ENDORFY

Endorfy Vero L6 650W

Serial Number EY7A0152508009047

Lab ID EY65003010

Certification ID 253010

Test Result Report ID: 25PS3010A

Certificate Issue Date: Oct 31, 2025

230V

Scheme: ETA-EMI PSU



230V



Scheme: LAMBDA PSU



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	Endorfy
Model	Vero L6 650W
OEM/ODM	Jiumeng
Serial Number	EY7A0152508009047
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	200-240
Rated Current (Arms)	5

Rated Frequency (Hz)	50-60
Rated Power (W)	650
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fixed cables
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Fluid Dynamic Bearing Fan (Stratus 10-1111 0.25A)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	EY65003010
Date of receipt	Oct 15, 2025
Testing Date	Oct 22, 2025
Report Issued Date	Oct 31, 2025
Engineer Name	Okeke Ugochukwu Onyedikachukwu
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Captive Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	In Cable Capacitors
ATX connector 24 pin (575mm)	1	1	18-20AWG	Copper
4+4 pin EPS12V (685mm+145mm)	1	2	18AWG	Copper
6+2 pin PCIe (575mm+145mm)	1	2	18AWG	Copper
12+4 pin PCIe (615mm) (450W)	1	1	16-26AWG	Tinned Copper
SATA (510mm+150mm+150mm)	1	3	18AWG	Copper
SATA (510mm+150mm) / 4-pin Molex (+150mm)	1	2 / 1	18AWG	Copper
Modular Cables				

AC Power Cord (1360mm) - C13 coupler	1	1	18AWG	-

Protection Features(Manufacturer)

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	54	3	0
	Watts	100		648	15	0
Total Max. Power (W)		650				

Parts Description

General Data	
Manufacturer (OEM)	Jiumeng
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor MF72 3D-20 (3 Ohm @ 25°C)
Bridge Rectifier	GBU1506 (600V, 3.2A @ 100°C) without heat sink
APFC MOSFETs	SI-Trend SI20N50F
APFC Boost Diode	SI-Trend SI8U600F (600V, 8A @ 100°C)
Bulk Cap(s)	Teapo (400V, 390uF, 105°C, TD(M))
Main Switchers	2x SI-Trend SI20N50F
PFC/PWM Controller	Champion CM6800UBX

Topology	Primary side: APFC, Double Forward Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	4x Oriental Semiconductor SFS130N06P (60V, 130A @ 25°C, Rds(on): 3.5mOhm)
5V & 3.3V	DC-DC Converters: 4x Rectron Semiconductor RMN3N5R0DF (30V, 19.7A @ 70°C, Rds(on): 5mOhm) PWM Controller(s): ANPEC APW7159C
Filtering Capacitors	Electrolytic: 8x Teapo (1-3,000 @ 105°C, SC) 2x Teapo (2,000 @ 105°C, SH) Polymer: 4x Teapo (FG)
Supervisor IC	GRENERGY GR8329E (OVP, UVP, OCP)
Fan Model	Endorfy Stratus 10-1111 (120mm, 12V, 0.25A, Fluid Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	PingWei PS860L (60V, 8A)
Standby PWM Controller	Chipown PN8141

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 230V

Accredited	
Average Efficiency (>1450 load combinations)	87.837%
Average Noise Output (>1450 Load Combinations)	31.11dBA
Average PF (>1450 Load Combinations)	0.966
Efficiency With 10W (≤500W) or 2% (>500W) Load	64.979%

