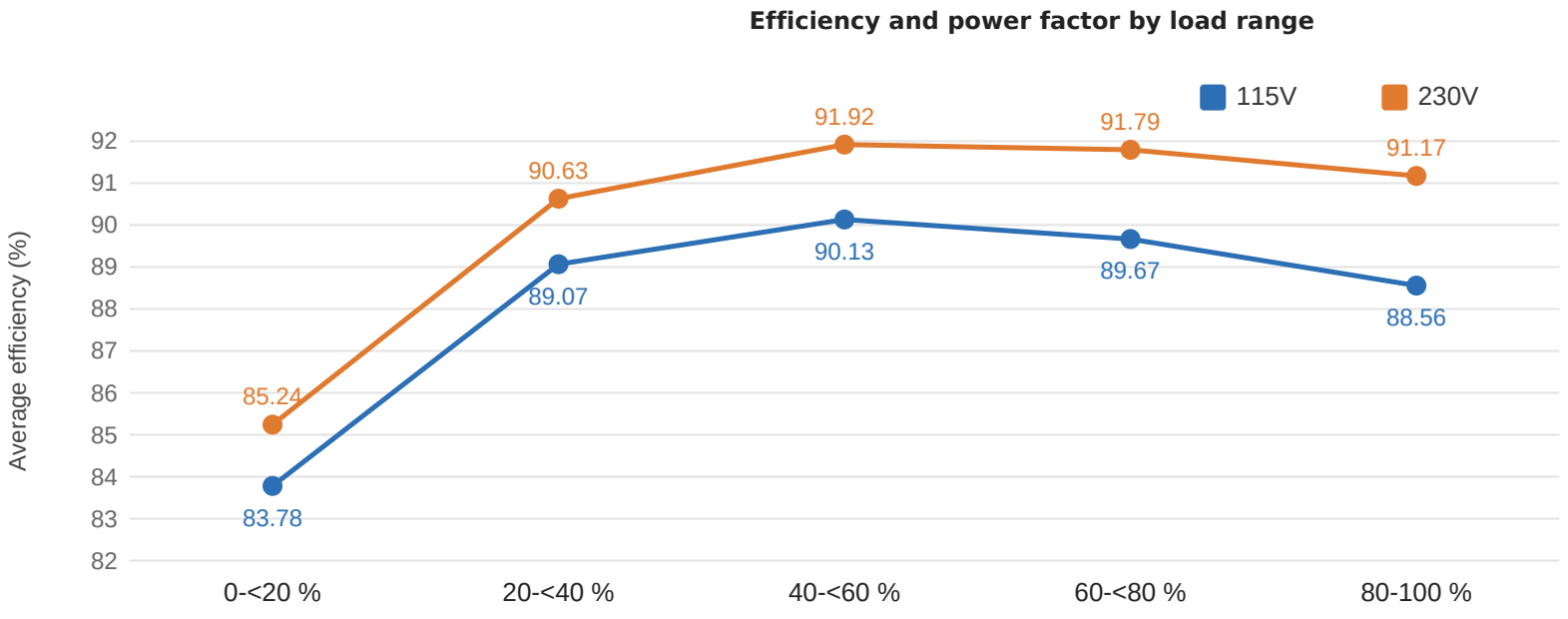

### □□

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

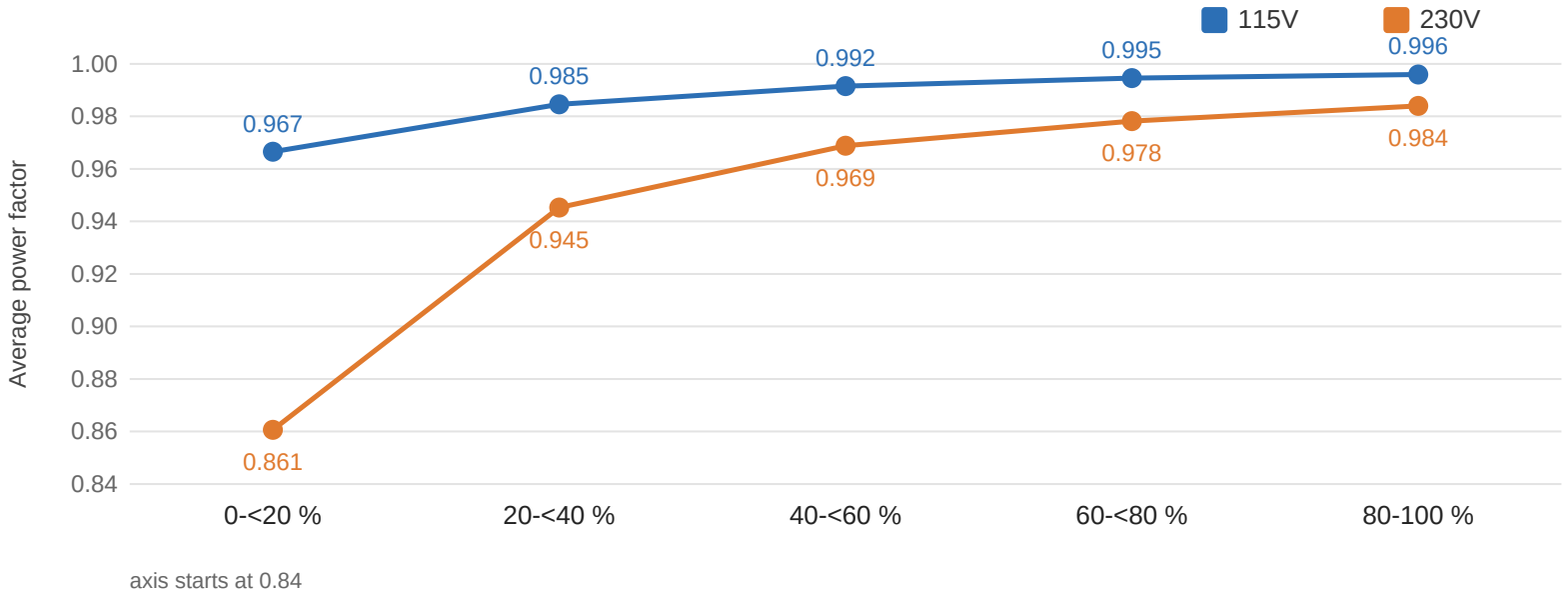
## 230V




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 |

