



Gamer Storm PF700X

Serial Number -

Lab ID GA70002728

Certification ID 252728

Test Result Report ID: 25PS2728A

Certificate Issue Date: Feb 5, 2025

115V

230V

Scheme: ETA-EMI PSU



115V

230V



Scheme: LAMBDA PSU

A handwritten signature in blue ink, appearing to read 'A. Bitziopoulos'.

Aristeidis Bitziopoulos, Certification Body General Manager

General Information

Test Equipment

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 Chroma 63640-80-80 x10 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	Gamer Storm
Model	PF700X
OEM/ODM	CE-Link
Serial Number	-
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	200-240
Rated Current (Arms)	5
Rated Frequency (Hz)	50-60

Rated Power (W)	700
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 (HA1225M12F-Z)
Semi-Passive Operation	X
Cybenetics Testing Information	
Lab ID	GA70002728
Date of receipt	Jan 23, 2025
Testing Date	Jan 30, 2025
Report Issued Date	Feb 5, 2025
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 (560mm)	1	1	18-22AWG	No
4+4 pin EPS12V (610mm+150mm)	1	2	18AWG	No
6+2 pin PCIe (510mm+150mm)	2	4	18AWG	No
SATA (460mm+150mm+150mm) / 4-pin Molex (+150mm)	2	6 / 2	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	18	18	58.3	3	0.3
	Watts	110		699.6	15	3.6
Total Max. Power (W)		700				

Parts Description

General Data	
Manufacturer (OEM)	CE LINK
PCB Type	Single-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	1x NTC Thermistor M72 1.3D15 (1.3 ohm)
Bridge Rectifier(s)	1x GBU608 (800V, 6A @ 100°C)
APFC MOSFETs	1x Lonten LND20N50W (500V, 12.5A @ 100°C, Rds(on): 0.29Ohm)
APFC Boost Diode	1x Good-Ark MUR860F (600V, 8A @ 105°C)
Bulk Cap(s)	1x Teapo (420V, 470uF, 6-10,000h @ 105°C, TC)
Main Switchers	2x Lonten LND18N50 (500V, 13.5A @ 100°C, Rds(on): 0.28Ohm)
PFC/PWM Controller	Champion CM6800UX

Topology	Primary side: APFC, Double Forward Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	3x HB043N06GC
5V & 3.3V	DC-DC Converters: 4x SLD3090T PWM Controller(s): 2x AnpecAPW7164
Filtering Capacitors	Electrolytic: 13x Teapo (1-3,000h @ 105°C, SC) 1x Toshincon (@105°C, UCE) Polymer: 2x
Supervisor IC	IN1S3151-SAG
Fan Model	Hong Hua HA1225M12F-Z (120mm, 12V, 0.45A, Fluid Dynamic Bearing Fan)
5VSB	
Rectifier	1x Chongqing Pingwei PS1045L (45V, 10A) SBR
Standby PWM Controller	Esthome EST.2915HP

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	✓

Performance Summary 230V

Accredited	
Average Efficiency (>1450 load combinations)	87.479%
Average Noise Output (>1450 Load Combinations)	26.39dBA
Average PF (>1450 Load Combinations)	0.967
Efficiency With 10W (≤500W) or 2% (>500W) Load	61.529%
Standby Power Consumption	0.1587W

