

Lab ID#: 417  
Receipt Date: Jun 9, 2018  
Test Date: Jun 22, 2018

Report:  
Report Date: Jun 25, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	HEC
Series	Vengeance
Model Number	
Serial Number	
DUT Notes	CP-9020176

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	47-63
Rated Power (W)	750
Type	ATX12V
Cooling	120mm Rifle Bearing Fan (NR120L)
Semi-Passive Operation	✓
Cable Design	Semi Modular

TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5 Digit	
Sound Analyzer	Bruel & Kjaer 2250-L G4	
Microphone	Bruel & Kjaer Type 4955-A, Bruel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV 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	✓

### 115V

Average Efficiency	87.626%
Efficiency With 10W (≤500W) or 2% (>500W)	64.008
Average Efficiency 5VSB	79.178%
Standby Power Consumption (W)	0.0498680
Average PF	0.983
Avg Noise Output	19.58 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A+

### 230V

Average Efficiency	89.748%
Average Efficiency 5VSB	78.094%
Standby Power Consumption (W)	0.0912818
Average PF	0.949
Avg Noise Output	21.47 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A

## POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	20	62.5	3	0.3
	Watts	120		750	15	3.6
Total Max. Power (W)		750				

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## CABLES AND CONNECTORS

### Captive Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (630mm)	1	1	18-22AWG	Yes
4+4 pin EPS12V (660mm)	1	1	18-22AWG	Yes
6+2 pin PCIe (660mm+100mm)	1	2	18AWG	Yes

### Modular Cables

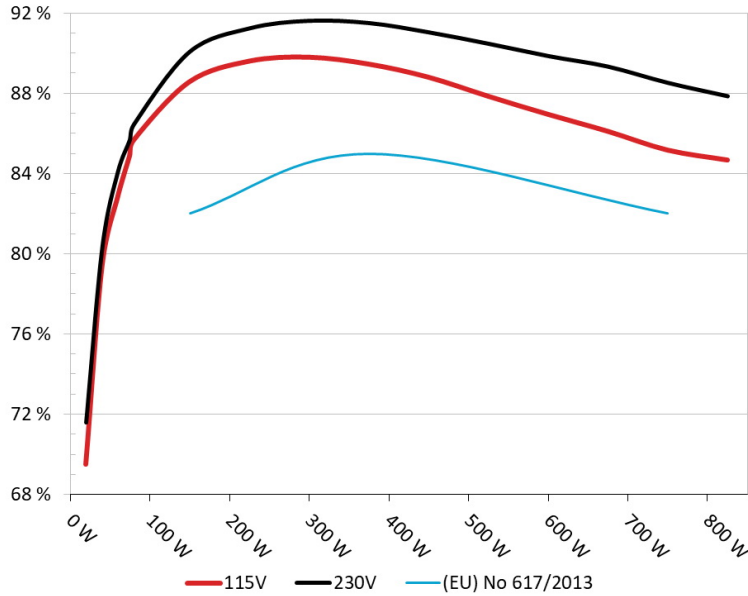
4+4 pin EPS12V (650mm)	1	1	18AWG	No
6+2 pin PCIe (650mm+100mm)	2	4	16-18AWG	No
SATA (470mm+120mm+120mm)	1	3	18AWG	No
SATA (540mm+120mm)	1	2	18AWG	No
4 pin Molex (450mm+100mm+100mm+100mm)	2	8	18AWG	No
FDD Adapter (+105mm)	1	1	20AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	16AWG	-

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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

