CORSAIR

# Corsair RM1200e (ATX v3.1)

Serial Number -

Lab ID CR12002739

Certification ID 252739

Test Result Report ID: 25PS2739A

Certificate Issue Date: Feb 17, 2025

Scheme: ETA-EMI PSU

115V 230V







Scheme: LAMBDA PSU

115V 230V










Outside Validation Scope



# General Information

## Test Equipment

| | |
|---|---|
| Electronic Loads | Chroma 63601-5 x2<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 | Corsair |
| Model | RM1200e (ATX v3.1) |
| OEM/ODM | HEC |
| Serial Number | - |
| Product Specifications | |
| Manufacturer-Provided Information | |
| Rated Voltage (Vrms) | 100-240 |

| | |
|---|---|
| Rated Current (Arms) | 7.5-15 |
| Rated Frequency (Hz) | 47-63 |
| Rated Power (W) | 1200 |
| Operating Temperature (Continuous Full Load) (°C) | 0-50 |
| Type | ATX12V |
| Cable Design | Fully Modular |
| Warranty | 10 years |
| Cybenetics Measurements | |
| Dimensions (W x H x D) | 150mm x 85mm x 150mm |
| Weight | 1.83 kg (4.03 lb) |
| Cooling | 140mm Rifle Bearing Fan (HA1425H12SF-Z) |
| Semi-Passive Operation | ✓ |
| Cybenetics Testing Information | |
| Lab ID | CR12002739 |
| Date of receipt | Jan 21, 2025 |
| Testing Date | Feb 14, 2025 |
| Report Issued Date | Feb 17, 2025 |
| Engineer Name | Georgios Theodoros Sarimpalas |
| 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 24 pin (610mm) | 1 | 1 | 16-20AWG | No |
| 4+4 pin EPS12V (650mm) | 2 | 2 | 18AWG | No |
| 6+2 pin PCIe (650mm+150mm) | 2 | 4 | 16-18AWG | No |
| 6+2 pin PCIe (600mm) | 2 | 2 | 16AWG | No |
| 12+2 pin PCIe (650mm) (600W) | 1 | 1 | 16-24AWG | No |

| | | | | |
|---|---|---|---|---|
| SATA (460mm+115mm+115mm+115mm) | 1 | 4 | 18AWG | No |
| SATA (500mm+100mm+100mm) | 1 | 3 | 18AWG | No |
| 4-pin Molex (450mm+100mm+100mm+100mm) | 1 | 4 | 18AWG | No |
| AC Power Cord (1400mm) - C13 coupler | 1 | 1 | 16AWG | - |

## Protection Features

| | |
|---|---|
| Over Power Protection | ✓ |
| Over Current (+12V) Protection | ✓ |
| Over Temperature Protection | ✓ |
| Short Circuit Protection | ✗ |
| Surge Protection | ✓ |
| Inrush Current Protection | ✓ |
| Fan Failure Protection | ✗ |

## Power Specifications

| Rail | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| Max. Power | Amps | 20 | 20 | 100 | 3 | 0 |
| | Watts | 150 | | 1200 | 15 | 0 |
| Total Max. Power (W) | | 1200 | | | | |

## Parts Description

| | |
|---|---|
| **General Data** | |
| Manufacturer (OEM) | HEC |
| PCB Type | Double-Sided |
| **Primary Side** | |
| Transient Filter | 4x Y caps, 3x X caps, 2x CM chokes, 1x MOV |
| Inrush Protection | NTC Thermistor SCK-20100 (10 Ohm @ 25°C) & Relay |
| Bridge Rectifier(s) | 2x GBJ25L06 (600V, 25A @ 115°C) |
| APFC MOSFETs | 2x Infineon IPW60R080P7 (650V, 23A @ 100°C, Rds(on): 0.080 Ohm) |
| APFC Boost Diode | 1x CREE C6D10065A (650V, 10A @ 155°C) |
| Bulk Cap(s) | 2x Nippon Chemi-con (400V, 470uF, 2,000h @ 105°C, KMW ) |

| | |
|---|---|
| Main Switchers | 2x Great Power GP47S60YERD (600V, 47A, Rds(on): 0.081 Ohm) |
| APFC Controller | Champion CM6500UNX & CM03AX (Remove Phantom Power) |
| Resonant Controller | Champion CM6901T6X |
| Topology | Primary side: APFC, Half-Bridge & LLC Resonant converter<br>Secondary side: Synchronous Rectification & DC-DC converters |
| **Secondary Side** | |
| +12V MOSFETs | 10x Pingwei PWC012N04ES (40V, 132A @ 100°C, Rds(on): 1.2 mOhm) |
| 5V & 3.3V | DC-DC Converters: 4x Potens Semiconductor PDC3906X (30V, 51A @ 100°C, Rds(on): 5.5 mOhm)<br>PWM Controller(s): 1x ANPEC APW7159C |
| Filtering Capacitors | Electrolytic:<br>2x Nippon Chemi-con (@ 105°C, W)<br>1x Nippon Chemi-con (2-5,000h @ 105°C, KZE )<br>1x Rubycon (3-6,000h @ 105°C, YXG )<br>1x Rubycon (4-10,000h @ 105°C, YXJ )<br>2x Rubycon (4-10,000h @ 105°C, YXF )<br>1x Rubycon (4-10,000h @ 105°C, YXH )<br>Polymer: 28x Nippon Chemi-con |
| Supervisor IC | Weltrend WT7527RT (OCP, OVP, UVP, SCP, PG) |
| Fan Controller | Nuvoton M031FB0AE |
| Fan Model | Hong Hua HA1425H12SF-Z (140mm, 12V, 0.50A, Rifle Bearing Fan) |
| **5VSB Circuit** | |
| Rectifier | 1x PS1060L SBR (60V, 10A) |
| Standby PWM Controller | Power Integrations TNY290PG |

## 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) | 89.002% |
| Average Noise Output (>1450 Load Combinations) | 24.63dBA |
| Average PF (>1450 Load Combinations) | 0.985 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 62.306% |
| Standby Power Consumption | 0.0609W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 40.45mV |
| 5V Ripple (Full Load) | 25.80mV |
| 3.3V Ripple (Full Load) | 25.33mV |
| 5VSB Ripple (Full Load) | 19.76mV |
| 12V Load Regulation | 0.69% |
| 5V Load Regulation | 0.54% |
| 3.3V Load Regulation | 0.67% |
| 5VSB Load Regulation | 1.95% |
| Inrush Current | 16.352A |

