ASUS TUF Gaming 850W Platinum

Serial Number 2Q044147890

Lab ID AS85003347

Certification ID 263347

Test Result Report ID: 26PS3347A

Certificate Issue Date: Jul 23, 2026

Scheme: ETA-EMI PSU

115V



230V

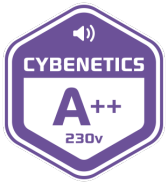


Scheme: LAMBDA PSU

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	ASUS
Model	TUF Gaming 850W Platinum
OEM/ODM	Great Wall
Serial Number	2Q044147890
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	10-6
Rated Frequency (Hz)	47-63
Rated Power (W)	850
Operating Temperature (Continuous Full Load) (°C)	0 - 50
Type	ATX12V
Cable Design	Fully Modular
Warranty	8 years
Cybenetics Measurements	
Dimensions (W x H x D)	150 x 85 x 150mm
Weight	1.47 kg (3.24 lb)
Cooling	135mm Ball Bearing Fan (HA13525M12B-Z)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	AS85003347
Date of receipt	Jun 18, 2026
Testing Date	Jul 14, 2026
Report Issued Date	Jul 23, 2026
Engineer Name	Ioannis Kalyviotis
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

Modular Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	**Cable Type**
ATX connector 20+4 pin (610mm)	1	1	16-20AWG	Tinned Copper
4+4 pin EPS12V (750mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (670mm)	3	3	16AWG	Tinned Copper
12+4 pin PCIe (670mm) (600W)	1	1	16-24AWG	Tinned Copper
SATA (400mm+150mm+150mm)	2	6	18AWG	Tinned Copper

Modular Cables				
4-pin Molex (400mm+150mm+150mm)	1	3	18AWG	Tinned Copper

Protection Features

Under Voltage Protection	✓
Over Power Protection	✓
Over Current (+12V) Protection	✓
Over Temperature Protection	✓
Short Circuit Protection	✓
Surge Protection	✓
Inrush Current Protection	✓
Fan Failure Protection	✗

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	70.83	3	0.3
	Watts	125		850	15	3.6
Total Max. Power (W)		850				

Parts Description

General Data	
Manufacturer (OEM)	Great Wall
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 3x X caps, 2x CM chokes, 1x MOV
Inrush Protection	Thinking Electronic Industrial SCK205R0 (5 Ohm @ 25°C) & Relay
Bridge Rectifier	2x Yangjie GBU1508 (800V, 10A @ 100°C)
APFC MOSFETs	Transphorm TP65H035G4YS (600V, 29.5A @ 100°C, Rds(on): 0.041Ohm)
APFC Boost Diode	Wolfspeed C6D06065A (650V, 6A @ 155°C)
Bulk Cap(s)	1x Elite (420V, 470uF, 2000h @ 105°C, PL) 1x Elite (450V, 270uF, 2000h @ 105°C, PL)

Main Switchers	2x CRMicro CRJF99N65G2BF (650V, 20A @ 100°C, Rds(on): 0.103Ohm)
APFC Controller	Champion CM6502UHHX & Sync Power SPN5003 (reducing no load consumption)
Resonant Controller	Champion CM6901X
IC Driver	Novosence NSi6602
Topology	Primary side: APFC, Half-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	4x Infineon 10N04LS6 (40V, 201A @ 100°C, Rds(on): 1.0mOhm)
5V & 3.3V	DC-DC Converters: 4x Advanced Power Electronics AP4024GEMT-HF (30V, 20.9A @ 70°C, Rds(on): 4.5mOhm) PWM Controller(s): Anpec APW7159C
Filtering Capacitors	Electrolytic: 8x Elite (3000~5000h @ 105°C, EJ) 3x Elite (3000~6000h @ 105°C, EV) 1x Rubycon (4000~10000h @ 105°C, YXJ) 1x Lelon (2000~5000h @ 105°C, RXJ) Polymer: 14x Nichicon FPCAP 17x
Supervisor IC	Weltrend WT7681P
Fan Power Switch	S8550 Transistor
Fan Model	Hong Hua HA13525M12B-Z (135mm, 12V, 0.36A, Dual Ball Bearing)
5VSB Circuit	
Rectifier	Diodes T6005L (60V, 14.3A @ 70°C)
Standby PWM Controller	Leadtrend LD5537B1

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	✓
Conducted Emissions EN 55032 & CISPR 32	Passed

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	90.523%
Average Noise Output (>1450 Load Combinations)	7.99dBA
Average PF (>1450 Load Combinations)	0.987
Efficiency With 10W (≤500W) or 2% (>500W) Load	72.572%
Standby Power Consumption	0.0458W
Non-Accredited	
12V Ripple (Full Load)	33.33mV
5V Ripple (Full Load)	16.37mV
3.3V Ripple (Full Load)	13.43mV
5VSB Ripple (Full Load)	34.80mV
12V Load Regulation	0.39%
5V Load Regulation	0.71%
3.3V Load Regulation	1.38%
5VSB Load Regulation	2.01%
Inrush Current	29.400A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.390%
Average Noise Output (>1450 Load Combinations)	7.99dBA
Average PF (>1450 Load Combinations)	0.954
Efficiency With 10W (≤500W) or 2% (>500W) Load	69.788%

Standby Power Consumption		0.1278W
Non-Accredited		
12V Ripple (Full Load)		33.84mV
5V Ripple (Full Load)		16.07mV
3.3V Ripple (Full Load)		13.53mV
5VSB Ripple (Full Load)		35.36mV
12V Load Regulation		0.36%
5V Load Regulation		0.67%
3.3V Load Regulation		1.35%
5VSB Load Regulation		2.03%
Inrush Current		44.540A
12V Transient Response (200%)		11.54V
5V Transient Response (200%)		4.992V
3.3V Transient Response (200%)		3.188V
5VSB Transient Response (200%)		5.040V
Hold-Up Time & PWR_OK Signal		16.30ms
AC Loss to PWR_OK Hold Up Time		14.00ms
PWR_OK Inactive to DC Loss Delay		2.30ms
PSU Timings: T1 (20% / 100%)	57.0ms	57.0ms
PSU Timings: T3 (20% / 100%)	124.0ms	123.0ms
12V OCP (28.5°C / 42.1°C)	92.00A (129.89%), 12.117V	89.60A (126.50%), 12.126V
5V OCP (28.5°C / 42.1°C)	34.2A (136.80%), 5.106V	32.8A (131.20%), 5.108V
3.3V OCP (28.5°C / 42.1°C)	34.3A (137.20%), 3.267V	34A (136.00%), 3.269V
5VSB OCP (28.5°C / 42.1°C)	5.8A (193.33%), 5.073V	5.7A (190.00%), 5.073V
OPP (29.07°C / 42.06°C)	128.34%	126.46%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	16.3
AC Loss to PWR_OK Hold Up Time (ms)	14
PWR_OK Inactive to DC Loss Delay (ms)	2.3

