

## XPG Core Reactor II VE 850

DUT Notes

Anex

Lab ID#: AD85002397 Receipt Date: Mar 8, 2024 Test Date: Mar 26, 2024

# Report: 24PS2397A

Report Date: Mar 28, 2024

DUT INFORMAT	ION
Brand	XPG
Manufacturer (OEM)	Channel Well Technology
Series	Core Reactor II VE
Model Number	COREREACTORII850GOLD
Serial Number	

DUT SPECIFICAT	IONS
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	47-63
Rated Power (W)	850
Туре	ATX12V
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225H12F-Z)
Semi-Passive Operation	×
Cable Design	Fully Modular

## **TEST EQUIPMENT**

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P
Power Analyzers	RS HMC8015, N4L PPA1530, N4L PPA5530
Oscilloscopes	Picoscope 4444, Rigol DS7014, 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, Keithley 2015 - THD
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Isolation Transformer	4kVA

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



# EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

# XPG Core Reactor II VE 850

30-32 / 86-89.6
1
1
1
<i>✓</i>

115V		230V			
Average Efficiency	88.640%	Average Efficiency	90.801%		
Efficiency With 10W (≤500W) or 2% (>500W)	72.580	Average Efficiency 5VSB	78.346%		
Average Efficiency 5VSB	78.996%	Standby Power Consumption (W)	0.0738000		
Standby Power Consumption (W)	0.0163000	Average PF	0.965		
Average PF	0.990	Avg Noise Output	26.08 dB(A)		
Avg Noise Output	27.15 dB(A)	Efficiency Rating (ETA)	GOLD		
Efficiency Rating (ETA)	GOLD	Noise Rating (LAMBDA)	A-		
Noise Bating (LAMBDA)	Δ-				

### **POWER SPECIFICATIONS**

Rail		3.3V	5V	12V	5VSB	-12V
	Amps	22	22	70.8	3	0.3
Max. Power	Watts	120		850	15	3.6
Total Max. Power (W)		850				

#### HOLD-UP TIME & POWER OK SIGNAL (230V)

Hold-Up Time (ms)	23
AC Loss to PWR_OK Hold Up Time (ms)	20.9
PWR_OK Inactive to DC Loss Delay (ms)	2.1

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

**PAGE 2/17** 

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

## XPG Core Reactor II VE 850

# CABLES AND CONNECTORS

Modular Cables						
Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors			
1	1	18AWG	No			
2	2	18AWG	No			
3	3	18AWG	No			
1	1	16-24AWG	No			
2	6/2	18AWG	No			
1	1	17AWG	-			
	Cable Count 1 2 3 1 2 2 1	Cable Count         Connector Count (Total)           1         1           2         2           3         3           1         1           2         3           3         3           1         6/2           1         1	Cable CountConnector Count (Total)Gauge1118AWG2218AWG3318AWG1116-24AWG26/218AWG1117AWG			

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

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

XPG Core Reactor II VE 850

General Data	
Manufacturer (OEM)	CWT
Platform	CSE
РСВ Туре	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 1x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK-056 (5 Ohm)
Bridge Rectifier(s)	2x GBUL1506 (600V, 15A @ 100°C)
APFC MOSFETs	2x STMicroelectronics STF33N60M2 (650V, 16A @ 100°C, Rds(on): 0.1250hm) & 1x Sync Power SPN5003 (for reducing the no load consuption)
APFC Boost Diode	1x Vishay Schottky Diode VS-3C08ET07T-M3 (650V, 8A @ 135°C)
Bulk Cap(s)	1x Elite (400V, 680uF, 2000h @ 105°C, PL(M))
Main Switchers	2x Vishay SiHA25N60EFL (600V, 16A @ 100°C, Rds(on): 0.1460hm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CU6901VAC
Topology	Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	8x ON Semiconductor NTMFS5C430N (40V, 131A @ 100°C, Rds(on): 1.7mOhm)
5V & 3.3V	DC-DC Converters: 2x UBIQ QN3107M6N (30V, 70A @ 100°C, Rds(on): 2.6mOhm) 2x UBIQ QM3054M6 (30V, 61A @ 100°C, Rds(on): 4.8mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 3x Elite (2,000 @ 105°C, EL(M)) 2x Elite(4 - 10,000 @ 105°C, EY) 3x Capxon (2 - 5,000 @ 105°C, KF), 3x Teapo (3-00 @ 105°C, SY), Polymer: 17x Elite, 2x APAQ
Supervisor IC	Weltrend WT7502R (OVP, UVP, SCP, PG)
Fan Model	Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Fluid Dynamic Bearing Fan))
5VSB Circuit	
Rectifier	1x Silan Microelectronics SVF4N65RD FET(650V, 2.5A @ 100°C, Rds(on): 2.70hm)
Standby PWM Controller	On-Bright OB5282

