

Lab ID#: 346
Receipt Date: Sep 24, 2018
Test Date: Sep 30, 2018

Report:
Report Date: Oct 4, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	SF Platinum
Model Number	
Serial Number	
DUT Notes	RPS0112

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	600
Type	SFX
Cooling	92mm Rifle Bearing Fan (NR092L)
Semi-Passive Operation	✓
Cable Design	Fully 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	90.847%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	82.338%
Standby Power Consumption (W)	0.0451727
Average PF	0.981
Avg Noise Output	22.18 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A

230V

Average Efficiency	92.600%
Average Efficiency 5VSB	81.661%
Standby Power Consumption (W)	0.0684637
Average PF	0.947
Avg Noise Output	21.30 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	50	2.5	0.3
	Watts	120		600	12.5	3.6
Total Max. Power (W)		600				

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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	16-18AWG	No
4+4 pin EPS12V (400mm)	1	1	16AWG	No
6+2 pin PCIe (700mm)	2	2	16AWG	No
SATA (100mm+105mm+105mm105mm)	1	4	18AWG	No
4 pin Molex (100mm+105mm+105mm)	1	3	18AWG	No
AC Power Cord (1400mm)	1	1	18AWG	-

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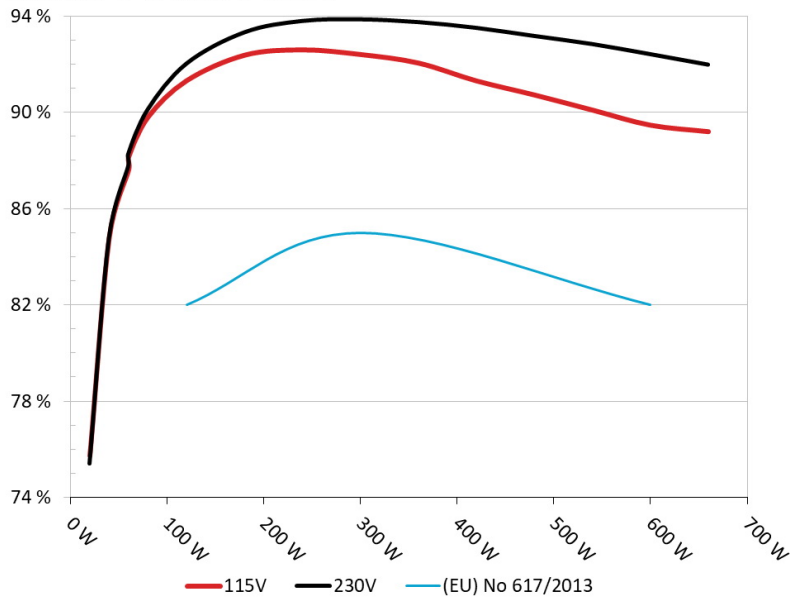
General Data	
Manufacturer (OEM)	Great Wall
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 3x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor & Relay
Bridge Rectifier(s)	1x GBU25KH (800V, 25A @ 125 °C)
APFC MOSFET	1x Infineon IPZ60R099C7 (650V, 14A @ 100°C, 0.099Ohm)
APFC Boost Diode	1x Infineon IDH06G65C6 (600V, 6A @ 145°C)
Hold-up Cap(s)	1x Nippon Chemi-Con (420V, 470uF, 2000h @ 105 °C, KMZ)
Main Switchers	2x 60F2094
Driver IC	Silicon Labs Si8230BD
APFC Controller	Champion CM6502 & CM03X Green PFC controller
Resonant Controller	Champion CM6901X
Topology	Primary side: Half-Bridge & LLC Resonant Controller Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETS	4x Alpha & Omega AON6590 (40V, 100A @ 100°C, 1.55mOhm)
5V & 3.3V	DC-DC Converters: 4x Nexperia PSMN2R0-30YL (30V, 100A @ 25°C, 2mOhm) PWM Controller: Anpec APW7159C
Filtering Capacitors	Electrolytics: Nippon Chemi-Con (4-10,000h @ 105°C, KY), Rubycon (3-6,000h @ 105°C, YXJ) Polymers: Nippon Chemi-Con
Supervisor IC	IN1S429I -SCG
Fan Control MCU	PIC16F1824
Fan Model	Corsair NR092L (92mm, 12V, 0.22A, 3950 RPM, rifle bearing)
5VSB Circuit	
Rectifier	1x CSD18534 FET (60V, 69A @ 25 °C, 7.8mOhm)
Standby PWM Controller	Infineon ICE5QR1680AG