### 230V

| | |
|---|---|
| Accredited | |
| Average Efficiency (>1450 load combinations) | 91.232% |
| Average Noise Output (>1450 Load Combinations) | 24.62dBA |
| Average PF (>1450 Load Combinations) | 0.952 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 63.246% |
| Standby Power Consumption | 0.1125W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 41.11mV |
| 5V Ripple (Full Load) | 25.22mV |
| 3.3V Ripple (Full Load) | 25.49mV |

| | | |
|---|---|---|
| 5VSB Ripple (Full Load) | | 19.23mV |
| 12V Load Regulation | | 0.75% |
| 5V Load Regulation | | 0.58% |
| 3.3V Load Regulation | | 0.76% |
| 5VSB Load Regulation | | 1.95% |
| Inrush Current | | 32.765A |
| 12V Transient Response (200%) | | 11.07V |
| 5V Transient Response (200%) | | 4.833V |
| 3.3V Transient Response (200%) | | 3.155V |
| 5VSB Transient Response (200%) | | 4.852V |
| Hold-Up Time & PWR_OK Signal | | 19.50ms |
| AC Loss to PWR_OK Hold Up Time | | 17.10ms |
| PWR_OK Inactive to DC Loss Delay | | 2.40ms |
| PSU Timings: T1 (20% / 100%) | 49.0ms | 50.0ms |
| PSU Timings: T3 (20% / 100%) | 125.0ms | 124.0ms |
| 12V OCP (27.6°C / 42.7°C) | 126.00A (126.00%), 11.950V | 128.00A (128.00%), 11.953V |
| 5V OCP (27.6°C / 42.7°C) | 25.7A (128.50%), 4.987V | 25.4A (127.00%), 4.986V |
| 3.3V OCP (27.6°C / 42.7°C) | 26.6A (133.00%), 3.322V | 26A (130.00%), 3.319V |
| 5VSB OCP (27.6°C / 42.7°C) | 4.7A (156.67%), 4.94V | 4.8A (160.00%), 4.935V |
| OPP (27.22°C / 41.20°C) | 124.09% | 126.89% |

## Hold-Up Time & PWR_OK Signal

| | |
|---|---|
| Hold-Up Time (ms) | 19.5 |
| AC Loss to PWR_OK Hold Up Time (ms) | 17.1 |
| PWR_OK Inactive to DC Loss Delay (ms) | 2.4 |

# Stromverbrauch im Ruhezustand

## Tables

### 115V

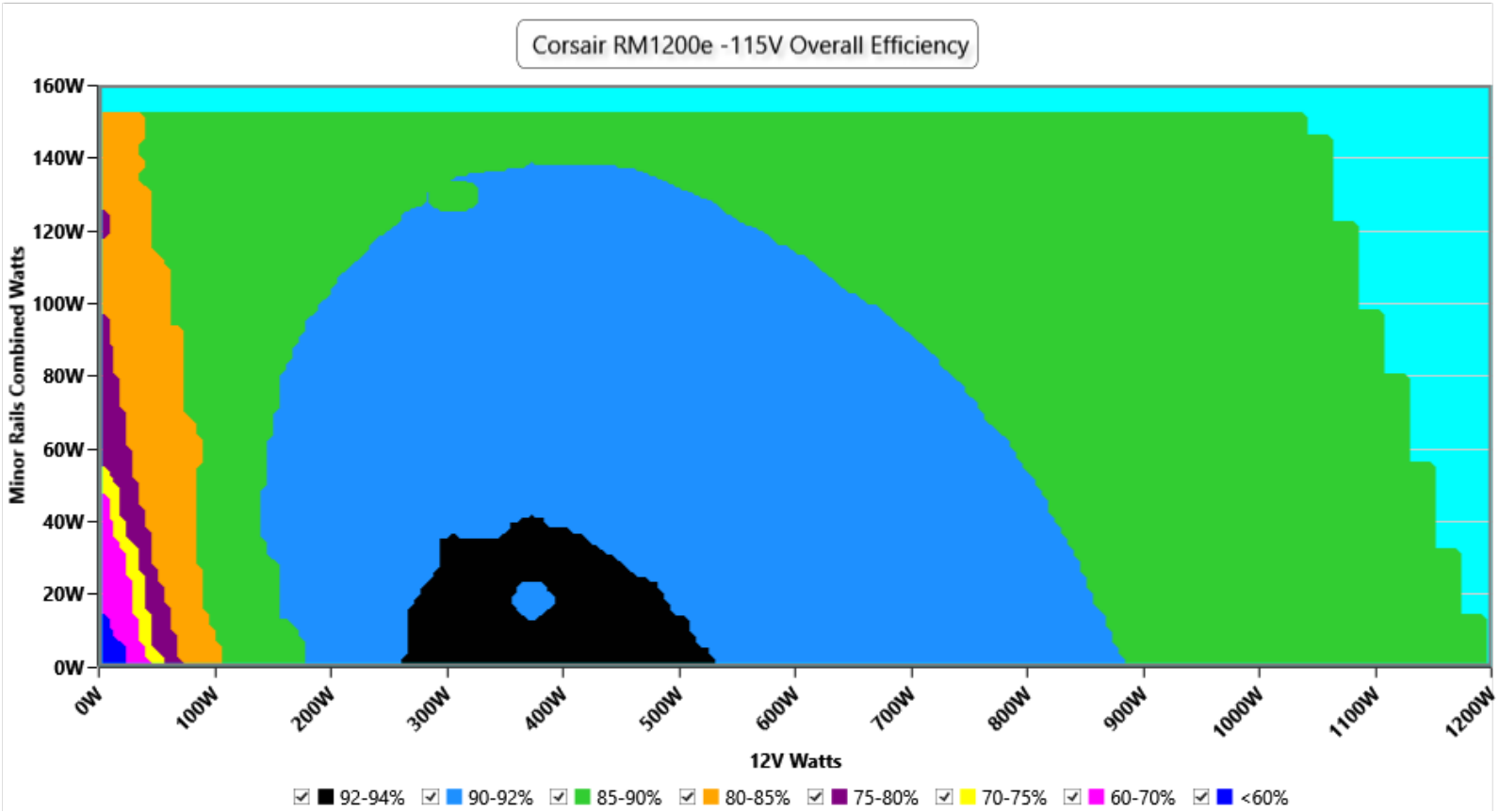
| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 115.06 V | 115.02 V | 113.85 V | 115.09 V | 116.15 V | PASS |
| Mains Frequency: | 60.00 Hz | 59.99 Hz | 59.40 Hz | 60.01 Hz | 60.60 Hz | PASS |
| Mains Voltage CF: | 1.416 | 1.415 | 1.340 | 1.418 | 1.490 | PASS |
| Mains Voltage THD: | 0.13 % | 0.08 % | N/A | 0.18 % | 2.00 % | PASS |
| Real Power: | 0.061 W | 0.032 W | N/A | 0.092 W | N/A | N/A |
| Apparent Power: | 15.164 W | 14.310 W | N/A | 16.060 W | N/A | N/A |
| Power Factor: | 0.005 | N/A | N/A | N/A | N/A | N/A |

