



## Montech Century II Gold 850 ATX3

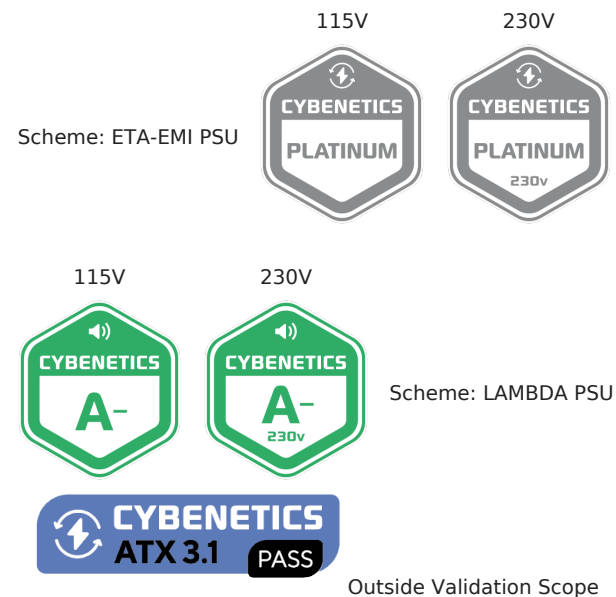
Serial Number -

Lab ID MT85002813

Certification ID 252813

Test Result Report ID: 25PS2813A

Certificate Issue Date: May 13, 2025



## 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                             | Montech                               |
| Model                             | Century II Gold 850 ATX3              |
| OEM/ODM                           | Shenzhen Xinweiyi Technology Co., Ltd |
| Serial Number                     | -                                     |
| Product Specifications            |                                       |
| Manufacturer-Provided Information |                                       |
| Rated Voltage (Vrms)              | 100-240                               |
| Rated Current (Arms)              | 10                                    |

|                                                   |                                                                                     |
|---------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated Frequency (Hz)                              | 50-60                                                                               |
| Rated Power (W)                                   | 850                                                                                 |
| Operating Temperature (Continuous Full Load) (°C) |                                                                                     |
| Type                                              | ATX12V                                                                              |
| Cable Design                                      | Fully Modular                                                                       |
| Warranty                                          | -                                                                                   |
| Cybenetics Measurements                           |                                                                                     |
| Dimensions (W x H x D)                            |                                                                                     |
| Weight                                            |                                                                                     |
| Cooling                                           | 135mm Fluid Dynamic Bearing Fan (HA13525M12SF-Z)                                    |
| Semi-Passive Operation                            | ✓ (selectable)                                                                      |
| Cybenetics Testing Information                    |                                                                                     |
| Lab ID                                            | MT85002813                                                                          |
| Date of receipt                                   | Apr 29, 2025                                                                        |
| Testing Date                                      | May 10, 2025                                                                        |
| Report Issued Date                                | May 13, 2025                                                                        |
| Engineer Name                                     | -                                                                                   |
| Authorized By the Laboratory Technical Manager    | Aristeidis Bitziopoulos                                                             |
| Signature                                         |  |

### Cables and Connectors(Non-accredited measurements)

| Modular Cables                        |             |                         |          |                     |
|---------------------------------------|-------------|-------------------------|----------|---------------------|
| Description                           | Cable Count | Connector Count (Total) | Gauge    | In Cable Capacitors |
| ATX connector 20+4 pin (590mm)        | 1           | 1                       | 18AWG    | No                  |
| 4+4 pin EPS12V (700mm)                | 2           | 2                       | 18AWG    | No                  |
| 6+2 pin PCIe (600mm+150mm)            | 2           | 4                       | 18AWG    | No                  |
| 12+4 pin PCIe (600mm) (600W)          | 1           | 1                       | 16-26AWG | No                  |
| SATA (500mm+150mm+150mm+150mm)        | 2           | 8                       | 18AWG    | No                  |
| 4-pin Molex (500mm+150mm+150mm+150mm) | 1           | 4                       | 18AWG    | No                  |
| AC Power Cord (1350mm) - C13 coupler  | 1           | 1                       | 18AWG    | -                   |

Protection Features(Manufacturer)

|                                |   |
|--------------------------------|---|
| Over Voltage Protection        | ✓ |
| Under Voltage Protection       | ✓ |
| Over Power Protection          | ✓ |
| Over Current (+12V) Protection | ✓ |
| Over Temperature Protection    | ✓ |
| Short Circuit Protection       | ✓ |
| Surge Protection               | ✓ |

Power Specifications

|                      |       |      |    |       |      |      |
|----------------------|-------|------|----|-------|------|------|
| Rail                 |       | 3.3V | 5V | 12V   | 5VSB | -12V |
| Max. Power           | Amps  | 20   | 20 | 70.8  | 3    | 0.3  |
|                      | Watts | 100  |    | 849.6 | 15   | 3.6  |
| Total Max. Power (W) |       | 850  |    |       |      |      |

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) | 89.800% |

|                                                       |          |
|-------------------------------------------------------|----------|
| Average Noise Output (>1450 Load Combinations)        | 26.89dBA |
| Average PF (>1450 Load Combinations)                  | 0.985    |
| Efficiency With 10W ( $\leq$ 500W) or 2% (>500W) Load | 70.357%  |
| Standby Power Consumption                             | 0.0730W  |
| Non-Accredited                                        |          |
| 12V Ripple (Full Load)                                | 28.25mV  |
| 5V Ripple (Full Load)                                 | 22.96mV  |
| 3.3V Ripple (Full Load)                               | 20.83mV  |
| 5VSB Ripple (Full Load)                               | 17.02mV  |
| 12V Load Regulation                                   | 0.39%    |
| 5V Load Regulation                                    | 0.32%    |
| 3.3V Load Regulation                                  | 0.42%    |
| 5VSB Load Regulation                                  | 4.89%    |
| Inrush Current                                        | 16.852A  |

## 230V

|                                                       |          |
|-------------------------------------------------------|----------|
| Accredited                                            |          |
| Average Efficiency (>1450 load combinations)          | 91.840%  |
| Average Noise Output (>1450 Load Combinations)        | 26.26dBA |
| Average PF (>1450 Load Combinations)                  | 0.945    |
| Efficiency With 10W ( $\leq$ 500W) or 2% (>500W) Load | 70.828%  |
| Standby Power Consumption                             | 0.1474W  |
| Non-Accredited                                        |          |
| 12V Ripple (Full Load)                                | 29.21mV  |
| 5V Ripple (Full Load)                                 | 22.60mV  |
| 3.3V Ripple (Full Load)                               | 22.19mV  |
| 5VSB Ripple (Full Load)                               | 16.24mV  |
| 12V Load Regulation                                   | 0.27%    |
| 5V Load Regulation                                    | 0.30%    |
| 3.3V Load Regulation                                  | 0.45%    |
| 5VSB Load Regulation                                  | 4.87%    |
| Inrush Current                                        | 33.540A  |

|                                  |                           |                           |
|----------------------------------|---------------------------|---------------------------|
| 12V Transient Response (200%)    | 11.37V                    |                           |
| 5V Transient Response (200%)     | 4.912V                    |                           |
| 3.3V Transient Response (200%)   | 3.245V                    |                           |
| 5VSB Transient Response (200%)   | 4.956V                    |                           |
| Hold-Up Time & PWR_OK Signal     | 22.40ms                   |                           |
| AC Loss to PWR_OK Hold Up Time   | 14.30ms                   |                           |
| PWR_OK Inactive to DC Loss Delay | 8.10ms                    |                           |
| PSU Timings: T1 (20% / 100%)     | 75.0ms                    | 69.0ms                    |
| PSU Timings: T3 (20% / 100%)     | 117.0ms                   | 117.0ms                   |
| 12V OCP (25.8°C / 40.7°C)        | 92.80A (131.07%), 11.960V | 92.80A (131.07%), 11.976V |
| 5V OCP (25.8°C / 40.7°C)         | 24.9A (124.50%), 4.998V   | 26.1A (130.50%), 5.002V   |
| 3.3V OCP (25.8°C / 40.7°C)       | 31.4A (157.00%), 3.342V   | 30A (150.00%), 3.343V     |
| 5VSB OCP (25.8°C / 40.7°C)       | 4.9A (163.33%), 4.872V    | 4.7A (156.67%), 4.874V    |
| OPP (27.07°C / 42.17°C)          | 128.84%                   | 123.25%                   |

