Sharkoon Rebel P20 850

Lab ID SK85002388

ID 252388

ID: 24PS2388A

: Mar 15, 2024

ETA-EMI PSU

115V 230V

LAMBDA PSU

115V 230V

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	Sharkoon
Model	Rebel P20 850
OEM/ODM	Andyson
Serial Number	
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240

□□□□ (Arms)	10-5
□□□□ (Hz)	50-60
□□□□ (W)	850
□□□□□□□□□□ (°C)	
□□	ATX12V
□□□□	Fully Modular
□□	-
Cybenetics Measurements	
Dimensions (W x H x D)	
□□	
□□	120mm Fluid Dynamic Bearing Fan (HA1225M12F-Z)
□□□□□	✓ (selectable)
Cybenetics Testing Information	
Lab ID	SK85002388
Date of receipt	Feb 12, 2024
Testing Date	Mar 13, 2024
Report Issued Date	Mar 15, 2024
□□□□□□	Applicable to both black and white color models.
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□□
(Non-accredited measurements)

Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18AWG	No
4+4 pin EPS12V (700mm)	2	2	18AWG	No
6+2 pin PCIe (550mm+150mm)	2	4	18AWG	No

12+4 pin PCIe (600mm) (600W)	1	1	16-26AWG	No
SATA (500mm+150mm+150mm)	1	3	18AWG	No
SATA (500mm+150mm+150mm+150mm)	2	8	18AWG	No
4-pin Molex Adapter (+150mm)	1	1	18AWG	No
AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-



Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	70.8	3	0.3
	Watts	100		850	15	3.6
Total Max. Power (W)		850				

Parts Description

General Data	
Manufacturer (OEM)	Andyson
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK205R0 (5 Ohm @ 25°C) & Relay
Bridge Rectifier(s)	2x GBU1006 (420V, 15A @ 100°C)
APFC MOSFETs	2x Perfect PWE120N65SFMF (650V, 20A @ 100°C, Rds(on): 120mOhm)
APFC Boost Diode	1x WeEn BYC10-600P (600V, 20A @ 127°C)
Bulk Cap(s)	2x Nichicon (420V, 390uF each or 780uf combined, 2000h @ 105°C,GL)
Main Switchers	4x Chongqing Pingwei 18N50MF (500V, 18A @ 25°C, Rds(on): 0.3Ohm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CU6901VPA
Topology	Primary side: APFC, Full-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	6x Allpower APG013N04G-AU (40V, 100A @ 100°C, Rds(on): 1.3mOhm)
5V & 3.3V	DC-DC Converters: 6x Nexperia PSMN4R0-30YLD (30V, 95A @ 25°C, Rds(on): 4mOhm) PWM Controller(s): ANPEC APW7159C

Filtering Capacitors	Electrolytic: 7x Nippon Chemi-Con (2-5,000 @ 105°C, KZE), 4x Rubycon (6-10000 @ 105°C, ZLH), 1x Nichicon (4-10,000 @ 105°C, HE), Polymer: 25x Polycap, 5x FPCAP, 1x Nippon Chemi-Con LE
Supervisor IC	Weltrend WT7527RA (OCP, OTP, OVP, UVP, SCP, PG)
Micro-Controller / Fan Controller	Weltrend WT51F104
Fan Model	Hong Hua HA1225M12F-Z (120mm, 12V, 0.45A, Fluid Dynamic Bearing)
5VSB Circuit	
Rectifier	PJ335M
Standby PWM Controller	Excelliance MOS EM8569C

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6
□□ ErP Lot 3/6	✓
□□ (EU) No 617/2013□□	✓
□□ ALPM□ Alternative Low Power Mode□	✓
ATX v3.1 PSU □□□□	✓

Performance Summary

115V

Accredited	
□□□□ (>1450 load combinations)	88.584%
Average Noise Output (>1450 Load Combinations)	20.72dBA
PF□□□ (>1450 Load Combinations)	0.980
Efficiency With 10W (≤500W) or 2% (>500W) Load	73.676%
□□□□	0.0513W
Non-Accredited	
12V Ripple (Full Load)	21.22mV

5V Ripple (Full Load)	17.94mV
3.3V Ripple (Full Load)	19.05mV
5VSB Ripple (Full Load)	22.92mV
12V Load Regulation	0.93%
5V Load Regulation	0.38%
3.3V Load Regulation	0.93%
5VSB Load Regulation	3.73%
Inrush Current	33.750A

230V

Accredited	
□□□□ (>1450 load combinations)	90.800%
Average Noise Output (>1450 Load Combinations)	20.67dBA
PF□□□ (>1450 Load Combinations)	0.939
Efficiency With 10W (≤500W) or 2% (>500W) Load	72.339%
□□□□	0.1390W
Non-Accredited	
12V Ripple (Full Load)	17.10mV
5V Ripple (Full Load)	13.80mV
3.3V Ripple (Full Load)	14.93mV
5VSB Ripple (Full Load)	18.67mV
12V Load Regulation	0.99%
5V Load Regulation	0.32%
3.3V Load Regulation	0.84%
5VSB Load Regulation	3.71%
Inrush Current	66.400A
12V Transient Response (200%)	11.45V
5V Transient Response (200%)	4.908V
3.3V Transient Response (200%)	3.175V
5VSB Transient Response (200%)	4.981V
□□□□ & PWR_OK □□	20.60ms
AC Loss to PWR_OK Hold Up Time	16.10ms

