Sharkoon Rebel P20 SFX 750

Serial Number

Lab ID SK75002390

Certification ID 252390

Test Result Report ID: 24PS2390A

Certificate Issue Date: Mar 19, 2024

Scheme: ETA-EMI PSU

115V



230V



Scheme: LAMBDA PSU

115V



230V





Outside Validation Scope



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 SFX 750
OEM/ODM	Sirfa
Serial Number	
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	10-6
Rated Frequency (Hz)	50-60
Rated Power (W)	750
Operating Temperature (Continuous Full Load) (°C)	
Type	SFX
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	92mm Fluid Dynamic Bearing Fan (S0921512HHB)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	SK75002390
Date of receipt	Feb 12, 2024
Testing Date	Mar 15, 2024
Report Issued Date	Mar 19, 2024
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (300mm)	1	1	18AWG	No
4+4 pin EPS12V (420mm)	1	1	18AWG	No
8 pin EPS12V (420mm)	1	1	18AWG	No
6+2 pin PCIe (420mm+150mm)	1	2	18AWG	No

12+4 pin PCIe (420mm) (450W)	1	1	16-24AWG	No
SATA (320mm+150mm+150mm+150mm)	2	8	18AWG	No
4-pin Molex Adapter (+155mm)	1	1	18AWG	No

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	62.5	3	0.3
	Watts	100		750	15	3.6
Total Max. Power (W)		750				

Parts Description

General Data	
Manufacturer (OEM)	Sirfa
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV, 1x Discharger ICHF81
Inrush Protection	1x NTC Thermistor & Relay
Bridge Rectifier(s)	1x
APFC MOSFETs	1x Infineon IPW60R037P7 (650V, 48A @ 100°C, Rds(on): 0.037Ohm)
APFC Boost Diode	1x Toshiba TRS8E65F (650V, 8A @ 25°C)
Bulk Cap(s)	1x Nippon Chemi-con (420V, 4700uF, 2,000h @ 105°C,KMZ)
Main Switchers	2x Wuhan Xinyuan CWS60R099BF (600V, 25A @ 100°C, Rds(on): 0.099Ohm)
APFC Controller	Infineon ICE3PCS01G
Resonant Controller	Champion CU6901VAC
Topology	Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	6x IPS FTG014N04SA
5V & 3.3V	DC-DC Converters: 6x Infineon BSC0906NS (30V, 40A @ 100°C, Rds(on): 4.5mOhm) PWM Controller(s): 1x Upi-Semi UP3861P

Filtering Capacitors	Electrolytic: 5x Rubycon (6-10,0000 @ 105°C,ZLH), 3x Rubycon (3-6,0000 @ 105°C, YXG), Polymer: 14x FPCAP, 1x Rubycon YXG, 7x Nippon Chemicon
Supervisor IC	Weltrend WT7527RA (OVD, PGO, UVD)
Micro Controller / Fan controller	STC15W408AS
Fan Model	DC Brushless S0921512HHB (92mm, 12V, 0.5A, Fluid Dynamic Bearing Fan)
5VSB	
High Side Rectifier	2x Vishay RS1D (140V, 30A @ 150°C
Standby PWM Controller	SI8016HSP8

Test Results

Temperature & Compliance Info

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

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	89.416%
Average Noise Output (>1450 Load Combinations)	28.57dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	61.190%
Standby Power Consumption	0.0951W
Non-Accredited	
12V Ripple (Full Load)	48.99mV

5V Ripple (Full Load)	14.64mV
3.3V Ripple (Full Load)	16.67mV
5VSB Ripple (Full Load)	12.49mV
12V Load Regulation	1.43%
5V Load Regulation	0.94%
3.3V Load Regulation	0.55%
5VSB Load Regulation	2.40%
Inrush Current	32.900A

230V

Accredited	
Average Efficiency (>1450 load combinations)	91.073%
Average Noise Output (>1450 Load Combinations)	27.75dBA
Average PF (>1450 Load Combinations)	0.951
Efficiency With 10W (≤500W) or 2% (>500W) Load	60.133%
Standby Power Consumption	0.1792W
Non-Accredited	
12V Ripple (Full Load)	48.36mV
5V Ripple (Full Load)	14.56mV
3.3V Ripple (Full Load)	17.96mV
5VSB Ripple (Full Load)	13.85mV
12V Load Regulation	1.41%
5V Load Regulation	0.94%
3.3V Load Regulation	0.52%
5VSB Load Regulation	2.40%
Inrush Current	66.200A
12V Transient Response (200%)	11.56V
5V Transient Response (200%)	4.963V
3.3V Transient Response (200%)	3.204V
5VSB Transient Response (200%)	4.942V
Hold-Up Time & PWR_OK Signal	19.50ms
AC Loss to PWR_OK Hold Up Time	14.30ms

PWR_OK Inactive to DC Loss Delay		5.20ms
PSU Timings: T1 (20% / 100%)	97.0ms	97.0ms
PSU Timings: T3 (20% / 100%)	122.0ms	122.0ms
OPP (26.83°C / 42.46°C)	150.23%	150.09%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	19.5
AC Loss to PWR_OK Hold Up Time (ms)	14.3
PWR_OK Inactive to DC Loss Delay (ms)	5.2

