

Lab ID#: 554  
Receipt Date: Nov 17, 2018  
Test Date: Nov 28, 2018

Report:  
Report Date: Nov 30, 2018

### DUT INFORMATION

Brand	Corsair
Manufacturer (OEM)	HEC
Series	VS
Model Number	
Serial Number	184339863000052672383
DUT Notes	CP-9020172

### DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	650
Type	ATX12V
Cooling	120mm Sleeve Bearing Fan (D12SH-12)
Semi-Passive Operation	X
Cable Design	Fixed cables

### POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	24	20	52	3	0.3
	Watts	130		624	15	3.6
Total Max. Power (W)		650				

### CABLES AND CONNECTORS

Captive Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (550mm)	1	1	18-20AWG	No
4+4 pin EPS12V (610mm)	1	1	18AWG	No
6+2 pin PCIe (550mm+110mm)	1	2	18AWG	No
SATA (440mm+120mm+120mm)	2	6	18AWG	No
SATA (440mm) / 4-pin Molex (+120mm+120mm) / FDD (+120mm)	1	1 / 2 / 1	18-20AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-

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## RESULTS

Temperature Range (°C /°F)	28-30 / 82.4-86 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓

### 115V

Average Efficiency	83.258%
Efficiency With 10W (≤500W) or 2% (>500W)	58.099
Average Efficiency 5VSB	79.375%
Standby Power Consumption (W)	0.0481592
Average PF	0.991
Avg Noise Output	34.11 dB(A)
Efficiency Rating (ETA)	BRONZE
Noise Rating (LAMBDA)	S++

### 230V

Average Efficiency	85.506%
Average Efficiency 5VSB	78.487%
Standby Power Consumption (W)	0.1119340
Average PF	0.959
Avg Noise Output	34.27 dB(A)
Efficiency Rating (ETA)	BRONZE
Noise Rating (LAMBDA)	S++

## TEST EQUIPMENT

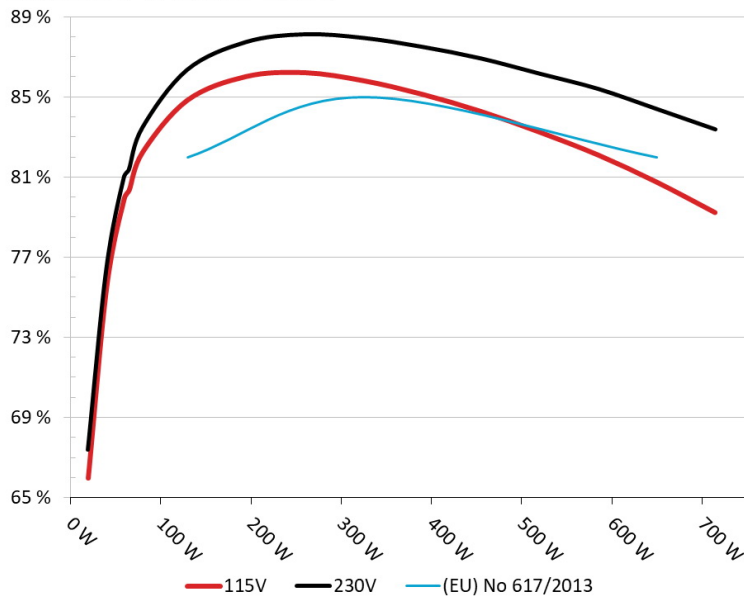
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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

**Efficiency: Corsair VS650**

Ambient: 32°C - 41°C (89.6°F - 105.8°F)



