



SMX Okame G3 850W

Serial Number 5905386993050

Lab ID SX85002827

Certification ID 252827

Test Result Report ID: 25PS2827A

Certificate Issue Date: Jun 2, 2025

Scheme: ETA-EMI PSU

115V

230V

115V

230V

Scheme: LAMBDA PSU

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                             | SMX           |
| Model                             | Okame G3 850W |
| OEM/ODM                           | No Info       |
| Serial Number                     | 5905386993050 |
| Product Specifications            |               |
| Manufacturer-Provided Information |               |
| Rated Voltage (Vrms)              | 100-240       |
| Rated Current (Arms)              | 16            |

|                                                   |                                                                                                                               |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 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                                           | 120mm Rifle Bearing Fan (EFS-12E12H)                                                                                          |
| Semi-Passive Operation                            | X                                                                                                                             |
| Cybenetics Testing Information                    |                                                                                                                               |
| Lab ID                                            | SX85002827                                                                                                                    |
| Date of receipt                                   | Apr 23, 2025                                                                                                                  |
| Testing Date                                      | May 26, 2025                                                                                                                  |
| Report Issued Date                                | Jun 2, 2025                                                                                                                   |
| DUT Notes                                         | During "Turn-on transient and DC" power sequencing, when testing from "off to full load", the +12V rail has increased ripple. |
| 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 (600mm)  | 1           | 1                       | 18-22AWG | No                  |
| 4+4 pin EPS12V (700mm)          | 2           | 2                       | 18AWG    | No                  |
| 6+2 pin PCIe (500mm+150mm)      | 2           | 4                       | 18AWG    | No                  |
| 12+4 pin PCIe (600mm) (600W)    | 1           | 1                       | 16-24AWG | No                  |
| SATA (450mm+150mm+150mm+150mm)  | 2           | 8                       | 18AWG    | No                  |
| 4-pin Molex (450mm+150mm+150mm) | 1           | 3                       | 18AWG    | No                  |

Protection Features(Manufacturer)

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

Power Specifications

|                      |       |      |    |      |      |      |
|----------------------|-------|------|----|------|------|------|
| Rail                 |       | 3.3V | 5V | 12V  | 5VSB | -12V |
| Max. Power           | Amps  | 20   | 20 | 70.8 | 3    | 0.3  |
|                      | Watts | 103  |    | 850  | 15   | 3.6  |
| Total Max. Power (W) |       | 850  |    |      |      |      |

Parts Description

|                     |                                                           |
|---------------------|-----------------------------------------------------------|
| General Data        |                                                           |
| Manufacturer (OEM)  | No Info                                                   |
| PCB Type            | Double-Sided                                              |
| Primary Side        |                                                           |
| Transient Filter    | 4x Y caps, 2x X caps, 2x CM chokes, 1x MOV                |
| Inrush Protection   | 1x NTC Thermistors MF72 20D-15 (20 Ohm @ 25 °C) & Relay   |
| Bridge Rectifier(s) | 2x Yangjie GBU2506 (600V, 25A @ 98°C)                     |
| APFC MOSFETs        | 2x Fuxin FXN25S55GF (550V, 20A @ 100°C, Rds(on): 0.12Ohm) |
| APFC Boost Diode    | 1x Global Power G3S06510A (650V, 10A @ 155°C)             |
| Bulk Cap(s)         | 1x Nippon Chemi-con (450V, 560uF, 2000h @ 105°C,KMW)      |

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Main Switchers         | 2x Sanrise Tech SRC60R140B (600V, 11.2A @ 125°C, Rds(on): 140mOhm)                                                                        |
| APFC Controller        | Champion CM6500UNX                                                                                                                        |
| Resonant Controller    | Champion CM6901T6X                                                                                                                        |
| Topology               | Primary side: APFC, Half-Bridge & LLC Resonant converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters |
| <b>Secondary Side</b>  |                                                                                                                                           |
| +12V MOSFETs           | 6x Alkaidsemi AKG40N018G (40V, 105A @ 100°C, Rds(on): 1.8mOhm)                                                                            |
| 5V & 3.3V              | DC-DC Converters: 4x Excelliance EMB06N03R (20V, 45A @ 100°C, Rds(on): 6mOhm) PWM Controller(s): 2x Aplustek AT8853ZSPC                   |
| Filtering Capacitors   | Electrolytic: 5x TK (@105°C, SZ) Polymer: 34x Chengx                                                                                      |
| Supervisor IC          | IN1S4291-SCG                                                                                                                              |
| Fan Model              | DWPH EFS-12E12H (120mm, 12V, 0.50A, Rifle Bearing Fan)                                                                                    |
| <b>5VSB</b>            |                                                                                                                                           |
| Rectifier              | 1x Dongke Semiconductor DK5V45R10S (45V, 10mOhm)                                                                                          |
| Standby PWM Controller | FuXin Semiconductor FXI8252S                                                                                                              |

## 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)           | 89.637%  |
| Average Noise Output (>1450 Load Combinations)         | 23.77dBA |
| Average PF (>1450 Load Combinations)                   | 0.976    |
| Efficiency With 10W ( $\leq 500W$ ) or 2% (>500W) Load | 76.900%  |
| Standby Power Consumption                              | 0.0367W  |
| Non-Accredited                                         |          |
| 12V Ripple (Full Load)                                 | 24.88mV  |
| 5V Ripple (Full Load)                                  | 15.11mV  |
| 3.3V Ripple (Full Load)                                | 15.57mV  |
| 5VSB Ripple (Full Load)                                | 39.82mV  |
| 12V Load Regulation                                    | 0.97%    |
| 5V Load Regulation                                     | 0.78%    |
| 3.3V Load Regulation                                   | 1.09%    |
| 5VSB Load Regulation                                   | 5.10%    |
| Inrush Current                                         | 118.000A |

### 230V

|                                                        |          |
|--------------------------------------------------------|----------|
| Accredited                                             |          |
| Average Efficiency (>1450 load combinations)           | 91.540%  |
| Average Noise Output (>1450 Load Combinations)         | 24.64dBA |
| Average PF (>1450 Load Combinations)                   | 0.953    |
| Efficiency With 10W ( $\leq 500W$ ) or 2% (>500W) Load | 74.221%  |
| Standby Power Consumption                              | 0.0889W  |
| Non-Accredited                                         |          |
| 12V Ripple (Full Load)                                 | 26.52mV  |
| 5V Ripple (Full Load)                                  | 16.19mV  |
| 3.3V Ripple (Full Load)                                | 15.41mV  |

