# XPG KYBER 750

Serial Number 4N1581013144

Lab ID AD75002221

Certification ID 252221

Test Result Report ID: 23PS2221A

Certificate Issue Date: Aug 18, 2023

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 | XPG |
| Model | KYBER 750 |
| OEM/ODM | CWT |
| Serial Number | 4N1581013144 |
| Product Specifications | |
| Manufacturer-Provided Information | |
| Rated Voltage (Vrms) | 100-240 |
| Rated Current (Arms) | 10 |

| | |
|---|---|
| Rated Frequency (Hz) | 47-63 |
| Rated Power (W) | 750 |
| Operating Temperature (Continuous Full Load) (°C) | |
| Type | ATX12V |
| Cable Design | Fixed cables |
| Warranty | - |
| Cybenetics Measurements | |
| Dimensions (W x H x D) | |
| Weight | |
| Cooling | 120mm Fluid Dynamic Bearing Fan<br>(DF1202512FDHN) |
| Semi-Passive Operation | ✗ |
| Cybenetics Testing Information | |
| Lab ID | AD75002221 |
| Date of receipt | Aug 3, 2023 |
| Testing Date | Aug 17, 2023 |
| Report Issued Date | Aug 18, 2023 |
| Engineer Name | - |
| Authorized By the Laboratory Technical Manager | Aristeidis Bitziopoulos |
| Signature |  |

## Cables and Connectors(Non-accredited measurements)

| Captive Cables | | | | |
|---|---|---|---|---|
| Description | Cable Count | Connector Count (Total) | Gauge | In Cable Capacitors |
| ATX connector 20+4 pin (650mm) | 1 | 1 | 18-20AWG | No |
| 8 pin EPS12V (670mm) / 4+4 EPS12V (150mm) | 1 | 1 / 1 | 18AWG | No |
| 6+2 pin PCIe (600mm+150mm) | 1 | 2 | 18AWG | No |
| 12+4 pin PCIe (600mm) (600W) | 1 | 1 | 16-26AWG | No |
| SATA (450mm+150mm+150mm) / 4-pin Molex (150mm) | 2 | 6 / 2 | 18AWG | No |
| Modular Cables | | | | |
| AC Power Cord (1400mm) - C13 coupler | 1 | 1 | 18AWG | - |

## Power Specifications

| Rail | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| Max. Power | Amps | 20 | 20 | 62.5 | 3 | 0.3 |
| | Watts | 110 | | 750 | 15 | 3.6 |
| Total Max. Power (W) | | 750 | | | | |

## Parts Description

| | |
|---|---|
| General Data | - |
| Manufacturer (OEM) | CWT |
| PCB Type | Single-Side |
| Primary Side | - |
| Transient Filter | 2x Y caps, 2x X caps, 2x CM chokes, 1x MOV |
| Inrush Protection | NTC Thermistor SCK-056 5Ohm & Relay |
| Bridge Rectifier(s) | 1x  GBU15005 (600V, 15A @ 100°C) |
| APFC MOSFETs | 2x Wayon WML28N50C4 (500V, 16A , Rds(on): 0.125Ohm) &<br>1x Syncpower SPN5003 FET (for reduced the no-load consumption) |
| APFC Boost Diode | 1x CRMICRO CRXI06D065G2(600V, 6A @ 167°C) |
| Bulk Cap(s) | 1x Teapo (400V, 560uF, 2000h @ 85°C, LH) |
| Main Switchers | 4x Silan Microelectroinics SVF20N50F (500V, 12.6A @ 100°C, Rds(on): 0.27Ohm) |
| APFC Controller | 1x Champion CM6500UNX |
| Resonant Controller | Champion CM6901X |
| Topology | Primary side: APFC, Full-Bridge & LLC converter<br>Secondary side: Synchronous Rectification & DC-DC converters |
| Secondary Side | - |
| +12V MOSFETs | 6x Infineon BSC014N04LS (40V, 100A @ 100°C, Rds(on): 1.4mOhm) |
| 5V & 3.3V | DC-DC Converters: 4x InfineonSPN3006 (30V, 57A @ 100°C, Rds(on): 5.5mOhm)<br>PWM Controller(s): APW7159C |
| Filtering Capacitors | Electrolytic: 11x Chengx (2-3,000h @ 105°C ,GR)<br>Polymer: 14x CapXon |
| Supervisor IC | IN1S313I-DAG |
| Fan Model | Martech DF1202512FDHN (120mm, 12V, 0.42A, Fluid Dynamic Bearing Fan) |
| 5VSB Circuit | - |

| | |
|---|---|
| Standby PWM Controller | Power Integrations TNY290 |

# 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) | 88.915% |
| Average Noise Output (>1450 Load Combinations) | 29.50dBA |
| Average PF (>1450 Load Combinations) | 0.977 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 65.565% |
| Standby Power Consumption | 0.0449W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 40.73mV |
| 5V Ripple (Full Load) | 22.01mV |
| 3.3V Ripple (Full Load) | 21.39mV |
| 5VSB Ripple (Full Load) | 39.18mV |
| 12V Load Regulation | 0.49% |
| 5V Load Regulation | 0.56% |
| 3.3V Load Regulation | 0.64% |
| 5VSB Load Regulation | 3.57% |
| Inrush Current | 33.610A |

## 230V

| | | |
|---|---|---|
| Accredited | | |
| Average Efficiency (>1450 load combinations) | | 91.051% |
| Average Noise Output (>1450 Load Combinations) | | 29.00dBA |
| Average PF (>1450 Load Combinations) | | 0.932 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | | 64.598% |
| Standby Power Consumption | | 0.0999W |
| Non-Accredited | | |
| 12V Ripple (Full Load) | | 40.50mV |
| 5V Ripple (Full Load) | | 22.29mV |
| 3.3V Ripple (Full Load) | | 23.25mV |
| 5VSB Ripple (Full Load) | | 37.81mV |
| 12V Load Regulation | | 0.49% |
| 5V Load Regulation | | 0.54% |
| 3.3V Load Regulation | | 0.61% |
| 5VSB Load Regulation | | 3.55% |
| Inrush Current | | 70.530A |
| 12V Transient Response (200%) | | 11.47V |
| 5V Transient Response (200%) | | 4.911V |
| 3.3V Transient Response (200%) | | 3.180V |
| 5VSB Transient Response (200%) | | 4.932V |
| Hold-Up Time & PWR_OK Signal | | 15.30ms |
| AC Loss to PWR_OK Hold Up Time | | 13.70ms |
| PWR_OK Inactive to DC Loss Delay | | 1.60ms |
| PSU Timings: T1 (20% / 100%) | 48.0ms | 48.0ms |
| PSU Timings: T3 (20% / 100%) | 115.0ms | 115.0ms |
| OPP (29.98°C / 37.65°C) | 137.36% | 129.09% |