Tables

115V

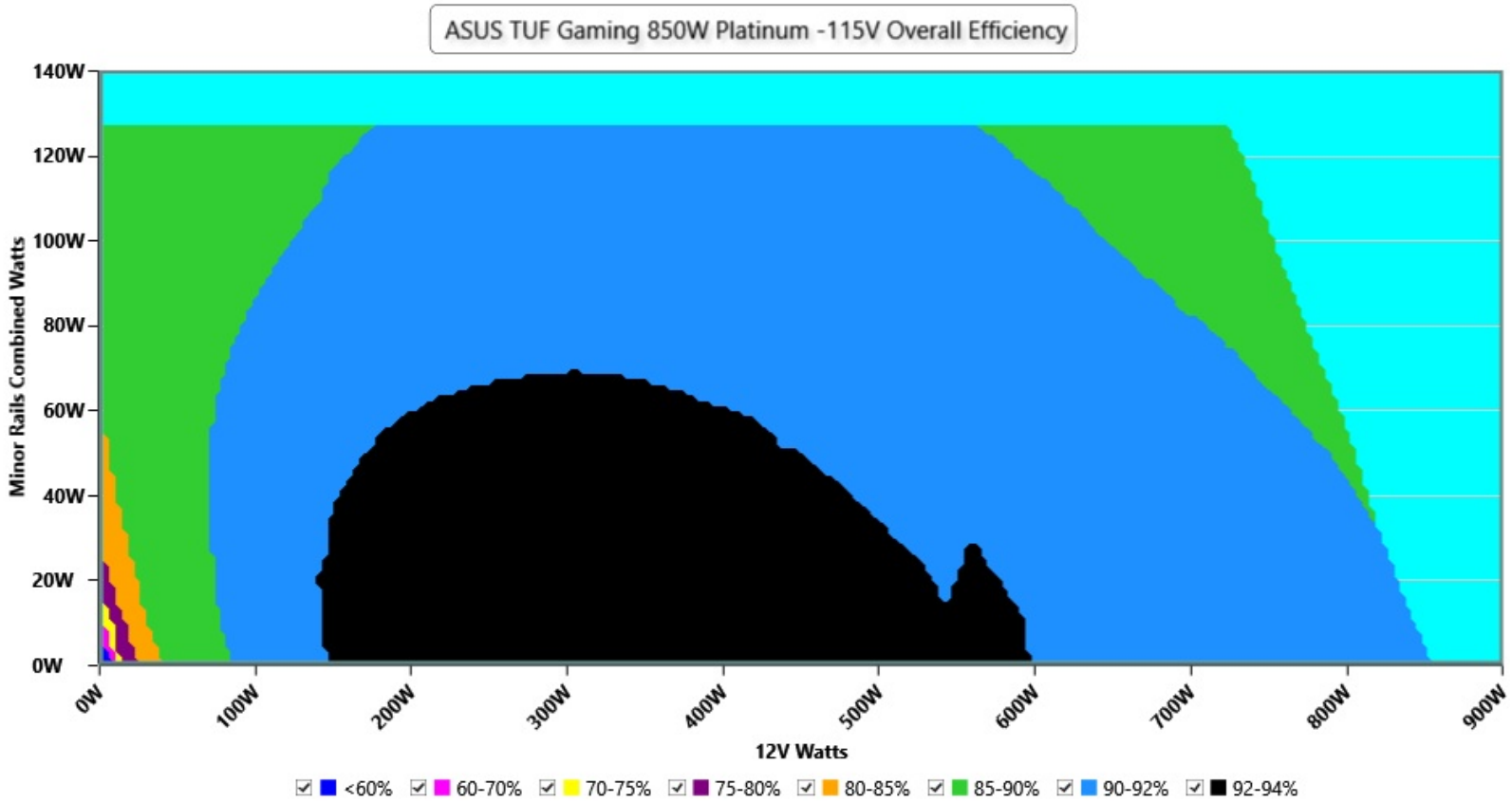
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.00 V	114.97 V	113.85 V	115.00 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	60.00 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.09 %	N/A	0.18 %	2.00 %	PASS
Real Power:	0.046 W	0.003 W	N/A	0.081 W	N/A	N/A
Apparent Power:	10.422 W	10.402 W	N/A	10.443 W	N/A	N/A
Power Factor:	0.007	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.00 V	229.97 V	227.70 V	230.01 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.128 W	0.087 W	N/A	0.188 W	N/A	N/A
Apparent Power:	33.836 W	33.804 W	N/A	33.865 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