### 230V

| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 231.00 V | 230.89 V | 227.70 V | 231.07 V | 232.30 V | PASS |
| Mains Frequency: | 50.00 Hz | 49.99 Hz | 49.50 Hz | 50.01 Hz | 50.50 Hz | PASS |
| Mains Voltage CF: | 1.417 | 1.416 | 1.340 | 1.419 | 1.490 | PASS |
| Mains Voltage THD: | 0.17 % | 0.15 % | N/A | 0.27 % | 2.00 % | PASS |
| Real Power: | 0.112 W | 0.063 W | N/A | 0.174 W | N/A | N/A |
| Apparent Power: | 47.818 W | 46.865 W | N/A | 48.739 W | N/A | N/A |
| Power Factor: | 0.003 | N/A | N/A | N/A | N/A | N/A |

## Efficiency Graph

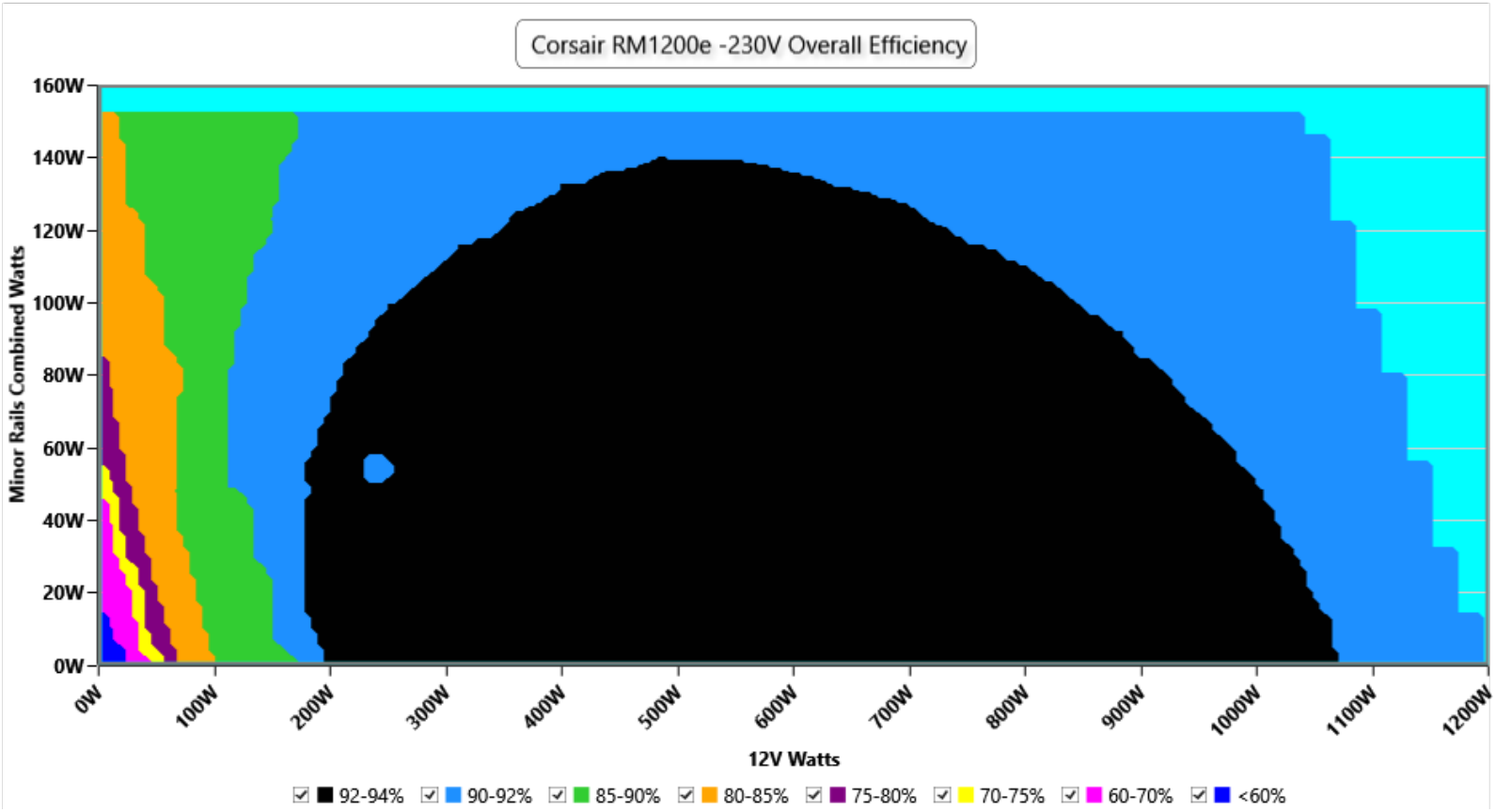
**115V**




**INFO**

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

## 230V

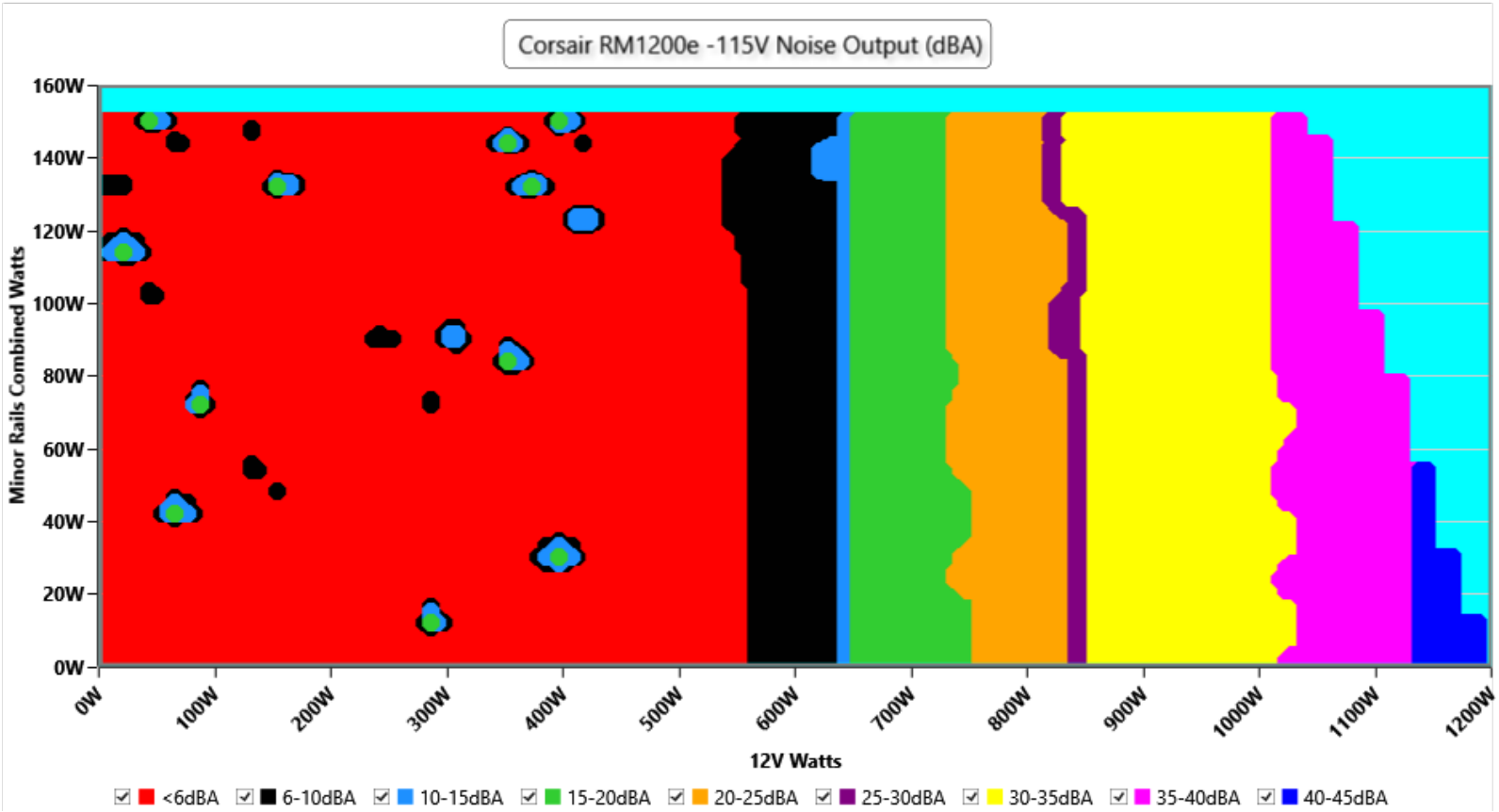