## Hold-Up Time & PWR_OK Signal

| | |
|---|---|
| Hold-Up Time (ms) | 15.3 |
| AC Loss to PWR_OK Hold Up Time (ms) | 13.7 |
| PWR_OK Inactive to DC Loss Delay (ms) | 1.6 |



### Tables

#### 115V

| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 114.88 V | 114.82 V | 113.85 V | 114.94 V | 116.15 V | PASS |
| Mains Frequency: | 60.01 Hz | 59.99 Hz | 59.40 Hz | 60.03 Hz | 60.60 Hz | PASS |
| Mains Voltage CF: | 1.419 | 1.417 | 1.340 | 1.422 | 1.490 | PASS |
| Mains Voltage THD: | 0.15 % | 0.09 % | N/A | 0.28 % | 2.00 % | PASS |
| Real Power: | 0.045 W | 0.025 W | N/A | 0.067 W | N/A | N/A |
| Apparent Power: | 11.583 W | 11.559 W | N/A | 11.614 W | N/A | N/A |
| Power Factor: | 0.004 | N/A | N/A | N/A | N/A | N/A |

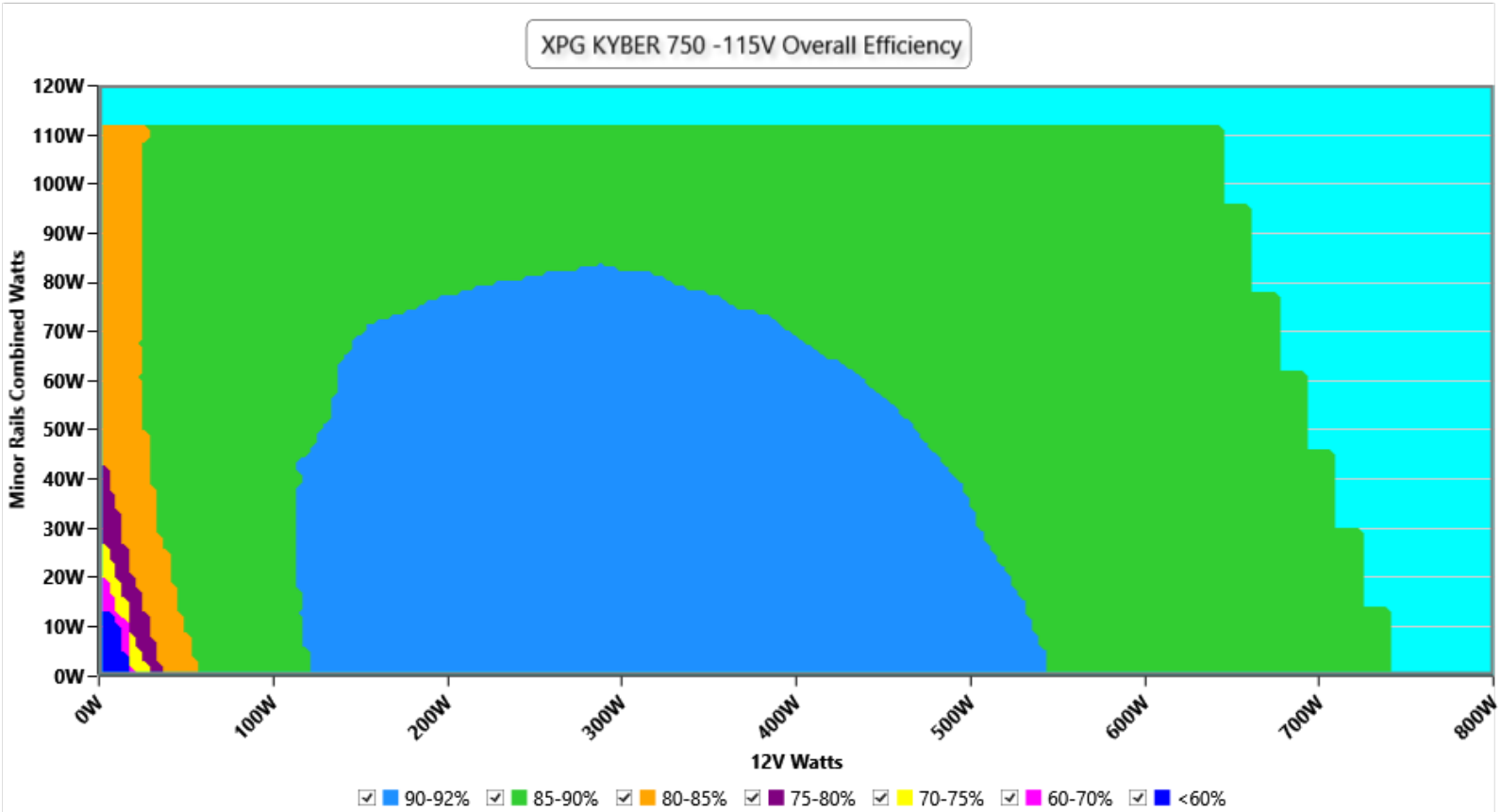
#### 230V

| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 229.95 V | 229.87 V | 227.70 V | 230.02 V | 232.30 V | PASS |
| Mains Frequency: | 50.00 Hz | 49.99 Hz | 49.50 Hz | 50.01 Hz | 50.50 Hz | PASS |
| Mains Voltage CF: | 1.417 | 1.416 | 1.340 | 1.419 | 1.490 | PASS |
| Mains Voltage THD: | 0.17 % | 0.14 % | N/A | 0.23 % | 2.00 % | PASS |
| Real Power: | 0.100 W | 0.064 W | N/A | 0.157 W | N/A | N/A |
| Apparent Power: | 40.016 W | 39.974 W | N/A | 40.070 W | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| Power Factor: | 0.003 | N/A | N/A | N/A | N/A | N/A |

