CPS PCCooler SU2000

Serial Number -

Lab ID PL20003260

Certification ID 263260

Test Result Report ID: 26PS3260A

Certificate Issue Date: May 14, 2026

230V

Scheme: ETA-EMI PSU



230V



Scheme: LAMBDA PSU



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	SU2000
OEM/ODM	CE-Link
Serial Number	-
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	200-240
Rated Current (Arms)	10-12

Rated Frequency (Hz)	50-60
Rated Power (W)	2000
Operating Temperature (Continuous Full Load) (°C)	10 - 41
Type	ATX12V
Cable Design	Fully Modular
Warranty	No Info
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 165mm
Weight	2.52 kg (5.56 lb)
Cooling	135mm Ball Bearing Fan (HA13525H12B-Z)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	PL20003260
Date of receipt	Mar 30, 2026
Testing Date	May 8, 2026
Report Issued Date	May 14, 2026
DUT Notes	• Hold-up time re-checked on 2026-11-02: the lowest hold-up of all captures was logged (19.30 ms; AC loss to PWR_OK 17.20 ms; PWR_OK inactive to DC loss 2.10 ms).
Engineer Name	Ioannis Kalyviotis
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Modular Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	**Cable Type**
ATX connector 20+4 pin (600mm)	1	1	16-22AWG	Tinned Copper
4+4 pin EPS12V (750mm)	2	2	18AWG	Tinned Copper
6+2 pin 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	✗

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	166.7	6	0.5
	Watts	150		2000	30	6
Total Max. Power (W)		2000				

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	10x Nexperia GS10M (1000V, 10A @ 100°C)
APFC MOSFETs	4x Shenzhen Xinliwei Electronics XLW C80R095X (800V, 40A @ 25°C, Rds(on): 0.095 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: 5x Vergiga Semiconductor VS3610GPMT (30V, 72A @ 100°C, Rds(on): 3.3 mOhm) 1x Vergiga Semiconductor VSP007N04MS-G (40V, 50A @ 100°C, Rds(on): 4.3 mOhm) PWM Controller(s): Anpec APW7159C
Filtering Capacitors	 Electrolytic: 1x Nichicon (10.000h @ 105°C, HW) 1x Rubycon (4~10.000h @ 105°C, YXJ) 2x 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, Ball Bearing Fan)
5VSB Circuit	
Rectifier	AS 60R025N (60V)
Standby PWM Controller	Meraki Integrated MK2787

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	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary 230V

Accredited		
Average Efficiency (>1450 load combinations)		93.730%
Average Noise Output (>1450 Load Combinations)		39.49dBA
Average PF (>1450 Load Combinations)		0.971
Efficiency With 10W (≤500W) or 2% (>500W) Load		73.030%
Standby Power Consumption		0.1657W
Non-Accredited		
12V Ripple (Full Load)		30.53mV
5V Ripple (Full Load)		18.99mV
3.3V Ripple (Full Load)		23.14mV
5VSB Ripple (Full Load)		17.08mV
12V Load Regulation		0.30%
5V Load Regulation		0.36%
3.3V Load Regulation		0.85%
5VSB Load Regulation		1.84%
Inrush Current		83.720A
12V Transient Response (200%)		11.72V
5V Transient Response (200%)		4.969V
3.3V Transient Response (200%)		3.239V
5VSB Transient Response (200%)		4.980V
Hold-Up Time & PWR_OK Signal		19.30ms
AC Loss to PWR_OK Hold Up Time		17.20ms
PWR_OK Inactive to DC Loss Delay		2.10ms
PSU Timings: T1 (20% / 100%)	100.0ms	102.0ms
PSU Timings: T3 (20% / 100%)	117.0ms	117.0ms
12V OCP (31.5°C / 44.2°C)	226.00A (135.57%), 12.125V	211.80A (127.05%), 12.200V
5V OCP (31.5°C / 44.2°C)	32.2A (128.80%), 5.026V	32A (128.00%), 5.051V
3.3V OCP (31.5°C / 44.2°C)	31.9A (127.60%), 3.291V	32.2A (128.80%), 3.292V
5VSB OCP (31.5°C / 44.2°C)	10A (166.67%), 4.687V	9.6A (160.00%), 4.675V
OPP (33.02°C / 41.24°C)	134.95%	127.75%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	19.3
AC Loss to PWR_OK Hold Up Time (ms)	17.2
PWR_OK Inactive to DC Loss Delay (ms)	2.1