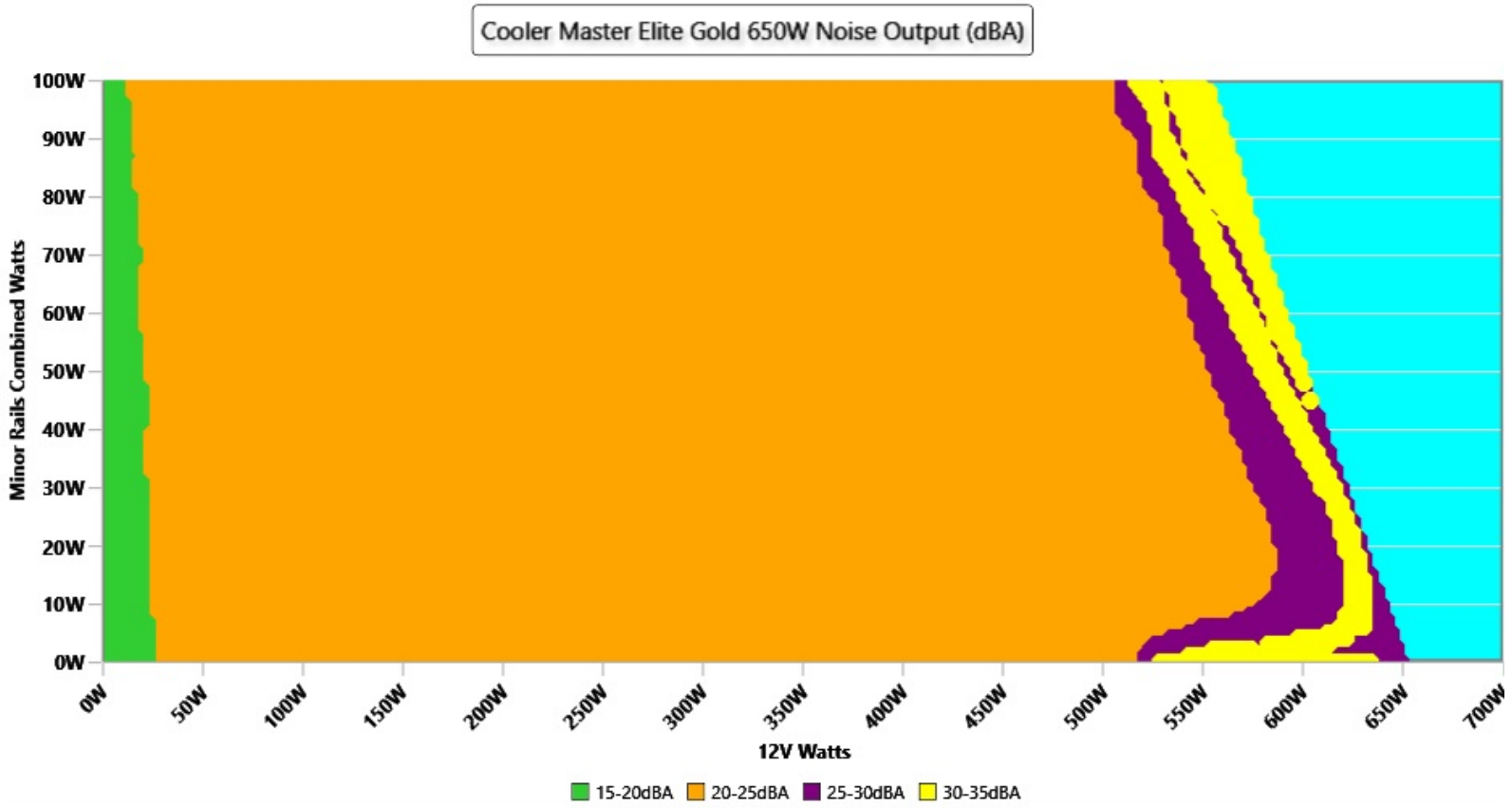
**INFO**

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.*

## □□□□□

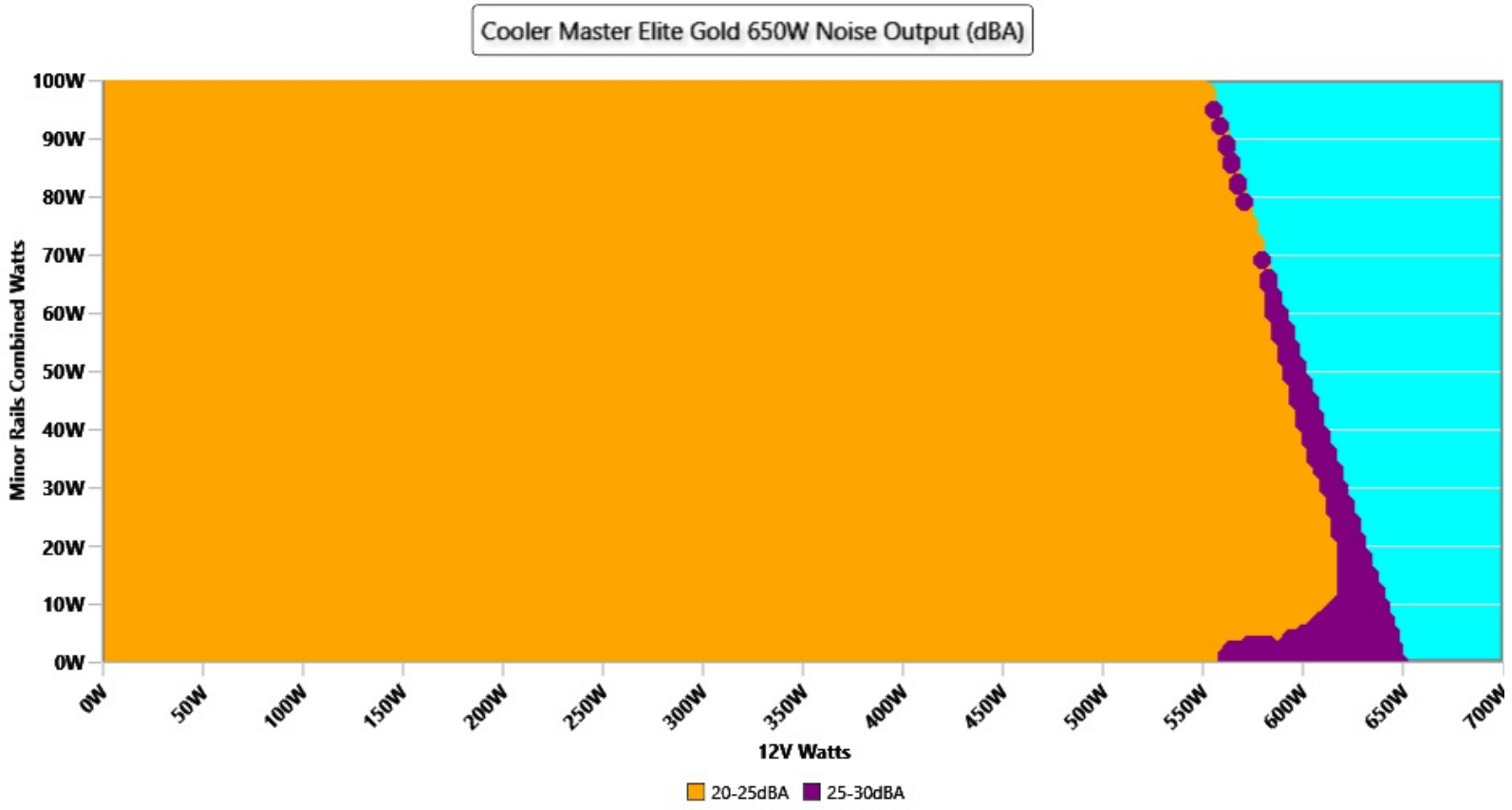
**115V**




### □□

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