PWR_OK Inactive to DC Loss Delay		4.50ms
PSU Timings: T1 (20% / 100%)	88.0ms	87.0ms
PSU Timings: T3 (20% / 100%)	120.0ms	122.0ms
OPP (28.07°C / 40.99°C)	123.25%	124.43%

□□□□ & PWR_OK □□

Hold-Up Time (ms)	20.6
AC Loss to PWR_OK Hold Up Time (ms)	16.1
PWR_OK Inactive to DC Loss Delay (ms)	4.5

□□□□

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.04 V	115.00 V	113.85 V	115.08 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.95 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	0.19 %	2.00 %	PASS
Real Power:	0.051 W	0.010 W	N/A	0.079 W	N/A	N/A
Apparent Power:	7.945 W	7.733 W	N/A	8.161 W	N/A	N/A
Power Factor:	0.009	N/A	N/A	N/A	N/A	N/A

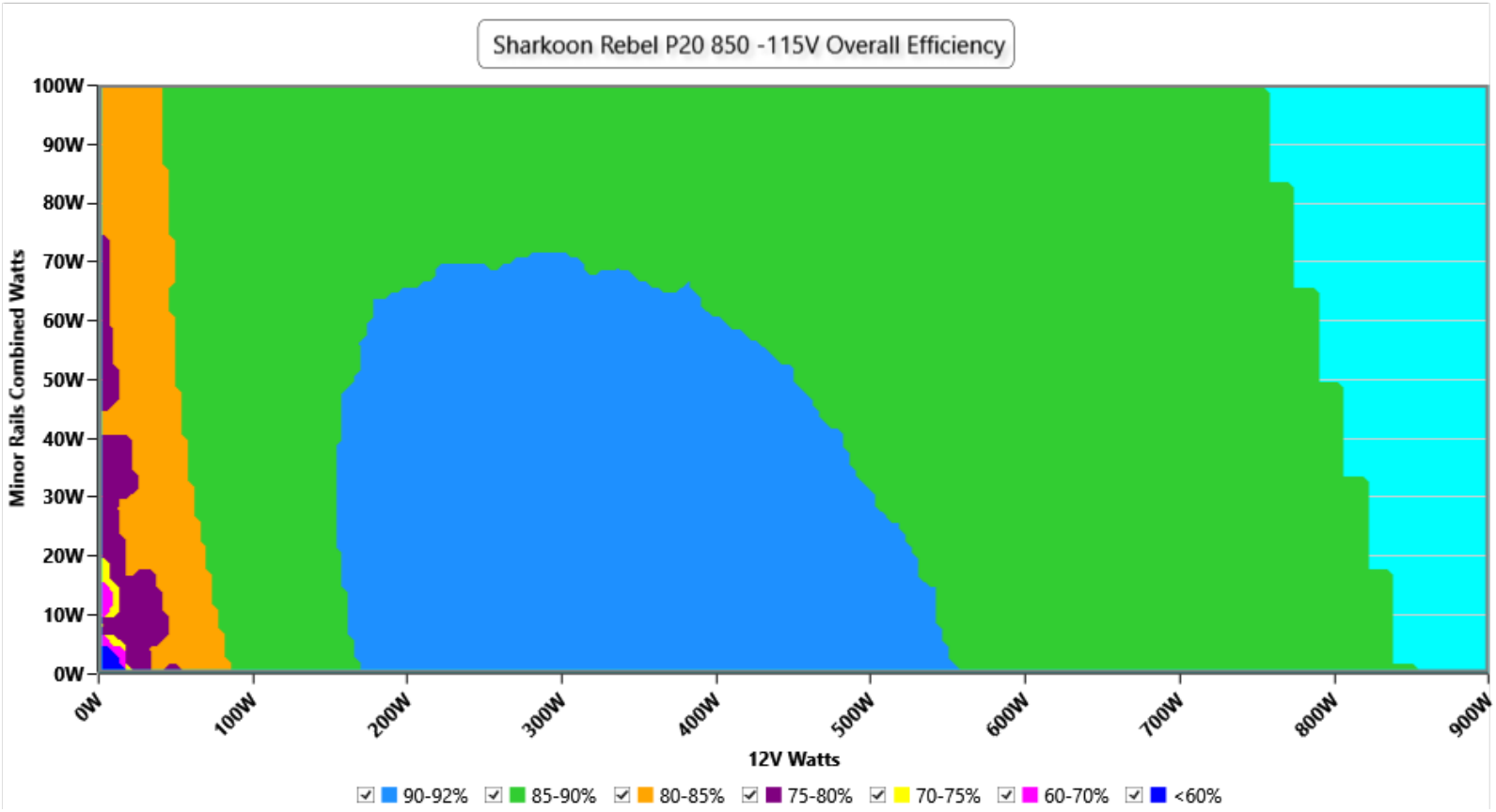
230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	231.00 V	230.89 V	227.70 V	231.05 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	0.26 %	2.00 %	PASS
Real Power:	0.139 W	0.121 W	N/A	0.171 W	N/A	N/A
Apparent Power:	26.043 W	25.749 W	N/A	26.348 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