Stromverbrauch im Ruhezustand

Tables

115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.05 V	115.01 V	113.85 V	115.09 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.95 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.13 %	0.08 %	N/A	0.19 %	2.00 %	PASS
Real Power:	0.095 W	0.085 W	N/A	0.118 W	N/A	N/A
Apparent Power:	9.274 W	9.056 W	N/A	9.510 W	N/A	N/A
Power Factor:	0.010	N/A	N/A	N/A	N/A	N/A

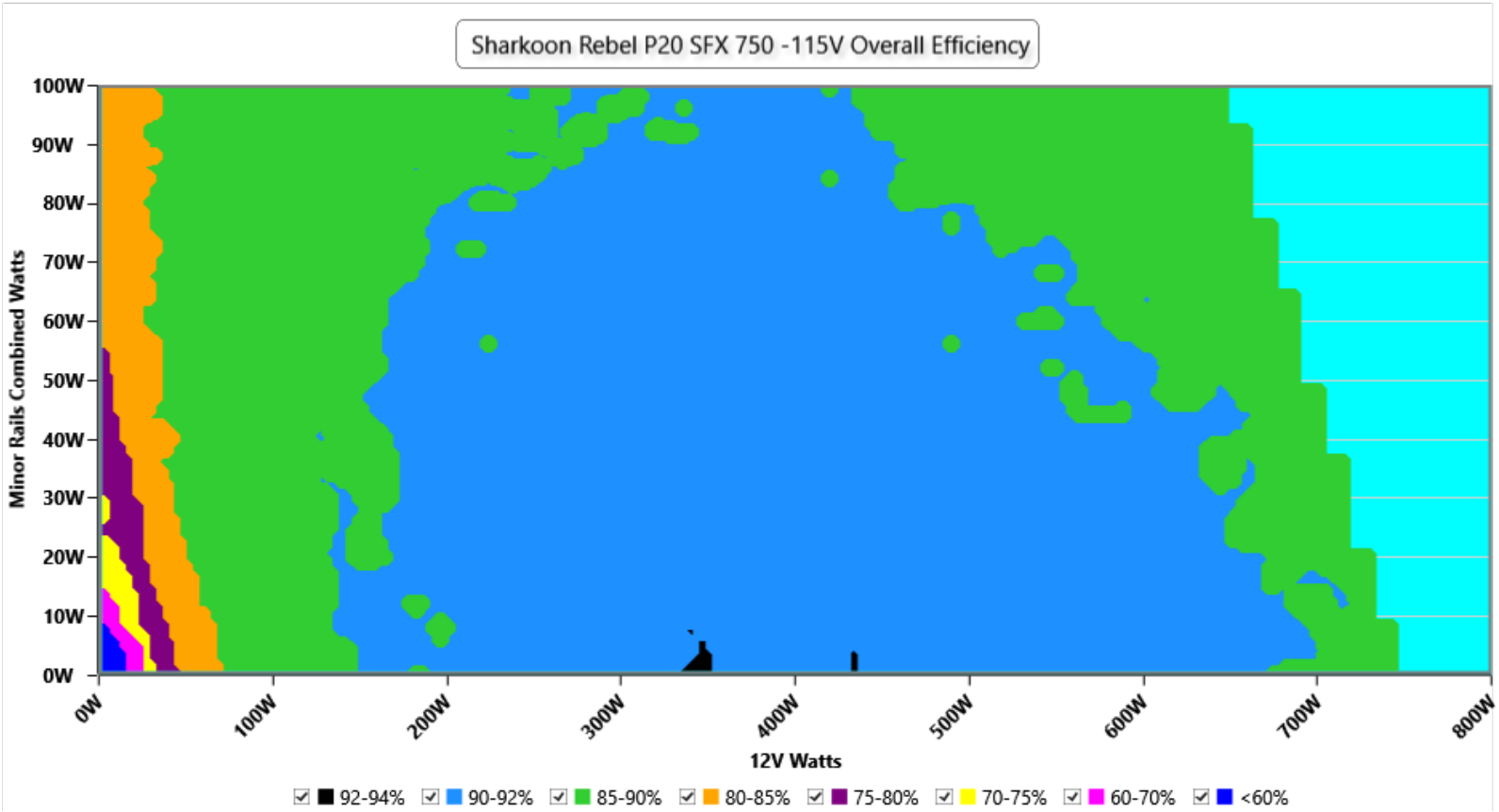
230V

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 %	0.14 %	N/A	0.28 %	2.00 %	PASS
Real Power:	0.179 W	0.140 W	N/A	0.222 W	N/A	N/A
Apparent Power:	30.145 W	29.780 W	N/A	30.500 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