Standby Power Consumption		0.1463W
Non-Accredited		
12V Ripple (Full Load)		36.00mV
5V Ripple (Full Load)		17.28mV
3.3V Ripple (Full Load)		20.96mV
5VSB Ripple (Full Load)		21.30mV
12V Load Regulation		0.51%
5V Load Regulation		0.70%
3.3V Load Regulation		0.92%
5VSB Load Regulation		3.57%
Inrush Current		77.620A
12V Transient Response (200%)		11.39V
5V Transient Response (200%)		4.965V
3.3V Transient Response (200%)		3.220V
5VSB Transient Response (200%)		5.054V
Hold-Up Time & PWR_OK Signal		17.20ms
AC Loss to PWR_OK Hold Up Time		15.20ms
PWR_OK Inactive to DC Loss Delay		2.00ms
PSU Timings: T1 (20% / 100%)	50.0ms	52.0ms
PSU Timings: T3 (20% / 100%)	124.0ms	124.0ms
12V OCP (29.2°C / 44.7°C)	74.20A (137.41%), 12.108V	72.60A (134.44%), 12.105V
5V OCP (29.2°C / 44.7°C)	24.2A (121.00%), 5.006V	23.9A (119.50%), 5.007V
3.3V OCP (29.2°C / 44.7°C)	25.3A (126.50%), 3.277V	25.2A (126.00%), 3.278V
5VSB OCP (29.2°C / 44.7°C)	3.9A (130.00%), 4.933V	3.9A (130.00%), 4.927V
OPP (30.76°C / 43.42°C)	143.83%	132.85%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	17.2
AC Loss to PWR_OK Hold Up Time (ms)	15.2
PWR_OK Inactive to DC Loss Delay (ms)	2

