CPS PCCooler YS1200

Lab ID PL12002344

Certification ID 252344

Test Result Report ID: 24PS2344A

Certificate Issue Date: Feb 6, 2024

Scheme: ETA-EMI PSU

115V: CYBENETICS GOLD

230V: CYBENETICS PLATINUM 230v

Scheme: LAMBDA PSU

115V: CYBENETICS A-

230V: CYBENETICS A- 230v

CYBENETICS ATX 3.1 PASS

Outside Validation Scope

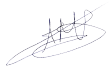
General Information

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	CPS PCCooler
Model	YS1200
OEM/ODM	Seasonic
Serial Number	
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	15-7.5

□□□□ (Hz)	50-60
□□□□ (W)	1200
Operating Temperature (Continuous Full Load) (°C)	
□□	ATX12V
□□□□	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	135mm Fluid Dynamic Bearing Fan (HA13525H12F-Z)
□□□□□	✓ (selectable)
Cybenetics Testing Information	
Lab ID	PL12002344
Date of receipt	Jan 25, 2024
Testing Date	Feb 1, 2024
Report Issued Date	Feb 6, 2024
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□ (Non-accredited measurements)

□□□□□				
□□	□□□□	□□□□□□	Gauge	In Cable Capacitors
ATX □□ 20+4 pin (610mm)	1	1	16-18AWG	□
4+4 pin EPS 12V □□ (710mm)	2	2	16AWG	□
6+2pin PCIe□□ (760mm)	2	2	16-18AWG	□
12+4 pin PCIe (700mm) (600W)	1	1	16-28AWG	□
SATA□□ (410mm+155mm)	1	2	18AWG	□
SATA□□ (500mm+155mm+155mm+155mm)	2	8	18AWG	□
4-pin Molex (450mm+125mm+125mm)	1	3	18AWG	□

Protection Features(Manufacturer)

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

□□□□

□		3.3V	5V	12V	5VSB	-12V
□□□□	□□	25	25	100	3	0.3
	□	125		1200	15	3.6
□□□□□ (W)		1200				

Parts Description

General Data	
Manufacturer (OEM)	Seasonic
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV, 1x CM02X (Discharge IC)
Inrush Protection	NTC Thermistor MF72-5D20L (5 Ohm) & Relay
Bridge Rectifier(s)	2x
APFC MOSFETs	2x Toshiba TK31E60W (600V, 30.8A, Rds(on): 0.088Ohm)
APFC Boost Diode	CREE C3D10060A (600V, 10A @ 150°C)
Bulk Cap(s)	Nippon Chemi-Con (420V, 470uF, 2,000h @ 105°C, KMZ) & Nippon Chemi-Con (420V, 680uF, 2,000h @ 105°C, KMZ)
Main Switchers	4x Infineon IPA60R180P7 (650V, 11A @ 100°C, Rds(on): 0.180Ohm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CU6901VPA

Topology	Primary side: APFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	8x Nexperia PSMN1R0-40YLD (40V, 198A @ 100°C, Rds(on): 1.93mOhm)
5V & 3.3V	DC-DC Converters: 6x Nexperia PSMN4R0-30YLD (30V, 67A @ 100°C, Rds(on): 6.6mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 8x Nippon Chemi-Con (5-6,000h @ 105°C, KZH) 3x Nichicon (2-5,000h @ 105°C, HD), 2x Rubycon (3-6,000h @ 105°C, YXG), Nippon Chemi-Con (1-5,000h @ 105°C, KZE) Polymer: 8x FCAP, 23x FPCAP, 2x Rubycon
Supervisor IC	Weltrend WT7527 (OCP, OVP, UVP, SCP, PG)
Standby PWM Controller	Excelliance MOS EM8569C

Fan Model	Hong Hua HA13525H12F-Z (135mm, 12V, 0.50A, Fluid Dynamic Bearing Fan)	**5VSB Circuit**

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)	88.866%
Average Noise Output (>1450 Load Combinations)	28.46dBA
PF□□□ (>1450 Load Combinations)	0.976

Efficiency With 10W (≤500W) or 2% (>500W) Load	76.820%
□□□□□□	0.0654W
Non-Accredited	
12V Ripple (Full Load)	25.92mV
5V Ripple (Full Load)	20.51mV
3.3V Ripple (Full Load)	24.14mV
5VSB Ripple (Full Load)	31.94mV
12V Load Regulation	0.82%
5V Load Regulation	0.58%
3.3V Load Regulation	0.82%
5VSB Load Regulation	2.60%
Inrush Current	35.300A

230V

Accredited	
□□□□ (>1450 load combinations)	91.325%
Average Noise Output (>1450 Load Combinations)	28.43dBA
PF□□□ (>1450 Load Combinations)	0.949
Efficiency With 10W (≤500W) or 2% (>500W) Load	75.611%
□□□□□□	0.1376W
Non-Accredited	
12V Ripple (Full Load)	28.50mV
5V Ripple (Full Load)	20.85mV
3.3V Ripple (Full Load)	23.99mV
5VSB Ripple (Full Load)	47.14mV
12V Load Regulation	0.90%
5V Load Regulation	0.58%
3.3V Load Regulation	0.79%
5VSB Load Regulation	2.58%
Inrush Current	69.300A
12V Transient Response (200%)	11.25V
5V Transient Response (200%)	4.902V