Non-Accredited		
12V Ripple (Full Load)		72.37mV
5V Ripple (Full Load)		34.52mV
3.3V Ripple (Full Load)		28.99mV
5VSB Ripple (Full Load)		24.94mV
12V Load Regulation		0.36%
5V Load Regulation		2.55%
3.3V Load Regulation		3.72%
5VSB Load Regulation		4.44%
Inrush Current		231.700A
12V Transient Response (150%)		11.62V
5V Transient Response (150%)		4.929V
3.3V Transient Response (150%)		3.194V
5VSB Transient Response (150%)		4.973V
Hold-Up Time & PWR_OK Signal		13.40ms
AC Loss to PWR_OK Hold Up Time		12.10ms
PWR_OK Inactive to DC Loss Delay		1.30ms
PSU Timings: T1 (20% / 100%)	44.0ms	43.0ms
PSU Timings: T3 (20% / 100%)	126.0ms	125.0ms
12V OCP (28.4°C / 41.7°C)	77.20A (132.42%), 11.498V *High Ripple (175.43mV), Voltage Drop (11.266V@77.6A), Stopped	76.80A (131.73%), 11.412V *High Ripple(185.25mV), Voltage Drop (11.15V@77.2A), Stopped
5V OCP (28.4°C / 41.7°C)	27A (150.00%), 5.022V	25.6A (142.22%), 5.015V
3.3V OCP (28.4°C / 41.7°C)	28.5A (158.33%), 3.304V	28.1A (156.11%), 3.304V
5VSB OCP (28.4°C / 41.7°C)	5.5A (183.33%), 4.986V	5.3A (176.67%), 4.988V
OPP (29.27°C / 42.41°C)	127.23%	124.24%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	13.4
AC Loss to PWR_OK Hold Up Time (ms)	12.1
PWR_OK Inactive to DC Loss Delay (ms)	1.3