### INFO

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

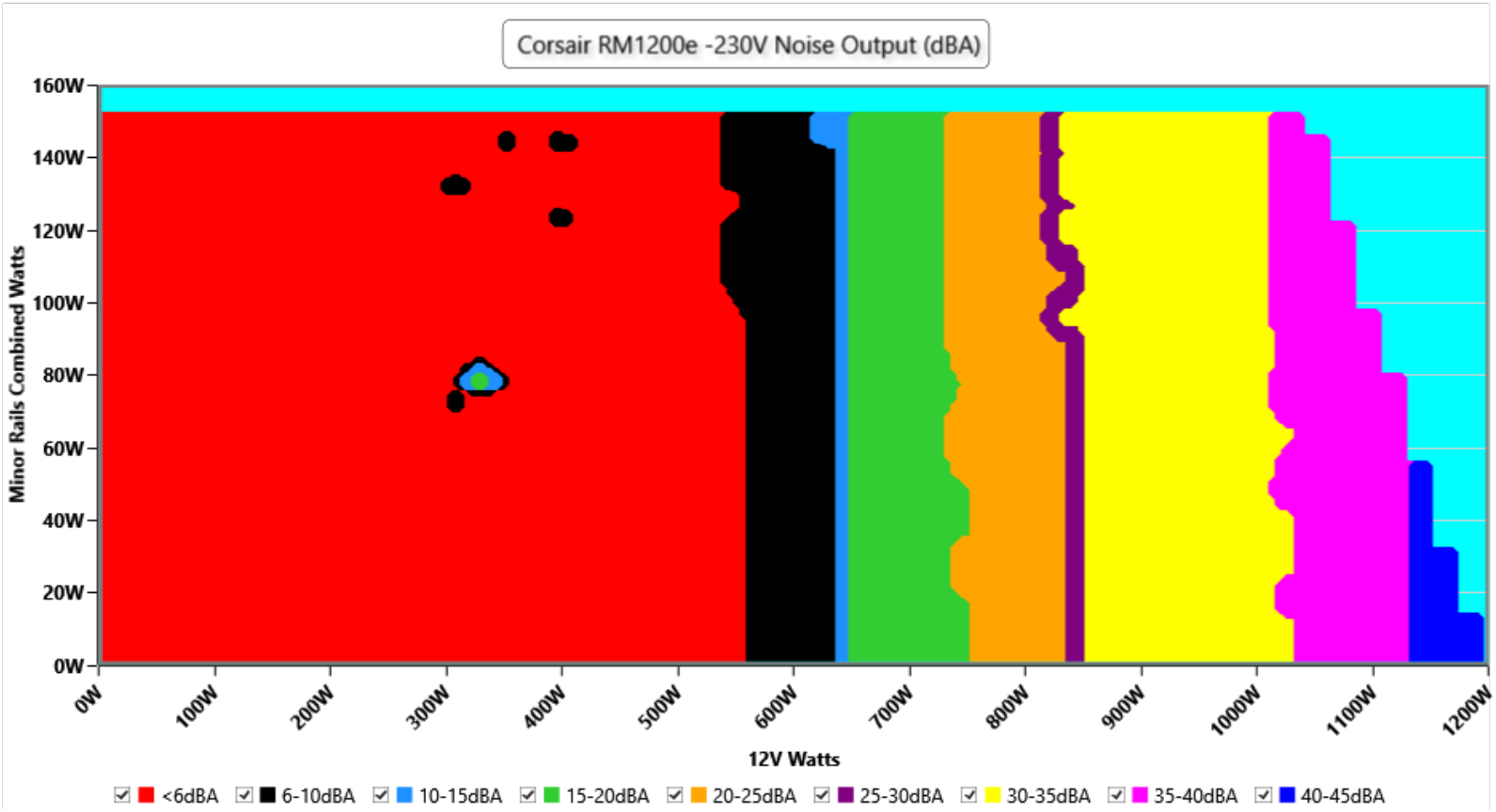
### 115V




### 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

## 230V




### INFO

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

## Noise under high ambient temperature (indicative)

### 115V

| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 0 RPM · <6.0 dB(A) · 30.5 °C | 372 RPM · <6.0 dB(A) · 40.4 °C | <6.0 in both |
| 20% | 0 RPM · <6.0 dB(A) · 31.5 °C | 0 RPM · <6.0 dB(A) · 43.6 °C | fan off in both |
| 50% | 371 RPM · <6.0 dB(A) · 29.9 °C | 476 RPM · 8.5 dB(A) · 42.3 °C | <6.0 → 8.5 dB(A) |
| 100% | 1103 RPM · 37.4 dB(A) · 29.7 °C | 1515 RPM · 44.9 dB(A) · 45.5 °C | **+7.5 dB(A)** |