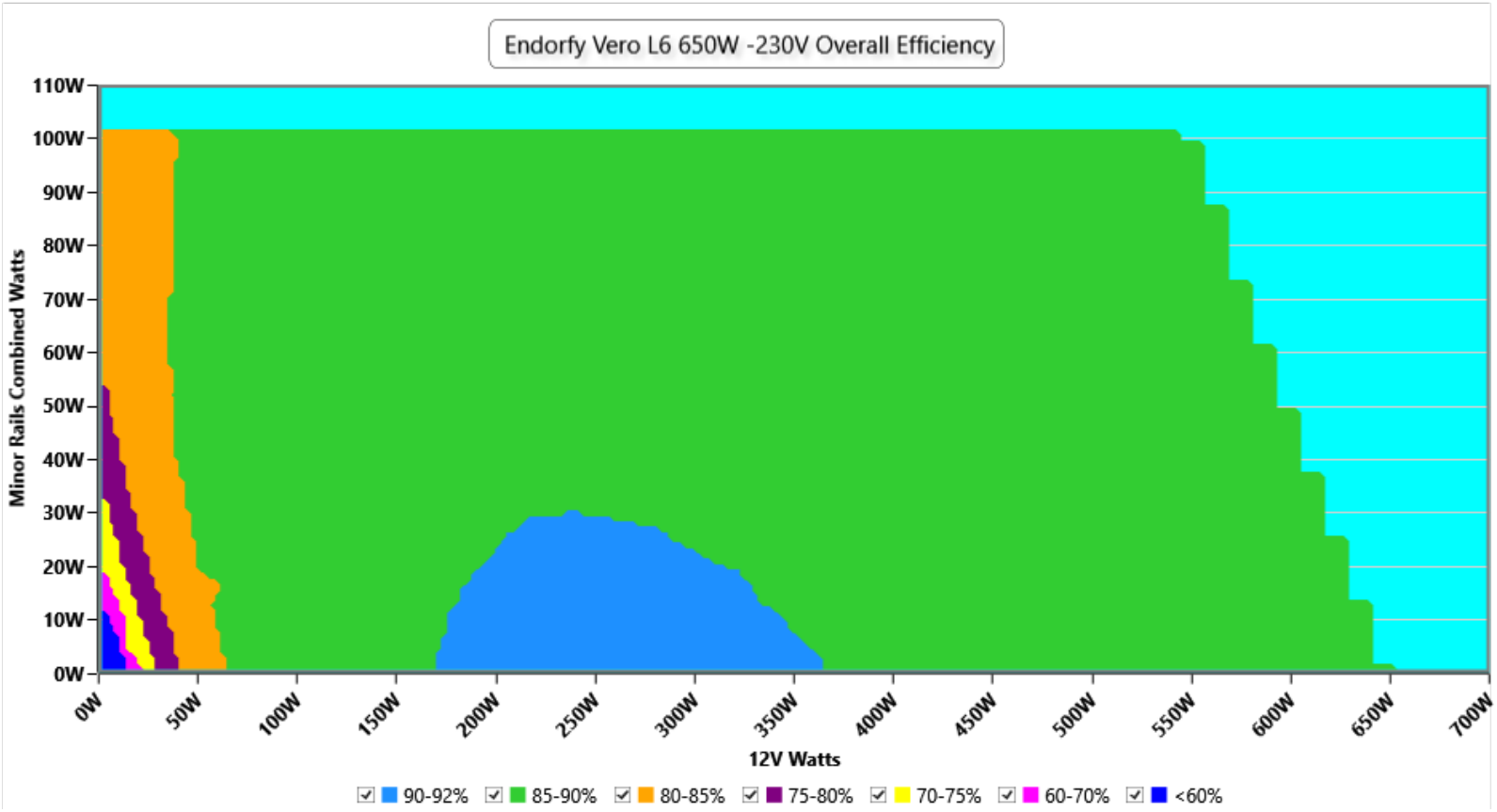
Stromverbrauch im Ruhezustand

Tables 230V

Detailed Results Average Min Limit Min Max Limit Max Result Mains Voltage RMS: 230.05 V 230.01 V 227.70 V 230.20 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: 0.146 W 0.103 W N/A 0.195 W N/A N/A Apparent Power: 21.804 W 21.764 W N/A 21.848 W N/A N/A Power Factor: 0.005 N/A N/A N/A N/A N/A