□□□□□□

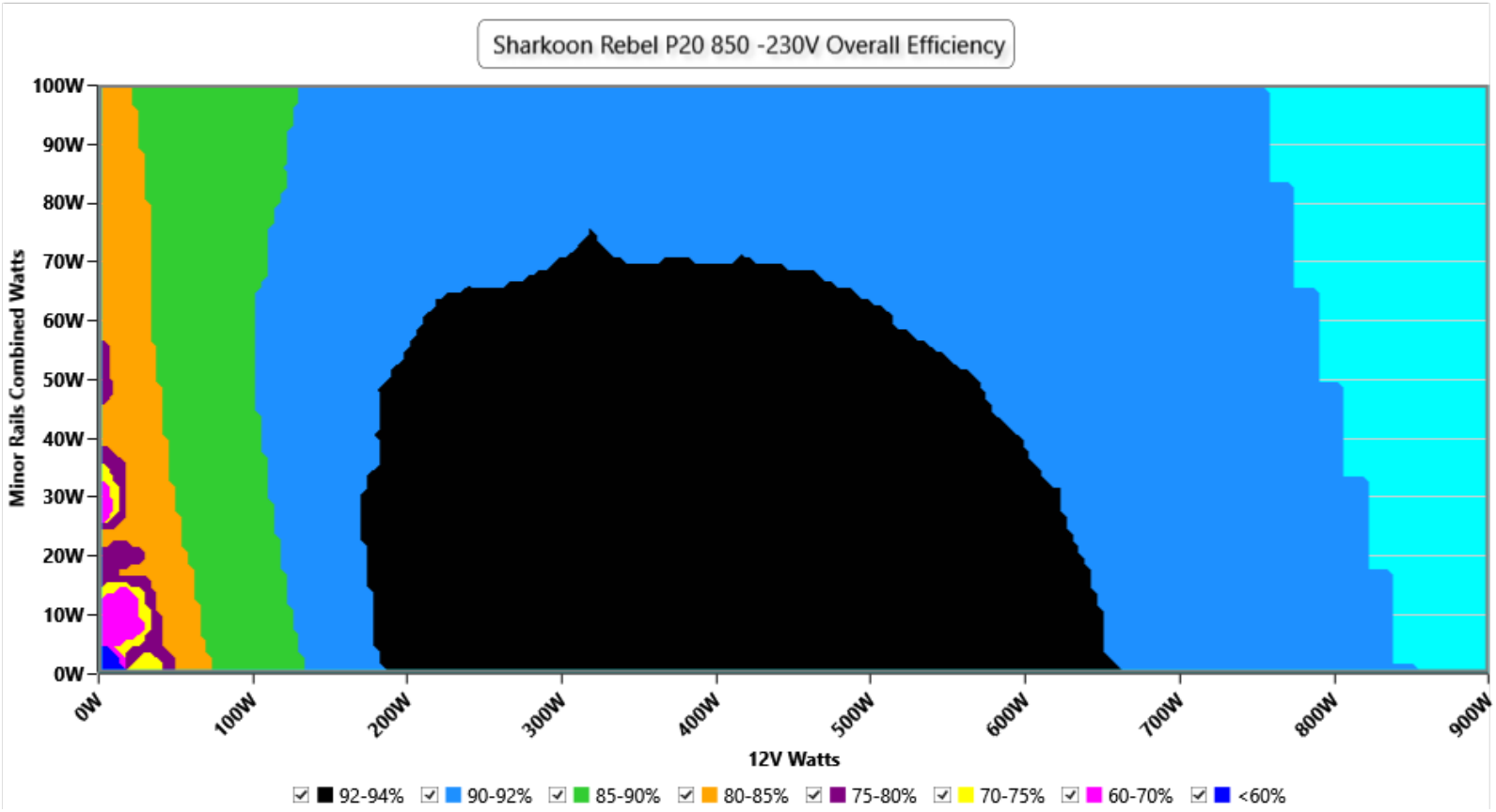
115V



□□

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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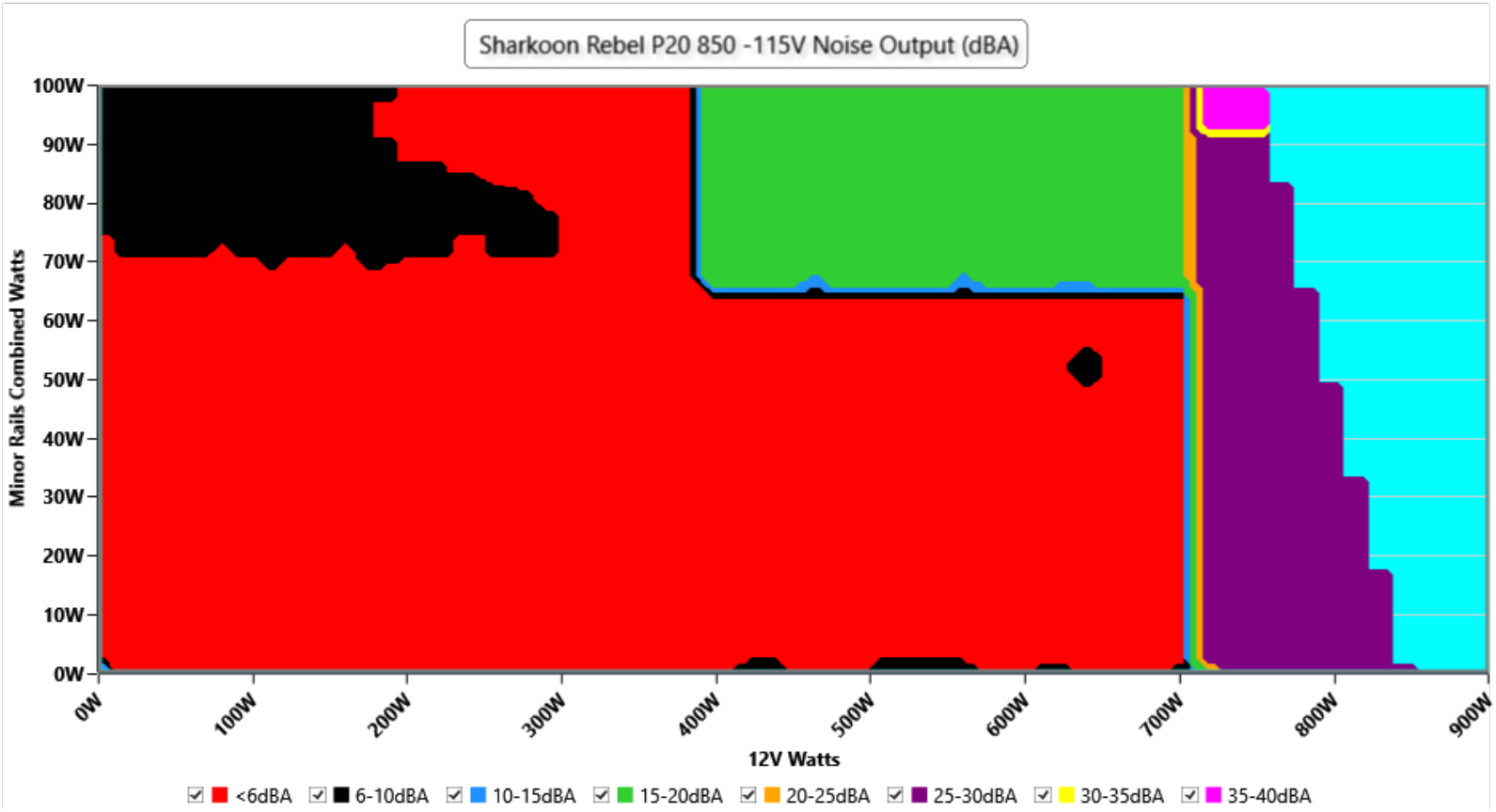