3.3V Transient Response (200%)		3.147V
5VSB Transient Response (200%)		4.852V
□□□□ & PG□□		27.20ms
AC Loss to PWR_OK Hold Up Time		22.40ms
PWR_OK Inactive to DC Loss Delay		4.80ms
PSU Timings: T1 (20% / 100%)	71.0ms	67.0ms
PSU Timings: T3 (20% / 100%)	124.0ms	124.0ms
12V OCP (27°C / 38°C)	132.4A (132.4%), 12.165V 5V	132A (132%), 12.174V 5V
5V OCP (27°C / 38°C)		
3.3V OCP (27°C / 38°C)		
5VSB OCP (27°C / 38°C)		
OPP (27.38°C / 39.55°C)	132.98%	124.25%

□□□□ & PG□□

Hold-Up Time (ms)	27.2
AC Loss to PWR_OK Hold Up Time (ms)	22.4
PWR_OK Inactive to DC Loss Delay (ms)	4.8

□□□□

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.92 V	114.84 V	113.85 V	115.01 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.98 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.420	1.419	1.340	1.422	1.490	PASS
Mains Voltage THD:	0.29 %	0.21 %	N/A	0.38 %	2.00 %	PASS
Real Power:	0.065 W	0.055 W	N/A	0.078 W	N/A	N/A

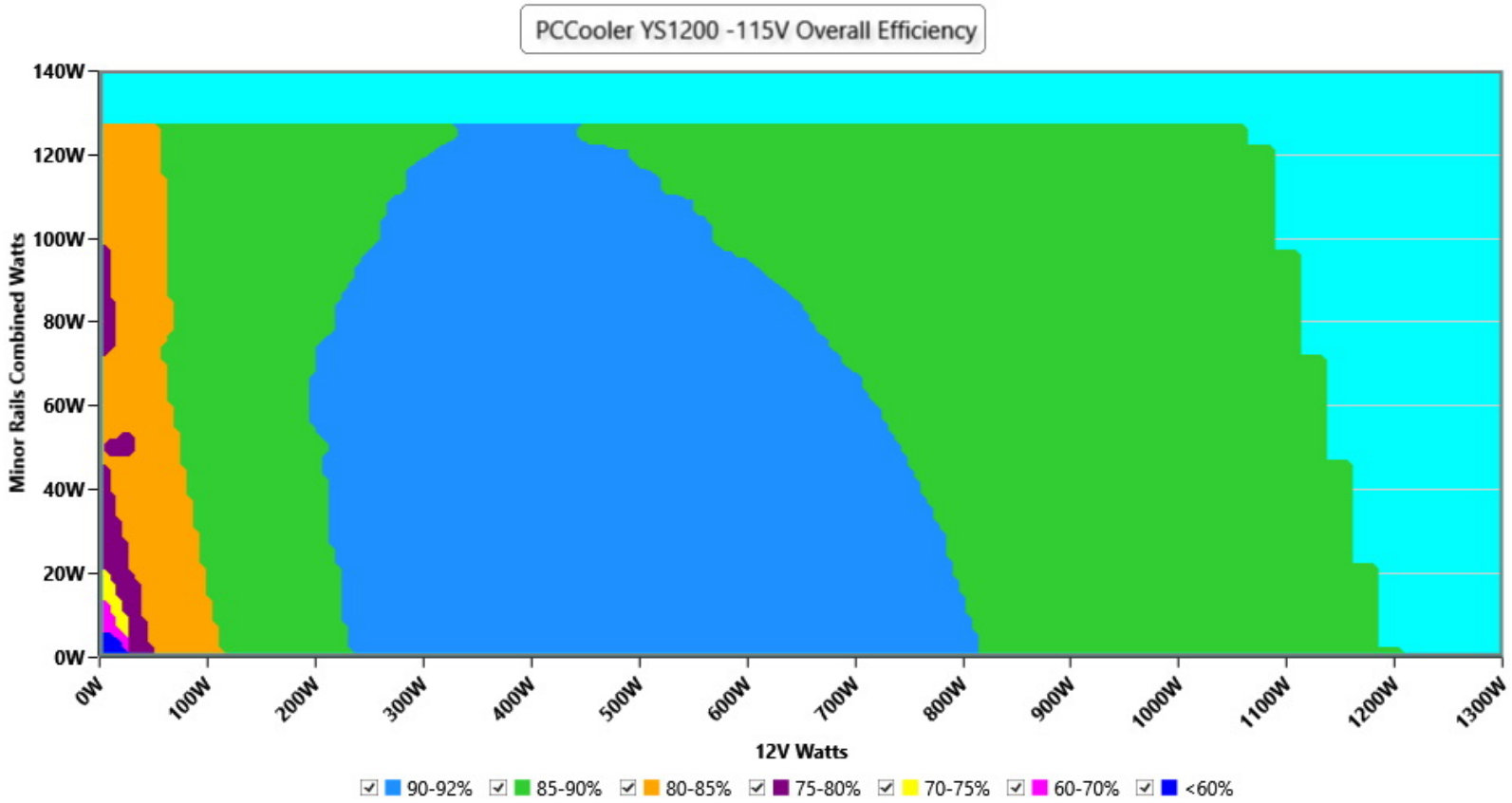
Apparent Power:	10.233 W	10.215 W	N/A	10.253 W	N/A	N/A
Power Factor:	0.007	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.89 V	229.78 V	227.70 V	229.98 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:	0.18 %	0.14 %	N/A	0.26 %	2.00 %	PASS
Real Power:	0.138 W	0.094 W	N/A	0.197 W	N/A	N/A
Apparent Power:	34.465 W	34.434 W	N/A	34.500 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

