

Lab ID#: CM75001904  
Receipt Date: Sep 6, 2021  
Test Date: Sep 13, 2021

Report: 21PS1904A  
Report Date: Sep 15, 2021

DUT INFORMATION	
Brand	Cooler Master
Manufacturer (OEM)	Gospower
Series	V Gold SFX
Model Number	MPY-7501-SFHAGV-EU
Serial Number	MPY7501SFHAGVEU1211500061
DUT Notes	

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	50-60
Rated Power (W)	750
Type	SFX
Cooling	92mm Fluid Dynamic Bearing Fan (HA9215VH12FD-F00)
Semi-Passive Operation	✓
Cable Design	Fully Modular

TEST EQUIPMENT	
Electronic Loads	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Keysight AC6804B
Power Analyzers	N4L PPA1530 x2
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2
Tachometer	UNI-T UT372 x2
Digital Multimeter	Keysight U1273AX, Fluke 289, Keithley 2015 - THD
UPS	CyberPower OLS3000E 3kVA x2
Transformer	3kVA x2

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## RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
ALPM (Alternative Low Power Mode) compatible	✓

### 115V

Average Efficiency	88.850%
Efficiency With 10W (≤500W) or 2% (>500W)	63.242
Average Efficiency 5VSB	76.160%
Standby Power Consumption (W)	0.0420157
Average PF	0.972
Avg Noise Output	37.51 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	Standard+

### 230V

Average Efficiency	91.125%
Average Efficiency 5VSB	76.415%
Standby Power Consumption (W)	0.0834657
Average PF	0.936
Avg Noise Output	36.82 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	Standard+

## POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62.5	3	0.3
	Watts	120		750	15	3.6
Total Max. Power (W)		750				

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## CABLES AND CONNECTORS

### Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (300mm)	1	1	18-22AWG	No
4+4 pin EPS12V (460mm)	1	1	18AWG	No
8 pin EPS12V (460mm)	1	1	18AWG	No
6+2 pin PCIe (400mm+120mm)	2	4	16-18AWG	No
SATA (100mm+110mm+110mm+110mm)	2	8	18AWG	No
4 pin Molex (100mm+110mm+110mm+110mm)	1	4	18AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-

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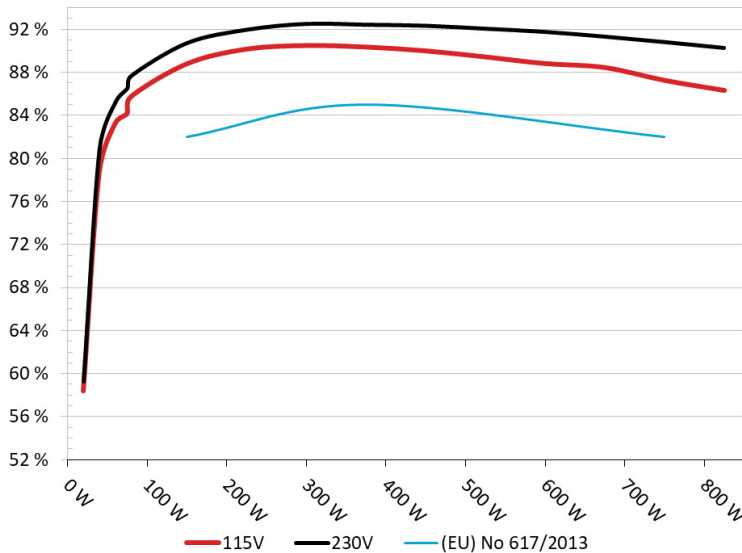
<b>General Data</b>	-
Manufacturer (OEM)	Gospower
PCB Type	Double Sided
<b>Primary Side</b>	-
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV, 1x MPS HF81 (Discharge IC)
Inrush Protection	NTC Thermistor & Relay
Bridge Rectifier(s)	1x
APFC MOSFETs	2x STMicroelectronics STF33N60DM2 (600V, 15.5A @ 100°C, Rds(on): 0.130hm)
APFC Boost Diode	1x
Bulk Cap(s)	1x Nichicon (450V, 560uF, 2,000h @ 105°C, LGM)
Main Switchers	2x Sanrise Tech SRC60R140BTFE (600V, 11.2A @ 125°C, Rds(on): 0.140hm)
APFC Controller	Champion CM6500UNX & CM03AX
Resonant Controller	Champion CU6901VAC
Topology	Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
<b>Secondary Side</b>	-
+12V MOSFETs	6x NCE Power NCEP40T15GU (40V, 106A @ 100°C, Rds(on): 1.35mOhm)
5V & 3.3V	DC-DC Converters: 6x On Semiconductor NTMFS4C022N (30V, 136A, Rds(on): 1.7mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 4x Rubycon (4-10,000h @ 105°C, YXF) Polymer: 28x FPCAP, 1x Nippon Chemi-Con
Supervisor IC	IN1S313I-SAG
Fan Model	Hong Hua HA9215VH12FD-F00 (92mm, 12V, 0.36A, Fluid Dynamic Bearing Fan)
<b>5VSB Circuit</b>	-
Standby PWM Controller	On-Bright OB2365SP