|                                  |                           |                           |
|----------------------------------|---------------------------|---------------------------|
| 5VSB Ripple (Full Load)          | 41.29mV                   |                           |
| 12V Load Regulation              | 0.97%                     |                           |
| 5V Load Regulation               | 0.84%                     |                           |
| 3.3V Load Regulation             | 1.13%                     |                           |
| 5VSB Load Regulation             | 5.15%                     |                           |
| Inrush Current                   | 122.400A                  |                           |
| 12V Transient Response (200%)    | 11.31V                    |                           |
| 5V Transient Response (200%)     | 4.954V                    |                           |
| 3.3V Transient Response (200%)   | 3.225V                    |                           |
| 5VSB Transient Response (200%)   | 4.943V                    |                           |
| Hold-Up Time & PWR_OK Signal     | 16.60ms                   |                           |
| AC Loss to PWR_OK Hold Up Time   | 15.20ms                   |                           |
| PWR_OK Inactive to DC Loss Delay | 1.40ms                    |                           |
| PSU Timings: T1 (20% / 100%)     | 38.0ms                    | 37.0ms                    |
| PSU Timings: T3 (20% / 100%)     | 118.0ms                   | 118.0ms                   |
| 12V OCP (25.9°C / 42.1°C)        | 96.00A (135.59%), 12.026V | 90.60A (127.97%), 12.031V |
| 5V OCP (25.9°C / 42.1°C)         | 24.5A (122.50%), 4.965V   | 24.4A (122.00%), 4.947V   |
| 3.3V OCP (25.9°C / 42.1°C)       | 25.6A (128.00%), 3.249V   | 25.6A (128.00%), 3.241V   |
| 5VSB OCP (25.9°C / 42.1°C)       | 4.5A (150.00%), 4.871V    | 4.5A (150.00%), 4.871V    |
| OPP (30.70°C / 42.32°C)          | 126.25%                   | 121.23%                   |

## Hold-Up Time & PWR\_OK Signal

|                                       |      |
|---------------------------------------|------|
| Hold-Up Time (ms)                     | 16.6 |
| AC Loss to PWR_OK Hold Up Time (ms)   | 15.2 |
| PWR_OK Inactive to DC Loss Delay (ms) | 1.4  |

## Vampire Power

### Tables

#### 115V

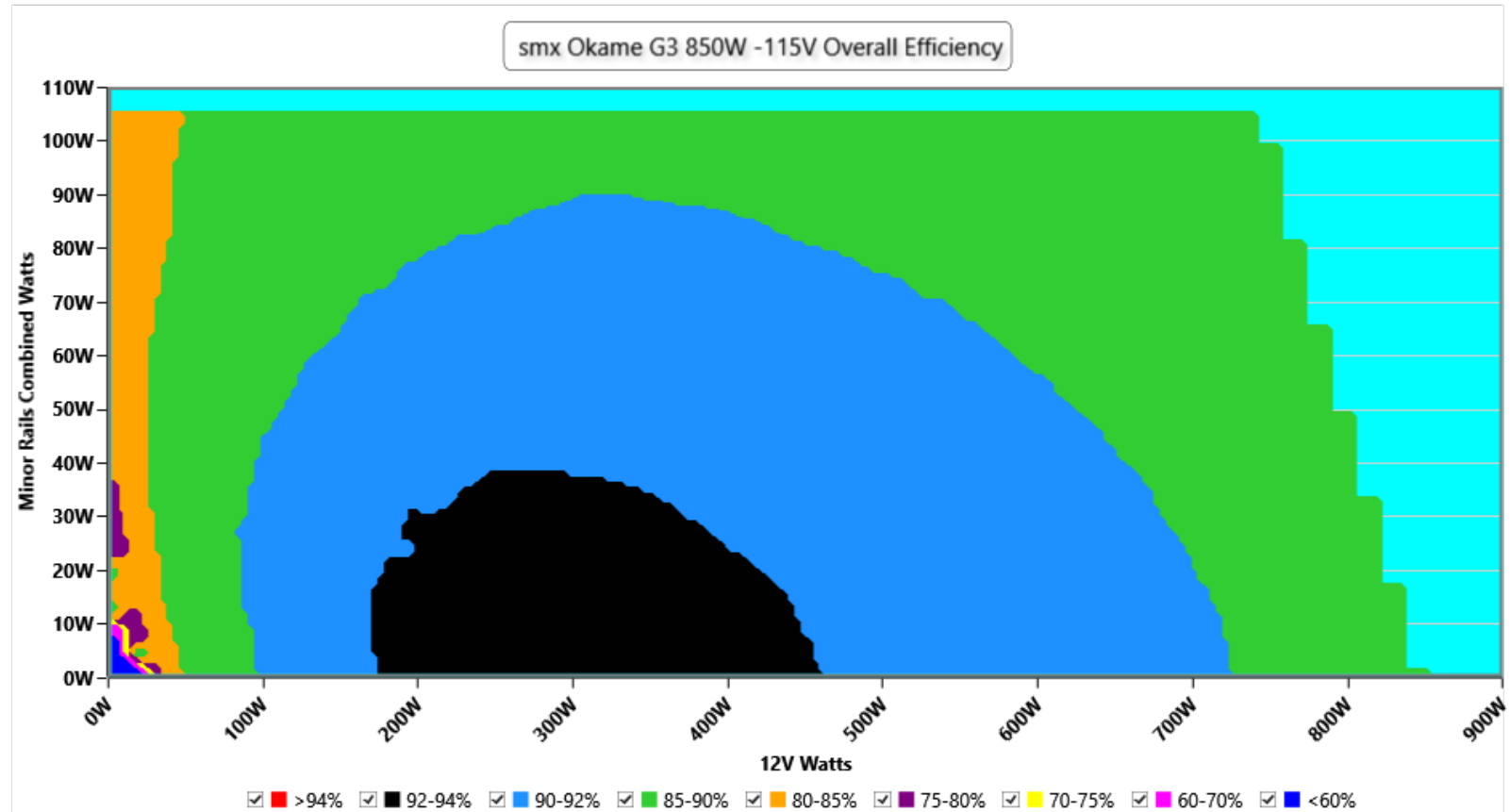
| Detailed Results   |          |          |           |          |           |        |
|--------------------|----------|----------|-----------|----------|-----------|--------|
|                    | Average  | Min      | Limit Min | Max      | Limit Max | Result |
| Mains Voltage RMS: | 115.07 V | 115.03 V | 113.85 V  | 115.11 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       | 0.19 %   | 2.00 %    | PASS   |
| Real Power:        | 0.037 W  | -0.011 W | N/A       | 0.074 W  | N/A       | N/A    |
| Apparent Power:    | 5.107 W  | 4.916 W  | N/A       | 5.297 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: | 231.02 V | 230.91 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 %   | 0.15 %   | N/A       | 0.27 %   | 2.00 %    | PASS   |
| Real Power:        | 0.089 W  | 0.050 W  | N/A       | 0.141 W  | N/A       | N/A    |
| Apparent Power:    | 16.905 W | 16.632 W | N/A       | 17.173 W | N/A       | N/A    |
| Power Factor:      | 0.005    | N/A      | N/A       | N/A      | N/A       | N/A    |