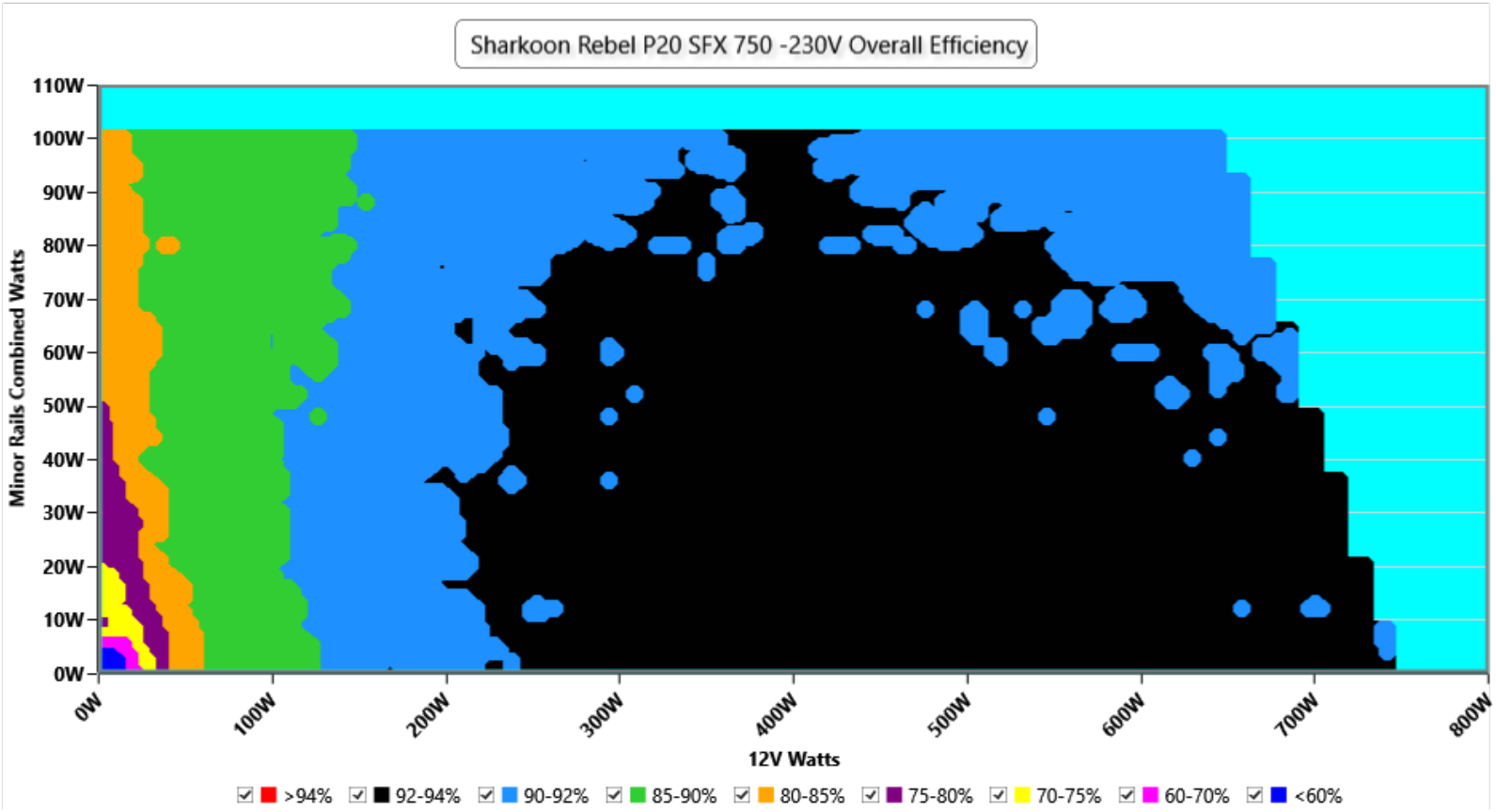
115V



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

230V

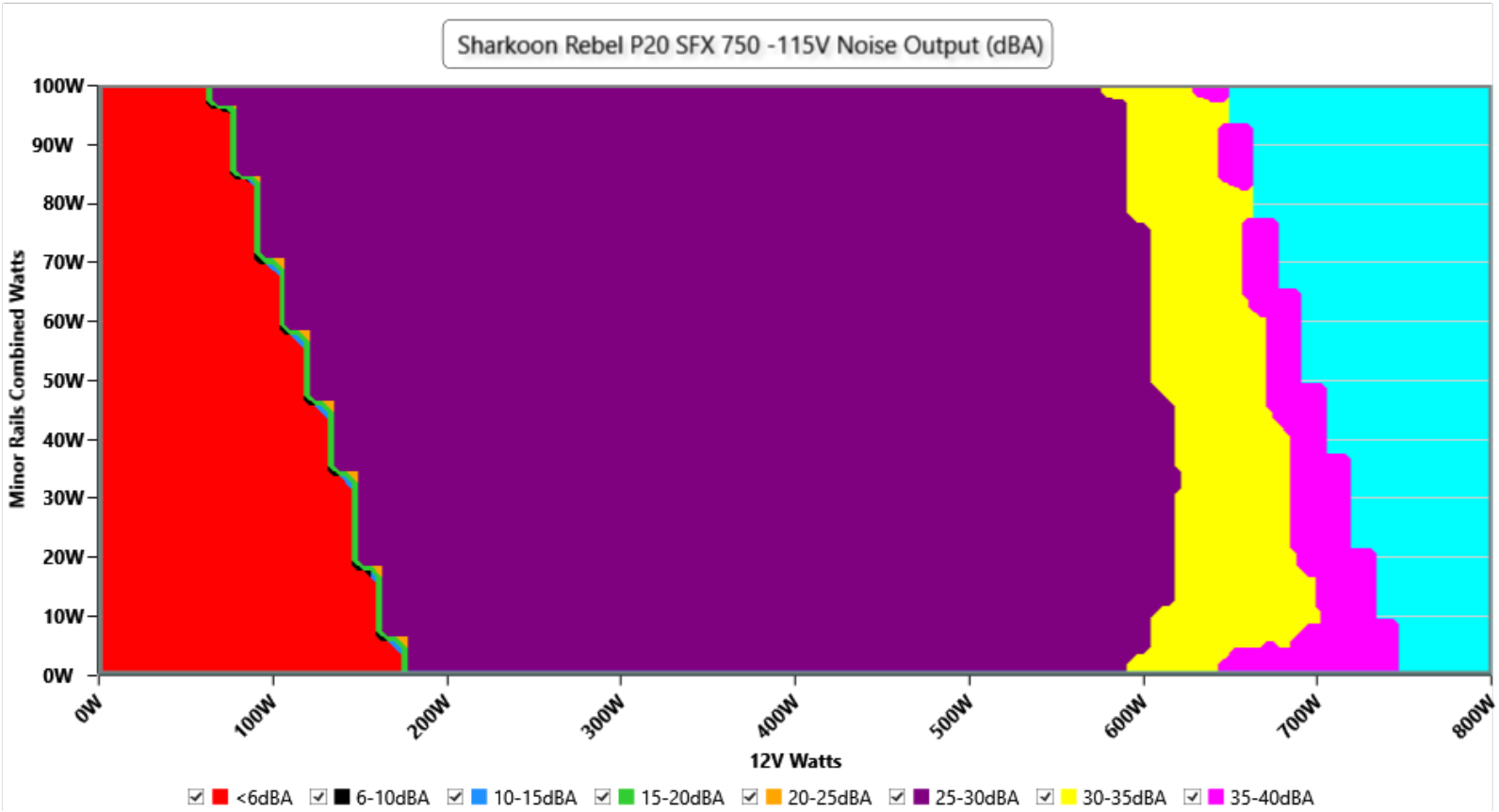


INFO

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Noise Graph

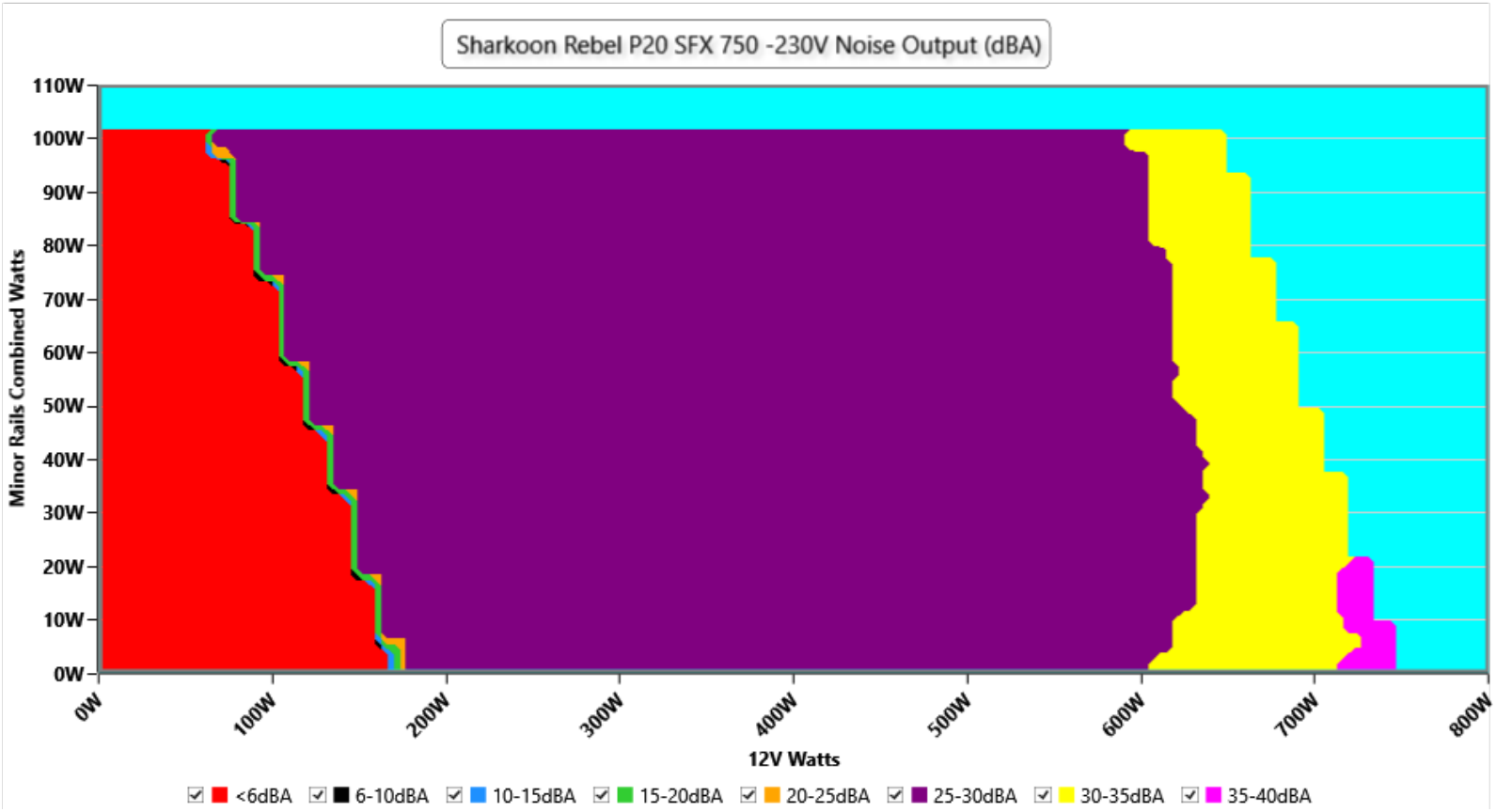
115V



INFO

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



INFO

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) · 44.4 °C	0 RPM · <6.0 dB(A) · 44.4 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.1 °C	0 RPM · <6.0 dB(A) · 45.1 °C	fan off in both
50%	1455 RPM · 27.0 dB(A) · 42.2 °C	1455 RPM · 27.0 dB(A) · 42.2 °C	**+0.0 dB(A)**
100%	2776 RPM · 46.2 dB(A) · 45.1 °C	2776 RPM · 46.2 dB(A) · 45.1 °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) · 44.2 °C	0 RPM · <6.0 dB(A) · 44.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 45.1 °C	0 RPM · <6.0 dB(A) · 45.1 °C	fan off in both
50%	1454 RPM · 26.9 dB(A) · 42.1 °C	1454 RPM · 26.9 dB(A) · 42.1 °C	**+0.0 dB(A)**
100%	2622 RPM · 44.8 dB(A) · 45.3 °C	2622 RPM · 44.8 dB(A) · 45.3 °C	**+0.0 dB(A)**