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

PAGE 4/17



XPG Core Reactor II VE 850

# Anex

#### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE Efficiency: XPG Core Reactor II VE 850W Ambient: 37°C - 47°C (98.6°F - 116.6°F) 94 % 92 % 90 % 88 % 86 % 84 % 82 % 80 % 78% 76 % 74 % 600 h 100 4 200 4 300 4 ×00 h 500 4 900 h °4 600 h 100 h -115V --230V -(EU) No 617/2013

## 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

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

PAGE 5/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# **EFFICIENCY AND NOISE LEVEL CERTIFICATIONS**

## XPG Core Reactor II VE 850

#### 5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC) Test # 5VSB DC/AC (Watts) Efficiency **PF/AC Volts** 0.045A 0.228W 0.033 1 71.584% 5.065V 0.319W 115.17V 0.09A 0.456W 0.061 2 75.791% 5.063V 0.601W 115.18V 0.55A 2.777W 0.268 3 79.934% 5.048V 3.474W 115.17V 1A 5.035W 0.359 4 79.355% 5.034V 6.345W 115.17V 1.5A 7.529W 0.411 5 79.225% 5.018V 9.502W 115.17V ЗA 14.908W 0.477 6 78.151% 19.077W 4.969V 115.16V

## 5VSB EFFICIENCY -230V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.228W	C2 100%	0.011
1	5.064V	0.368W	62.108%	230.41V
2	0.09A	0.456W	70 2009/	0.02
2	5.063V	0.65W	70.289%	230.4V
3	0.55A	2.777W		0.105
3	5.048V	3.586W	//.443%	230.4V
	1A	5.035W	20 2050/	0.173
4	5.033V	6.397W	/8./05%	230.41V
-	1.5A	7.528W	70.0059/	0.232
5	5.017V	9.527W	79.025%	230.41V
6	ЗА	14.907W	70.26.49/	0.331
	4.968V	18.786W	/9.364%	230.41V

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

PAGE 6/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

XPG Core Reactor II VE 850

# **115V**

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

**PAGE 7/17** 

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



XPG Core Reactor II VE 850

# Anex

## **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

## 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

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

**PAGE 8/17** 

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



## XPG Core Reactor II VE 850

# Anex

## VAMPIRE POWER -115V

Detailed Results								
	Average	Min	Limit Min	Max	Limit Max	Result		
Mains Voltage RMS:	115.17 V	115.13 V	113.85 V	115.19 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:	1.415	1.415	1.340	1.416	1.490	PASS		
Mains Voltage THD:	0.13 %	0.11%	N/A	0.15 %	2.00 %	PASS		
Real Power:	0.016 W	0.014 W	N/A	0.019 W	N/A	N/A		
Apparent Power:	9.669 W	9.664 W	N/A	9.676 W	N/A	N/A		
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A		

#### INFO

This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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