### 230V

| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 0 RPM · <6.0 dB(A) · 34.6 °C | 375 RPM · <6.0 dB(A) · 40.3 °C | <6.0 in both |
| 20% | 0 RPM · <6.0 dB(A) · 35.2 °C | 375 RPM · <6.0 dB(A) · 40.8 °C | <6.0 in both |
| 50% | 372 RPM · <6.0 dB(A) · 30.6 °C | 469 RPM · 8.1 dB(A) · 42.1 °C | <6.0 → 8.1 dB(A) |
| 100% | 1105 RPM · 37.4 dB(A) · 30.9 °C | 1651 RPM · 46.9 dB(A) · 45.9 °C | **+9.5 dB(A)** |

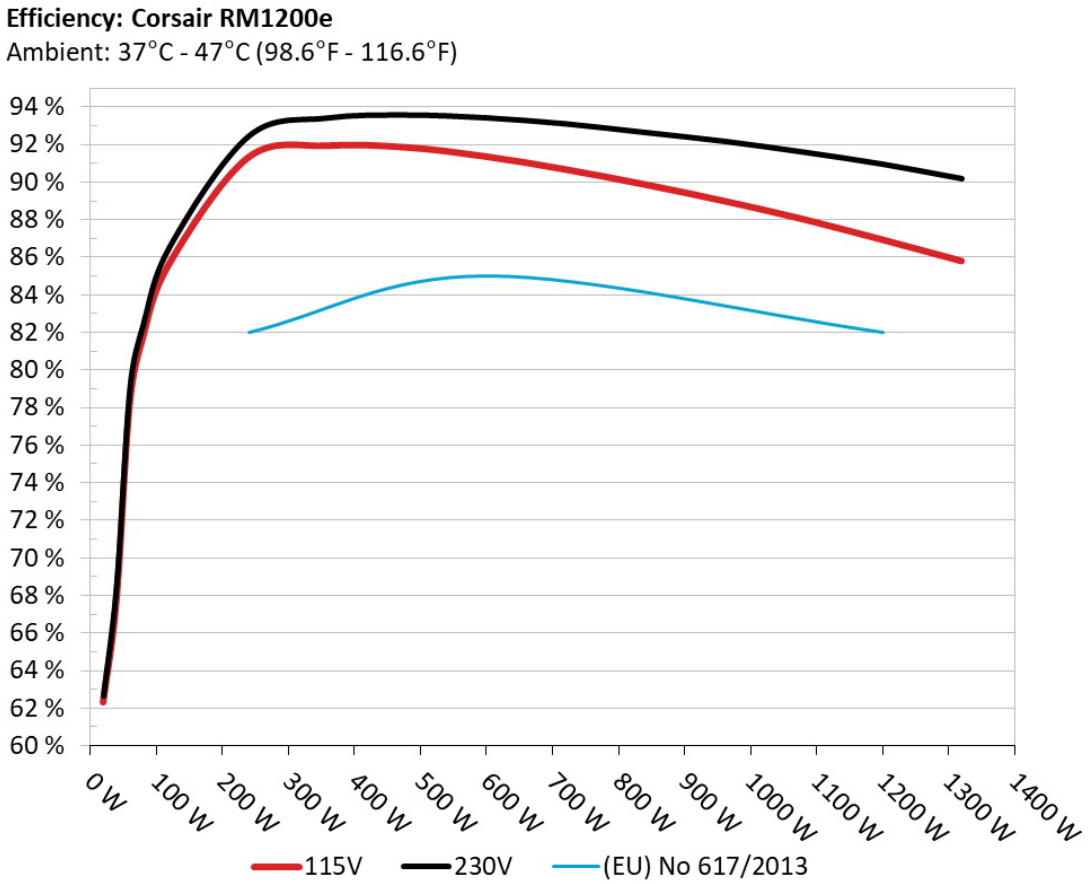
### INFO

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.*

## Indicative Performance

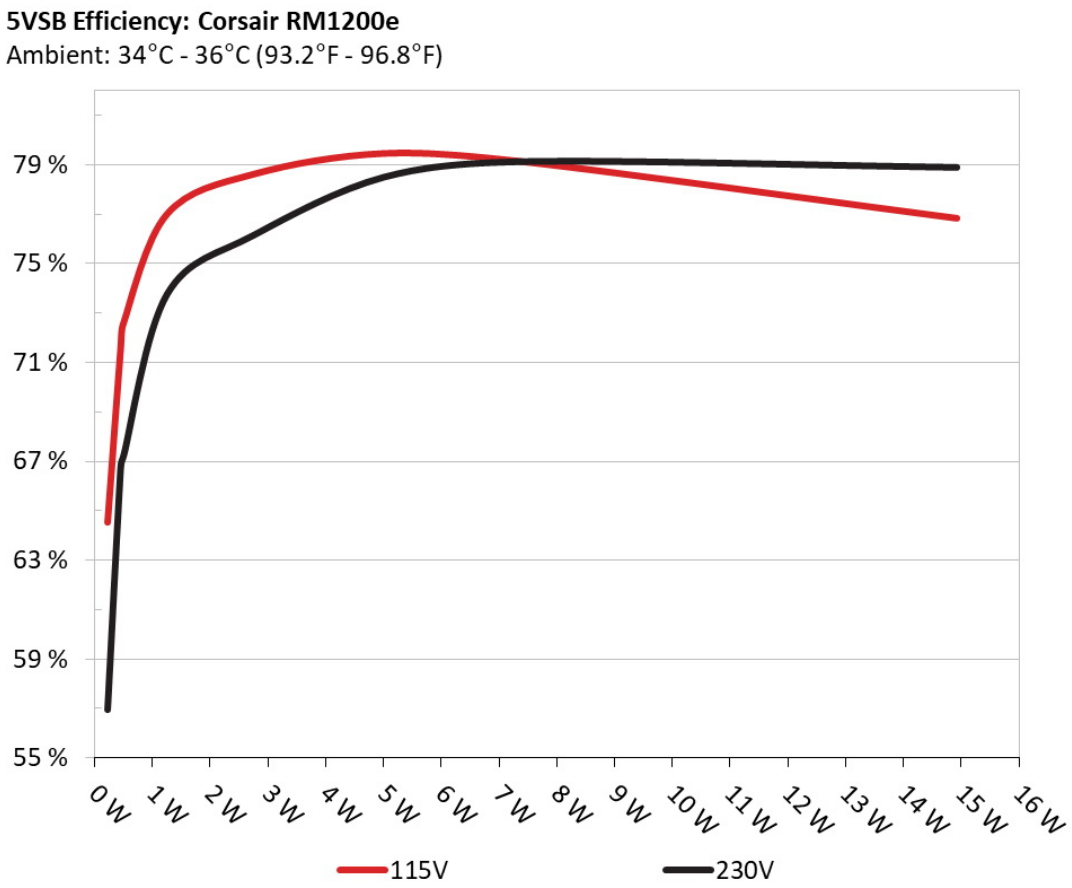
### Efficiency under high ambient temperature