## Efficiency Graph

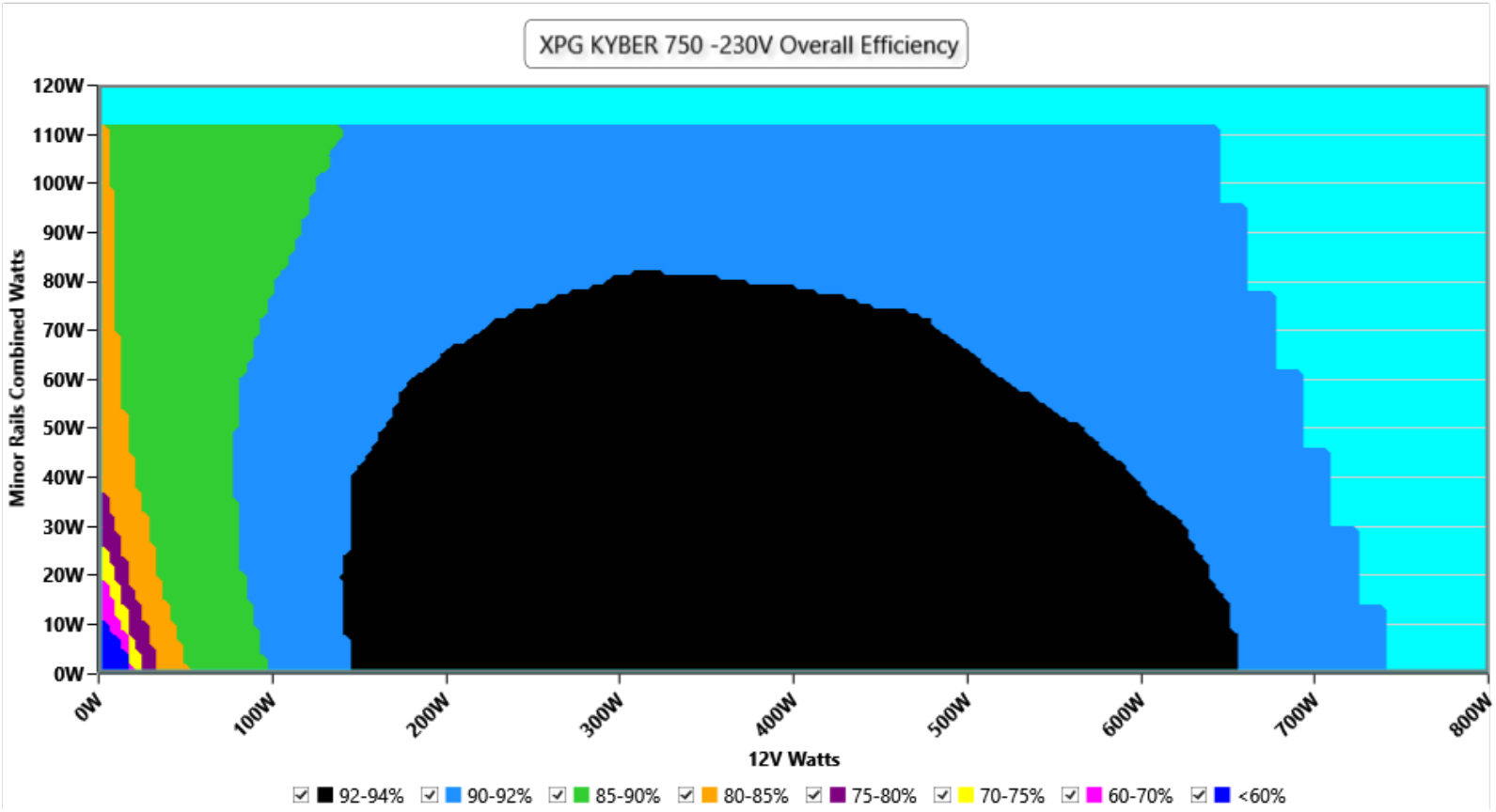
**115V**




**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

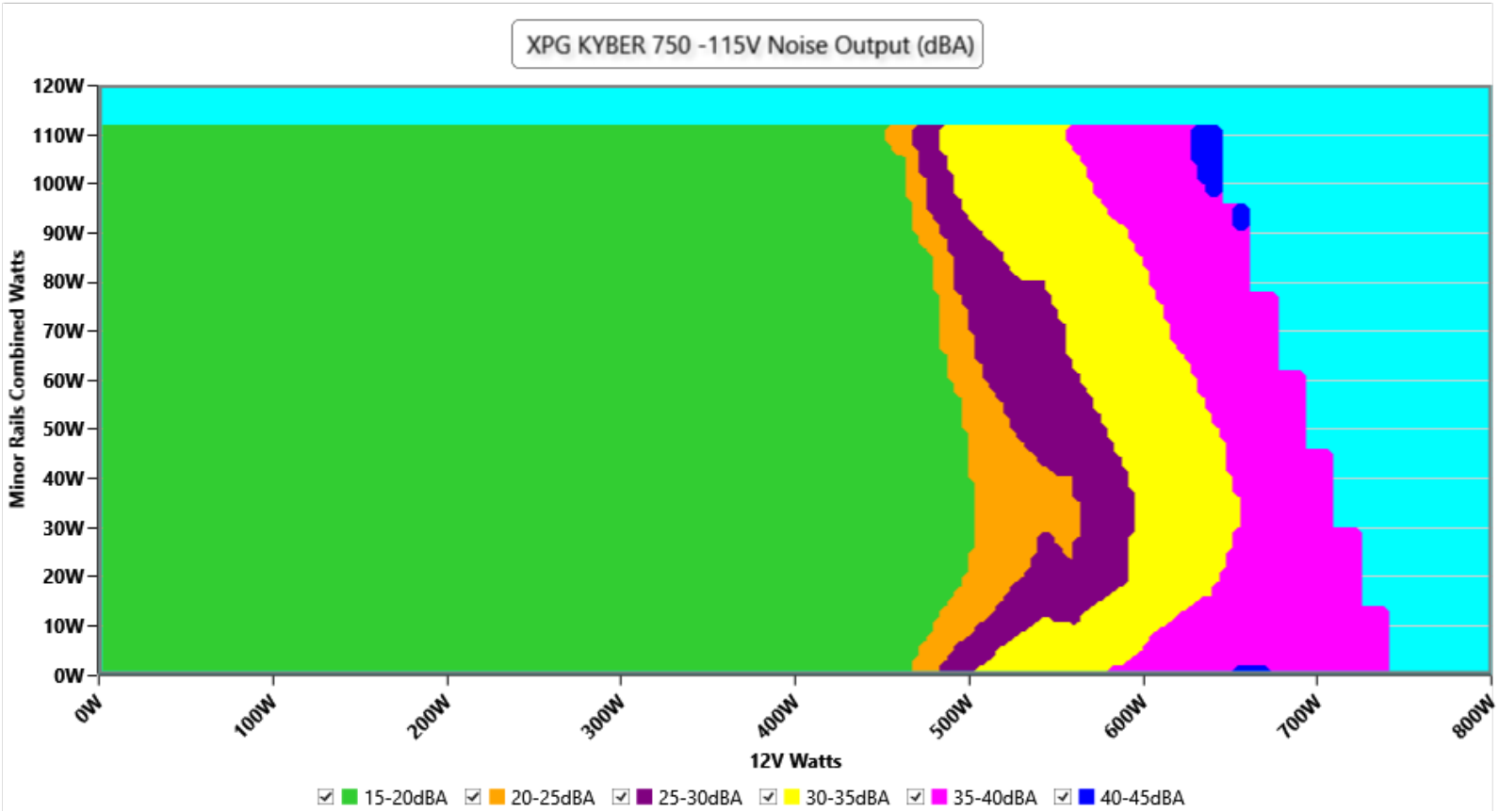



### INFO

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

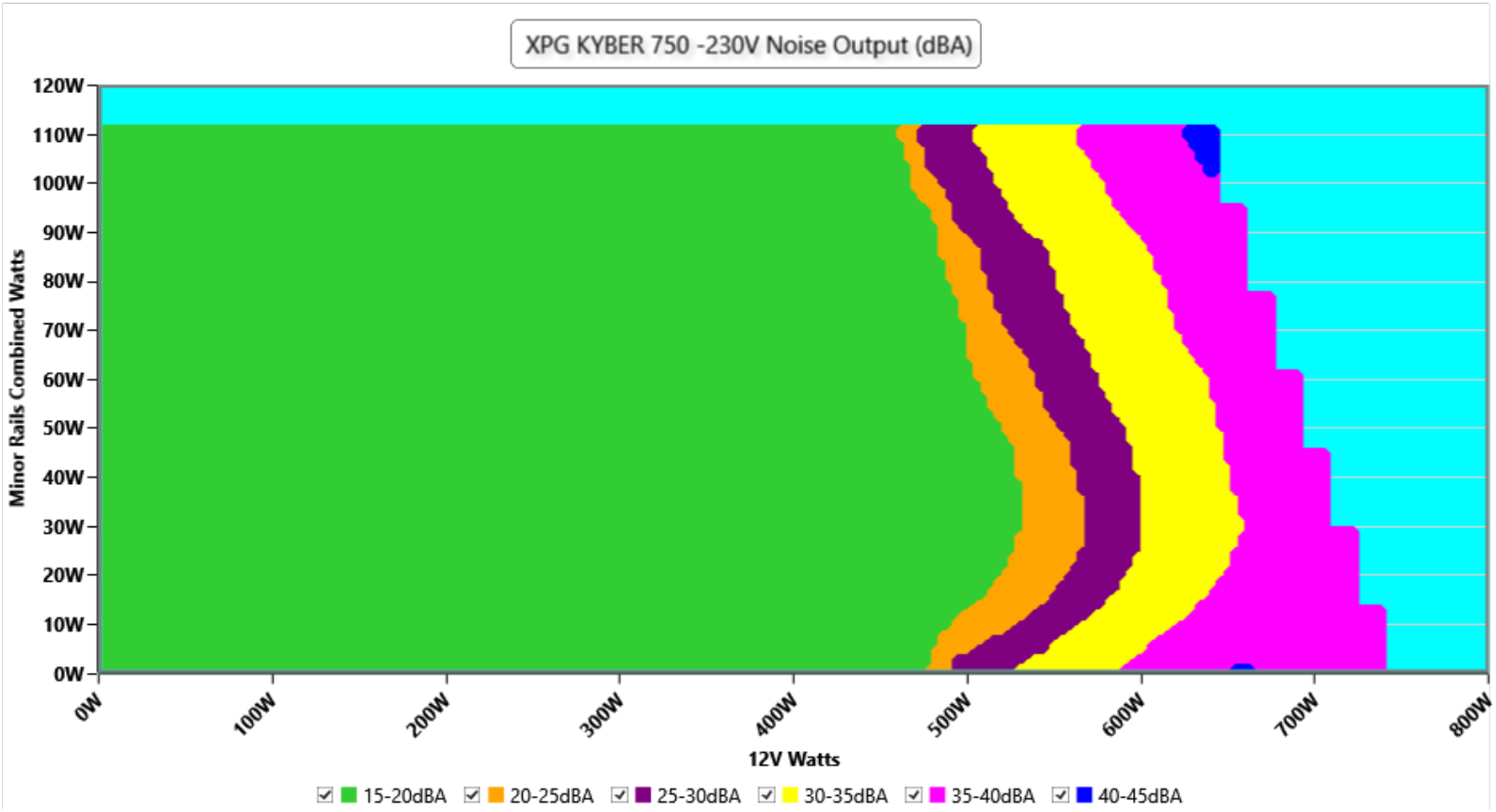
**115V**




**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% | 861 RPM · 19.1 dB(A) · 34.3 °C | 861 RPM · 19.1 dB(A) · 34.3 °C | **+0.0 dB(A)** |
| 20% | 866 RPM · 19.2 dB(A) · 34.6 °C | 866 RPM · 19.2 dB(A) · 34.6 °C | **+0.0 dB(A)** |