□□□□□□

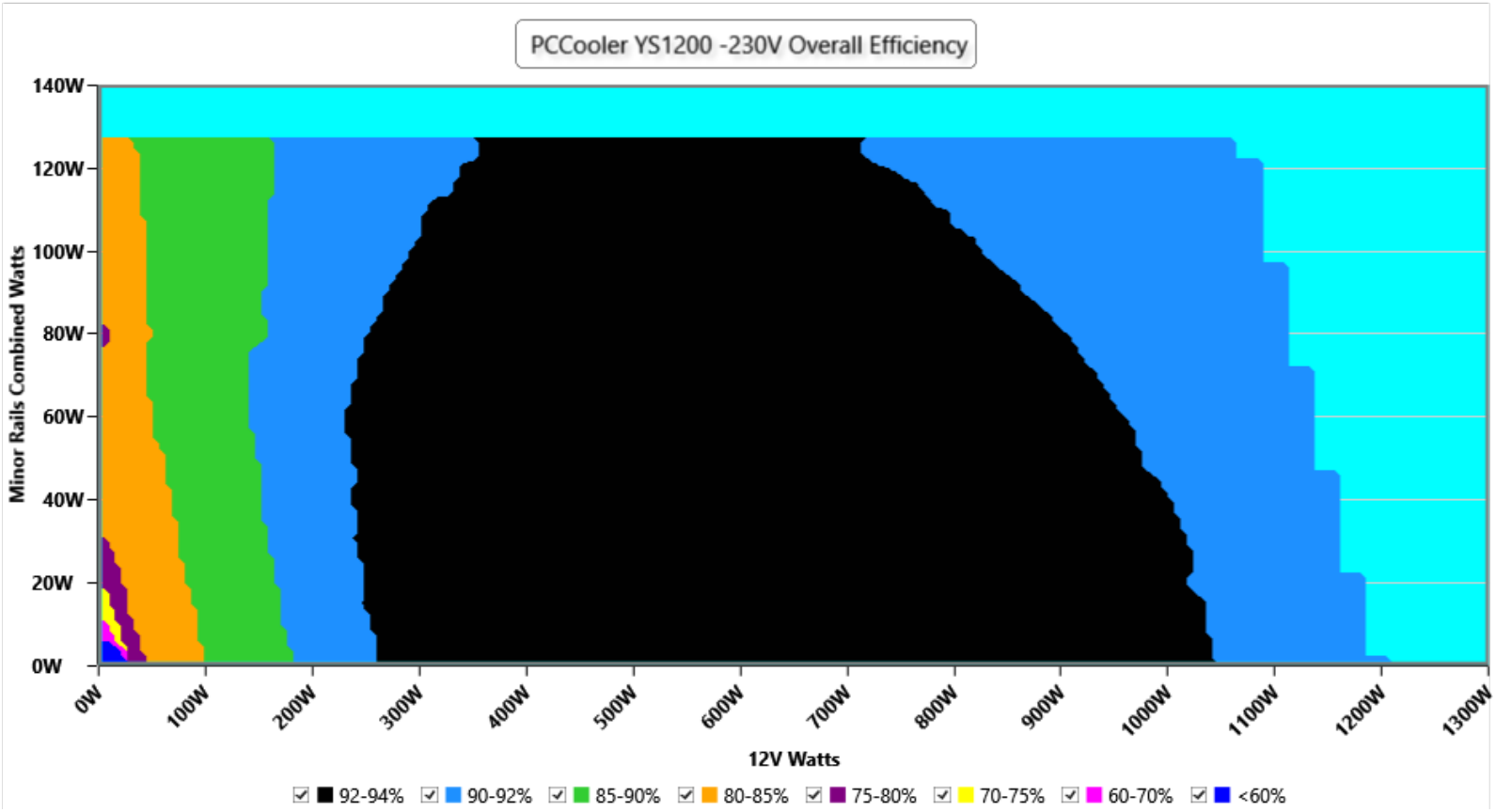
115V



□□

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

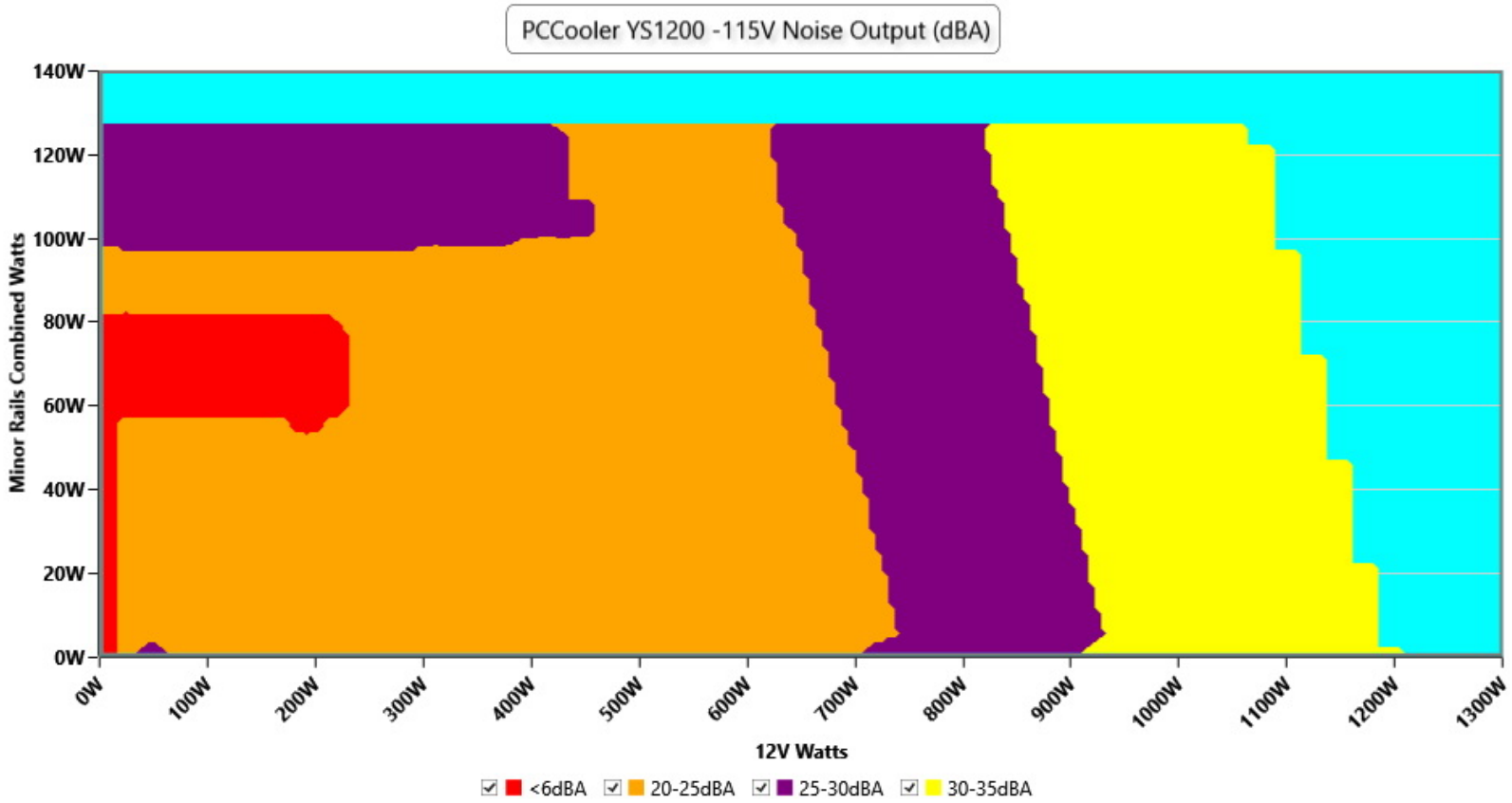