**INFO**

The PSU`s efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

## 5VSB Efficiency




### INFO

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

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

### 115V

| Test # | 5VSB | DC/AC (Watts) | Efficiency | PF/AC Volts |
|---|---|---|---|---|
| **1** | **0.045A** | 0.227W | 64.533% | 0.026 |
| | 5.035V | 0.352W | | 114.9V |
| **2** | **0.09A** | 0.452W | 71.551% | 0.046 |
| | 5.026V | 0.632W | | 114.89V |
| **3** | **0.55A** | 2.76W | 78.624% | 0.226 |
| | 5.017V | 3.51W | | 114.83V |
| **4** | **1A** | 5.01W | 79.46% | 0.338 |
| | 5.009V | 6.305W | | 114.83V |
| **5** | **1.5A** | 7.502W | 79.104% | 0.41 |
| | 5.001V | 9.484W | | 114.83V |
| **6** | **3A** | 14.929W | 76.836% | 0.506 |
| | 4.976V | 19.43W | | 114.83V |

### 230V

| Test # | 5VSB | DC/AC (Watts) | Efficiency | PF/AC Volts |
|---|---|---|---|---|
| **1** | **0.045A** | 0.226W | 56.935% | 0.009 |
| | 5.025V | 0.398W | | 229.86V |
| **2** | **0.09A** | 0.452W | 66.747% | 0.015 |
| | 5.024V | 0.678W | | 229.86V |
| **3** | **0.55A** | 2.759W | 76.152% | 0.078 |
| | 5.017V | 3.623W | | 229.84V |
| **4** | **1A** | 5.009W | 78.497% | 0.132 |
| | 5.009V | 6.381W | | 229.84V |
| **5** | **1.5A** | 7.503W | 79.131% | 0.186 |
| | 5.002V | 9.481W | | 229.84V |
| **6** | **3A** | 14.923W | 78.892% | 0.306 |
| | 4.974V | 18.916W | | 229.83V |

## Protection Features

| | |
|---|---|
| OCP (Normal @ 27.6°C) | 12V: 126A (126%), 11.95V<br>5V: 25.7A (128.5%), 4.987V<br>3.3V: 26.6A (133%), 3.322V<br>5VSB: 4.7A (156.67%), 4.94V |
| OCP (Hot @ 42.7°C) | 12V: 128A (128%), 11.953V<br>5V: 25.4A (127%), 4.986V<br>3.3V: 26A (130%), 3.319V<br>5VSB: 4.8A (160%), 4.935V |
| OPP (Normal @ 27.2°C) | 1489.1W (124.09%) |
| OPP (Hot @ 41.2°C) | 1522.72W (126.89%) |
| OTP | ✓ (103°C @ Secondary Side) |
| 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 |
| 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%** | **8.184A** | **1.994A** | **1.995A** | **0.999A** | 120.004 | 85.668% | 372 | <6.0 | 40.37°C | 0.968 |
| | 12.024V | 5.016V | 3.309V | 5.004V | 140.08 | | | | 50.19°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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **20%** | **17.384A** | **2.992A** | **2.994A** | **1.201A** | 239.971 | 91.343% | 0 | <6.0 | 43.59°C | 0.971 |
| | 12.026V | 5.014V | 3.307V | 4.997V | 262.714 | | | | 40.59°C | 114.76V |
| **30%** | **26.901A** | **3.492A** | **3.495A** | **1.403A** | 359.219 | 91.967% | 374 | <6.0 | 41.25°C | 0.979 |
| | 12.013V | 5.012V | 3.305V | 4.989V | 390.594 | | | | 56.95°C | 114.72V |
| **40%** | **36.525A** | **3.993A** | **3.997A** | **1.607A** | 479.583 | 91.877% | 374 | <6.0 | 41.64°C | 0.985 |
| | 12.002V | 5.009V | 3.303V | 4.98V | 521.982 | | | | 64.75°C | 114.68V |
| **50%** | **45.756A** | **4.995A** | **5A** | **1.811A** | 599.354 | 91.389% | 476 | 8.5 | 42.26°C | 0.989 |
| | 11.995V | 5.006V | 3.3V | 4.972V | 655.828 | | | | 70.46°C | 114.64V |
| **60%** | **55.060A** | **5.997A** | **6.005A** | **2A** | 719.803 | 90.702% | 628 | 18.7 | 42.54°C | 0.992 |
| | 11.988V | 5.003V | 3.298V | 4.964V | 793.589 | | | | 71.55°C | 114.6V |
| **70%** | **64.311A** | **7.001A** | **7.011A** | **2.22A** | 839.604 | 89.905% | 792 | 27 | 43.24°C | 0.993 |
| | 11.981V | 5V | 3.295V | 4.955V | 933.873 | | | | 73.74°C | 114.55V |
| **80%** | **73.647A** | **8.004A** | **8.017A** | **2.324A** | 959.57 | 89.022% | 926 | 32 | 43.81°C | 0.994 |
| | 11.972V | 4.997V | 3.293V | 4.949V | 1077.909 | | | | 75.85°C | 114.51V |
| **90%** | **83.323A** | **8.509A** | **8.508A** | **2.429A** | 1079.381 | 88.058% | 1257 | 40.7 | 44.61°C | 0.995 |
| | 11.964V | 4.994V | 3.291V | 4.942V | 1225.757 | | | | 77.62°C | 114.46V |
| **100%** | **92.822A** | **9.014A** | **9.03A** | **3.046A** | 1199.419 | 86.961% | 1515 | 44.9 | 45.48°C | 0.995 |
| | 11.955V | 4.992V | 3.289V | 4.926V | 1379.269 | | | | 78.14°C | 114.41V |
| **110%** | **102.273A** | **10.022A** | **10.133A** | **3.049A** | 1320.031 | 85.823% | 1843 | 49.7 | 46.59°C | 0.996 |
| | 11.945V | 4.989V | 3.286V | 4.921V | 1538.095 | | | | 78.16°C | 114.35V |
| **CL1** | **0.117A** | **18.081A** | **18.096A** | **0A** | 151.288 | 79.638% | 904 | 31.6 | 41.22°C | 0.972 |
| | 12.041V | 4.993V | 3.293V | 5.023V | 189.968 | | | | 59.92°C | 114.89V |
| **CL2** | **0.117A** | **19.983A** | **0A** | **0A** | 101.356 | 79.642% | 572 | 15.2 | 42.81°C | 0.959 |
| | 12.025V | 5.002V | 3.305V | 5.024V | 127.266 | | | | 57.89°C | 115.73V |
| **CL3** | **0.115A** | **0A** | **19.989A** | **0A** | 67.388 | 72.963% | 485 | 9.3 | 42.74°C | 0.954 |
| | 12.025V | 5.012V | 3.302V | 5.025V | 92.374 | | | | 56.53°C | 115.86V |
| **CL4** | **100.321A** | **0A** | **0A** | **0A** | 1199.987 | 87.79% | 1344 | 42.2 | 45.09°C | 0.995 |
| | 11.961V | 5.005V | 3.299V | 4.982V | 1366.886 | | | | 73.44°C | 114.63V |