115V



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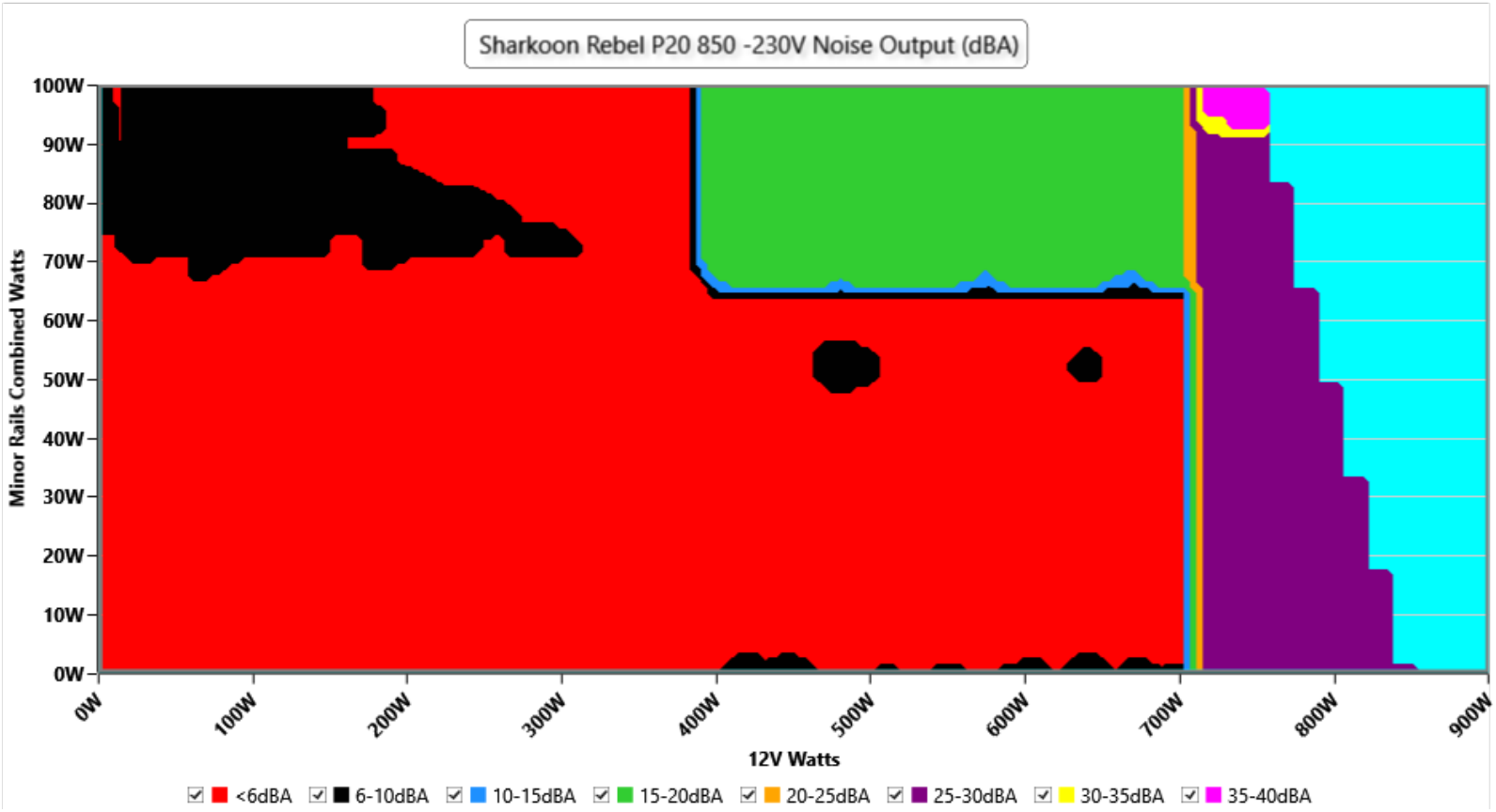
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

