# FSP Technology DAGGER PM 1000W

S5311030018

Lab ID FS10003092

Certification ID 253092

Test Result Report ID: 25PS3092A

Certificate Issue Date: Jan 14, 2026

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 | FSP Technology |
| Model | DAGGER PM 1000W |
| OEM/ODM | FSP |
| Serial Number | S5311030018 |
| Product Specifications | |
| Manufacturer-Provided Information | |
| □□□□ (Vrms) | 100-240 |

| | |
|---|---|
| □□□□ (Arms) | 6-13 |
| □□□□ (Hz) | 50-60 |
| □□□□ (W) | 1000 |
| Operating Temperature (Continuous Full Load) (°C) | 0 - 50 |
| □□ | SFX |
| □□□□ | Fully Modular |
| Warranty | No Info |
| Cybenetics Measurements | |
| Dimensions (W x H x D) | 125 x 63.5 x 100mm |
| Weight | 1.01 kg (2.23 lb) |
| □□ | 92mm Fluid Dynamic Bearing Fan (HA9215SH12FD-F00) |
| □□□□□ | ✓ |
| Cybenetics Testing Information | |
| Lab ID | FS10003092 |
| Date of receipt | Nov 28, 2025 |
| Testing Date | Jan 5, 2026 |
| Report Issued Date | Jan 14, 2026 |
| □□□□□ | The fan starts spinning at very high loads. |
| Engineer Name | Georgios Theodoros Sarimpalas |
| Authorized By the Laboratory Technical Manager | Aristeidis Bitziopoulos |
| Signature |  |

## □□□□□
## (Non-accredited measurements)

| □□□□□ | | | | |
|---|---|---|---|---|
| □□ | □□□□ | □□□□□□ | **Gauge** | **Cable Type** |
| ATX □□ 20+4 pin (350mm) | 1 | 1 | 16-22AWG | Tinned Copper |
| 4+4 pin EPS 12V □□ (500mm) | 2 | 2 | 16AWG | Tinned Copper |
| 6+2pin PCIe□□ (350mm+160mm) | 2 | 4 | 16-18AWG | Tinned Copper |
| 12+4 pin PCIe (500mm) (600W) | 1 | 1 | 16-24AWG | Tinned Copper |

| | | | | |
|---|---|---|---|---|
| SATA□□ (500mm+155mm+155mm+155mm) | 1 | 4 | 18AWG | Tinned Copper |
| SATA□□ (500mm+155mm) / 4-pin Molex (+155mm+155mm) | 1 | 2 / 2 | 18AWG | Tinned Copper |

### Protection Features

| | |
|---|---|
| Under Voltage Protection | ✓ |
| Over Power Protection | έεΥ |
| Over Current (+12V) Protection | έεΥ |
| Over Temperature Protection | έεΥ |
| Short Circuit Protection | έεΥ |
| Surge Protection | έεΥ |
| Inrush Current Protection | έεΥ |
| Fan Failure Protection | έεΩ |

### □□□□

| □ | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| □□□□ | □□ | 20 | 20 | 83.3 | 3 | 0.3 |
| | □ | 100 | | 1000 | 15 | 3.6 |
| □□□□□ (W) | | 1000 | | | | |

## Test Results

### Temperature & Compliance Info

| | |
|---|---|
| □□□□ (°C /°F) | 28-32 / 82.4-89.6 |
| □□ ErP Lot3/6□□ | ✓ |
| □□ (EU) No 617/2013□□ | ✓ |
| ALPM (Alternative Low Power Mode) compatible | ✓ |
| ATX v3.1 PSU Power Excursion | ✓ |

## Performance Summary

### 115V

| | |
|---|---|
| Accredited | |
| □□□□ (>1450 load combinations) | 90.288% |
| Average Noise Output (>1450 Load Combinations) | 24.50dBA |
| PF□□□ (>1450 Load Combinations) | 0.978 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 75.793% |
| □□□□□□ | 0.0905W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 39.51mV |
| 5V Ripple (Full Load) | 19.81mV |
| 3.3V Ripple (Full Load) | 11.13mV |
| 5VSB Ripple (Full Load) | 18.73mV |
| 12V Load Regulation | 1.08% |
| 5V Load Regulation | 0.34% |
| 3.3V Load Regulation | 0.73% |
| 5VSB Load Regulation | 3.45% |
| Inrush Current | 25.550A |

### 230V

| | |
|---|---|
| Accredited | |
| □□□□ (>1450 load combinations) | 92.021% |
| Average Noise Output (>1450 Load Combinations) | 24.24dBA |
| PF□□□ (>1450 Load Combinations) | 0.940 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 74.914% |
| □□□□□□ | 0.1717W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 44.47mV |
| 5V Ripple (Full Load) | 20.50mV |
| 3.3V Ripple (Full Load) | 13.36mV |

| | | |
|---|---|---|
| 5VSB Ripple (Full Load) | | 22.86mV |
| 12V Load Regulation | | 0.74% |
| 5V Load Regulation | | 0.36% |
| 3.3V Load Regulation | | 0.85% |
| 5VSB Load Regulation | | 3.48% |
| Inrush Current | | 59.220A |
| 12V Transient Response (200%) | | 11.60V |
| 5V Transient Response (200%) | | 4.940V |
| 3.3V Transient Response (200%) | | 3.203V |
| 5VSB Transient Response (200%) | | 4.921V |
| □□□□ & PG□□ | | 22.10ms |
| AC Loss to PWR_OK Hold Up Time | | 19.40ms |
| PWR_OK Inactive to DC Loss Delay | | 2.70ms |
| PSU Timings: T1 (20% / 100%) | 51.0ms | 50.0ms |
| PSU Timings: T3 (20% / 100%) | 111.0ms | 110.0ms |
| 12V OCP (29.7°C / 43.5°C) | 105.00A (126.05%), 12.015V | 103.20A (123.89%), 12.018V |
| 5V OCP (29.7°C / 43.5°C) | 22.4A (112.00%), 4.999V | 22.4A (112.00%), 4.999V |
| 3.3V OCP (29.7°C / 43.5°C) | 23.6A (118.00%), 3.305V | 23.3A (116.50%), 3.306V |
| 5VSB OCP (29.7°C / 43.5°C) | 3.6A (120.00%), 4.775V | 3.6A (120.00%), 4.764V *High Ripple (59.72mV) |
| OPP (29.58°C / 41.01°C) | 134.31% | 129.50% |

## □□□□ & PG□□

| | |
|---|---|
| Hold-Up Time (ms) | 22.1 |
| AC Loss to PWR_OK Hold Up Time (ms) | 19.4 |
| PWR_OK Inactive to DC Loss Delay (ms) | 2.7 |