230V



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

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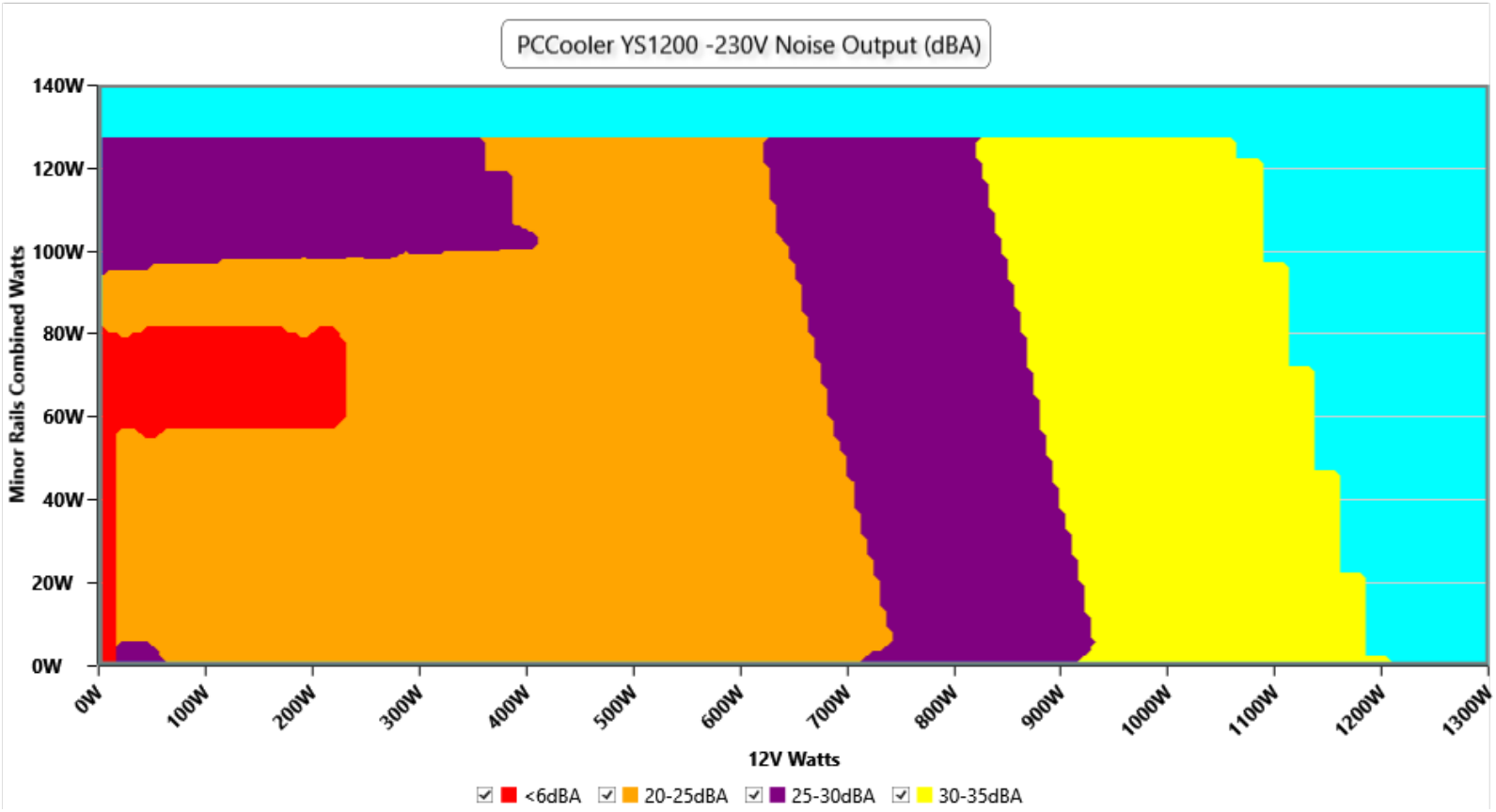
115V