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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair SF600 Platinum
Ambient: 37°C - 47°C (98.6°F - 116.6°F)

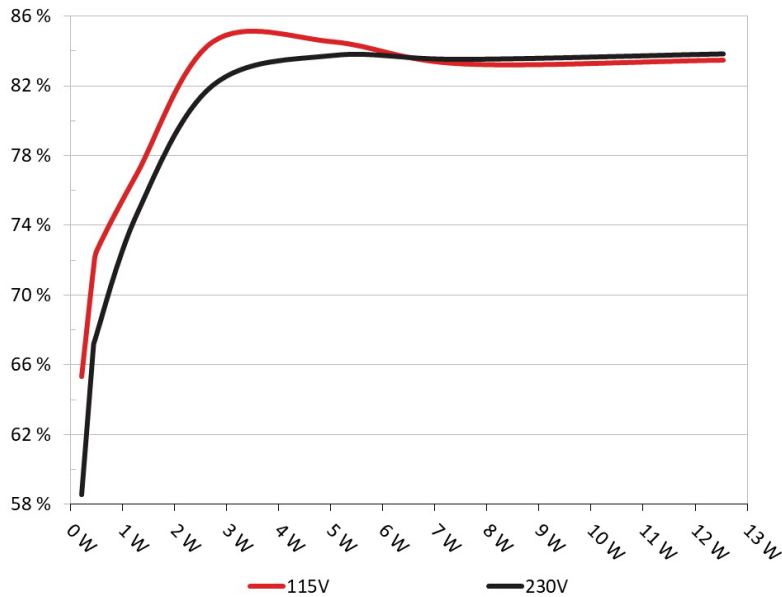


INFO

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 SF600 Platinum
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	0.042A	0.211	65.325%	0.047
	5.039V	0.323		115.11V
2	0.088A	0.441	71.591%	0.087
	5.040V	0.616		115.11V
3	0.543A	2.731	84.551%	0.299
	5.034V	3.230		115.10V
4	1.002A	5.041	84.552%	0.377
	5.029V	5.962		115.10V
5	1.502A	7.546	83.280%	0.419
	5.024V	9.061		115.10V
6	2.501A	12.537	83.497%	0.459
	5.012V	15.015		115.11V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.212	58.564%	0.016
	5.040V	0.362		230.26V
2	0.088A	0.442	67.071%	0.029
	5.040V	0.659		230.27V
3	0.542A	2.731	82.012%	0.132
	5.035V	3.330		230.29V
4	1.003A	5.042	83.726%	0.208
	5.029V	6.022		230.29V
5	1.502A	7.546	83.501%	0.267
	5.024V	9.037		230.29V
6	2.502A	12.538	83.816%	0.332
	5.012V	14.959		230.27V

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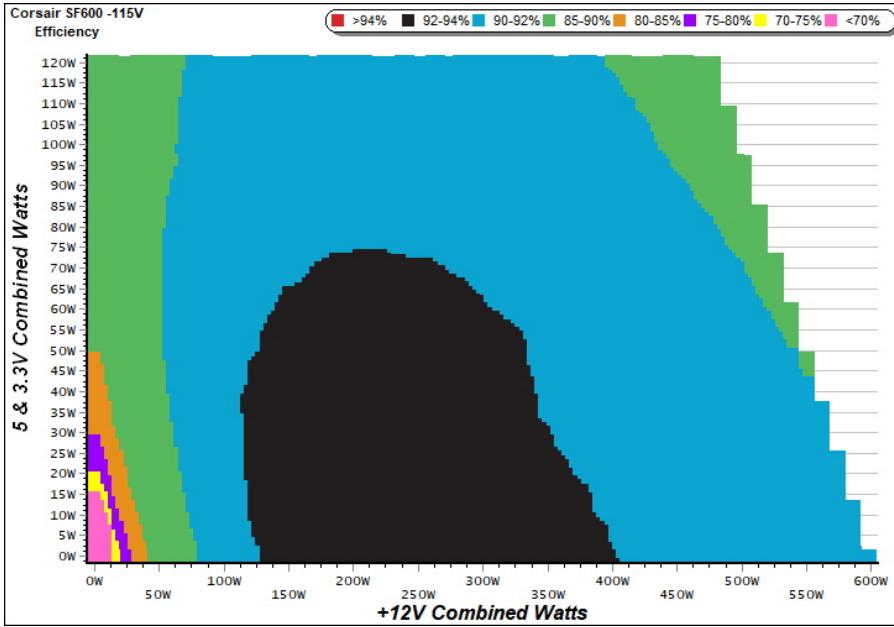
115V