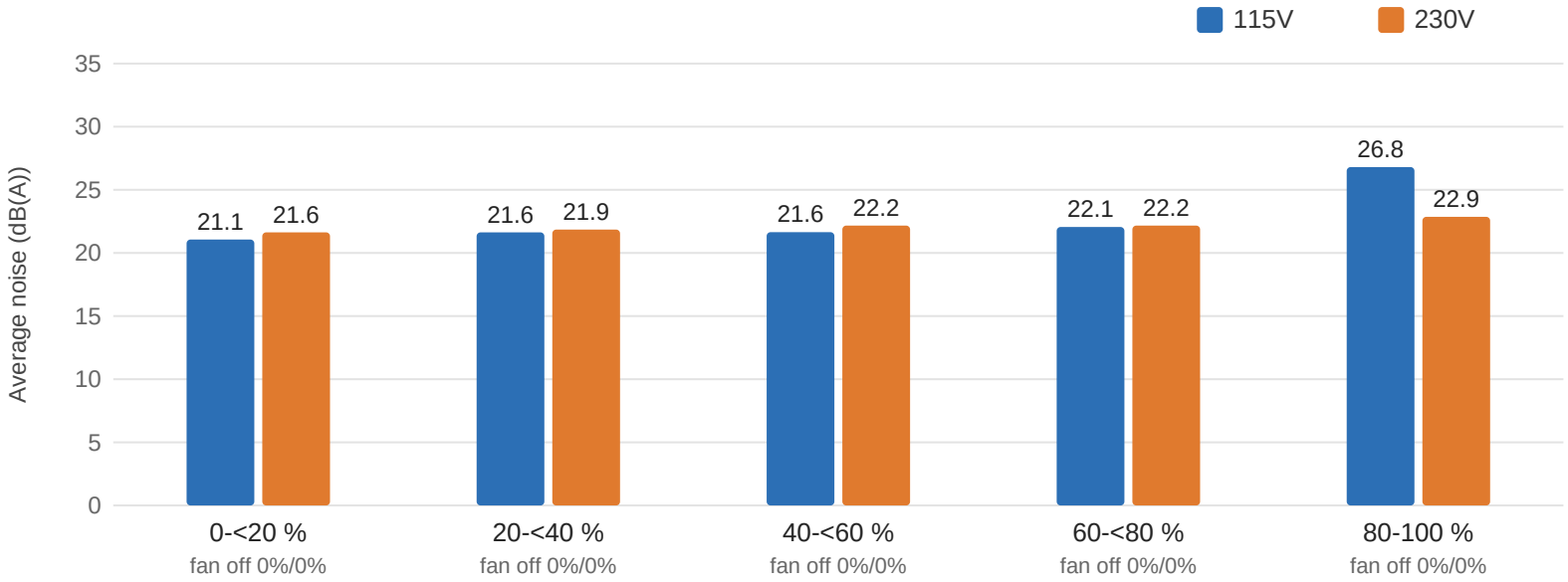
## 230V




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<br>avg (loudest) | Noise 230V<br>avg (loudest) | Fan off<br>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<br>fan · noise · intake | High ambient<br>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

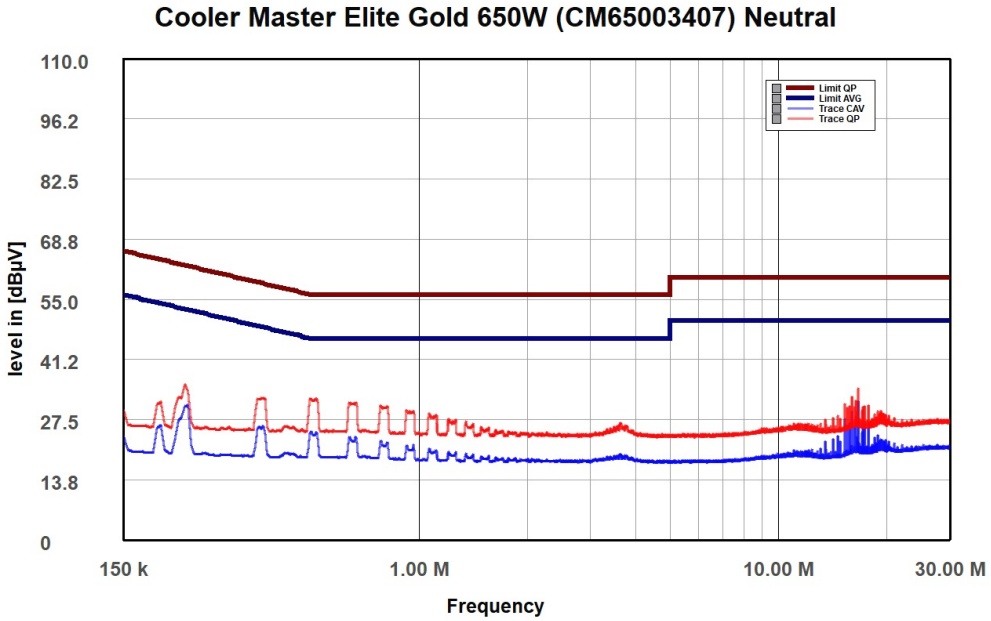
| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 662 RPM · 21.8 dB(A) · 30.2 °C | 1371 RPM · 34.7 dB(A) · 40.2 °C | **+12.9 dB(A)** |
| 20% | 665 RPM · 21.8 dB(A) · 30.2 °C | 1371 RPM · 34.7 dB(A) · 40.9 °C | **+12.9 dB(A)** |
| 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