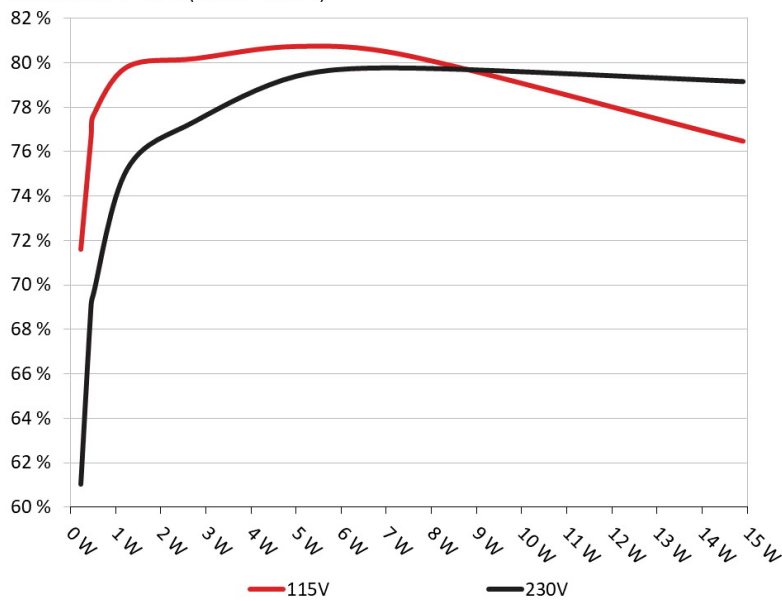
**INFO**

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 VS650**

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	71.609%	0.035
	5.033V	0.317		115.05V
2	0.090A	0.453	76.650%	0.065
	5.032V	0.591		115.05V
3	0.550A	2.763	80.180%	0.272
	5.022V	3.446		115.04V
4	1.000A	5.013	80.725%	0.356
	5.013V	6.210		115.04V
5	1.500A	7.503	80.298%	0.404
	5.002V	9.344		115.05V
6	3.000A	14.909	76.468%	0.471
	4.970V	19.497		115.05V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.227	61.022%	0.160
	5.000V	0.372		230.20V
2	0.090A	0.453	69.055%	0.023
	5.032V	0.656		230.19V
3	0.550A	2.763	77.373%	0.116
	5.022V	3.571		230.20V
4	1.000A	5.013	79.408%	0.184
	5.013V	6.313		230.19V
5	1.500A	7.503	79.768%	0.241
	5.002V	9.406		230.18V
6	3.000A	14.908	79.159%	0.337
	4.969V	18.833		230.18V

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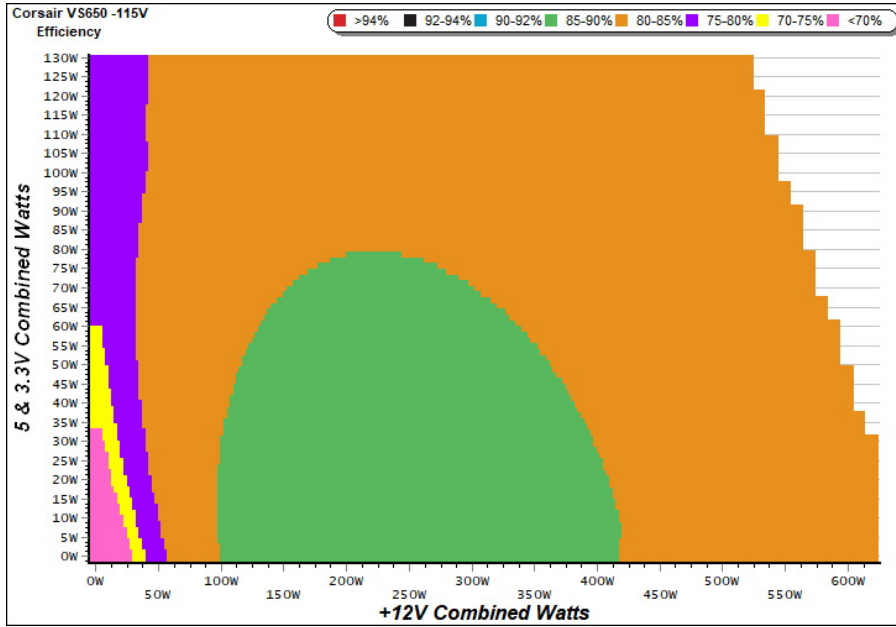
# 115V

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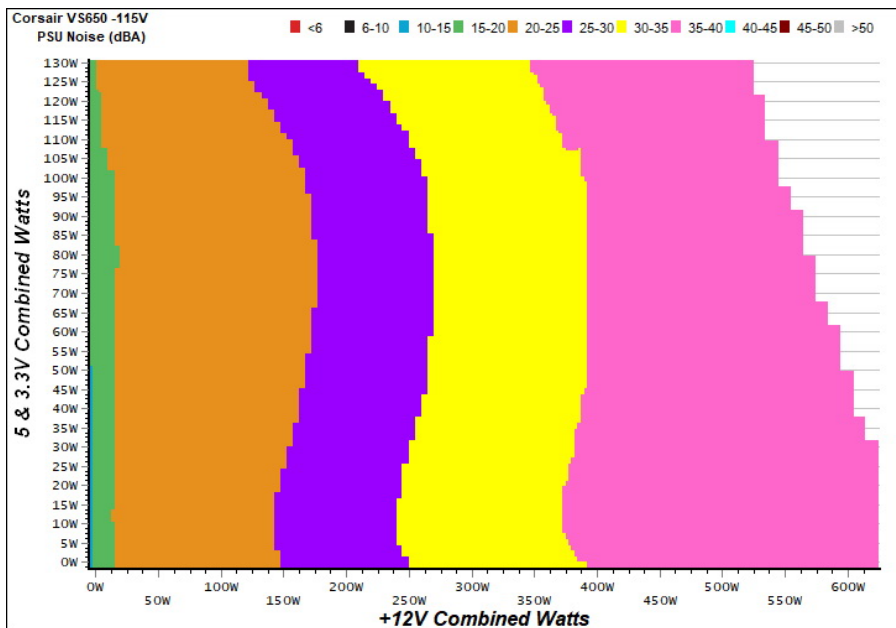
### EFFICIENCY GRAPH 115V