## Hold-Up Time & PWR\_OK Signal

|                                       |      |
|---------------------------------------|------|
| Hold-Up Time (ms)                     | 22.4 |
| AC Loss to PWR_OK Hold Up Time (ms)   | 14.3 |
| PWR_OK Inactive to DC Loss Delay (ms) | 8.1  |

## Vampire Power

### Tables

#### 115V

| Detailed Results   |          |          |           |          |           |        |
|--------------------|----------|----------|-----------|----------|-----------|--------|
|                    | Average  | Min      | Limit Min | Max      | Limit Max | Result |
| Mains Voltage RMS: | 115.06 V | 115.02 V | 113.85 V  | 115.10 V | 116.15 V  | PASS   |
| Mains Frequency:   | 60.00 Hz | 59.99 Hz | 59.40 Hz  | 60.01 Hz | 60.60 Hz  | PASS   |
| Mains Voltage CF:  | 1.416    | 1.415    | 1.340     | 1.418    | 1.490     | PASS   |

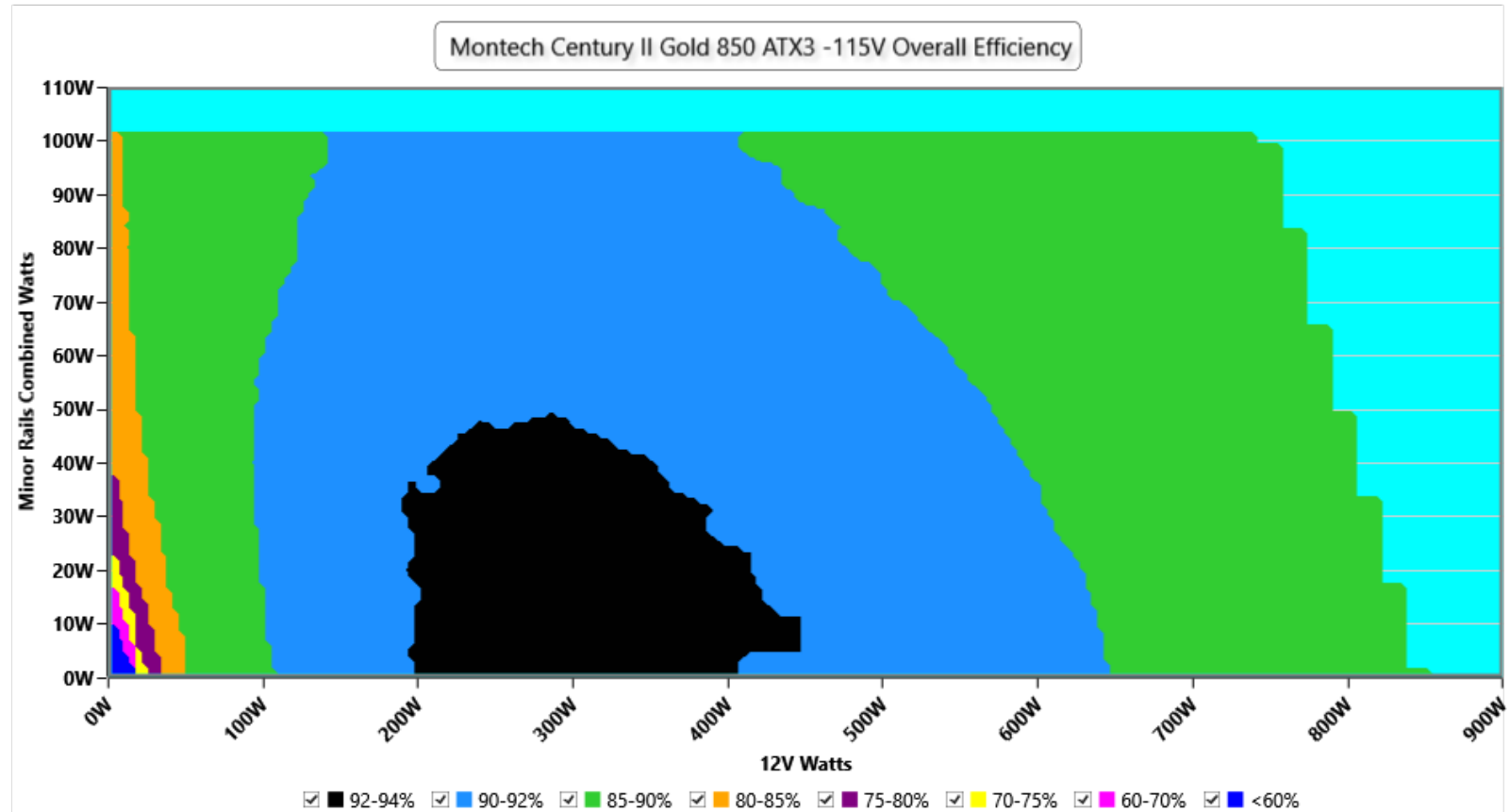
|                    |          |         |     |          |        |      |
|--------------------|----------|---------|-----|----------|--------|------|
| Mains Voltage THD: | 0.13 %   | 0.09 %  | N/A | 0.18 %   | 2.00 % | PASS |
| Real Power:        | 0.073 W  | 0.004 W | N/A | 0.106 W  | N/A    | N/A  |
| Apparent Power:    | 10.040 W | 9.965 W | N/A | 10.105 W | N/A    | N/A  |
| Power Factor:      | 0.008    | N/A     | N/A | N/A      | N/A    | N/A  |

## 230V

| Detailed Results   |          |          |           |          |           |        |
|--------------------|----------|----------|-----------|----------|-----------|--------|
|                    | Average  | Min      | Limit Min | Max      | Limit Max | Result |
| Mains Voltage RMS: | 231.01 V | 230.92 V | 227.70 V  | 231.08 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     | 1.419    | 1.490     | PASS   |
| Mains Voltage THD: | 0.17 %   | 0.14 %   | N/A       | 0.26 %   | 2.00 %    | PASS   |
| Real Power:        | 0.147 W  | 0.112 W  | N/A       | 0.197 W  | N/A       | N/A    |
| Apparent Power:    | 34.149 W | 33.961 W | N/A       | 34.382 W | N/A       | N/A    |
| Power Factor:      | 0.005    | N/A      | N/A       | N/A      | N/A       | N/A    |