| 50% | 879 RPM · 19.4 dB(A) · 36.4 °C | 879 RPM · 19.4 dB(A) · 36.4 °C | **+0.0 dB(A)** |
| 100% | 2332 RPM · 46.1 dB(A) · 39.3 °C | 2332 RPM · 46.1 dB(A) · 39.3 °C | **+0.0 dB(A)** |

### 230V

| Load | Normal ambient<br>fan · noise · intake | High ambient<br>fan · noise · intake | Noise change |
|---|---|---|---|
| 10% | 860 RPM · 19.0 dB(A) · 34.1 °C | 860 RPM · 19.0 dB(A) · 34.1 °C | **+0.0 dB(A)** |
| 20% | 864 RPM · 19.2 dB(A) · 34.7 °C | 864 RPM · 19.2 dB(A) · 34.7 °C | **+0.0 dB(A)** |
| 50% | 877 RPM · 19.4 dB(A) · 36.3 °C | 877 RPM · 19.4 dB(A) · 36.3 °C | **+0.0 dB(A)** |
| 100% | 2331 RPM · 46.1 dB(A) · 39.1 °C | 2331 RPM · 46.1 dB(A) · 39.1 °C | **+0.0 dB(A)** |

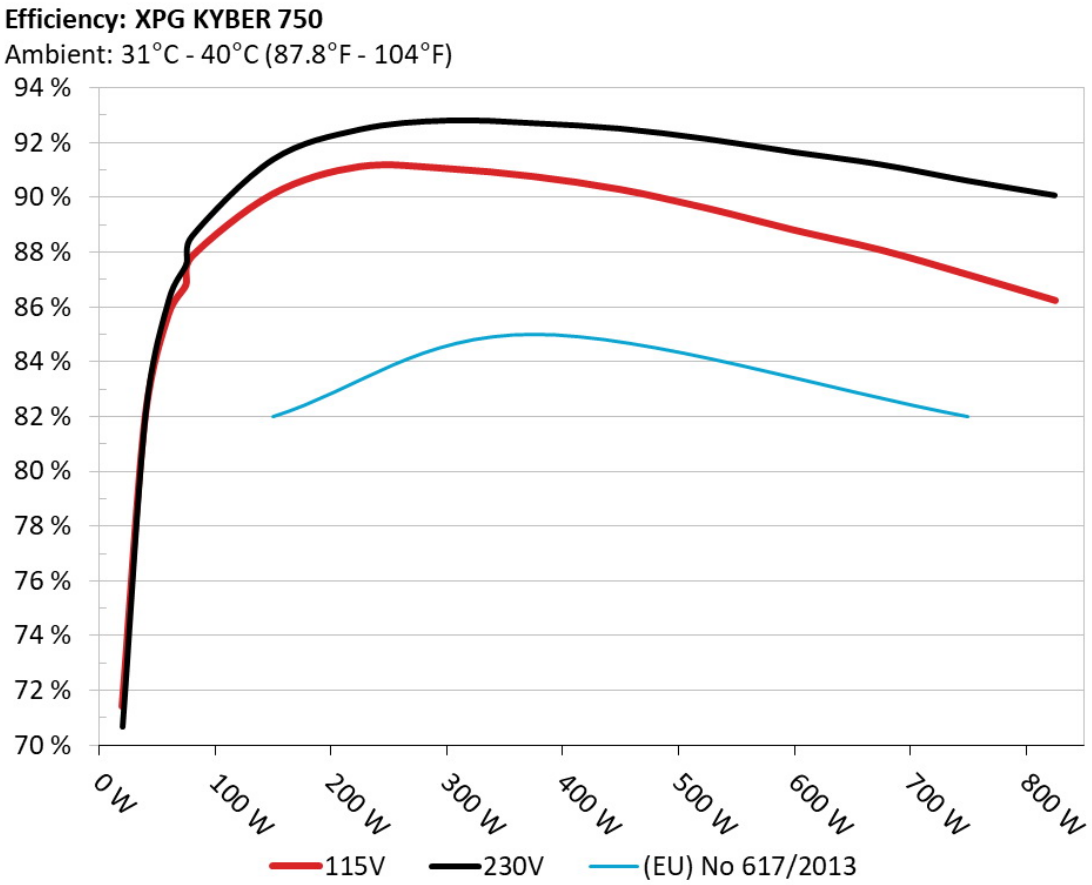
### INFO

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, with the fan stopped; 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