## Tables

### 115V

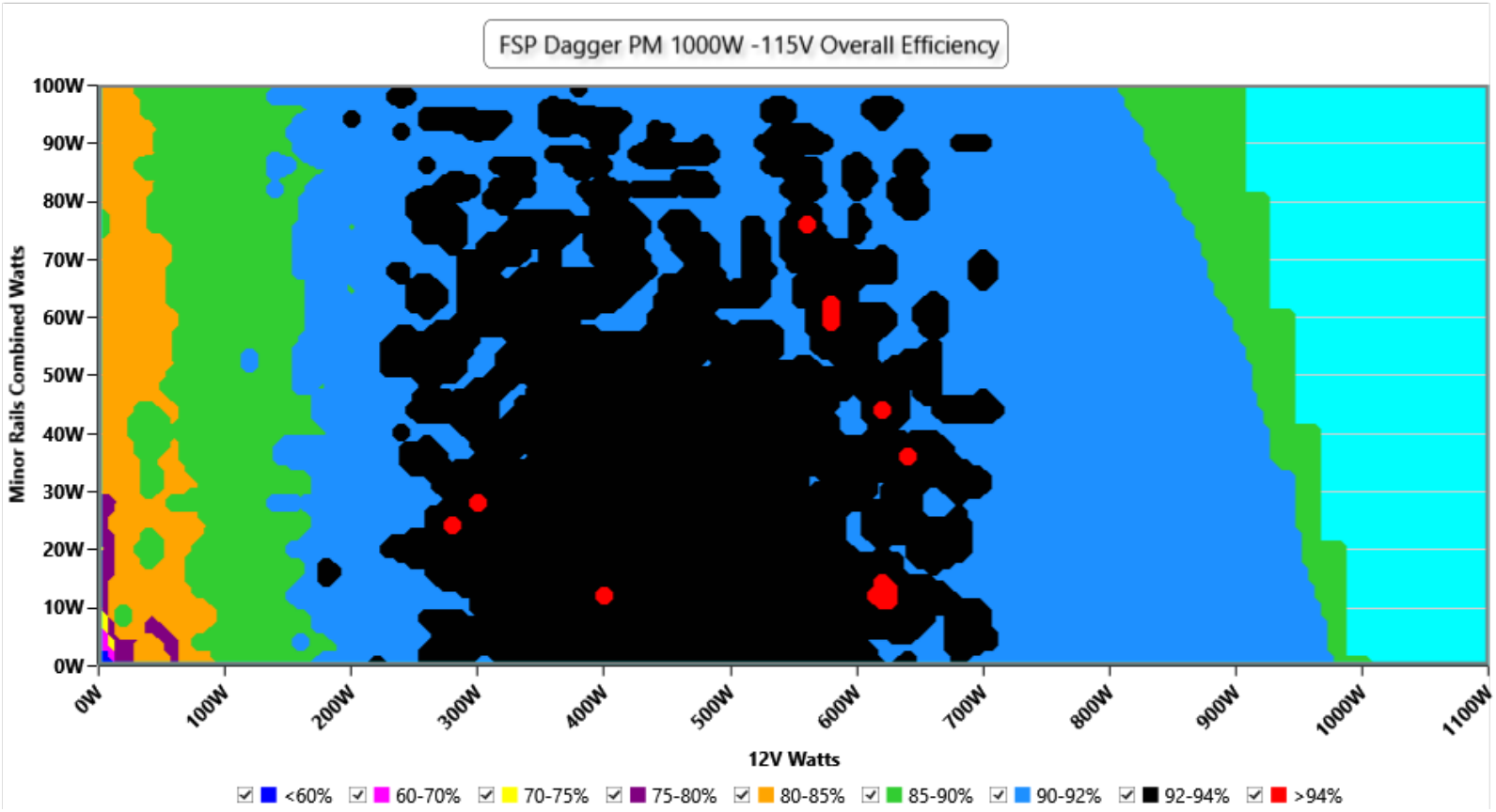
| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 115.06 V | 115.03 V | 113.85 V | 115.07 V | 116.15 V | PASS |
| Mains Frequency: | 60.00 Hz | 60.00 Hz | 59.40 Hz | 60.01 Hz | 60.60 Hz | PASS |
| Mains Voltage CF: | 1.416 | 1.415 | 1.340 | 1.416 | 1.490 | PASS |
| Mains Voltage THD: | 0.13 % | 0.11 % | N/A | 0.16 % | 2.00 % | PASS |
| Real Power: | 0.090 W | 0.067 W | N/A | 0.118 W | N/A | N/A |
| Apparent Power: | 12.388 W | 12.369 W | N/A | 12.406 W | N/A | N/A |
| Power Factor: | 0.007 | N/A | N/A | N/A | N/A | N/A |

### 230V

| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 230.12 V | 230.08 V | 227.70 V | 230.13 V | 232.30 V | PASS |
| Mains Frequency: | 50.00 Hz | 50.00 Hz | 49.50 Hz | 50.00 Hz | 50.50 Hz | PASS |
| Mains Voltage CF: | 1.415 | 1.415 | 1.340 | 1.416 | 1.490 | PASS |
| Mains Voltage THD: | 0.14 % | 0.13 % | N/A | 0.16 % | 2.00 % | PASS |
| Real Power: | 0.172 W | 0.129 W | N/A | 0.263 W | N/A | N/A |
| Apparent Power: | 40.724 W | 40.676 W | N/A | 40.775 W | N/A | N/A |
| Power Factor: | 0.004 | N/A | N/A | N/A | N/A | N/A |