# Anex

# XPG Core Reactor II VE 850

10-11	.0% LOAI	D 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	
100/	5.191A	1.979A	2.009A	0.994A	85.007	00.4000/	( ) ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	01 5	40.1°C	0.982	
10%	12.215V	5.055V	3.285V	5.031V	98.309	86.468%	914	21.5	44.31°C	115.15V	
200/	11.472A	2.969A	3.016A	1.194A	169.974	00 1010/	010	21.0	40.64°C	0.989	
20%	12.122V	5.053V	3.282V	5.025V	188.457	90.191%	918	21.0	45.19°C	115.13V	
200/	18.075A	3.465A	3.522A	1.396A	254.99	01.0650/		21.0	41.06°C	0.992	
30%	12.112V	5.051V	3.28V	5.017V	280.009	91.065%	921	21.0	46.14°C	115.11V	
400/	24.680A	3.962A	4.029A	1.597A	340.084	01.0240/	024	21.0	41.81°C	0.99	
40%	12.110V	5.049V	3.277V	5.009V	373.619	91.024%	924	21.8	47.36°C	115.08V	
E00/	30.810A	4.956A	5.042A	1.8A	425.11	00 6070/	020	21.0	42.09°C	0.991	
20%	12.158V	5.046V	3.273V	5.002V	468.716	90.097%	929	21.8	48.11°C	115.05V	
600/	37.014A	5.951A	6.057A	2.001A	509.63	00.0699/	022	21.9	42.8°C	0.992	
00%	12.153V	5.043V	3.27V	4.995V	565.825	90.008%	932		49.37°C	115.03V	
700/	43.292A	6.946A	7.074A	2.206A	594.976	- 00 2020/	% 1323	33.6	43.39°C	0.993	
70%	12.147V	5.04V	3.266V	4.988V	666.245	89.303%			50.45°C	115V	
000/	49.592A	7.944A	8.094A	2.309A	679.804	00 50/	1625	30.2	43.69°C	0.994	
00%	12.137V	5.036V	3.262V	4.982V	768.142	00.370	1055	59.2	51.79°C	114.98V	
000/	56.289A	8.445A	8.593A	2.412A	765.234	07 7020/	1060	<i>4</i> E 1	44.84°C	0.995	
90%	12.129V	5.033V	3.258V	4.976V	872.538	07.705%	1900	43.1	53.89°C	114.95V	
1000/	62.723A	8.947A	9.124A	3.028A	850.066	96 9009/	2215	7 7	45.81°C	0.995	
100%	12.122V	5.03V	3.255V	4.954V	979.233	00.009%	2215	4/./	55.88°C	114.91V	
1100/	69.034A	9.948A	10.243A	3.029A	934.63		2200	40.2	46.85°C	0.996	
110%	12.115V	5.026V	3.251V	4.952V	1088.732	03.043%	2599	49.5	57.75°C	114.88V	
CI 1	0.115A	14.339A	14.581A	0A	121.308	02 2570/	044	22.3	40.84°C	0.988	
	12.159V	5.035V	3.271V	5.085V	145.529	05.557%	944		46.36°C	115.14V	
CL 2	0.115A	21.821A	0A	0A	111.394	01 2150/	042	<u></u>	41.13°C	0.985	
CLZ	12.167V	5.041V	3.29V	5.12V	136.99	%C1213	945	22.5	48.2°C	115.14V	
0.2	0.114A	0A	22.207A	0A	73.995	75 0270/	022	21.7	40.12°C	0.982	
	12.219V	5.057V	3.269V	5.053V	97.443	13.3770	/5.93/% 922	922 21	Z1./	49.17°C	115.16V
CLA	70.098A	0.001A	0.005A	0.001A	849.807	97 5260/	2002	15 7	45.56°C	0.995	
CL4 -	12.123V	5.05V	3.268V	5.038V	970.819	07.00%	2087	40.7	56.53°C	114.91V	

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

PAGE 10/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# Anex

## XPG Core Reactor II VE 850

20-80W 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	1.232A	0.494A	0.502A	0.198A	20.008	747000/	896	20.6	36.85°C	0.855
	12.064V	5.057V	3.288V	5.053V	26.753	74.796%			39.93°C	115.17V
40W	2.708A	0.692A	0.703A	0.297A	40.005	80.911%	903	20.8	37.64°C	0.943
	12.074V	5.057V	3.287V	5.05V	49.443				41.01°C	115.17V
60W	4.138A	0.89A	0.904A	0.396A	60.004	02.1.000/	907	20.9	38.14°C	0.97
	12.213V	5.056V	3.286V	5.046V	72.145	83.108%			41.97°C	115.16V
80W	5.594A	1.088A	1.105A	0.496A	79.969	061670/	910	21.2	39.23°C	0.978
	12.214V	5.055V	3.286V	5.043V	92.805	80.107%			43.2°C	115.15V