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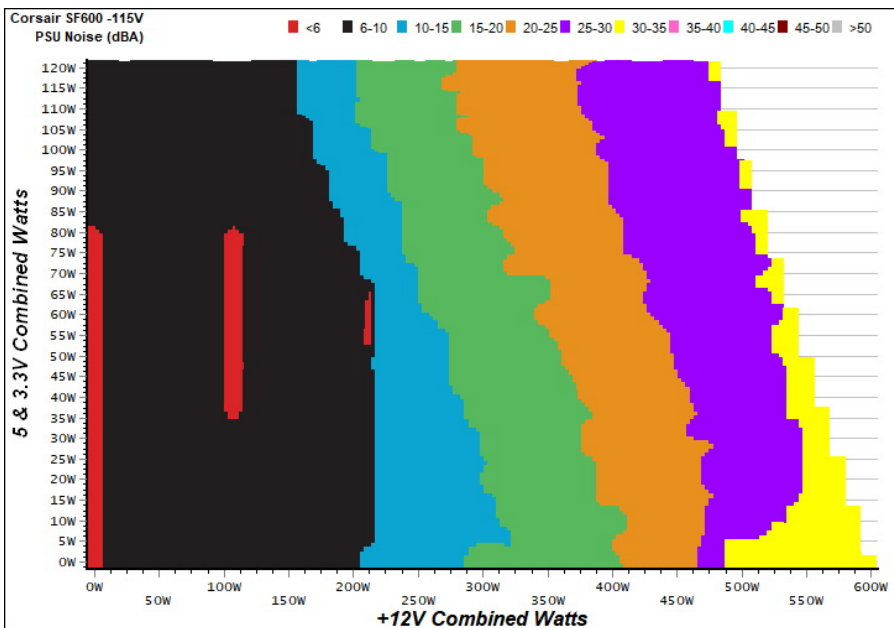
EFFICIENCY GRAPH 115V



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

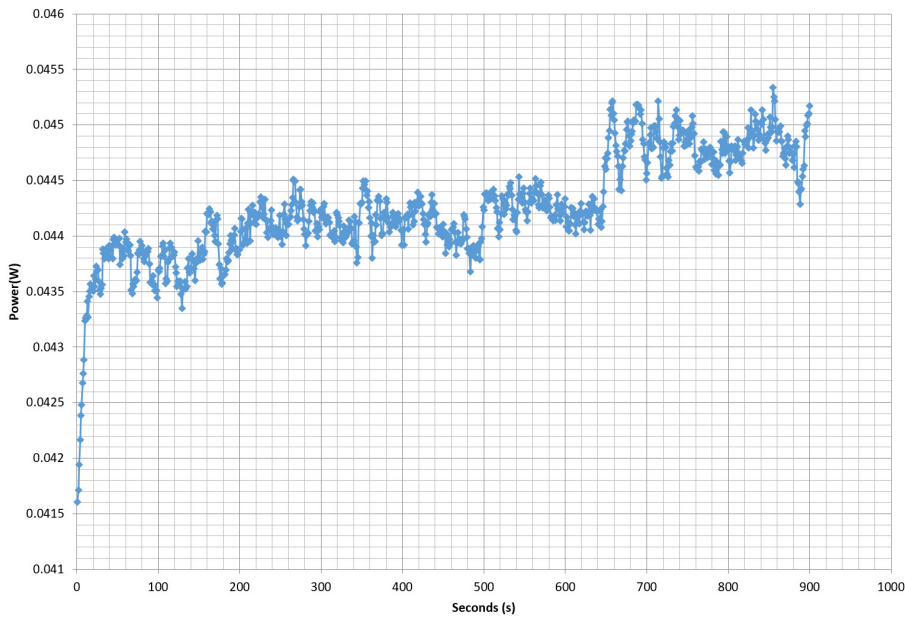
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Power - 05/04/2018 - 11:05