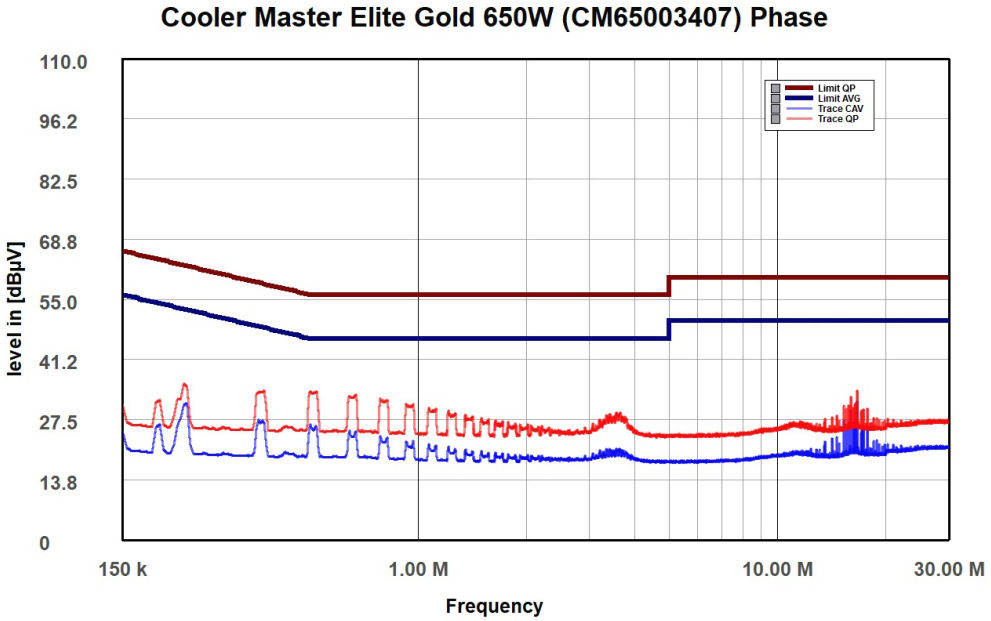
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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