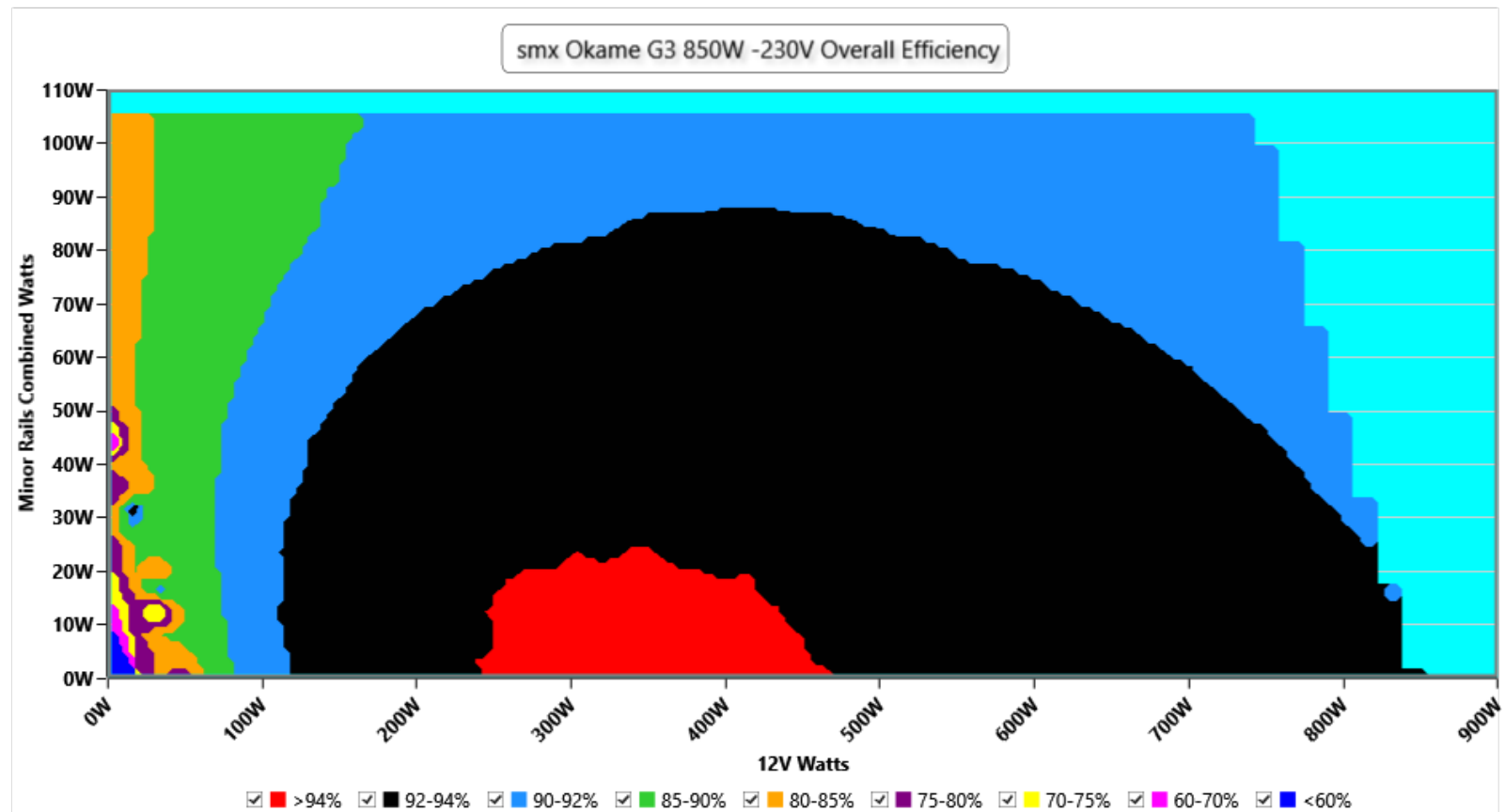
## Efficiency Graph

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

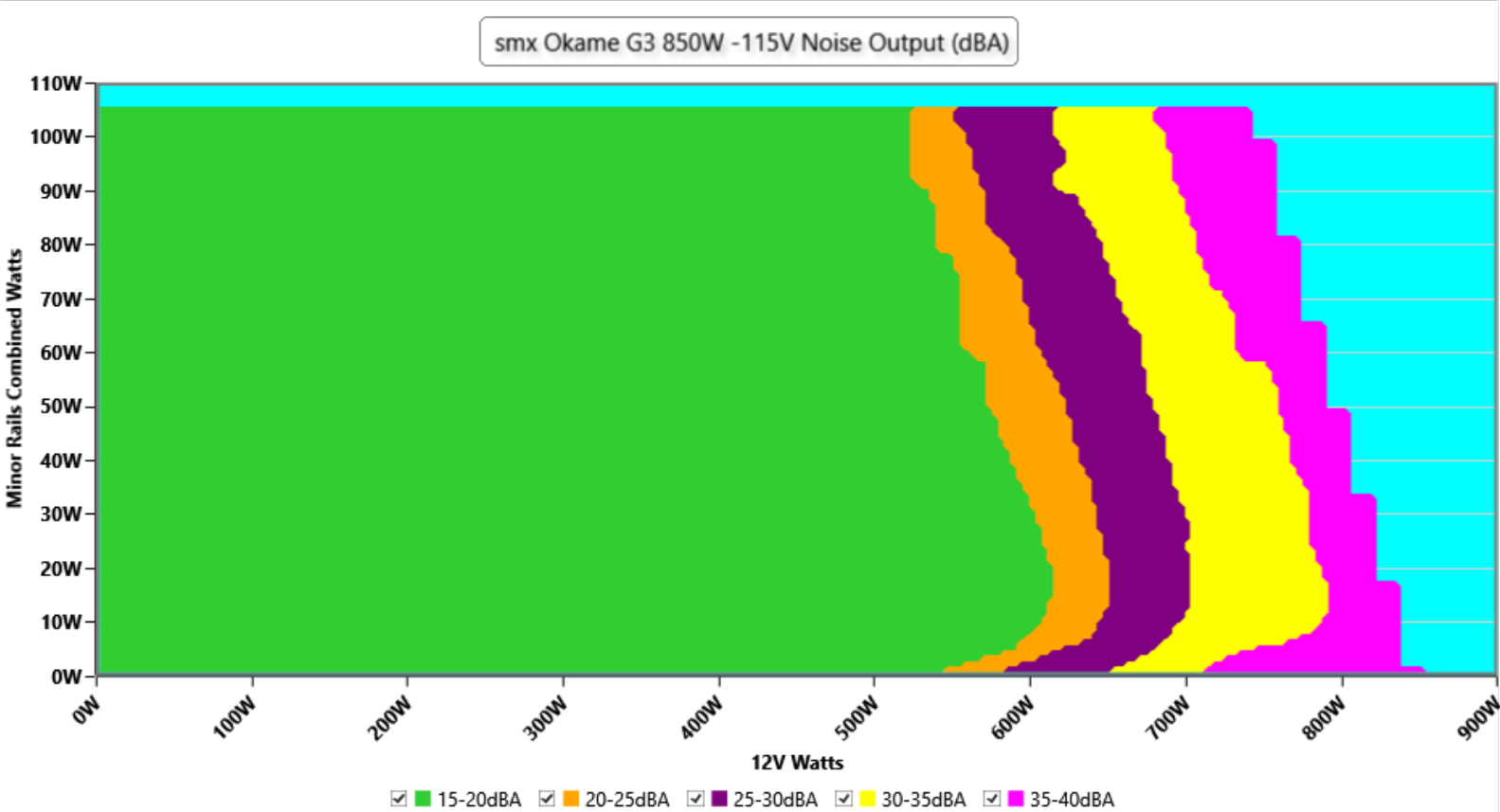


### INFO

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

