CPS PCCooler SU2500

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Lab ID PL25003220

Certification ID 263220

Test Result Report ID: 26PS3220A

Certificate Issue Date: Apr 17, 2026

230V

Scheme: ETA-EMI PSU



230V

No LAMBDA level

Average noise output 47.02 dB(A), above the 45 dB(A) limit of the lowest LAMBDA level (Standard).

Scheme: LAMBDA PSU



Outside Validation Scope



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	CPS PCCooler
Model	SU2500
OEM/ODM	CE-Link
Serial Number	-

Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	200-240
□□□□ (Arms)	11-15
□□□□ (Hz)	50-60
□□□□ (W)	2500
Operating Temperature (Continuous Full Load) (°C)	10 - 44
□□	ATX12V
□□□□	Fully Modular
Warranty	No Info
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 165mm
Weight	2.56 kg (5.64 lb)
□□	135mm Double Ball Bearing Fan (HA13525H12B-Z)
□□□□□	✓ (selectable)
Cybenetics Testing Information	
Lab ID	PL25003220
Date of receipt	Feb 17, 2026
Testing Date	Mar 30, 2026
Report Issued Date	Apr 17, 2026
□□□□□	• Hold-up time re-checked on 2026-11-02: the lowest hold-up of all captures was logged (17.80 ms; AC loss to PWR_OK 15.10 ms; PWR_OK inactive to DC loss 2.70 ms).
Engineer Name	Georgios Theodoros Sarimpalas
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□ (Non-accredited measurements)

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□□	□□□□	□□□□□□	**Gauge**	**Cable Type**
ATX □□ 20+4 pin (600mm)	1	1	16-22AWG	Tinned Copper
4+4 pin EPS 12V □□ (750mm)	2	2	18AWG	Tinned Copper

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6+2pin PCIe□□ (600mm)	6	6	16-18AWG	Tinned Copper
12+4 pin PCIe (600mm) (600W)	4	4	16-24AWG	Tinned Copper
SATA□□ (590mm+150mm+150mm)	3	9	18AWG	Tinned Copper
SATA□□ (590mm+150mm) / 4-pin Molex (+150mm)	2	4 / 2	18AWG	Tinned Copper

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	208.3	6	0.5
	□	150		2500	30	6
□□□□□ (W)		2500				

Parts Description

General Data	
Manufacturer (OEM)	CE-Link
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF72 5-D15 (5 Ohm @ 25°C) & Relay
Bridge Rectifier	12x Nexperia GS10M (1000V, 10A @ 100°C)
APFC MOSFETs	4x Shenzhen Xinliwei Electronics XLW C80R055Y (650V, 80A @ 25°C, Rds(on): 0.055 Ohm)
APFC Boost Diode	2x Global Power Technology G4S06515AT (650V, 15A @ 143°C)

Bulk Cap(s)	1x Nippon Chemi-con (420V, 1150uF, 2000h @ 105°C, KHE) 1x Nippon Chemi-con (400V, 820uF, 2000h @ 105°C, KMW)
Main Switchers	4x Reactor Micro RMC60R068FD (600V, 48A @ 25°C, Rds(on): 0.068 Ohm)
APFC Controller	Champion CM6500UNX & Champion CM03AX (reducing no load consumption)
Resonant Controller	Champion CM6901T6X
IC Driver	2x Novosense Microelectronics NSi6602BD
Topology	Primary side: APFC, Full-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	16x Infineon BSC010N04LS (40V, 178A @ 100°C, Rds(on): 1.0 mOhm)
5V & 3.3V	DC-DC Converters: Vergiga Semiconductor VSP007N04MS-G (40V, 50A @ 100°C, Rds(on): 4.3 mOhm) PWM Controller(s): Anpec APW7159C
Filtering Capacitors	Electrolytic: 6x Nichicon (10.000h @ 105°C, HW) 1x Rubycon (4~10.000h @ 105°C, YXJ) 1x Rubycon (4~10.000h @ 105°C, YXF) 1x Nippon Chemi-con (5~6.000h @ 105°C, KZH) Polymer: 26x Nippon Chemi-con, 46x TEAPO
Supervisor IC	Grenergy GR8329E (OVP, UVP, OCP, PG)
Fan Controller / Micro Controller	Unisonic Technologies UTC393
Fan Model	Hong Hua HA13525H12B-Z (135mm, 12V, 0.50A, Double Ball Bearing Fan)
5VSB Circuit	
Rectifier	Infineon BSC0702LS (60V, 2.7mOhm)
Standby PWM Controller	Meraki Integrated MK2787