#### **RIPPLE MEASUREMENTS 115V**

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	7.02mV	5.82mV	5.44mV	5.60mV	Pass
20% Load	13.60mV	6.23mV	7.88mV	5.91mV	Pass
30% Load	12.72mV	7.39mV	11.09mV	7.34mV	Pass
40% Load	14.09mV	9.54mV	15.82mV	8.05mV	Pass
50% Load	16.79mV	10.56mV	16.79mV	8.61mV	Pass
60% Load	18.77mV	11.17mV	19.53mV	9.42mV	Pass
70% Load	21.52mV	12.96mV	22.68mV	10.70mV	Pass
80% Load	23.81mV	15.10mV	28.99mV	12.48mV	Pass
90% Load	26.61mV	16.43mV	31.99mV	13.45mV	Pass
100% Load	33.72mV	20.44mV	37.08mV	17.48mV	Pass
110% Load	37.00mV	21.91mV	40.24mV	17.57mV	Pass
Crossload1	27.19mV	9.16mV	13.44mV	7.54mV	Pass
Crossload2	14.72mV	8.93mV	5.95mV	6.11mV	Pass
Crossload3	6.26mV	4.95mV	12.67mV	5.30mV	Pass
Crossload4	33.62mV	16.12mV	31.85mV	14.02mV	Pass

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

PAGE 11/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

XPG Core Reactor II VE 850

# **230V**

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

PAGE 12/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



XPG Core Reactor II VE 850

# Anex

## **EFFICIENCY GRAPH 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 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

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

PAGE 13/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



## XPG Core Reactor II VE 850

# VAMPIRE POWER -230V

**Anex** 

Detailed Results										
Mains Voltage RMS:										
Mains Frequency:										
Mains Voltage CF:										
Mains Voltage THD:										
Real Power:										
Apparent Power:										
Power Factor:										
Mains Voltage (VMS. Mains Frequency: Mains Voltage CF: Mains Voltage THD: Real Power: Apparent Power: Power Factor:										

#### INFO

This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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



# Anex

# XPG Core Reactor II VE 850

10-11	LO% LOA	D TESTS	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%	5.189A	1.978A	2.009A	0.994A	85.007	07.05.00/	010	21.6	40.4°C	0.862
	12.218V	5.056V	3.286V	5.031V	97.422	87.256%	918		44.62°C	230.4V
20%	11.470A	2.969A	3.016A	1.194A	169.975		922	21.7	40.76°C	0.945
	12.125V	5.054V	3.283V	5.025V	185.633	91.566%			45.32°C	230.39V
<b>2 0 0</b> <i>i</i>	18.073A	3.465A	3.522A	1.395A	254.989	02 (50/	024		41.11°C	0.967
30%	12.113V	5.052V	3.28V	5.018V	275.216	92.65%	924	21.8	46.19°C	230.38V
100/	24.678A	3.962A	4.029A	1.597A	340.083	00.0000/	000	21.0 -	41.79°C	0.975
40%	12.111V	5.05V	3.277V	5.01V	365.963	92.929%	928	21.8	47.31°C	230.38V
F00/	30.808A	4.955A	5.041A	1.8A	425.101	02.0210/	021		42.37°C	0.981
50%	12.159V	5.047V	3.273V	5.003V	457.979	92.821%	931	21.9	48.41°C	230.36V
<b>CO</b> 0/	37.015A	5.95A	6.056A	2.001A	509.623	02 4120/	934	22.0	42.86°C	0.984
60% -	12.152V	5.044V	3.27V	4.996V	551.465	92.413%			49.42°C	230.35V
700/	43.296A	6.946A	7.074A	2.206A	594.969	91.929%	1296	33.0	43.44°C	0.986
70%	12.145V	5.04V	3.266V	4.988V	647.203				50.49°C	230.34V
000/	49.598A	7.944A	8.094A	2.309A	679.802	91.361%	1618	38.5	43.7°C	0.987
80%	12.135V	5.036V	3.262V	4.982V	744.082				51.72°C	230.33V
0.001	56.296A	8.445A	8.593A	2.412A	765.231	00.0240/	1045	<i>4</i> 5 0	44.61°C	0.988
90%	12.128V	5.033V	3.258V	4.977V	842.446	90.834%	1945	45.0	53.64°C	230.31V
1000/	62.731A	8.947A	9.124A	3.028A	850.064	00 21 20/	2222		45.81°C	0.989
100%	12.121V	5.03V	3.255V	4.955V	942.287	90.213%	2223	47.7	55.88°C	230.3V
1100/	69.042A	9.948A	10.242A	3.029A	934.631	00 500%	2405	49.4	46.85°C	0.99
110%	12.113V	5.027V	3.251V	4.953V	1043.515	89.566%			57.76°C	230.29V
CI 1	0.115A	14.338A	14.58A	0A	121.307	04 2050/	947	22.4	40.93°C	0.924
CLI	12.158V	5.036V	3.271V	5.085V	144.06	84.205%			46.38°C	230.4V
<b>C</b> 12	0.115A	21.821A	0A	0A	111.395	00.1000/	045	22.3	41.21°C	0.916
UZ	12.166V	5.041V	3.29V	5.12V	135.677	82.102%	945		48.28°C	230.4V
	0.114A	0A	22.196A	0A	73.996	70 4510/	928	21.8	40.37°C	0.862
ЧЗ	12.224V	5.062V	3.271V	5.057V	96.791	/6.451%			49.38°C	230.4V
	70.143A	0.001A	0.005A	0.001A	849.799	00.0420/	2171	46.3	45.66°C	0.989
UL4	12.115V	5.051V	3.268V	5.039V	934.438	90.943%			56.63°C	230.3V