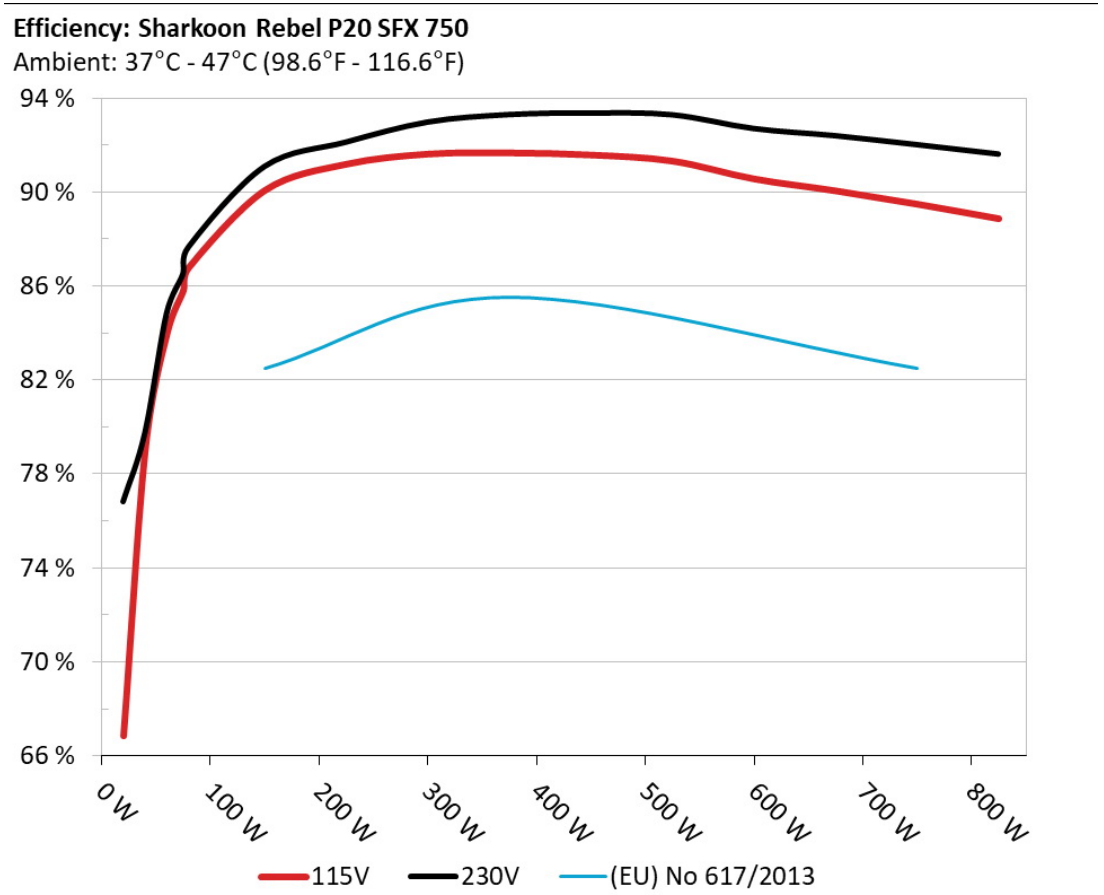
INFO

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

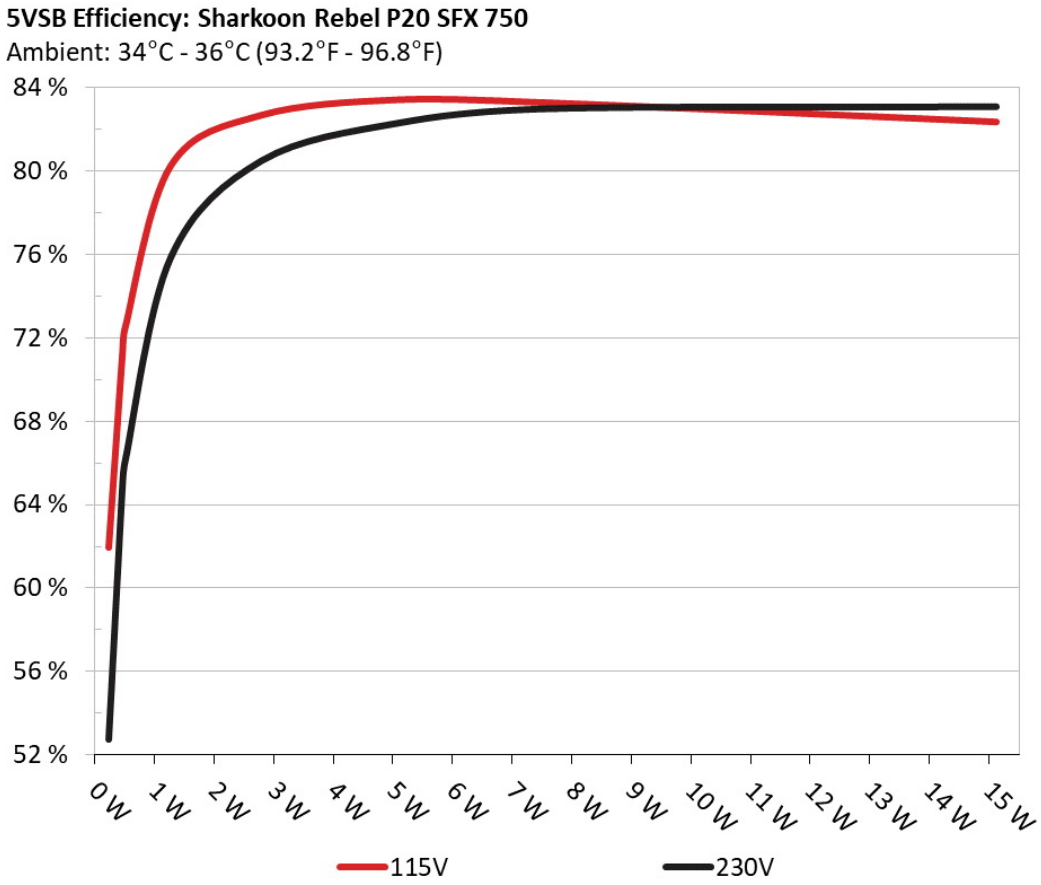
Efficiency under high ambient temperature



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



INFO

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

5VSB Efficiency (ERP LOT 3/6 & CEC)

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.229W	62.457%	0.041
	5.091V	0.367W		114.86V
2	0.09A	0.458W	71.708%	0.07
	5.091V	0.639W		114.86V
3	0.55A	2.795W	83.18%	0.278
	5.083V	3.36W		114.86V
4	1A	5.075W	83.92%	0.372
	5.075V	6.047W		114.85V
5	1.5A	7.6W	83.778%	0.417
	5.066V	9.072W		114.85V
6	3A	15.122W	82.857%	0.482
	5.041V	18.251W		114.84V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.229W	53.22%	0.014
	5.091V	0.432W		229.86V
2	0.09A	0.458W	65.348%	0.023
	5.09V	0.702W		229.85V
3	0.55A	2.795W	81%	0.108
	5.082V	3.45W		229.85V
4	1A	5.075W	82.8%	0.177
	5.075V	6.129W		229.85V
5	1.5A	7.6W	83.493%	0.237
	5.066V	9.104W		229.85V
6	3A	15.122W	83.593%	0.333
	5.041V	18.092W		229.85V

Supplementary Tests (For Reference)

Typical Load Tests

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%	4.368A	1.984A	1.998A	0.988A	75.004	85.312%	0	<6.0	44.38°C	0.953
	12.227V	5.04V	3.303V	5.063V	87.95				40.33°C	114.84V
20%	9.759A	2.976A	2.997A	1.188A	149.94	89.567%	0	<6.0	45.09°C	0.978
	12.198V	5.04V	3.303V	5.052V	167.411				40.87°C	114.81V
30%	15.517A	3.473A	3.497A	1.388A	224.951	90.684%	1454	26.9	41.38°C	0.99
	12.174V	5.039V	3.303V	5.044V	248.084				46.14°C	114.78V
