Make It Yours.

Cooler Master X Silent Max Platinum 1300

Serial Number MPSD001AFAPBEU1241300002

Lab ID CM13002493

Certification ID 252493

Test Result Report ID: 24PS2493A

Certificate Issue Date: Jun 28, 2024

Scheme: ETA-EMI PSU

115V



230V

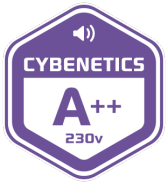


Scheme: LAMBDA PSU

115V



230V





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	Cooler Master
Model	X Silent Max Platinum 1300
OEM/ODM	Cooler Master
Serial Number	MPSD001AFAPBEU1241300002
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	7.1-15
Rated Frequency (Hz)	50-60
Rated Power (W)	1300
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Loop Dynamic Bearing Fan (FA12025L12LPZ)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	CM13002493
Date of receipt	May 29, 2024
Testing Date	Jun 27, 2024
Report Issued Date	Jun 28, 2024
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

Modular Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	In Cable Capacitors
ATX connector 24 pin (650mm)	1	1	18AWG	No
4+4 pin EPS12V (650mm)	1	1	16AWG	No
8 pin EPS12V (650mm)	1	1	16AWG	No
6+2 pin PCIe (550mm)	4	4	16-18AWG	No

12+4 pin PCIe (650mm) (600W)	1	1	16-28AWG	No
SATA (500mm+140mm+140mm+140mm)	3	12	18AWG	No
4-pin Molex (500mm+120mm+120mm+120mm)	1	4	18AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	15AWG	-

Protection Features

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	20	20	108.3	3	0
	Watts	120		1299.6	15	0
Total Max. Power (W)		1300				

Parts Description

General Data	
Manufacturer (OEM)	Cooler Master
Platform	MPS-D001-AFAP
PCB Type	Double-Sided (Four-layer board)
Primary Side	
Transient Filter	2x Y caps, 1x X caps, 2x CM chokes, 1x MOV
Inrush Protection	1x NTC Thermistor SCK20100 (10 Ohm @ 25°C) & Relay
Rectifier MOSFETs	4x Infineon IPT60R040S7 (600V, 13A @ 140°C, Rds(on): 0.040Ohm)

APFC MOSFETs	2x Infineon IMW65R072M1H (650V, 18A @ 100°C, Rds(on): 0.094Ohm)
APFC Driver	Infineon 2EDN7524F
APFC Boost Diode	1x Infineon IDH10G65C6 (650V, 10A @ 140°C)
Bulk Cap(s)	2x Rubycon (450V, 600uF each or 1200uF combined, 2000h @ 105°C,MXE)
Main Switchers	4x Infineon IPP60R080P7 (650V, 23A @ 100°C, Rds(on): 0.080Ohm)
Driver ICs	2x Infineon 2ED21814S06J (650V high-side/low-side gate driver; 2.5A source/sink)
APFC Controller	Infineon ICE3PCS01G
Resonant Controller	Infineon ICE2HS01G
Primary Side MCU	NXP MC9S08SH8CWJ
Topology	Primary side: Bridgeless PFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	12x Infineon ISC010N04NM6 (40V, 201A @ 100°C, Rds(on): 1.0mOhm)
5V & 3.3V	DC-DC Converters: 6x Infineon ISC011N03L5S (30V, 100A @ 100°C, Rds(on): 1.1mOhm) PWM Controller(s): 1x
Filtering Capacitors	Electrolytic: 2x Rubycon (6-10,000 @ 105°C, ZLH), Polymer: 47x Nippon Chemi-Con
Supervisor IC	Weltrend WT7502R
Fan	Mobius 120 FA12025L12LPZ (120mm, 12V, 0.25A, Loop Dynamic Bearing Fan)
Secondary Side MCU	Silicon Labs C8051F380-GQ
5VSB	
TVS Diode	1x SMBJ150A
Low Side Rectifier	DK DK5V45R05M (45V, Rds(on): 5mOh)
Standby PWM Controller	Infineon ICE5QR1680BG

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	✓

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	89.822%
Average Noise Output (>1450 Load Combinations)	6.00dBA
Average PF (>1450 Load Combinations)	0.994
Efficiency With 10W (≤500W) or 2% (>500W) Load	60.191%
Standby Power Consumption	0.0696W
Non-Accredited	
12V Ripple (Full Load)	36.71mV
5V Ripple (Full Load)	15.78mV
3.3V Ripple (Full Load)	11.03mV
5VSB Ripple (Full Load)	16.46mV
12V Load Regulation	0.49%
5V Load Regulation	1.32%
3.3V Load Regulation	2.49%
5VSB Load Regulation	3.17%
Inrush Current	19.640A