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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

**Efficiency: Cooler Master V750 SFX Gold**  
Ambient: 37°C - 47°C (98.6°F - 116.6°F)

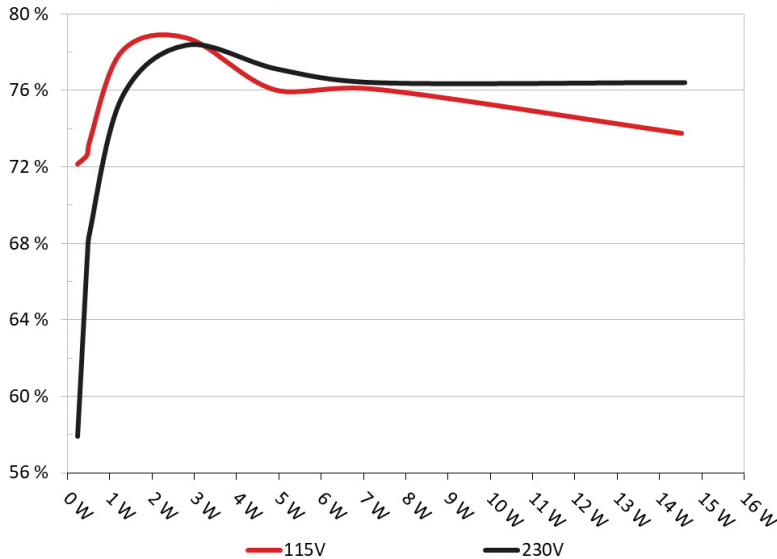


#### INFO

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: Cooler Master V750 SFX Gold**  
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

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**5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)**

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	72.158%	0.03
	5.134V	0.219W		115.15V
2	0.09A	0.462W	72.655%	0.07
	5.132V	0.636W		115.15V
3	0.55A	2.811W	78.747%	0.291
	5.111V	3.569W		115.15V
4	1A	4.904W	76.031%	0.386
	4.905V	6.45W		115.15V
5	1.5A	7.349W	76.056%	0.437
	4.9V	9.663W		115.14V
6	2.999A	14.513W	73.763%	0.495
	4.839V	19.675W		115.14V

**5VSB EFFICIENCY -230V (ERP LOT 3/6 & CEC)**

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	57.916%	0.014
	5.133V	0.399W		230.29V
2	0.09A	0.462W	67.391%	0.023
	5.131V	0.686W		230.29V
3	0.55A	2.807W	78.377%	0.115
	5.106V	3.581W		230.3V
4	1A	4.957W	77.122%	0.189
	4.957V	6.427W		230.3V
5	1.5A	7.316W	76.41%	0.25
	4.878V	9.575W		230.3V
6	2.999A	14.602W	76.415%	0.352
	4.869V	19.108W		230.3V