## □□□□□□

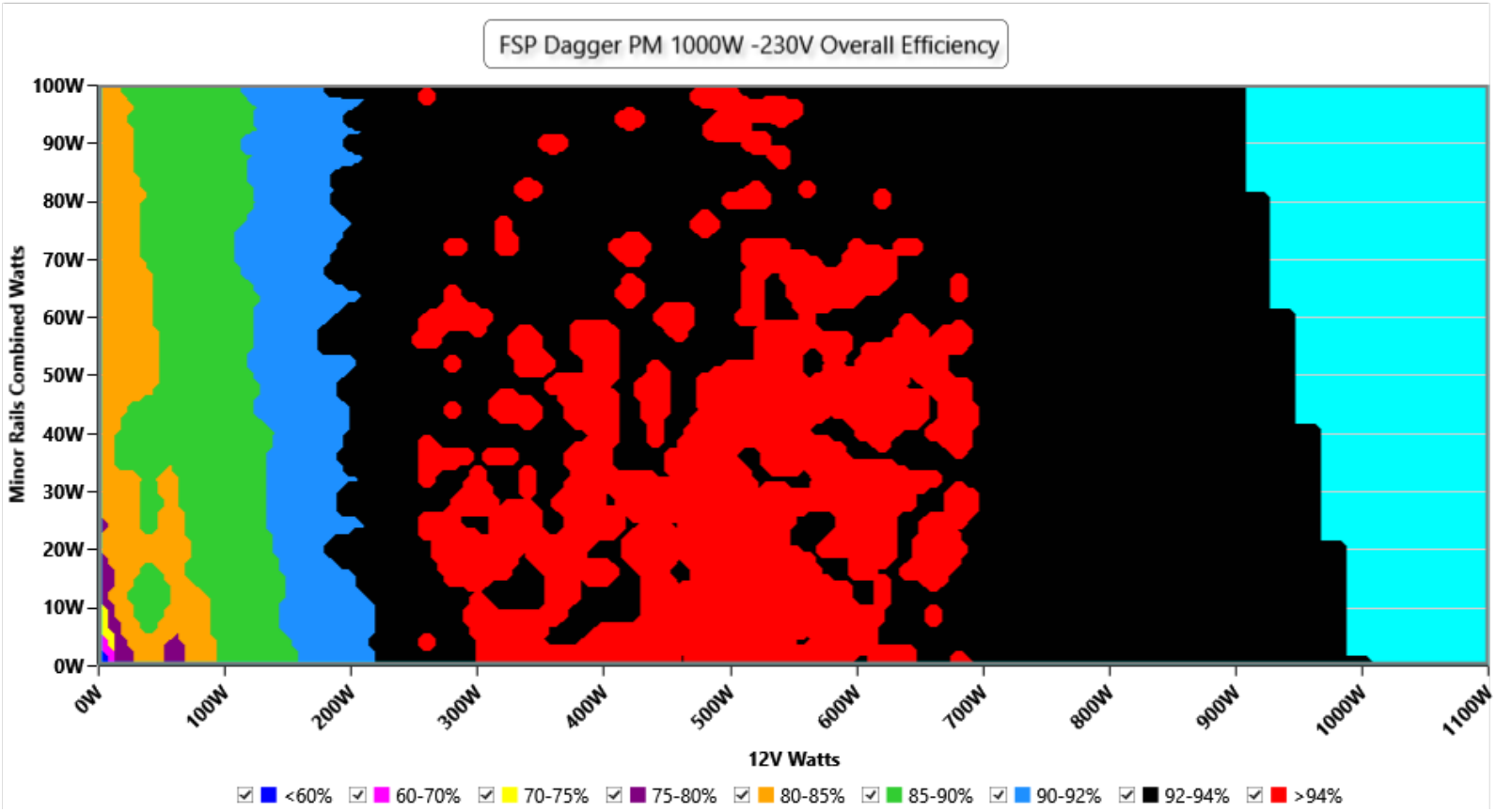
**115V**



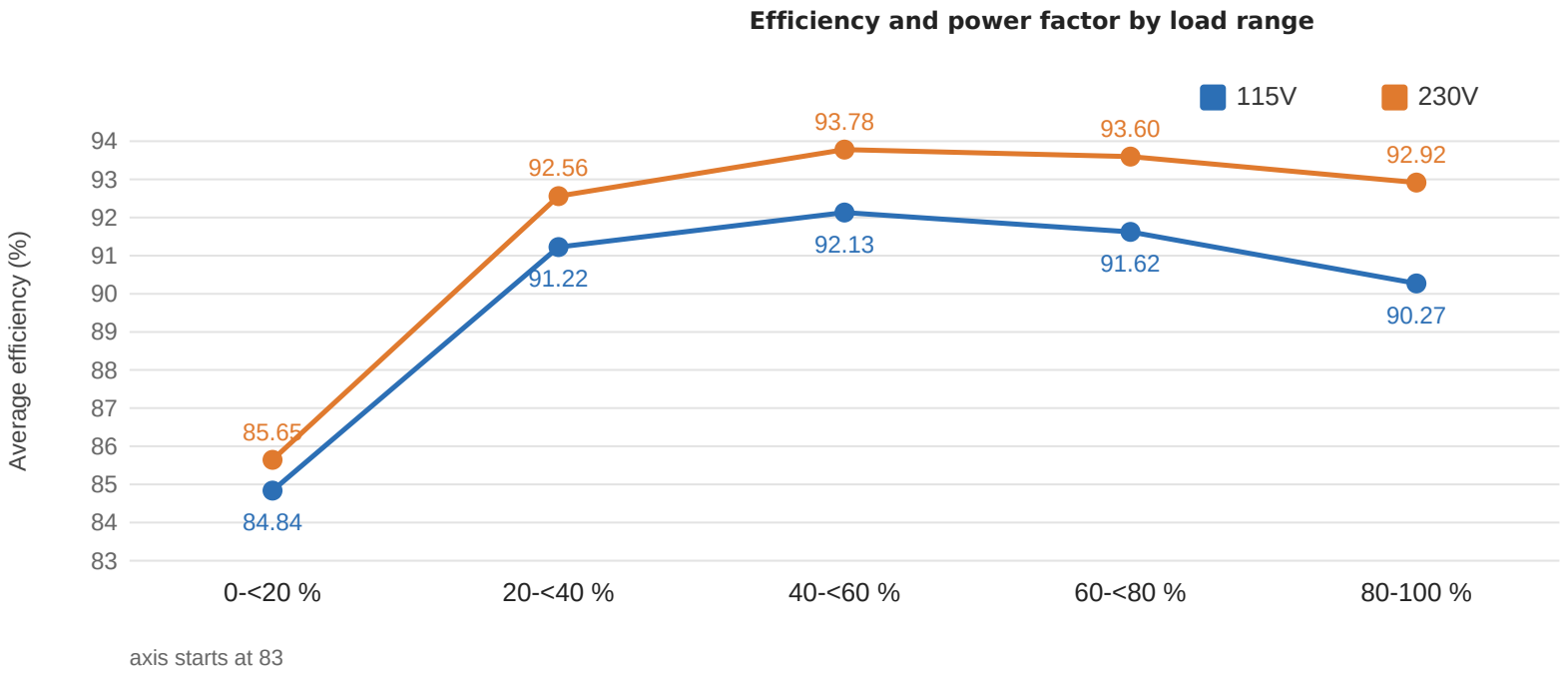

□□

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

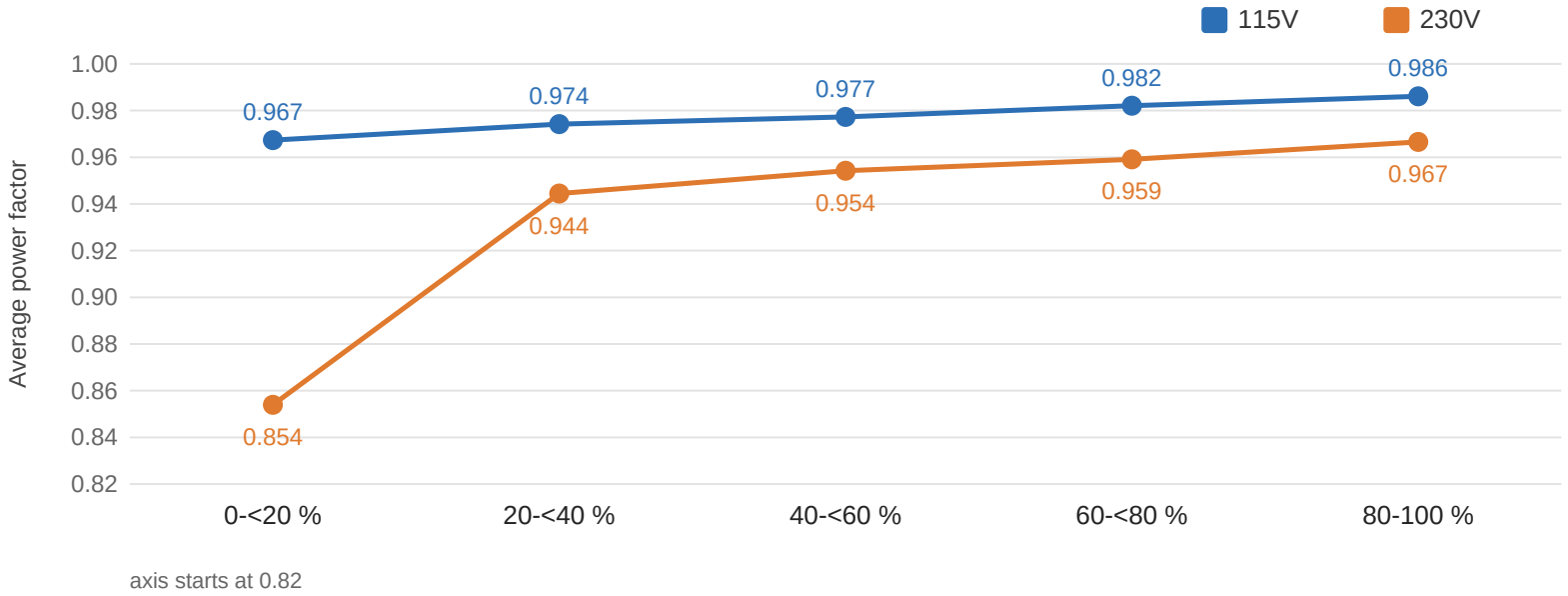
## 230V




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




axis starts at 83




axis starts at 0.82

| Load range | Points | Efficiency 115V | Efficiency 230V | PF 115V | PF 230V |
|---|---|---|---|---|---|
| 0-<20 % | 233 / 233 | 84.84% | 85.65% | 0.967 | 0.854 |
| 20-<40 % | 310 / 310 | 91.22% | 92.56% | 0.974 | 0.944 |
| 40-<60 % | 310 / 310 | 92.13% | 93.78% | 0.977 | 0.954 |
| 60-<80 % | 310 / 310 | 91.62% | 93.60% | 0.982 | 0.959 |
| 80-100 % | 317 / 317 | 90.27% | 92.92% | 0.986 | 0.967 |
| 70-100 % (High-Load) | 472 / 472 | 90.61% | 93.09% | 0.985 | 0.965 |
| All (published average) | 1480 / 1480 | 90.29% | 92.02% | 0.978 | 0.940 |