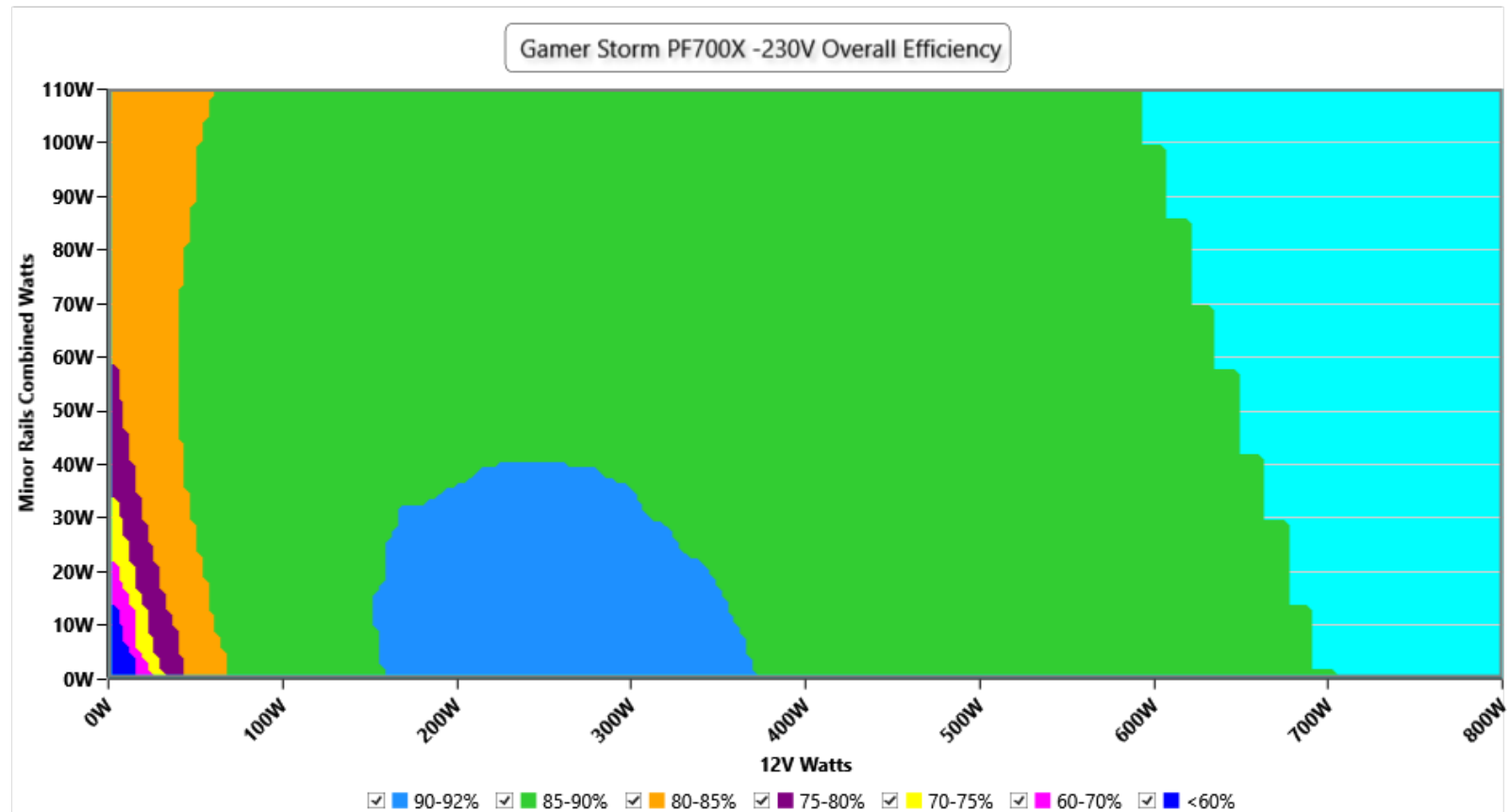
Vampire Power

Tables 230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	231.00 V	230.88 V	227.70 V	231.07 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.417	1.416	1.340	1.419	1.490	PASS
Mains Voltage THD:	0.17 %	0.14 %	N/A	0.29 %	2.00 %	PASS
Real Power:	0.159 W	0.120 W	N/A	0.212 W	N/A	N/A
Apparent Power:	16.358 W	16.154 W	N/A	16.602 W	N/A	N/A
Power Factor:	0.011	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