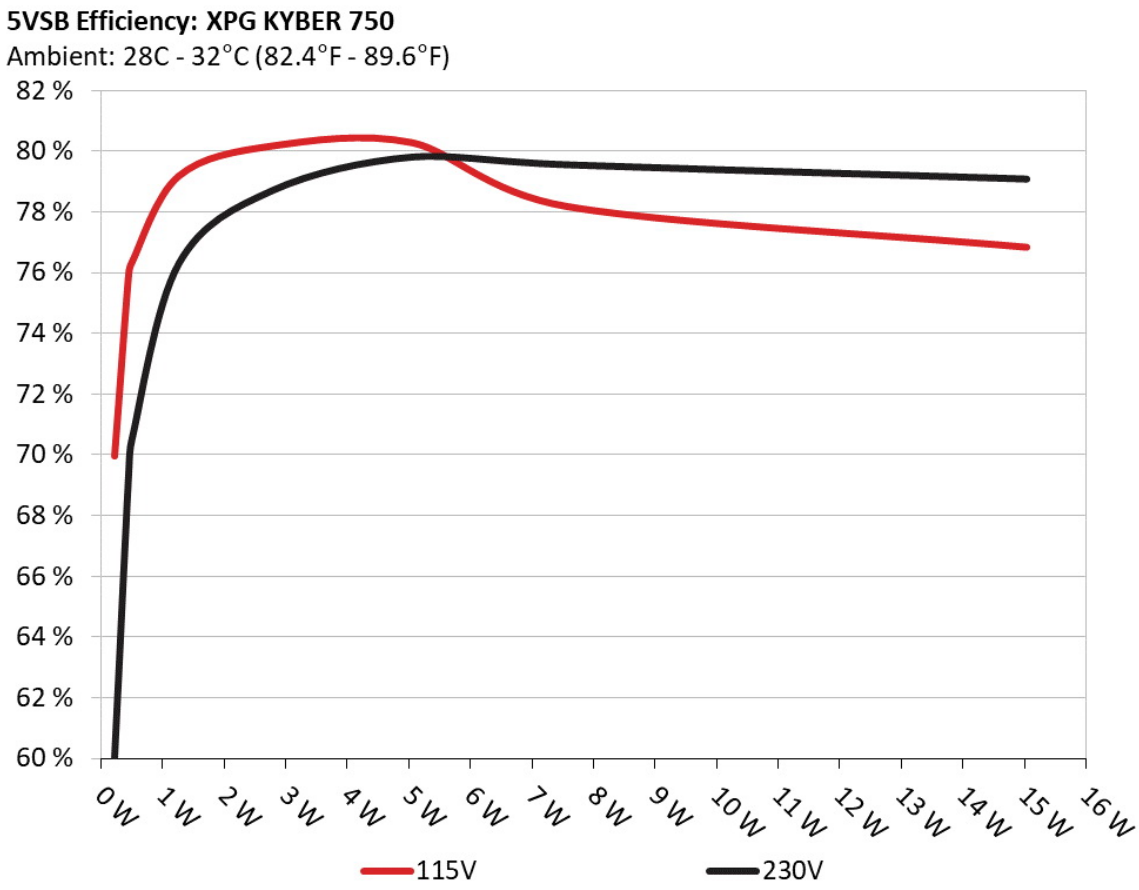
### Efficiency under high ambient temperature




**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 | 0.229W | 69.968% | 0.03 |
| | 5.087V | 0.312W | | 114.93V |
| 2 | 0.09A | 0.458W | 75.974% | 0.058 |
| | 5.086V | 0.603W | | 114.92V |
| 3 | 0.55A | 2.791W | 80.184% | 0.262 |
| | 5.075V | 3.481W | | 114.91V |
| 4 | 1A | 5.064W | 80.291% | 0.347 |
| | 5.064V | 6.307W | | 114.91V |
| 5 | 1.5A | 7.578W | 78.189% | 0.408 |
| | 5.052V | 9.692W | | 114.91V |
| 6 | 3A | 15.042W | 76.846% | 0.479 |
| | 5.014V | 19.574W | | 114.9V |

### 230V

| Test # | 5VSB | DC/AC (Watts) | Efficiency | PF/AC Volts |
|---|---|---|---|---|
| 1 | 0.045A | 0.229W | 60.053% | 0.011 |
| | 5.087V | 0.382W | | 229.88V |
| 2 | 0.09A | 0.458W | 69.406% | 0.019 |
| | 5.086V | 0.66W | | 229.88V |
| 3 | 0.55A | 2.791W | 78.687% | 0.098 |
| | 5.074V | 3.548W | | 229.88V |
| 4 | 1A | 5.063W | 79.79% | 0.164 |
| | 5.063V | 6.346W | | 229.88V |
| 5 | 1.5A | 7.579W | 79.535% | 0.209 |
| | 5.052V | 9.528W | | 229.88V |
| 6 | 3A | 15.039W | 79.064% | 0.32 |
| | 5.013V | 19.021W | | 229.88V |

## 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% | 4.412A | 1.996A | 2.007A | 0.99A | 75.002 | 86.79% | 861 | 19.1 | 34.32°C | 0.951 |
| | 12.105V | 5.01V | 3.289V | 5.053V | 86.419 | | | | 38.54°C | 114.89V |
| 20% | 9.838A | 2.996A | 3.012A | 1.191A | 149.943 | 90.108% | 866 | 19.2 | 34.62°C | 0.97 |
| | 12.099V | 5.007V | 3.287V | 5.039V | 166.404 | | | | 39.23°C | 114.86V |
| 30% | 15.620A | 3.497A | 3.516A | 1.393A | 224.948 | 91.109% | 869 | 19.3 | 35.2°C | 0.979 |
| | 12.093V | 5.005V | 3.285V | 5.024V | 246.899 | | | | 40.13°C | 114.84V |
| 40% | 21.412A | 3.998A | 4.02A | 1.597A | 300.034 | 91.036% | 874 | 18.8 | 35.65°C | 0.978 |
| | 12.088V | 5.003V | 3.284V | 5.009V | 329.574 | | | | 41.14°C | 114.81V |
| 50% | 26.813A | 5.001A | 5.029A | 1.803A | 374.454 | 90.747% | 879 | 19.4 | 36.37°C | 0.98 |
| | 12.082V | 5V | 3.281V | 4.993V | 412.635 | | | | 42.2°C | 114.79V |
| 60% | 32.259A | 6.004A | 6.037A | 2A | 449.332 | 90.277% | 884 | 19.5 | 36.69°C | 0.979 |
| | 12.077V | 4.997V | 3.28V | 4.977V | 497.726 | | | | 43.15°C | 114.76V |
| 70% | 37.712A | 7.007A | 7.046A | 2.218A | 524.308 | 89.59% | 1110 | 26.6 | 37.3°C | 0.98 |
| | 12.070V | 4.996V | 3.279V | 4.959V | 585.233 | | | | 44.34°C | 114.72V |
| 80% | 43.240A | 8.002A | 8.059A | 2.325A | 599.449 | 88.792% | 1528 | 35.8 | 37.71°C | 0.982 |
| | 12.063V | 4.992V | 3.276V | 4.946V | 675.118 | | | | 45.57°C | 114.7V |
| 90% | 49.111A | 8.518A | 8.555A | 2.433A | 674.536 | 88.064% | 1919 | 42.1 | 38.35°C | 0.983 |
| | 12.055V | 4.989V | 3.273V | 4.932V | 765.962 | | | | 47.19°C | 114.67V |
| 100% | 54.787A | 9.024A | 9.082A | 3.058A | 749.757 | 87.162% | 2332 | 46.1 | 39.3°C | 0.985 |
| | 12.048V | 4.986V | 3.271V | 4.905V | 860.189 | | | | 48.96°C | 114.64V |
| 110% | 60.332A | 10.033A | 10.189A | 3.066A | 824.778 | 86.224% | 2333 | 46.1 | 40.49°C | 0.986 |
| | 12.041V | 4.983V | 3.268V | 4.893V | 956.552 | | | | 51.33°C | 114.6V |
| CL1 | 0.116A | 13.266A | 13.335A | 0A | 111.293 | 84.133% | 900 | 19.7 | 34.22°C | 0.966 |
| | 12.100V | 4.989V | 3.277V | 5.061V | 132.283 | | | | 41.57°C | 114.87V |