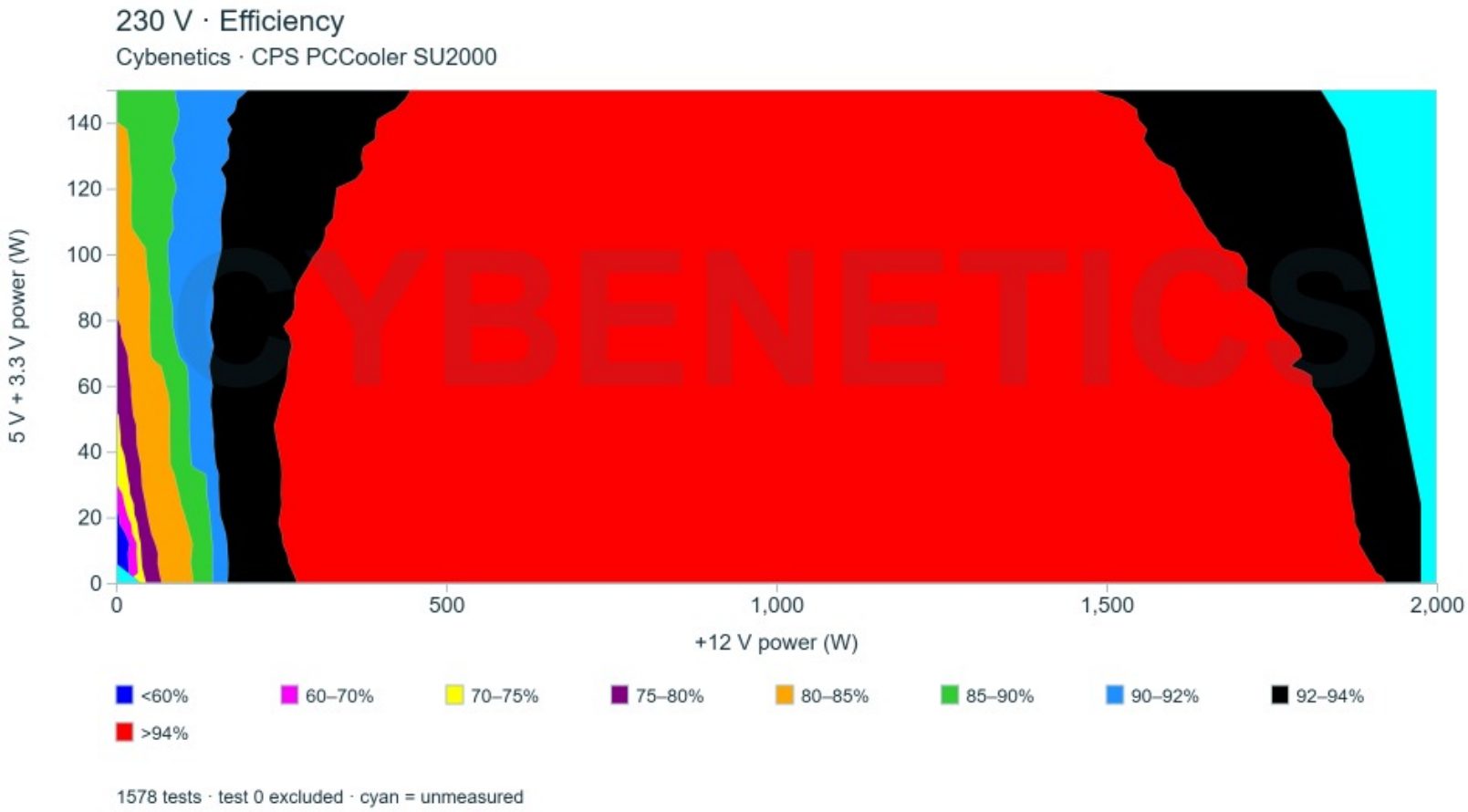
Stromverbrauch im Ruhezustand

Tables 230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.02 V	230.03 V	227.70 V	230.08 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.416	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:	0.166 W	0.125 W	N/A	0.268 W	N/A	N/A
Apparent Power:	60.881 W	60.842 W	N/A	60.919 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