40%	21.287A	3.969A	3.997A	1.59A	300.039	91.115%	1453	26.9	41.93°C	0.992
	12.159V	5.04V	3.303V	5.034V	329.298				46.98°C	114.74V
50%	26.679A	4.96A	4.993A	1.792A	374.473	91.163%	1455	27	42.24°C	0.993
	12.143V	5.041V	3.305V	5.023V	410.775				47.72°C	114.73V
60%	32.126A	5.963A	5.994A	1.995A	449.404	91.076%	1460	27.2	42.78°C	0.994
	12.127V	5.031V	3.304V	5.012V	493.434				48.9°C	114.7V
70%	37.585A	6.973A	7.004A	2.2A	524.323	90.819%	1462	27.2	43.03°C	0.995
	12.112V	5.02V	3.299V	5.001V	577.345				50.1°C	114.67V
80%	43.130A	7.985A	8.016A	2.304A	599.521	90.058%	1556	29	43.83°C	0.996
	12.094V	5.009V	3.293V	4.992V	665.722				51.89°C	114.64V
90%	49.021A	8.497A	8.509A	2.409A	674.542	89.55%	2155	38.4	44.51°C	0.996
	12.077V	5.002V	3.29V	4.983V	753.254				53.59°C	114.61V
100%	54.735A	9.01A	9.035A	3.022A	749.763	88.982%	2776	46.2	45.14°C	0.996
	12.059V	4.994V	3.287V	4.965V	842.542				55.19°C	114.59V
110%	60.328A	10.033A	10.141A	3.026A	824.785	88.364%	0	<6.0	46.67°C	0.997
	12.042V	4.983V	3.283V	4.957V	933.389				57.59°C	114.55V
CL1	0.115A	12.057A	12.038A	0A	101.298	82.331%	0	<6.0	46.059°C	0.969
	12.223V	4.993V	3.298V	5.068V	123.059				40.53°C	114.81V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	0.113A	20.118A	0A	0A	101.341	79.844%	0	<6.0	47.97°C	0.969
	12.232V	4.968V	3.278V	5.07V	126.944				40.9°C	114.8V
CL3	0.113A	0A	20.057A	0A	67.382	75.021%	0	<6.0	50.08°C	0.953
	12.230V	4.995V	3.291V	5.072V	89.826				40.93°C	114.83V
CL4	62.203A	0A	0A	0A	749.592	89.939%	1890	35.4	45.03°C	0.997
	12.051V	5.004V	3.277V	5.028V	833.442				56.01°C	114.61V

