Thermaltake Toughpower PT 1000W

Serial Number PSTPP100FNFAPU1BLCW00008

Lab ID TT10002995

Certification ID 252995

Test Result Report ID: 25PS2995A

Certificate Issue Date: Oct 22, 2025

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	Thermaltake
Model	Toughpower PT 1000W
OEM/ODM	CWT
Serial Number	PSTPP100FNFAPU1BLCW00008
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240

Rated Current (Arms)	15
Rated Frequency (Hz)	47-63
Rated Power (W)	1000
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	135mm Fluid Dynamic Bearing Fan (CWT13525H12F-9)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	TT10002995
Date of receipt	Sep 23, 2025
Testing Date	Oct 9, 2025
Report Issued Date	Oct 22, 2025
Engineer Name	Okeke Ugochukwu Onyedikachukwu
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 24 pin (540mm)	1	1	16-20AWG	Tinned Copper
4+4 pin ATX12V (700mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (600mm+150mm)	2	4	16-18AWG	Tinned Copper
6+2 pin PCIe (600mm)	1	1	16AWG	Tinned Copper
12+4 pin PCIe (600mm) (600W)	1	1	16-24AWG	Tinned Copper

SATA (450mm+150mm+150mm)	2	6	18AWG	Tinned Copper
4-pin Molex (450mm+150mm+150mm+150mm)	1	4	18AWG	Tinned Copper
AC Power Cord (1400mm) - C13 coupler	1	1	16AWG	-

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	20	20	83.3	3	0.3
	Watts	110		999.6	15	3.6
Total Max. Power (W)		1000				

Parts Description

General Data	
Manufacturer (OEM)	CWT
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV, 1x Power IntegrationsCAP200DG (X Capacitor Discharge IC)
Inrush Protection	NTC Thermistor SCK-207R0 (7 Ohm @ 25°C) & Relay
Bridge Rectifier	2x Yangzhou GBUL1506 (600V, 15A @ 100°C)
APFC MOSFETs	3x PingWei PWE120N65SFMF (650V, 20A @ 100°C, Rds(on): 120mOhm)
APFC Boost Diode	CRMicro CRXI08D065G2 (650V, 8A @ 165°C)
Bulk Cap(s)	2x Rubycon (400V, 390uF each or 780uF combined, 2000h @ 105°C,MXE)

Main Switchers	4x Way-On WML26N65F2 (650V, 10.5A @ 100°C, Rds(on): 0.21Ohm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CM6901T6X
Topology	Primary side: APFC, Full-Bridge & LLC Resonant Converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	8x PingWei PWC013N04ES (40V, 155A @ 100°C, Rds(on): 1.3mOhm)
5V & 3.3V	DC-DC Converters: 4x UBIQ Semi QM3054M6 (30V, 61A @ 100°C, Rds(on): 4.8mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (@ 105°C, W) 2x Rubycon (3-6,000 @ 105°C, YXS) 3x Rubycon (6-10,000 @ 105°C, ZLH) 2x Rubycon (4-10,000 @ 105°C, YXF) Rubycon (4-10,000 @ 105°C, YXJ) Nichicon (4-10,000 @ 105°C, HE(M)) Polymer: 10x Nippon Chemi-Con, 13x FPCAP, 2x no info
Fan Model	TT-13525 CWT13525H12F-9 (135mm, 12V, 0.4A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier (High Side)	Dongke DK5V45R10V (45V, 10mOhm)
Standby PWM Controller	KP22306AWG

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)	90.350%
Average Noise Output (>1450 Load Combinations)	16.02dBA
Average PF (>1450 Load Combinations)	0.992
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.099%
Standby Power Consumption	0.0379W
Non-Accredited	
12V Ripple (Full Load)	28.42mV
5V Ripple (Full Load)	15.45mV
3.3V Ripple (Full Load)	14.16mV
5VSB Ripple (Full Load)	12.25mV
12V Load Regulation	0.74%
5V Load Regulation	0.28%
3.3V Load Regulation	0.48%
5VSB Load Regulation	4.56%
Inrush Current	23.880A

230V

Accredited	
Average Efficiency (>1450 load combinations)	92.068%
Average Noise Output (>1450 Load Combinations)	16.02dBA
Average PF (>1450 Load Combinations)	0.968
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.390%
Standby Power Consumption	0.0583W
Non-Accredited	
12V Ripple (Full Load)	29.30mV
5V Ripple (Full Load)	16.50mV
3.3V Ripple (Full Load)	16.68mV

5VSB Ripple (Full Load)		13.53mV
12V Load Regulation		0.96%
5V Load Regulation		0.24%
3.3V Load Regulation		0.63%
5VSB Load Regulation		4.62%
Inrush Current		48.490A
12V Transient Response (200%)		11.36V
5V Transient Response (200%)		4.931V
3.3V Transient Response (200%)		3.249V
5VSB Transient Response (200%)		4.938V
Hold-Up Time & PWR_OK Signal		15.30ms
AC Loss to PWR_OK Hold Up Time		14.00ms
PWR_OK Inactive to DC Loss Delay		1.30ms
PSU Timings: T1 (20% / 100%)	28.0ms	28.0ms
PSU Timings: T3 (20% / 100%)	119.0ms	119.0ms
12V OCP (29.8°C / 42.3°C)	97.40A (116.93%), 12.017V	91.00A (109.24%), 12.031V
5V OCP (29.8°C / 42.3°C)	22.9A (114.50%), 5.033V	22.7A (113.50%), 5.041V
3.3V OCP (29.8°C / 42.3°C)	24.1A (120.50%), 3.365V	24A (120.00%), 3.373V
5VSB OCP (29.8°C / 42.3°C)	4.6A (153.33%), 4.941V	4.5A (150.00%), 4.934V
OPP (26.61°C / 43.43°C)	117.31%	113.61%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	15.3
AC Loss to PWR_OK Hold Up Time (ms)	14
PWR_OK Inactive to DC Loss Delay (ms)	1.3