#### 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

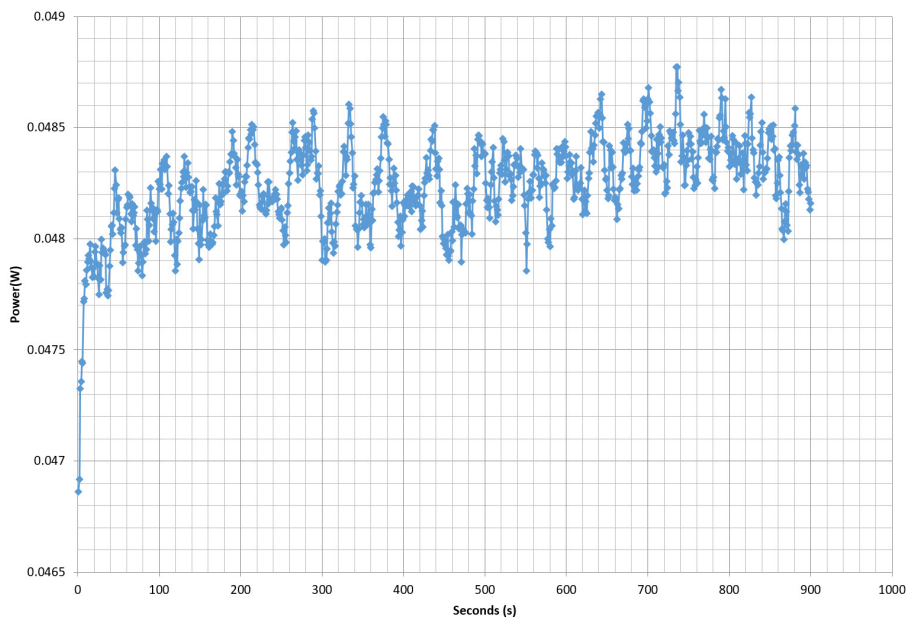
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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**VAMPIRE POWER -115V**

**Power - 184339863000052672383 - 27/11/2018 - 10:29**



**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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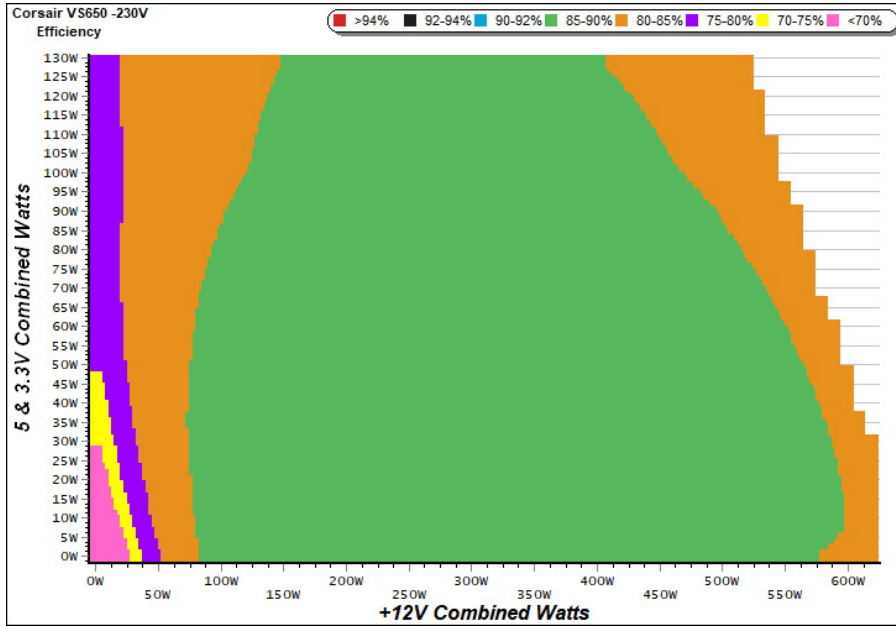
# 230V