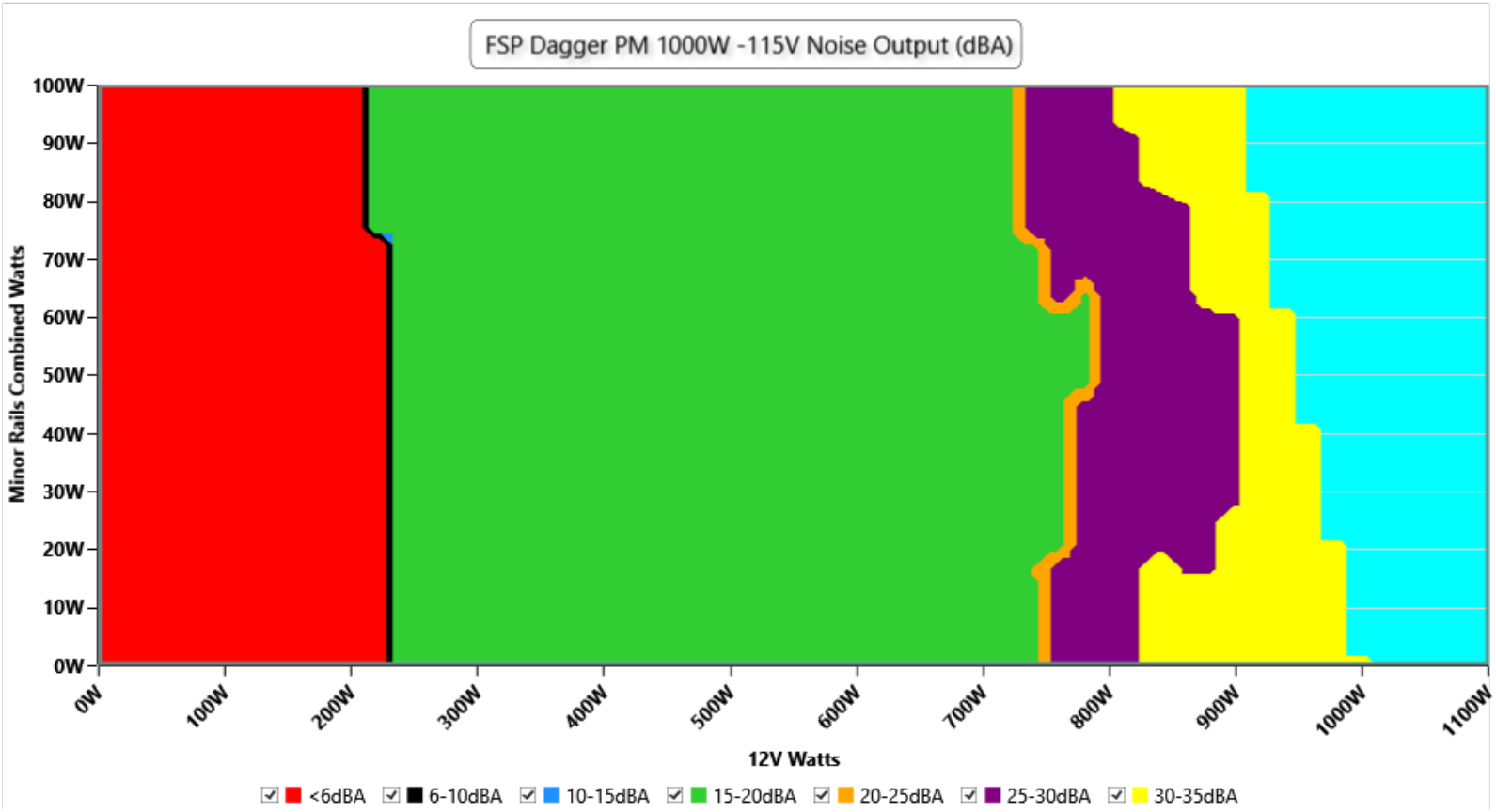
**INFO**

The average efficiency and power factor in five ranges of load. Calculated from the 1480 (115V) and 1480 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 1000 W. These are plain averages of the valid readings, as for the ETA rating, so the ranges combined give back the published averages.

*Informational. Not part of the ETA or LAMBDA rating.*

## □□□□□

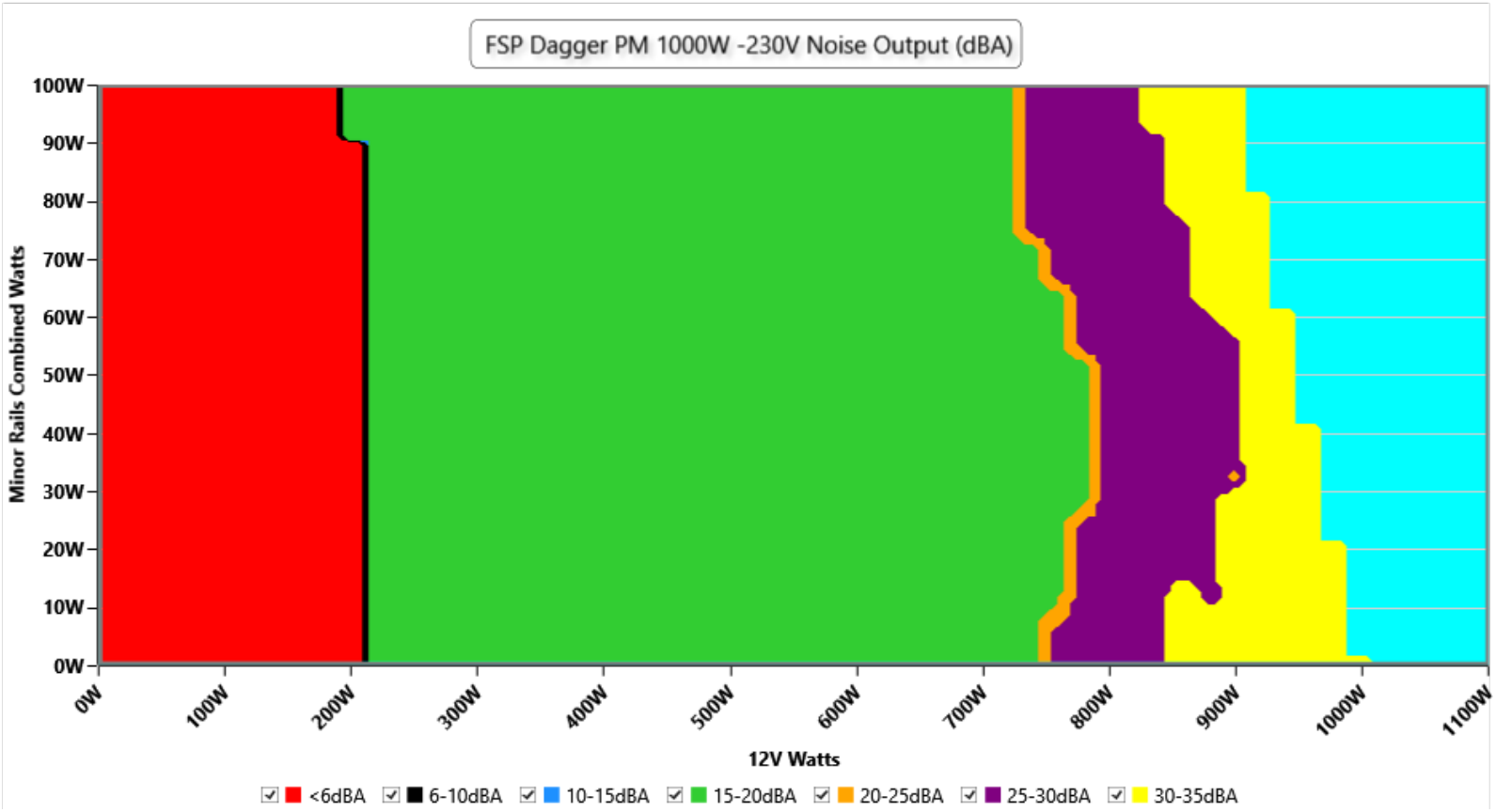
**115V**




□□

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

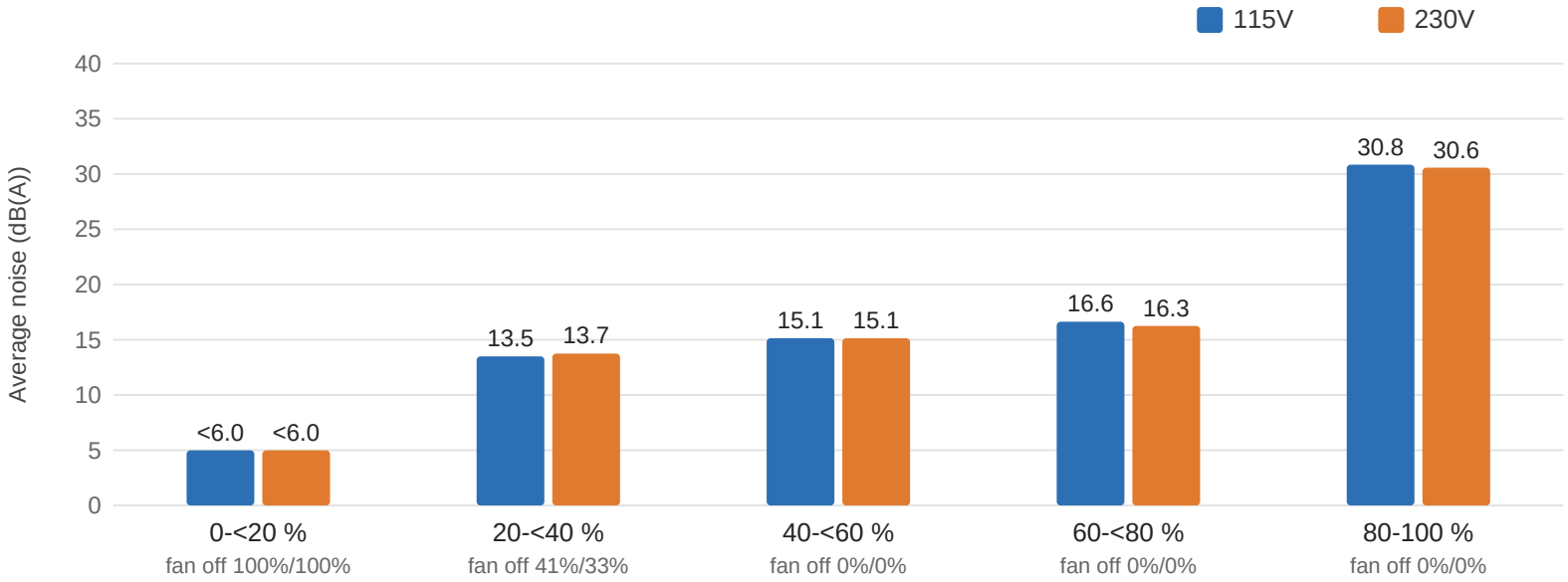
**230V**




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

## Noise by load range

**High-Load Index (70-100 % load)**
Noise **29.2 dB(A)** at 115V and **28.9 dB(A)** at 230V · loudest point 33.9 dB(A)
Efficiency 90.61% / 93.09% · power factor 0.985 / 0.965 (115V / 230V)