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 230V

Accredited		
□□□□ (>1450 load combinations)		93.245%
Average Noise Output (>1450 Load Combinations)		47.02dBA
PF□□□ (>1450 Load Combinations)		0.969
Efficiency With 10W (≤500W) or 2% (>500W) Load		75.710%
□□□□□□		0.1449W
Non-Accredited		
12V Ripple (Full Load)		35.65mV
5V Ripple (Full Load)		30.18mV
3.3V Ripple (Full Load)		29.96mV
5VSB Ripple (Full Load)		24.42mV
12V Load Regulation		0.79%
5V Load Regulation		1.33%
3.3V Load Regulation		1.78%
5VSB Load Regulation		3.36%
Inrush Current		86.140A
12V Transient Response (200%)		11.66V
5V Transient Response (200%)		4.920V
3.3V Transient Response (200%)		3.214V
5VSB Transient Response (200%)		4.946V
□□□□ & PG□□		17.80ms
AC Loss to PWR_OK Hold Up Time		15.10ms
PWR_OK Inactive to DC Loss Delay		2.70ms
PSU Timings: T1 (20% / 100%)	101.0ms	100.0ms
PSU Timings: T3 (20% / 100%)	122.0ms	122.0ms
12V OCP (31.9°C / 45.0°C)	256.79A (123.28%), 12.050V	239.60A (115.03%), 12.063V
5V OCP (31.9°C / 45.0°C)	32.2A (128.80%), 4.991V	32.3A (129.20%), 4.994V

3.3V OCP (31.9°C / 45.0°C)	33.9A (135.60%), 3.308V	33.8A (135.20%), 3.308V
5VSB OCP (31.9°C / 45.0°C)	6.1A (101.67%), 4.751V *Voltage Drop (4.657V @ 8A)	6.3A (105.00%), 4.753V *Voltage Drop (4.682V @ 7.8A)
OPP (32.28°C / 44.37°C)	122.44%	115.40%

□□□□ & PG□□

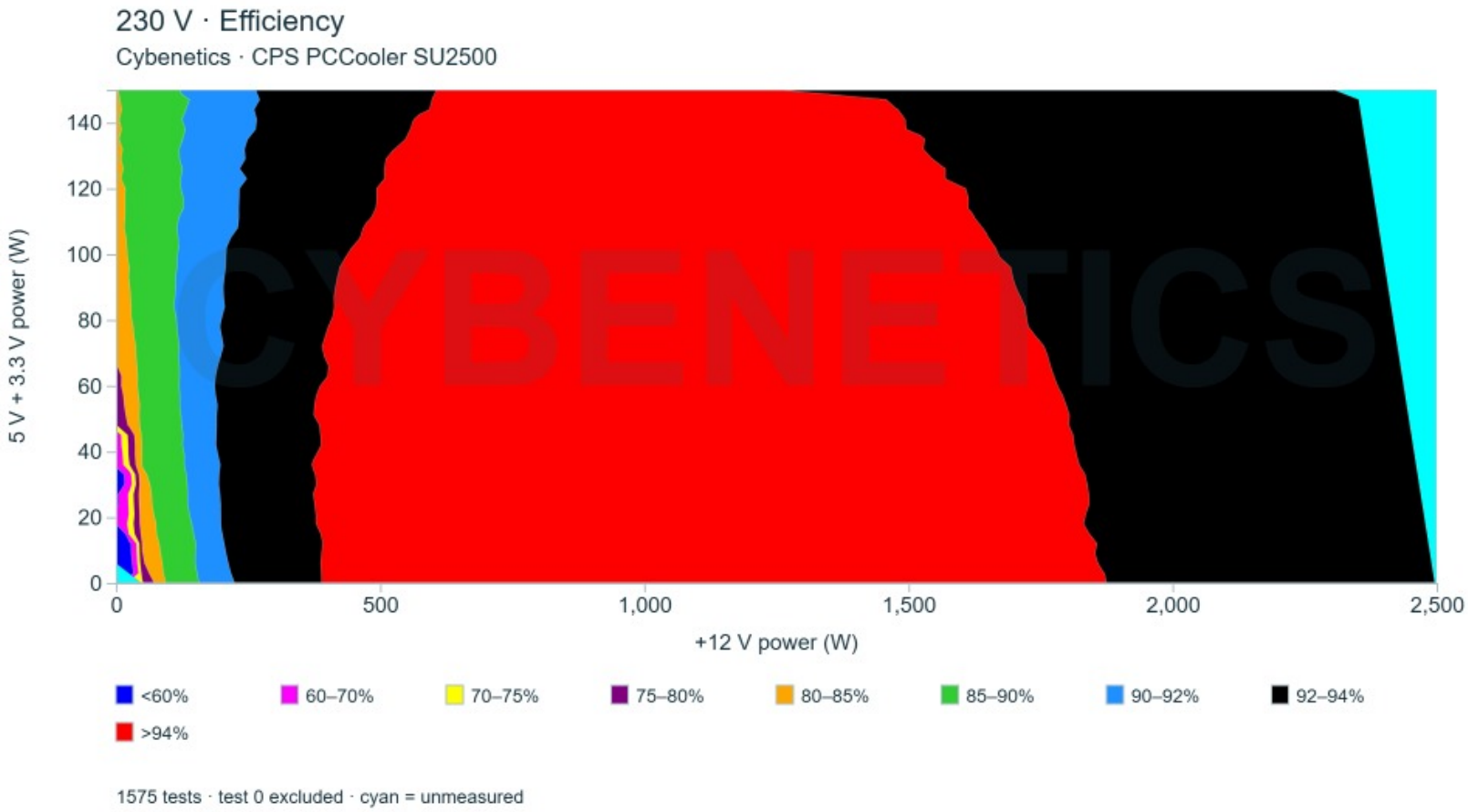
Hold-Up Time (ms)	17.8
AC Loss to PWR_OK Hold Up Time (ms)	15.1
PWR_OK Inactive to DC Loss Delay (ms)	2.7