230V

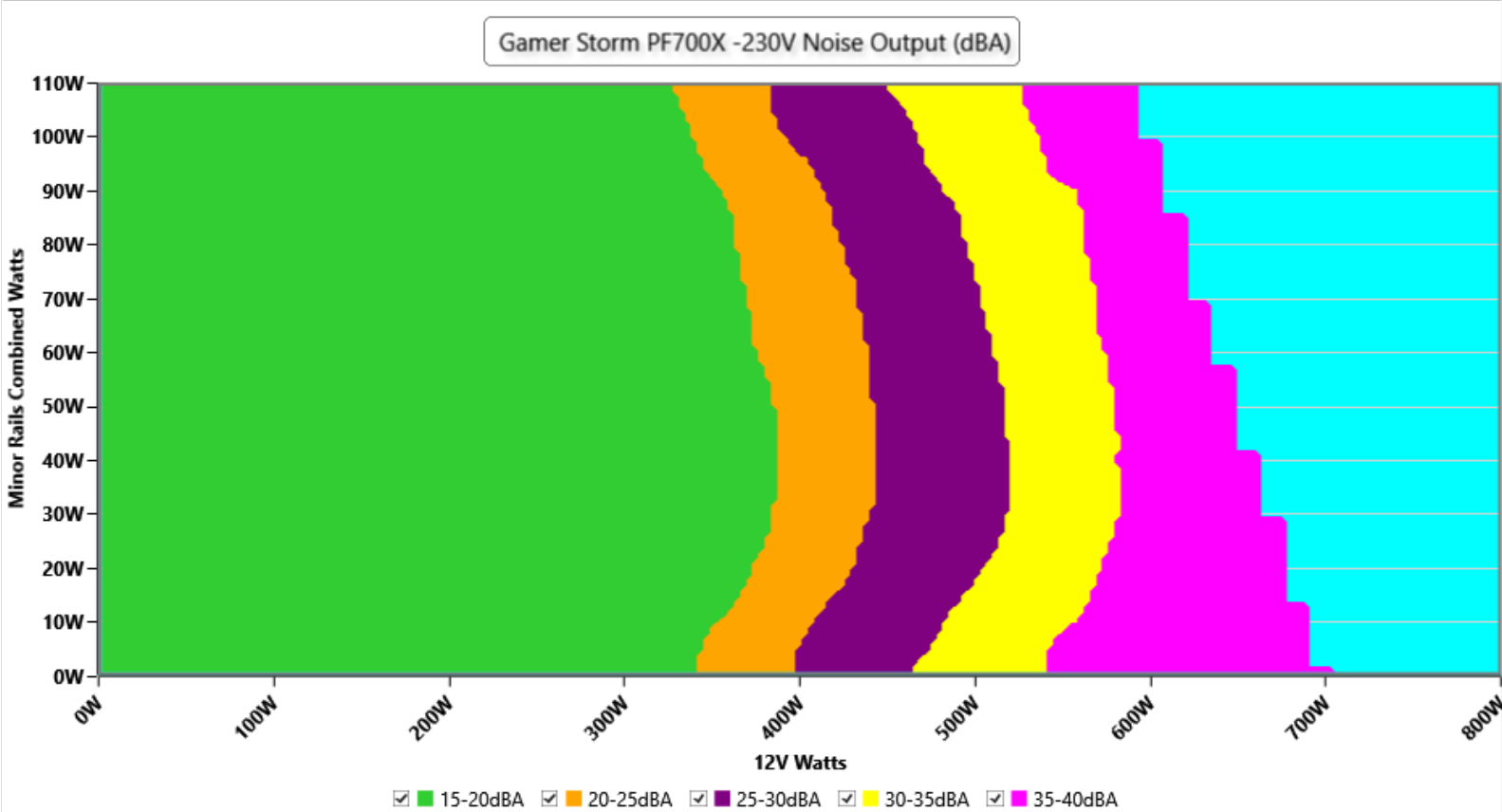


INFO

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

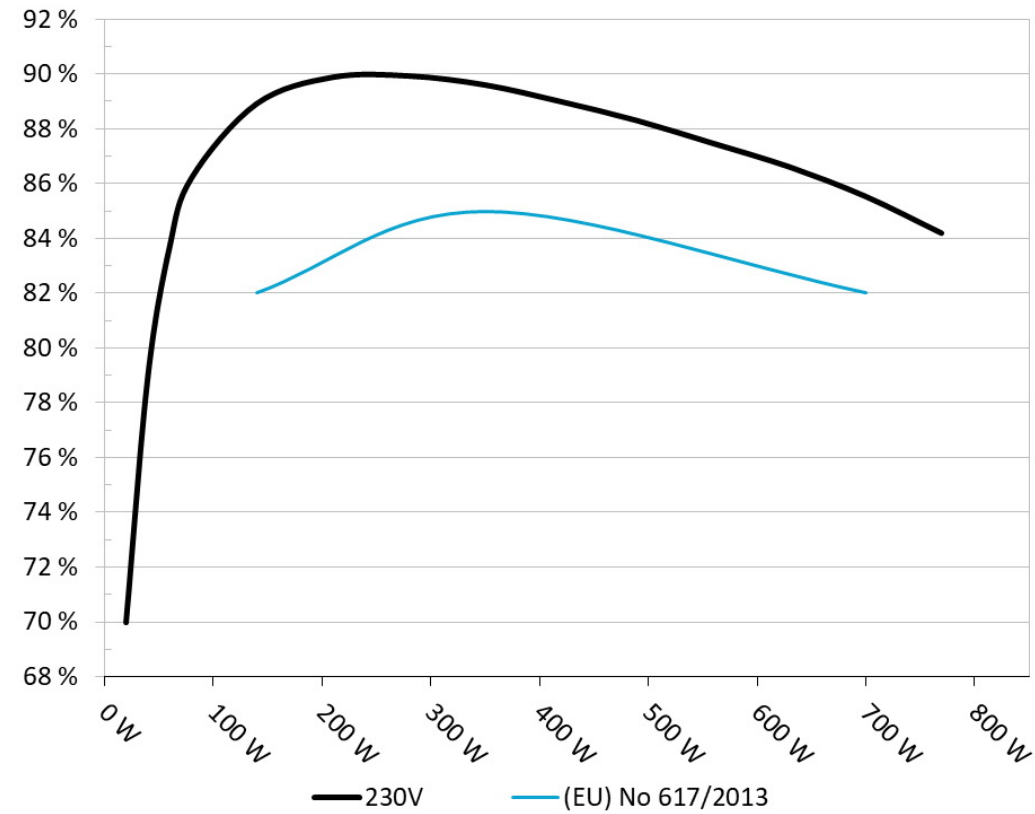
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Indicative Performance