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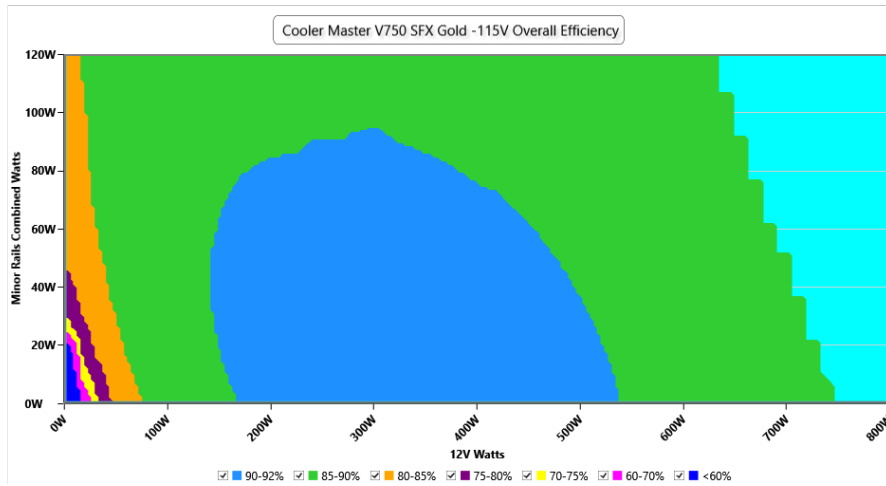
# 115V

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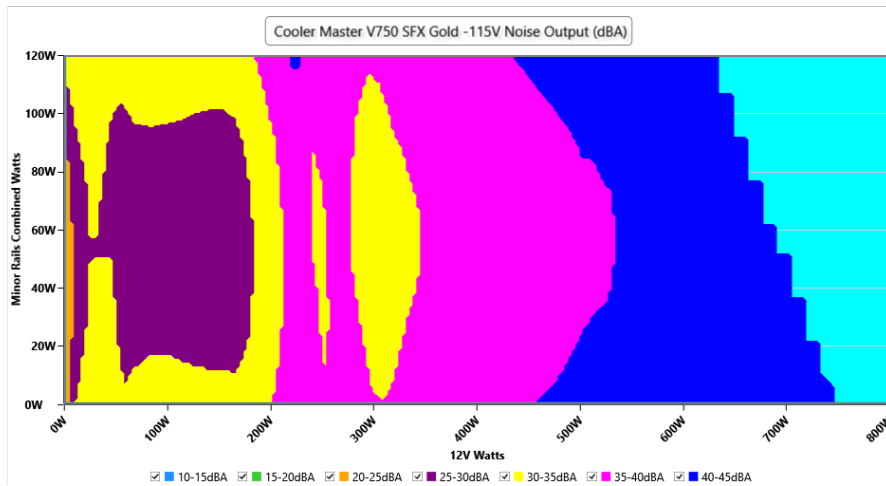
### EFFICIENCY GRAPH 115V



#### 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

### NOISE GRAPH 115V



#### INFO

The PSU's noise in its entire operational range and under 30-32 °C (+2 °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

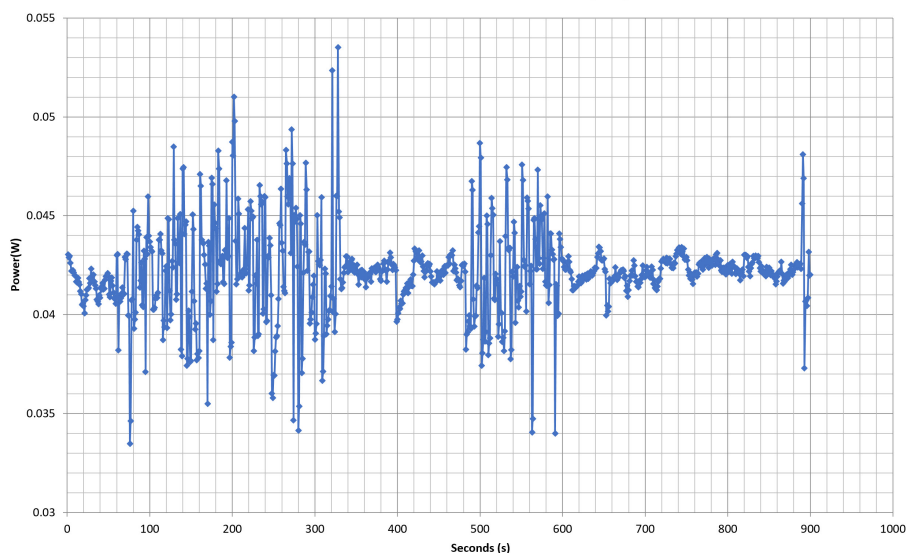
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### VAMPIRE POWER -115V