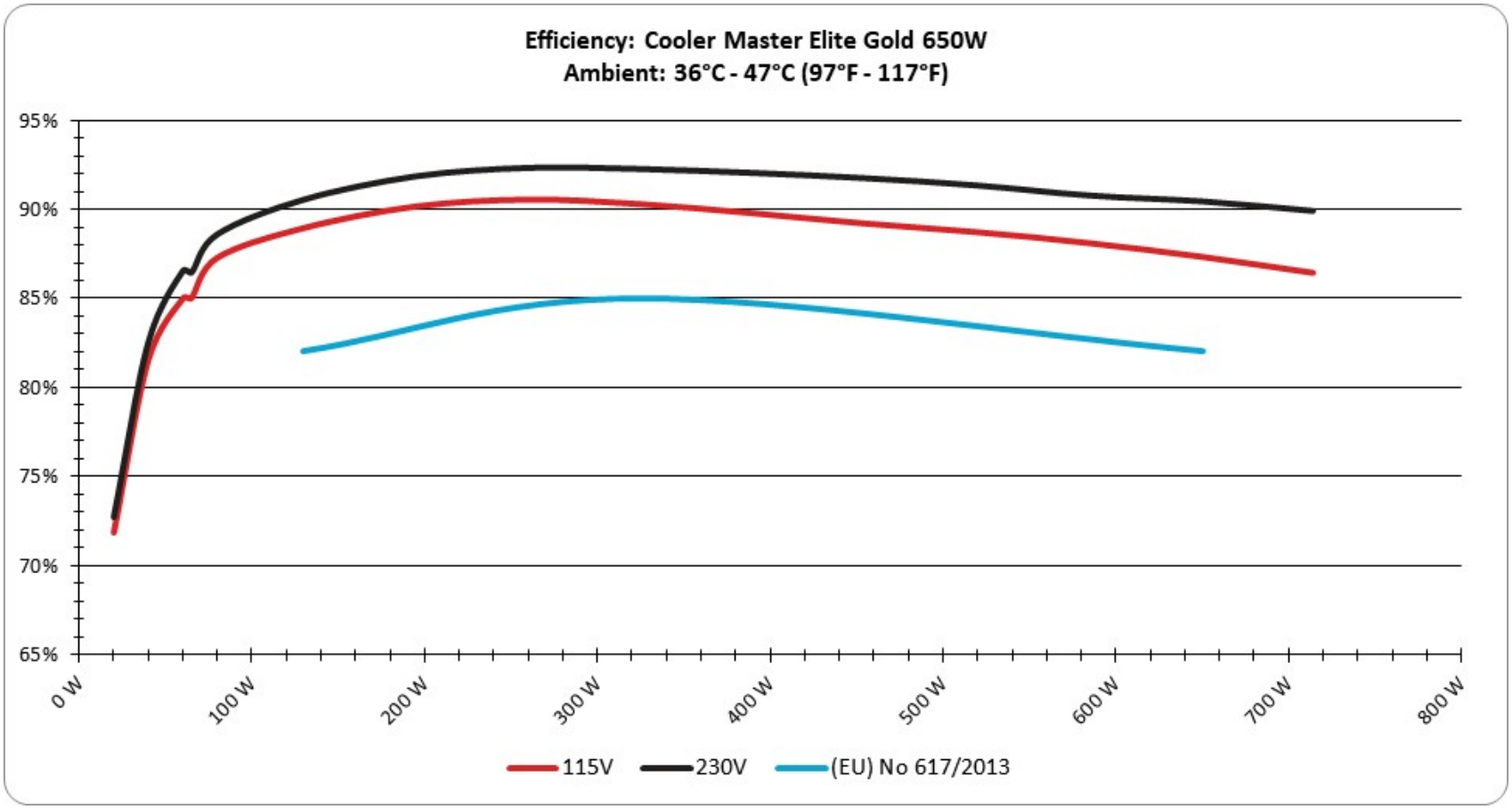



NEUTRAL



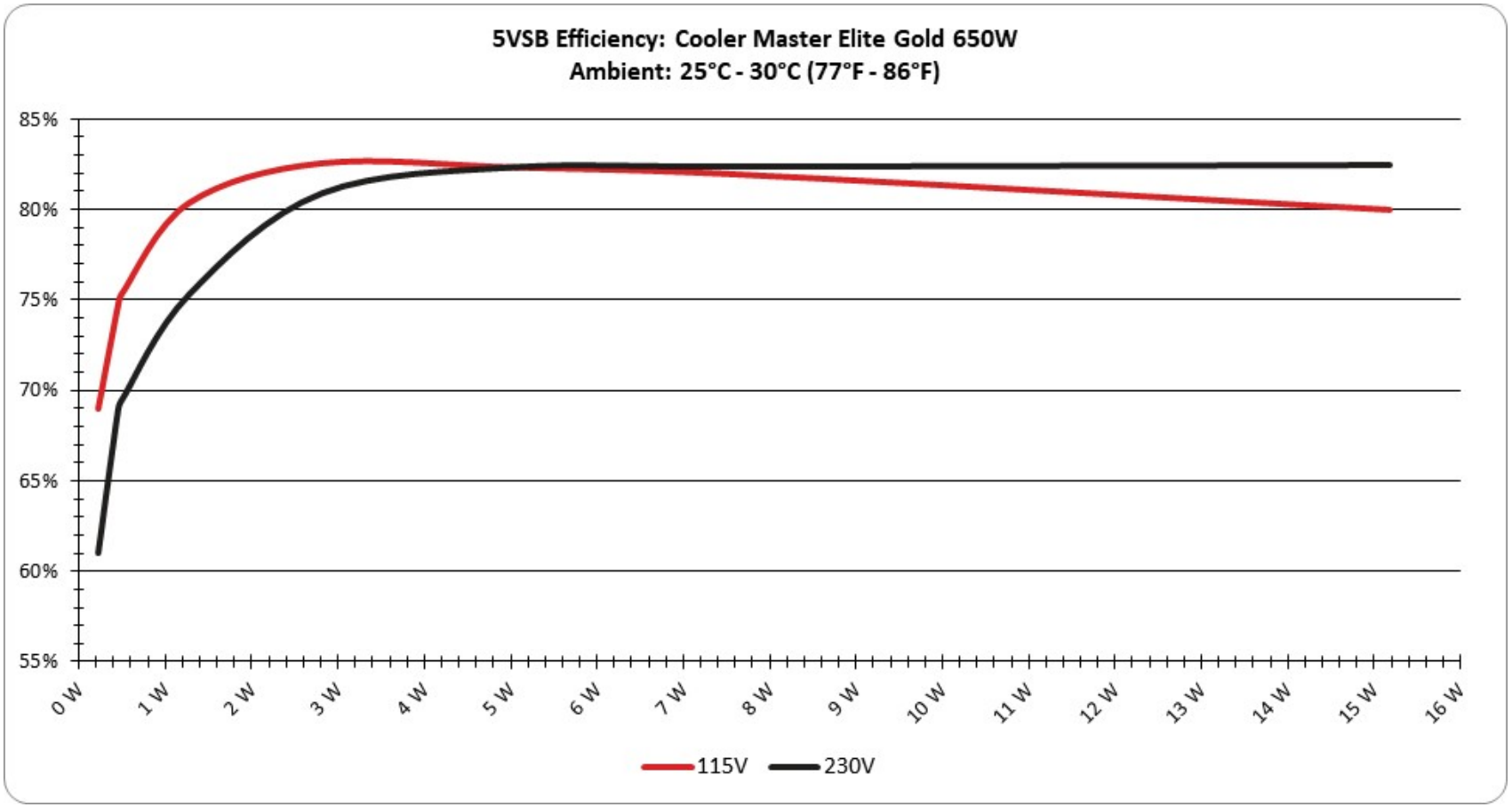

PHASE

## Indicative Performance




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□□□□**




□□

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

## □□□□ □□ 5Vsb □□ (ErP Lot3/6 & CEC)

### 115V

| □□ # | 5VSB | DC/AC (□ ) | □□ | PF/AC □□ |
|---|---|---|---|---|
| **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

| □□ # | 5VSB | DC/AC (□ ) | □□ | PF/AC □□ |
|---|---|---|---|---|
| **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<br>5V: 23.9A (119.50%), 5.061V<br>3.3V: 23.1A (115.50%), 3.265V<br>5VSB: 5.7A (190.00%), 4.984V |
| OCP (Hot @ 41.6°C) | 12V: 66.00A (122.00%), 12.134V<br>5V: 23.8A (119.00%), 5.042V<br>3.3V: 22.7A (113.50%), 3.258V<br>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: ✓<br>5V to Earth: ✓<br>3.3V to Earth: ✓<br>5VSB to Earth: ✓<br>-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<br>Inrush: NTC & Bypass Relay |

## Supplementary Tests (For Reference)

### 10-110%□□□□

#### 115V

| □□ | 12V | 5V | 3.3V | 5VSB | DC/AC (□ ) | □□ | □□□□ (RPM) | □□□□□□□ (dB[A]) | □□ (□□ /□□ ) | PF/AC □□ |
|---|---|---|---|---|---|---|---|---|---|---|