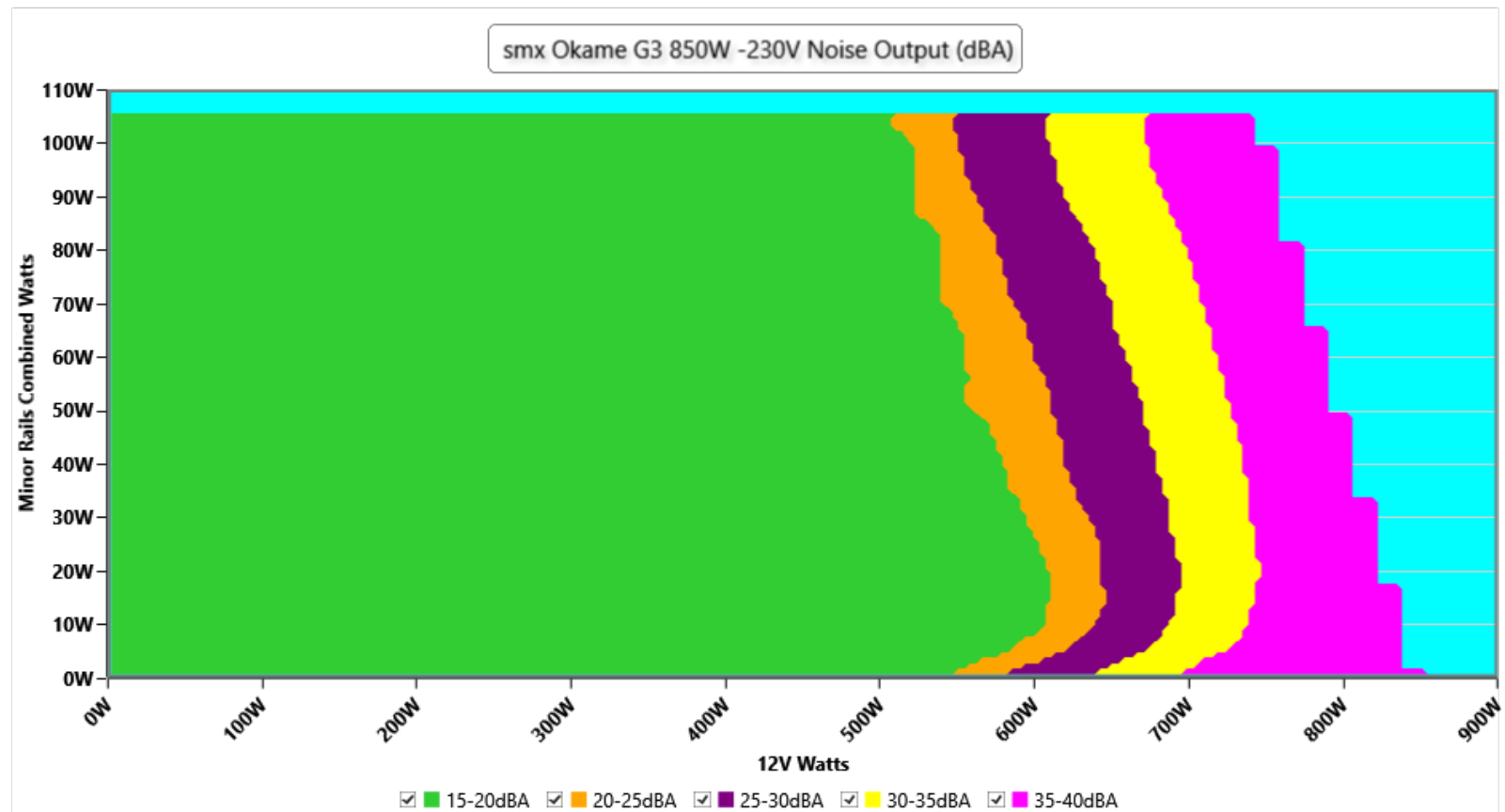
# Noise Graph

115V



## INFO

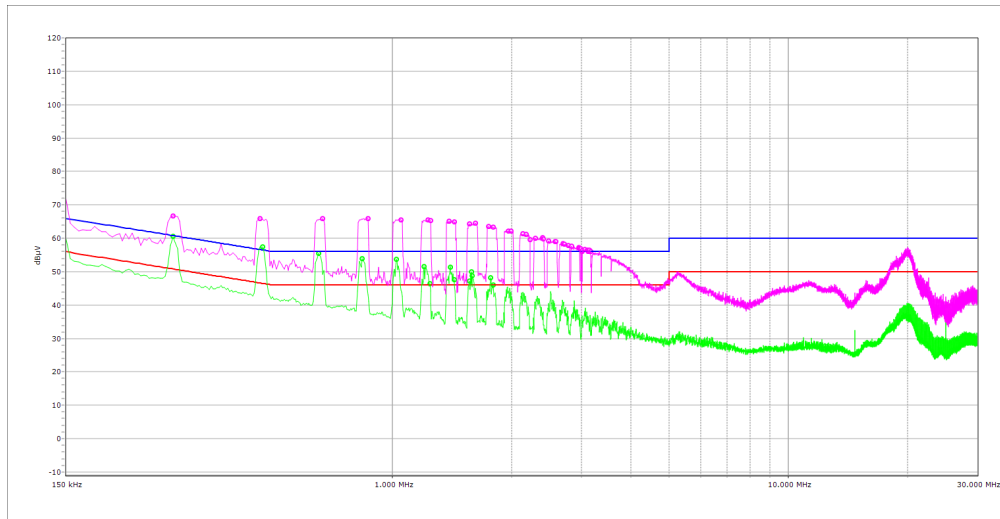
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails



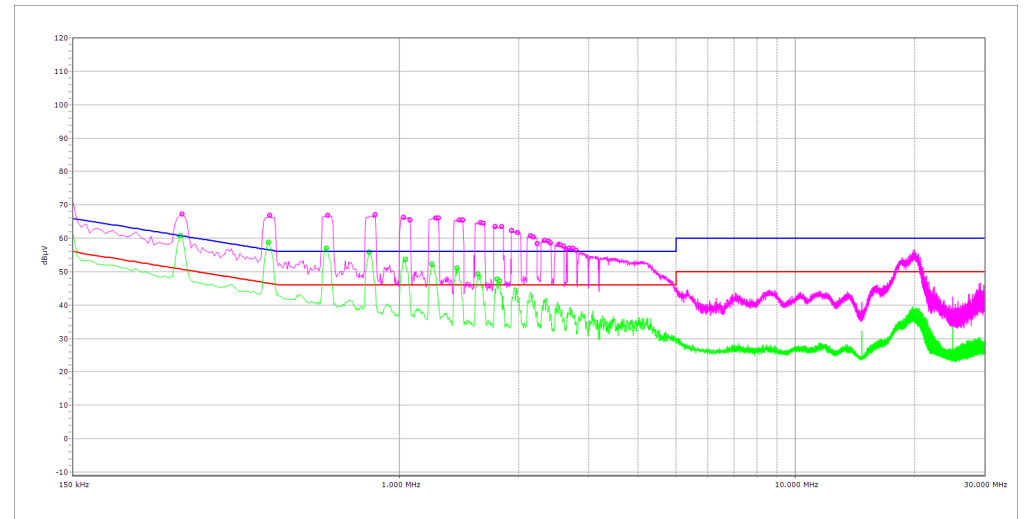
### INFO

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



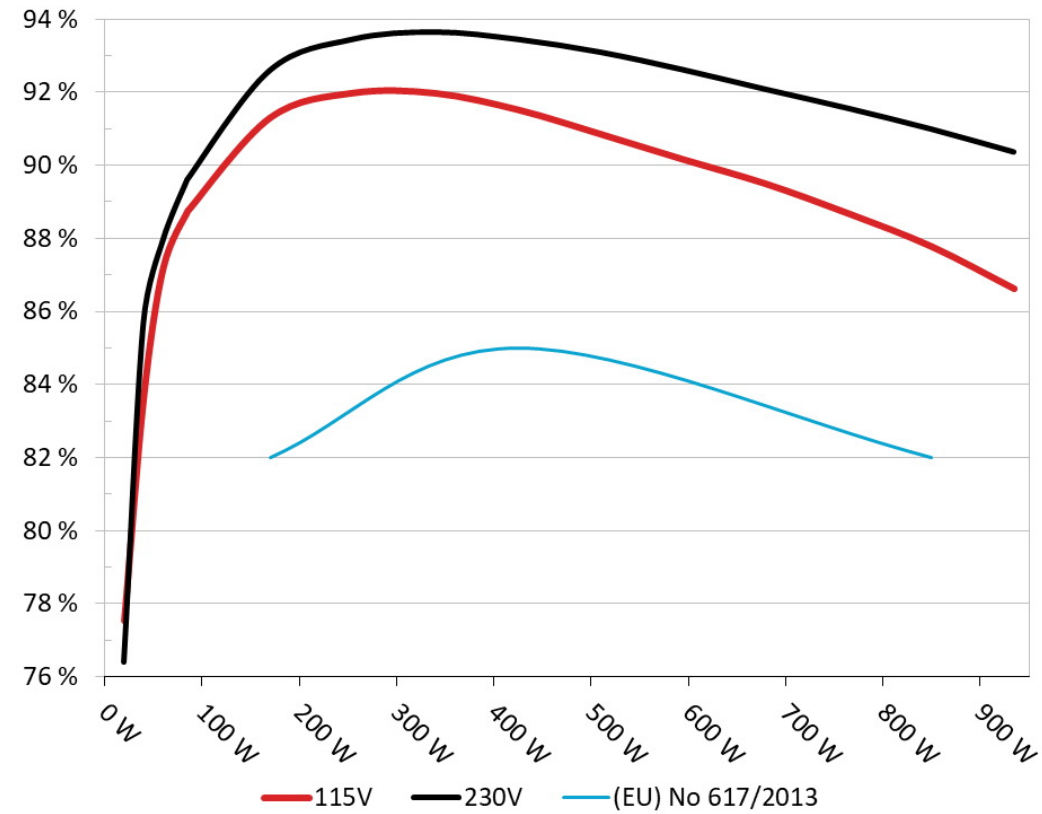
PHASE

## Indicative Performance

### Efficiency under high ambient temperature

Efficiency: smx Okame G3 850W

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



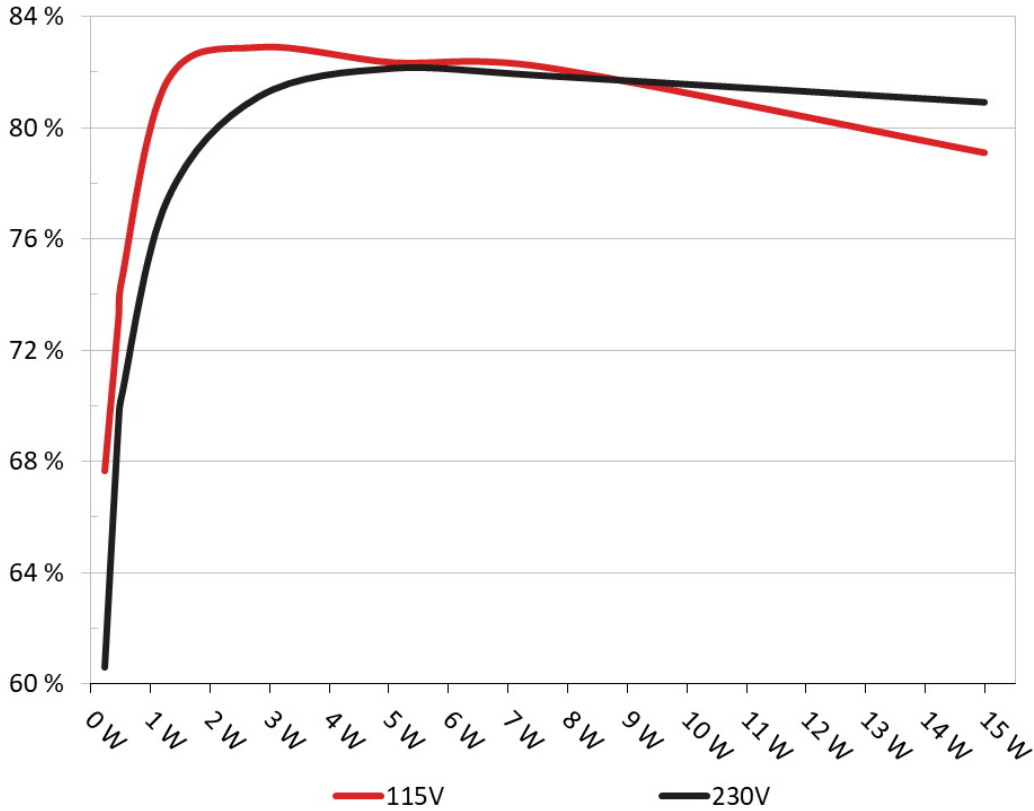
### INFO

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

5VSB Efficiency

5VSB Efficiency: smx Okame G3 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 | 0.231W        | 67.653%    | 0.063       |
|        | 5.14V  | 0.341W        |            | 114.97V     |
| 2      | 0.09A  | 0.462W        | 73.147%    | 0.114       |
|        | 5.138V | 0.632W        |            | 114.96V     |
| 3      | 0.55A  | 2.815W        | 82.896%    | 0.387       |
|        | 5.116V | 3.396W        |            | 114.95V     |
| 4      | 1A     | 5.096W        | 82.34%     | 0.477       |
|        | 5.094V | 6.189W        |            | 114.95V     |
| 5      | 1.5A   | 7.607W        | 82.181%    | 0.519       |
|        | 5.07V  | 9.256W        |            | 114.95V     |
| 6      | 3A     | 14.994W       | 79.1%      | 0.558       |
|        | 4.997V | 18.956W       |            | 114.96V     |

#### 230V

| Test # | 5VSB   | DC/AC (Watts) | Efficiency | PF/AC Volts |
|--------|--------|---------------|------------|-------------|
| 1      | 0.045A | 0.231W        | 60.581%    | 0.023       |
|        | 5.14V  | 0.382W        |            | 230.06V     |
| 2      | 0.09A  | 0.462W        | 69.414%    | 0.04        |
|        | 5.138V | 0.666W        |            | 230.09V     |
| 3      | 0.55A  | 2.815W        | 81.135%    | 0.182       |
|        | 5.116V | 3.47W         |            | 230.06V     |
| 4      | 1A     | 5.096W        | 82.162%    | 0.276       |
|        | 5.094V | 6.204W        |            | 230.04V     |
| 5      | 1.5A   | 7.607W        | 81.89%     | 0.343       |
|        | 5.07V  | 9.289W        |            | 230.04V     |
| 6      | 3A     | 14.992W       | 80.934%    | 0.43        |
|        | 4.997V | 18.524W       |            | 230.05V     |

## Protection Features

|                                        |                                                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| OCP (Normal @ 25.9°C)                  | 12V: 96.00A (135.59%), 12.026V<br>5V: 24.5A (122.50%), 4.965V<br>3.3V: 25.6A (128.00%), 3.249V<br>5VSB: 4.5A (150.00%), 4.871V |
| OCP (Hot @ 42.1°C)                     | 12V: 90.60A (127.97%), 12.031V<br>5V: 24.4A (122.00%), 4.947V<br>3.3V: 25.6A (128.00%), 3.241V<br>5VSB: 4.5A (150.00%), 4.871V |
| OPP (Normal @ 30.7°C)                  | 1073.13W (126.25%)                                                                                                             |
| OPP (Hot @ 42.3°C)                     | 1030.44W (121.23%)                                                                                                             |
| OTP                                    | ✓ (112°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%  | 5.228A  | 1.981A  | 1.988A  | 0.984A | 85.007        | 88.739%    | 721             | 15.3              | 40.44°C        | 0.924       |