230V



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) · 44.2 °C	0 RPM · <6.0 dB(A) · 44.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.0 °C	0 RPM · <6.0 dB(A) · 45.0 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 47.9 °C	0 RPM · <6.0 dB(A) · 47.9 °C	fan off in both
100%	1536 RPM · 36.3 dB(A) · 45.0 °C	1536 RPM · 36.3 dB(A) · 45.0 °C	**+0.0 dB(A)**

230V

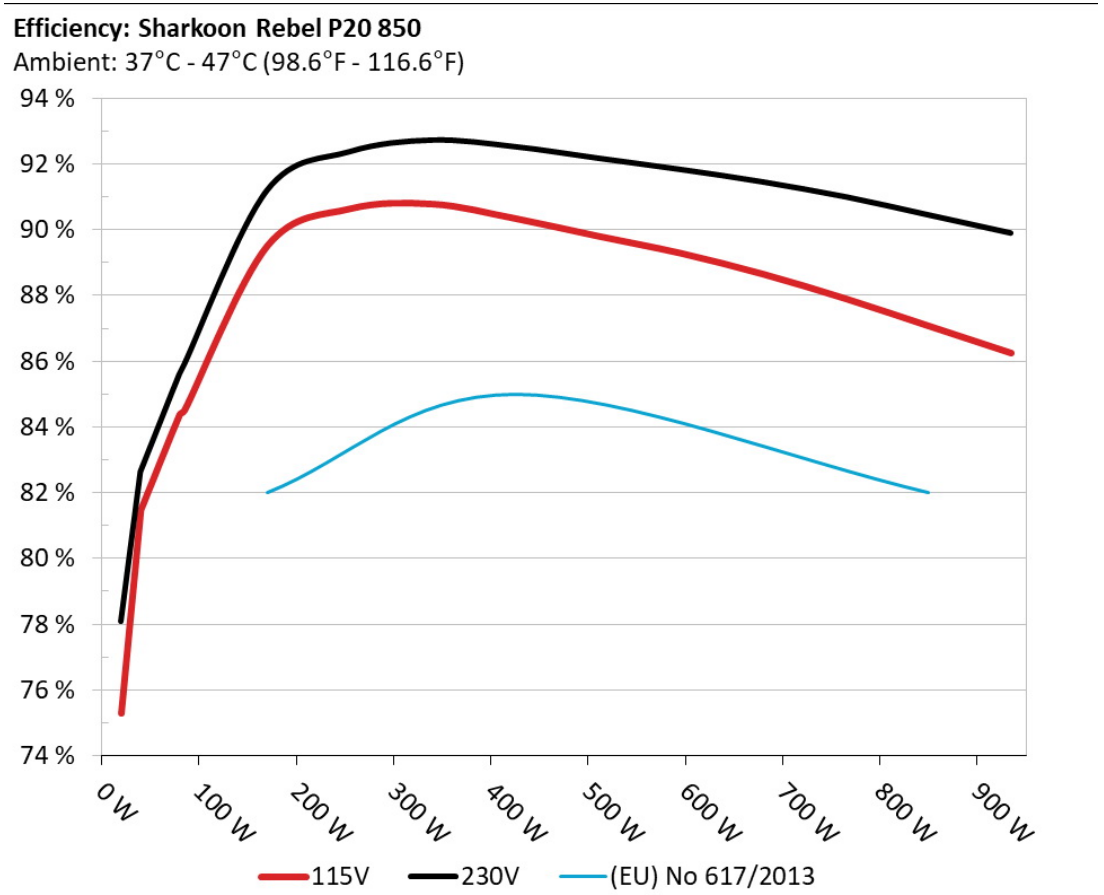
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 44.3 °C	0 RPM · <6.0 dB(A) · 44.3 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 44.8 °C	0 RPM · <6.0 dB(A) · 44.8 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 47.8 °C	0 RPM · <6.0 dB(A) · 47.8 °C	fan off in both
100%	1536 RPM · 36.3 dB(A) · 45.6 °C	1536 RPM · 36.3 dB(A) · 45.6 °C	**+0.0 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.