| **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 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **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

| □□ | **12V** | **5V** | **3.3V** | **5VSB** | **DC/AC (□ )** | □□ | □□□□ **(RPM)** | □□□□□□□ **(dB[A])** | □□ **(□□ /□□ )** | **PF/AC □□** |
|---|---|---|---|---|---|---|---|---|---|---|
| **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 |
| **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

## 20-80□□□□□

### 115V

| □□ | **12V** | **5V** | **3.3V** | **5VSB** | **DC/AC (□ )** | □□ | □□□□ **(RPM)** | □□□□□□□ **(dB[A])** | □□ **(□□ /□□ )** | **PF/AC □□** |
|---|---|---|---|---|---|---|---|---|---|---|
| **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

| □□ | 12V | 5V | 3.3V | 5VSB | DC/AC (□ ) | □□ | □□□□ (RPM) | □□□□□□□ (dB[A]) | □□ (□□ /□□ ) | PF/AC □□ |
|---|---|---|---|---|---|---|---|---|---|---|
| **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

□□□□

## 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



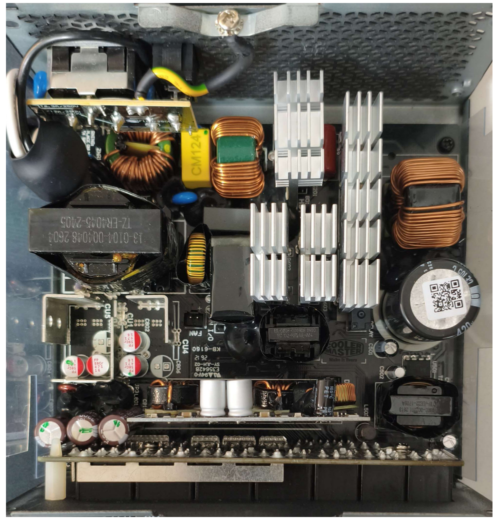

Top side




Power specifications label




Fan



PSU Internals

Cybenetics

Cybenetics

ETA LAMBDA SAFE

DELTA PHI