**Efficiency: Corsair Vengeance 750M**  
Ambient: 37°C - 47°C (98.6°F - 116.6°F)

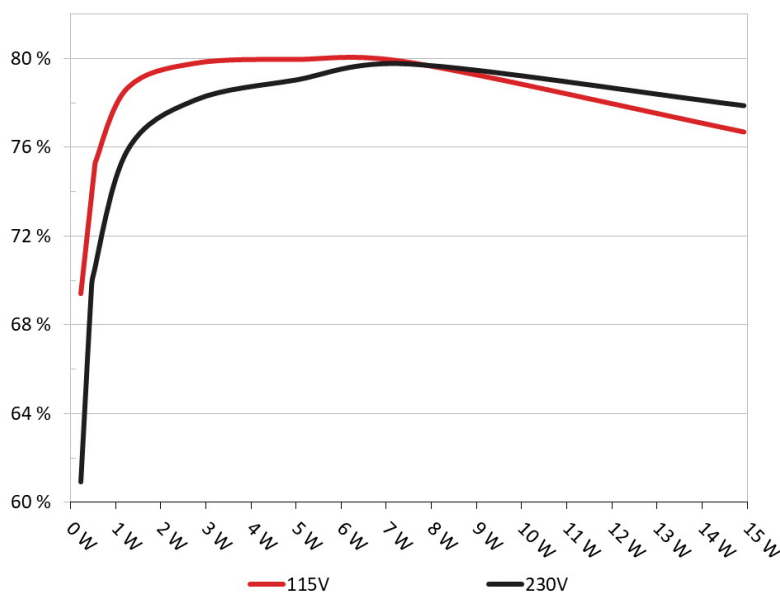


#### INFO

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: Corsair Vengeance 750M**  
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	0.227	69.419%	0.040
	5.030V	0.327		115.15V
2	0.090A	0.453	74.752%	0.073
	5.029V	0.606		157.58V
3	0.550A	2.762	79.780%	0.292
	5.019V	3.462		115.15V
4	1.000A	5.012	79.949%	0.379
	5.011V	6.269		115.14V
5	1.500A	7.504	79.821%	0.425
	5.002V	9.401		115.15V
6	3.000A	14.924	76.687%	0.482
	4.974V	19.461		115.14V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.226	60.916%	0.014
	5.030V	0.371		230.28V
2	0.090A	0.453	69.372%	0.024
	5.029V	0.653		230.28V
3	0.550A	2.762	78.133%	0.121
	5.020V	3.535		230.28V
4	1.000A	5.013	79.044%	0.195
	5.012V	6.342		230.28V
5	1.500A	7.506	79.758%	0.253
	5.003V	9.411		230.28V
6	3.000A	14.927	77.879%	0.352
	4.975V	19.167		230.28V

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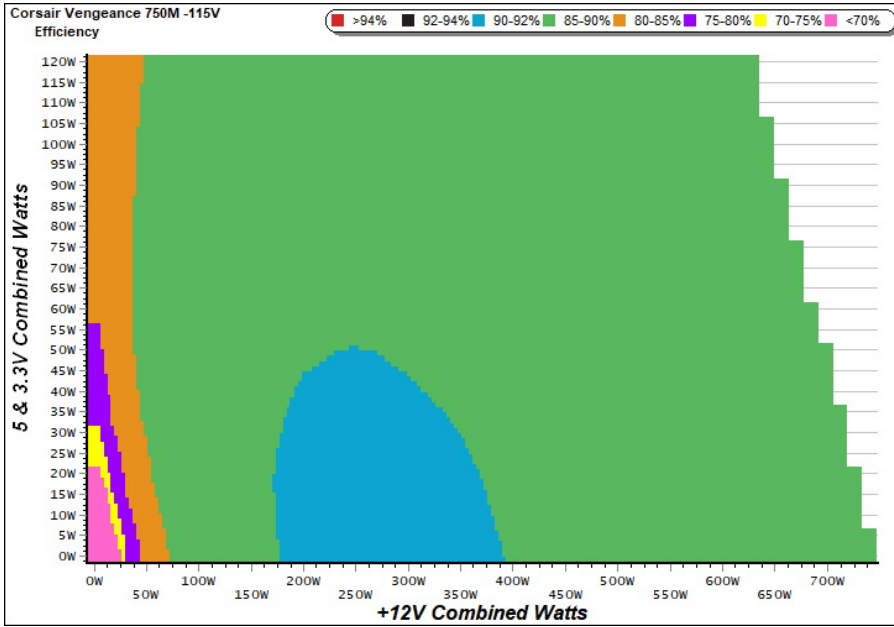
# 115V

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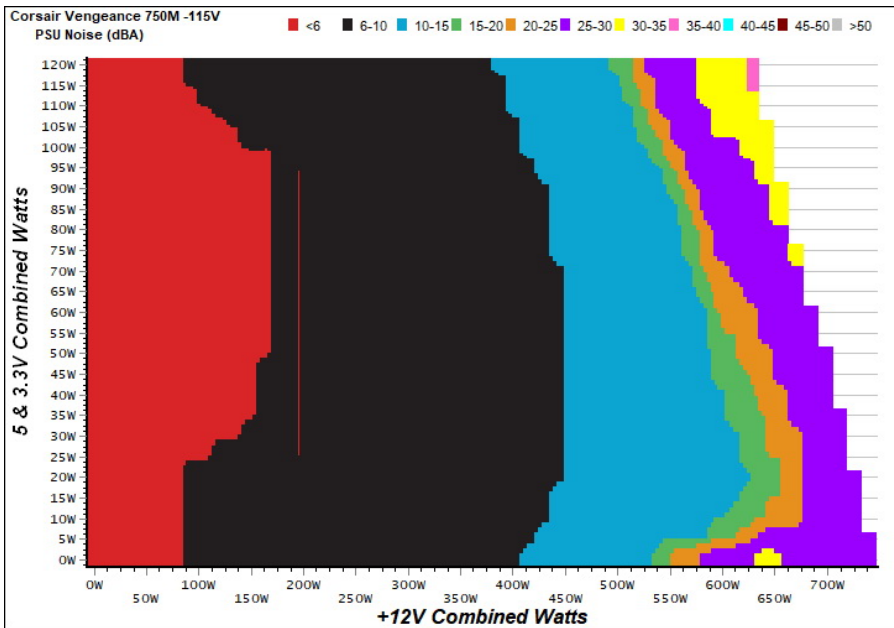
### EFFICIENCY GRAPH 115V