230V

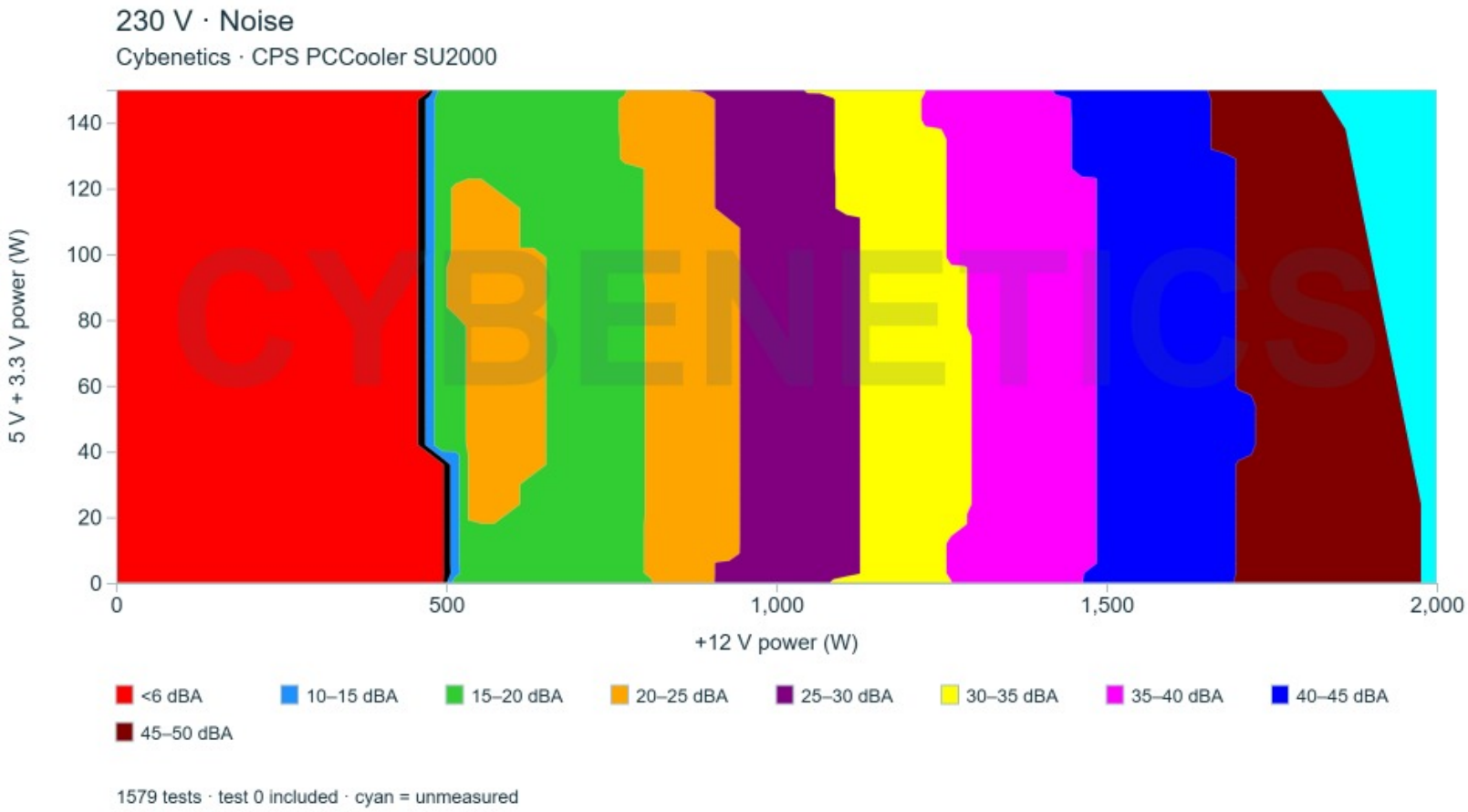


INFO

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

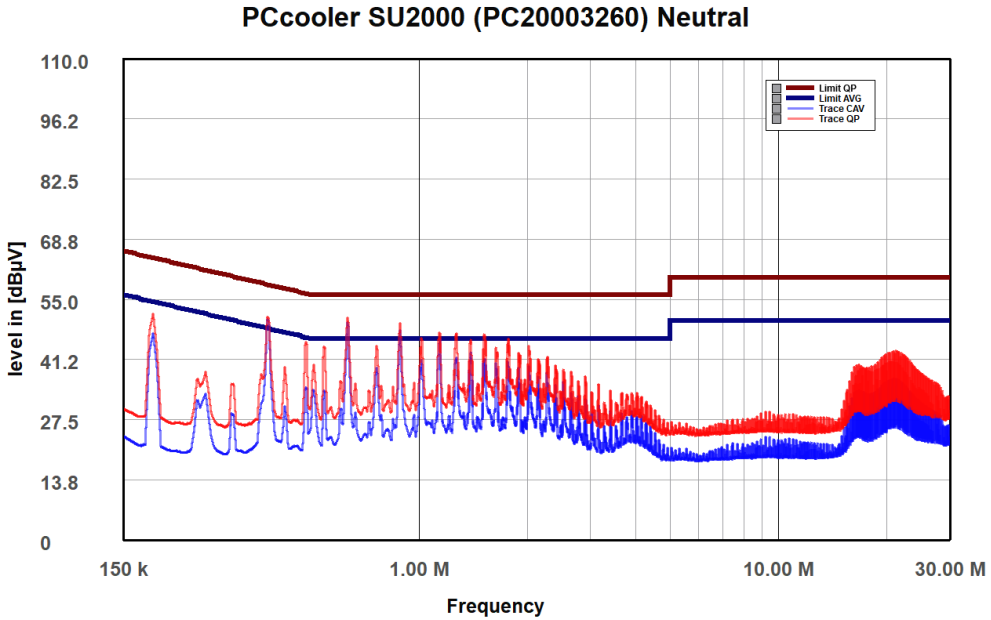
230V



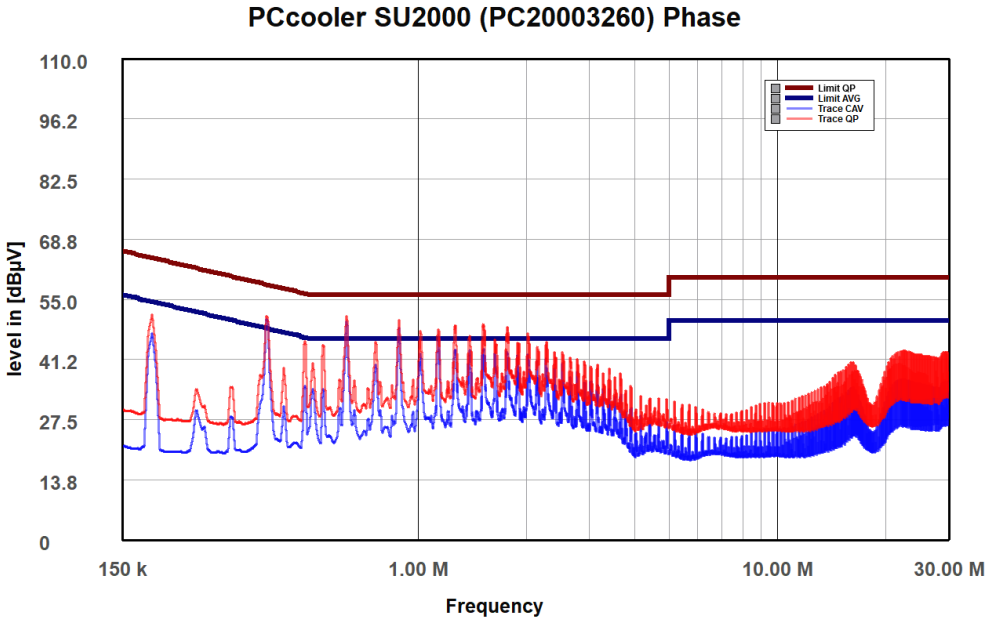
INFO