| Load range | Noise 115V<br>avg (loudest) | Noise 230V<br>avg (loudest) | Fan off<br>115V / 230V |
|---|---|---|---|
| 0-<20 % | <6.0 (<6.0) | <6.0 (<6.0) | 100% / 100% |
| 20-<40 % | 13.5 (16.7) | 13.7 (16.7) | 41% / 33% |
| 40-<60 % | 15.1 (15.1) | 15.1 (15.1) | 0% / 0% |
| 60-<80 % | 16.6 (26.5) | 16.3 (26.5) | 0% / 0% |
| 80-100 % | 30.8 (33.9) | 30.6 (33.9) | 0% / 0% |
| 70-100 % (High-Load) | 29.2 (33.9) | 28.9 (33.9) | 0% / 0% |
| All (published average) | 24.5 (33.9) | 24.2 (33.9) | 24% / 23% |

**INFO**

The average noise in five ranges of load, the share of points with the fan stopped (semi-passive operation), and the High-Load Index: the same figures for all points at 70 % of the rated output and above. Calculated from the 1480 (115V) and 1480 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 1000 W. Noise is averaged on the energy scale, as for LAMBDA, so the ranges combined give back the published average noise. Each load combination is held for about five seconds; the stabilized readings at fixed loads are under "Noise under high ambient temperature". Below 6 dB(A), the floor of our sound meter, the table and the chart show <6.0. In the averages a stopped fan counts as 5 dB(A),

as in the published average.

*Informational. Not part of the ETA or LAMBDA rating.*

## Noise under high ambient temperature (indicative)

### 115V

| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 0 RPM · <6.0 dB(A) · 31.2 °C | 0 RPM · <6.0 dB(A) · 41.1 °C | fan off in both |
| 20% | 0 RPM · <6.0 dB(A) · 36.6 °C | 0 RPM · <6.0 dB(A) · 41.1 °C | fan off in both |
| 50% | 0 RPM · <6.0 dB(A) · 43.9 °C | 1159 RPM · 16.7 dB(A) · 42.2 °C | fan starts (<6.0 → 16.7) |
| 100% | 1893 RPM · 33.4 dB(A) · 30.2 °C | 2604 RPM · 42.7 dB(A) · 45.2 °C | **+9.3 dB(A)** |

### 230V

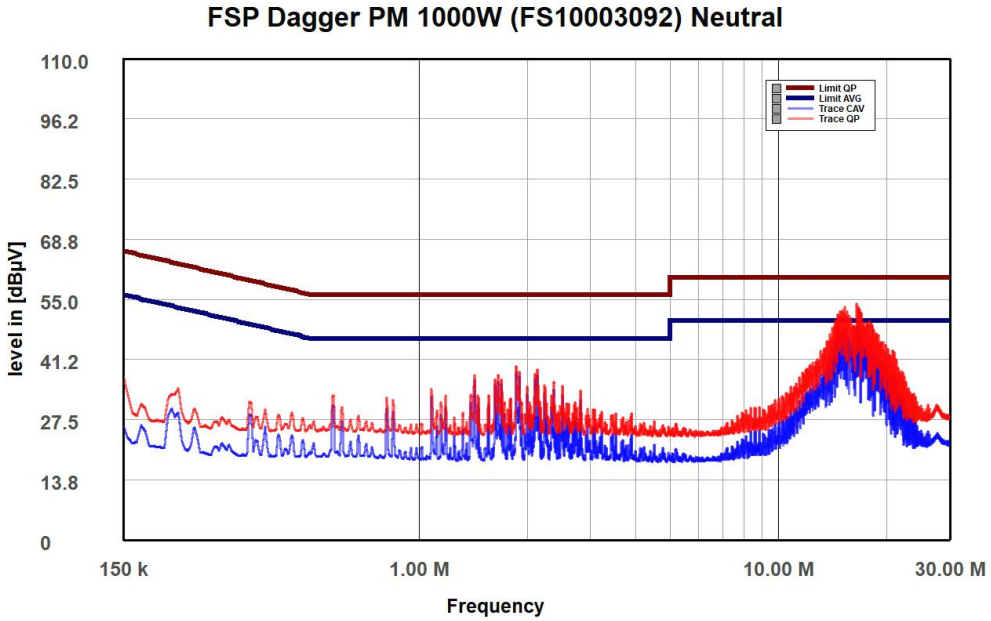
| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 0 RPM · <6.0 dB(A) · 38.9 °C | 0 RPM · <6.0 dB(A) · 47.8 °C | fan off in both |
| 20% | 0 RPM · <6.0 dB(A) · 42.8 °C | 0 RPM · <6.0 dB(A) · 47.9 °C | fan off in both |
| 50% | 0 RPM · <6.0 dB(A) · 47.0 °C | 1160 RPM · 16.7 dB(A) · 42.5 °C | fan starts (<6.0 → 16.7) |
| 100% | 2598 RPM · 42.6 dB(A) · 30.2 °C | 2639 RPM · 43.3 dB(A) · 45.5 °C | **+0.7 dB(A)** |

### INFO

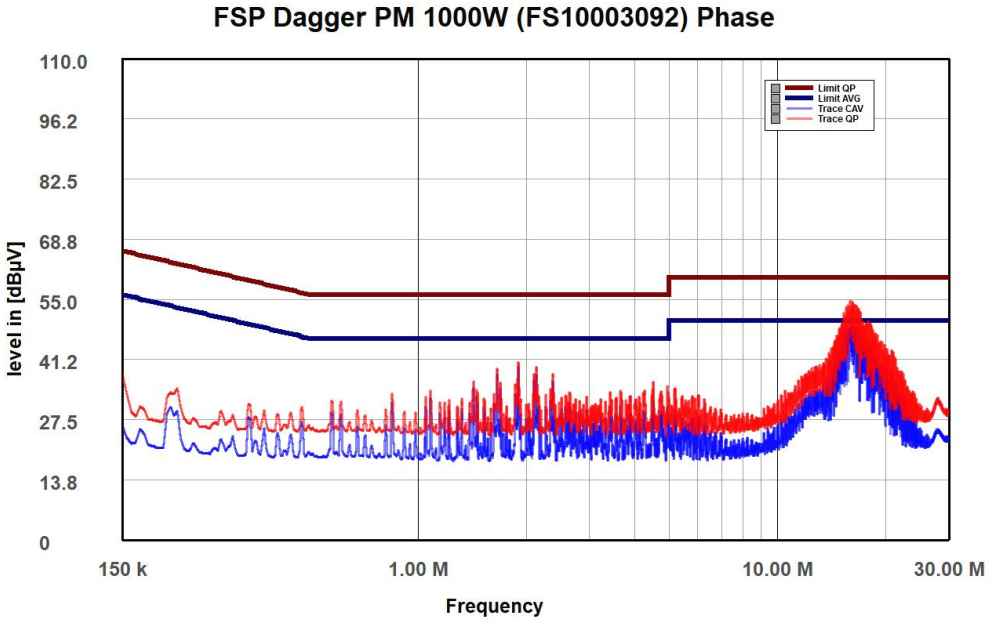
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative of how the fan behaves when it is hot. "<6.0" is the floor of our sound meter: the fan is stopped or too quiet to measure (the fan speed column says which); with the fan stopped, the intake sensor can read higher than the chamber air.