□□□□

Tables 230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.09 V	230.06 V	227.70 V	230.10 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.01 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:	0.145 W	0.114 W	N/A	0.177 W	N/A	N/A
Apparent Power:	61.365 W	61.329 W	N/A	61.405 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

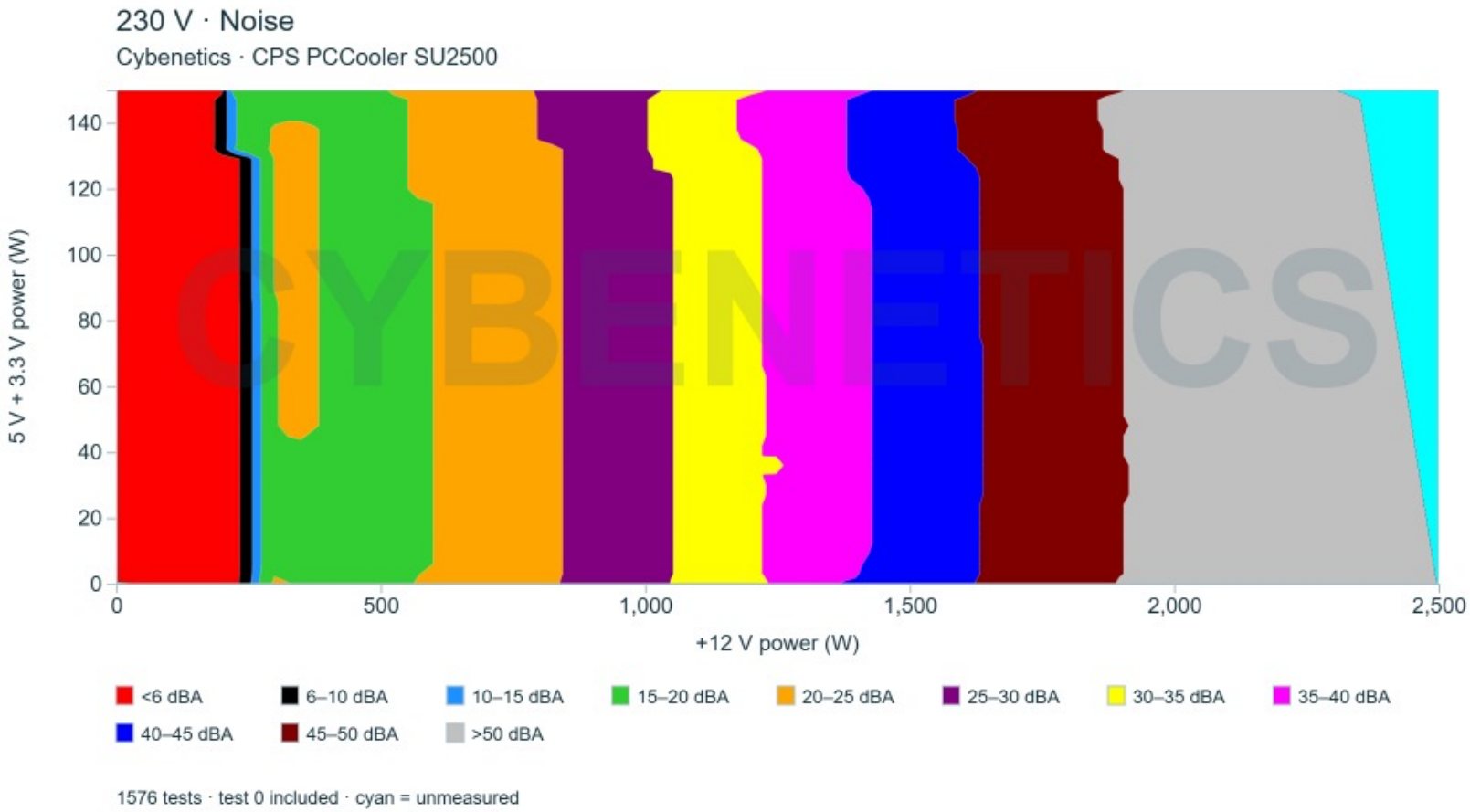
230V



□□

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

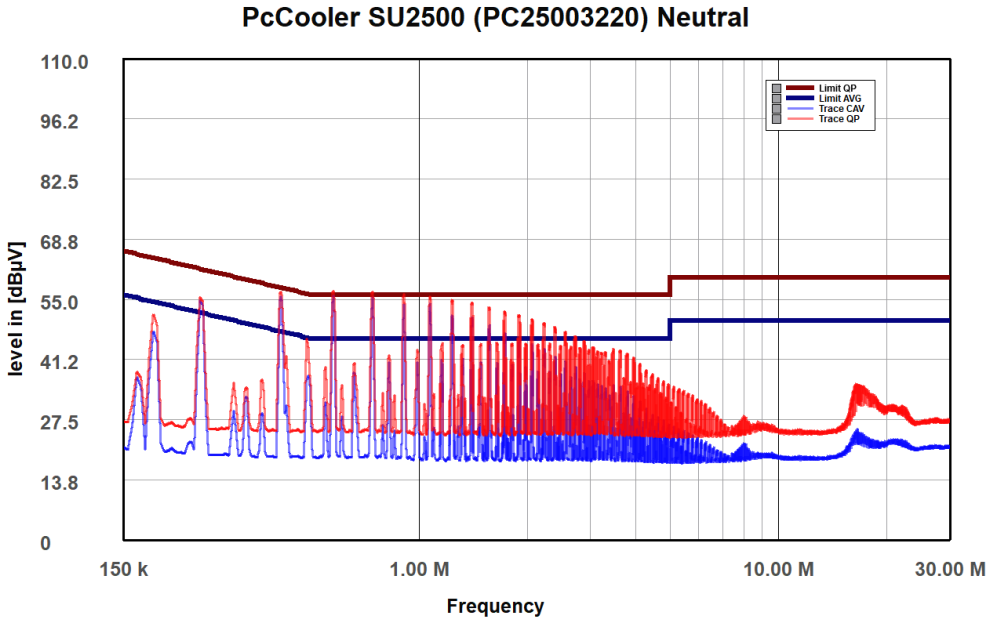
230V



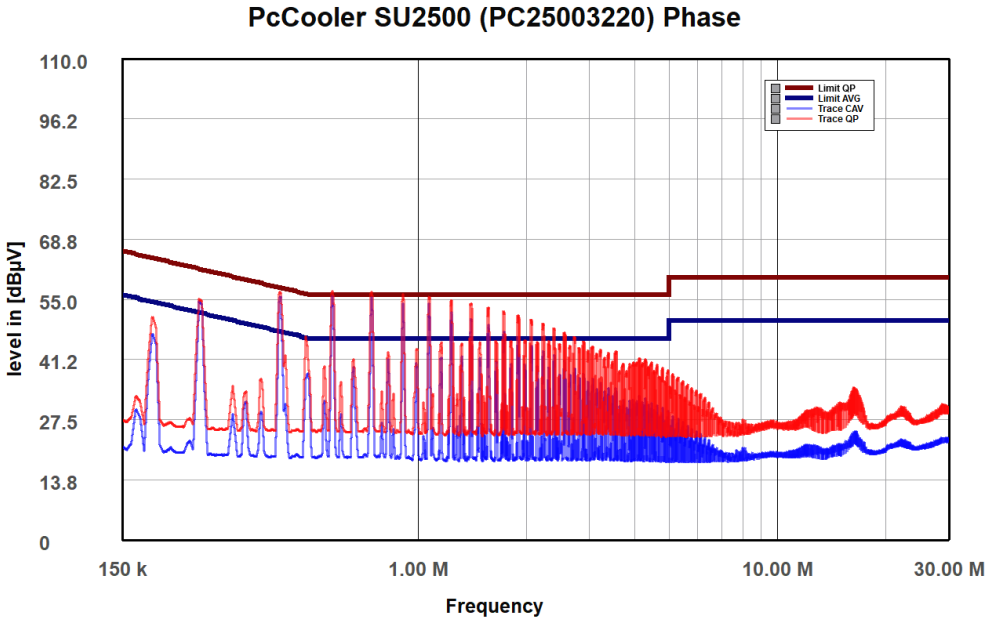
□□

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

Conducted Emissions EN 55032 & CISPR 32

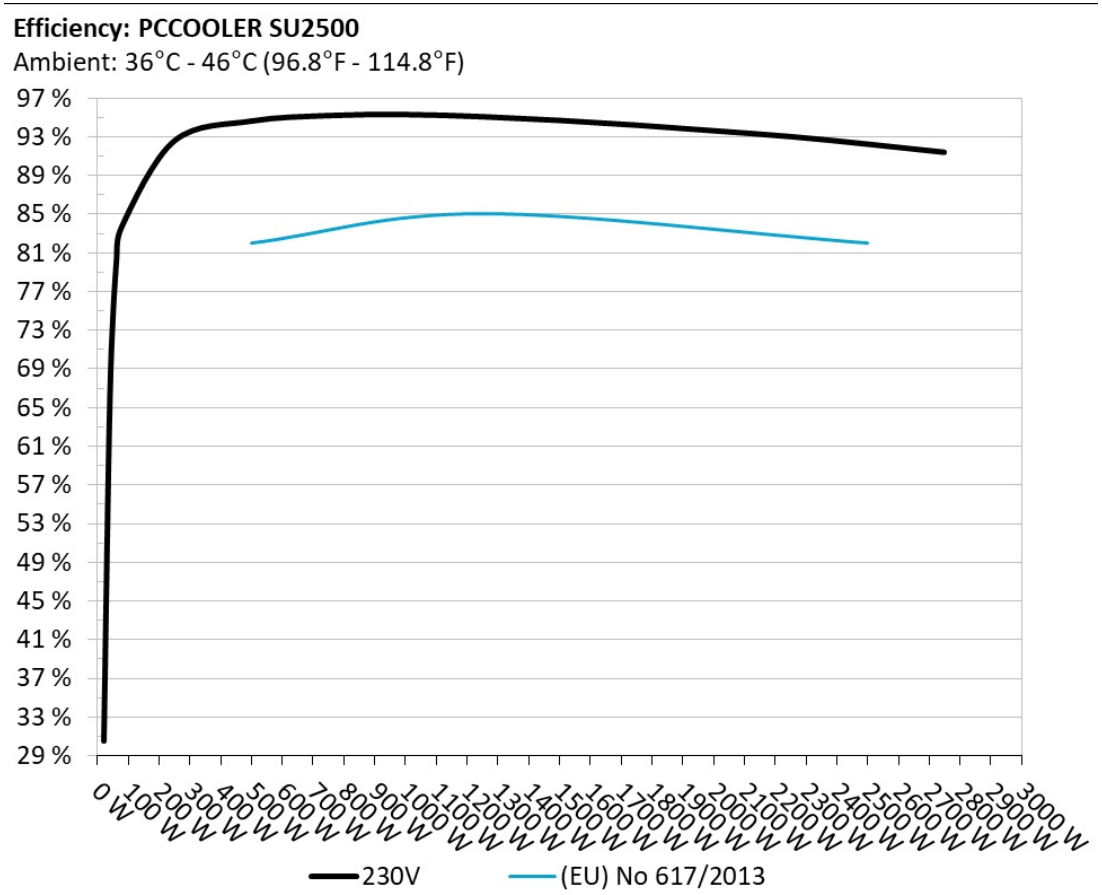


NEUTRAL



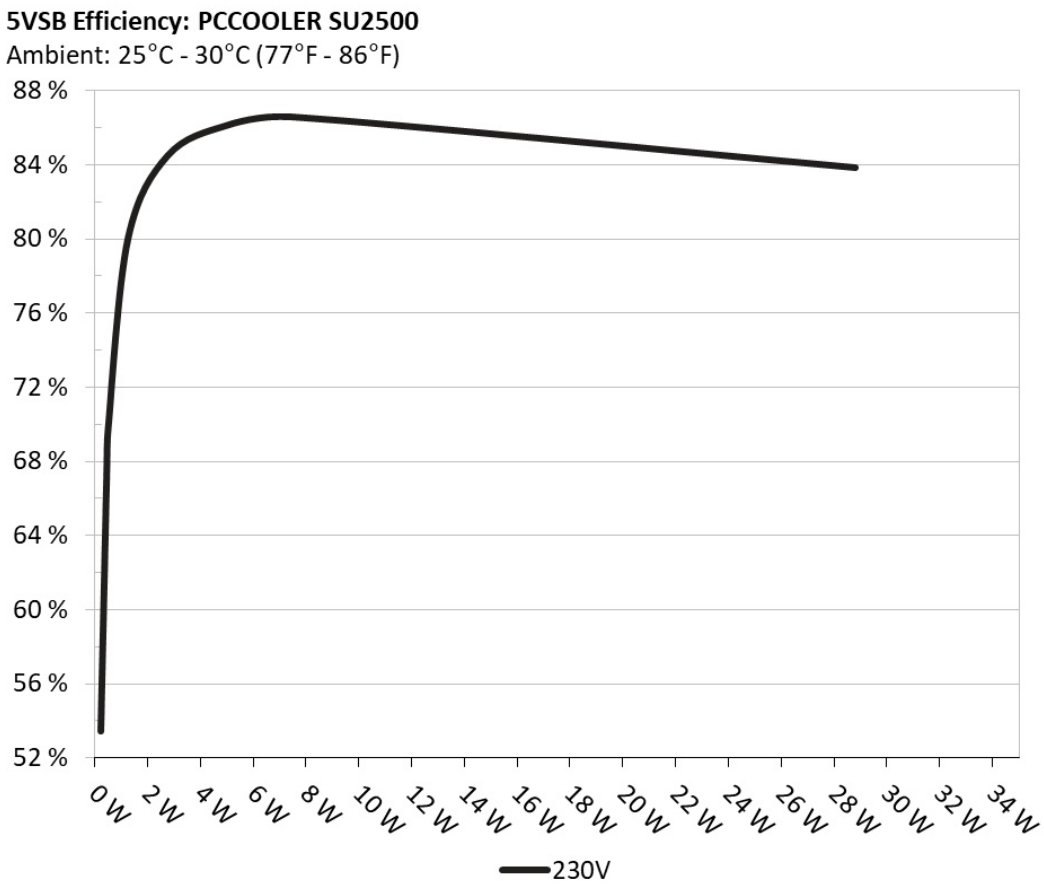
PHASE

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) 230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	**0.045A**	0.226W	53.438%	0.007