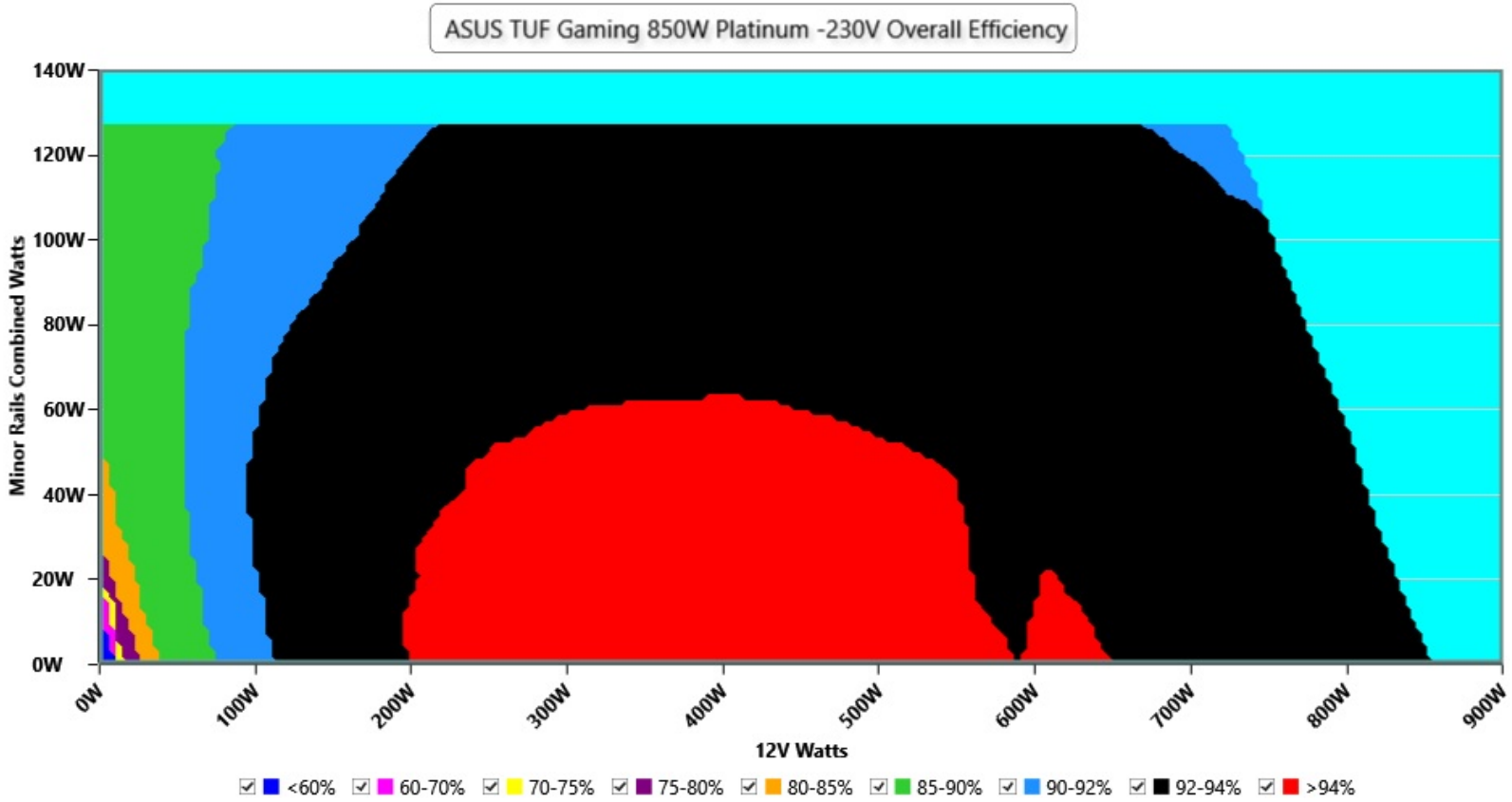
115V



INFO

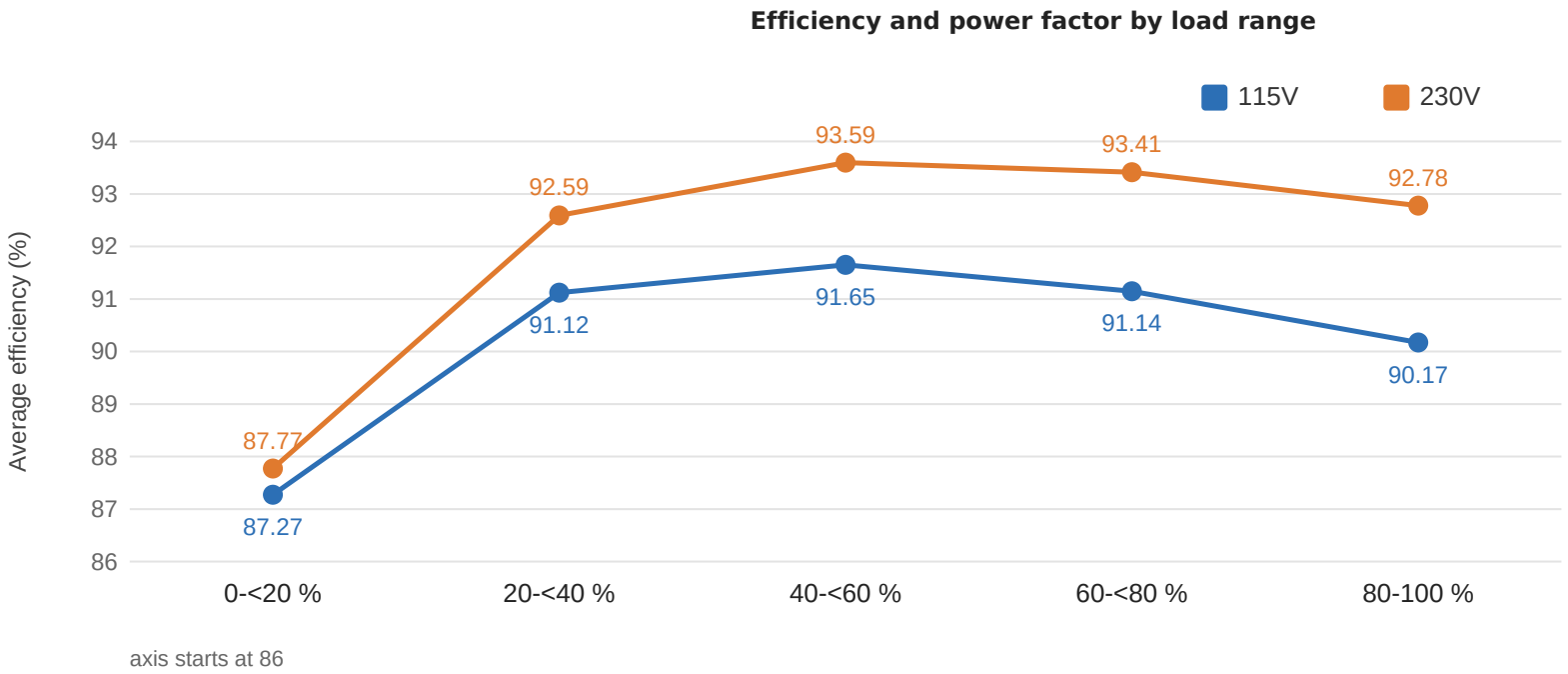
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V

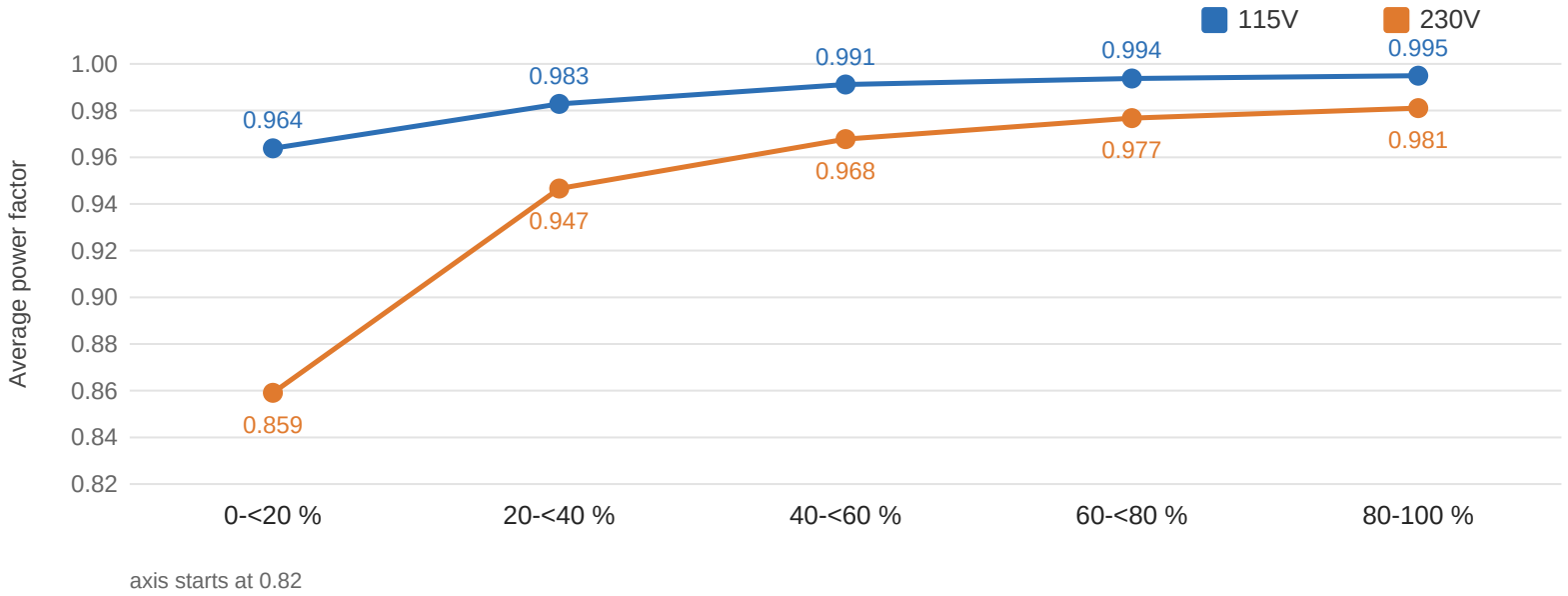


INFO

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



axis starts at 86



axis starts at 0.82

Load range	Points	Efficiency 115V	Efficiency 230V	PF 115V	PF 230V
0-<20 %	201 / 201	87.27%	87.77%	0.964	0.859
20-<40 %	330 / 330	91.12%	92.59%	0.983	0.947
40-<60 %	329 / 329	91.65%	93.59%	0.991	0.968
60-<80 %	328 / 328	91.14%	93.41%	0.994	0.977
80-100 %	337 / 337	90.17%	92.78%	0.995	0.981
70-100 % (High-Load)	501 / 501	90.44%	92.94%	0.995	0.980
All (published average)	1525 / 1525	90.52%	92.39%	0.987	0.954