*Informational. Not part of the ETA or LAMBDA rating.*

## Conducted Emissions EN 55032 & CISPR 32

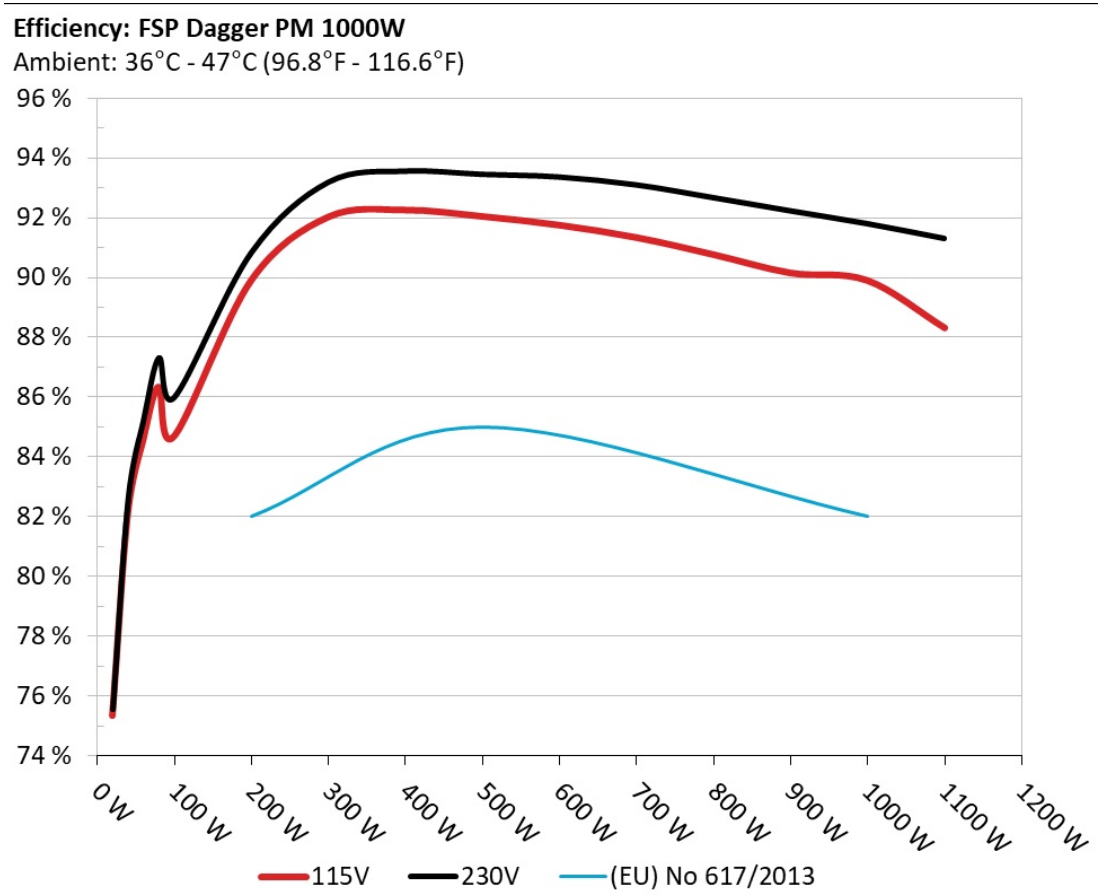



NEUTRAL



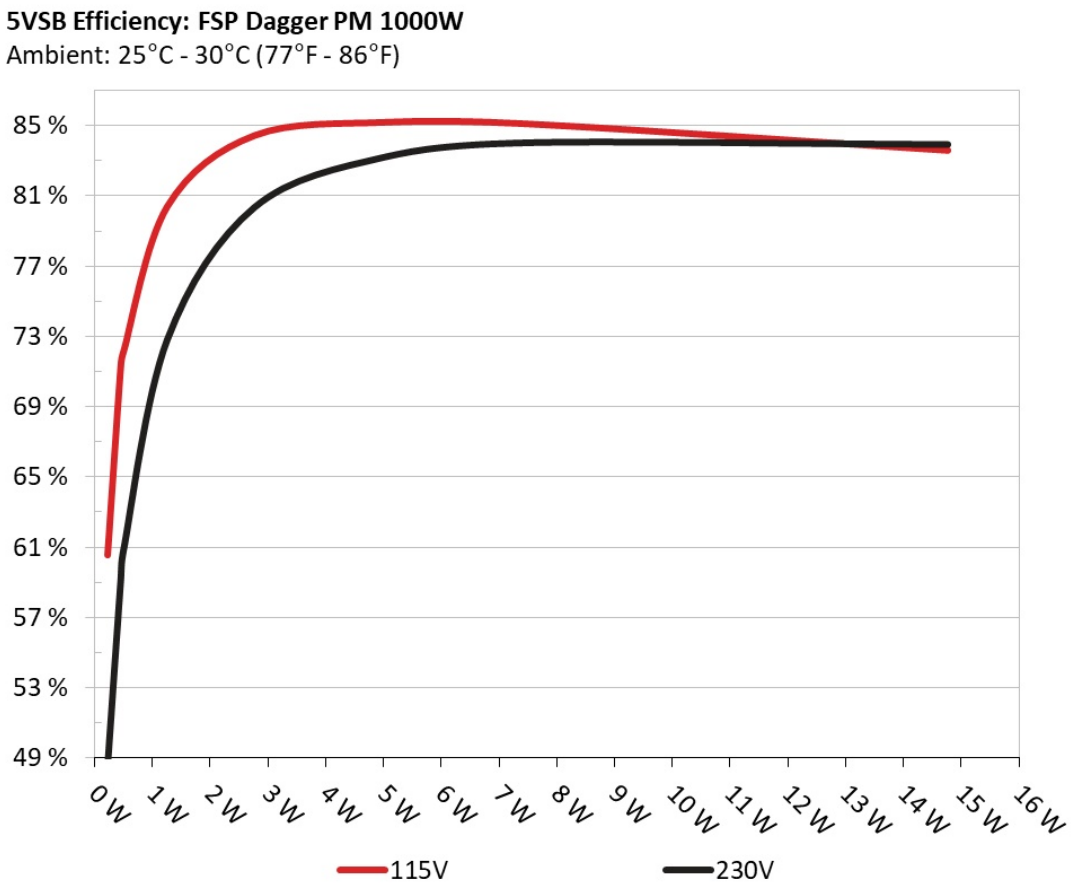

PHASE

## Indicative Performance




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

**5Vsb□□□□**




□□

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

## □□□□ □□ 5Vsb □□ (ErP Lot3/6 & CEC)

### 115V

| □□ # | 5VSB | DC/AC (□ ) | □□ | PF/AC □□ |
|---|---|---|---|---|
| **1** | **0.045A** | 0.228W | 60.564% | 0.031 |
| | 5.061V | 0.377W | | 115.14V |
| **2** | **0.09A** | 0.455W | 71.303% | 0.052 |
| | 5.05V | 0.638W | | 115.1V |
| **3** | **0.55A** | 2.769W | 84.426% | 0.224 |
| | 5.034V | 3.28W | | 115.1V |
| **4** | **1A** | 5.025W | 85.174% | 0.323 |
| | 5.024V | 5.899W | | 115.1V |
| **5** | **1.5A** | 7.501W | 85.082% | 0.381 |
| | 5V | 8.816W | | 115.1V |
| **6** | **3A** | 14.761W | 83.576% | 0.459 |
| | 4.92V | 17.662W | | 115.1V |

### 230V

| □□ # | 5VSB | DC/AC (□ ) | □□ | PF/AC □□ |
|---|---|---|---|---|
| **1** | **0.045A** | 0.229W | 48.531% | 0.012 |
| | 5.071V | 0.472W | | 230.29V |
| **2** | **0.09A** | 0.455W | 59.091% | 0.019 |
| | 5.056V | 0.77W | | 230.29V |
| **3** | **0.55A** | 2.77W | 80.371% | 0.083 |
| | 5.036V | 3.447W | | 230.29V |
| **4** | **1A** | 5.023W | 83.236% | 0.138 |
| | 5.023V | 6.035W | | 230.29V |
| **5** | **1.5A** | 7.503W | 84.056% | 0.19 |
| | 5.002V | 8.926W | | 230.29V |
| **6** | **3A** | 14.778W | 83.959% | 0.295 |
| | 4.925V | 17.6W | | 230.29V |