Efficiency under high ambient temperature

Efficiency: Gamer Storm PF700X

Ambient: 36°C - 46°C (96.8°F - 114.8°F)



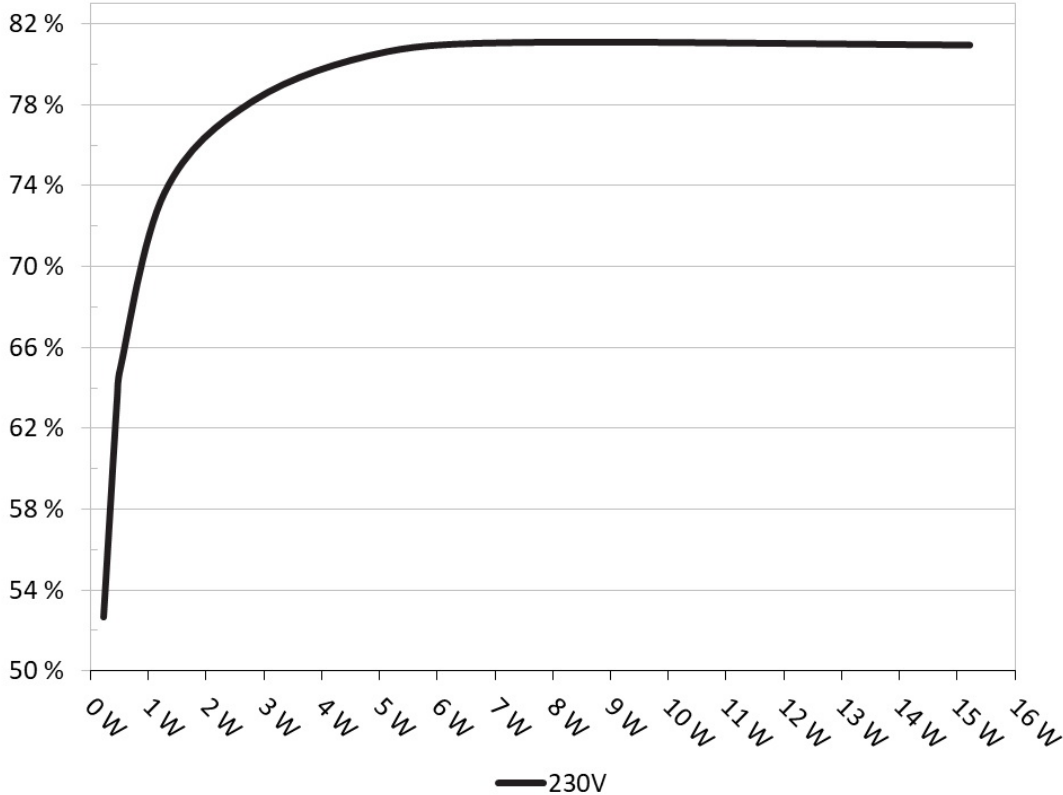
INFO

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: Gamer Storm PF700X

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) 230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.232W	52.671%	0.025
	5.157V	0.443W		229.89V