Vampire Power

Tables

115V

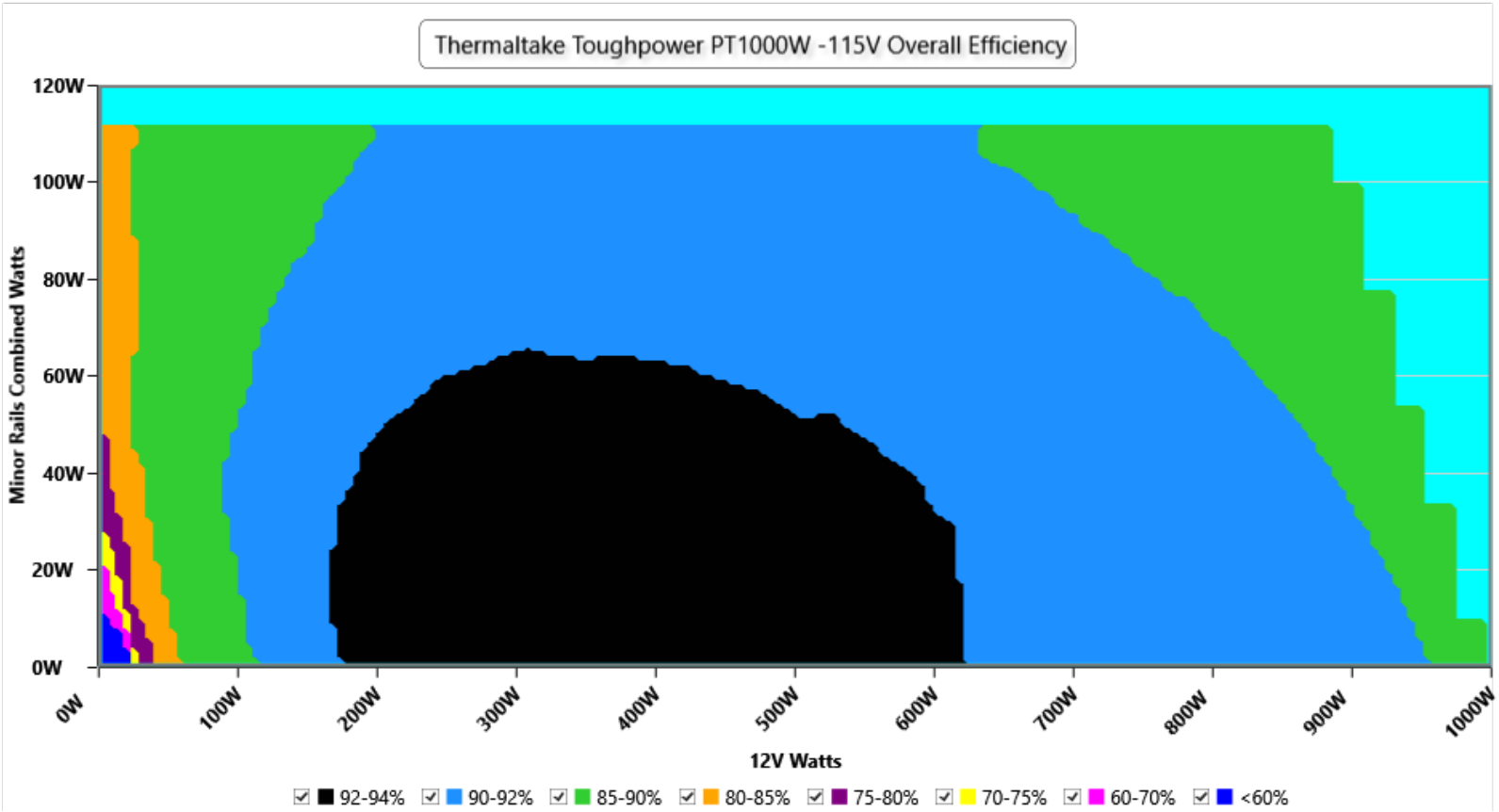
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.00 V	114.96 V	113.85 V	115.02 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.038 W	0.020 W	N/A	0.056 W	N/A	N/A
Apparent Power:	10.120 W	10.100 W	N/A	10.142 W	N/A	N/A
Power Factor:	0.003	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:	0.058 W	0.023 W	N/A	0.110 W	N/A	N/A
Apparent Power:	33.157 W	33.125 W	N/A	33.189 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