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

Conducted Emissions EN 55032 & CISPR 32



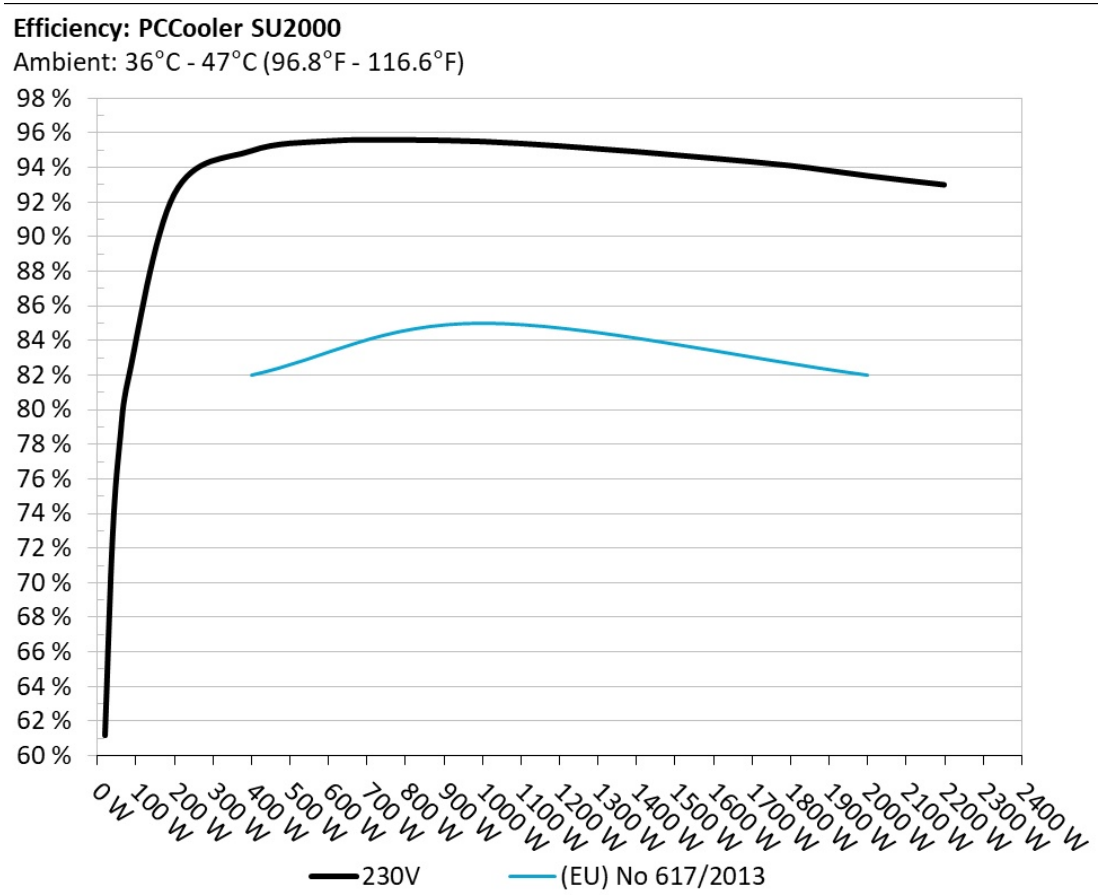
NEUTRAL



PHASE

Indicative Performance

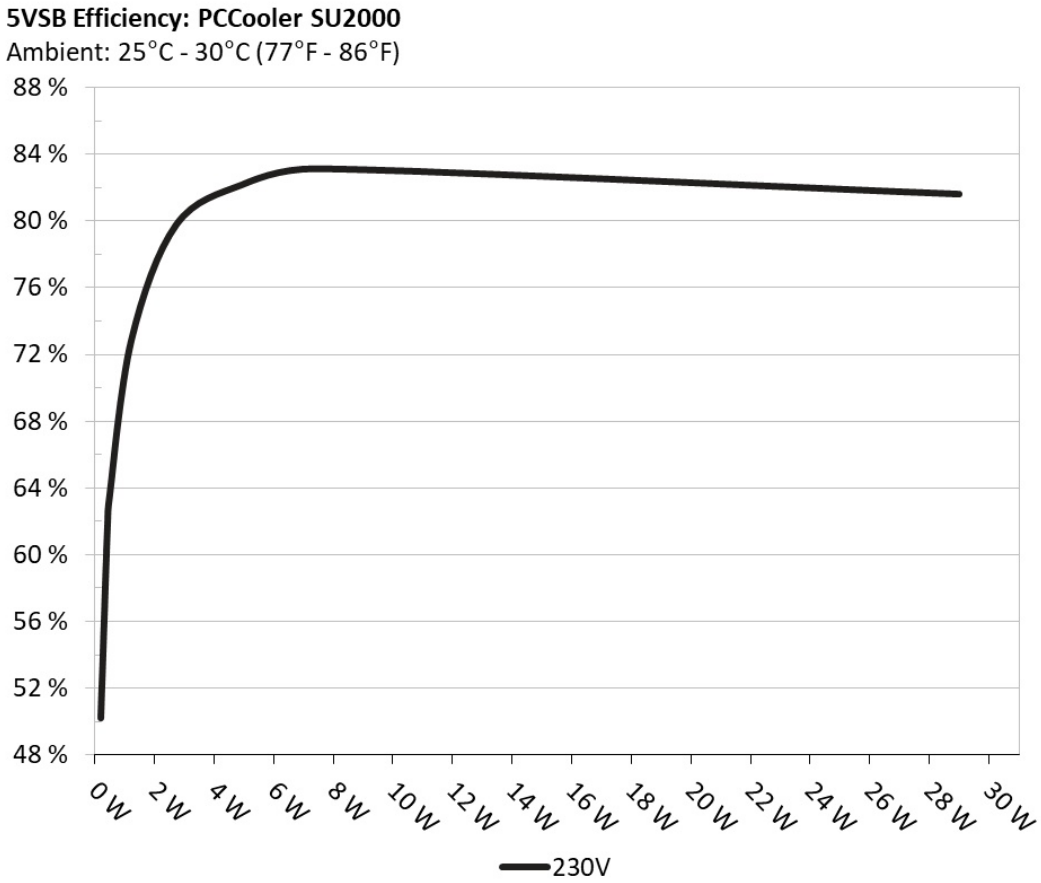
Efficiency under high ambient temperature



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) 230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.226W	50.194%	0.007
	5.009V	0.45W		229.92V

2	**0.09A**	0.451W	61.896%	0.012
	5.009V	0.729W		229.91V
3	**0.55A**	2.747W	79.788%	0.055
	4.994V	3.443W		229.91V
4	**1A**	4.98W	82.215%	0.095
	4.98V	6.058W		229.91V
5	**1.5A**	7.448W	83.165%	0.136
	4.965V	8.959W		229.89V
6	**6.001A**	28.99W	81.639%	0.358
	4.831V	35.512W		229.89V