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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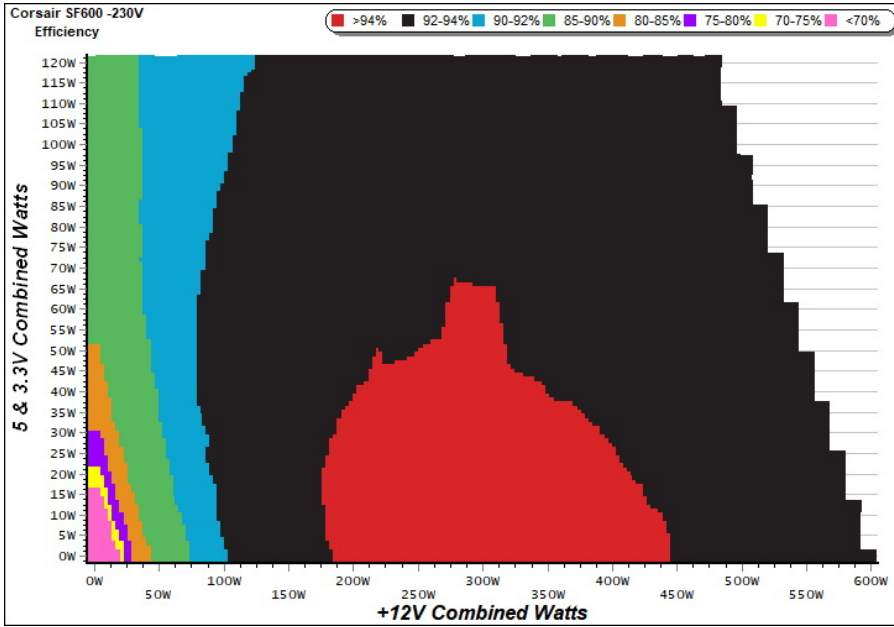
230V

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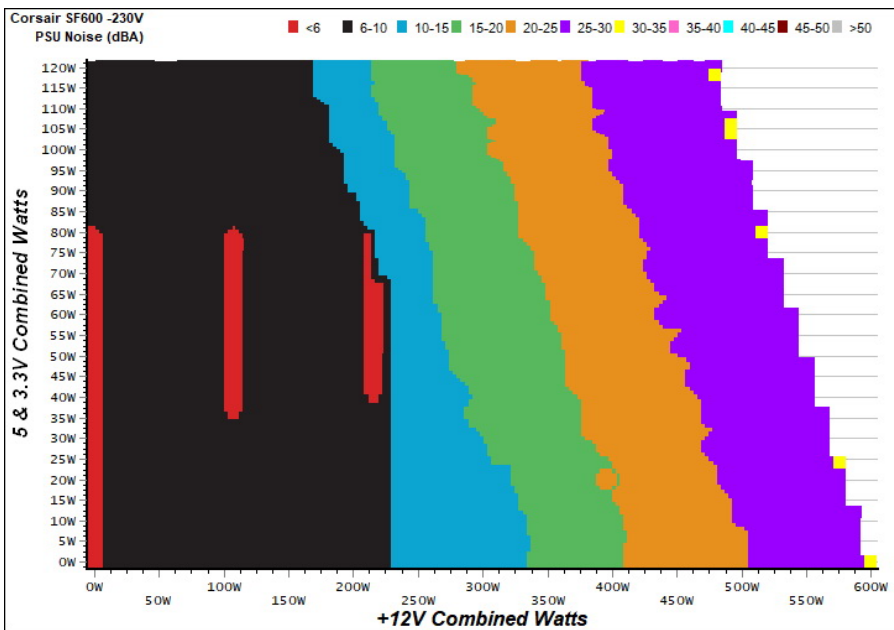
EFFICIENCY GRAPH 230V