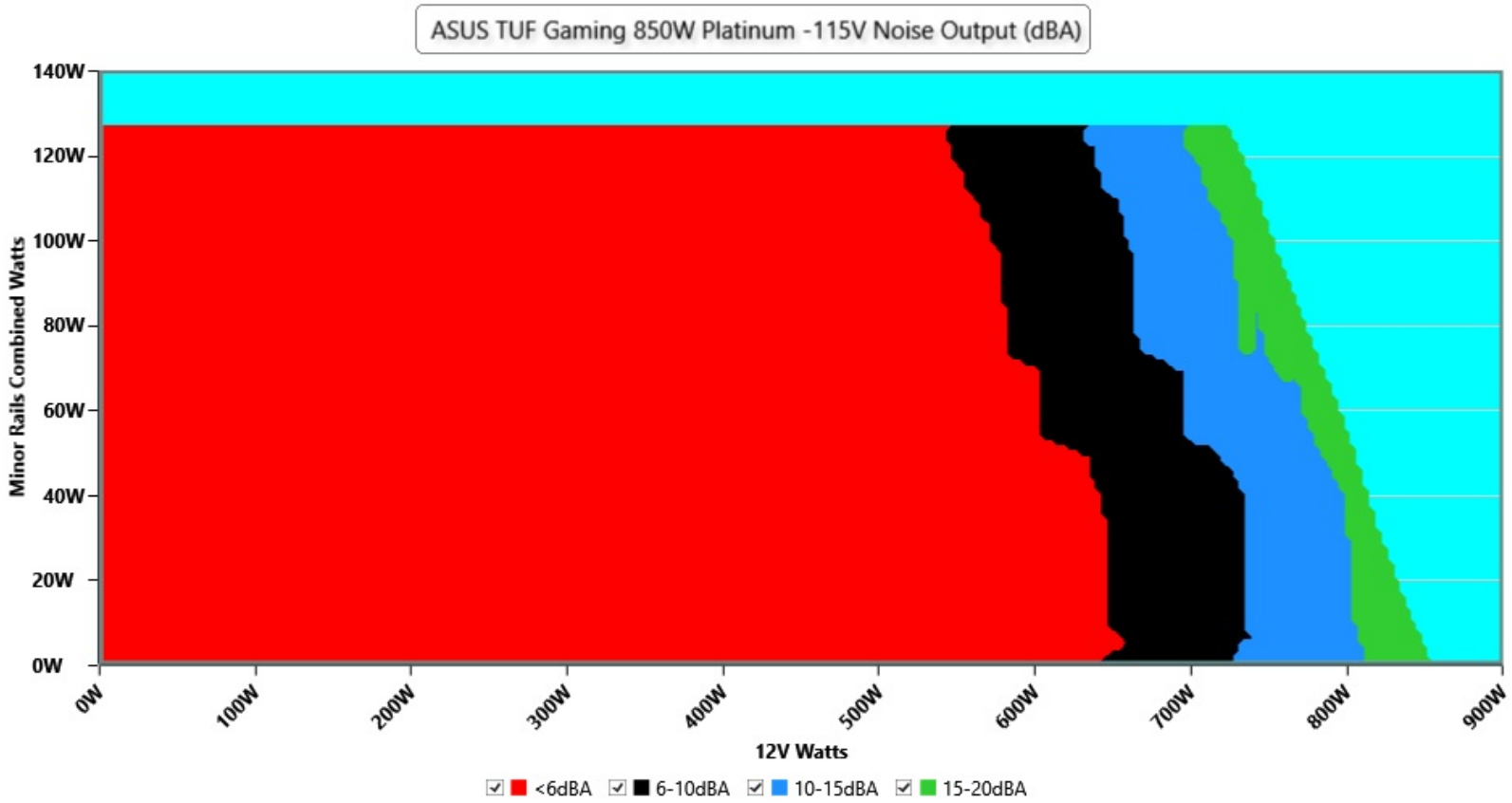
INFO

The average efficiency and power factor in five ranges of load. Calculated from the 1525 (115V) and 1525 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 850 W. These are plain averages of the valid readings, as for the ETA rating, so the ranges combined give back the published averages.

Informational. Not part of the ETA or LAMBDA rating.