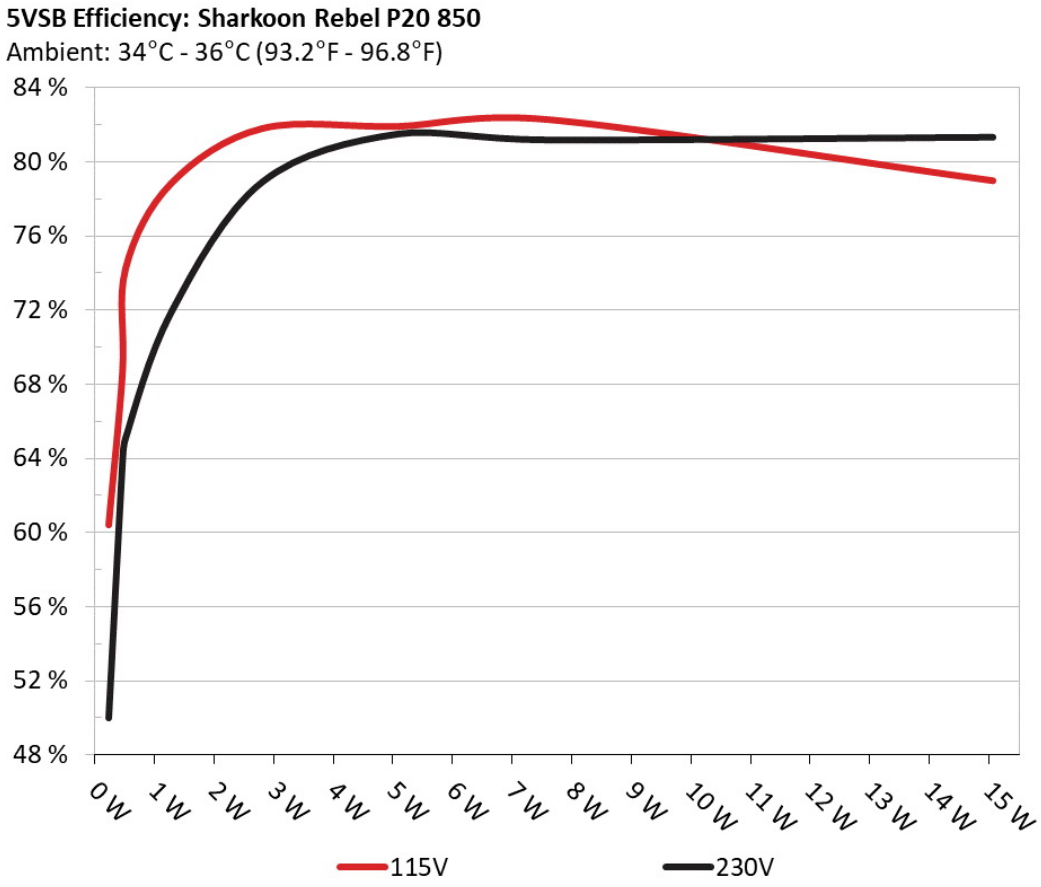
Informational. Not part of the ETA or LAMBDA rating.

Indicative Performance



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□□



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This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

5VSB□□□ ERP LOT 3/6□ CEC□

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	60.873%	0.047
	5.126V	0.38W		114.94V
2	0.09A	0.461W	69.103%	0.081
	5.124V	0.667W		114.94V
3	0.55A	2.81W	82.311%	0.301
	5.108V	3.414W		114.92V
4	1A	5.092W	82.417%	0.393
	5.092V	6.178W		114.92V
5	1.5A	7.611W	82.782%	0.432
	5.074V	9.195W		114.92V
6	3A	15.057W	79.484%	0.498
	5.019V	18.943W		114.92V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.231W	50.487%	0.017
	5.126V	0.458W		229.9V
2	0.09A	0.461W	64.254%	0.026
	5.124V	0.718W		229.9V
3	0.55A	2.809W	79.398%	0.122
	5.109V	3.538W		229.89V
4	1A	5.093W	81.987%	0.195
	5.093V	6.212W		229.88V
5	1.5A	7.614W	81.662%	0.26
	5.076V	9.324W		229.89V
6	3A	15.07W	81.807%	0.35
	5.024V	18.421W		229.88V

Supplementary Tests (For Reference)