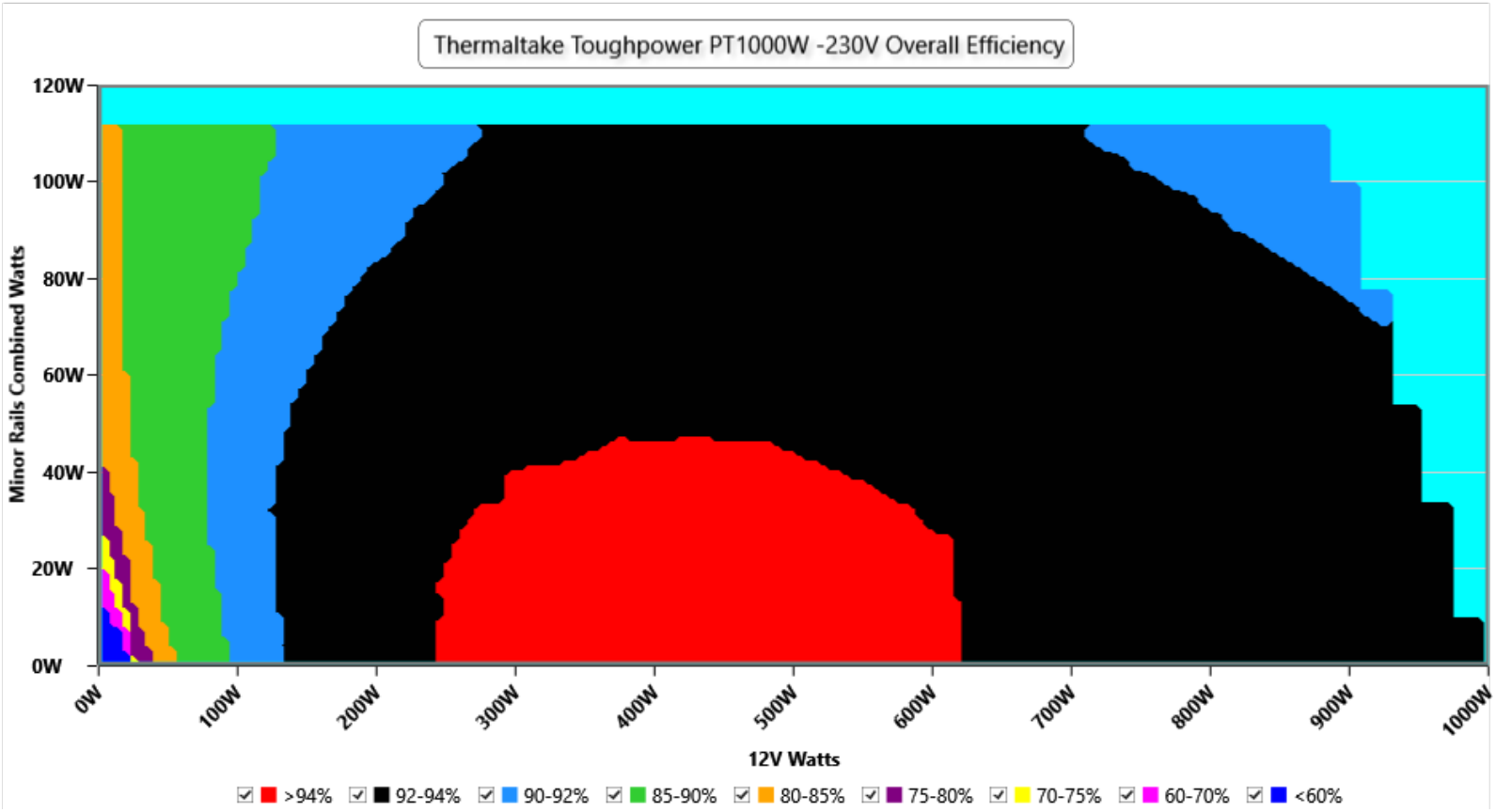
115V



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

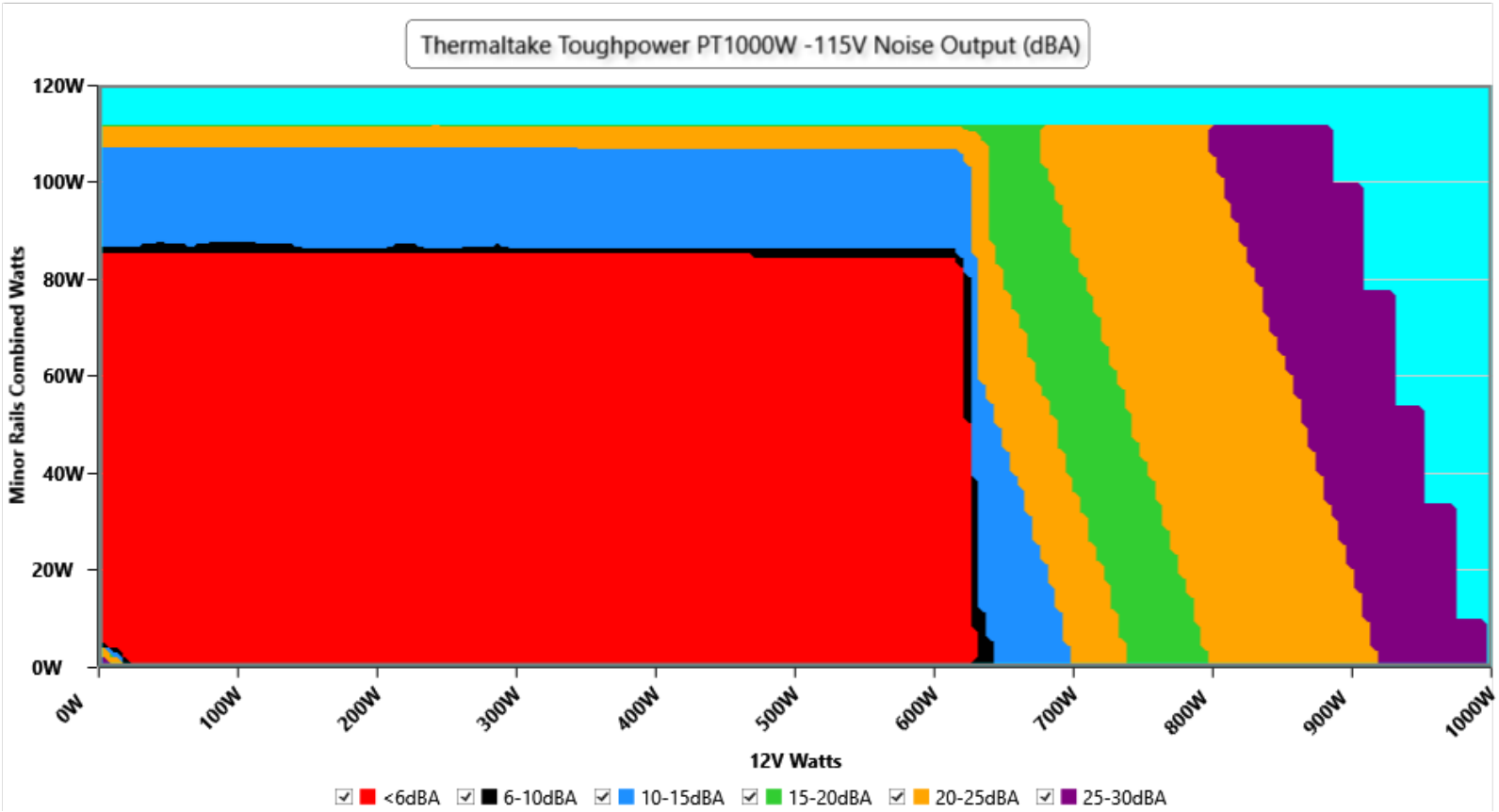


INFO

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

Noise Graph

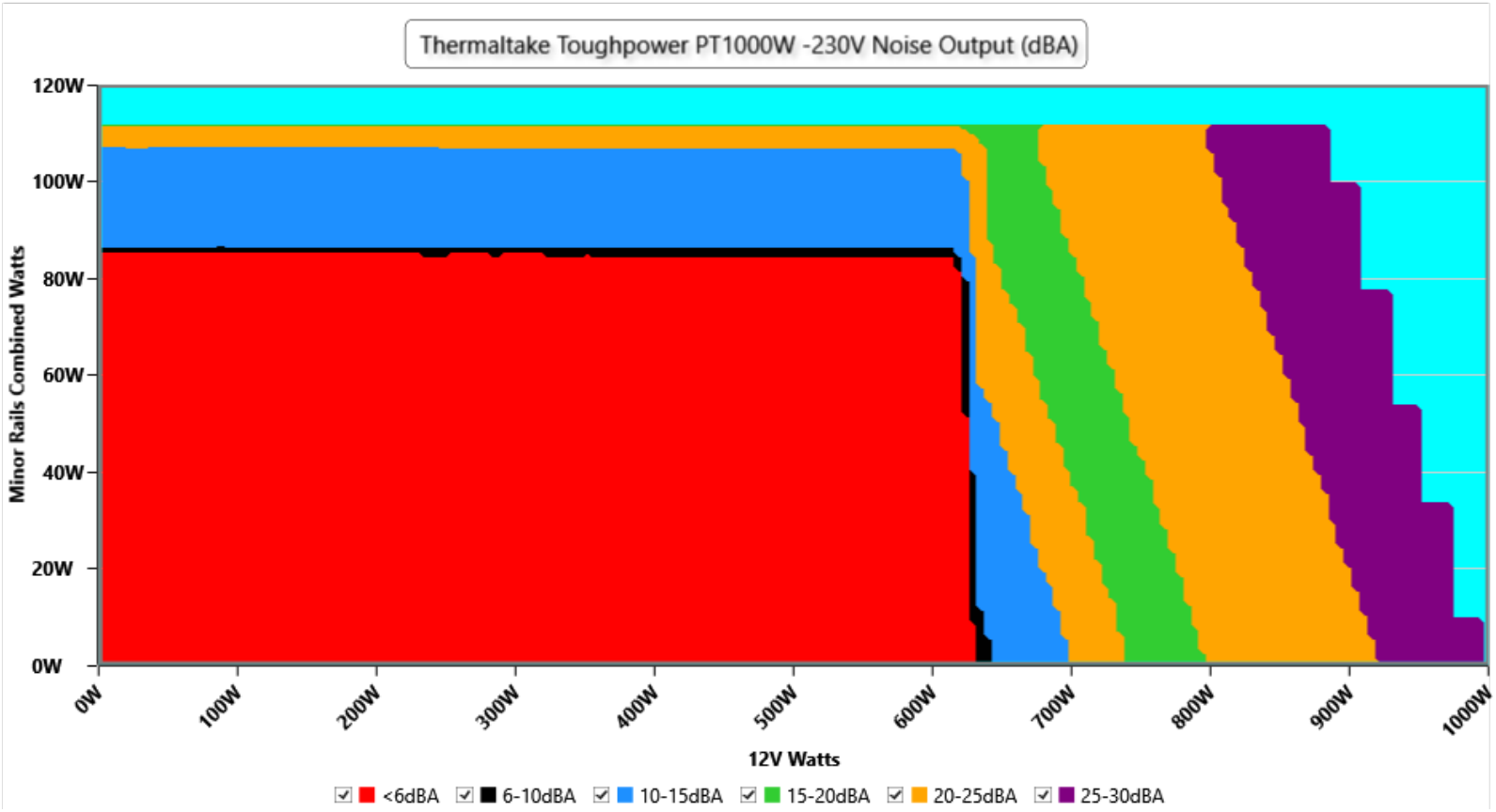
115V



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%	391 RPM · <6.0 dB(A) · 30.1 °C	401 RPM · <6.0 dB(A) · 40.4 °C	<6.0 in both
20%	393 RPM · <6.0 dB(A) · 30.1 °C	402 RPM · <6.0 dB(A) · 40.8 °C	<6.0 in both
50%	394 RPM · <6.0 dB(A) · 30.6 °C	405 RPM · <6.0 dB(A) · 42.3 °C	<6.0 in both
100%	1038 RPM · 27.9 dB(A) · 30.6 °C	1430 RPM · 36.3 dB(A) · 45.4 °C	**+8.4 dB(A)**