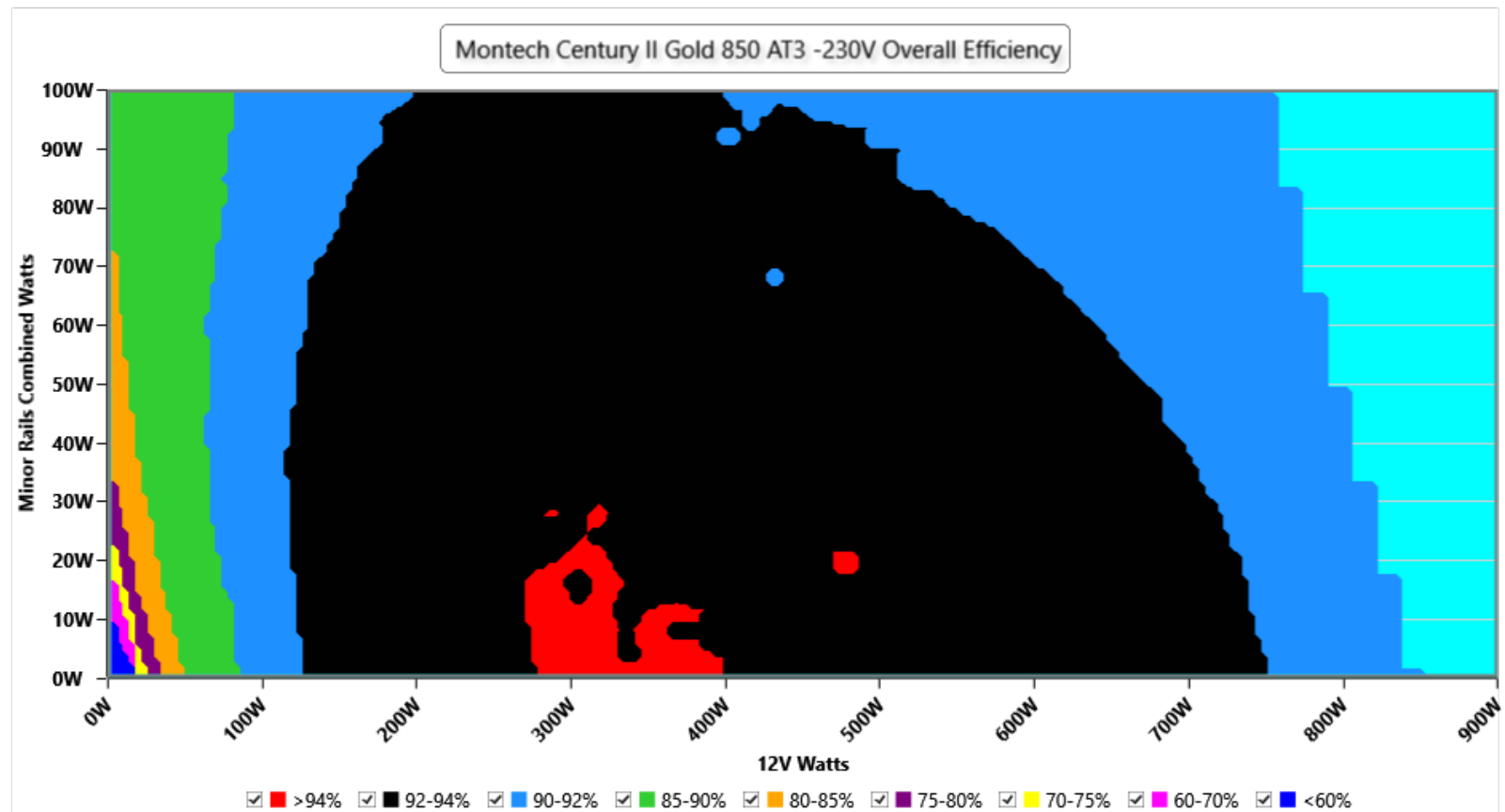
## Efficiency Graph

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

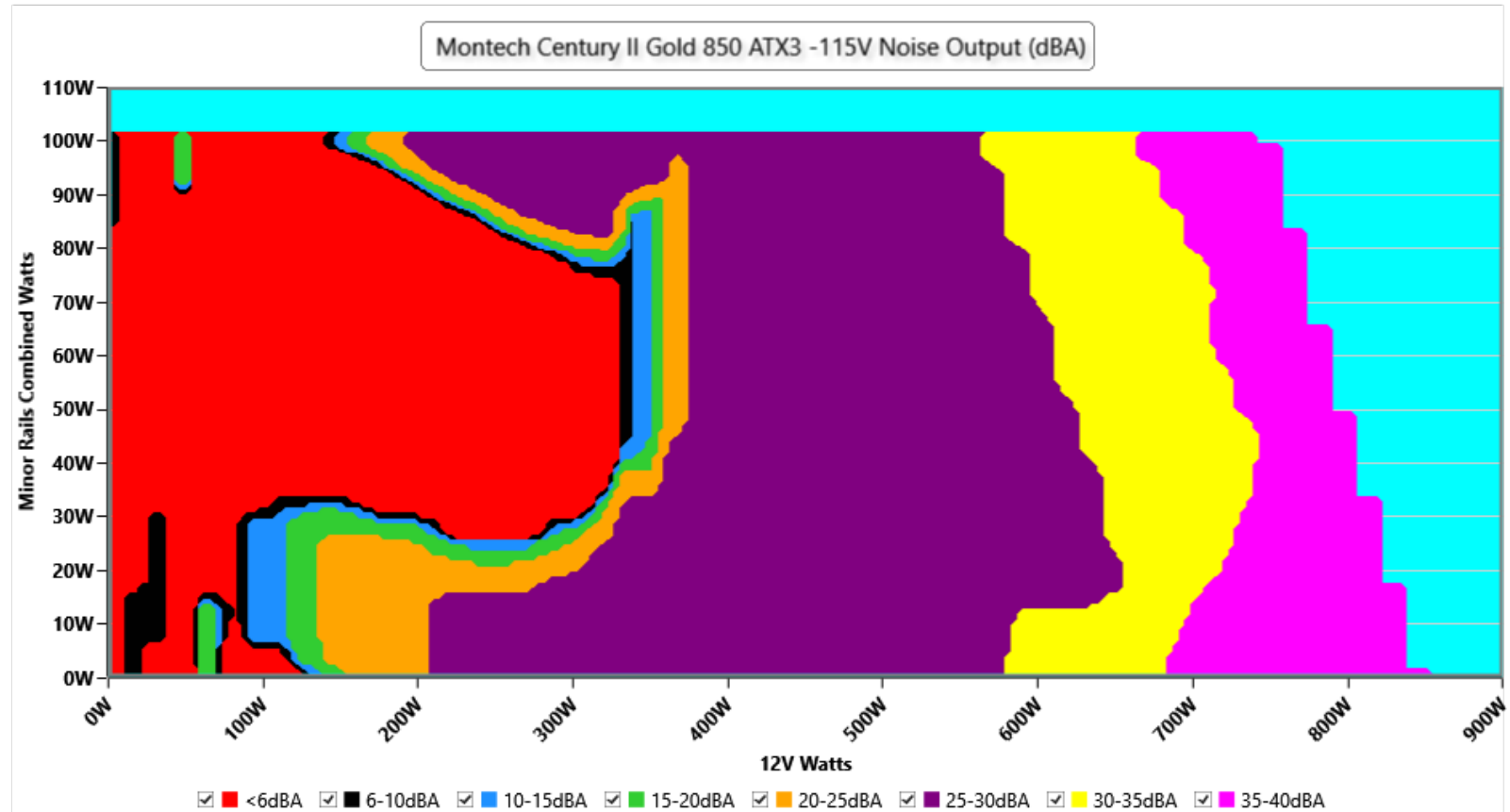


### INFO

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