Efficiency Graph

230V

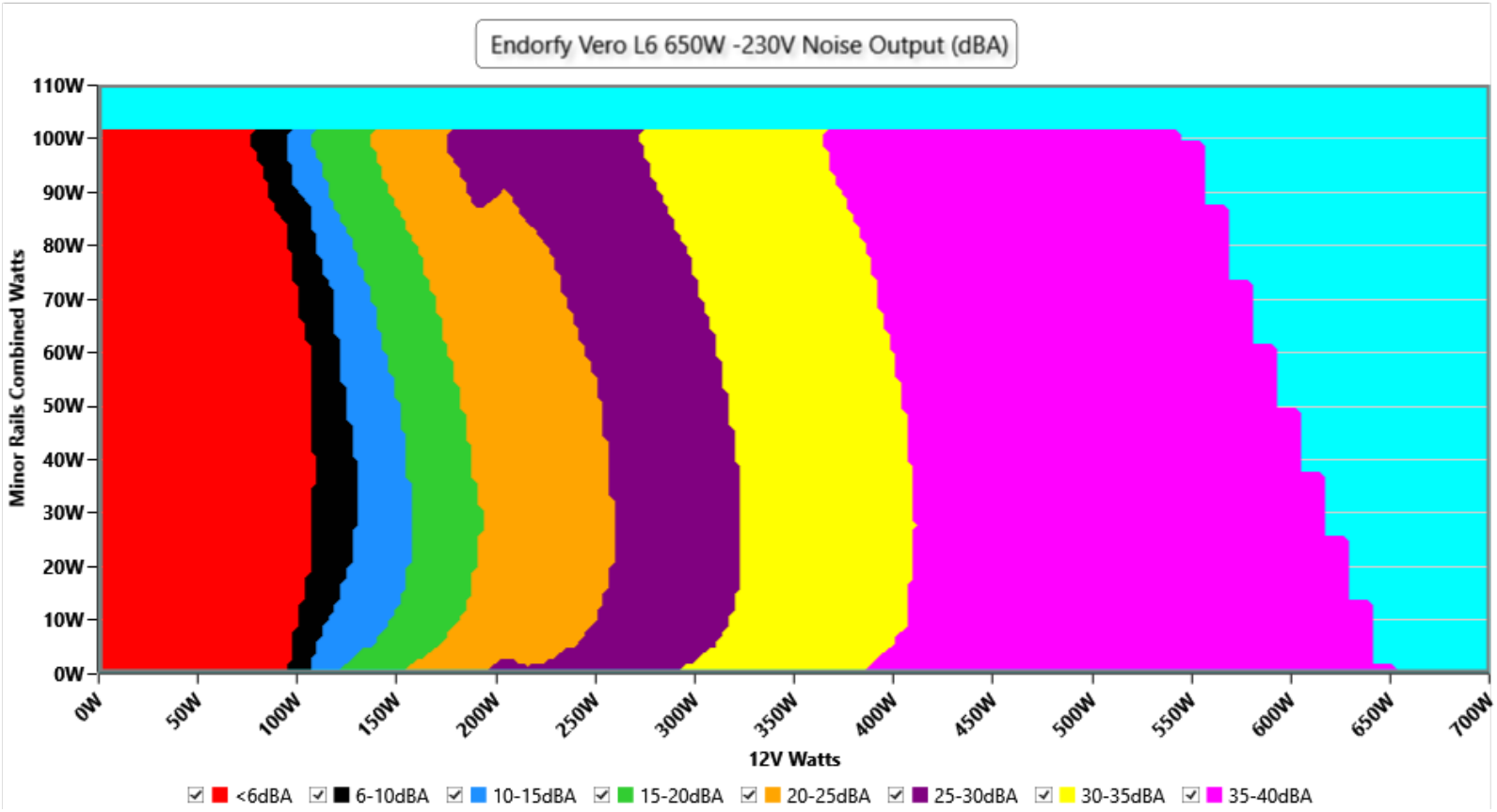


INFO

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

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)

230V

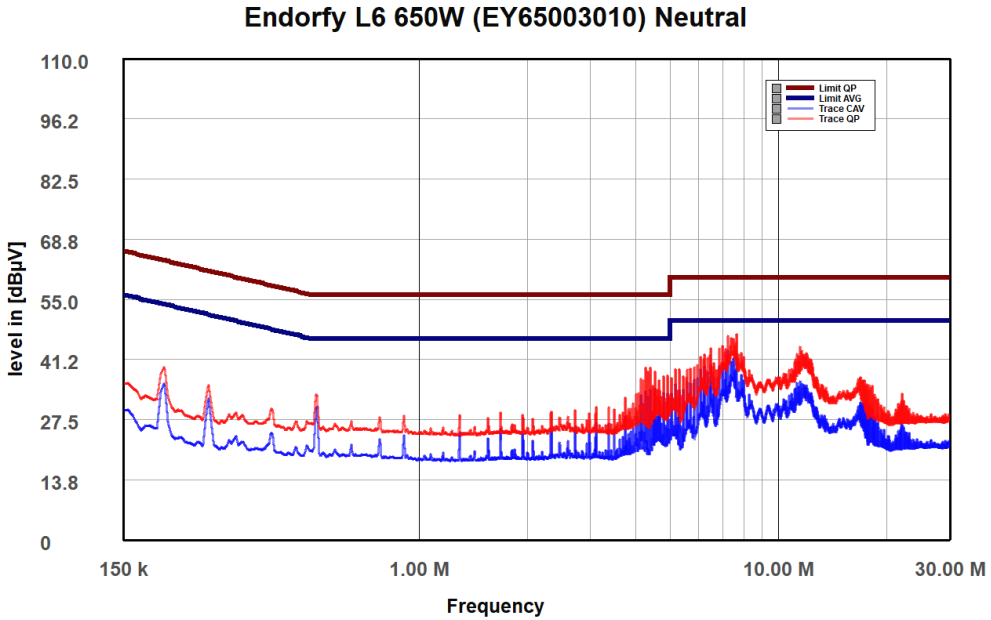
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	592 RPM · <6.0 dB(A) · 30.2 °C	911 RPM · 18.6 dB(A) · 40.5 °C	fan starts (<6.0 → 18.6)
20%	602 RPM · <6.0 dB(A) · 30.6 °C	1177 RPM · 26.5 dB(A) · 41.0 °C	fan starts (<6.0 → 26.5)
50%	1213 RPM · 27.6 dB(A) · 30.5 °C	1682 RPM · 36.3 dB(A) · 42.2 °C	**+8.7 dB(A)**
100%	1790 RPM · 38.0 dB(A) · 30.1 °C	1813 RPM · 38.4 dB(A) · 45.5 °C	**+0.4 dB(A)**