| Test | 12V | 5V | 3.3V | 5VSB | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|---|---|---|---|---|---|---|---|---|---|---|
| CL2 | 0.114A | 20.017A | 0A | 0.001A | 101.342 | 82.502% | 897 | 19.6 | 34.95°C | 0.963 |
| | 12.104V | 4.993V | 3.291V | 5.067V | 122.836 | | | | 40.42°C | 114.87V |
| CL3 | 0.115A | 0A | 20.099A | 0A | 67.415 | 77.268% | 878 | 19.1 | 34.71°C | 0.953 |
| | 12.104V | 5.015V | 3.284V | 5.068V | 87.248 | | | | 39.49°C | 114.89V |
| CL4 | 62.192A | 0A | 0A | 0.001A | 749.699 | 87.904% | 2323 | 46.0 | 39.06°C | 0.985 |
| | 12.055V | 5.009V | 3.287V | 4.992V | 852.859 | | | | 47.49°C | 114.64V |

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% | 4.412A | 1.996A | 2.006A | 0.99A | 75 | 87.551% | 860 | 19.0 | 34.14°C | 0.801 |
| | 12.105V | 5.011V | 3.289V | 5.053V | 85.664 | | | | 38.43°C | 229.87V |
| 20% | 9.838A | 2.996A | 3.012A | 1.191A | 149.936 | 91.372% | 864 | 19.2 | 34.72°C | 0.894 |
| | 12.099V | 5.007V | 3.287V | 5.039V | 164.094 | | | | 39.31°C | 229.86V |
| 30% | 15.620A | 3.497A | 3.516A | 1.393A | 224.939 | 92.464% | 869 | 19.3 | 35.15°C | 0.927 |
| | 12.093V | 5.005V | 3.285V | 5.025V | 243.272 | | | | 40.02°C | 229.84V |
| 40% | 21.412A | 3.998A | 4.02A | 1.597A | 300.023 | 92.79% | 873 | 19.3 | 35.74°C | 0.94 |
| | 12.088V | 5.003V | 3.284V | 5.01V | 323.336 | | | | 41.18°C | 229.83V |
| 50% | 26.812A | 5.001A | 5.029A | 1.802A | 374.435 | 92.694% | 877 | 19.4 | 36.33°C | 0.949 |
| | 12.082V | 5V | 3.281V | 4.994V | 403.949 | | | | 42.21°C | 229.82V |
| 60% | 32.257A | 6.004A | 6.037A | 2A | 449.314 | 92.495% | 883 | 19.4 | 36.6°C | 0.955 |
| | 12.077V | 4.998V | 3.28V | 4.978V | 485.772 | | | | 43.28°C | 229.81V |
| 70% | 37.709A | 7.007A | 7.045A | 2.218A | 524.287 | 92.118% | 1090 | 25.5 | 37.4°C | 0.959 |
| | 12.071V | 4.996V | 3.279V | 4.96V | 569.15 | | | | 44.83°C | 229.79V |
| 80% | 43.239A | 8.001A | 8.058A | 2.325A | 599.433 | 91.635% | 1478 | 35.2 | 37.7°C | 0.962 |
| | 12.063V | 4.992V | 3.276V | 4.946V | 654.154 | | | | 45.81°C | 229.78V |
| 90% | 49.110A | 8.518A | 8.554A | 2.433A | 674.527 | 91.187% | 1858 | 40.7 | 38.13°C | 0.964 |
| | 12.055V | 4.989V | 3.274V | 4.933V | 739.72 | | | | 47.24°C | 229.77V |

| Test | 12V | 5V | 3.3V | 5VSB | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|---|---|---|---|---|---|---|---|---|---|---|
| 100% | 54.786A | 9.024A | 9.08A | 3.058A | 749.754 | 90.593% | 2331 | 46.1 | 39.13°C | 0.965 |
| | 12.048V | 4.986V | 3.271V | 4.906V | 827.601 | | | | 48.83°C | 229.75V |
| 110% | 60.330A | 10.033A | 10.188A | 3.065A | 824.775 | 90.063% | 2332 | 46.1 | 40.16°C | 0.967 |
| | 12.042V | 4.983V | 3.269V | 4.894V | 915.78 | | | | 50.96°C | 229.74V |
| CL1 | 0.115A | 13.266A | 13.335A | 0A | 111.291 | 85.146% | 898 | 19.6 | 34.81°C | 0.871 |
| | 12.101V | 4.989V | 3.278V | 5.062V | 130.709 | | | | 40.23°C | 229.87V |
| CL2 | 0.114A | 20.018A | 0A | 0.001A | 101.342 | 83.368% | 895 | 19.6 | 35.15°C | 0.862 |
| | 12.104V | 4.993V | 3.291V | 5.067V | 121.563 | | | | 39.26°C | 229.87V |
| CL3 | 0.115A | 0A | 20.1A | 0A | 67.414 | 77.929% | 876 | 19.1 | 34.68°C | 0.802 |
| | 12.105V | 5.014V | 3.284V | 5.068V | 86.507 | | | | 38.41°C | 229.87V |
| CL4 | 62.188A | 0A | 0A | 0.001A | 749.69 | 91.458% | 2328 | 46.1 | 39.11°C | 0.966 |
| | 12.055V | 5.01V | 3.287V | 4.993V | 819.714 | | | | 45.33°C | 229.75V |