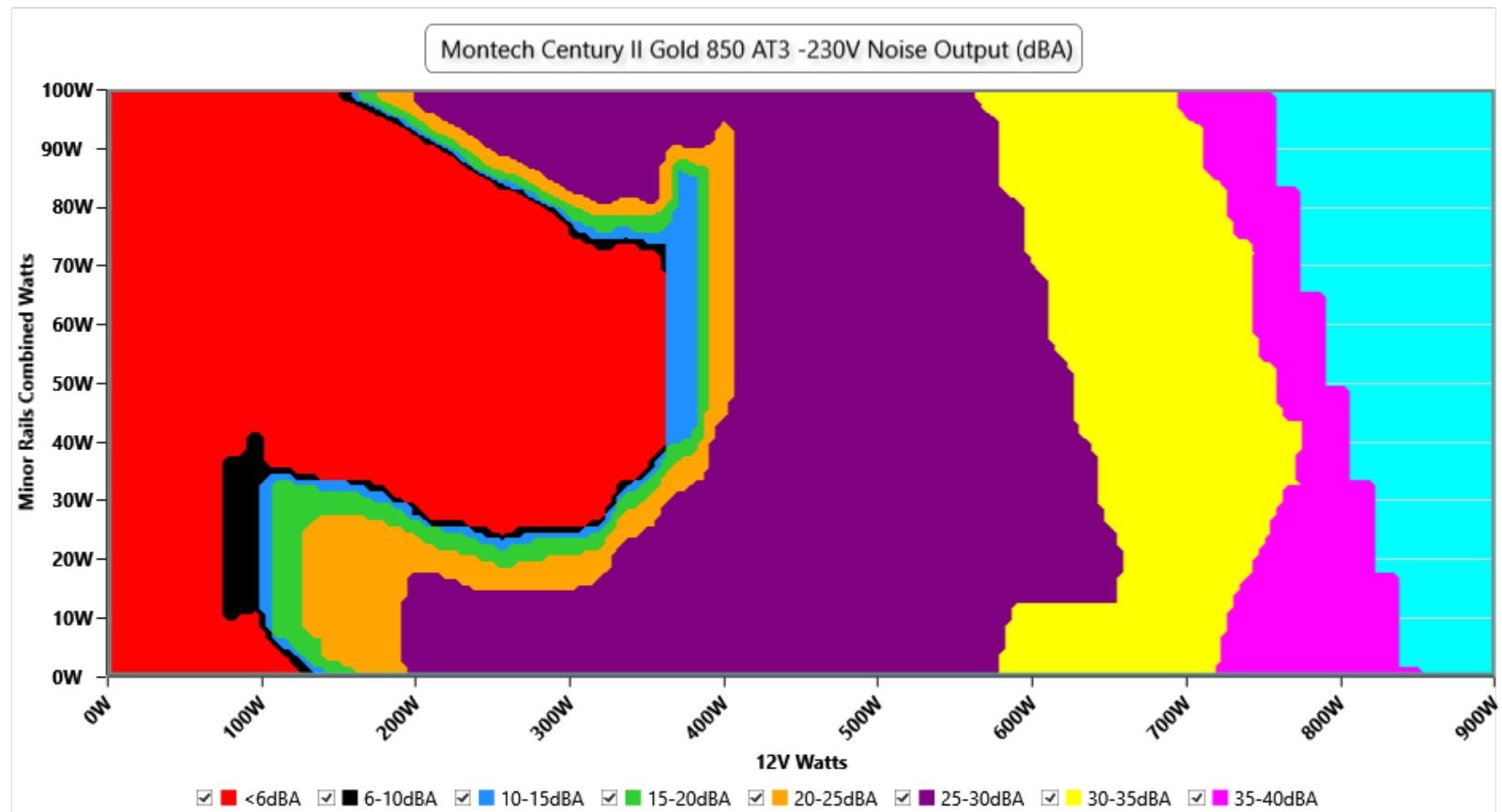
## Noise Graph

115V



### INFO

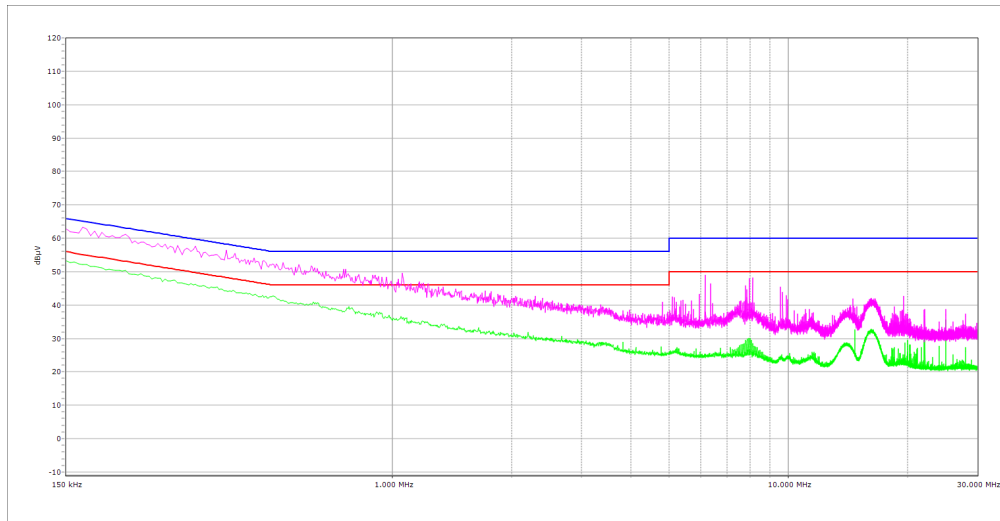
The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails



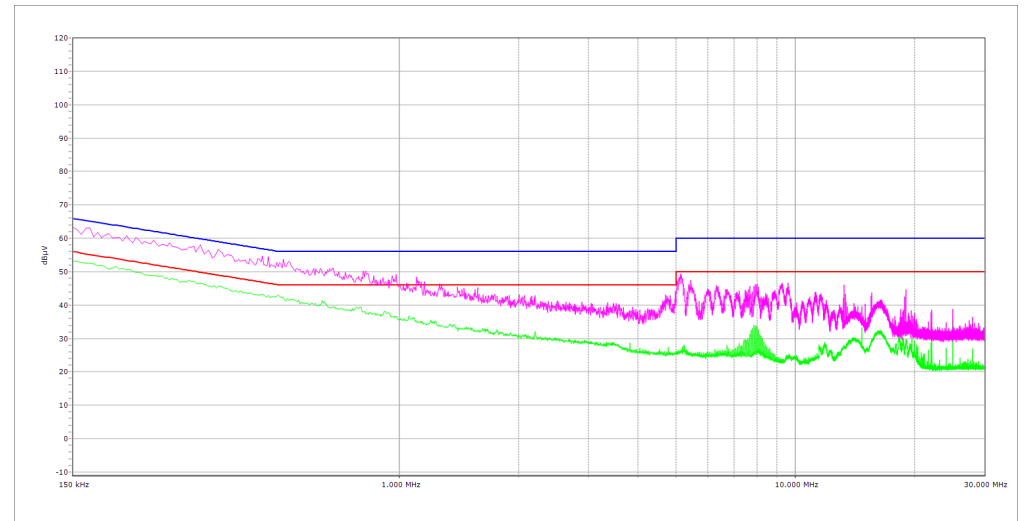
### INFO

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

## Conducted Emissions EN 55032 & CISPR 32



NEUTRAL



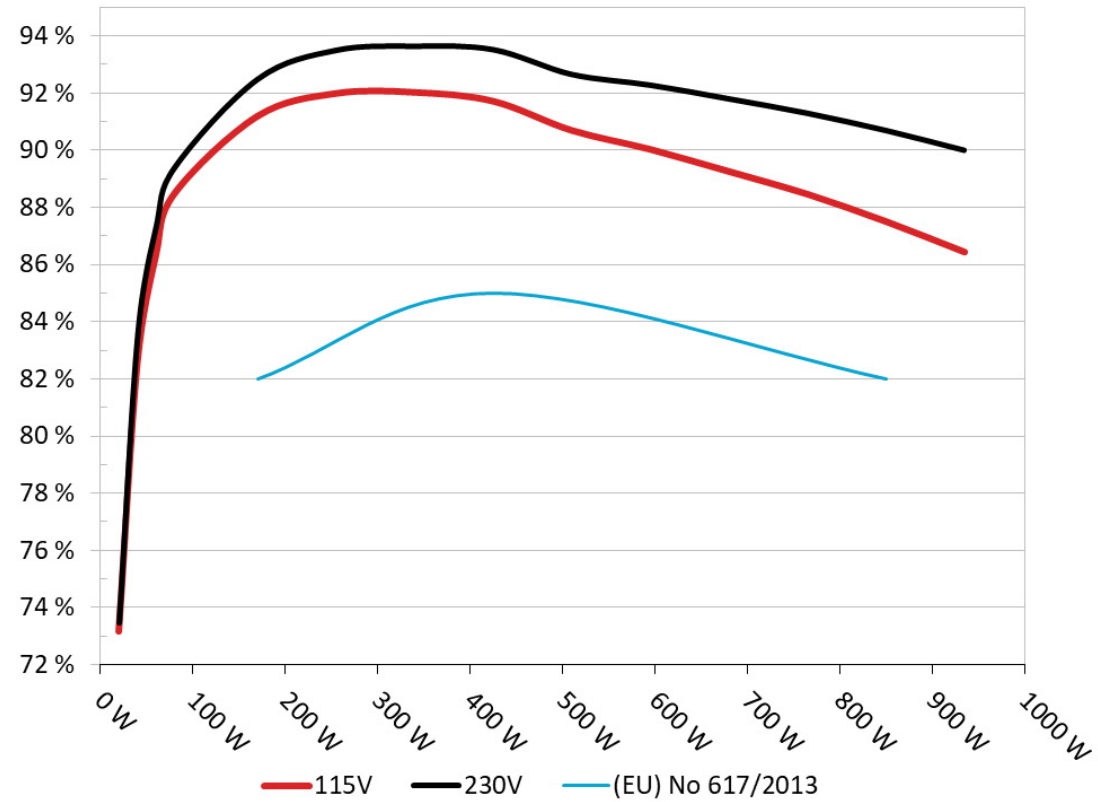
PHASE

## Indicative Performance

### Efficiency under high ambient temperature

Efficiency: Montech Century II Gold 850W

Ambient: 36°C - 47°C (96.8°F - 116.6°F)



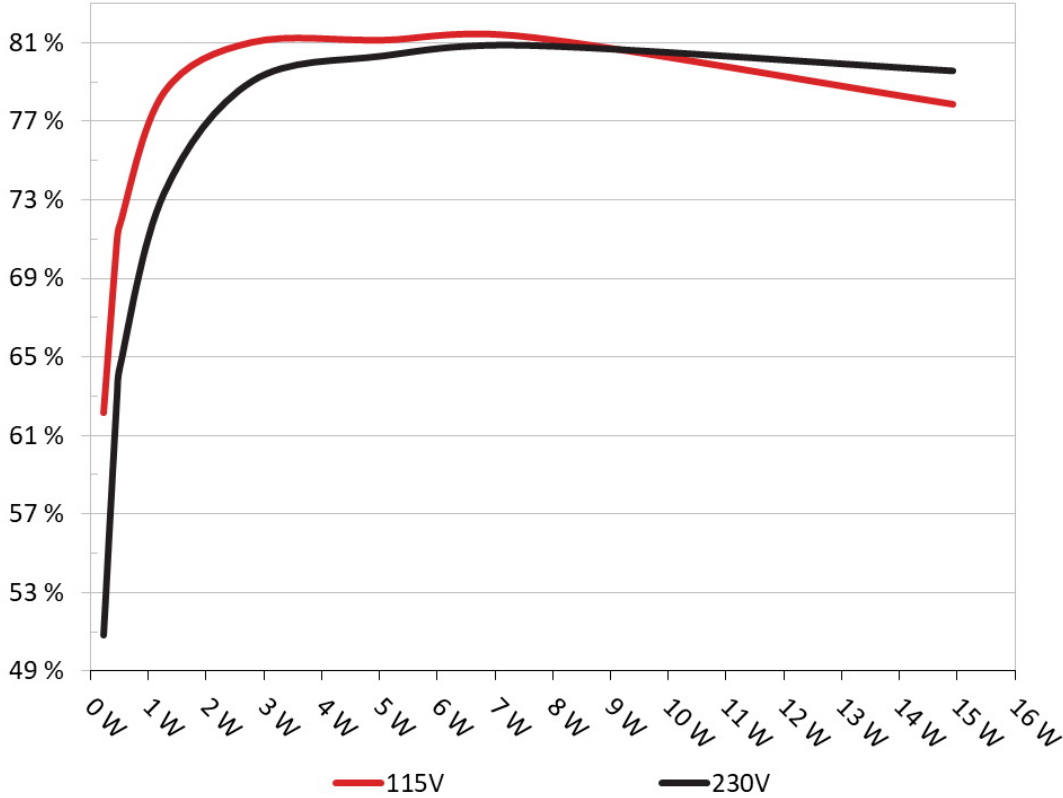
### INFO

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: Montech Century II Gold 850W

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         | 62.173%    | 0.036       |
|        | 5.113V | 0.368W        |            | 114.84V     |
| 2      | 0.09A  | 0.46W         | 70.919%    | 0.062       |
|        | 5.111V | 0.649W        |            | 114.84V     |
| 3      | 0.55A  | 2.8W          | 81.039%    | 0.266       |
|        | 5.09V  | 3.455W        |            | 114.84V     |
| 4      | 1A     | 5.07W         | 81.145%    | 0.372       |
|        | 5.069V | 6.248W        |            | 114.83V     |
| 5      | 1.5A   | 7.57W         | 81.312%    | 0.42        |
|        | 5.046V | 9.31W         |            | 114.84V     |
| 6      | 3.001A | 14.929W       | 77.884%    | 0.492       |
|        | 4.975V | 19.169W       |            | 114.85V     |