230V

Accredited		
Average Efficiency (>1450 load combinations)		92.440%
Average Noise Output (>1450 Load Combinations)		6.00dBA
Average PF (>1450 Load Combinations)		0.975
Efficiency With 10W (≤500W) or 2% (>500W) Load		61.861%
Standby Power Consumption		0.1739W
Non-Accredited		
12V Ripple (Full Load)		33.07mV
5V Ripple (Full Load)		16.79mV
3.3V Ripple (Full Load)		11.94mV
5VSB Ripple (Full Load)		15.21mV
12V Load Regulation		0.48%
5V Load Regulation		1.30%
3.3V Load Regulation		2.46%
5VSB Load Regulation		3.17%
Inrush Current		38.190A
12V Transient Response (200%)		11.17V
5V Transient Response (200%)		4.900V
3.3V Transient Response (200%)		3.220V
5VSB Transient Response (200%)		4.868V
Hold-Up Time & PWR_OK Signal		25.90ms
AC Loss to PWR_OK Hold Up Time		20.90ms
PWR_OK Inactive to DC Loss Delay		5.00ms
PSU Timings: T1 (20% / 100%)	82.0ms	36.0ms
PSU Timings: T3 (20% / 100%)	126.0ms	127.0ms
12V OCP (27.6°C / 44.1°C)	131.40A (121.33%), 11.937V	130.40A (120.41%), 11.953V
5V OCP (27.6°C / 44.1°C)	25.2A (126.00%), 5.013V	24.1A (120.50%), 5.024V
3.3V OCP (27.6°C / 44.1°C)	25.1A (125.50%), 3.343V	23.9A (119.50%), 3.352V
5VSB OCP (27.6°C / 44.1°C)	4.4A (146.67%), 4.97V	4.3A (143.33%), 4.971V
OPP (27.57°C / 43.70°C)	120.99%	121.00%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	25.9
AC Loss to PWR_OK Hold Up Time (ms)	20.9
PWR_OK Inactive to DC Loss Delay (ms)	5



Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.08 V	115.04 V	113.85 V	115.11 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.13 %	0.09 %	N/A	0.17 %	2.00 %	PASS
Real Power:	0.070 W	0.006 W	N/A	0.114 W	N/A	N/A
Apparent Power:	15.247 W	14.943 W	N/A	15.560 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

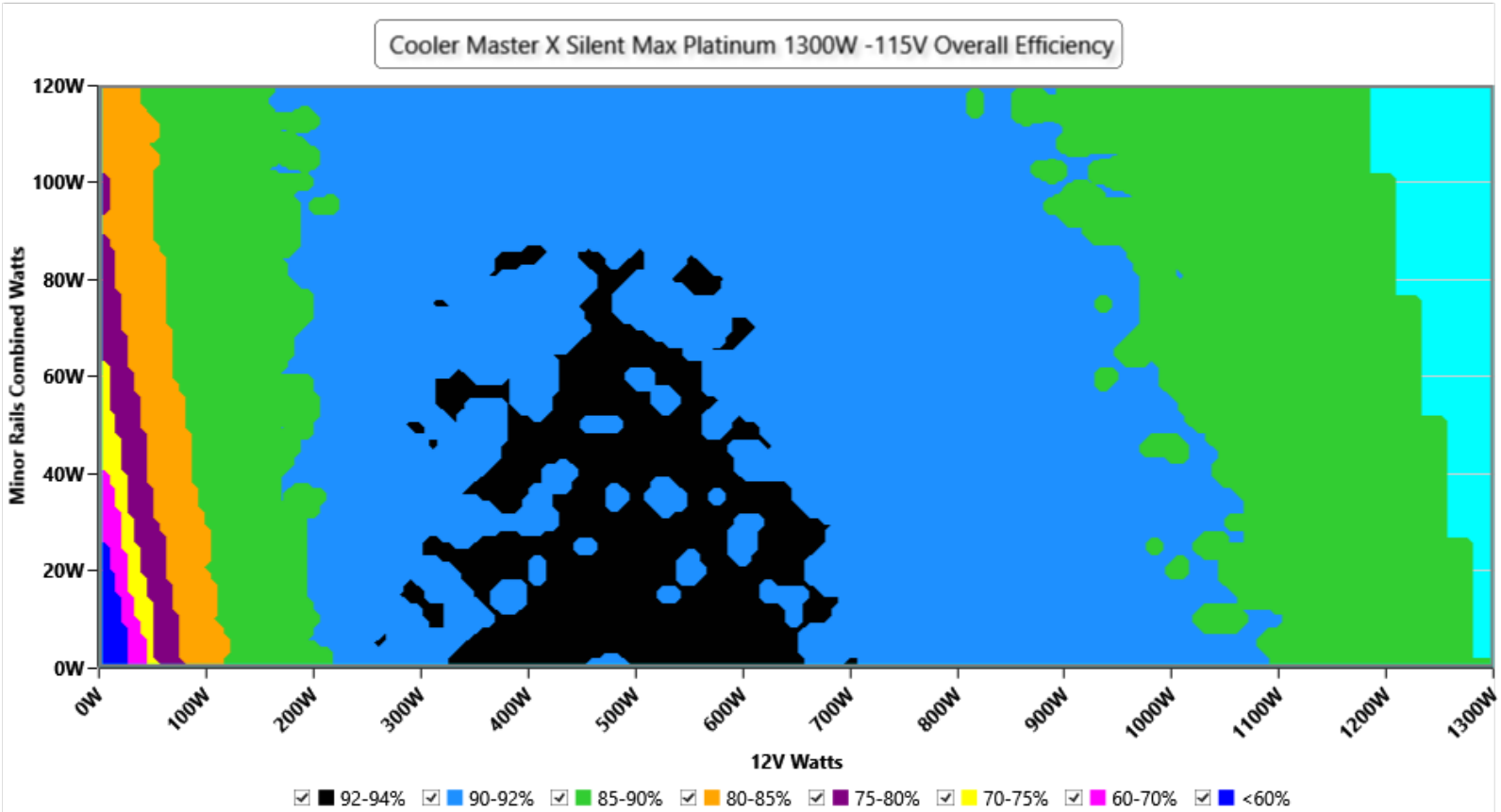
230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	231.01 V	230.92 V	227.70 V	231.08 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 %	0.15 %	N/A	0.25 %	2.00 %	PASS
Real Power:	0.174 W	0.126 W	N/A	0.236 W	N/A	N/A
Apparent Power:	51.395 W	50.662 W	N/A	52.167 W	N/A	N/A

Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

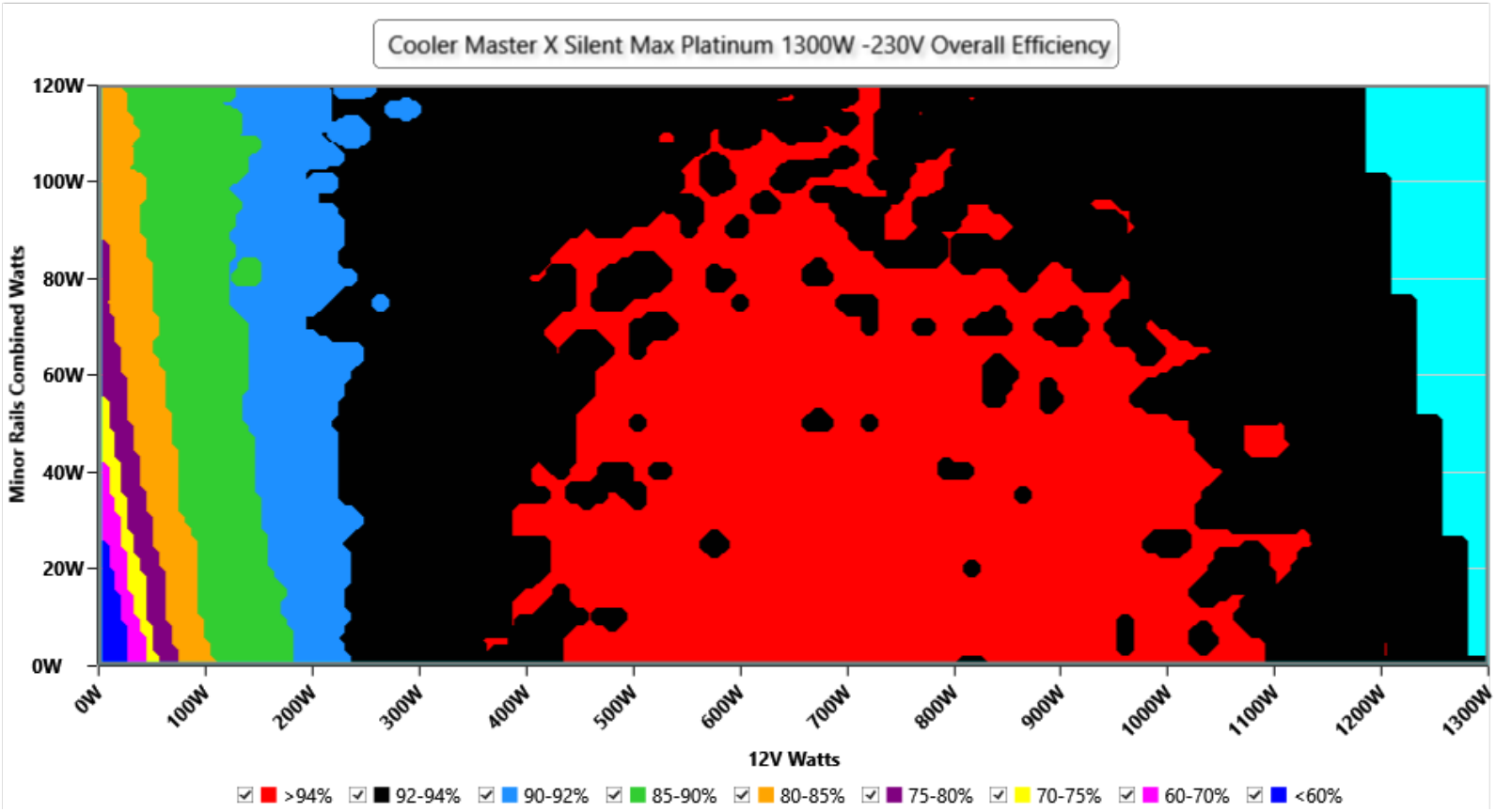
115V



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

230V

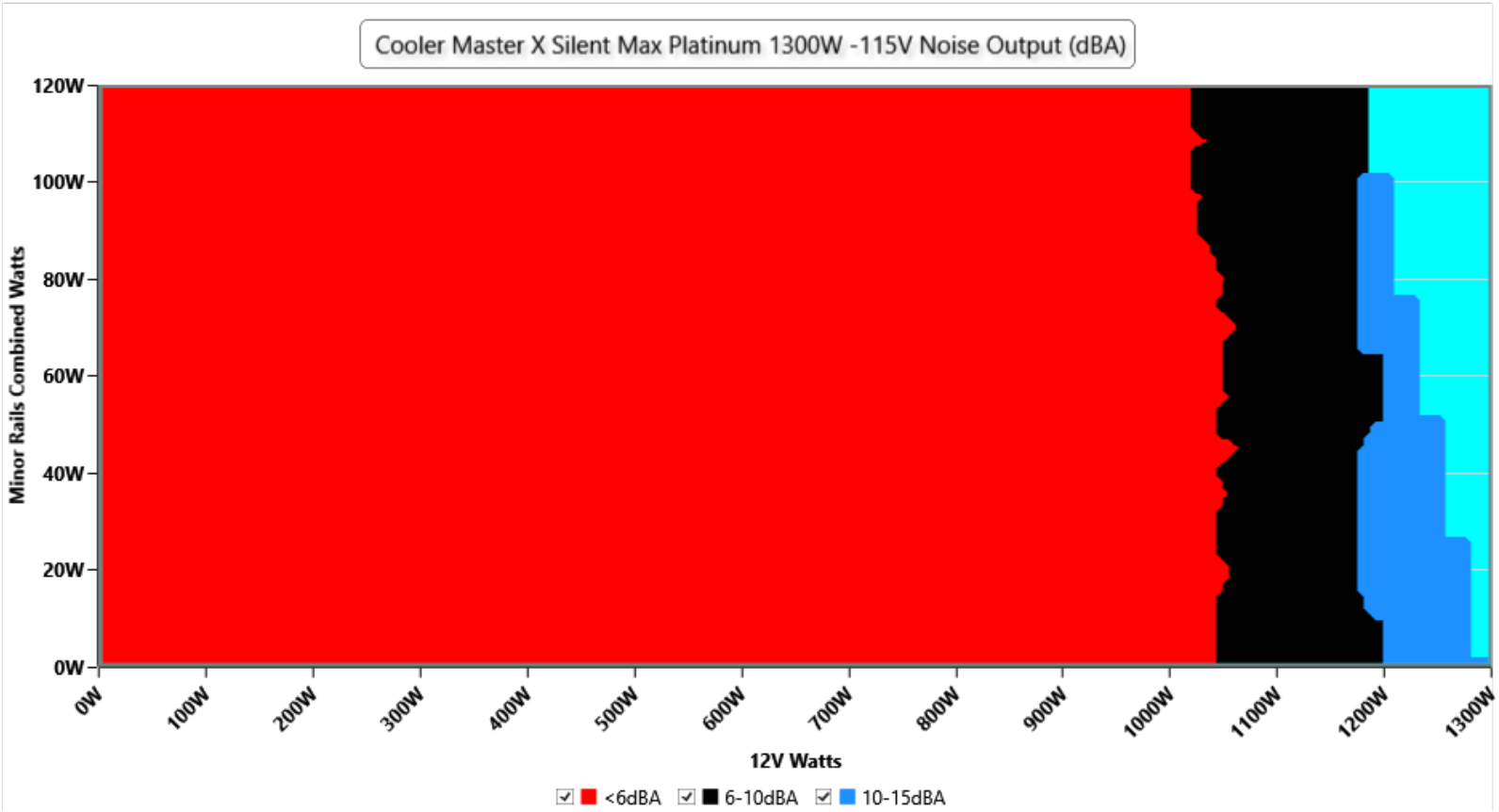


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Noise Graph

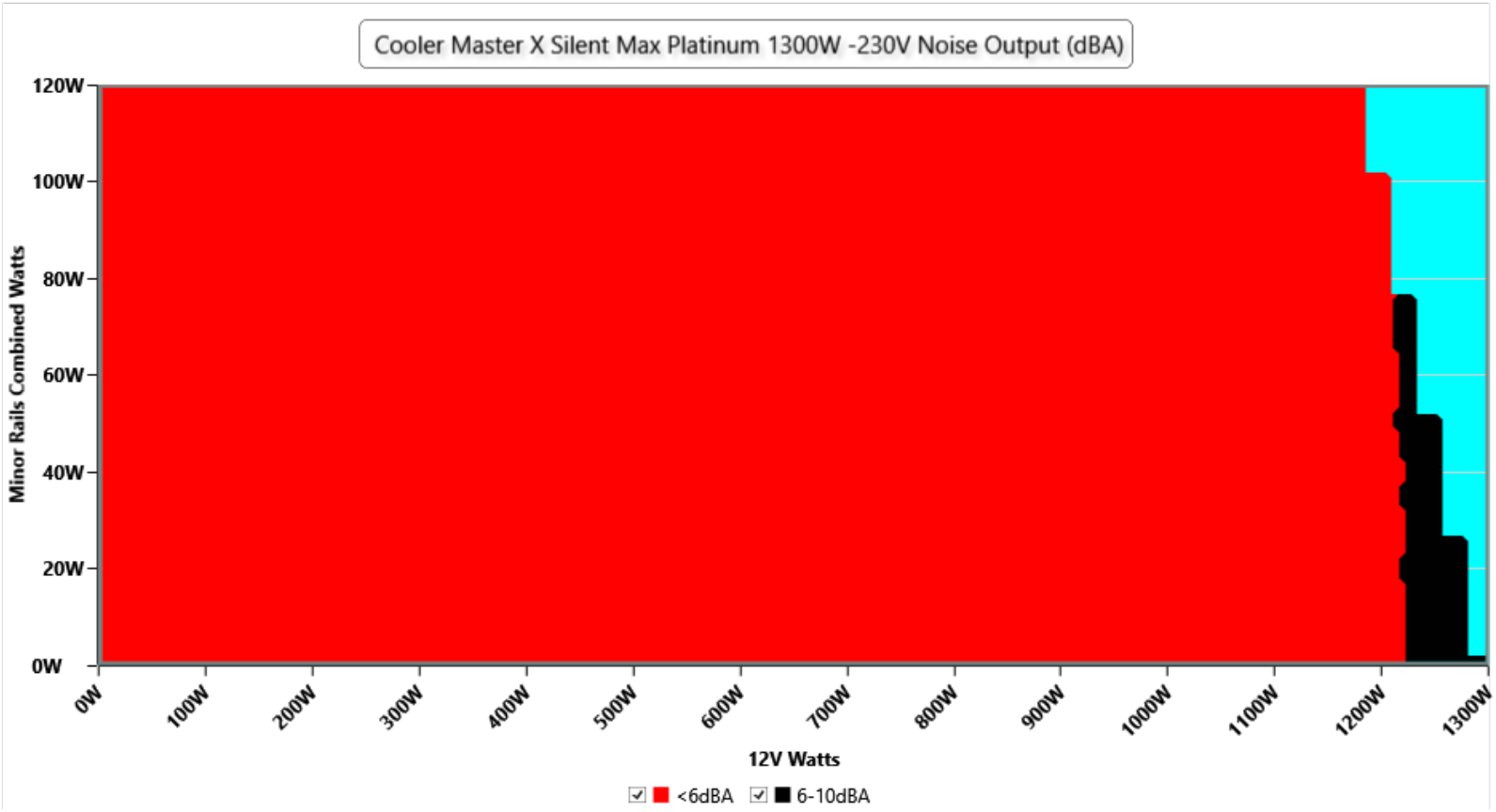
115V



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

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

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) · 34.0 °C	0 RPM · <6.0 dB(A) · 47.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.2 °C	0 RPM · <6.0 dB(A) · 47.8 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 35.6 °C	0 RPM · <6.0 dB(A) · 53.2 °C	fan off in both
100%	446 RPM · <6.0 dB(A) · 30.7 °C	890 RPM · 15.7 dB(A) · 45.4 °C	<6.0 → 15.7 dB(A)

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 35.6 °C	0 RPM · <6.0 dB(A) · 46.8 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 40.0 °C	0 RPM · <6.0 dB(A) · 47.9 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 39.8 °C	0 RPM · <6.0 dB(A) · 51.3 °C	fan off in both
100%	453 RPM · <6.0 dB(A) · 31.0 °C	742 RPM · 10.8 dB(A) · 45.5 °C	<6.0 → 10.8 dB(A)