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

PAGE 15/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# Anex

## XPG Core Reactor II VE 850

20-80W LOAD TESTS 230V									
12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1.232A	0.494A	0.502A	0.198A	20.007	74.0770/	899	20.9	36.77°C	0.471
12.064V	5.059V	3.289V	5.054V	26.719	/4.8//%			39.84°C	230.41V
2.708A	0.692A	0.703A	0.297A	40.005	81.643%	905	20.9	37.72°C	0.681
12.075V	5.058V	3.288V	5.051V	48.998				41.03°C	230.41V
4.137A	0.89A	0.904A	0.396A	60.004	04 2250/	908	21	38.64°C	0.798
12.215V	5.056V	3.287V	5.047V	71.242	84.225%			42.15°C	230.4V
5.594A	1.088A	1.105A	0.496A	79.969	06.0400/	6 913	21.4	39.12°C	0.852
12.216V	5.056V	3.286V	5.044V	92.076	80.849%			42.97°C	230.4V
	OW LOAD 12V 1.232A 12.064V 2.708A 12.075V 4.137A 12.215V 5.594A 12.216V	IDAD TESTS           12V         5V           1.232A         0.494A           12.064V         5.059V           2.708A         0.692A           12.075V         5.058V           4.137A         0.89A           12.215V         5.056V           5.594A         1.088A           12.216V         5.056V	SV         SV         SU           12V         5V         3.3V           1.232A         0.494A         0.502A           12.064V         5.059V         3.289V           2.708A         0.692A         0.703A           12.075V         5.058V         3.288V           4.137A         0.89A         0.904A           12.215V         5.056V         3.287V           5.594A         1.088A         1.105A           12.216V         5.056V         3.286V	SV         S.3V         SVSB           1.232A         0.494A         0.502A         0.198A           1.2.064V         5.059V         3.289V         5.054V           2.708A         0.692A         0.703A         0.297A           12.075V         5.058V         3.288V         5.051V           4.137A         0.89A         0.904A         0.396A           12.215V         5.056V         3.287V         5.047V           5.594A         1.088A         1.105A         0.496A           12.216V         5.056V         3.286V         5.044V	SV         LOAD TESTS 230V           12V         5V         3.3V         5VSB         DC/AC (Watts)           1.232A         0.494A         0.502A         0.198A         20.007           12.064V         5.059V         3.289V         5.054V         26.719           2.708A         0.692A         0.703A         0.297A         40.005           12.075V         5.058V         3.288V         5.051V         48.998           4.137A         0.89A         0.904A         0.396A         60.004           12.215V         5.056V         3.287V         5.047V         71.242           5.594A         1.088A         1.105A         0.496A         79.969           12.216V         5.056V         3.286V         5.044V         92.076	DW LOAD TESTS 230V           12V         5V         3.3V         5VSB         DC/AC (Watts)         Efficiency           1.232A         0.494A         0.502A         0.198A         20.007 $\mathcal{A}_{4877\%}$ 12.064V         5.059V         3.289V         5.054V         26.719 $\mathcal{A}_{4877\%}$ 12.064V         0.692A         0.703A         0.297A         40.005 $\mathcal{A}_{4137}$ 12.075V         5.058V         3.288V         5.051V         48.998 $\mathcal{A}_{4137A}$ 12.215V         5.056V         3.287V         5.047V         71.242 $\mathcal{A}_{4225\%}$ 12.215V         5.056V         3.287V         5.047V         71.242 $\mathcal{A}_{4225\%}$ 12.216V         5.056V         3.286V         5.047V         79.969 $\mathcal{A}_{484\%}$ 12.216V         5.056V         3.286V         5.044V         92.076 $\mathcal{A}_{484\%}$	DW LOAD TESTS 230V           12V $5V$ $3.3V$ $5VSB$ $DC/AC$ (Watts) $efficiency$ $Fan Speed$ (RPM)           1.232A         0.494A         0.502A         0.198A         20.007 $1.4377\%$ $3289V$ 5.054V         26.719 $1.4377\%$ $899$ 12.064V         5.059V         3.289V         5.054V         26.719 $1.437\%$ $905$ 12.075V         0.692A         0.703A         0.297A         40.005 $81.643\%$ $905$ 12.075V         5.058V         3.288V         5.051V         48.998 $81.643\%$ $905$ 12.075V         5.056V         3.288V         5.051V         48.998 $84.225\%$ $908$ 12.215V         5.056V         3.287V         5.047V         71.242 $908$ 12.215V         5.056V         3.286V         5.044V         79.969 $86.849\%$ $913$ 12.216V         5.056V         3.286V         5.044V         92.076 $86.849\%$ $913$	I2V         SV         3.3V         SVSB $DC/AC$ (Watts)         Efficiency         Fan Speed (RPM)         PSU Noise (dB[A])           1.232A         0.494A         0.502A         0.198A         20.007 ${}_{4.877\%}$ $B99$ ${}_{2.09}$ 12.064V         5.059V         3.289V         5.054V         26.719 ${}_{81.643\%}$ $B99$ ${}_{2.09}$ 12.075V         5.058V         3.289V         5.051V         48.998 ${}_{81.643\%}$ ${}_{905}$ ${}_{2.09}$ 12.075V         5.058V         3.289V         5.051V         48.998 ${}_{81.643\%}$ ${}_{905}$ ${}_{2.09}$ 12.075V         5.058V         3.287V         5.051V         48.998 ${}_{81.643\%}$ ${}_{905}$ ${}_{2.09}$ 12.075V         5.056V         3.287V         5.051V         48.998 ${}_{81.643\%}$ ${}_{908}$ ${}_{21.4}$ 1.12215V         5.056V         3.287V         5.047V         71.242 ${}_{913}$ ${}_{21.4}$ 1.2216V         5.056V         3.286V         5.044V         92.076 ${}_{86.849\%}$ ${}_{913}$ ${}_{21.4}$	I2V $\mathbf{5V}$ $\mathbf{3.3V}$ $\mathbf{5VSB}$ $\mathbf{DC/AC}$ (Watts) $\mathbf{Efficiency}$ $\mathbf{Fan Speed}$ (RPM) $\mathbf{PSU Noise}$ (dB[A)) $\mathbf{Temps}$ (In/Out)           1.232A         0.494A         0.502A         0.198A         20.007 $\mathcal{H}_{A77\%}$ $\mathcal{H}_{99}$ $\mathcal{H}_{0.9}$ $\mathcal{H}_{0.$