#### 230V

| Test # | 5VSB   | DC/AC (Watts) | Efficiency | PF/AC Volts |
|--------|--------|---------------|------------|-------------|
| 1      | 0.045A | 0.23W         | 50.807%    | 0.013       |
|        | 5.113V | 0.453W        |            | 229.87V     |
| 2      | 0.09A  | 0.46W         | 62.903%    | 0.021       |
|        | 5.111V | 0.732W        |            | 229.86V     |
| 3      | 0.55A  | 2.8W          | 79.054%    | 0.098       |
|        | 5.09V  | 3.542W        |            | 229.83V     |
| 4      | 1A     | 5.07W         | 80.348%    | 0.164       |
|        | 5.069V | 6.31W         |            | 229.82V     |
| 5      | 1.5A   | 7.57W         | 80.881%    | 0.224       |
|        | 5.046V | 9.36W         |            | 229.82V     |
| 6      | 3.001A | 14.931W       | 79.583%    | 0.325       |
|        | 4.976V | 18.761W       |            | 229.82V     |

## Protection Features

|                                        |                                                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| OCP (Normal @ 25.8°C)                  | 12V: 92.80A (131.07%), 11.960V<br>5V: 24.9A (124.50%), 4.998V<br>3.3V: 31.4A (157.00%), 3.342V<br>5VSB: 4.9A (163.33%), 4.872V |
| OCP (Hot @ 40.7°C)                     | 12V: 92.80A (131.07%), 11.976V<br>5V: 26.1A (130.50%), 5.002V<br>3.3V: 30A (150.00%), 3.343V<br>5VSB: 4.7A (156.67%), 4.874V   |
| OPP (Normal @ 27.1°C)                  | 1095.16W (128.84%)                                                                                                             |
| OPP (Hot @ 42.2°C)                     | 1047.63W (123.25%)                                                                                                             |
| OTP                                    | ✓ (110°C @ Heat Sink)                                                                                                          |
| 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 (Full Load @ 90V)                  | ✓                                                                                                                              |
| UVP (No Damage @ 80V)                  | ✓                                                                                                                              |
| Conducted Emissions EN55032 & CISPR 32 | ✓                                                                                                                              |
| NLO                                    | ✓                                                                                                                              |
| Fan Failure Protection                 | ✗                                                                                                                              |
| SIP                                    | Surge: MOV<br>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%  | 5.304A  | 1.997A  | 1.972A | 0.988A | 84.998        | 88.222%    | 0               | <6.0              | 45.01°C        | 0.973       |
|      | 11.955V | 5.006V  | 3.346V | 5.058V | 96.344        |            |                 |                   | 40.24°C        | 114.81V     |
| 20%  | 11.627A | 2.997A  | 2.959A | 1.191A | 169.918       | 91.177%    | 0               | <6.0              | 47.82°C        | 0.972       |
|      | 11.957V | 5.005V  | 3.345V | 5.039V | 186.358       |            |                 |                   | 40.96°C        | 114.78V     |
| 30%  | 18.302A | 3.498A  | 3.455A | 1.394A | 254.919       | 91.975%    | 752             | 20                | 41.17°C        | 0.979       |
|      | 11.959V | 5.003V  | 3.343V | 5.02V  | 277.16        |            |                 |                   | 47.36°C        | 114.76V     |
| 40%  | 24.984A | 3.999A  | 3.95A  | 1.6A   | 340.002       | 92.012%    | 966             | 27.4              | 41.72°C        | 0.985       |
|      | 11.960V | 5.001V  | 3.342V | 5.001V | 369.521       |            |                 |                   | 47.2°C         | 114.72V     |
| 50%  | 31.290A | 5.001A  | 4.941A | 1.807A | 424.777       | 91.702%    | 966             | 27.4              | 42.09°C        | 0.988       |
|      | 11.961V | 4.999V  | 3.34V  | 4.982V | 463.216       |            |                 |                   | 46.76°C        | 114.7V      |
| 60%  | 37.611A | 6.004A  | 5.932A | 2A     | 509.274       | 90.686%    | 968             | 27.4              | 42.95°C        | 0.991       |
|      | 11.967V | 4.997V  | 3.338V | 4.962V | 561.586       |            |                 |                   | 48.09°C        | 114.67V     |
| 70%  | 43.905A | 7.006A  | 6.924A | 2.227A | 594.704       | 90.018%    | 1164            | 32.5              | 43.33°C        | 0.993       |
|      | 11.971V | 4.996V  | 3.337V | 4.94V  | 660.653       |            |                 |                   | 50.65°C        | 114.64V     |
| 80%  | 50.257A | 8.009A  | 7.915A | 2.336A | 679.528       | 89.247%    | 1269            | 35.1              | 43.64°C        | 0.994       |
|      | 11.971V | 4.994V  | 3.335V | 4.923V | 761.409       |            |                 |                   | 52.23°C        | 114.61V     |
| 90%  | 57.001A | 8.512A  | 8.399A | 2.445A | 764.964       | 88.448%    | 1540            | 39.9              | 44.68°C        | 0.995       |
|      | 11.973V | 4.992V  | 3.333V | 4.908V | 864.877       |            |                 |                   | 53.02°C        | 114.56V     |
| 100% | 63.476A | 9.017A  | 8.913A | 3.084A | 849.799       | 87.493%    | 1698            | 42.1              | 45.72°C        | 0.996       |
|      | 11.974V | 4.99V   | 3.332V | 4.866V | 971.279       |            |                 |                   | 54.63°C        | 114.54V     |
| 110% | 69.818A | 10.023A | 9.998A | 3.091A | 934.388       | 86.43%     | 1988            | 46.6              | 46.66°C        | 0.996       |
|      | 11.976V | 4.988V  | 3.33V  | 4.854V | 1081.099      |            |                 |                   | 56.61°C        | 114.5V      |
| CL1  | 0.117A  | 12.049A | 11.89A | 0A     | 101.299       | 84.088%    | 966             | 27.4              | 42.13°C        | 0.977       |
|      | 11.994V | 4.996V  | 3.339V | 5.09V  | 120.473       |            |                 |                   | 50.66°C        | 114.79V     |

| Test | 12V     | 5V      | 3.3V    | 5VSB   | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------|---------|---------|---------|--------|---------------|------------|-----------------|-------------------|----------------|-------------|
| CL2  | 0.116A  | 19.993A | 0A      | 0A     | 101.341       | 83.03%     | 965             | 27.3              | 42.17°C        | 0.975       |
|      | 11.982V | 4.999V  | 3.338V  | 5.095V | 122.055       |            |                 |                   | 47.34°C        | 114.79V     |
| CL3  | 0.116A  | 0A      | 19.737A | 0A     | 67.382        | 78.289%    | 962             | 27.3              | 40.77°C        | 0.967       |
|      | 11.977V | 4.998V  | 3.344V  | 5.095V | 86.067        |            |                 |                   | 45.07°C        | 114.81V     |
| CL4  | 71.023A | 0A      | 0A      | 0.001A | 849.492       | 88.525%    | 1543            | 39.9              | 47.32°C        | 0.995       |
|      | 11.961V | 5V      | 3.341V  | 5.034V | 959.606       |            |                 |                   | 53.62°C        | 114.55V     |