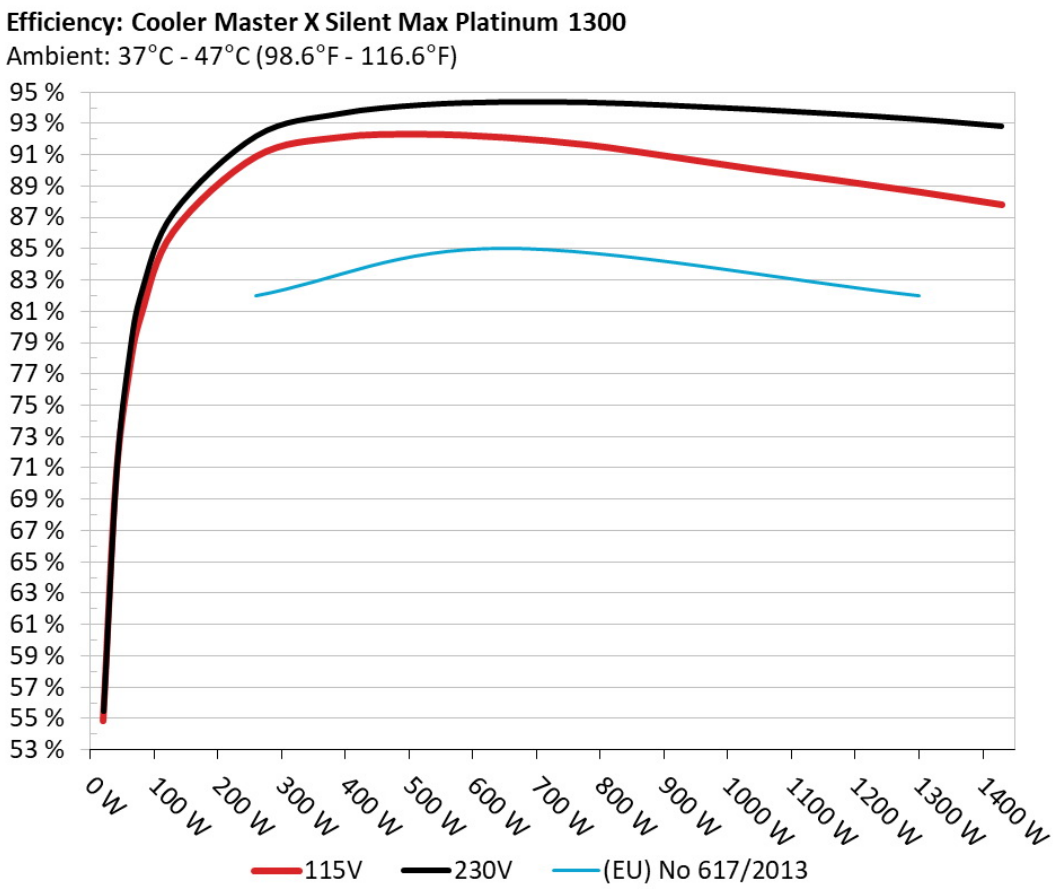
INFO

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

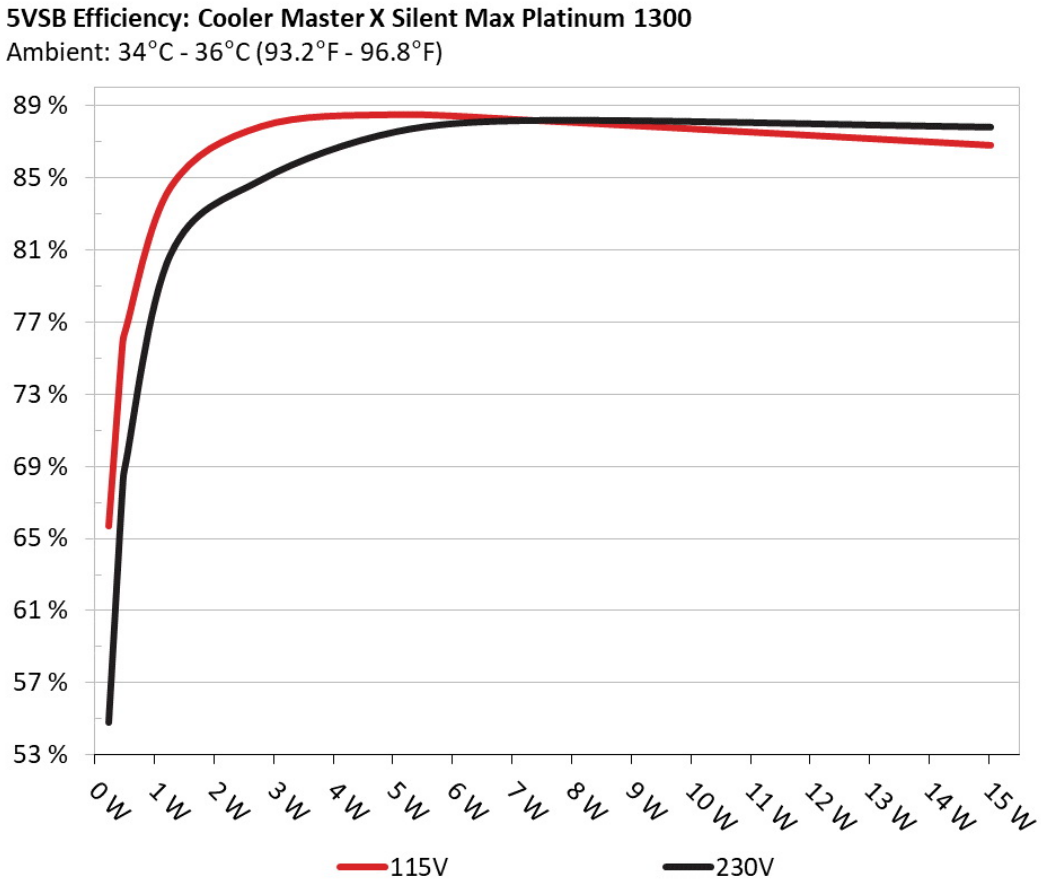
Efficiency under high ambient temperature



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)

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.228W	65.706%	0.024
	5.076V	0.347W		115.14V
2	**0.09A**	0.457W	75.718%	0.041
	5.075V	0.604W		115.15V
3	**0.55A**	2.786W	87.863%	0.197
	5.064V	3.171W		115.14V
4	**1A**	5.054W	88.516%	0.306
	5.053V	5.71W		115.14V
5	**1.5A**	7.563W	88.162%	0.387
	5.041V	8.579W		115.14V
6	**3A**	15.017W	86.817%	0.495
	5.005V	17.297W		115.14V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.228W	54.814%	0.009
	5.076V	0.417W		230.36V
2	**0.09A**	0.457W	67.683%	0.014
	5.074V	0.676W		230.36V
3	**0.55A**	2.785W	84.872%	0.067
	5.064V	3.282W		230.36V
4	**1A**	5.054W	87.546%	0.114
	5.053V	5.774W		230.36V
5	**1.5A**	7.563W	88.173%	0.163
	5.041V	8.577W		230.36V
6	**3A**	15.017W	87.792%	0.278
	5.005V	17.106W		230.35V

Protection Features

OCP (Cold @ 27.6°C)	12V: 131.4A (121.33%), 11.937V 5V: 25.2A (126%), 5.013V 3.3V: 25.1A (125.5%), 3.343V 5VSB: 4.4A (146.67%), 4.97V
OCP (Hot) @ 44.1°C)	12V: 130.4A (120.41%), 11.953V 5V: 24.1A (120.5%), 5.024V 3.3V: 23.9A (119.5%), 3.352V 5VSB: 4.3A (143.33%), 4.971V
OCP (Cold @ 27.6°C)	1572.92W (120.99%)
OCP (Hot @ 43.7°C)	1572.97W (121%)
OTP	✓ (125°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 & Bypass Relay

Supplementary Tests (For Reference)