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NOISE GRAPH 230V



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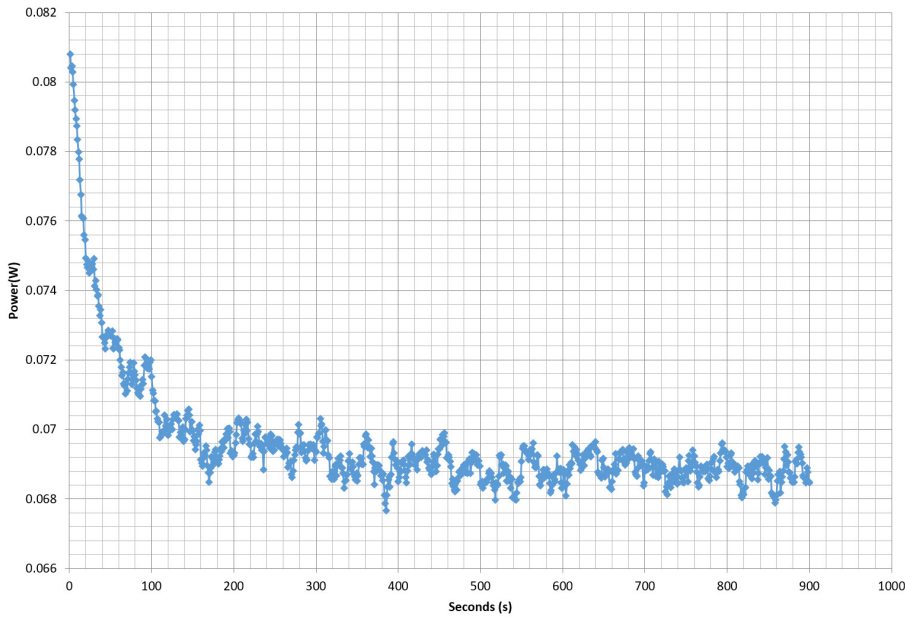
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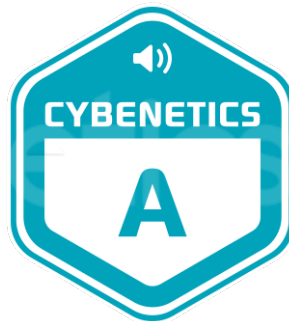
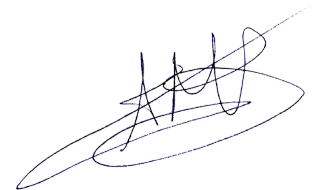


Top side

CORSAIR		SF600				
MODEL / 型号 / 型号 / 모델 : RPS0112						
POWER SUPPLY / 电源 / 電源 / 전원 공급 장치						
PART NUMBER: CP-9020182 / 75-003563						
交流输入 交流輸入	AC INPUT AC 입력	100V - 240V • 10A - 5A • 47Hz - 63Hz				
直流输出 直流輸出	DC OUTPUT DC 출력	+3.3V	+5V	+12V	-12V	+5Vsb
最大电流 最大電流	MAX LOAD 최대 부하	20A	20A	50A	0.3A	2.5A
最大瓦特数 最大瓦特數	MAX POWER 최대 출력 와트	120W		600W	3.6W	12.5W
TOTAL POWER / 总功率 / 總功率 / 총출력 : 600W						
						 R39708 RoHS
CORSAIR MEMORY, INC. - MADE IN CHINA - 中國製造 / 中國製造						Hi-PC

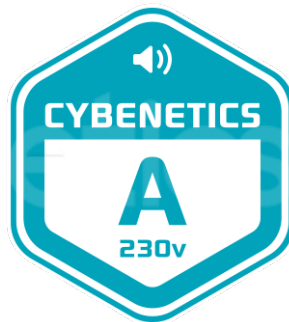
Power specifications table

CERTIFICATIONS 115V

Aristeidis Bitziopoulos
Lab Director

CERTIFICATIONS 230V



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