2	0.09A	0.464W	63.432%	0.041
	5.156V	0.733W		229.89V
3	0.55A	2.828W	78.222%	0.174
	5.142V	3.617W		229.88V
4	1A	5.129W	80.635%	0.243
	5.129V	6.361W		229.88V
5	1.5A	7.673W	81.098%	0.291
	5.115V	9.462W		229.89V
6	3A	15.211W	80.962%	0.357
	5.071V	18.789W		229.88V

Protection Features

OCP (Normal @ 28.4°C)	12V: 77.20A (132.42%), 11.498V *High Ripple (175.43mV), Voltage Drop (11.266V@77.6A), Stopped 5V: 27A (150.00%), 5.022V 3.3V: 28.5A (158.33%), 3.304V 5VSB: 5.5A (183.33%), 4.986V
OCP (Hot @ 41.7°C)	12V: 76.80A (131.73%), 11.412V *High Ripple(185.25mV), Voltage Drop (11.15V@77.2A), Stopped 5V: 25.6A (142.22%), 5.015V 3.3V: 28.1A (156.11%), 3.304V 5VSB: 5.3A (176.67%), 4.988V
OPP (Normal @ 29.3°C)	890.59W (127.23%)
OPP (Hot @ 42.4°C)	869.65W (124.24%)
OTP	✓ (116°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC

Supplementary Tests (For Reference)

Typical Load 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%	3.990A	1.965A	1.966A	0.977A	70.007	84.46%	773	17.5	40.54°C	0.894
	12.131V	5.09V	3.358V	5.116V	82.887				42.57°C	229.88V
20%	8.992A	2.955A	2.959A	1.177A	139.949	88.917%	777	17.6	40.78°C	0.947
	12.127V	5.076V	3.346V	5.097V	157.391				43.4°C	229.87V
30%	14.348A	3.455A	3.463A	1.379A	209.995	89.886%	779	17.6	41.41°C	0.964
	12.123V	5.065V	3.335V	5.078V	233.625				44.2°C	229.86V
40%	19.709A	3.958A	3.971A	1.581A	280.045	89.933%	916	21.8	41.82°C	0.972
	12.118V	5.054V	3.325V	5.06V	311.394				45.79°C	229.84V
50%	24.723A	4.96A	4.982A	1.786A	350.008	89.605%	1177	29.6	42.42°C	0.977
	12.114V	5.041V	3.312V	5.04V	390.615				46.36°C	229.83V
60%	29.731A	5.968A	6.003A	1.993A	419.831	88.997%	1416	34.6	42.62°C	0.979
	12.110V	5.027V	3.299V	5.019V	471.74				47.26°C	229.82V
70%	34.765A	6.982A	7.031A	2.201A	489.943	88.303%	1644	38.5	43.01°C	0.982
	12.105V	5.014V	3.286V	4.999V	554.839				48.36°C	229.8V
80%	39.804A	7.999A	8.066A	2.309A	559.533	87.474%	1787	40.5	43.53°C	0.984
	12.100V	5V	3.273V	4.98V	639.658				48.84°C	229.79V
90%	45.244A	8.52A	8.585A	2.418A	629.752	86.614%	1981	43.5	44.56°C	0.986
	12.096V	4.987V	3.261V	4.963V	727.08				51.63°C	229.77V
100%	50.425A	9.046A	9.142A	3.042A	699.374	85.547%	2004	43.6	45.71°C	0.987
	12.091V	4.974V	3.249V	4.931V	817.538				54.39°C	229.76V
110%	55.543A	10.086A	10.296A	3.053A	769.576	84.2%	2008	43.6	46.02°C	0.987
	12.086V	4.956V	3.234V	4.914V	913.985				57.64°C	229.74V
CL1	0.116A	13.155A	13.201A	0A	111.295	80.531%	838	19.8	40.3°C	0.939
	12.128V	5.031V	3.311V	5.113V	138.205				45.43°C	229.87V
CL2	0.114A	17.845A	0A	0A	91.381	79.782%	768	17.2	41.19°C	0.926
	12.131V	5.043V	3.334V	5.13V	114.538				45.25°C	229.87V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL3	0.114A	0A	17.838A	0A	60.796	74.701%	770	17.4	40.54°C	0.892
	12.131V	5.066V	3.33V	5.128V	81.388				44.31°C	229.87V
CL4	57.878A	0A	0A	0.001A	699.966	86.645%	2002	43.6	45.62°C	0.987
	12.094V	5.018V	3.289V	5.045V	807.863				52.06°C	229.76V