□□□□□□

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%	5.216A	1.994A	1.973A	0.983A	84.997	84.516%	0	<6.0	44.2°C	0.963
	12.154V	5.015V	3.344V	5.088V	100.569				40.19°C	114.88V
20%	11.442A	2.991A	2.963A	1.183A	169.927	89.506%	0	<6.0	44.99°C	0.982
	12.150V	5.014V	3.341V	5.073V	189.848				40.72°C	114.86V
30%	18.051A	3.49A	3.459A	1.384A	254.931	90.634%	0	<6.0	46.15°C	0.98
	12.126V	5.014V	3.339V	5.057V	281.273				41.41°C	114.82V
40%	24.649A	3.99A	3.955A	1.587A	340.015	90.779%	0	<6.0	47°C	0.98
	12.123V	5.012V	3.337V	5.042V	374.549				41.97°C	114.8V
50%	30.861A	4.989A	4.948A	1.791A	424.803	90.338%	0	<6.0	47.89°C	0.984
	12.128V	5.011V	3.335V	5.026V	470.239				42.4°C	114.77V
60%	37.096A	5.993A	5.948A	1.996A	509.349	89.807%	917	20	42.52°C	0.986
	12.118V	5.006V	3.329V	5.01V	567.157				48.53°C	114.73V
70%	43.390A	6.997A	6.948A	2.203A	594.657	89.286%	915	20	43.05°C	0.987
	12.112V	5.003V	3.325V	4.994V	666.013				50.13°C	114.7V
80%	49.659A	7.996A	7.946A	2.309A	679.488	88.649%	910	19.8	43.88°C	0.988
	12.115V	5.001V	3.322V	4.981V	766.493				51.89°C	114.67V
90%	56.292A	8.496A	8.433A	2.415A	764.912	87.897%	903	19.7	44.52°C	0.989
	12.123V	5.001V	3.32V	4.969V	870.238				53.56°C	114.64V
100%	62.719A	9A	8.953A	3.038A	849.722	87.073%	1536	36.3	45.03°C	0.99
	12.118V	4.999V	3.317V	4.938V	975.876				55.08°C	114.61V
110%	68.989A	10.003A	10.048A	3.044A	934.304	86.251%	1536	36.3	46.65°C	0.99
	12.119V	4.997V	3.314V	4.928V	1083.249				57.59°C	114.56V
CL1	0.114A	12A	11.925A	0A	101.291	81.469%	921	20.1	41.33°C	0.971
	12.198V	5.016V	3.329V	5.111V	124.335				46.79°C	114.87V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	0.114A	19.874A	0A	0A	101.337	79.865%	1545	36.5	39.61°C	0.973
	12.167V	5.029V	3.336V	5.114V	126.886				46.71°C	114.88V
CL3	0.114A	0A	19.842A	0A	67.394	74.296%	1545	36.5	41.99°C	0.959
	12.155V	5.007V	3.327V	5.114V	90.709				51.05°C	114.88V
CL4	70.268A	0A	0A	0A	849.494	87.973%	1535	36.3	46.72°C	0.989
	12.090V	5.003V	3.333V	5.055V	965.631				57.69°C	114.61V

□□□□□□□□□□□

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%	5.217A	1.994A	1.974A	0.983A	85.001	85.892%	0	<6.0	44.29°C	0.796
	12.153V	5.016V	3.344V	5.088V	98.961				40.25°C	229.87V
20%	11.445A	2.991A	2.963A	1.183A	169.936	91.177%	0	<6.0	44.84°C	0.907
	12.148V	5.015V	3.341V	5.072V	186.378				40.52°C	229.86V
30%	18.055A	3.49A	3.459A	1.384A	254.944	92.359%	0	<6.0	46.2°C	0.942
	12.123V	5.014V	3.339V	5.057V	276.035				41.38°C	229.85V
40%	24.654A	3.99A	3.956A	1.587A	340.027	92.712%	0	<6.0	46.89°C	0.956
	12.121V	5.013V	3.337V	5.042V	366.759				41.87°C	229.83V
50%	30.878A	4.988A	4.949A	1.791A	424.816	92.512%	0	<6.0	47.8°C	0.964
	12.122V	5.012V	3.334V	5.026V	459.204				42.28°C	229.82V
60%	37.111A	5.992A	5.949A	1.996A	509.357	92.166%	917	20	42.95°C	0.968
	12.114V	5.007V	3.328V	5.01V	552.65				49.03°C	229.8V
70%	43.393A	6.995A	6.948A	2.203A	594.677	91.821%	914	20	43.26°C	0.971
	12.112V	5.004V	3.325V	4.993V	647.65				50.36°C	229.79V
80%	49.661A	7.993A	7.947A	2.309A	679.501	91.441%	910	19.8	43.79°C	0.973
	12.114V	5.003V	3.322V	4.981V	743.097				52.01°C	229.77V
90%	56.305A	8.494A	8.434A	2.415A	764.932	90.986%	905	19.7	44.17°C	0.975
	12.121V	5.003V	3.32V	4.969V	840.713				53.27°C	229.76V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	62.727A	8.997A	8.955A	3.038A	849.744	90.439%	1536	36.3	45.55°C	0.976
	12.117V	5V	3.317V	4.938V	939.569				55.57°C	229.74V
110%	69.003A	10A	10.051A	3.043A	934.312	89.89%	1535	36.3	46.85°C	0.978
	12.116V	4.999V	3.313V	4.929V	1039.392				57.8°C	229.73V
CL1	0.115A	11.995A	11.929A	0A	101.293	82.923%	922	20.1	41.8°C	0.842
	12.193V	5.018V	3.329V	5.111V	122.15				47.29°C	229.87V
CL2	0.114A	19.895A	0A	0A	101.341	81.1%	1545	36.5	40.03°C	0.846
	12.167V	5.024V	3.336V	5.114V	124.959				47.06°C	229.87V
CL3	0.114A	0A	19.844A	0A	67.395	75.26%	1544	36.5	40.55°C	0.77
	12.154V	5.007V	3.327V	5.113V	89.548				49.59°C	229.88V
CL4	70.299A	0A	0A	0A	849.503	91.167%	1534	36.3	44.59°C	0.976
	12.085V	5.002V	3.332V	5.055V	931.812				55.57°C	229.75V

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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	1.232A	0.498A	0.493A	0.195A	19.994	75.304%	0	<6.0	39.67°C	0.759
	12.042V	5.018V	3.348V	5.122V	26.555				36.58°C	114.91V
40W	2.714A	0.697A	0.69A	0.293A	39.994	81.675%	0	<6.0	40.74°C	0.9
	12.046V	5.018V	3.347V	5.117V	48.967				37.52°C	114.9V
60W	4.160A	0.897A	0.887A	0.391A	59.993	81.48%	0	<6.0	42.15°C	0.944
	12.146V	5.018V	3.347V	5.112V	73.629				38.37°C	114.89V
80W	5.622A	1.096A	1.085A	0.489A	79.934	84.379%	0	<6.0	43.51°C	0.961
	12.150V	5.017V	3.345V	5.107V	94.732				39.55°C	114.88V