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%** | **8.184A** | **1.994A** | **1.995A** | **0.999A** | 120.002 | 86.541% | 375 | <6.0 | 40.29°C | 0.856 |
| | 12.024V | 5.016V | 3.309V | 5.004V | 138.663 | | | | 50.19°C | 229.81V |
| **20%** | **17.383A** | **2.992A** | **2.994A** | **1.201A** | 239.969 | 92.444% | 375 | <6.0 | 40.75°C | 0.925 |
| | 12.027V | 5.014V | 3.307V | 4.997V | 259.572 | | | | 43.43°C | 229.8V |
| **30%** | **26.900A** | **3.492A** | **3.495A** | **1.403A** | 359.211 | 93.404% | 454 | 7.3 | 41.36°C | 0.948 |
| | 12.013V | 5.011V | 3.305V | 4.989V | 384.575 | | | | 50.32°C | 229.76V |
| **40%** | **36.525A** | **3.994A** | **3.997A** | **1.607A** | 479.59 | 93.564% | 375 | <6.0 | 41.72°C | 0.96 |
| | 12.002V | 5.008V | 3.302V | 4.98V | 512.566 | | | | 57.29°C | 229.74V |
| **50%** | **45.756A** | **4.995A** | **5A** | **1.81A** | 599.363 | 93.414% | 469 | 8.1 | 42.09°C | 0.966 |
| | 11.995V | 5.006V | 3.3V | 4.972V | 641.622 | | | | 59.44°C | 229.74V |
| **60%** | **55.062A** | **5.998A** | **6.005A** | **2A** | 719.803 | 93.095% | 628 | 18.7 | 42.73°C | 0.971 |
| | 11.987V | 5.003V | 3.298V | 4.964V | 773.196 | | | | 59.84°C | 229.72V |
| **70%** | **64.315A** | **7.002A** | **7.011A** | **2.22A** | 839.626 | 92.637% | 805 | 27.6 | 43.05°C | 0.976 |
| | 11.980V | 5V | 3.295V | 4.956V | 906.335 | | | | 60.36°C | 229.72V |
| **80%** | **73.647A** | **8.005A** | **8.017A** | **2.324A** | 959.572 | 92.168% | 1012 | 34.6 | 43.76°C | 0.978 |
| | 11.972V | 4.997V | 3.293V | 4.949V | 1041.113 | | | | 60.77°C | 229.67V |
| **90%** | **83.326A** | **8.51A** | **8.509A** | **2.429A** | 1079.397 | 91.593% | 1110 | 37.5 | 44.7°C | 0.98 |
| | 11.964V | 4.994V | 3.291V | 4.942V | 1178.474 | | | | 57.53°C | 229.65V |
| **100%** | **92.824A** | **9.015A** | **9.031A** | **3.046A** | 1199.43 | 90.953% | 1651 | 46.9 | 45.87°C | 0.982 |
| | 11.955V | 4.992V | 3.288V | 4.926V | 1318.744 | | | | 61.04°C | 229.63V |
| **110%** | **102.274A** | **10.023A** | **10.133A** | **3.049A** | 1320.045 | 90.176% | 1914 | 50.5 | 46.54°C | 0.984 |
| | 11.945V | 4.988V | 3.286V | 4.921V | 1463.855 | | | | 61.73°C | 229.61V |
| **CL1** | **0.117A** | **18.082A** | **18.096A** | **0A** | 151.293 | 80.244% | 1006 | 34.4 | 42.48°C | 0.9 |
| | 12.043V | 4.993V | 3.293V | 5.023V | 188.541 | | | | 57.24°C | 229.8V |
| **CL2** | **0.117A** | **19.984A** | **0A** | **0A** | 101.356 | 80.217% | 687 | 21.9 | 42.25°C | 0.841 |
| | 12.026V | 5.002V | 3.305V | 5.024V | 126.353 | | | | 57.09°C | 229.82V |
| **CL3** | **0.115A** | **0A** | **19.989A** | **0A** | 67.389 | 73.474% | 573 | 15.2 | 42.03°C | 0.78 |
| | 12.025V | 5.011V | 3.302V | 5.025V | 91.724 | | | | 56.52°C | 229.81V |

| Test | 12V | 5V | 3.3V | 5VSB | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|---|---|---|---|---|---|---|---|---|---|---|
| **CL4** | **100.322A** | **0A** | **0A** | **0A** | 1199.999 | 91.566% | 1343 | 42.2 | 45.1°C | 0.982 |
| | 11.962V | 5.005V | 3.299V | 4.982V | 1310.535 | | | | 58.5°C | 229.63V |