□□

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 under high ambient temperature (indicative)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 44.7 °C	0 RPM · <6.0 dB(A) · 44.7 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.2 °C	0 RPM · <6.0 dB(A) · 45.2 °C	fan off in both
50%	851 RPM · 24.6 dB(A) · 42.4 °C	851 RPM · 24.6 dB(A) · 42.4 °C	**+0.0 dB(A)**
100%	2251 RPM · 49.1 dB(A) · 45.1 °C	2251 RPM · 49.1 dB(A) · 45.1 °C	**+0.0 dB(A)**

230V

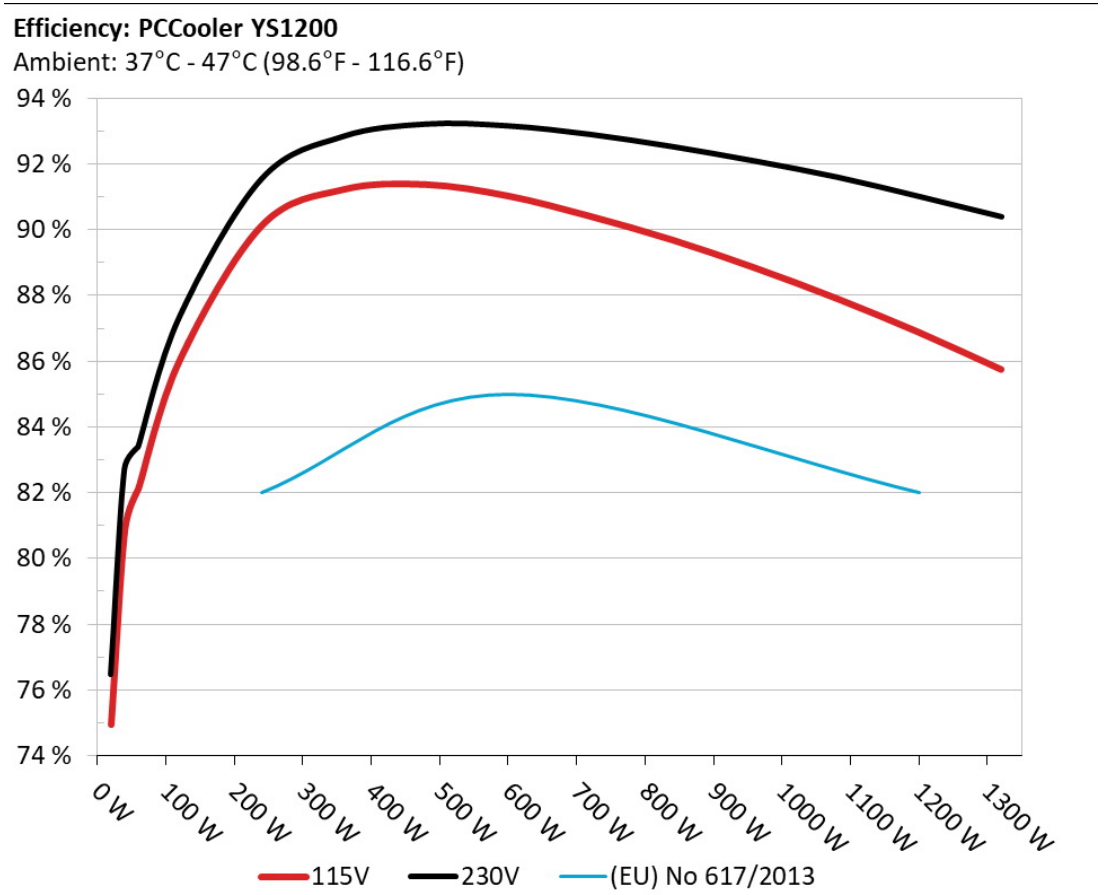
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 44.4 °C	0 RPM · <6.0 dB(A) · 44.4 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.3 °C	0 RPM · <6.0 dB(A) · 45.3 °C	fan off in both
50%	853 RPM · 24.7 dB(A) · 42.2 °C	853 RPM · 24.7 dB(A) · 42.2 °C	**+0.0 dB(A)**
100%	2253 RPM · 49.1 dB(A) · 44.9 °C	2253 RPM · 49.1 dB(A) · 44.9 °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: 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.