|      | 12.126V | 5.05V   | 3.321V  | 5.08V  | 95.793        |            |                 |                   | 41.87°C        | 114.95V     |
| 20%  | 11.479A | 2.973A  | 2.985A  | 1.186A | 169.971       | 91.298%    | 721             | 15.3              | 40.95°C        | 0.957       |
|      | 12.115V | 5.046V  | 3.317V  | 5.06V  | 186.17        |            |                 |                   | 42.73°C        | 114.92V     |
| 30%  | 18.088A | 3.471A  | 3.486A  | 1.389A | 254.989       | 91.973%    | 722             | 15.7              | 41.21°C        | 0.973       |
|      | 12.104V | 5.043V  | 3.314V  | 5.041V | 277.241       |            |                 |                   | 44.55°C        | 114.9V      |
| 40%  | 24.715A | 3.97A   | 3.988A  | 1.594A | 340.083       | 91.966%    | 726             | 16.2              | 41.51°C        | 0.98        |
|      | 12.092V | 5.039V  | 3.311V  | 5.021V | 369.795       |            |                 |                   | 48.08°C        | 114.88V     |
| 50%  | 31.007A | 4.969A  | 4.991A  | 1.8A   | 425.11        | 91.511%    | 727             | 16.2              | 42.36°C        | 0.983       |
|      | 12.081V | 5.033V  | 3.306V  | 5V     | 464.54        |            |                 |                   | 51.53°C        | 114.86V     |
| 60%  | 37.271A | 5.967A  | 5.997A  | 2.001A | 509.595       | 90.847%    | 1180            | 29.1              | 42.61°C        | 0.985       |
|      | 12.069V | 5.029V  | 3.302V  | 4.979V | 560.936       |            |                 |                   | 52.85°C        | 114.84V     |
| 70%  | 43.613A | 6.965A  | 7.003A  | 2.219A | 594.954       | 90.153%    | 1460            | 35.9              | 43.49°C        | 0.988       |
|      | 12.057V | 5.026V  | 3.299V  | 4.957V | 659.941       |            |                 |                   | 53.6°C         | 114.81V     |
| 80%  | 49.966A | 7.963A  | 8.011A  | 2.327A | 679.745       | 89.485%    | 1712            | 39.9              | 43.61°C        | 0.99        |
|      | 12.045V | 5.024V  | 3.296V  | 4.942V | 759.618       |            |                 |                   | 54.02°C        | 114.79V     |
| 90%  | 56.738A | 8.467A  | 8.504A  | 2.436A | 765.215       | 88.666%    | 1841            | 42.5              | 44.29°C        | 0.992       |
|      | 12.032V | 5.02V   | 3.292V  | 4.926V | 863.037       |            |                 |                   | 56.17°C        | 114.77V     |
| 100% | 63.255A | 8.972A  | 9.031A  | 3.074A | 850.038       | 87.769%    | 1847            | 42.7              | 45.09°C        | 0.993       |
|      | 12.020V | 5.016V  | 3.289V  | 4.88V  | 968.491       |            |                 |                   | 60.27°C        | 114.74V     |
| 110% | 69.659A | 9.982A  | 10.141A | 3.081A | 934.652       | 86.618%    | 1841            | 42.5              | 46.97°C        | 0.993       |
|      | 12.007V | 5.01V   | 3.284V  | 4.87V  | 1079.06       |            |                 |                   | 63.7°C         | 114.71V     |
| CL1  | 0.116A  | 12.377A | 12.423A | 0A     | 104.316       | 81.385%    | 724             | 15.9              | 41.38°C        | 0.92        |
|      | 12.113V | 5.01V   | 3.292V  | 5.116V | 128.175       |            |                 |                   | 56.44°C        | 114.93V     |