Protection Features

OCP (Normal @ 31.5°C)	12V: 226.00A (135.57%), 12.125V 5V: 32.2A (128.80%), 5.026V 3.3V: 31.9A (127.60%), 3.291V 5VSB: 10A (166.67%), 4.687V
OCP (Hot @ 44.2°C)	12V: 211.80A (127.05%), 12.200V 5V: 32A (128.00%), 5.051V 3.3V: 32.2A (128.80%), 3.292V 5VSB: 9.6A (160.00%), 4.675V
OPP (Normal @ 33.0°C)	2698.96W (134.95%)
OPP (Hot @ 41.2°C)	2555.03W (127.75%)
OTP	✓ (178°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)

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%	**14.669A**	**1.988A**	**1.992A**	**0.996A**	200.021	92.47%	0	<6.0	41.71°C	0.913
	12.163V	5.03V	3.314V	5.022V	216.316				40.17°C	229.86V
20%	**30.324A**	**2.983A**	**2.99A**	**1.196A**	399.65	94.952%	558	20.1	40.68°C	0.966
	12.160V	5.028V	3.311V	5.019V	420.886				47.65°C	229.82V
30%	**46.329A**	**3.482A**	**3.491A**	**1.396A**	599.245	95.519%	657	22.3	41.16°C	0.979
	12.157V	5.026V	3.309V	5.014V	627.356				50.05°C	229.8V
40%	**62.409A**	**3.981A**	**3.992A**	**1.597A**	799.641	95.588%	846	29.4	41.86°C	0.984
	12.153V	5.024V	3.307V	5.009V	836.543				52.11°C	229.76V
50%	**78.105A**	**4.978A**	**4.994A**	**1.798A**	999.345	95.491%	1010	33.7	42.15°C	0.987
	12.149V	5.022V	3.304V	5.006V	1046.538				52.9°C	229.73V
60%	**93.876A**	**5.976A**	**5.998A**	**1.999A**	1199.889	95.236%	1221	38.4	42.65°C	0.989
	12.144V	5.02V	3.301V	5.003V	1259.915				53.39°C	229.69V
70%	**109.592A**	**6.975A**	**7.004A**	**2.201A**	1399.607	94.907%	1445	42.4	43.31°C	0.99
	12.140V	5.019V	3.299V	4.999V	1474.694				53.54°C	229.65V
80%	**125.389A**	**7.972A**	**8.01A**	**2.301A**	1599.597	94.524%	1668	46.5	43.6°C	0.991
	12.136V	5.017V	3.296V	4.998V	1692.265				53.95°C	229.62V
90%	**141.519A**	**8.474A**	**8.501A**	**2.403A**	1799.4	94.103%	1907	49.6	44.2°C	0.992
	12.132V	5.015V	3.293V	4.994V	1912.171				55.5°C	229.58V
100%	**156.281A**	**8.977A**	**9.027A**	**6.076A**	1999.988	93.515%	2097	51.6	45.61°C	0.992
	12.127V	5.013V	3.29V	4.938V	2138.659				56.73°C	229.55V
110%	**172.093A**	**9.978A**	**10.13A**	**6.077A**	2199.775	92.993%	2257	53.6	46.49°C	0.993
	12.124V	5.011V	3.287V	4.938V	2365.54				58.19°C	229.51V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL1	**0.117A**	**17.945A**	**18.076A**	**0A**	151.307	80.775%	1281	39.6	40.82°C	0.894
	12.161V	5.031V	3.297V	5.1V	187.316				55.24°C	229.86V
CL2	**0.116A**	**24.774A**	**0A**	**0.001A**	126.27	77.17%	1076	35.6	40.23°C	0.873
	12.164V	5.04V	3.308V	5.13V	163.623				54.03°C	229.86V
CL3	**0.115A**	**0A**	**25.009A**	**0A**	83.889	73.975%	850	29.6	40.71°C	0.793
	12.162V	5.027V	3.298V	5.033V	113.407				51.87°C	229.88V
CL4	**164.883A**	**0A**	**0A**	**0A**	1999.929	93.867%	2029	51	45.91°C	0.992
	12.129V	5.014V	3.302V	4.993V	2130.606				56.71°C	229.56V