Noise Graph

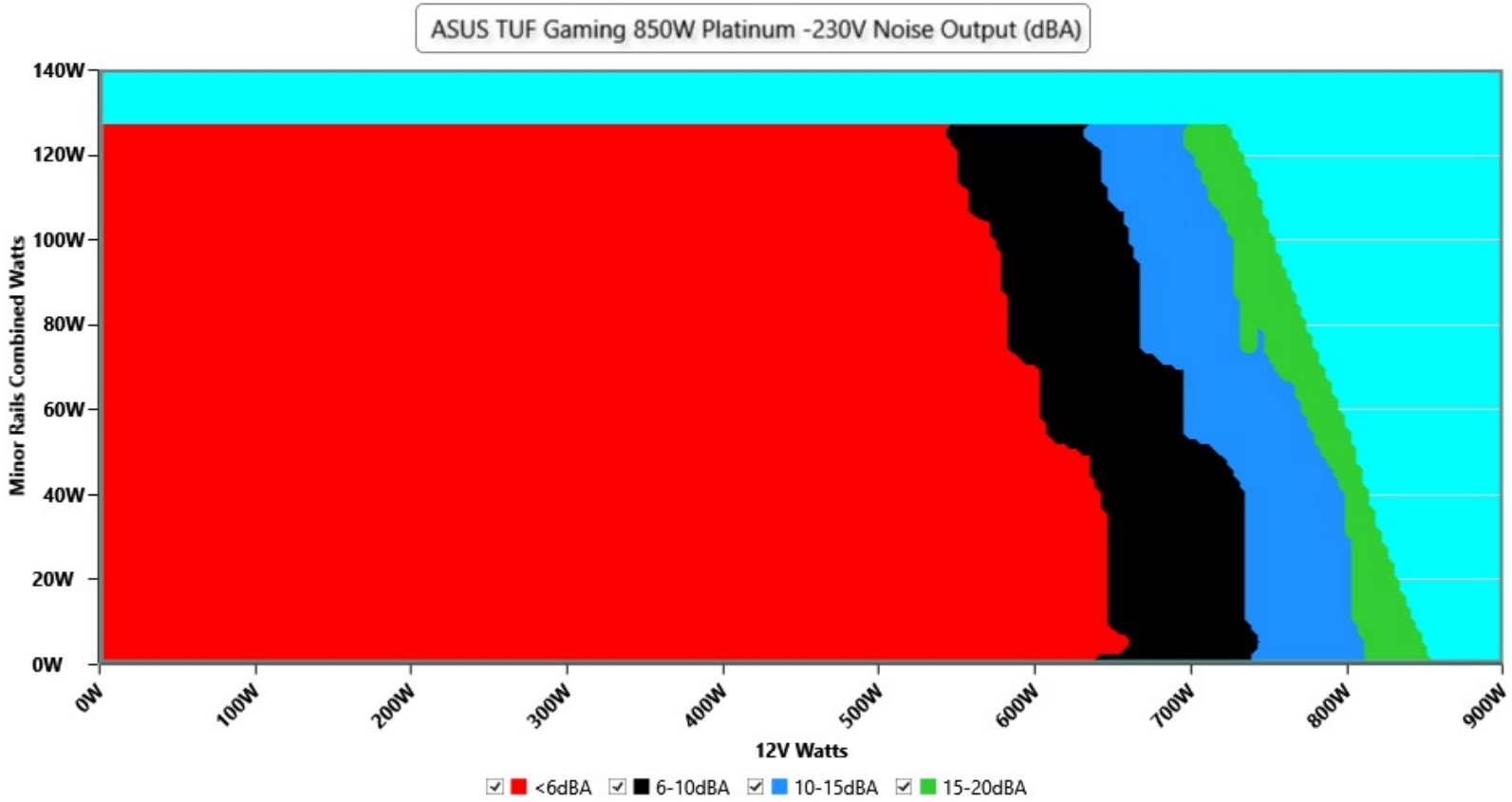
115V



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

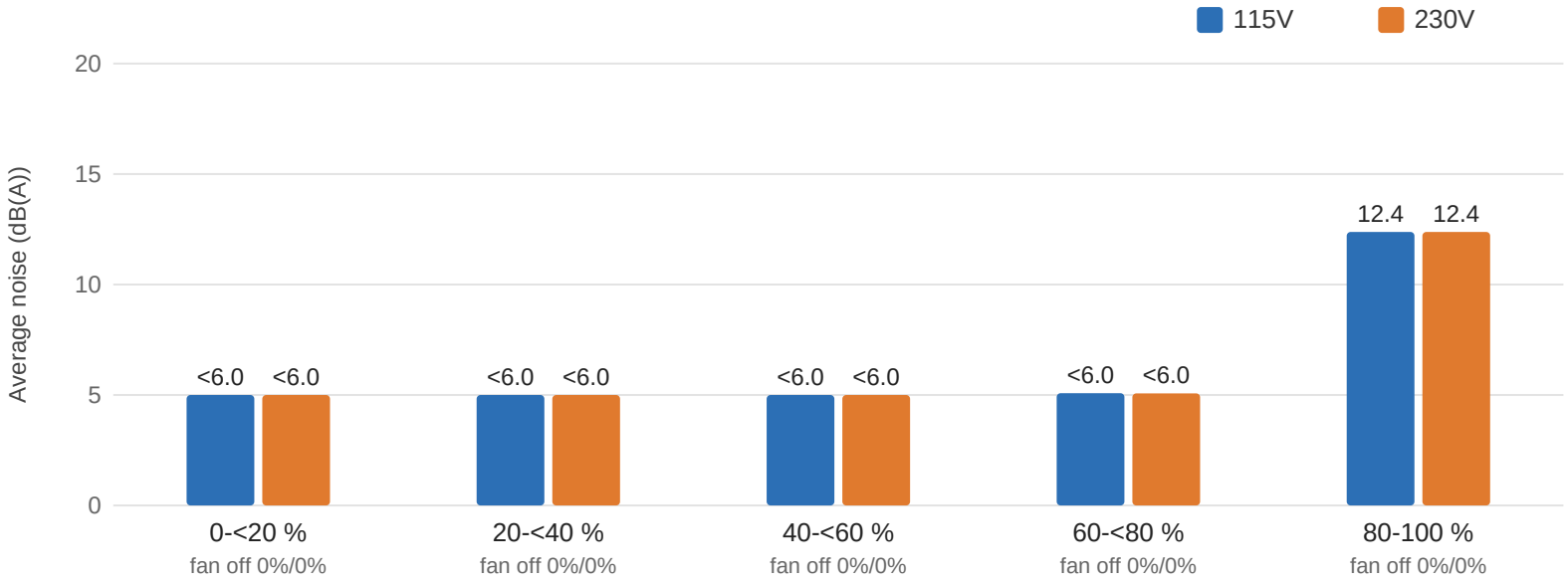
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise by load range

High-Load Index (70-100 % load)

Noise **11.0 dB(A)** at 115V and **11.0 dB(A)** at 230V · loudest point 16.6 dB(A)

Efficiency 90.44% / 92.94% · power factor 0.995 / 0.980 (115V / 230V)



Load range	Noise 115V avg (loudest)	Noise 230V avg (loudest)	Fan off 115V / 230V
0-<20 %	<6.0 (<6.0)	<6.0 (<6.0)	0% / 0%
20-<40 %	<6.0 (<6.0)	<6.0 (<6.0)	0% / 0%
40-<60 %	<6.0 (<6.0)	<6.0 (<6.0)	0% / 0%
60-<80 %	<6.0 (6.9)	<6.0 (6.9)	0% / 0%
80-100 %	12.4 (16.6)	12.4 (16.6)	0% / 0%
70-100 % (High-Load)	11.0 (16.6)	11.0 (16.6)	0% / 0%
All (published average)	8.0 (16.6)	8.0 (16.6)	0% / 0%

INFO

The average noise in five ranges of load, the share of points with the fan stopped (semi-passive operation), and the High-Load Index: the same figures for all points at 70 % of the rated output and above. Calculated from the 1525 (115V) and 1525 (230V) load combinations of the certification sweep, the same data that ETA and LAMBDA use (test 0 excluded). Load is the total DC output as a share of the rated 850 W. Noise is averaged on the energy scale, as for LAMBDA, so the ranges combined give back the published average noise. Each load combination is held for about five seconds; the stabilized readings at fixed loads are under "Noise under high ambient temperature". Below 6 dB(A), the floor of our sound meter, the table and the chart show <6.0. In the averages a stopped fan counts as 5 dB(A),

as in the published average.

Informational. Not part of the ETA or LAMBDA rating.

Noise under high ambient temperature (indicative)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	400 RPM · 7.4 dB(A) · 30.4 °C	408 RPM · 7.6 dB(A) · 40.4 °C	**+0.2 dB(A)**
20%	398 RPM · 7.4 dB(A) · 30.2 °C	407 RPM · 7.5 dB(A) · 40.9 °C	**+0.1 dB(A)**
50%	400 RPM · 7.4 dB(A) · 30.2 °C	410 RPM · 7.6 dB(A) · 42.2 °C	**+0.2 dB(A)**
100%	708 RPM · 15.0 dB(A) · 30.7 °C	971 RPM · 24.1 dB(A) · 45.1 °C	**+9.1 dB(A)**

230V

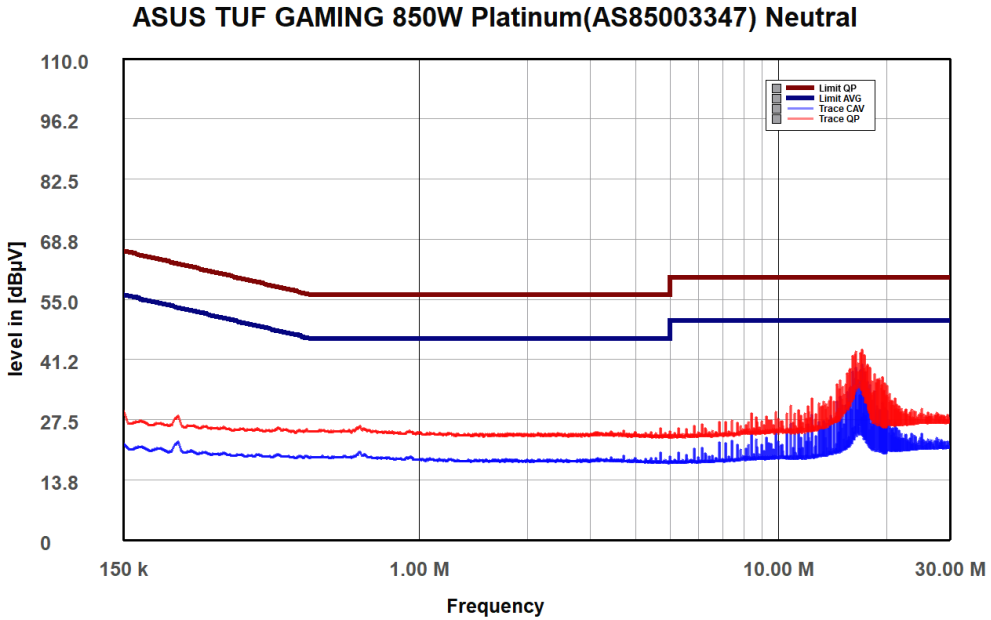
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	396 RPM · 7.4 dB(A) · 30.2 °C	406 RPM · 7.5 dB(A) · 40.1 °C	**+0.1 dB(A)**
20%	397 RPM · 7.4 dB(A) · 30.3 °C	406 RPM · 7.5 dB(A) · 40.8 °C	**+0.1 dB(A)**
50%	398 RPM · 7.4 dB(A) · 30.4 °C	409 RPM · 7.6 dB(A) · 42.1 °C	**+0.2 dB(A)**
100%	706 RPM · 14.9 dB(A) · 30.8 °C	1064 RPM · 26.7 dB(A) · 45.3 °C	**+11.8 dB(A)**