	5.027V	0.425W		229.91V

2	**0.09A**	0.452W	67.55%	0.011
	5.026V	0.67W		229.92V
3	**0.55A**	2.755W	84.513%	0.052
	5.008V	3.26W		229.91V
4	**1A**	4.991W	86.144%	0.09
	4.991V	5.795W		229.91V
5	**1.5A**	7.459W	86.606%	0.131
	4.972V	8.611W		229.92V
6	**6.001A**	28.795W	83.87%	0.351
	4.799V	34.335W		229.91V

Protection Features

OCP (Normal @ 31.9°C)	12V: 256.79A (123.28%), 12.050V 5V: 32.2A (128.80%), 4.991V 3.3V: 33.9A (135.60%), 3.308V 5VSB: 6.1A (101.67%), 4.751V *Voltage Drop (4.657V @ 8A)
OCP (Hot @ 45.0°C)	12V: 239.60A (115.03%), 12.063V 5V: 32.3A (129.20%), 4.994V 3.3V: 33.8A (135.20%), 3.308V 5VSB: 6.3A (105.00%), 4.753V *Voltage Drop (4.682V @ 7.8A)
OPP (Normal @ 32.3°C)	3060.88W (122.44%)
OPP (Hot @ 44.4°C)	2884.92W (115.40%)
OTP	✓ (98°C @ 12V Heatsink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Full Load @ 180V)	✓
UVP (No Damage @ 170V)	✓
Conducted Emissions EN55032 & CISPR 32	✗