INFO

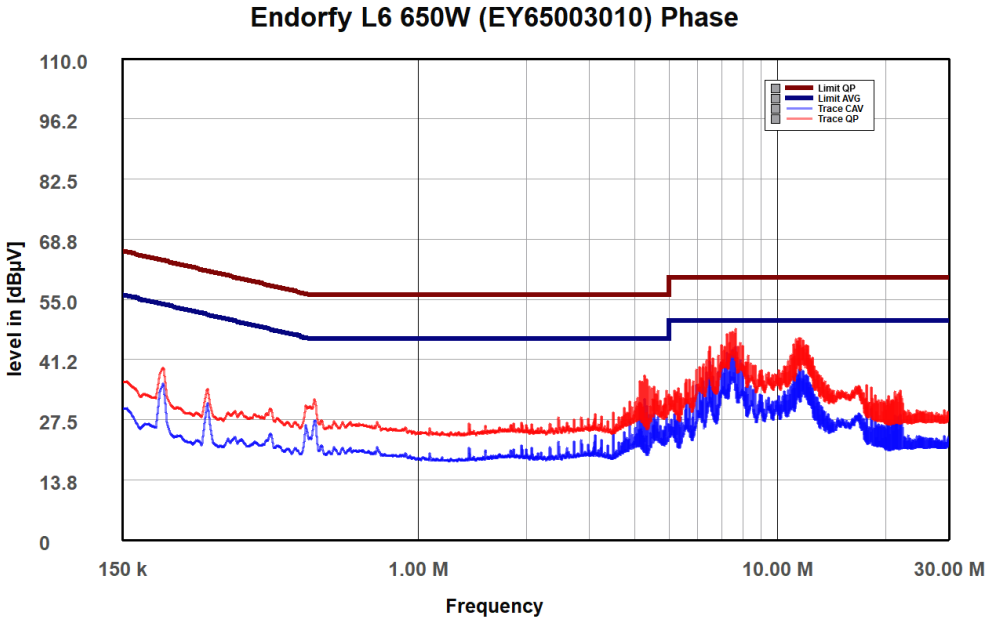
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative of how the fan behaves when it is hot. "<6.0" is the floor of our sound meter, with the fan stopped; 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