INFO

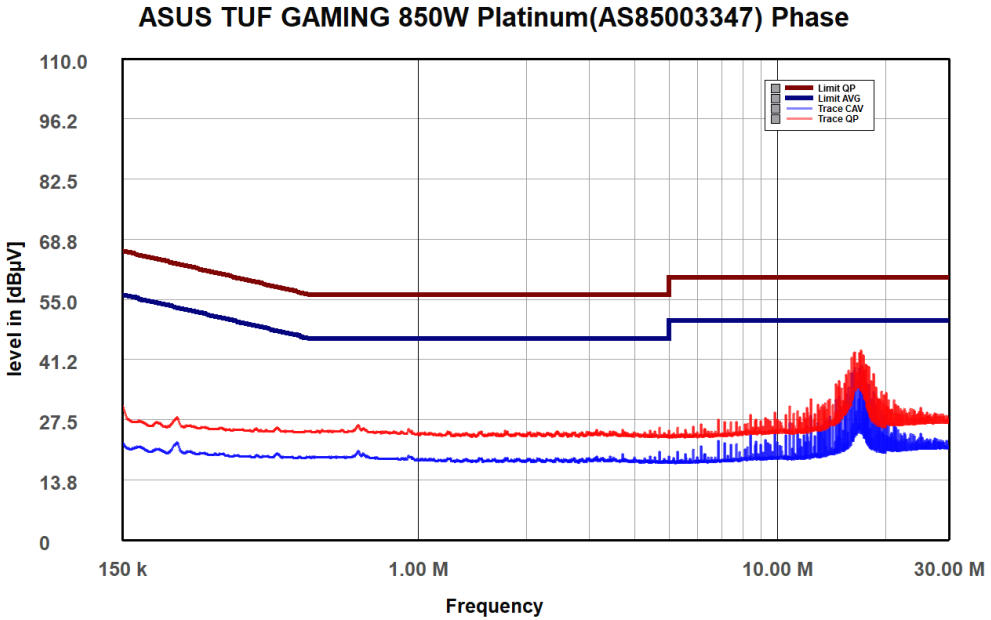
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative 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.

Conducted Emissions EN 55032 & CISPR 32



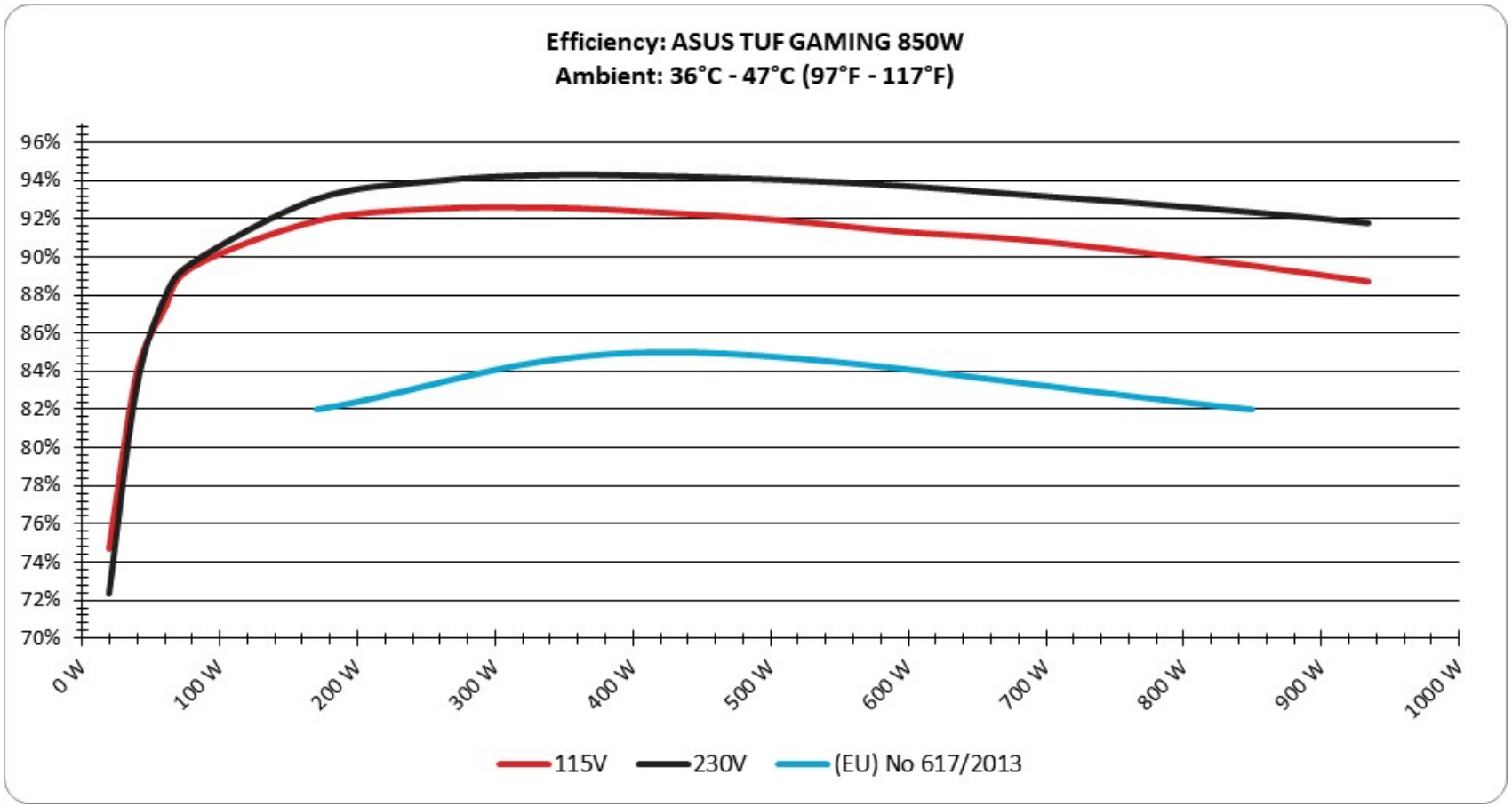
NEUTRAL



PHASE

Indicative Performance

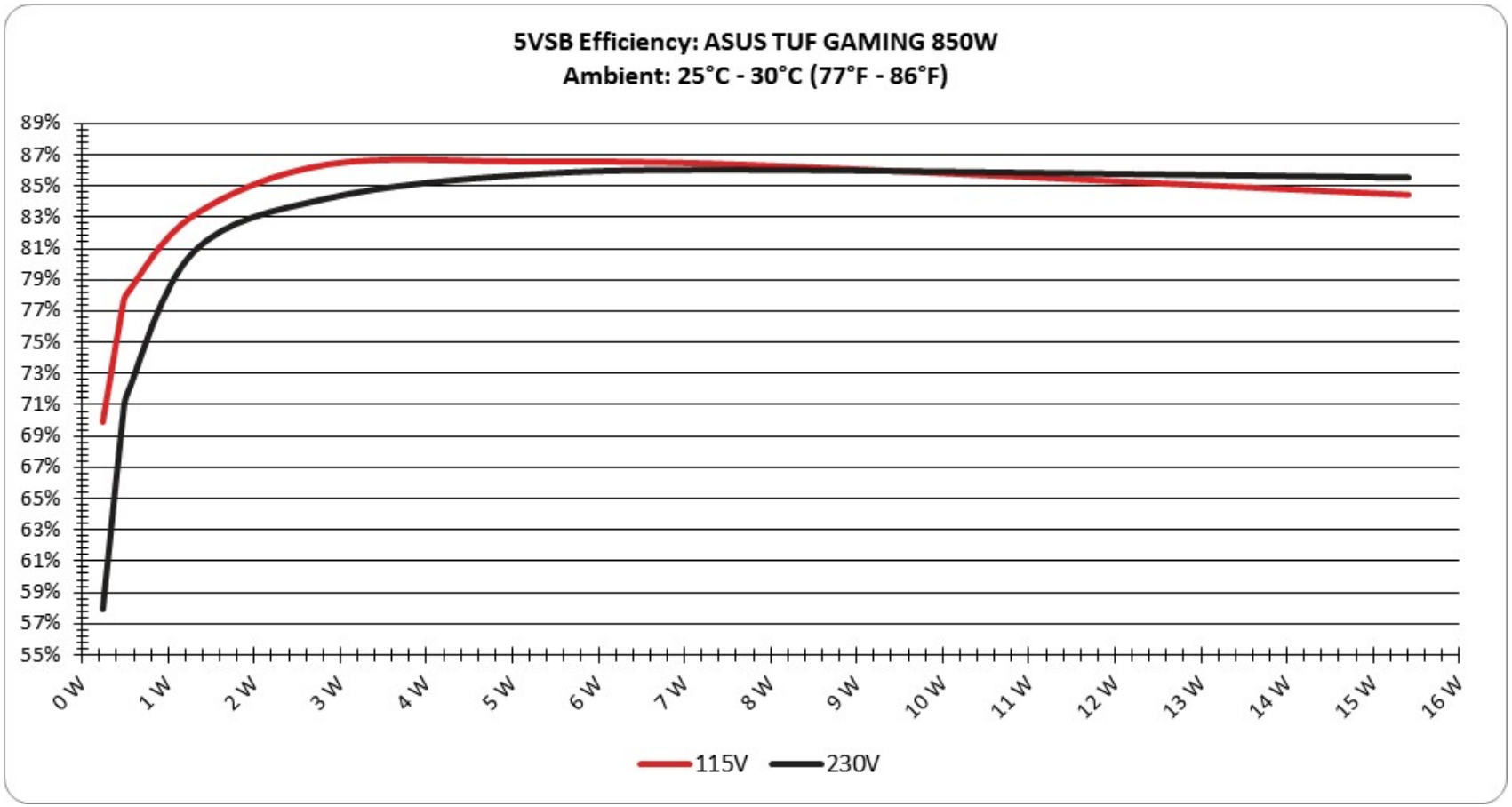
Efficiency under high ambient temperature