The results above are not used in the certification process

Light Load 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
20W	1.224A	0.49A	0.49A	0.194A	20.01	69.996%	763	16.9	36.2°C	0.704
	12.134V	5.101V	3.37V	5.15V	28.586				37.13°C	229.88V
40W	2.695A	0.687A	0.686A	0.292A	40.005	78.955%	766	17.1	37.13°C	0.823
	12.132V	5.098V	3.367V	5.143V	50.668				38.36°C	229.88V
60W	4.166A	0.883A	0.883A	0.389A	60.003	83.695%	769	17.3	38.08°C	0.875
	12.131V	5.095V	3.363V	5.137V	71.691				39.47°C	229.88V
80W	5.632A	1.08A	1.08A	0.487A	79.954	86.199%	772	17.5	39.19°C	0.907
	12.130V	5.092V	3.36V	5.13V	92.755				40.68°C	229.88V

The results above are not used in the certification process

Ripple Measurements 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	16.53mV	15.02mV	13.56mV	12.89mV	Pass
20% Load	19.85mV	17.42mV	14.07mV	12.38mV	Pass
30% Load	23.84mV	17.42mV	13.97mV	14.02mV	Pass
40% Load	26.19mV	16.66mV	14.79mV	15.14mV	Pass
50% Load	29.88mV	19.00mV	17.39mV	13.66mV	Pass
60% Load	35.81mV	21.81mV	17.49mV	16.47mV	Pass
70% Load	40.06mV	24.32mV	18.21mV	17.44mV	Pass
80% Load	46.14mV	26.46mV	20.87mV	18.16mV	Pass
90% Load	53.97mV	29.73mV	22.71mV	19.54mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
100% Load	72.37mV	34.52mV	28.99mV	24.94mV	Pass
110% Load	81.80mV	36.68mV	30.90mV	25.80mV	Pass
Crossload1	21.42mV	23.60mV	24.23mV	15.94mV	Pass
Crossload2	18.42mV	21.82mV	15.30mV	15.55mV	Pass
Crossload3	18.21mV	20.03mV	22.10mV	15.04mV	Pass
Crossload4	77.17mV	33.36mV	24.61mV	24.89mV	Pass

The results above are not used in the certification process

Gamer Storm PF700X



Top side

PF700X					
Switching Power Supply 开关电源供应器					
Model No. 型号	PF700X-HD				
AC Input 交流输入	200-240Vac 5A 50-60Hz				
DC Output 直流输出	+3.3V	+5V	+12V	-12V	+5Vsb
Max Output Current 最大输出电流	18A	18A	58.3A	0.3A	3A
Max Combined Wattage 最大组合功率	110W		699.6W	3.6W	15W
Total Output 总功率	700W				

CAUTION:
Hazardous voltage inside!
DO NOT open this power supply unit!
To be serviced by trained personnel only.
No user serviceable components inside.
内有高压, 请勿开启

과전압과 과전류로부터 PCB와 부품들을 보호하기 위하여
제품에 안전을 위한 과전류 보호 기능을 탑재
제조사 : SHUNYUAN CE LINK LIMITED
수입판매처 : 주식회사 박스컴
제조년월 : 별도 표기
A/S문의처 : 080-212-3278

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RECYCLE

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Power specifications label

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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Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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