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%  | 5.302A  | 1.997A | 1.972A | 0.989A | 85            | 89.316%    | 0               | <6.0              | 46.35°C        | 0.819       |
|      | 11.959V | 5.007V | 3.347V | 5.058V | 95.169        |            |                 |                   | 40.27°C        | 229.82V     |
| 20%  | 11.624A | 2.996A | 2.959A | 1.191A | 169.923       | 92.494%    | 545             | 9                 | 40.85°C        | 0.912       |
|      | 11.960V | 5.005V | 3.345V | 5.039V | 183.715       |            |                 |                   | 45.66°C        | 229.8V      |
| 30%  | 18.297A | 3.498A | 3.454A | 1.394A | 254.924       | 93.505%    | 626             | 14.1              | 41.48°C        | 0.94        |
|      | 11.962V | 5.003V | 3.344V | 5.021V | 272.629       |            |                 |                   | 45.39°C        | 229.79V     |
| 40%  | 24.988A | 4A     | 3.951A | 1.6A   | 340.019       | 93.647%    | 962             | 27.3              | 41.94°C        | 0.957       |
|      | 11.959V | 5V     | 3.341V | 5.002V | 363.087       |            |                 |                   | 44.88°C        | 229.78V     |
| 50%  | 31.299A | 5.002A | 4.942A | 1.807A | 424.842       | 93.528%    | 963             | 27.3              | 42.21°C        | 0.964       |
|      | 11.960V | 4.998V | 3.339V | 4.982V | 454.242       |            |                 |                   | 45.55°C        | 229.77V     |
| 60%  | 37.570A | 6.005A | 5.933A | 2A     | 509.34        | 92.662%    | 966             | 27.4              | 43.45°C        | 0.974       |
|      | 11.967V | 4.997V | 3.338V | 4.962V | 549.675       |            |                 |                   | 47.71°C        | 229.75V     |
| 70%  | 43.905A | 7.007A | 6.924A | 2.227A | 594.748       | 92.285%    | 1120            | 31.5              | 43.07°C        | 0.978       |
|      | 11.972V | 4.996V | 3.337V | 4.94V  | 644.472       |            |                 |                   | 48.61°C        | 229.73V     |
| 80%  | 50.248A | 8.008A | 7.916A | 2.336A | 679.561       | 91.806%    | 1267            | 35                | 43.54°C        | 0.98        |
|      | 11.974V | 4.995V | 3.335V | 4.924V | 740.217       |            |                 |                   | 51.37°C        | 229.71V     |
| 90%  | 56.994A | 8.51A  | 8.4A   | 2.445A | 764.983       | 91.297%    | 1536            | 39.8              | 44.13°C        | 0.982       |
|      | 11.975V | 4.993V | 3.333V | 4.909V | 837.905       |            |                 |                   | 51.85°C        | 229.71V     |

| Test        | 12V            | 5V             | 3.3V           | 5VSB          | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|-------------|----------------|----------------|----------------|---------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>100%</b> | <b>63.473A</b> | <b>9.014A</b>  | <b>8.914A</b>  | <b>3.083A</b> | 849.815       | 90.694%    | 1694            | 42                | 45.05°C        | 0.984       |
|             | 11.975V        | 4.992V         | 3.332V         | 4.867V        | 937.015       |            |                 |                   | 52.44°C        | 229.69V     |
| <b>110%</b> | <b>69.813A</b> | <b>10.02A</b>  | <b>10A</b>     | <b>3.09A</b>  | 934.409       | 90.005%    | 1991            | 46.6              | 46.68°C        | 0.986       |
|             | 11.977V        | 4.99V          | 3.33V          | 4.855V        | 1038.171      |            |                 |                   | 55.18°C        | 229.67V     |
| <b>CL1</b>  | <b>0.117A</b>  | <b>12.043A</b> | <b>11.893A</b> | <b>0A</b>     | 101.304       | 85.568%    | 967             | 27.4              | 42.05°C        | 0.857       |
|             | 11.993V        | 4.999V         | 3.338V         | 5.09V         | 118.391       |            |                 |                   | 50.74°C        | 229.81V     |
| <b>CL2</b>  | <b>0.117A</b>  | <b>19.976A</b> | <b>0A</b>      | <b>0A</b>     | 101.353       | 84.196%    | 965             | 27.3              | 43.3°C         | 0.859       |
|             | 11.984V        | 5.004V         | 3.338V         | 5.095V        | 120.38        |            |                 |                   | 48.05°C        | 229.82V     |
| <b>CL3</b>  | <b>0.116A</b>  | <b>0A</b>      | <b>19.738A</b> | <b>0A</b>     | 67.389        | 79.093%    | 963             | 27.3              | 41.97°C        | 0.798       |
|             | 11.979V        | 4.998V         | 3.344V         | 5.095V        | 85.2          |            |                 |                   | 45.88°C        | 229.82V     |
| <b>CL4</b>  | <b>71.025A</b> | <b>0A</b>      | <b>0A</b>      | <b>0.001A</b> | 849.577       | 91.58%     | 1539            | 39.9              | 44.49°C        | 0.984       |
|             | 11.962V        | 4.999V         | 3.34V          | 5.033V        | 927.69        |            |                 |                   | 49.45°C        | 229.69V     |

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 |
|------------|---------------|---------------|---------------|---------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>20W</b> | <b>1.244A</b> | <b>0.5A</b>   | <b>0.493A</b> | <b>0.196A</b> | 19.989        | 73.175%    | 0               | <6.0              | 38.94°C        | 0.851       |
|            | 11.935V       | 5.003V        | 3.345V        | 5.104V        | 27.318        |            |                 |                   | 36.18°C        | 114.84V     |
| <b>40W</b> | <b>2.740A</b> | <b>0.699A</b> | <b>0.69A</b>  | <b>0.294A</b> | 39.991        | 82.547%    | 0               | <6.0              | 40.08°C        | 0.931       |
|            | 11.928V       | 5.005V        | 3.346V        | 5.098V        | 48.445        |            |                 |                   | 37.05°C        | 114.83V     |
| <b>60W</b> | <b>4.229A</b> | <b>0.899A</b> | <b>0.887A</b> | <b>0.393A</b> | 59.993        | 86.304%    | 0               | <6.0              | 42.49°C        | 0.949       |
|            | 11.948V       | 5.006V        | 3.346V        | 5.091V        | 69.511        |            |                 |                   | 38.98°C        | 114.81V     |
| <b>80W</b> | <b>5.714A</b> | <b>1.098A</b> | <b>1.085A</b> | <b>0.492A</b> | 79.925        | 88.463%    | 0               | <6.0              | 43.2°C         | 0.97        |
|            | 11.950V       | 5.006V        | 3.346V        | 5.084V        | 90.347        |            |                 |                   | 39.27°C        | 114.81V     |