230V

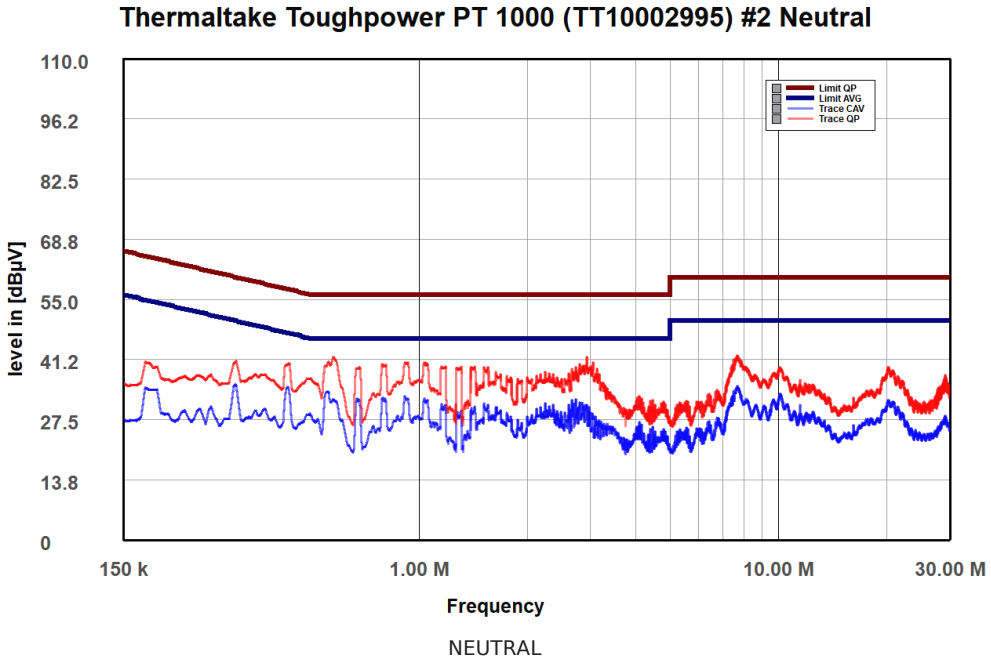
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	390 RPM · <6.0 dB(A) · 30.6 °C	401 RPM · <6.0 dB(A) · 40.1 °C	<6.0 in both
20%	392 RPM · <6.0 dB(A) · 30.0 °C	403 RPM · <6.0 dB(A) · 40.8 °C	<6.0 in both
50%	393 RPM · <6.0 dB(A) · 30.5 °C	404 RPM · <6.0 dB(A) · 42.4 °C	<6.0 in both
100%	1037 RPM · 27.8 dB(A) · 30.4 °C	1434 RPM · 36.4 dB(A) · 45.9 °C	**+8.6 dB(A)**

INFO

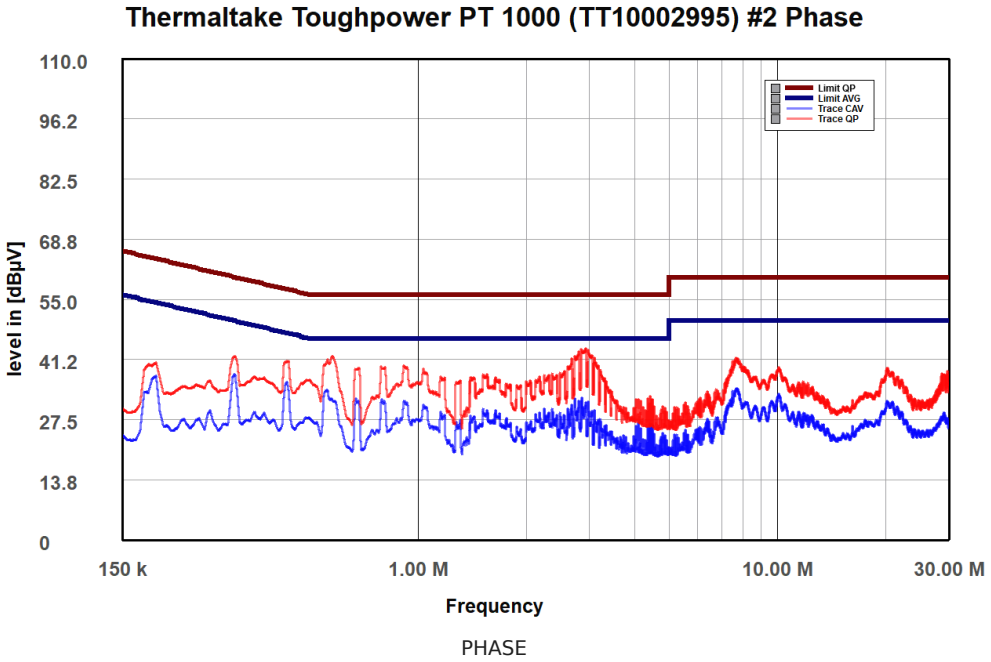
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative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