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 | 1.227A | 0.499A | 0.501A | 0.197A | 19.998 | 71.42% | 849 | 18.4 | 30.51°C | 0.848 |
| | 12.100V | 5.014V | 3.292V | 5.08V | 28.001 | | | | 33.64°C | 114.91V |
| 40W | 2.700A | 0.698A | 0.702A | 0.296A | 39.998 | 82.01% | 848 | 18.4 | 31.33°C | 0.917 |
| | 12.107V | 5.013V | 3.291V | 5.075V | 48.773 | | | | 34.79°C | 114.9V |
| 60W | 4.174A | 0.898A | 0.903A | 0.394A | 59.998 | 85.716% | 850 | 18.4 | 32.11°C | 0.947 |
| | 12.106V | 5.013V | 3.29V | 5.07V | 69.997 | | | | 35.89°C | 114.9V |
| 80W | 5.644A | 1.097A | 1.103A | 0.494A | 79.947 | 87.817% | 856 | 18.8 | 33.65°C | 0.956 |
| | 12.105V | 5.012V | 3.29V | 5.065V | 91.04 | | | | 37.63°C | 114.89V |

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 | 1.228A | 0.499A | 0.501A | 0.197A | 19.997 | 70.685% | 840 | 18.2 | 30.38°C | 0.504 |
| | 12.098V | 5.013V | 3.291V | 5.08V | 28.292 | | | | 33.52°C | 229.88V |
| 40W | 2.700A | 0.698A | 0.702A | 0.295A | 39.996 | 82.143% | 843 | 18.3 | 31.46°C | 0.667 |
| | 12.106V | 5.013V | 3.29V | 5.075V | 48.691 | | | | 34.87°C | 229.88V |
| 60W | 4.174A | 0.898A | 0.903A | 0.394A | 59.996 | 86.267% | 849 | 18.4 | 32.62°C | 0.757 |
| | 12.105V | 5.013V | 3.29V | 5.071V | 69.545 | | | | 36.28°C | 229.88V |
| 80W | 5.644A | 1.097A | 1.103A | 0.493A | 79.943 | 88.572% | 854 | 18.7 | 33.19°C | 0.811 |
| | 12.104V | 5.012V | 3.29V | 5.066V | 90.258 | | | | 37.02°C | 229.87V |

The results above are not used in the certification process

## Ripple Measurements

### 115V

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 26.28mV | 11.75mV | 13.86mV | 25.22mV | Pass |
| 20% Load | 26.89mV | 12.31mV | 15.96mV | 26.04mV | Pass |
| 30% Load | 27.15mV | 12.26mV | 16.42mV | 28.70mV | Pass |
| 40% Load | 26.09mV | 13.08mV | 15.81mV | 29.72mV | Pass |
| 50% Load | 26.29mV | 13.54mV | 15.76mV | 29.92mV | Pass |
| 60% Load | 25.28mV | 14.56mV | 16.06mV | 31.05mV | Pass |
| 70% Load | 26.55mV | 16.61mV | 24.15mV | 34.35mV | Pass |
| 80% Load | 28.75mV | 19.06mV | 19.34mV | 36.68mV | Pass |
| 90% Load | 30.29mV | 21.41mV | 21.89mV | 38.77mV | Pass |
| 100% Load | 40.73mV | 22.01mV | 21.39mV | 39.18mV | Pass |
| 110% Load | 43.12mV | 24.30mV | 22.16mV | 38.91mV | Pass |
| Crossload1 | 46.24mV | 20.18mV | 16.90mV | 25.96mV | Pass |
| Crossload2 | 33.77mV | 29.27mV | 15.86mV | 27.83mV | Pass |

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| Crossload3 | 40.47mV | 16.71mV | 20.92mV | 26.44mV | Pass |
| Crossload4 | 34.79mV | 19.12mV | 22.60mV | 33.02mV | Pass |

The results above are not used in the certification process

**230V**

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 26.90mV | 11.85mV | 13.86mV | 26.24mV | Pass |
| 20% Load | 28.38mV | 11.65mV | 16.01mV | 25.47mV | Pass |
| 30% Load | 28.38mV | 12.05mV | 18.06mV | 29.56mV | Pass |
| 40% Load | 27.45mV | 12.62mV | 15.04mV | 29.15mV | Pass |
| 50% Load | 24.15mV | 13.44mV | 15.76mV | 28.54mV | Pass |
| 60% Load | 25.94mV | 15.38mV | 16.68mV | 32.18mV | Pass |
| 70% Load | 26.91mV | 16.81mV | 16.88mV | 35.60mV | Pass |
| 80% Load | 29.93mV | 18.44mV | 20.31mV | 35.70mV | Pass |
| 90% Load | 32.80mV | 21.86mV | 21.08mV | 35.81mV | Pass |
| 100% Load | 40.50mV | 22.29mV | 23.25mV | 37.81mV | Pass |
| 110% Load | 44.23mV | 23.66mV | 22.30mV | 40.65mV | Pass |
| Crossload1 | 46.39mV | 18.86mV | 16.28mV | 24.00mV | Pass |
| Crossload2 | 31.57mV | 29.02mV | 15.30mV | 27.47mV | Pass |
| Crossload3 | 39.29mV | 16.40mV | 20.51mV | 25.22mV | Pass |
| Crossload4 | 34.71mV | 19.05mV | 22.89mV | 31.96mV | Pass |

The results above are not used in the certification process

## XPG KYBER 750




Top side




Power specifications label