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 |
|------------|---------------|---------------|---------------|---------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>20W</b> | <b>1.242A</b> | <b>0.499A</b> | <b>0.493A</b> | <b>0.196A</b> | 19.991        | 73.447%    | 0               | <6.0              | 39.33°C        | 0.473       |
|            | 11.943V       | 5.004V        | 3.347V        | 5.104V        | 27.239        |            |                 |                   | 36.11°C        | 229.84V     |
| <b>40W</b> | <b>2.736A</b> | <b>0.699A</b> | <b>0.69A</b>  | <b>0.294A</b> | 39.993        | 83.542%    | 0               | <6.0              | 40.55°C        | 0.647       |
|            | 11.948V       | 5.006V        | 3.347V        | 5.097V        | 47.86         |            |                 |                   | 37.12°C        | 229.84V     |
| <b>60W</b> | <b>4.228A</b> | <b>0.898A</b> | <b>0.887A</b> | <b>0.393A</b> | 59.995        | 87.327%    | 0               | <6.0              | 42.17°C        | 0.746       |
|            | 11.951V       | 5.007V        | 3.347V        | 5.091V        | 68.68         |            |                 |                   | 38.01°C        | 229.82V     |
| <b>80W</b> | <b>5.714A</b> | <b>1.098A</b> | <b>1.084A</b> | <b>0.492A</b> | 79.928        | 89.397%    | 0               | <6.0              | 44.18°C        | 0.807       |
|            | 11.952V       | 5.007V        | 3.347V        | 5.084V        | 89.405        |            |                 |                   | 39.39°C        | 229.82V     |

The results above are not used in the certification process

## Ripple Measurements

## 115V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 18.98mV | 17.04mV | 16.93mV | 9.70mV  | Pass      |
| 20% Load   | 19.44mV | 16.73mV | 15.34mV | 8.98mV  | Pass      |
| 30% Load   | 18.36mV | 16.63mV | 15.80mV | 9.65mV  | Pass      |
| 40% Load   | 18.92mV | 17.09mV | 16.11mV | 10.62mV | Pass      |
| 50% Load   | 20.15mV | 17.81mV | 16.88mV | 11.24mV | Pass      |
| 60% Load   | 20.72mV | 20.12mV | 17.65mV | 11.75mV | Pass      |
| 70% Load   | 20.30mV | 19.97mV | 21.19mV | 13.08mV | Pass      |
| 80% Load   | 20.66mV | 20.89mV | 19.24mV | 13.65mV | Pass      |
| 90% Load   | 21.53mV | 20.73mV | 19.65mV | 14.32mV | Pass      |
| 100% Load  | 28.25mV | 22.96mV | 20.83mV | 17.02mV | Pass      |
| 110% Load  | 29.27mV | 23.45mV | 20.35mV | 17.13mV | Pass      |
| Crossload1 | 24.51mV | 19.43mV | 19.68mV | 12.82mV | Pass      |
| Crossload2 | 18.62mV | 22.27mV | 21.70mV | 12.98mV | Pass      |

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| Crossload3 | 18.56mV | 20.12mV | 18.06mV | 11.65mV | Pass      |
| Crossload4 | 29.62mV | 19.08mV | 16.63mV | 18.17mV | Pass      |

The results above are not used in the certification process

## 230V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 17.29mV | 15.55mV | 14.98mV | 8.67mV  | Pass      |
| 20% Load   | 17.55mV | 15.24mV | 14.62mV | 9.13mV  | Pass      |
| 30% Load   | 18.21mV | 15.65mV | 14.67mV | 9.13mV  | Pass      |
| 40% Load   | 17.59mV | 15.91mV | 15.03mV | 9.85mV  | Pass      |
| 50% Load   | 20.20mV | 16.83mV | 16.32mV | 10.77mV | Pass      |
| 60% Load   | 18.87mV | 19.66mV | 17.55mV | 11.91mV | Pass      |
| 70% Load   | 18.87mV | 20.01mV | 17.96mV | 12.16mV | Pass      |
| 80% Load   | 19.84mV | 19.45mV | 18.72mV | 13.85mV | Pass      |
| 90% Load   | 20.76mV | 20.58mV | 18.52mV | 13.75mV | Pass      |
| 100% Load  | 29.21mV | 22.60mV | 22.19mV | 16.24mV | Pass      |
| 110% Load  | 29.97mV | 22.69mV | 23.65mV | 16.52mV | Pass      |
| Crossload1 | 23.63mV | 20.42mV | 20.11mV | 12.32mV | Pass      |
| Crossload2 | 17.65mV | 20.43mV | 20.88mV | 12.06mV | Pass      |
| Crossload3 | 17.03mV | 19.61mV | 17.55mV | 11.39mV | Pass      |
| Crossload4 | 26.89mV | 18.28mV | 19.05mV | 18.19mV | Pass      |

The results above are not used in the certification process

Montech Century II Gold 850 ATX3



Top side

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

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                              |         |                                                                                                                                                                                                                                                                           |       |                 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|--|
| <div>▲ MONTECH</div> <div>CENTURY II</div> <div>GOLD 850 ATX3</div>                                                                                                                                                                                                                                                                                                                                                                                |  | Model/型號/型号/モデル/모델: MPA0850<br>CENTURY II GOLD 850 ATX3                                                                                                                                                                      |         |                                                                                                                                                                                                                                                                           |       |                 |  |
| <div>AC INPUT</div> <div>交流電入/交流電入<br/>정격입력</div>                                                                                                                                                                                                                                                                                                                                                                                                  |  | 100-240 Vac 10A Max 50-60Hz                                                                                                                                                                                                  |         |                                                                                                                                                                                                                                                                           |       |                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | +3.3 V                                                                                                                                                                                                                       | +5 V    | +12 V                                                                                                                                                                                                                                                                     | -12 V | +5 Vsb          |  |
| <div>DC OUTPUT</div> <div>交直輸出/交直輸出<br/>DC 출력</div>                                                                                                                                                                                                                                                                                                                                                                                                |  | 20 A                                                                                                                                                                                                                         | 20 A    | 70.8 A                                                                                                                                                                                                                                                                    | 0.3 A | 3 A             |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 100 W                                                                                                                                                                                                                        | 849.6 W | 3.6 W                                                                                                                                                                                                                                                                     | 15 W  |                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 850 W                                                                                                                                                                                                                        |         |                                                                                                                                                                                                                                                                           |       |                 |  |
| <div>CAUTION! Hazardous voltage inside!<br/>DO NOT open this power supply unit!<br/>To be serviced by trained personnel only.<br/>No user serviceable components inside.<br/>注意! 高電圧の危険があります!<br/>内部修理は、専門知識を持った技術者にのみ行ってください。<br/>ユーザーが修理可能な部品はありません。<br/>[ORIGINAL! Gefährliche Hochspannung!<br/>Bitte Netzteilgehäuse NICHT öffnen!<br/>Reparaturen nur durch ausgebildetes Personal!<br/>Es sind keine zu wartenden Bauteile vorhanden!</div> |  | <div>ITE Power Supply<br/>Endast for kontrollermasin.<br/>Laitte on tarkoitettu asennettavaksi valtuutetun henkilön toimesta.<br/>Apparät ska anslutas till jordad uttag.<br/>Attention! Ne PAS ouvrir l'alimentation.</div> |         | <div>Switching Power Supply/電源供應器/電源供應器/<br/>スイッチモード電源/電源供應器/電源供應器/<br/>Manufacturer: TELON TECHNOLOGY CO., LTD<br/>製造商: 德隆科技股份有限公司<br/>製造商: 德隆科技股份有限公司<br/>TELON TECHNOLOGY CO., LTD<br/>Made in China/中國製造/中國製造/제조중국<br/>fabriqué en Chine / in China hergestellt</div> |       |                 |  |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                                                                                     |  | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>                                                                                                               |         |                                                                                                                                                                                                                                                                           |       |                 |  |
| MONTECH DESIGN                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                              |         | Hi-POT<br>OK                                                                                                                                                                                                                                                              |       | Grounding<br>OK |  |

Power specifications label

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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