NLO	✓

Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

Supplementary Tests (For Reference)

10-110%□□□□ 230V

□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
10%	**18.814A**	**1.984A**	**1.99A**	**0.994A**	249.998	92.573%	0	<6.0	44.18°C	0.924
	12.140V	5.039V	3.316V	5.028V	270.055				40.45°C	229.85V
20%	**38.632A**	**2.98A**	**2.99A**	**1.195A**	499.588	94.596%	679	23.1	40.74°C	0.968
	12.132V	5.032V	3.311V	5.02V	528.123				43.19°C	229.82V
30%	**58.854A**	**3.482A**	**3.494A**	**1.397A**	749.592	95.161%	922	30.7	41.19°C	0.98
	12.124V	5.026V	3.306V	5.01V	787.7				45.08°C	229.77V
40%	**79.112A**	**3.984A**	**3.999A**	**1.6A**	999.557	95.264%	1159	36.9	41.81°C	0.983
	12.114V	5.021V	3.301V	5V	1049.249				45.52°C	229.73V
50%	**99.082A**	**4.987A**	**5.008A**	**1.803A**	1249.744	95.041%	1390	41.6	42.25°C	0.985
	12.103V	5.013V	3.295V	4.991V	1314.952				45.86°C	229.69V
60%	**119.088A**	**5.994A**	**6.021A**	**2A**	1499.828	94.658%	1665	47.3	42.97°C	0.986
	12.092V	5.005V	3.289V	4.982V	1584.467				47.28°C	229.65V
70%	**139.128A**	**7.003A**	**7.037A**	**2.212A**	1750.004	94.17%	1965	49.7	43.18°C	0.987
	12.081V	4.999V	3.283V	4.973V	1858.356				49.23°C	229.6V
80%	**159.199A**	**8.013A**	**8.056A**	**2.316A**	1999.583	93.595%	2167	52.9	43.99°C	0.988
	12.071V	4.991V	3.277V	4.966V	2136.414				50.42°C	229.55V
90%	**179.707A**	**8.524A**	**8.558A**	**2.421A**	2249.784	92.992%	2328	54.8	44.61°C	0.99
	12.060V	4.986V	3.271V	4.957V	2419.348				51.82°C	229.51V
100%	**198.799A**	**9.039A**	**9.097A**	**6.152A**	2499.935	92.204%	2399	56	45.96°C	0.991
	12.048V	4.978V	3.264V	4.878V	2711.313				53.59°C	229.46V
110%	**218.974A**	**10.058A**	**10.22A**	**6.162A**	2749.272	91.366%	2406	56	46.39°C	0.992
	12.038V	4.971V	3.258V	4.869V	3009.109				55.77°C	229.4V