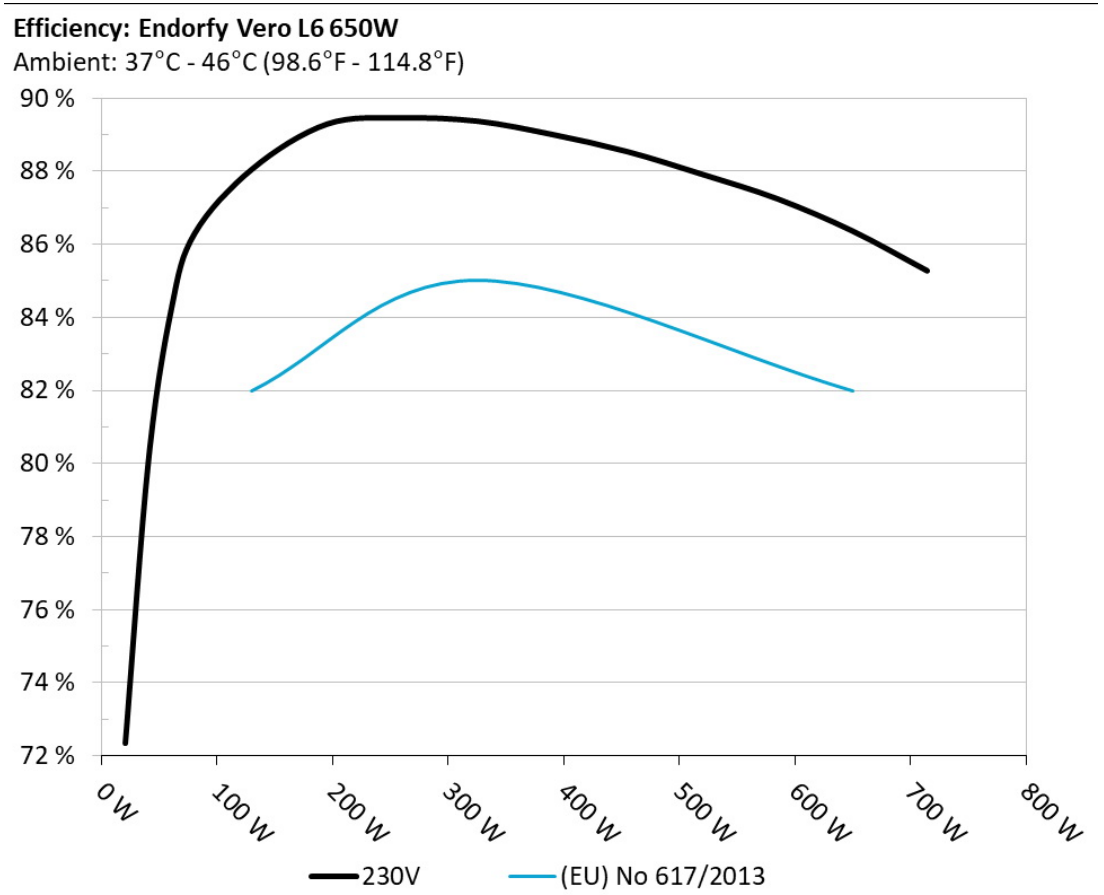
NEUTRAL



PHASE

Indicative Performance

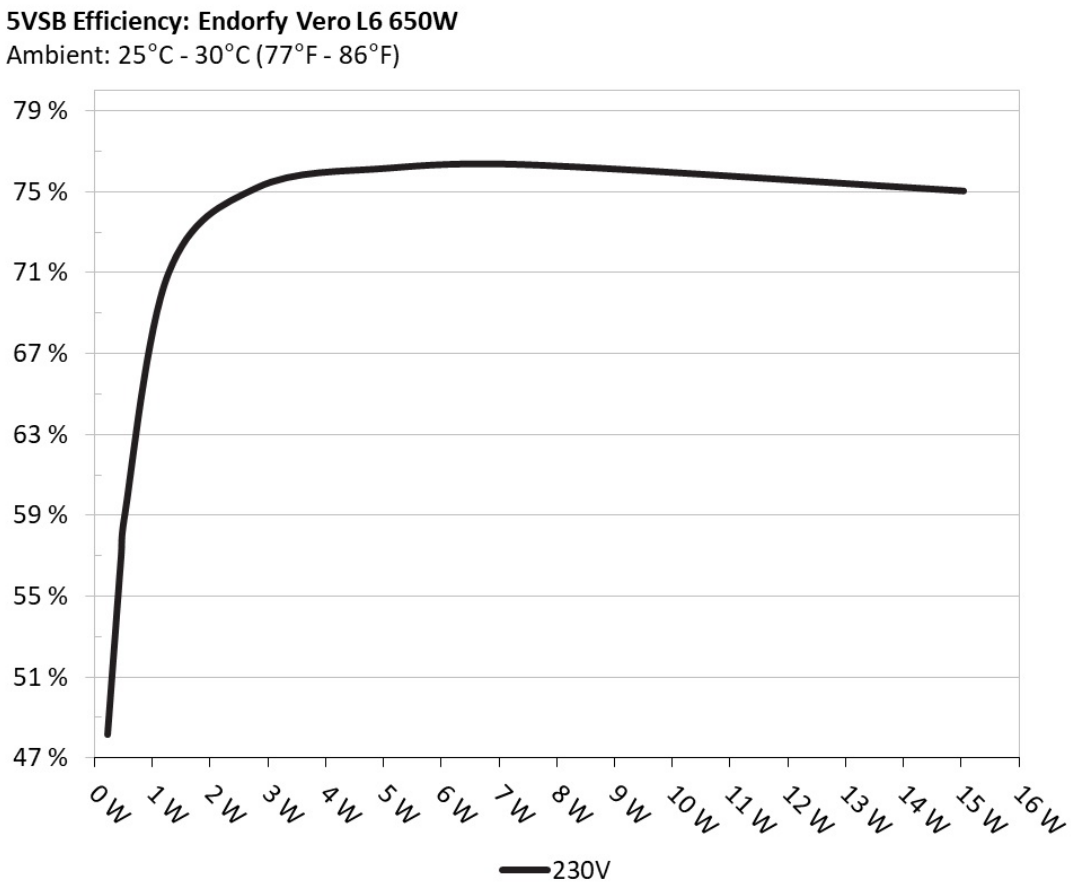
Efficiency under high ambient temperature