| 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  | 20.098A | 0A      | 0A     | 101.404       | 80.152%    | 722             | 15.7              | 41.46°C        | 0.919       |
|      | 12.118V | 4.976V  | 3.31V   | 5.122V | 126.516       |            |                 |                   | 52.51°C        | 114.94V     |
| CL3  | 0.115A  | 0A      | 20.176A | 0A     | 67.396        | 71.633%    | 723             | 15.7              | 40.57°C        | 0.908       |
|      | 12.118V | 5.026V  | 3.271V  | 5.12V  | 94.089        |            |                 |                   | 49.1°C         | 114.95V     |
| CL4  | 70.622A | 0A      | 0A      | 0.006A | 849.745       | 88.933%    | 1851            | 42.7              | 45.5°C         | 0.993       |
|      | 12.032V | 5.038V  | 3.3V    | 5.064V | 955.485       |            |                 |                   | 54.95°C        | 114.76V     |

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%  | 5.229A  | 1.979A | 1.988A | 0.985A | 85.004        | 89.619%    | 716             | 14.6              | 40.16°C        | 0.82        |
|      | 12.125V | 5.054V | 3.32V  | 5.079V | 94.85         |            |                 |                   | 41.82°C        | 230.08V     |
| 20%  | 11.478A | 2.972A | 2.986A | 1.186A | 169.963       | 92.61%     | 721             | 15.3              | 40.73°C        | 0.924       |
|      | 12.115V | 5.049V | 3.316V | 5.059V | 183.528       |            |                 |                   | 41.49°C        | 230.08V     |
| 30%  | 18.087A | 3.471A | 3.487A | 1.389A | 254.977       | 93.463%    | 725             | 15.9              | 41.01°C        | 0.954       |
|      | 12.104V | 5.043V | 3.312V | 5.04V  | 272.806       |            |                 |                   | 44.75°C        | 230.06V     |
| 40%  | 24.714A | 3.97A  | 3.99A  | 1.594A | 340.071       | 93.663%    | 726             | 16.2              | 41.62°C        | 0.967       |
|      | 12.092V | 5.039V | 3.309V | 5.02V  | 363.08        |            |                 |                   | 47.03°C        | 230.05V     |
| 50%  | 31.011A | 4.968A | 4.995A | 1.802A | 425.134       | 93.461%    | 725             | 15.9              | 42.17°C        | 0.975       |
|      | 12.080V | 5.034V | 3.304V | 4.997V | 454.878       |            |                 |                   | 50.34°C        | 230.04V     |
| 60%  | 37.273A | 5.965A | 5.999A | 2.001A | 509.594       | 93.111%    | 899             | 22.4              | 42.53°C        | 0.979       |
|      | 12.068V | 5.031V | 3.301V | 4.976V | 547.299       |            |                 |                   | 50.93°C        | 230.03V     |
| 70%  | 43.614A | 6.961A | 7.005A | 2.221A | 594.945       | 92.628%    | 1187            | 29.5              | 43.11°C        | 0.982       |
|      | 12.056V | 5.03V  | 3.298V | 4.955V | 642.293       |            |                 |                   | 50.39°C        | 230.02V     |
| 80%  | 49.973A | 7.961A | 8.013A | 2.329A | 679.79        | 92.092%    | 1680            | 39.3              | 43.58°C        | 0.984       |
|      | 12.044V | 5.025V | 3.295V | 4.939V | 738.162       |            |                 |                   | 52.92°C        | 230.01V     |
| 90%  | 56.742A | 8.467A | 8.508A | 2.438A | 765.227       | 91.567%    | 1848            | 42.7              | 44.74°C        | 0.985       |
|      | 12.031V | 5.021V | 3.291V | 4.923V | 835.7         |            |                 |                   | 55.56°C        | 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>100%</b> | <b>63.258A</b> | <b>8.972A</b>  | <b>9.035A</b>  | <b>3.075A</b> | 850.034       | 91.003%    | 1842            | 42.6              | 45.72°C        | 0.987       |
|             | 12.019V        | 5.016V         | 3.287V         | 4.878V        | 934.07        |            |                 |                   | 57.18°C        | 229.99V     |
| <b>110%</b> | <b>69.661A</b> | <b>9.976A</b>  | <b>10.142A</b> | <b>3.082A</b> | 934.646       | 90.377%    | 1845            | 42.7              | 46.05°C        | 0.988       |
|             | 12.006V        | 5.012V         | 3.283V         | 4.868V        | 1034.161      |            |                 |                   | 59.47°C        | 229.97V     |
| <b>CL1</b>  | <b>0.116A</b>  | <b>12.373A</b> | <b>12.428A</b> | <b>0A</b>     | 104.317       | 82.789%    | 725             | 15.9              | 41.51°C        | 0.887       |
|             | 12.112V        | 5.011V         | 3.291V         | 5.116V        | 126.001       |            |                 |                   | 54.08°C        | 230.07V     |
| <b>CL2</b>  | <b>0.116A</b>  | <b>20.092A</b> | <b>0A</b>      | <b>0A</b>     | 101.405       | 81.178%    | 725             | 15.9              | 41.5°C         | 0.886       |
|             | 12.117V        | 4.977V         | 3.308V         | 5.122V        | 124.919       |            |                 |                   | 50.85°C        | 230.07V     |
| <b>CL3</b>  | <b>0.115A</b>  | <b>0A</b>      | <b>20.178A</b> | <b>0A</b>     | 67.398        | 72.402%    | 723             | 15.7              | 40.13°C        | 0.831       |
|             | 12.117V        | 5.018V         | 3.271V         | 5.12V         | 93.091        |            |                 |                   | 48.39°C        | 230.08V     |
| <b>CL4</b>  | <b>70.630A</b> | <b>0A</b>      | <b>0A</b>      | <b>0.006A</b> | 849.768       | 92.057%    | 1854            | 42.8              | 45.08°C        | 0.986       |
|             | 12.031V        | 5.034V         | 3.3V           | 5.063V        | 923.097       |            |                 |                   | 55.54°C        | 229.99V     |