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	**1.223A**	**0.497A**	**0.497A**	**0.199A**	20.007	61.196%	0	<6.0	36.61°C	0.379
	12.149V	5.029V	3.318V	5.029V	32.845				36.05°C	229.89V
40W	**2.691A**	**0.696A**	**0.696A**	**0.298A**	40.007	72.883%	0	<6.0	38.24°C	0.55
	12.151V	5.03V	3.317V	5.029V	54.893				37.15°C	229.88V
60W	**4.158A**	**0.895A**	**0.895A**	**0.398A**	60.007	78.527%	0	<6.0	39.22°C	0.666
	12.152V	5.03V	3.317V	5.028V	76.407				38.19°C	229.88V
80W	**5.622A**	**1.093A**	**1.094A**	**0.497A**	79.953	81.74%	0	<6.0	41.22°C	0.748
	12.153V	5.031V	3.317V	5.028V	97.822				39.12°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	28.49mV	20.37mV	22.21mV	15.34mV	Pass
20% Load	26.13mV	17.86mV	18.83mV	13.80mV	Pass
30% Load	25.17mV	17.96mV	19.50mV	14.32mV	Pass
40% Load	25.93mV	20.32mV	21.85mV	17.44mV	Pass
50% Load	26.08mV	20.63mV	22.68mV	18.42mV	Pass

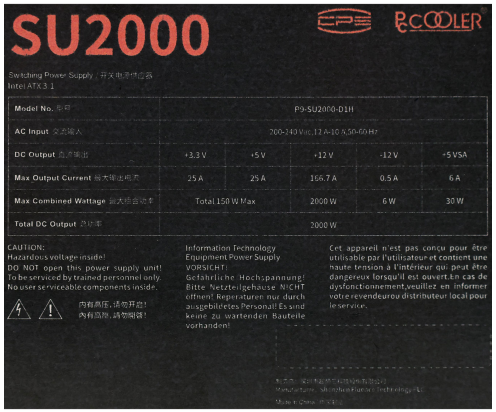
Test	12V	5V	3.3V	5VSB	Pass/Fail
60% Load	47.87mV	19.24mV	25.55mV	15.19mV	Pass
70% Load	26.54mV	18.37mV	20.73mV	15.03mV	Pass
80% Load	27.41mV	18.38mV	22.93mV	15.49mV	Pass
90% Load	29.26mV	19.71mV	22.01mV	15.29mV	Pass
100% Load	30.53mV	18.99mV	23.14mV	17.08mV	Pass
110% Load	31.46mV	24.33mV	28.32mV	17.70mV	Pass
Crossload1	21.53mV	22.38mV	24.78mV	17.50mV	Pass
Crossload2	26.49mV	24.94mV	23.34mV	18.93mV	Pass
Crossload3	26.03mV	18.83mV	26.68mV	14.06mV	Pass
Crossload4	30.02mV	17.70mV	21.50mV	14.78mV	Pass

The results above are not used in the certification process

CPS PCCooler SU2000



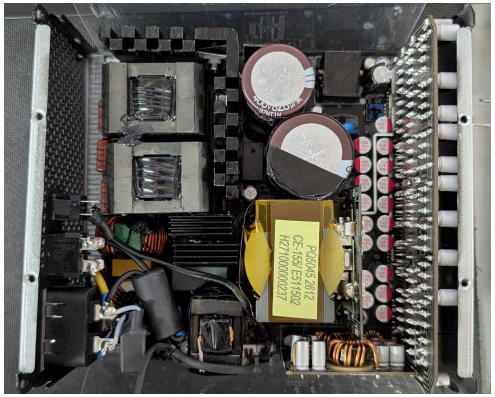
Top side



Power specifications label



Fan



PSU Internals

Cybenetics bietet freiwillige Zertifizierungsprogramme für Netzteile – ETA für Effizienz, LAMBDA für Lautstärke und SAFE für Sicherheit und korrekten Betrieb – sowie für Kühlprodukte mit DELTA für die Schalldämmung von Gehäusen und PHI für Luftstrom und statischen Druck von Lüftern

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