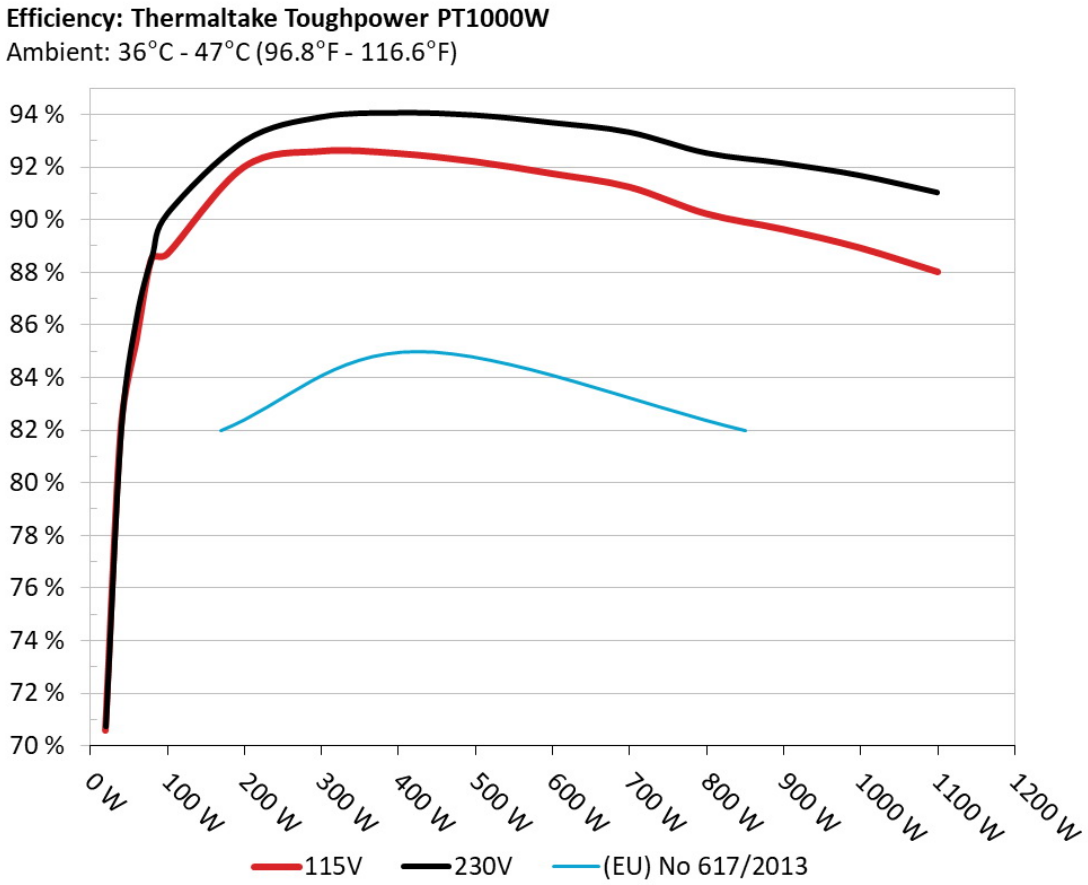
NEUTRAL



PHASE

Indicative Performance

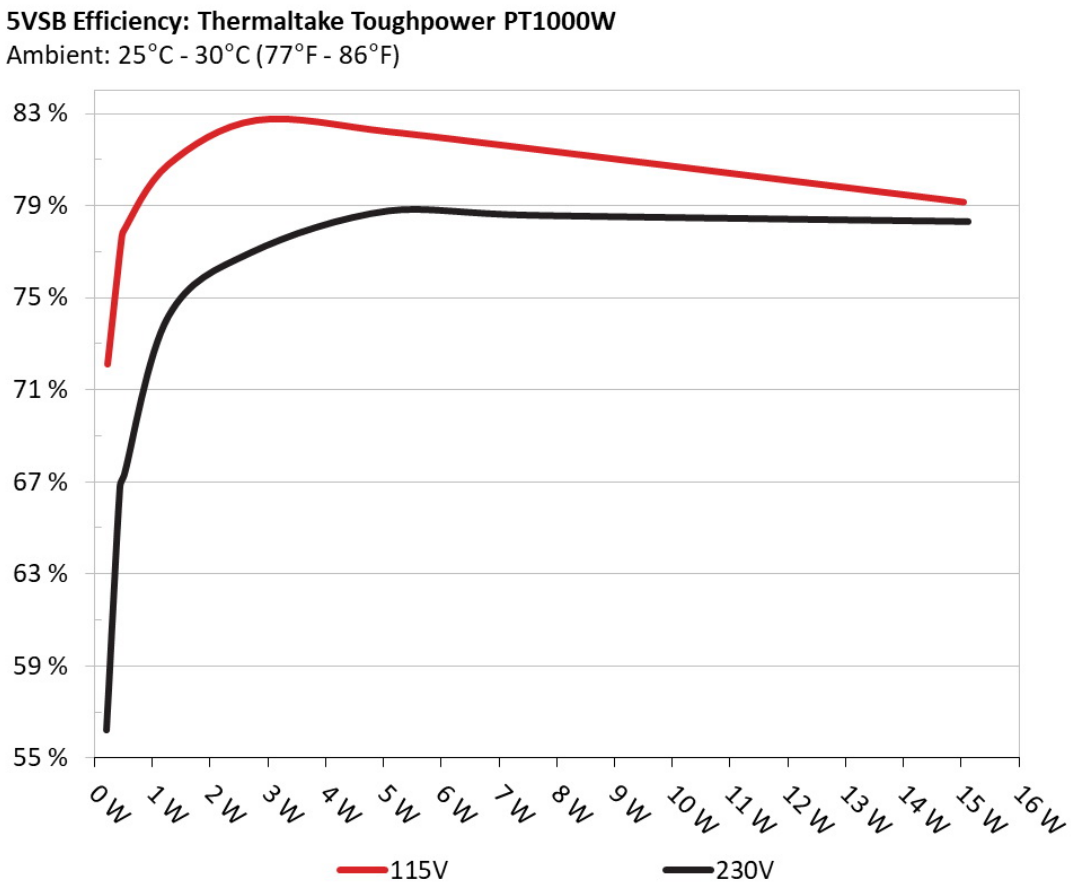
Efficiency under high ambient temperature



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**	0.231W	72.125%	0.032
	5.128V	0.321W		115.08V
2	**0.09A**	0.462W	77.358%	0.059
	5.127V	0.597W		115.06V
3	**0.55A**	2.811W	82.694%	0.267
	5.11V	3.4W		115.07V
4	**1A**	5.093W	82.193%	0.372
	5.092V	6.196W		115.06V
5	**1.5A**	7.609W	81.441%	0.428
	5.072V	9.343W		115.06V
6	**3A**	15.035W	79.147%	0.5
	5.011V	18.996W		115.07V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.231W	65.662%	0.011
	5.131V	0.352W		230.29V
2	**0.09A**	0.462W	72.604%	0.019
	5.129V	0.637W		230.31V
3	**0.55A**	2.811W	80.866%	0.101
	5.111V	3.477W		230.21V
4	**1A**	5.094W	81.746%	0.17
	5.093V	6.231W		230.19V
5	**1.5A**	7.611W	81.633%	0.232
	5.073V	9.324W		230.18V
6	**3.001A**	15.04W	80.525%	0.345
	5.012V	18.68W		230.17V