Typical 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
10%	**9.029A**	**1.983A**	**1.959A**	**0.991A**	130.012	86.078%	0	<6.0	47.23°C	0.981
	12.007V	5.045V	3.369V	5.047V	151.048				40.47°C	115.11V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20%	**19.087A**	**2.978A**	**2.946A**	**1.192A**	259.975	90.871%	0	<6.0	47.76°C	0.993
	12.002V	5.038V	3.361V	5.033V	286.072				40.85°C	115.07V
30%	**29.480A**	**3.478A**	**3.444A**	**1.395A**	389.714	92.087%	0	<6.0	49.1°C	0.995
	11.996V	5.033V	3.354V	5.02V	423.222				41.4°C	115.03V
40%	**39.901A**	**3.979A**	**3.945A**	**1.598A**	519.683	92.293%	0	<6.0	50.31°C	0.996
	11.992V	5.027V	3.346V	5.008V	563.082				41.65°C	115V
50%	**49.998A**	**4.98A**	**4.943A**	**1.802A**	649.822	92.086%	0	<6.0	53.18°C	0.997
	11.987V	5.021V	3.338V	4.994V	705.594				42.46°C	114.96V
60%	**60.108A**	**5.984A**	**5.946A**	**2A**	779.932	91.608%	462	<6.0	42.61°C	0.997
	11.981V	5.015V	3.33V	4.981V	851.419				54.4°C	114.91V
70%	**70.248A**	**6.993A**	**6.957A**	**2.215A**	910.064	90.859%	530	<6.0	43.19°C	0.997
	11.972V	5.007V	3.321V	4.967V	1001.627				55.66°C	114.87V
80%	**80.387A**	**8.002A**	**7.97A**	**2.321A**	1039.671	90.071%	677	7.5	43.72°C	0.998
	11.964V	4.999V	3.312V	4.955V	1154.191				56.85°C	114.84V
90%	**90.942A**	**8.514A**	**8.474A**	**2.428A**	1169.94	89.356%	812	12.9	44.71°C	0.997
	11.957V	4.992V	3.303V	4.943V	1309.243				58.49°C	114.79V
100%	**101.245A**	**9.027A**	**9.012A**	**3.051A**	1299.573	88.606%	890	15.7	45.39°C	0.997
	11.950V	4.985V	3.295V	4.917V	1466.88				60.18°C	114.73V
110%	**111.486A**	**10.044A**	**10.132A**	**3.059A**	1429.785	87.791%	1029	20.5	46.44°C	0.997
	11.943V	4.978V	3.286V	4.904V	1628.505				62.02°C	114.69V
CL1	**0.117A**	**14.358A**	**14.21A**	**0A**	121.297	82.937%	524	<6.0	40.66°C	0.978
	12.005V	5.028V	3.356V	5.063V	146.282				54.58°C	115.1V
CL2	**0.116A**	**19.875A**	**0A**	**0A**	101.394	81.267%	456	<6.0	40.41°C	0.973
	12.012V	5.031V	3.375V	5.071V	124.727				51.89°C	115.1V
CL3	**0.116A**	**0A**	**19.651A**	**0A**	67.385	75.396%	455	<6.0	41.24°C	0.959
	12.008V	5.051V	3.358V	5.067V	89.374				49.96°C	115.11V
CL4	**108.702A**	**0A**	**0A**	**0A**	1299.992	89.025%	677	7.5	45.89°C	0.997
	11.959V	5.008V	3.313V	5.002V	1460.197				58.49°C	114.74V

The results above are not used in the certification process

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%	**9.028A**	**1.982A**	**1.959A**	**0.991A**	130.004	87.321%	0	<6.0	46.77°C	0.903
	12.008V	5.046V	3.37V	5.047V	148.872				40.15°C	230.35V
20%	**19.086A**	**2.977A**	**2.945A**	**1.192A**	259.967	92.225%	0	<6.0	47.91°C	0.965
	12.002V	5.039V	3.361V	5.033V	281.91				40.84°C	230.33V
30%	**29.477A**	**3.478A**	**3.444A**	**1.395A**	389.684	93.637%	0	<6.0	48.83°C	0.98
	11.996V	5.033V	3.354V	5.02V	416.151				41.28°C	230.31V
40%	**39.900A**	**3.979A**	**3.945A**	**1.598A**	519.664	94.207%	0	<6.0	50.03°C	0.988
	11.991V	5.027V	3.346V	5.007V	551.604				41.83°C	230.29V
50%	**50.001A**	**4.98A**	**4.943A**	**1.803A**	649.811	94.392%	0	<6.0	51.33°C	0.991
	11.986V	5.021V	3.338V	4.993V	688.431				42.45°C	230.28V
60%	**60.110A**	**5.984A**	**5.946A**	**2A**	779.919	94.367%	0	<6.0	52.11°C	0.994
	11.980V	5.014V	3.33V	4.98V	826.453				42.65°C	230.26V
70%	**70.243A**	**6.991A**	**6.955A**	**2.216A**	910.091	94.177%	463	<6.0	43.36°C	0.994
	11.973V	5.008V	3.322V	4.965V	966.311				50.8°C	230.24V
80%	**80.377A**	**8A**	**7.968A**	**2.322A**	1039.678	93.93%	462	<6.0	43.82°C	0.996
	11.966V	5V	3.313V	4.953V	1106.791				51.19°C	230.22V
90%	**90.930A**	**8.511A**	**8.471A**	**2.428A**	1169.927	93.633%	600	<6.0	44.5°C	0.996
	11.959V	4.994V	3.305V	4.942V	1249.539				51.71°C	230.2V
100%	**101.233A**	**9.024A**	**9.01A**	**3.051A**	1299.568	93.291%	742	10.8	45.54°C	0.997
	11.951V	4.987V	3.296V	4.917V	1392.977				52.39°C	230.18V
110%	**111.488A**	**10.043A**	**10.132A**	**3.058A**	1429.836	92.849%	953	17.6	46.65°C	0.997
	11.943V	4.978V	3.286V	4.906V	1539.956				53.35°C	230.17V
CL1	**0.117A**	**14.356A**	**14.209A**	**0A**	121.295	84.14%	0	<6.0	47.52°C	0.897
	12.004V	5.029V	3.357V	5.064V	144.157				40.24°C	230.33V
CL2	**0.116A**	**19.87A**	**0A**	**0A**	101.394	82.39%	0	<6.0	49.86°C	0.872
	12.012V	5.033V	3.375V	5.071V	123.077				40.6°C	230.33V
CL3	**0.116A**	**0A**	**19.643A**	**0A**	67.386	76.582%	0	<6.0	50.16°C	0.801
	12.010V	5.053V	3.36V	5.066V	87.993				40.06°C	230.34V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL4	**108.693A**	**0A**	**0A**	**0A**	1300.026	93.605%	531	<6.0	45.04°C	0.997
	11.960V	5.01V	3.314V	4.999V	1388.839				51.95°C	230.17V