#### **RIPPLE MEASUREMENTS 230V**

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	6.82mV	5.46mV	5.39mV	5.50mV	Pass
20% Load	13.70mV	6.22mV	7.58mV	5.81mV	Pass
30% Load	12.41mV	7.39mV	11.39mV	6.37mV	Pass
40% Load	14.15mV	9.49mV	16.02mV	7.79mV	Pass
50% Load	16.54mV	9.95mV	16.79mV	8.92mV	Pass
60% Load	18.22mV	11.48mV	19.33mV	9.27mV	Pass
70% Load	21.22mV	13.06mV	22.63mV	10.55mV	Pass
80% Load	23.91mV	15.25mV	28.84mV	12.38mV	Pass
90% Load	26.05mV	15.91mV	31.99mV	13.71mV	Pass
100% Load	34.72mV	19.83mV	36.73mV	18.16mV	Pass
110% Load	37.39mV	21.17mV	40.93mV	17.41mV	Pass
Crossload1	27.75mV	9.44mV	12.74mV	7.82mV	Pass
Crossload2	16.55mV	9.23mV	5.80mV	6.27mV	Pass
Crossload3	6.16mV	5.20mV	12.21mV	4.89mV	Pass
Crossload4	34.78mV	16.20mV	31.70mV	14.50mV	Pass

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

PAGE 16/17

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted



# EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

# XPG Core Reactor II VE 850



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

Cybenetics offers the ETA and Lambda voluntary certification programs, through which the efficient and silent power supplies are promoted

PAGE 17/17