#### 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

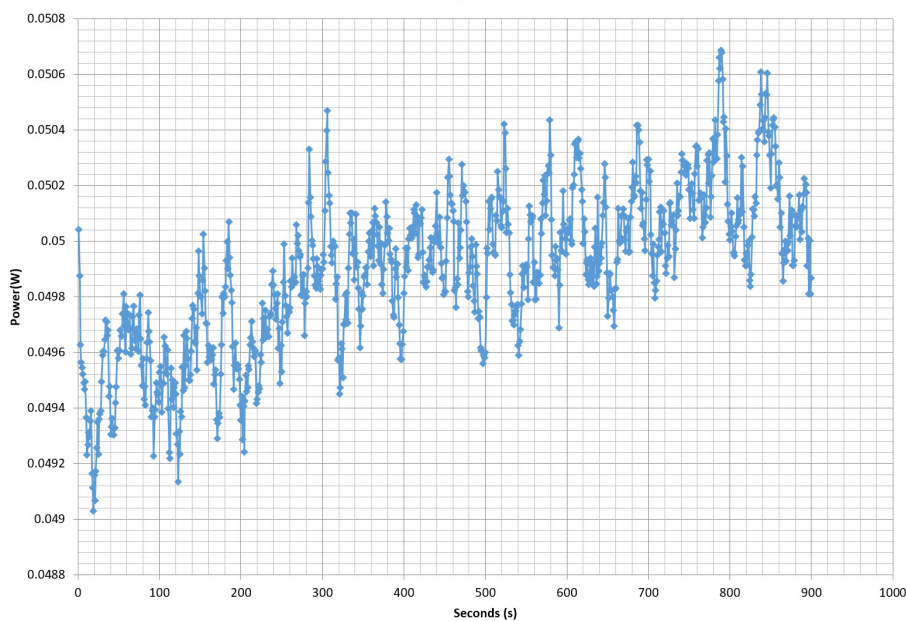
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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**VAMPIRE POWER -115V**

**Power - 19/06/2018 - 09:19**



**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**

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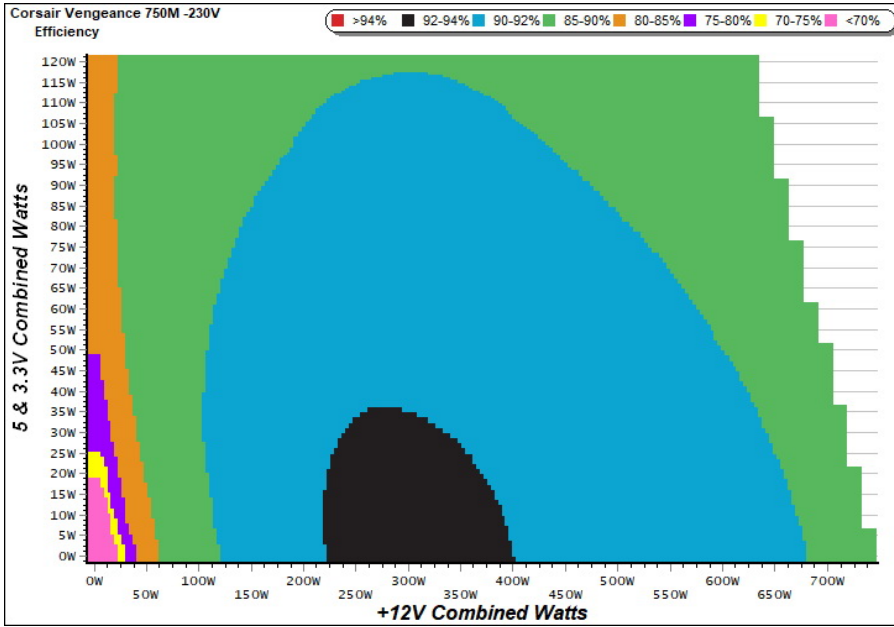
# 230V