The results above are not used in the certification process

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%	4.368A	1.984A	1.998A	0.988A	75.005	85.998%	0	<6.0	44.24°C	0.789
	12.225V	5.04V	3.303V	5.063V	87.249				40.15°C	229.84V
20%	9.760A	2.976A	2.997A	1.188A	149.94	90.582%	0	<6.0	45.09°C	0.914
	12.196V	5.04V	3.303V	5.053V	165.54				40.82°C	229.83V
30%	15.515A	3.472A	3.497A	1.388A	224.943	91.624%	1450	26.8	41.05°C	0.948
	12.175V	5.04V	3.303V	5.044V	245.477				45.85°C	229.82V
40%	21.289A	3.969A	3.997A	1.589A	300.03	92.477%	1450	26.8	41.72°C	0.962
	12.158V	5.04V	3.303V	5.034V	324.449				46.82°C	229.8V
50%	26.681A	4.96A	4.993A	1.792A	374.447	92.796%	1454	26.9	42.11°C	0.972
	12.141V	5.041V	3.305V	5.023V	403.506				47.57°C	229.79V
60%	32.128A	5.963A	5.992A	1.995A	449.38	92.862%	1456	27	42.53°C	0.978
	12.126V	5.032V	3.305V	5.012V	483.92				48.54°C	229.77V
70%	37.588A	6.972A	7.002A	2.199A	524.306	92.791%	1459	27.2	43.28°C	0.984
	12.110V	5.021V	3.299V	5.001V	565.028				50.38°C	229.76V
80%	43.134A	7.985A	8.014A	2.304A	599.506	92.204%	1466	27.4	43.78°C	0.987
	12.093V	5.009V	3.294V	4.992V	650.193				52.01°C	229.75V
90%	49.028A	8.496A	8.508A	2.409A	674.536	91.896%	2152	38.3	44.01°C	0.989
	12.075V	5.002V	3.291V	4.983V	734.024				53.05°C	229.74V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	54.743A	9.01A	9.033A	3.022A	749.76	91.516%	2622	44.8	45.33°C	0.991
	12.057V	4.994V	3.288V	4.965V	819.27				55.39°C	229.73V
110%	60.343A	10.033A	10.139A	3.026A	824.783	91.114%	2997	48.8	46.76°C	0.993
	12.039V	4.983V	3.284V	4.957V	905.21				57.69°C	229.72V
CL1	0.115A	12.059A	12.036A	0A	101.298	82.985%	0	<6.0	47.09°C	0.855
	12.220V	4.992V	3.298V	5.068V	122.081				41.6°C	229.83V
CL2	0.113A	20.118A	0A	0A	101.344	80.461%	0	<6.0	48.2°C	0.867
	12.227V	4.968V	3.279V	5.071V	125.965				41.01°C	229.84V
CL3	0.113A	0A	20.057A	0A	67.385	75.38%	0	<6.0	50.95°C	0.801
	12.236V	4.997V	3.291V	5.071V	89.456				41.89°C	229.84V
CL4	62.171A	0A	0A	0A	749.581	92.213%	2621	44.8	45.24°C	0.991
	12.057V	5.001V	3.276V	5.026V	812.905				56.21°C	229.73V

The results above are not used in the certification process

Light Load Tests

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	1.214A	0.496A	0.5A	0.197A	19.999	66.35%	0	<6.0	39.59°C	0.831
	12.232V	5.038V	3.302V	5.084V	30.165				36.56°C	114.85V
40W	2.672A	0.695A	0.7A	0.295A	40	78.567%	0	<6.0	40.62°C	0.914
	12.232V	5.039V	3.302V	5.08V	50.913				37.38°C	114.84V
60W	4.132A	0.893A	0.899A	0.394A	60	83.495%	0	<6.0	42.68°C	0.942
	12.228V	5.039V	3.302V	5.076V	71.862				38.94°C	114.84V
80W	5.588A	1.091A	1.099A	0.493A	79.943	86.281%	0	<6.0	43.04°C	0.955
	12.223V	5.039V	3.302V	5.072V	92.659				39.07°C	114.83V