Protection Features

OCP (Normal @ 29.8°C)	12V: 97.4A (116.93%), 12.017V 5V: 22.9A (114.5%), 5.033V 3.3V: 24.1A (120.5%), 3.365V 5VSB: 4.6A (153.33%), 4.941V
OCP (Hot @ 42.3°C)	12V: 91A (109.24%), 12.031V 5V: 22.7A (113.5%), 5.041V 3.3V: 24A (120%), 3.373V 5VSB: 4.5A (150%), 4.934V
OPP (Normal @ 26.6°C)	1173.13W (117.31%)
OPP (Hot @ 43.4°C)	1136.07W (113.61%)
OTP	✓ (140°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Full 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%	**6.470A**	**1.981A**	**1.971A**	**0.985A**	99.982	88.692%	401	<6.0	40.38°C	0.977
	12.114V	5.05V	3.348V	5.077V	112.729				45.54°C	115.07V
20%	**13.963A**	**2.972A**	**2.958A**	**1.186A**	199.924	92.013%	402	<6.0	40.75°C	0.988
	12.105V	5.048V	3.347V	5.059V	217.278				47.26°C	115.03V
30%	**21.818A**	**3.468A**	**3.453A**	**1.388A**	299.968	92.608%	404	<6.0	41.31°C	0.991
	12.096V	5.047V	3.345V	5.042V	323.913				50.02°C	115V
40%	**29.639A**	**3.964A**	**3.948A**	**1.593A**	399.462	92.521%	405	<6.0	41.74°C	0.991
	12.087V	5.046V	3.343V	5.024V	431.753				53.63°C	114.96V
50%	**37.147A**	**4.956A**	**4.938A**	**1.799A**	499.17	92.213%	405	<6.0	42.25°C	0.994
	12.078V	5.045V	3.342V	5.004V	541.322				57.27°C	114.93V
60%	**44.733A**	**5.949A**	**5.928A**	**2A**	599.661	91.754%	405	<6.0	42.95°C	0.996
	12.069V	5.044V	3.34V	4.984V	653.55				61.76°C	114.9V
70%	**52.266A**	**6.941A**	**6.919A**	**2.216A**	699.423	91.248%	459	<6.0	43.45°C	0.997
	12.060V	5.044V	3.339V	4.963V	766.507				66.41°C	114.87V
80%	**59.875A**	**7.934A**	**7.911A**	**2.325A**	799.438	90.232%	848	22	43.7°C	0.998
	12.051V	5.041V	3.337V	4.946V	885.979				64.56°C	114.84V
90%	**67.832A**	**8.434A**	**8.397A**	**2.433A**	899.246	89.64%	1058	27.1	44.1°C	0.998
	12.041V	5.039V	3.334V	4.932V	1003.172				64.09°C	114.8V
100%	**75.599A**	**8.935A**	**8.913A**	**3.065A**	999.259	88.933%	1430	36.3	45.41°C	0.998
	12.032V	5.036V	3.332V	4.895V	1123.616				63.27°C	114.76V
110%	**83.312A**	**9.933A**	**10A**	**3.071A**	1099.863	88.021%	2175	47.5	46.55°C	0.998
	12.022V	5.033V	3.329V	4.885V	1249.495				60.79°C	114.72V
CL1	**0.115A**	**13.111A**	**13.006A**	**0A**	111.288	83.085%	757	18.2	41.61°C	0.978
	12.111V	5.049V	3.36V	5.097V	133.945				53.96°C	115.06V

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**	**19.808A**	**0A**	**0A**	101.383	80.702%	1754	41.3	40.79°C	0.977
	12.114V	5.048V	3.348V	5.108V	125.626				45.92°C	115.06V
CL3	**0.114A**	**0A**	**19.599A**	**0A**	67.379	75.567%	1594	40.4	40.2°C	0.976
	12.111V	5.051V	3.367V	5.106V	89.167				43.21°C	115.07V
CL4	**83.056A**	**0A**	**0A**	**0A**	999.832	89.751%	1070	27.1	45.53°C	0.998
	12.038V	5.041V	3.325V	5.044V	1114.006				60.93°C	114.76V

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%	**6.471A**	**1.98A**	**1.971A**	**0.985A**	99.978	89.823%	401	<6.0	40.06°C	0.891
	12.112V	5.05V	3.348V	5.077V	111.303				45.16°C	230.33V
20%	**13.968A**	**2.971A**	**2.959A**	**1.186A**	199.919	92.995%	403	<6.0	40.82°C	0.952
	12.101V	5.049V	3.346V	5.059V	214.976				46.75°C	230.31V
30%	**21.831A**	**3.467A**	**3.454A**	**1.389A**	299.96	93.903%	403	<6.0	41.23°C	0.97
	12.089V	5.049V	3.344V	5.041V	319.437				48.57°C	230.3V
40%	**29.665A**	**3.963A**	**3.95A**	**1.593A**	399.467	94.061%	405	<6.0	41.77°C	0.978
	12.077V	5.048V	3.341V	5.022V	424.69				51.33°C	230.29V
50%	**37.188A**	**4.954A**	**4.941A**	**1.799A**	499.184	93.973%	404	<6.0	42.35°C	0.982
	12.065V	5.047V	3.34V	5.003V	531.205				53.83°C	230.27V
60%	**44.795A**	**5.946A**	**5.932A**	**2A**	599.679	93.684%	404	<6.0	42.95°C	0.985
	12.053V	5.046V	3.338V	4.983V	640.114				56.9°C	230.25V
70%	**52.354A**	**6.938A**	**6.925A**	**2.217A**	699.481	93.327%	450	<6.0	43.47°C	0.987
	12.040V	5.046V	3.336V	4.962V	749.492				59.94°C	230.2V
80%	**59.994A**	**7.931A**	**7.92A**	**2.326A**	799.519	92.536%	849	22	43.73°C	0.989
	12.028V	5.043V	3.333V	4.945V	864.006				59.08°C	230.15V
90%	**67.979A**	**8.431A**	**8.407A**	**2.435A**	899.31	92.147%	1077	27.3	44.58°C	0.991
	12.016V	5.041V	3.33V	4.929V	975.96				59.41°C	230.11V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**75.777A**	**8.931A**	**8.926A**	**3.066A**	999.314	91.684%	1434	36.4	45.92°C	0.991
	12.004V	5.038V	3.327V	4.893V	1089.949				58.98°C	230.11V
110%	**83.520A**	**9.928A**	**10.013A**	**3.072A**	1099.899	91.036%	2159	47.3	46.36°C	0.992
	11.992V	5.036V	3.325V	4.883V	1208.201				57.42°C	230.11V
CL1	**0.115A**	**13.097A**	**13.02A**	**0A**	111.29	83.813%	758	18.2	41.41°C	0.915
	12.109V	5.054V	3.356V	5.097V	132.782				52.37°C	230.29V
CL2	**0.114A**	**19.776A**	**0A**	**0A**	101.383	81.709%	1755	41.3	40.87°C	0.907
	12.113V	5.057V	3.347V	5.108V	124.08				45.88°C	230.29V
CL3	**0.114A**	**0A**	**19.628A**	**0A**	67.378	75.408%	1609	40.4	41.84°C	0.855
	12.109V	5.05V	3.362V	5.106V	89.353				45.08°C	230.3V
CL4	**83.242A**	**0A**	**0A**	**0A**	999.838	92.555%	1074	27.3	46.1°C	0.991
	12.011V	5.041V	3.325V	5.042V	1080.266				57.78°C	230.14V