The results above are not used in the certification process

Light 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	**1.236A**	**0.495A**	**0.489A**	**0.197A**	19.999	54.817%	0	<6.0	41.41°C	0.878
	12.005V	5.051V	3.377V	5.073V	36.483				36.41°C	115.15V
40W	**2.722A**	**0.693A**	**0.684A**	**0.296A**	39.997	70.153%	0	<6.0	42.71°C	0.927
	12.006V	5.051V	3.376V	5.069V	57.023				37.36°C	115.14V
60W	**4.208A**	**0.891A**	**0.88A**	**0.395A**	59.996	76.915%	0	<6.0	43.9°C	0.953
	12.007V	5.051V	3.375V	5.066V	77.994				38.08°C	115.12V
80W	**5.690A**	**1.089A**	**1.076A**	**0.494A**	79.957	80.796%	0	<6.0	46.02°C	0.966
	12.008V	5.05V	3.375V	5.062V	98.96				39.42°C	115.12V

The results above are not used in the certification process

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	**1.236A**	**0.495A**	**0.488A**	**0.197A**	19.998	55.454%	0	<6.0	43.67°C	0.546
	12.006V	5.052V	3.377V	5.073V	36.068				36.93°C	230.35V
40W	**2.722A**	**0.693A**	**0.684A**	**0.296A**	39.996	70.518%	0	<6.0	42.56°C	0.692
	12.007V	5.051V	3.376V	5.069V	56.745				37.21°C	230.35V
60W	**4.208A**	**0.891A**	**0.88A**	**0.395A**	59.995	78.061%	0	<6.0	45.79°C	0.769
	12.008V	5.051V	3.375V	5.066V	76.854				38.56°C	230.35V
80W	**5.689A**	**1.089A**	**1.076A**	**0.494A**	79.95	82.292%	0	<6.0	45.56°C	0.824
	12.008V	5.05V	3.374V	5.062V	97.154				39.34°C	230.35V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	8.55mV	11.02mV	6.41mV	5.15mV	Pass
20% Load	9.31mV	11.37mV	6.56mV	5.71mV	Pass
30% Load	10.18mV	12.04mV	6.97mV	5.86mV	Pass
40% Load	12.04mV	11.58mV	6.92mV	6.47mV	Pass
50% Load	15.16mV	11.68mV	7.63mV	7.54mV	Pass
60% Load	17.37mV	11.73mV	7.78mV	10.55mV	Pass
70% Load	20.42mV	12.85mV	8.69mV	12.38mV	Pass
80% Load	22.51mV	13.16mV	10.12mV	12.28mV	Pass
90% Load	24.29mV	13.93mV	11.24mV	14.06mV	Pass
100% Load	36.71mV	15.78mV	11.03mV	16.46mV	Pass
110% Load	40.95mV	16.35mV	12.79mV	16.74mV	Pass
Crossload1	12.64mV	16.87mV	12.33mV	22.61mV	Pass
Crossload2	8.60mV	14.33mV	6.00mV	16.15mV	Pass
Crossload3	8.14mV	9.64mV	11.85mV	16.66mV	Pass
Crossload4	36.89mV	12.67mV	7.85mV	34.66mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	8.14mV	10.61mV	6.05mV	5.15mV	Pass
20% Load	8.65mV	11.88mV	6.86mV	5.81mV	Pass
30% Load	10.23mV	11.73mV	6.71mV	5.70mV	Pass
40% Load	10.57mV	11.63mV	6.76mV	6.16mV	Pass
50% Load	13.47mV	12.75mV	7.12mV	6.01mV	Pass
60% Load	15.66mV	12.24mV	7.48mV	7.79mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	16.88mV	13.01mV	7.47mV	8.61mV	Pass
80% Load	19.81mV	13.87mV	10.43mV	10.80mV	Pass
90% Load	22.10mV	14.08mV	10.22mV	9.88mV	Pass
100% Load	33.07mV	16.79mV	11.94mV	15.21mV	Pass
110% Load	38.30mV	19.68mV	12.21mV	13.41mV	Pass
Crossload1	11.24mV	16.44mV	10.78mV	22.82mV	Pass
Crossload2	8.34mV	14.28mV	6.26mV	15.84mV	Pass
Crossload3	8.09mV	10.31mV	12.77mV	15.79mV	Pass
Crossload4	33.37mV	12.03mV	7.46mV	28.07mV	Pass

The results above are not used in the certification process

Cooler Master X Silent Max Platinum 1300



Top side



Power specifications label

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