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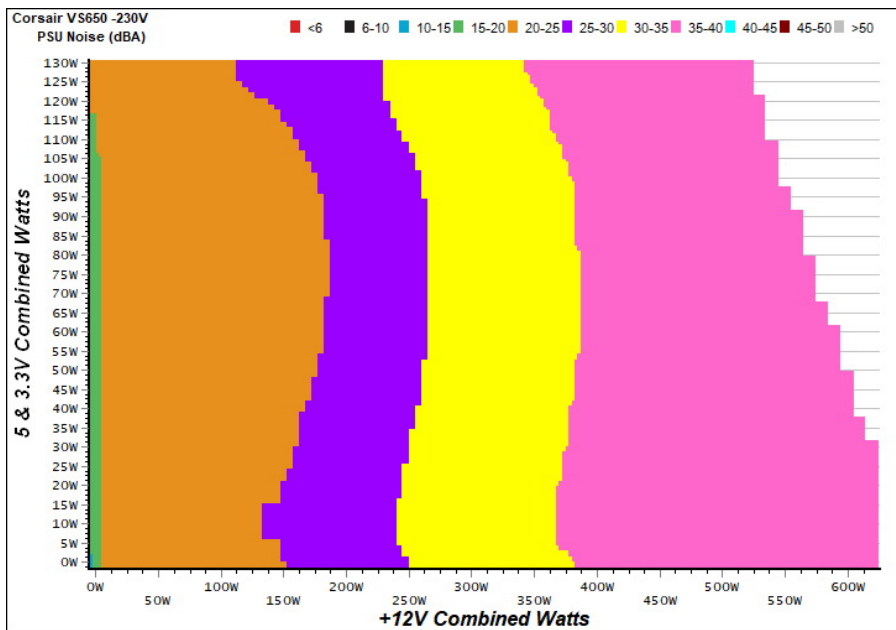
### EFFICIENCY GRAPH 230V



#### INFO

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### NOISE GRAPH 230V



#### INFO

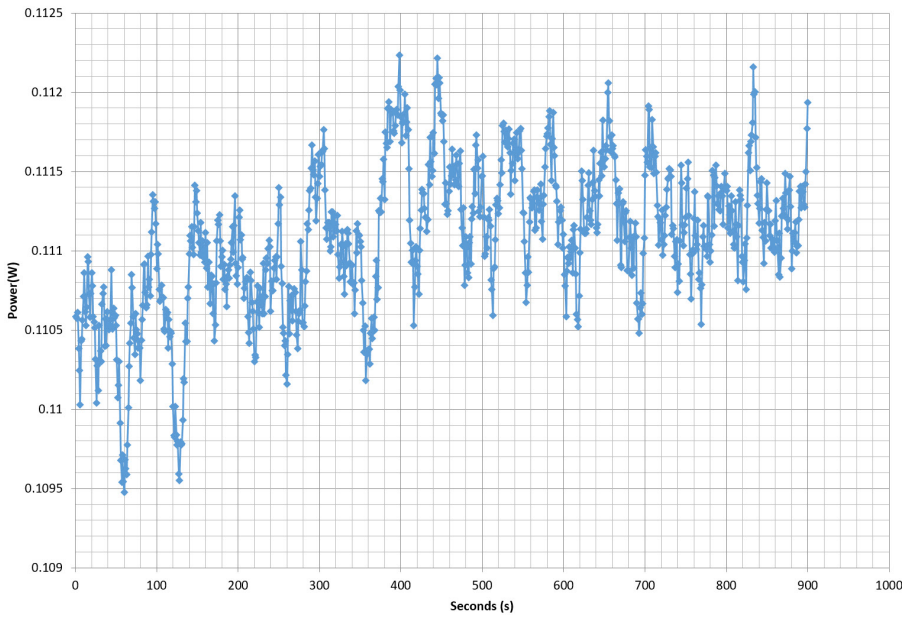
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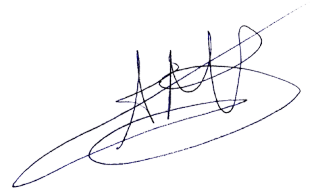


Top side

MODEL / MODELO / 型号 / 모델 / 型號: RPS0102						
POWER SUPPLY / FUENTE DE ALIMENTACIÓN / FONTE DE ALIMENTAÇÃO / 전원 공급 장치						
PART NUMBER : CP-9020172 / 75-003437						
交流電輸入 AC INPUT ENTRADA DE CA / ENTRADA CA / AC 입력	100V - 240V • 10A - 5A • 47Hz - 63Hz					
直流電輸出 DC OUTPUT SALIDA DE CC / SAÍDA CC / DC 출력	+5V	+3.3V	+12V	-12V	+5Vsb	
最大電流 MAX LOAD CARGA MÁXIMA / CARGA MÁX / 최대 부하	20A	24A	52A	0.3A	3A	
最大瓦特數 MAXIMUM COMBINED WATTAGE VATAJE COMBINADO MÁXIMO POTENCIA MÁXIMA COMBINADA 최대 출력 와트	130W		624W	3.6W	15W	
				TOTAL POWER: 650W		
				总功率 / 總功率 / 총출력		
						
 S/N: 18439863000052672383						

Power specifications label

## CERTIFICATIONS 115V

**Aris Mpitsiopoulos**  
Lab Director

## CERTIFICATIONS 230V



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