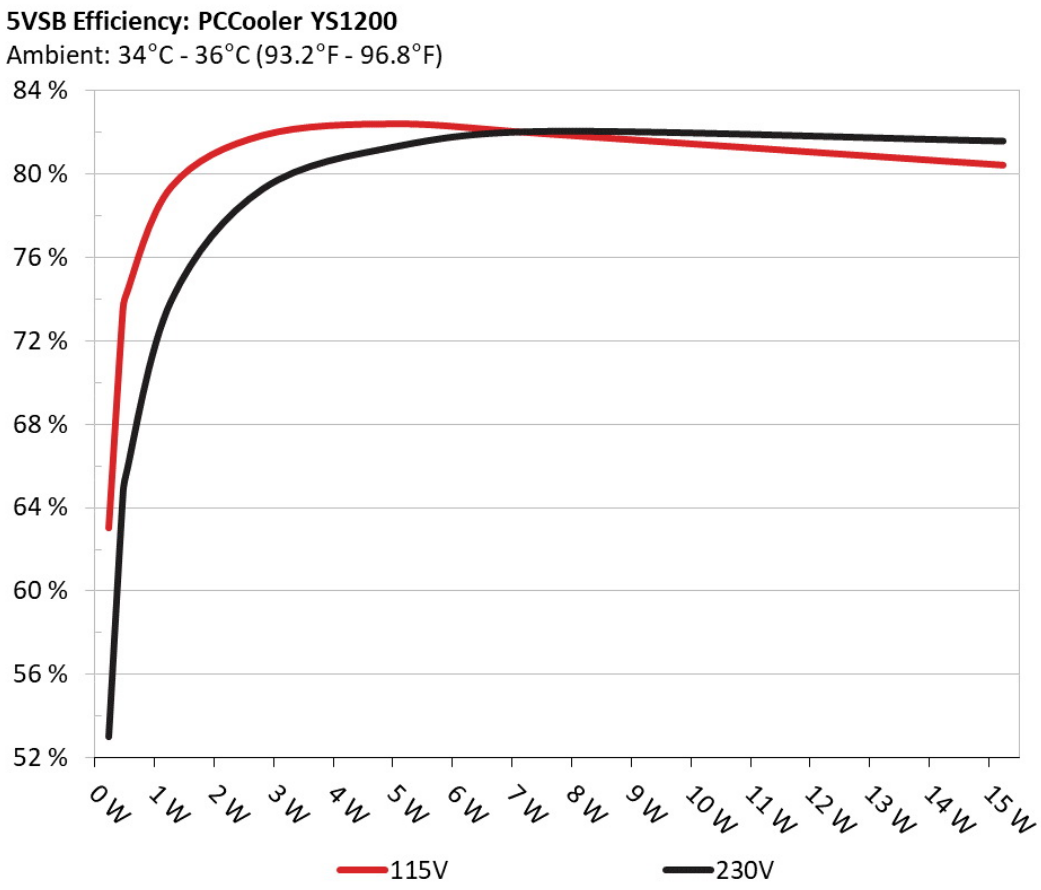
Informational. Not part of the ETA or LAMBDA rating.

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	0.231W	63.042%	0.031
	5.138V	0.32W		114.93V
2	0.09A	0.462W	73.281%	0.06
	5.137V	0.63W		114.92V
3	0.55A	2.82W	81.86%	0.261
	5.128V	3.445W		114.91V
4	1A	5.118W	82.403%	0.352
	5.119V	6.211W		114.91V
5	1.5A	7.662W	81.904%	0.411
	5.108V	9.355W		114.9V
6	3A	15.225W	80.424%	0.485
	5.076V	18.931W		114.9V

230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.045A	0.231W	53.021%	0.013
	5.139V	0.436W		229.89V
2	0.09A	0.462W	64.335%	0.021
	5.138V	0.719W		229.89V
3	0.55A	2.82W	79.283%	0.099
	5.128V	3.557W		229.88V
4	1A	5.118W	81.338%	0.163
	5.118V	6.292W		229.88V
5	1.5A	7.662W	82.032%	0.212
	5.108V	9.341W		229.88V
6	3A	15.228W	81.56%	0.324
	5.077V	18.673W		229.88V

Protection Features

Protection Features	
OCP (Cold @ 27°C)	12V: 132.4A (132.4%), 12.165V 5V: 35.3A (141.2%), 5.002V 3.3V: 34.6A (138.4%), 3.299V 5VSB: 6.4A (213.33%), 5.004V
OCP (Hot @ 38°C)	12V: 132A (132%), 12.174V 5V: 35.1A (140.4%), 5.001V 3.3V: 34.5A (138%), 3.299V 5VSB: 6.3A (210%), 5.004V
OPP (Cold @ 27°C)	1595.71W (132.98%)
OPP (Hot @ 40°C)	1491.06W (124.25%)
OTP	✓ (135°C @ secondary side)
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 Thermistor & Bypass relay

Supplementary Tests (For Reference)

10-110%□□□□

115V

□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
10%	8.095A	1.987A	1.983A	0.978A	119.996	86.036%	0	<6.0	44.72°C	0.957
	12.155V	5.031V	3.329V	5.114V	139.475				40.47°C	114.87V
20%	17.198A	2.983A	2.977A	1.176A	239.957	90.134%	0	<6.0	45.16°C	0.967
	12.156V	5.028V	3.326V	5.102V	266.221				40.56°C	114.83V
30%	26.622A	3.482A	3.475A	1.375A	359.201	91.232%	861	24.9	41.25°C	0.969
	12.138V	5.026V	3.324V	5.091V	393.724				46.38°C	114.79V
40%	36.124A	3.98A	3.974A	1.575A	479.57	91.384%	857	24.8	41.82°C	0.974
	12.135V	5.025V	3.322V	5.08V	524.786				47.35°C	114.75V
50%	45.219A	4.978A	4.972A	1.776A	599.323	91.038%	851	24.6	42.43°C	0.979
	12.137V	5.022V	3.319V	5.068V	658.329				48.51°C	114.7V