The results above are not used in the certification process

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	1.222A	0.496A	0.5A	0.197A	20.001	76.298%	0	<6.0	39.68°C	0.448
	12.161V	5.037V	3.302V	5.084V	26.427				36.65°C	229.85V
40W	2.674A	0.695A	0.7A	0.295A	40.001	79.222%	0	<6.0	40.7°C	0.626
	12.227V	5.038V	3.302V	5.08V	50.525				37.37°C	229.85V
60W	4.134A	0.893A	0.899A	0.394A	60.001	84.334%	0	<6.0	42.33°C	0.733
	12.224V	5.038V	3.302V	5.077V	71.13				38.79°C	229.84V
80W	5.590A	1.092A	1.099A	0.493A	79.945	87.142%	0	<6.0	43.18°C	0.804
	12.220V	5.038V	3.302V	5.073V	91.739				39.29°C	229.84V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	25.78mV	16.01mV	16.16mV	11.08mV	Pass
20% Load	31.55mV	15.04mV	14.98mV	10.52mV	Pass
30% Load	34.42mV	16.22mV	16.11mV	10.98mV	Pass
40% Load	29.00mV	16.78mV	16.06mV	10.83mV	Pass
50% Load	28.54mV	17.25mV	16.88mV	11.90mV	Pass
60% Load	30.38mV	16.94mV	17.70mV	12.57mV	Pass
70% Load	30.94mV	15.60mV	17.08mV	12.37mV	Pass
80% Load	29.66mV	16.06mV	17.49mV	11.85mV	Pass
90% Load	30.18mV	17.76mV	18.42mV	12.62mV	Pass
100% Load	48.99mV	14.64mV	16.67mV	12.49mV	Pass
110% Load	51.79mV	14.75mV	17.80mV	13.14mV	Pass
Crossload1	39.09mV	13.81mV	13.35mV	18.93mV	Pass
Crossload2	27.87mV	18.17mV	16.31mV	20.58mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	23.68mV	16.11mV	16.32mV	20.32mV	Pass
Crossload4	50.67mV	14.38mV	14.90mV	22.20mV	Pass

The results above are not used in the certification process

230V

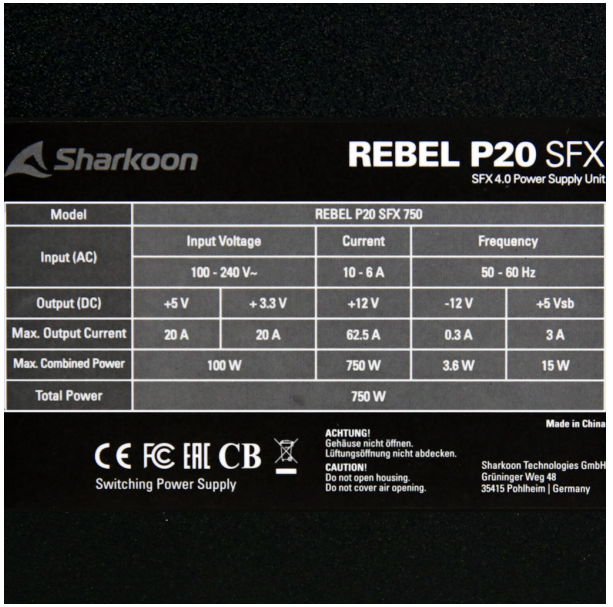
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	27.01mV	14.58mV	14.11mV	9.65mV	Pass
20% Load	33.24mV	13.34mV	13.39mV	9.96mV	Pass
30% Load	32.78mV	13.91mV	16.01mV	10.06mV	Pass
40% Load	26.13mV	14.22mV	14.78mV	10.88mV	Pass
50% Load	25.01mV	14.52mV	15.23mV	11.08mV	Pass
60% Load	27.10mV	16.53mV	15.75mV	11.70mV	Pass
70% Load	28.23mV	16.06mV	16.52mV	11.44mV	Pass
80% Load	26.14mV	14.98mV	16.01mV	11.59mV	Pass
90% Load	27.67mV	15.96mV	17.85mV	12.52mV	Pass
100% Load	48.36mV	14.56mV	17.96mV	13.85mV	Pass
110% Load	49.91mV	15.70mV	18.12mV	14.82mV	Pass
Crossload1	42.09mV	13.93mV	13.68mV	19.58mV	Pass
Crossload2	29.30mV	16.47mV	14.67mV	20.73mV	Pass
Crossload3	22.86mV	13.96mV	15.19mV	19.50mV	Pass
Crossload4	46.39mV	13.80mV	15.24mV	22.70mV	Pass

The results above are not used in the certification process

Sharkoon Rebel P20 SFX 750



Top side



Power specifications label

Cybenetics bietet freiwillige Zertifizierungsprogramme für Netzteile – ETA für Effizienz, LAMBDA für Lautstärke und SAFE für Sicherheit und korrekten Betrieb – sowie für Kühlprodukte mit DELTA für die Schalldämmung von Gehäusen und PHI für Luftstrom und statischen Druck von Lüftern

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