## Protection Features

| | |
|---|---|
| OCP (Normal @ 29.7°C) | 12V: 105A (126.05%), 12.015V<br>5V: 22.4A (112%), 4.999V<br>3.3V: 23.6A (118%), 3.305V<br>5VSB: 3.6A (120%), 4.775V |
| OCP (Hot @ 43.5°C) | 12V: 103.2A (123.89%), 12.018V<br>5V: 22.4A (112%), 4.999V<br>3.3V: 23.3A (116.5%), 3.306V<br>5VSB: 3.6A (120%), 4.764V *High Ripple (59.72mV) |
| OPP (Normal @ 29.6°C) | 1343.13W (134.31%) |
| OPP (Hot @ 41°C) | 1295.02W (129.5%) |
| OTP | ✓ (119°C @ Primary Heatsink) |
| SCP | 12V to Earth: ✓<br>5V to Earth: ✓<br>3.3V to Earth: ✓<br>5VSB to Earth: ✓<br>-12V to Earth: ✓ |
| PWR_OK | Proper Operation |
| UVP (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)

### 10-110%□□□□

#### 115V

| □□ | 12V | 5V | 3.3V | 5VSB | DC/AC (□ ) | □□ | □□□□ (RPM) | □□□□□□□ (dB[A]) | □□ (□□ /□□ ) | PF/AC □□ |
|---|---|---|---|---|---|---|---|---|---|---|
| **10%** | **6.450A** | **1.993A** | **1.986A** | **0.998A** | 99.997 | 84.696% | 0 | <6.0 | 41.11°C | 0.974 |
| | 12.153V | 5.018V | 3.324V | 5.011V | 118.049 | | | | 40.45°C | 115.06V |
| **20%** | **13.897A** | **2.991A** | **2.981A** | **1.203A** | 199.946 | 89.91% | 0 | <6.0 | 41.11°C | 0.975 |
| | 12.164V | 5.016V | 3.321V | 4.99V | 222.367 | | | | 40.67°C | 115.02V |
| **30%** | **21.682A** | **3.49A** | **3.481A** | **1.408A** | 299.999 | 92.037% | 0 | <6.0 | 42.68°C | 0.974 |
| | 12.173V | 5.015V | 3.319V | 4.971V | 325.98 | | | | 41.11°C | 114.99V |
| **40%** | **29.443A** | **3.989A** | **3.981A** | **1.614A** | 399.546 | 92.271% | 0 | <6.0 | 42.94°C | 0.981 |
| | 12.170V | 5.014V | 3.316V | 4.958V | 433.013 | | | | 41.91°C | 114.96V |
| **50%** | **36.869A** | **4.988A** | **4.98A** | **1.82A** | 499.277 | 92.059% | 1159 | 16.7 | 42.15°C | 0.987 |
| | 12.172V | 5.013V | 3.314V | 4.945V | 542.378 | | | | 53.3°C | 114.93V |
| **60%** | **44.384A** | **5.989A** | **5.981A** | **2A** | 599.68 | 91.765% | 1155 | 16.7 | 42.73°C | 0.986 |
| | 12.166V | 5.011V | 3.311V | 4.941V | 653.515 | | | | 51.86°C | 114.88V |
| **70%** | **51.837A** | **6.99A** | **6.983A** | **2.236A** | 699.524 | 91.352% | 1153 | 16.7 | 43.24°C | 0.987 |
| | 12.161V | 5.009V | 3.308V | 4.919V | 765.728 | | | | 52.31°C | 114.85V |
| **80%** | **59.357A** | **7.989A** | **7.986A** | **2.341A** | 799.516 | 90.781% | 1820 | 32.3 | 43.75°C | 0.987 |
| | 12.157V | 5.006V | 3.305V | 4.913V | 880.682 | | | | 50.4°C | 114.81V |
| **90%** | **67.237A** | **8.491A** | **8.477A** | **2.446A** | 899.3 | 90.165% | 1938 | 34.7 | 43.46°C | 0.988 |
| | 12.149V | 5.005V | 3.303V | 4.906V | 997.351 | | | | 49.67°C | 114.77V |
| **100%** | **75.028A** | **8.995A** | **8.997A** | **3.081A** | 999.178 | 89.916% | 2604 | 42.7 | 45.16°C | 0.987 |
| | 12.122V | 5.002V | 3.301V | 4.868V | 1111.249 | | | | 52.02°C | 114.73V |
| **110%** | **83.274A** | **10.018A** | **10.132A** | **3.072A** | 1099.826 | 88.325% | 3159 | 47.7 | 46.92°C | 0.983 |
| | 12.027V | 4.99V | 3.286V | 4.884V | 1245.229 | | | | 48.54°C | 114.69V |
| **CL1** | **0.115A** | **12.022A** | **11.967A** | **0A** | 101.287 | 81.922% | 0 | <6.0 | 41.83°C | 0.974 |
| | 12.177V | 5.007V | 3.317V | 5.036V | 123.823 | | | | 40.99°C | 115.06V |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **CL2** | **0.114A** | **19.998A** | **0A** | **0A** | 101.373 | 79.447% | 1157 | 16.7 | 42.43°C | 0.977 |
| | 12.187V | 5V | 3.323V | 5.041V | 127.597 | | | | 48.12°C | 115.06V |
| **CL3** | **0.113A** | **0A** | **19.921A** | **0A** | 67.38 | 77.038% | 1150 | 16.6 | 41.32°C | 0.955 |
| | 12.190V | 5.019V | 3.313V | 5.041V | 87.584 | | | | 45.41°C | 115.07V |
| **CL4** | **82.379A** | **0A** | **0A** | **0A** | 999.883 | 90.203% | 2605 | 42.7 | 45.25°C | 0.987 |
| | 12.137V | 5.015V | 3.307V | 5.02V | 1108.497 | | | | 51.74°C | 114.72V |

The results above are not used in the certification process

## 230V

| □□ | **12V** | **5V** | **3.3V** | **5VSB** | **DC/AC (□ )** | □□ | □□□□ **(RPM)** | □□□□□□□ **(dB[A])** | □□ **(□□ /□□ )** | **PF/AC □□** |
|---|---|---|---|---|---|---|---|---|---|---|
| **10%** | **6.488A** | **1.996A** | **1.991A** | **0.995A** | 99.993 | 85.766% | 0 | <6.0 | 47.81°C | 0.846 |
| | 12.082V | 5.011V | 3.316V | 5.027V | 116.591 | | | | 40.13°C | 230.28V |
| **20%** | **13.986A** | **2.995A** | **2.989A** | **1.196A** | 199.941 | 90.842% | 0 | <6.0 | 47.94°C | 0.923 |
| | 12.086V | 5.008V | 3.312V | 5.015V | 220.107 | | | | 40.59°C | 230.26V |
| **30%** | **21.832A** | **3.495A** | **3.49A** | **1.402A** | 299.988 | 93.198% | 0 | <6.0 | 50.91°C | 0.941 |
| | 12.089V | 5.007V | 3.31V | 4.993V | 321.892 | | | | 41.16°C | 230.25V |
| **40%** | **29.655A** | **3.996A** | **3.991A** | **1.607A** | 399.528 | 93.567% | 0 | <6.0 | 52.55°C | 0.947 |
| | 12.083V | 5.006V | 3.307V | 4.979V | 427.004 | | | | 41.83°C | 230.24V |
| **50%** | **37.153A** | **4.997A** | **4.994A** | **1.812A** | 499.23 | 93.46% | 1160 | 16.7 | 42.45°C | 0.952 |
| | 12.078V | 5.004V | 3.304V | 4.968V | 534.146 | | | | 46.82°C | 230.22V |
| **60%** | **44.737A** | **6A** | **5.998A** | **2A** | 599.668 | 93.37% | 1165 | 16.9 | 42.67°C | 0.952 |
| | 12.069V | 5.001V | 3.301V | 4.959V | 642.204 | | | | 45.82°C | 230.21V |
| **70%** | **52.259A** | **7.003A** | **7.005A** | **2.228A** | 699.482 | 93.107% | 1169 | 17 | 43.44°C | 0.956 |
| | 12.062V | 4.999V | 3.298V | 4.938V | 751.189 | | | | 46.04°C | 230.19V |
| **80%** | **59.860A** | **8.005A** | **8.012A** | **2.333A** | 799.487 | 92.679% | 1958 | 35.1 | 43.64°C | 0.958 |
| | 12.055V | 4.996V | 3.295V | 4.93V | 862.589 | | | | 46.22°C | 230.17V |
| **90%** | **67.813A** | **8.508A** | **8.504A** | **2.439A** | 899.293 | 92.241% | 2643 | 43.4 | 44.34°C | 0.961 |
| | 12.045V | 4.995V | 3.292V | 4.921V | 974.935 | | | | 45.61°C | 230.15V |
| **100%** | **75.572A** | **9.012A** | **9.028A** | **3.072A** | 999.303 | 91.811% | 2639 | 43.3 | 45.45°C | 0.962 |
| | 12.037V | 4.993V | 3.289V | 4.884V | 1088.433 | | | | 45.63°C | 230.13V |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **110%** | **83.271A** | **10.018A** | **10.132A** | **3.075A** | 1099.9 | 91.316% | 3449 | 51.5 | 46.84°C | 0.963 |
| | 12.028V | 4.99V | 3.286V | 4.879V | 1204.504 | | | | 44.76°C | 230.12V |
| **CL1** | **0.116A** | **12.042A** | **12.005A** | **0A** | 101.293 | 82.124% | 1194 | 18.1 | 40.87°C | 0.834 |
| | 12.086V | 4.999V | 3.306V | 5.056V | 123.365 | | | | 43.75°C | 230.28V |
| **CL2** | **0.115A** | **20.023A** | **0A** | **0A** | 101.368 | 80.769% | 1176 | 17.3 | 40.84°C | 0.836 |
| | 12.086V | 4.993V | 3.317V | 5.06V | 125.606 | | | | 42.38°C | 230.28V |
| **CL3** | **0.115A** | **0A** | **19.991A** | **0A** | 67.381 | 77.578% | 1162 | 16.8 | 40.73°C | 0.763 |
| | 12.050V | 5.012V | 3.301V | 5.056V | 86.947 | | | | 40.87°C | 230.28V |
| **CL4** | **83.043A** | **0A** | **0A** | **0A** | 999.874 | 92.598% | 2646 | 43.4 | 45.45°C | 0.961 |
| | 12.040V | 5.005V | 3.299V | 5.029V | 1079.804 | | | | 47.89°C | 230.13V |