Power - MPY7501SFHAGVEU1211500061 - 07/09/2021 - 12:59



#### INFO

*This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing*

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**COMMISSION REGULATION (EU) NO 617/2013 TESTING 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%	4.403A	2.004A	1.975A	1.013A	74.996	84.174%	2037	34.4	40.08°C	0.888
	12.128V	4.989V	3.342V	4.937V	89.096				43.53°C	115.17V
20%	9.828A	3.01A	2.968A	1.22A	149.924	88.787%	2196	36.6	41.14°C	0.946
	12.112V	4.983V	3.335V	4.918V	168.858				44.87°C	115.17V
50%	26.830A	5.035A	4.974A	1.871A	374.418	90.349%	2538	41.1	42.18°C	0.985
	12.073V	4.966V	3.317V	4.81V	414.413				48.14°C	115.16V
100%	54.990A	9.114A	9.039A	3.128A	749.685	87.246%	3065	46.6	45.71°C	0.992
	12.002V	4.937V	3.285V	4.794V	859.277				54.75°C	115.18V

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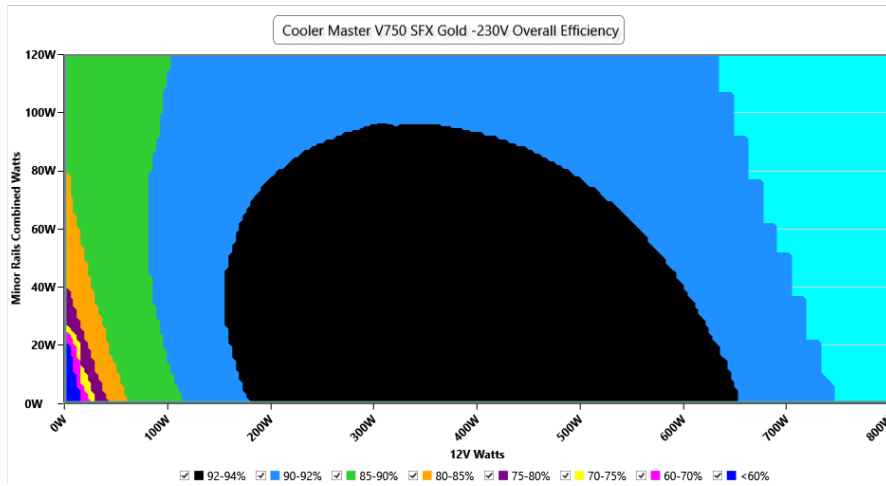
# 230V

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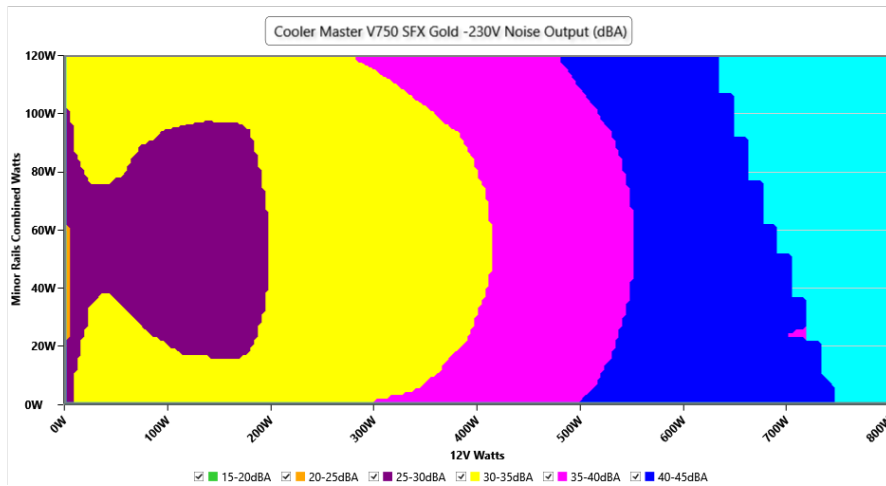
### EFFICIENCY GRAPH 230V