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**	0.233W	69.878%	0.033
	5.181V	0.334W		114.96V
2	**0.09A**	0.466W	77.346%	0.059
	5.18V	0.603W		114.96V
3	**0.55A**	2.846W	86.341%	0.257
	5.174V	3.297W		114.95V
4	**1A**	5.168W	86.519%	0.358
	5.167V	5.973W		114.94V
5	**1.5A**	7.741W	86.314%	0.413
	5.159V	8.968W		114.95V
6	**3A**	15.412W	84.399%	0.491
	5.137V	18.261W		114.94V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.233W	57.952%	0.012
	5.18V	0.402W		230.04V
2	**0.09A**	0.466W	70.257%	0.02
	5.179V	0.664W		230.05V
3	**0.55A**	2.845W	84.218%	0.097
	5.172V	3.379W		230.04V
4	**1A**	5.167W	85.736%	0.162
	5.165V	6.026W		230.04V
5	**1.5A**	7.738W	86.034%	0.22
	5.158V	8.994W		230.05V
6	**3A**	15.405W	85.541%	0.327
	5.134V	18.009W		230.04V

Protection Features

OCP (Normal @ 28.5°C)	12V: 92A (129.89%), 12.117V 5V: 34.2A (136.8%), 5.106V 3.3V: 34.3A (137.2%), 3.267V 5VSB: 5.8A (193.33%), 5.073V
OCP (Hot @ 42.1°C)	12V: 89.6A (126.5%), 12.126V 5V: 32.8A (131.2%), 5.108V 3.3V: 34A (136%), 3.269V 5VSB: 5.7A (190%), 5.073V
OPP (Normal @ 29.1°C)	1090.9W (128.34%)
OPP (Hot @ 42.1°C)	1074.9W (126.46%)
OTP	✓ (110°C @ 12V Heatsink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Typical Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

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%	**5.207A**	**1.955A**	**1.998A**	**0.97A**	85	89.211%	408	7.6	40.37°C	0.965
	12.175V	5.115V	3.303V	5.155V	95.281				44.34°C	114.92V
20%	**11.426A**	**2.935A**	**3.002A**	**1.166A**	169.96	91.844%	407	7.5	40.89°C	0.976
	12.170V	5.112V	3.298V	5.147V	185.053				44.29°C	114.9V
30%	**17.996A**	**3.426A**	**3.507A**	**1.363A**	254.976	92.484%	408	7.6	41.02°C	0.983
	12.165V	5.109V	3.294V	5.138V	275.697				45.44°C	114.87V
40%	**24.574A**	**3.918A**	**4.012A**	**1.56A**	340.056	92.546%	409	7.6	41.82°C	0.989
	12.161V	5.106V	3.29V	5.129V	367.443				47.73°C	114.85V
50%	**30.804A**	**4.901A**	**5.023A**	**1.758A**	424.982	92.279%	410	7.6	42.16°C	0.991
	12.157V	5.102V	3.285V	5.12V	460.541				49.67°C	114.83V
60%	**37.006A**	**5.885A**	**6.036A**	**1.957A**	509.521	91.884%	410	7.6	42.66°C	0.993
	12.153V	5.099V	3.281V	5.111V	554.526				52.26°C	114.82V
70%	**43.276A**	**6.871A**	**7.052A**	**2.157A**	594.858	91.299%	411	7.6	43.11°C	0.994
	12.149V	5.095V	3.276V	5.101V	651.547				55.22°C	114.79V
80%	**49.554A**	**7.857A**	**8.068A**	**2.259A**	679.68	90.897%	499	8.8	43.54°C	0.994
	12.144V	5.091V	3.271V	5.092V	747.746				58.63°C	114.77V
90%	**56.236A**	**8.353A**	**8.569A**	**2.36A**	765.112	90.248%	774	17.7	44.62°C	0.995
	12.138V	5.088V	3.267V	5.085V	847.784				58.46°C	114.75V
100%	**62.660A**	**8.852A**	**9.102A**	**2.959A**	849.943	89.519%	971	24.1	45.1°C	0.996
	12.133V	5.084V	3.262V	5.07V	949.453				58.19°C	114.73V
110%	**68.955A**	**9.843A**	**10.22A**	**2.963A**	934.512	88.69%	1241	31.2	46.5°C	0.996
	12.127V	5.08V	3.258V	5.063V	1053.679				57.95°C	114.69V
CL1	**0.115A**	**14.739A**	**15.083A**	**0A**	126.292	84.789%	410	7.6	40.63°C	0.975
	12.180V	5.109V	3.288V	5.157V	148.949				54.68°C	114.9V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	**0.115A**	**24.448A**	**0A**	**0A**	126.383	82.7%	411	7.6	40.99°C	0.975
	12.173V	5.113V	3.302V	5.161V	152.821				51.66°C	114.91V
CL3	**0.114A**	**0A**	**25.117A**	**0A**	83.885	76.507%	465	8.1	40.66°C	0.97
	12.186V	5.112V	3.284V	5.159V	109.642				49.66°C	114.92V
CL4	**70.030A**	**0A**	**0A**	**0A**	849.658	90.236%	805	18.5	45.33°C	0.995
	12.133V	5.092V	3.275V	5.124V	941.598				55°C	114.73V