CL1	**0.116A**	**18.065A**	**18.083A**	**0.001A**	151.28	82.736%	1437	42.6	41.36°C	0.868
	12.149V	4.997V	3.295V	5.085V	182.856				46.63°C	229.86V
CL2	**0.115A**	**24.963A**	**0A**	**0.001A**	126.256	80.646%	1091	35.6	40.66°C	0.835
	12.151V	5.002V	3.298V	5.106V	156.557				45.32°C	229.86V
CL3	**0.114A**	**0A**	**24.914A**	**0A**	83.883	76.94%	833	27.8	40.65°C	0.737
	12.150V	5.03V	3.311V	5.048V	109.022				44.84°C	229.87V
CL4	**207.487A**	**0A**	**0A**	**0A**	2499.871	92.646%	2365	55.3	45.13°C	0.991
	12.048V	5.005V	3.28V	4.976V	2698.319				51.55°C	229.46V

The results above are not used in the certification process

20-80□□□□ 230V

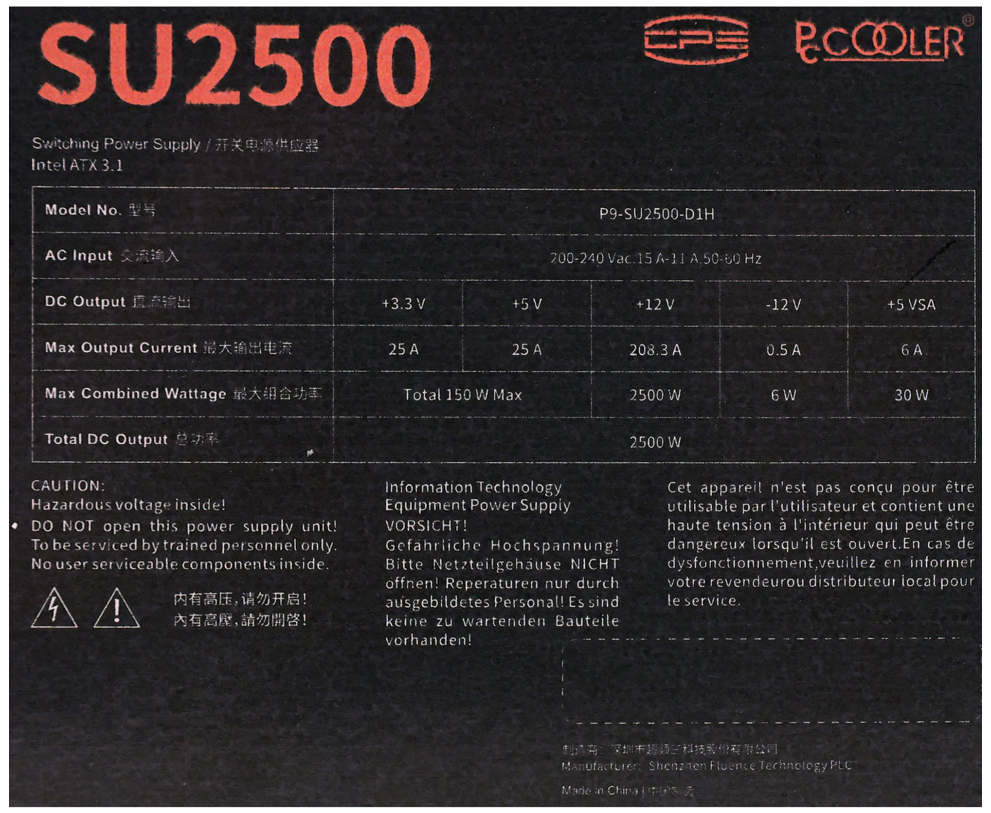
□□	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
20W	**1.222A**	**0.496A**	**0.497A**	**0.198A**	19.991	30.472%	0	<6.0	39.28°C	0.291
	12.139V	5.043V	3.322V	5.042V	33.104				36.06°C	229.9V
40W	**2.692A**	**0.694A**	**0.695A**	**0.297A**	39.994	66.54%	0	<6.0	41.02°C	0.503
	12.141V	5.044V	3.322V	5.042V	55.029				37.53°C	229.89V
60W	**4.162A**	**0.892A**	**0.894A**	**0.397A**	59.995	79.842%	0	<6.0	41.53°C	0.608
	12.142V	5.044V	3.321V	5.041V	75.141				38°C	229.88V
80W	**5.625A**	**1.09A**	**1.093A**	**0.496A**	79.931	83.8%	0	<6.0	42.64°C	0.695
	12.143V	5.044V	3.321V	5.04V	95.384				39.04°C	229.88V