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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	1.234A	0.498A	0.493A	0.195A	19.995	78.09%	0	<6.0	39.62°C	0.442
	12.033V	5.015V	3.345V	5.121V	25.612				36.58°C	229.9V
40W	2.716A	0.698A	0.691A	0.293A	39.996	82.685%	0	<6.0	40.75°C	0.584
	12.036V	5.015V	3.345V	5.116V	48.373				37.5°C	229.89V
60W	4.163A	0.897A	0.888A	0.391A	59.996	82.633%	0	<6.0	41.69°C	0.709
	12.137V	5.016V	3.345V	5.111V	72.606				38.2°C	229.88V
80W	5.626A	1.096A	1.085A	0.49A	79.94	85.593%	0	<6.0	43.9°C	0.78
	12.144V	5.016V	3.344V	5.106V	93.396				40.01°C	229.88V

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115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	14.22mV	14.10mV	13.05mV	17.39mV	Pass
20% Load	17.14mV	14.05mV	13.97mV	17.29mV	Pass
30% Load	15.30mV	14.46mV	14.12mV	17.95mV	Pass
40% Load	15.09mV	15.17mV	14.84mV	17.80mV	Pass
50% Load	15.09mV	15.33mV	14.68mV	17.95mV	Pass
60% Load	14.94mV	15.12mV	15.45mV	19.03mV	Pass
70% Load	15.45mV	15.94mV	16.73mV	19.18mV	Pass
80% Load	15.81mV	16.76mV	16.57mV	19.39mV	Pass
90% Load	16.98mV	18.29mV	18.62mV	21.43mV	Pass
100% Load	21.22mV	17.94mV	19.05mV	22.92mV	Pass
110% Load	22.36mV	18.29mV	20.27mV	23.21mV	Pass
Crossload1	14.72mV	15.92mV	16.17mV	16.20mV	Pass
Crossload2	14.48mV	20.54mV	14.43mV	15.70mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	14.53mV	15.02mV	16.57mV	14.07mV	Pass
Crossload4	21.24mV	18.44mV	19.01mV	18.74mV	Pass

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230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	11.51mV	11.04mV	9.92mV	13.56mV	Pass
20% Load	12.64mV	11.29mV	10.43mV	14.42mV	Pass
30% Load	12.13mV	11.85mV	11.15mV	14.68mV	Pass
40% Load	11.36mV	12.36mV	11.56mV	14.63mV	Pass
50% Load	11.82mV	11.29mV	11.10mV	15.45mV	Pass
60% Load	11.36mV	11.55mV	12.07mV	15.50mV	Pass
70% Load	11.00mV	11.44mV	11.36mV	16.11mV	Pass
80% Load	12.13mV	12.98mV	13.25mV	15.96mV	Pass
90% Load	12.33mV	13.33mV	13.66mV	15.91mV	Pass
100% Load	17.10mV	13.80mV	14.93mV	18.67mV	Pass
110% Load	17.58mV	13.96mV	15.85mV	17.75mV	Pass
Crossload1	10.96mV	12.58mV	12.52mV	12.07mV	Pass
Crossload2	12.07mV	16.71mV	11.00mV	11.61mV	Pass
Crossload3	12.38mV	11.85mV	13.61mV	10.74mV	Pass
Crossload4	16.84mV	12.58mV	13.50mV	14.03mV	Pass

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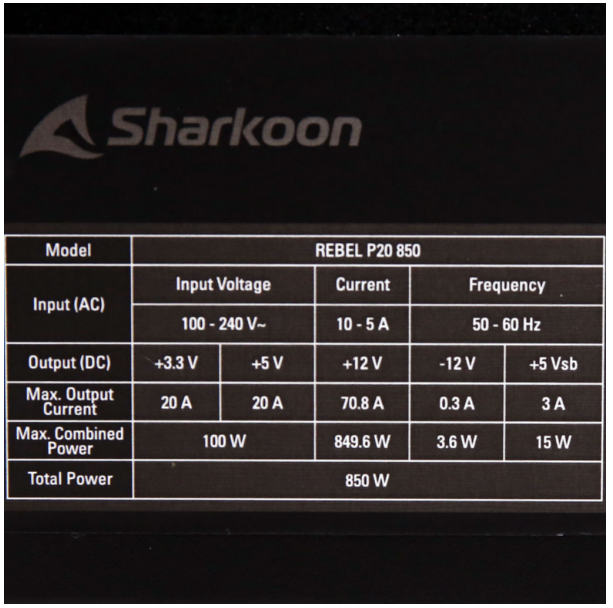
Sharkoon Rebel P20 850



Top side



Model	REBEL P20 850				
Input (AC)	Input Voltage		Current	Frequency	
	100 - 240 V~		10 - 5 A	50 - 60 Hz	
Output (DC)	+3.3 V	+5 V	+12 V	-12 V	+5 Vsb
Max. Output Current	20 A	20 A	70.8 A	0.3 A	3 A
Max. Combined Power	100 W		849.6 W	3.6 W	15 W
Total Power	850 W				

Power specifications label

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