#### INFO

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### NOISE GRAPH 230V



#### INFO

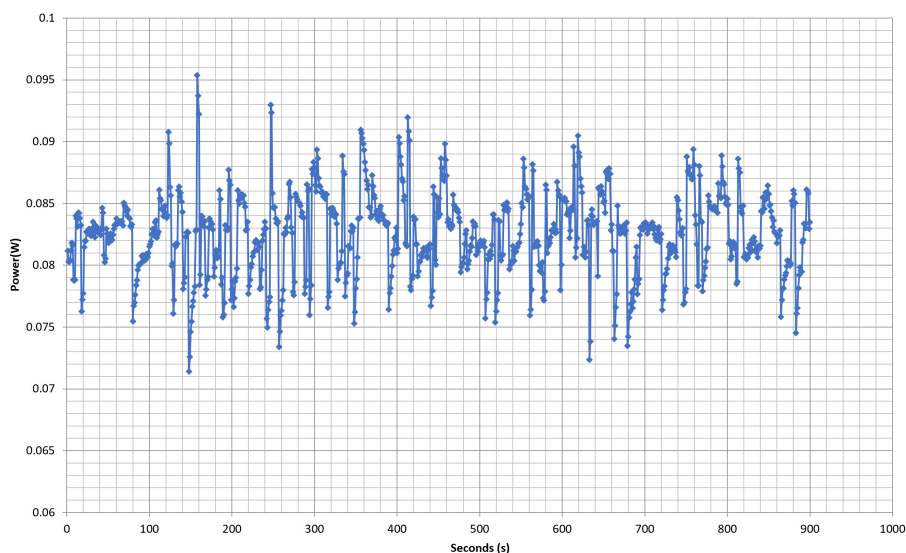
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**COMMISSION REGULATION (EU) NO 617/2013 TESTING 230V**

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	4.404A	2.004A	1.975A	0.991A	74.994	86.509%	2067	34.8	40.07°C	0.779
	12.126V	4.99V	3.342V	5.042V	86.689				44.37°C	230.31V
20%	9.828A	3.01A	2.968A	1.203A	149.915	90.696%	2337	38.5	40.22°C	0.878
	12.110V	4.984V	3.336V	4.986V	165.294				45.28°C	230.31V
50%	26.828A	5.034A	4.973A	1.895A	374.369	92.402%	2622	41.3	42.85°C	0.954
	12.072V	4.967V	3.318V	4.75V	405.153				49.71°C	230.32V
100%	54.990A	9.114A	9.039A	3.125A	749.709	90.793%	3073	46.5	45.02°C	0.979
	12.003V	4.937V	3.285V	4.799V	825.73				54.23°C	230.32V

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EFFICIENCY AND NOISE REPORT IN ACCORDANCE WITH  
CYBENETICS ETA AND CYBENETICS LAMBDA PROCEDURE

### Cooler Master V750 SFX Gold (2021)

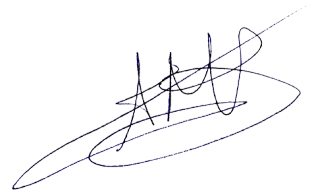


Top side

<b>750W</b>						<b>MODEL / 型</b>	
						<b>Switching Power S</b>	
AC INPUT	100-240V~, 10-5A, 50-60Hz						
交流輸入/交流輸入							
DC OUTPUT	+5V	+3.3V	+12V	-12V	+5VSB		
直流輸出/直流輸出	20A	20A	62.5A	0.3A	3A		
TOTAL POWER	120W		750W		3.6W		15W
總功率/總功率	750W						
MADE IN CHINA / 中國製造 / 中国制造 ■ Cooler Master Technology Inc							
製造商: 酷碼科技股份有限公司 / 製造商: 酷碼科技股份有限公司							
							

Power specifications label

### CERTIFICATIONS 115V

**Aristeidis Bitziopoulos**  
Lab Director

### CERTIFICATIONS 230V



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