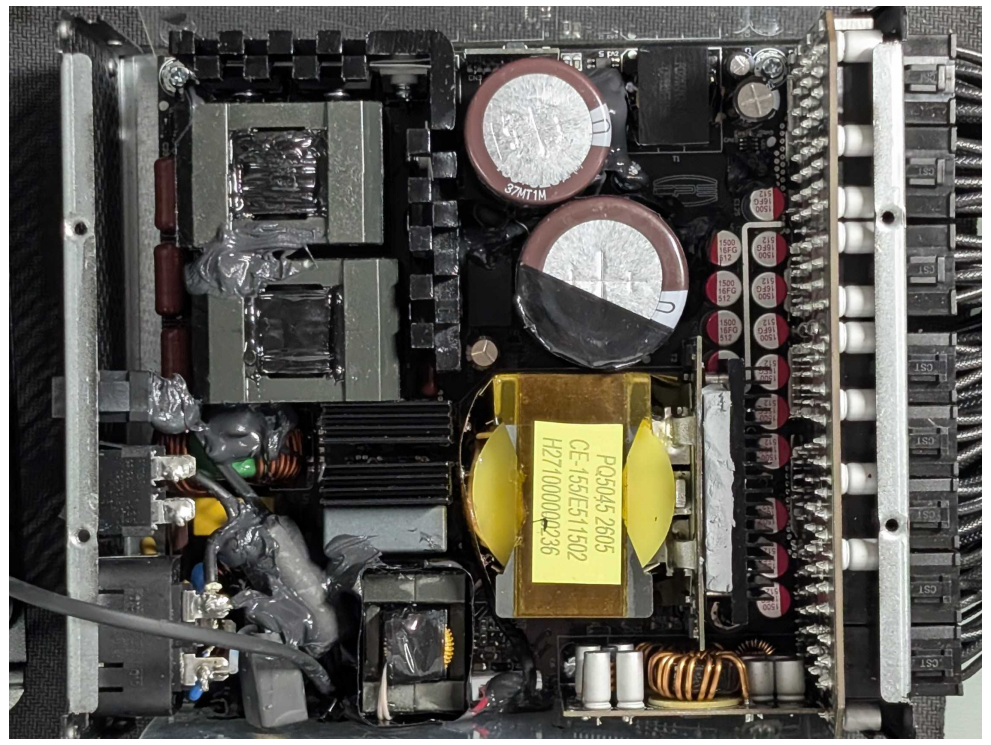
The results above are not used in the certification process

□□□□ 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	28.74mV	21.25mV	23.85mV	16.06mV	Pass
20% Load	27.67mV	22.12mV	24.47mV	17.04mV	Pass
30% Load	28.85mV	22.17mV	24.88mV	16.52mV	Pass
40% Load	29.15mV	22.48mV	26.42mV	16.98mV	Pass
50% Load	29.92mV	24.17mV	26.52mV	19.80mV	Pass
60% Load	30.43mV	23.91mV	26.73mV	20.58mV	Pass









Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	30.74mV	21.71mV	23.96mV	17.50mV	Pass
80% Load	32.07mV	21.20mV	24.11mV	18.47mV	Pass
90% Load	33.66mV	21.50mV	23.96mV	18.01mV	Pass
100% Load	35.65mV	30.18mV	29.96mV	24.42mV	Pass
110% Load	39.89mV	24.48mV	25.50mV	23.24mV	Pass
Crossload1	24.81mV	24.89mV	31.40mV	19.60mV	Pass
Crossload2	25.27mV	28.48mV	24.78mV	21.29mV	Pass
Crossload3	23.88mV	20.89mV	30.73mV	16.83mV	Pass
Crossload4	35.24mV	21.25mV	22.83mV	18.68mV	Pass

The results above are not used in the certification process

CPS PCCooler SU2500

Top side

Power specifications label

PSU Internals

Fan

本测试报告中包含的所有数据和图表均可在以下条件下由任何人使用：使用过程需提及测试结果由Cybenetics提供。Cybenetics 提供自愿性认证计划：电源方面有 ETA（效率）、LAMBDA（噪声）与 SAFE（安全与正确运行）；散热产品方面有 DELTA（机箱隔音）与 PHI（风扇风量与静压）

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