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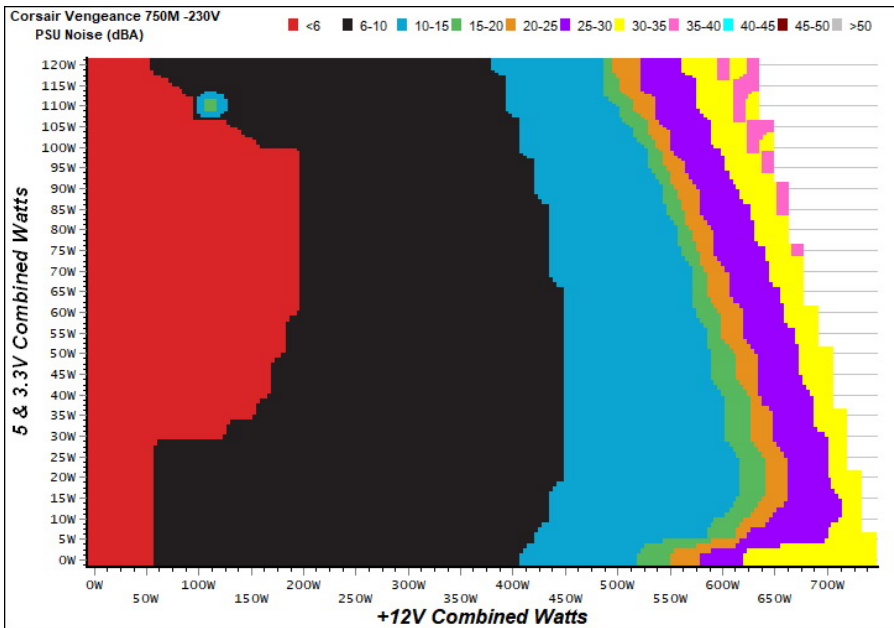
### EFFICIENCY GRAPH 230V



#### 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

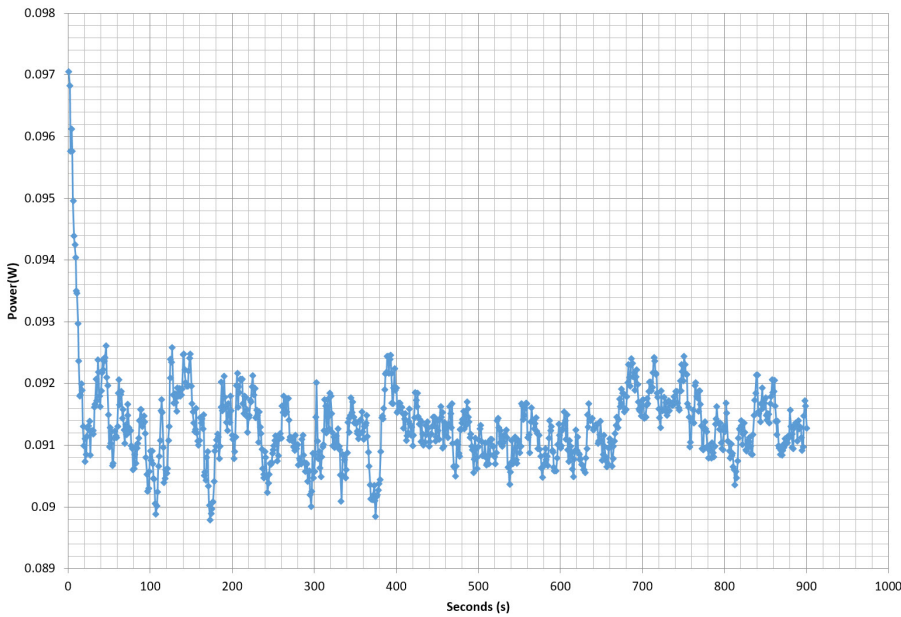
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EFFICIENCY AND NOISE REPORT IN ACCORDANCE WITH  
CYBENETICS ETA AND CYBENETICS LAMBDA PROCEDURE

Corsair Vengeance 750M (2018)

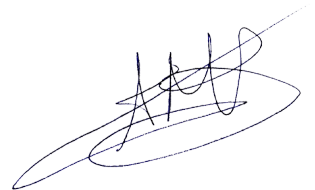


Top side

CORSAIR					
MODEL / MODELO / 型号 / 型號 / 모델 : RPS0106					
POWER SUPPLY / FUENTE DE ALIMENTACIÓN / 전원 공급 장치					
PART NUMBER: CP-9020176/75-003441					
交流電輸入 AC 입력 Entrada de CA	100V - 240V • 12A - 6A • 47Hz - 63Hz				
直流出力 DC 출력 Salida de CC	+5V	+3.3V	+12V	-12V	+5Vsb
最大電流 MAX LOAD 최대 부하 Carga Máximo	20A	25A	62.5A	0.3A	3A
最大瓦特數 MAX POWER 최대 출력 wattaje Combinado Máximo	120W		750W		3.6W 15W
	TOTAL POWER: 750W PODER TOTAL / 总功率 / 總功率 / 총출력				
					

Power specifications label

CERTIFICATIONS 115V

**Aristeidis Bitziopoulos**  
Lab Director

CERTIFICATIONS 230V



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