The results above are not used in the certification process

## 20-80□□□□□

### 115V

| □□ | **12V** | **5V** | **3.3V** | **5VSB** | **DC/AC (□ )** | □□ | □□□□ **(RPM)** | □□□□□□□□ **(dB[A])** | □□ **(□□ /□□ )** | **PF/AC □□** |
|---|---|---|---|---|---|---|---|---|---|---|
| **20W** | **1.234A** | **0.498A** | **0.496A** | **0.199A** | 20 | 75.342% | 0 | <6.0 | 38.81°C | 0.825 |
| | 12.043V | 5.018V | 3.325V | 5.036V | 26.698 | | | | 36.07°C | 115.09V |
| **40W** | **2.704A** | **0.698A** | **0.695A** | **0.298A** | 40 | 82.137% | 0 | <6.0 | 38.98°C | 0.923 |
| | 12.087V | 5.018V | 3.325V | 5.034V | 48.869 | | | | 37.41°C | 115.08V |
| **60W** | **4.164A** | **0.897A** | **0.893A** | **0.398A** | 60 | 84.591% | 0 | <6.0 | 39.34°C | 0.953 |
| | 12.134V | 5.019V | 3.325V | 5.03V | 70.998 | | | | 38.49°C | 115.07V |
| **80W** | **5.636A** | **1.096A** | **1.092A** | **0.497A** | 79.945 | 86.347% | 0 | <6.0 | 40.62°C | 0.963 |
| | 12.123V | 5.019V | 3.324V | 5.027V | 92.538 | | | | 39.16°C | 115.06V |

The results above are not used in the certification process

## 230V

| □□ | 12V | 5V | 3.3V | 5VSB | DC/AC (□ ) | □□ | □□□□ (RPM) | □□□□□□□ (dB[A]) | □□ (□□ /□□ ) | PF/AC □□ |
|---|---|---|---|---|---|---|---|---|---|---|
| **20W** | **1.238A** | **0.499A** | **0.497A** | **0.198A** | 20.001 | 75.55% | 0 | <6.0 | 38.31°C | 0.389 |
| | 12.000V | 5.01V | 3.317V | 5.054V | 26.298 | | | | 36.71°C | 230.29V |
| **40W** | **2.714A** | **0.699A** | **0.697A** | **0.297A** | 40 | 82.611% | 0 | <6.0 | 40.65°C | 0.592 |
| | 12.042V | 5.01V | 3.317V | 5.051V | 48.532 | | | | 37.31°C | 230.29V |
| **60W** | **4.186A** | **0.898A** | **0.895A** | **0.396A** | 59.999 | 85.247% | 0 | <6.0 | 41.2°C | 0.724 |
| | 12.073V | 5.011V | 3.317V | 5.047V | 70.384 | | | | 38.32°C | 230.28V |
| **80W** | **5.672A** | **1.098A** | **1.094A** | **0.496A** | 79.941 | 87.316% | 0 | <6.0 | 42.45°C | 0.801 |
| | 12.043V | 5.011V | 3.316V | 5.045V | 91.61 | | | | 39.24°C | 230.28V |

The results above are not used in the certification process

## □□□□

## 115V

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 42.59mV | 11.80mV | 9.77mV | 20.44mV | Pass |
| 20% Load | 33.77mV | 11.59mV | 10.39mV | 22.50mV | Pass |
| 30% Load | 55.27mV | 13.34mV | 11.27mV | 20.39mV | Pass |
| 40% Load | 35.52mV | 14.94mV | 10.34mV | 19.92mV | Pass |
| 50% Load | 34.34mV | 16.38mV | 10.60mV | 21.52mV | Pass |
| 60% Load | 34.18mV | 20.45mV | 17.07mV | 26.94mV | Pass |
| 70% Load | 36.40mV | 18.91mV | 15.41mV | 25.24mV | Pass |
| 80% Load | 38.00mV | 19.89mV | 13.55mV | 23.18mV | Pass |
| 90% Load | 38.51mV | 18.65mV | 11.38mV | 20.80mV | Pass |
| 100% Load | 39.51mV | 19.81mV | 11.13mV | 18.73mV | Pass |
| 110% Load | 44.9mV | 22.94mV | 15.9mV | 23.94mV | Pass |
| Crossload1 | 38.93mV | 12.80mV | 10.93mV | 7.68mV | Pass |
| Crossload2 | 42.89mV | 14.79mV | 10.14mV | 8.88mV | Pass |

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| Crossload3 | 42.26mV | 14.84mV | 11.32mV | 8.36mV | Pass |
| Crossload4 | 38.88mV | 18.45mV | 10.29mV | 9.97mV | Pass |

The results above are not used in the certification process

**230V**

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 34.18mV | 13.14mV | 11.12mV | 19.72mV | Pass |
| 20% Load | 37.17mV | 12.37mV | 11.17mV | 19.93mV | Pass |
| 30% Load | 45.83mV | 14.58mV | 11.69mV | 23.33mV | Pass |
| 40% Load | 38.72mV | 15.20mV | 12.20mV | 21.63mV | Pass |
| 50% Load | 39.18mV | 18.55mV | 16.70mV | 21.78mV | Pass |
| 60% Load | 38.57mV | 19.01mV | 15.31mV | 25.70mV | Pass |
| 70% Load | 38.41mV | 19.42mV | 12.62mV | 30.76mV | Pass |
| 80% Load | 39.91mV | 18.65mV | 12.98mV | 27.31mV | Pass |
| 90% Load | 43.77mV | 19.99mV | 13.08mV | 25.34mV | Pass |
| 100% Load | 44.47mV | 20.50mV | 13.36mV | 22.86mV | Pass |
| 110% Load | 44.73mV | 21.20mV | 14.09mV | 22.99mV | Pass |
| Crossload1 | 24.60mV | 13.95mV | 12.10mV | 8.48mV | Pass |
| Crossload2 | 37.33mV | 15.71mV | 12.26mV | 9.55mV | Pass |
| Crossload3 | 20.73mV | 15.20mV | 13.14mV | 9.09mV | Pass |
| Crossload4 | 44.24mV | 20.74mV | 13.14mV | 12.48mV | Pass |

The results above are not used in the certification process

## FSP Technology DAGGER PM 1000W



Top side




Power specifications label




Fan



PSU Internals

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