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%	**5.207A**	**1.955A**	**1.998A**	**0.97A**	84.999	89.592%	406	7.5	40.1°C	0.843
	12.176V	5.116V	3.302V	5.155V	94.873				42.53°C	230.06V
20%	**11.425A**	**2.935A**	**3.002A**	**1.166A**	169.953	93.009%	406	7.5	40.81°C	0.925
	12.170V	5.112V	3.298V	5.146V	182.727				43.72°C	230.05V
30%	**17.994A**	**3.426A**	**3.507A**	**1.363A**	254.963	93.958%	408	7.6	41.15°C	0.948
	12.165V	5.109V	3.294V	5.137V	271.36				44.55°C	230.04V
40%	**24.576A**	**3.918A**	**4.012A**	**1.56A**	340.055	94.285%	408	7.6	41.98°C	0.962
	12.160V	5.106V	3.29V	5.128V	360.667				45.92°C	230.02V
50%	**30.806A**	**4.901A**	**5.023A**	**1.758A**	424.976	94.221%	409	7.6	42.11°C	0.968
	12.156V	5.102V	3.285V	5.119V	451.043				47.13°C	230.02V
60%	**37.007A**	**5.885A**	**6.036A**	**1.957A**	509.508	94.028%	411	7.6	42.73°C	0.973
	12.152V	5.099V	3.281V	5.11V	541.866				49.02°C	230.01V
70%	**43.279A**	**6.871A**	**7.052A**	**2.157A**	594.841	93.725%	412	7.6	43.1°C	0.977
	12.148V	5.095V	3.276V	5.1V	634.665				50.59°C	230V
80%	**49.556A**	**7.857A**	**8.069A**	**2.259A**	679.666	93.273%	443	8.0	43.62°C	0.98
	12.143V	5.091V	3.271V	5.092V	728.681				52.34°C	229.99V
90%	**56.236A**	**8.354A**	**8.57A**	**2.36A**	765.097	92.825%	775	17.7	44.39°C	0.981
	12.138V	5.088V	3.267V	5.085V	824.233				53.12°C	229.98V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**62.658A**	**8.851A**	**9.102A**	**2.959A**	849.929	92.335%	1064	26.7	45.26°C	0.983
	12.133V	5.084V	3.263V	5.069V	920.486				53.67°C	229.97V
110%	**68.953A**	**9.843A**	**10.221A**	**2.963A**	934.496	91.764%	1334	33.2	46.13°C	0.984
	12.127V	5.08V	3.257V	5.063V	1018.365				54.48°C	229.96V
CL1	**0.115A**	**14.737A**	**15.083A**	**0A**	126.286	85.673%	411	7.6	40.48°C	0.909
	12.178V	5.109V	3.288V	5.156V	147.405				52°C	230.07V
CL2	**0.114A**	**24.448A**	**0A**	**0A**	126.381	83.648%	411	7.6	40.41°C	0.911
	12.172V	5.113V	3.302V	5.161V	151.088				50.34°C	230.07V
CL3	**0.114A**	**0A**	**25.119A**	**0A**	83.884	77.115%	474	8.4	41.33°C	0.868
	12.187V	5.112V	3.284V	5.159V	108.779				48.78°C	230.07V
CL4	**70.034A**	**0A**	**0A**	**0A**	849.679	92.992%	792	18.2	45.68°C	0.983
	12.133V	5.092V	3.275V	5.124V	913.711				51.77°C	229.96V

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	**1.220A**	**0.488A**	**0.499A**	**0.193A**	20.004	74.702%	405	7.5	36.43°C	0.873
	12.180V	5.12V	3.307V	5.172V	26.779				43.74°C	114.94V
40W	**2.684A**	**0.684A**	**0.699A**	**0.29A**	40	83.864%	407	7.5	37.21°C	0.929
	12.179V	5.119V	3.307V	5.169V	47.697				44.39°C	114.94V
60W	**4.149A**	**0.879A**	**0.898A**	**0.387A**	59.998	87.189%	408	7.6	38.61°C	0.957
	12.178V	5.118V	3.306V	5.167V	68.814				44.83°C	114.92V
80W	**5.611A**	**1.075A**	**1.099A**	**0.484A**	79.958	89.413%	409	7.6	39.16°C	0.964
	12.177V	5.117V	3.304V	5.164V	89.425				44.64°C	114.92V

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	**1.220A**	**0.489A**	**0.499A**	**0.193A**	19.999	72.336%	401	7.5	36.81°C	0.53
	12.169V	5.118V	3.307V	5.172V	27.648				37.11°C	230.06V
40W	**2.684A**	**0.684A**	**0.699A**	**0.29A**	39.998	83.13%	403	7.5	37.37°C	0.694
	12.177V	5.116V	3.306V	5.169V	48.115				38.22°C	230.06V
60W	**4.149A**	**0.88A**	**0.899A**	**0.387A**	59.996	87.781%	406	7.5	38.82°C	0.779
	12.176V	5.116V	3.305V	5.166V	68.348				39.92°C	230.05V
80W	**5.612A**	**1.075A**	**1.099A**	**0.484A**	79.951	89.655%	407	7.5	39.11°C	0.831
	12.175V	5.116V	3.304V	5.163V	89.177				40.7°C	230.06V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	18.73mV	13.57mV	7.27mV	12.99mV	Pass
20% Load	21.32mV	13.21mV	7.53mV	13.30mV	Pass
30% Load	22.85mV	13.42mV	7.78mV	13.96mV	Pass
40% Load	24.37mV	13.67mV	8.04mV	15.13mV	Pass
50% Load	27.88mV	13.62mV	8.08mV	17.52mV	Pass
60% Load	30.02mV	14.39mV	8.75mV	18.19mV	Pass
70% Load	33.43mV	14.69mV	8.44mV	20.38mV	Pass
80% Load	29.36mV	14.94mV	12.56mV	23.08mV	Pass
90% Load	32.16mV	15.66mV	13.48mV	24.40mV	Pass
100% Load	33.33mV	16.37mV	13.43mV	34.80mV	Pass
110% Load	33.78mV	12.44mV	15.35mV	35.82mV	Pass
Crossload1	20.96mV	14.74mV	13.32mV	13.30mV	Pass
Crossload2	21.02mV	16.88mV	6.61mV	14.11mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	22.03mV	13.82mV	16.99mV	14.26mV	Pass
Crossload4	32.67mV	15.10mV	10.48mV	15.23mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	31.65mV	13.52mV	8.29mV	13.25mV	Pass
20% Load	29.11mV	13.57mV	7.07mV	13.40mV	Pass
30% Load	25.75mV	13.21mV	7.78mV	14.83mV	Pass
40% Load	24.99mV	13.52mV	8.24mV	14.67mV	Pass
50% Load	26.05mV	14.44mV	12.46mV	15.74mV	Pass
60% Load	28.80mV	14.18mV	11.29mV	18.70mV	Pass
70% Load	28.34mV	14.28mV	10.27mV	20.94mV	Pass
80% Load	30.53mV	15.05mV	13.07mV	22.26mV	Pass
90% Load	34.90mV	15.35mV	13.38mV	24.56mV	Pass
100% Load	33.84mV	16.07mV	13.53mV	35.36mV	Pass
110% Load	35.21mV	16.17mV	23.85mV	35.36mV	Pass
Crossload1	34.80mV	15.86mV	13.53mV	13.25mV	Pass
Crossload2	32.00mV	16.99mV	6.61mV	12.79mV	Pass
Crossload3	33.28mV	14.23mV	17.04mV	13.40mV	Pass
Crossload4	31.96mV	14.28mV	9.05mV	14.77mV	Pass

The results above are not used in the certification process

ASUS TUF Gaming 850W Platinum



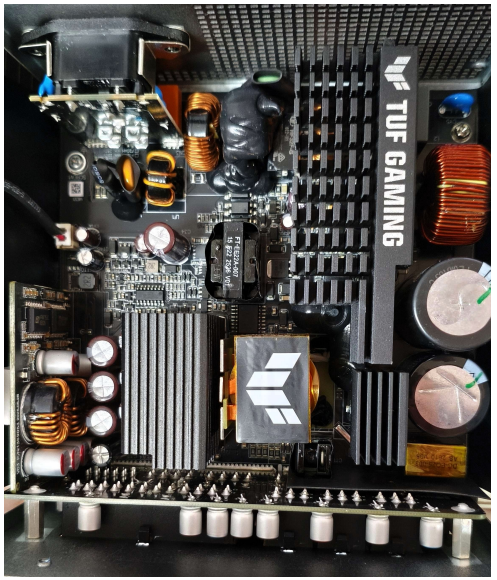
Top side



Power specifications label



Fan



PSU Internals

Cybenetics □□□□□□□□□□□□□□□□□□ ETA□□□□□ LAMBDA□□□□□ SAFE□□□□□□□□□□□□□□□□□ DELTA□□□□□□□ PHI□□□□□□□□□

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus

www.cybenetics.com - info@cybenetics.com