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	**1.225A**	**0.495A**	**0.493A**	**0.195A**	19.997	70.594%	398	<6.0	36.57°C	0.897
	12.120V	5.048V	3.348V	5.118V	28.327				43.02°C	115.1V
40W	**2.697A**	**0.693A**	**0.69A**	**0.293A**	39.996	82.011%	402	<6.0	37.31°C	0.951
	12.119V	5.05V	3.348V	5.112V	48.769				42.9°C	115.09V
60W	**4.170A**	**0.891A**	**0.887A**	**0.392A**	59.996	85.39%	401	<6.0	38.69°C	0.962
	12.118V	5.049V	3.348V	5.107V	70.261				43.78°C	115.08V
80W	**5.637A**	**1.089A**	**1.084A**	**0.49A**	79.931	88.536%	401	<6.0	39.28°C	0.976
	12.116V	5.05V	3.348V	5.101V	90.281				44.16°C	115.08V

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	**1.225A**	**0.495A**	**0.493A**	**0.195A**	19.993	70.754%	398	<6.0	36.2°C	0.527
	12.120V	5.05V	3.348V	5.119V	28.254				40.61°C	230.33V
40W	**2.697A**	**0.693A**	**0.69A**	**0.293A**	39.994	82.013%	401	<6.0	37.35°C	0.7
	12.118V	5.05V	3.348V	5.113V	48.769				41.49°C	230.33V
60W	**4.170A**	**0.891A**	**0.887A**	**0.392A**	59.994	86.276%	402	<6.0	38.27°C	0.798
	12.116V	5.05V	3.348V	5.107V	69.535				42.55°C	230.33V
80W	**5.638A**	**1.089A**	**1.084A**	**0.49A**	79.927	88.592%	401	<6.0	39.28°C	0.856
	12.114V	5.05V	3.348V	5.101V	90.223				43.72°C	230.33V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	21.55mV	13.81mV	13.24mV	10.74mV	Pass
20% Load	24.18mV	14.06mV	14.07mV	11.56mV	Pass
30% Load	25.52mV	13.75mV	13.03mV	11.36mV	Pass
40% Load	26.91mV	13.91mV	13.65mV	11.30mV	Pass
50% Load	28.67mV	13.86mV	13.50mV	11.92mV	Pass
60% Load	30.52mV	14.01mV	13.44mV	12.13mV	Pass
70% Load	32.79mV	14.73mV	13.71mV	12.80mV	Pass
80% Load	27.58mV	15.05mV	14.63mV	12.64mV	Pass
90% Load	28.36mV	16.02mV	14.69mV	13.63mV	Pass
100% Load	28.42mV	15.45mV	14.16mV	12.25mV	Pass
110% Load	29.10mV	14.99mV	14.29mV	13.20mV	Pass
Crossload1	22.44mV	14.45mV	13.93mV	9.95mV	Pass
Crossload2	22.74mV	16.95mV	13.60mV	10.12mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	20.78mV	14.63mV	14.84mV	9.81mV	Pass
Crossload4	27.67mV	13.73mV	14.30mV	11.10mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.89mV	16.13mV	15.67mV	11.82mV	Pass
20% Load	27.22mV	14.94mV	15.41mV	12.65mV	Pass
30% Load	28.25mV	16.64mV	16.60mV	12.70mV	Pass
40% Load	27.69mV	14.94mV	14.94mV	11.98mV	Pass
50% Load	29.33mV	14.89mV	15.20mV	12.08mV	Pass
60% Load	32.33mV	16.59mV	16.65mV	13.57mV	Pass
70% Load	34.85mV	16.59mV	16.75mV	13.47mV	Pass
80% Load	29.85mV	17.26mV	17.38mV	13.99mV	Pass
90% Load	30.16mV	17.31mV	17.48mV	14.51mV	Pass
100% Load	29.30mV	16.50mV	16.68mV	13.53mV	Pass
110% Load	31.78mV	16.62mV	17.67mV	14.01mV	Pass
Crossload1	22.43mV	15.79mV	15.96mV	11.20mV	Pass
Crossload2	23.87mV	18.39mV	15.56mV	11.98mV	Pass
Crossload3	21.09mV	14.53mV	17.27mV	11.56mV	Pass
Crossload4	30.42mV	17.80mV	16.68mV	13.02mV	Pass

The results above are not used in the certification process

Thermaltake Toughpower PT 1000W



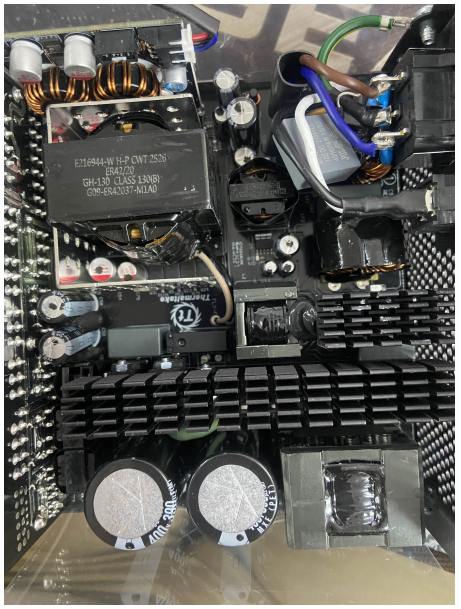
Top side



Power specifications label



Fan



PSU Internals

All data and graphs included in this test report can be used by any individual on the following conditions:
› It should be mentioned that the test results are provided by Cybenetics
› The link to the original test results document should be provided in any case

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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