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** | **1.236A** | **0.498A** | **0.498A** | **0.199A** | 20.003 | 62.292% | 0 | <6.0 | 40.77°C | 0.867 |
| | 12.017V | 5.019V | 3.311V | 5.022V | 32.116 | | | | 36.81°C | 114.84V |
| **40W** | **2.716A** | **0.697A** | **0.698A** | **0.299A** | 40.004 | 67.74% | 0 | <6.0 | 40.56°C | 0.929 |
| | 12.037V | 5.019V | 3.311V | 5.019V | 59.056 | | | | 37.21°C | 114.82V |
| **60W** | **4.202A** | **0.897A** | **0.897A** | **0.399A** | 60.004 | 78.171% | 0 | <6.0 | 43.5°C | 0.94 |
| | 12.025V | 5.018V | 3.31V | 5.017V | 76.761 | | | | 38.01°C | 114.82V |
| **80W** | **5.680A** | **1.096A** | **1.097A** | **0.499A** | 79.953 | 81.717% | 605 | 17.6 | 39.13°C | 0.955 |
| | 12.027V | 5.018V | 3.31V | 5.015V | 97.843 | | | | 42.36°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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **20W** | **1.235A** | **0.498A** | **0.498A** | **0.199A** | 20.007 | 62.637% | 0 | <6.0 | 39.09°C | 0.471 |
| | 12.031V | 5.021V | 3.313V | 5.022V | 31.945 | | | | 36.04°C | 229.83V |
| **40W** | **2.714A** | **0.697A** | **0.698A** | **0.299A** | 40.004 | 68.646% | 372 | <6.0 | 37.75°C | 0.657 |
| | 12.045V | 5.019V | 3.312V | 5.019V | 58.288 | | | | 44.83°C | 229.84V |
| **60W** | **4.200A** | **0.897A** | **0.897A** | **0.399A** | 60.004 | 79.056% | 345 | <6.0 | 38.17°C | 0.733 |
| | 12.031V | 5.018V | 3.311V | 5.017V | 75.899 | | | | 48.27°C | 229.83V |
| **80W** | **5.680A** | **1.096A** | **1.097A** | **0.499A** | 79.95 | 82.38% | 373 | <6.0 | 39.07°C | 0.793 |
| | 12.029V | 5.017V | 3.31V | 5.015V | 97.054 | | | | 44.54°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 | 21.79mV | 17.71mV | 16.82mV | 14.22mV | Pass |
| 20% Load | 27.05mV | 19.50mV | 19.86mV | 12.93mV | Pass |
| 30% Load | 24.96mV | 19.24mV | 18.88mV | 12.21mV | Pass |
| 40% Load | 24.30mV | 19.35mV | 19.60mV | 12.31mV | Pass |
| 50% Load | 25.47mV | 20.73mV | 19.55mV | 12.47mV | Pass |
| 60% Load | 27.62mV | 21.09mV | 20.42mV | 13.29mV | Pass |
| 70% Load | 29.56mV | 22.38mV | 20.93mV | 15.24mV | Pass |
| 80% Load | 29.31mV | 22.73mV | 21.55mV | 16.32mV | Pass |
| 90% Load | 28.54mV | 23.45mV | 22.26mV | 16.47mV | Pass |
| 100% Load | 40.45mV | 25.80mV | 25.33mV | 19.76mV | Pass |
| 110% Load | 41.19mV | 27.97mV | 24.82mV | 19.62mV | Pass |
| Crossload1 | 40.50mV | 24.92mV | 23.14mV | 13.67mV | Pass |
| Crossload2 | 23.83mV | 24.99mV | 19.96mV | 12.47mV | Pass |
| Crossload3 | 29.72mV | 18.73mV | 20.52mV | 12.16mV | Pass |
| Crossload4 | 40.90mV | 24.84mV | 22.55mV | 16.10mV | Pass |

The results above are not used in the certification process

### 230V

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 24.70mV | 17.81mV | 17.39mV | 14.57mV | Pass |
| 20% Load | 22.76mV | 16.57mV | 16.57mV | 11.44mV | Pass |
| 30% Load | 22.86mV | 16.63mV | 16.21mV | 10.57mV | Pass |
| 40% Load | 24.60mV | 20.07mV | 20.37mV | 12.31mV | Pass |
| 50% Load | 25.01mV | 19.55mV | 19.24mV | 12.16mV | Pass |
| 60% Load | 26.85mV | 22.94mV | 22.27mV | 13.44mV | Pass |

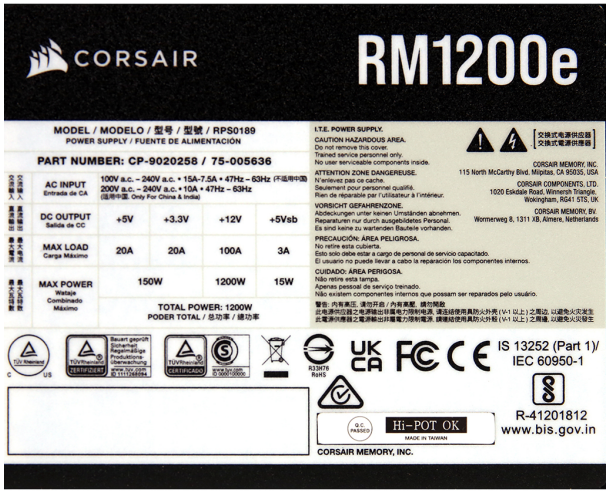
| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 70% Load | 23.63mV | 18.12mV | 17.75mV | 12.27mV | Pass |
| 80% Load | 30.63mV | 24.58mV | 23.04mV | 18.06mV | Pass |
| 90% Load | 29.61mV | 24.89mV | 23.86mV | 17.14mV | Pass |
| 100% Load | 41.11mV | 25.22mV | 25.49mV | 19.23mV | Pass |
| 110% Load | 45.08mV | 26.79mV | 24.84mV | 21.10mV | Pass |
| Crossload1 | 48.91mV | 23.26mV | 22.03mV | 12.05mV | Pass |
| Crossload2 | 23.12mV | 25.20mV | 18.83mV | 12.26mV | Pass |
| Crossload3 | 30.28mV | 18.73mV | 23.04mV | 12.52mV | Pass |
| Crossload4 | 41.62mV | 24.26mV | 22.90mV | 16.35mV | Pass |

The results above are not used in the certification process

**Corsair RM1200e (ATX v3.1)**




Top side




Power specifications label

Cybenetics bietet freiwillige Zertifizierungsprogramme für Netzteile – ETA für Effizienz, LAMBDA für Lautstärke und SAFE für Sicherheit und korrekten Betrieb – sowie für Kühlprodukte mit DELTA für die Schalldämmung von Gehäusen und PHI für Luftstrom und statischen Druck von Lüftern