60%	54.353A	5.978A	5.971A	1.978A	719.837	90.418%	844	24.4	42.66°C	0.983
	12.143V	5.019V	3.316V	5.056V	796.126				49.28°C	114.66V
70%	63.425A	6.979A	6.973A	2.18A	839.576	89.698%	948	28.0	43.27°C	0.986
	12.148V	5.016V	3.314V	5.045V	936.004				50.35°C	114.61V
80%	72.525A	7.979A	7.975A	2.284A	959.569	88.854%	1045	30.8	43.86°C	0.989
	12.157V	5.013V	3.311V	5.036V	1079.943				51.95°C	114.56V
90%	81.925A	8.482A	8.463A	2.388A	1079.36	87.921%	1135	33.1	44.42°C	0.991
	12.168V	5.01V	3.308V	5.026V	1227.653				53.48°C	114.51V
100%	91.195A	8.984A	8.983A	2.997A	1199.389	86.893%	2251	49.1	45.08°C	0.992
	12.168V	5.009V	3.306V	5.006V	1380.306				55.18°C	114.46V
110%	100.397A	9.987A	10.081A	3.001A	1320.006	85.758%	2248	49.1	46.75°C	0.993
	12.169V	5.006V	3.303V	4.998V	1539.227				57.69°C	114.4V
CL1	0.115A	15.034A	15A	0A	126.304	81.315%	894	26.1	41.58°C	0.965
	12.193V	5.008V	3.307V	5.128V	155.327				47.09°C	114.85V
CL2	0.114A	24.932A	0A	0A	126.248	79.947%	1088	31.9	40.35°C	0.963
	12.183V	5.008V	3.318V	5.13V	157.916				47.43°C	114.86V
CL3	0.114A	0A	24.948A	0A	83.903	73.285%	1087	31.9	40.44°C	0.959
	12.178V	5.017V	3.307V	5.13V	114.492				49.45°C	114.87V
CL4	98.756A	0A	0A	0A	1199.958	87.563%	1222	35.4	45.41°C	0.991
	12.150V	5.024V	3.322V	5.074V	1370.406				56.38°C	114.47V

The results above are not used in the certification process

230V

□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
10%	8.096A	1.987A	1.983A	0.978A	119.981	87.345%	0	<6.0	44.44°C	0.878
	12.151V	5.032V	3.328V	5.114V	137.365				40.2°C	229.87V
20%	17.202A	2.983A	2.977A	1.176A	239.933	91.548%	0	<6.0	45.25°C	0.93
	12.152V	5.029V	3.326V	5.103V	262.088				40.71°C	229.85V
30%	26.622A	3.481A	3.475A	1.375A	359.113	92.841%	864	25.0	41.38°C	0.948
	12.135V	5.027V	3.324V	5.092V	386.804				46.47°C	229.83V

40%	36.120A	3.98A	3.974A	1.574A	479.5	93.218%	858	24.8	41.55°C	0.958
	12.134V	5.025V	3.322V	5.081V	514.383				47.06°C	229.8V
50%	45.217A	4.978A	4.971A	1.775A	599.24	93.164%	853	24.7	42.24°C	0.965
	12.135V	5.022V	3.319V	5.069V	643.207				48.29°C	229.79V
60%	54.360A	5.977A	5.971A	1.977A	719.755	92.904%	849	24.5	42.81°C	0.97
	12.140V	5.019V	3.316V	5.058V	774.725				49.34°C	229.77V
70%	63.425A	6.978A	6.972A	2.18A	839.512	92.532%	949	24.5	43.38°C	0.973
	12.147V	5.016V	3.314V	5.046V	907.266				50.39°C	229.75V
80%	72.531A	7.978A	7.974A	2.283A	959.507	92.095%	1051	30.8	43.94°C	0.975
	12.155V	5.013V	3.311V	5.037V	1041.861				52.04°C	229.72V
90%	81.916A	8.481A	8.462A	2.387A	1079.312	91.608%	1134	33.1	44.56°C	0.978
	12.168V	5.01V	3.309V	5.027V	1178.182				53.65°C	229.71V
100%	91.174A	8.983A	8.982A	2.996A	1199.358	91.019%	2253	49.1	44.89°C	0.98
	12.170V	5.009V	3.307V	5.007V	1317.698				54.96°C	229.68V
110%	100.384A	9.987A	10.08A	3A	1319.977	90.401%	2250	49.1	46.59°C	0.981
	12.170V	5.006V	3.304V	5V	1460.145				57.51°C	229.66V
CL1	0.113A	15.022A	14.995A	0A	126.274	82.909%	898	26.3	40.94°C	0.888
	12.151V	5.012V	3.308V	5.128V	152.302				46.45°C	229.87V
CL2	0.113A	24.921A	0A	0A	126.239	81.237%	1092	32.0	41.75°C	0.89
	12.164V	5.01V	3.319V	5.13V	155.402				49.03°C	229.87V
CL3	0.113A	0A	24.943A	0A	83.896	74.506%	1091	32.0	41.11°C	0.855
	12.170V	5.019V	3.308V	5.13V	112.6				50.27°C	229.87V
CL4	98.783A	0A	0A	0A	1199.904	91.611%	1225	35.5	45.49°C	0.978
	12.146V	5.024V	3.323V	5.074V	1309.772				56.41°C	229.69V