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>1.225A</b> | <b>0.495A</b> | <b>0.496A</b> | <b>0.195A</b> | 20.02         | 77.531%    | 717             | 14.8              | 36.91°C        | 0.735       |
|            | 12.136V       | 5.055V        | 3.325V        | 5.129V        | 26.545        |            |                 |                   | 40.26°C        | 114.92V     |
| <b>40W</b> | <b>2.695A</b> | <b>0.693A</b> | <b>0.695A</b> | <b>0.293A</b> | 40.012        | 83.651%    | 717             | 14.8              | 37.1°C         | 0.856       |
|            | 12.133V       | 5.054V        | 3.324V        | 5.122V        | 47.834        |            |                 |                   | 40.65°C        | 114.92V     |
| <b>60W</b> | <b>4.166A</b> | <b>0.891A</b> | <b>0.894A</b> | <b>0.391A</b> | 60.007        | 87.182%    | 718             | 14.8              | 38.4°C         | 0.898       |
|            | 12.130V       | 5.054V        | 3.324V        | 5.115V        | 68.828        |            |                 |                   | 40.74°C        | 114.93V     |
| <b>80W</b> | <b>5.634A</b> | <b>1.089A</b> | <b>1.093A</b> | <b>0.49A</b>  | 79.969        | 89.117%    | 719             | 14.9              | 39.19°C        | 0.918       |
|            | 12.128V       | 5.053V        | 3.323V        | 5.108V        | 89.733        |            |                 |                   | 41.39°C        | 114.94V     |

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>1.224A</b> | <b>0.494A</b> | <b>0.496A</b> | <b>0.195A</b> | 20.006        | 76.404%    | 716             | 14.6              | 36.27°C        | 0.489       |
|            | 12.136V       | 5.058V        | 3.324V        | 5.129V        | 26.185        |            |                 |                   | 37.92°C        | 230.08V     |
| <b>40W</b> | <b>2.694A</b> | <b>0.692A</b> | <b>0.695A</b> | <b>0.293A</b> | 40.004        | 85.666%    | 719             | 14.9              | 37.47°C        | 0.654       |
|            | 12.133V       | 5.056V        | 3.323V        | 5.122V        | 47.04         |            |                 |                   | 39.97°C        | 230.08V     |
| <b>60W</b> | <b>4.166A</b> | <b>0.891A</b> | <b>0.894A</b> | <b>0.391A</b> | 60.002        | 87.948%    | 720             | 15.3              | 38.33°C        | 0.735       |
|            | 12.131V       | 5.053V        | 3.321V        | 5.115V        | 68.226        |            |                 |                   | 40.85°C        | 230.09V     |
| <b>80W</b> | <b>5.634A</b> | <b>1.089A</b> | <b>1.093A</b> | <b>0.49A</b>  | 79.964        | 89.923%    | 722             | 15.7              | 39.18°C        | 0.809       |
|            | 12.128V       | 5.052V        | 3.32V         | 5.107V        | 88.926        |            |                 |                   | 41.01°C        | 230.09V     |

The results above are not used in the certification process

## Ripple Measurements

## 115V

| Test               | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|--------------------|---------|---------|---------|---------|-----------|
| <b>10% Load</b>    | 10.7 mV | 8.3 mV  | 6.5 mV  | 10.6 mV | Pass      |
| <b>20% Load</b>    | 12.3 mV | 10.3 mV | 7.0 mV  | 14.1 mV | Pass      |
| <b>30% Load</b>    | 14.0 mV | 11.1 mV | 7.4 mV  | 17.9 mV | Pass      |
| <b>40% Load</b>    | 13.2 mV | 12.1 mV | 7.8 mV  | 20.0 mV | Pass      |
| <b>50% Load</b>    | 14.7 mV | 13.2 mV | 9.1 mV  | 22.7 mV | Pass      |
| <b>60% Load</b>    | 15.9 mV | 14.8 mV | 10.3 mV | 28.4 mV | Pass      |
| <b>70% Load</b>    | 17.0 mV | 17.7 mV | 13.8 mV | 31.5 mV | Pass      |
| <b>80% Load</b>    | 18.2 mV | 18.2 mV | 18.9 mV | 33.1 mV | Pass      |
| <b>90% Load</b>    | 18.5 mV | 20.9 mV | 18.1 mV | 38.5 mV | Pass      |
| <b>100% Load</b>   | 24.9 mV | 15.1 mV | 15.6 mV | 39.8 mV | Pass      |
| <b>110% Load</b>   | 26.5 mV | 14.9 mV | 15.1 mV | 43.5 mV | Pass      |
| <b>Crossload 1</b> | 16.4 mV | 11.0 mV | 14.2 mV | 9.9 mV  | Pass      |
| <b>Crossload 2</b> | 10.7 mV | 11.7 mV | 6.9 mV  | 9.6 mV  | Pass      |

| Test               | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|--------------------|---------|---------|---------|---------|-----------|
| <b>Crossload 3</b> | 12.5 mV | 23.6 mV | 15.9 mV | 8.4 mV  | Pass      |
| <b>Crossload 4</b> | 24.7 mV | 13.7 mV | 8.8 mV  | 33.9 mV | Pass      |

The results above are not used in the certification process

## 230V

| Test               | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|--------------------|---------|---------|---------|---------|-----------|
| <b>10% Load</b>    | 9.8 mV  | 7.9 mV  | 5.6 mV  | 9.9 mV  | Pass      |
| <b>20% Load</b>    | 10.9 mV | 9.3 mV  | 6.9 mV  | 13.5 mV | Pass      |
| <b>30% Load</b>    | 12.5 mV | 10.2 mV | 7.4 mV  | 16.5 mV | Pass      |
| <b>40% Load</b>    | 12.4 mV | 11.3 mV | 7.8 mV  | 21.0 mV | Pass      |
| <b>50% Load</b>    | 13.5 mV | 12.3 mV | 9.2 mV  | 23.0 mV | Pass      |
| <b>60% Load</b>    | 14.6 mV | 14.5 mV | 10.0 mV | 28.5 mV | Pass      |
| <b>70% Load</b>    | 16.1 mV | 16.9 mV | 13.5 mV | 31.7 mV | Pass      |
| <b>80% Load</b>    | 17.1 mV | 17.4 mV | 19.3 mV | 34.1 mV | Pass      |
| <b>90% Load</b>    | 17.9 mV | 19.1 mV | 19.3 mV | 37.6 mV | Pass      |
| <b>100% Load</b>   | 26.5 mV | 16.2 mV | 15.4 mV | 41.3 mV | Pass      |
| <b>110% Load</b>   | 26.0 mV | 15.8 mV | 17.0 mV | 43.4 mV | Pass      |
| <b>Crossload 1</b> | 15.7 mV | 10.5 mV | 14.8 mV | 9.6 mV  | Pass      |
| <b>Crossload 2</b> | 10.5 mV | 11.1 mV | 6.7 mV  | 8.8 mV  | Pass      |
| <b>Crossload 3</b> | 10.8 mV | 21.6 mV | 15.9 mV | 8.6 mV  | Pass      |
| <b>Crossload 4</b> | 26.3 mV | 13.3 mV | 9.2 mV  | 34.4 mV | Pass      |

The results above are not used in the certification process

SMX Okame G3 850W



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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Power specifications label

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