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	1.229A	0.496A	0.495A	0.195A	20	74.953%	0	<6.0	39.72°C	0.868
	12.082V	5.038V	3.333V	5.136V	26.68				36.67°C	114.9V
40W	2.708A	0.695A	0.693A	0.292A	39.999	80.899%	0	<6.0	40.94°C	0.924
	12.075V	5.036V	3.332V	5.132V	49.44				37.67°C	114.9V
60W	4.186A	0.894A	0.891A	0.39A	59.998	83.463%	0	<6.0	41.93°C	0.938
	12.069V	5.035V	3.331V	5.129V	71.884				38.16°C	114.89V
80W	5.620A	1.092A	1.09A	0.488A	79.945	82.148%	0	<6.0	43.79°C	0.947
	12.156V	5.034V	3.331V	5.126V	97.324				39.81°C	114.88V

The results above are not used in the certification process

230V

□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
20W	1.230A	0.496A	0.495A	0.195A	19.994	76.493%	0	<6.0	39.65°C	0.496
	12.071V	5.038V	3.333V	5.136V	26.122				36.57°C	229.9V
40W	2.708A	0.695A	0.693A	0.292A	39.993	82.736%	0	<6.0	40.37°C	0.686
	12.066V	5.036V	3.331V	5.133V	48.299				37.05°C	229.9V
60W	4.190A	0.894A	0.891A	0.39A	59.993	84.693%	0	<6.0	41.58°C	0.776
	12.061V	5.035V	3.331V	5.13V	70.806				38.11°C	229.87V
80W	5.622A	1.092A	1.09A	0.488A	79.932	83.408%	0	<6.0	43.22°C	0.831
	12.150V	5.035V	3.331V	5.127V	95.828				39.35°C	229.87V

The results above are not used in the certification process

□□□□

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	15.35mV	14.00mV	18.67mV	18.67mV	Pass
20% Load	20.57mV	13.74mV	17.70mV	17.80mV	Pass
30% Load	19.53mV	14.05mV	16.93mV	28.24mV	Pass
40% Load	17.34mV	14.40mV	16.68mV	26.29mV	Pass
50% Load	18.83mV	14.92mV	16.47mV	27.52mV	Pass
60% Load	16.78mV	14.41mV	16.88mV	26.55mV	Pass
70% Load	18.93mV	15.99mV	18.01mV	27.88mV	Pass
80% Load	17.24mV	16.86mV	18.83mV	28.34mV	Pass
90% Load	17.14mV	18.24mV	21.23mV	29.11mV	Pass
100% Load	25.92mV	20.51mV	24.14mV	31.94mV	Pass
110% Load	25.12mV	21.42mV	25.30mV	31.80mV	Pass
Crossload1	15.07mV	16.03mV	22.20mV	32.24mV	Pass
Crossload2	16.93mV	23.04mV	22.76mV	28.18mV	Pass
Crossload3	15.96mV	17.11mV	25.93mV	29.05mV	Pass
Crossload4	25.81mV	20.44mV	24.21mV	35.07mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	16.1 mV	16.0 mV	20.3 mV	19.9 mV	Pass
20% Load	23.7 mV	13.7 mV	17.7 mV	18.3 mV	Pass
30% Load	21.3 mV	14.1 mV	16.8 mV	28.1 mV	Pass
40% Load	17.2 mV	14.3 mV	18.2 mV	26.7 mV	Pass
50% Load	18.4 mV	15.0 mV	17.9 mV	29.2 mV	Pass
60% Load	17.9 mV	14.8 mV	17.4 mV	28.2 mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	18.2 mV	15.9 mV	18.5 mV	28.4 mV	Pass
80% Load	17.4 mV	17.9 mV	20.4 mV	29.5 mV	Pass
90% Load	19.2 mV	20.1 mV	21.4 mV	29.8 mV	Pass
100% Load	28.5 mV	20.9 mV	24.0 mV	47.1 mV	Pass
110% Load	28.6 mV	23.1 mV	24.5 mV	50.7 mV	Fail
Crossload 1	16.9 mV	17.6 mV	23.1 mV	30.7 mV	Pass
Crossload 2	17.9 mV	25.0 mV	25.1 mV	30.0 mV	Pass
Crossload 3	16.6 mV	18.0 mV	26.7 mV	30.2 mV	Pass
Crossload 4	27.5 mV	20.2 mV	25.4 mV	48.8 mV	Pass

The results above are not used in the certification process

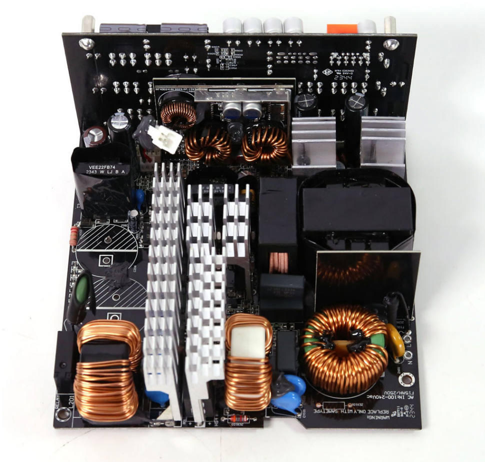
CPS PCCooler YS1200



Top side



Power specifications label



Internals



Cooling Fan

Cybenetics

Cybenetics ETA LAMBDA SAFE DELTA PHI