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) 230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.231W	48.178%	0.023
	5.142V	0.481W		230.06V

2	**0.09A**	0.463W	56.951%	0.038
	5.14V	0.813W		230.05V
3	**0.55A**	2.818W	75.21%	0.156
	5.121V	3.747W		230.01V
4	**1A**	5.104W	76.176%	0.236
	5.102V	6.7W		230.02V
5	**1.5A**	7.623W	76.327%	0.288
	5.081V	9.989W		230.04V
6	**3.001A**	15.047W	75.046%	0.367
	5.015V	20.049W		230.05V

Protection Features

OCP (Normal @ 29.2°C)	12V: 74.20A (137.41%), 12.108V 5V: 24.2A (121.00%), 5.006V 3.3V: 25.3A (126.50%), 3.277V 5VSB: 3.9A (130.00%), 4.933V
OCP (Hot @ 44.7°C)	12V: 72.60A (134.44%), 12.105V 5V: 23.9A (119.50%), 5.007V 3.3V: 25.2A (126.00%), 3.278V 5VSB: 3.9A (130.00%), 4.927V
OPP (Normal @ 30.8°C)	934.88W (143.83%)
OPP (Hot @ 43.4°C)	863.51W (132.85%)
OTP	✓ (103°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓
PWR_OK	Proper Operation
UVP (Full Load @ 180V)	✓
UVP (No Damage @ 170V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗

SIP	Surge: MOV Inrush: NTC

Supplementary Tests (For Reference)

Typical Load Tests 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%	**3.581A**	**1.982A**	**2.001A**	**0.982A**	65.015	83.459%	911	18.6	40.48°C	0.872
	12.122V	5.048V	3.298V	5.093V	77.901				44.98°C	230V
20%	**8.177A**	**2.975A**	**3.005A**	**1.181A**	129.98	88.053%	1177	26.5	40.99°C	0.938
	12.116V	5.044V	3.295V	5.08V	147.614				45.37°C	229.99V
30%	**13.124A**	**3.473A**	**3.509A**	**1.382A**	194.993	89.282%	1352	30.4	41.11°C	0.964
	12.110V	5.041V	3.292V	5.067V	218.401				45.49°C	229.98V
40%	**18.083A**	**3.971A**	**4.014A**	**1.583A**	260.09	89.447%	1567	34.5	41.6°C	0.973
	12.104V	5.038V	3.289V	5.054V	290.775				46.53°C	229.98V
50%	**22.696A**	**4.968A**	**5.022A**	**1.786A**	325.094	89.359%	1682	36.3	42.21°C	0.98
	12.098V	5.034V	3.286V	5.04V	363.805				47.23°C	229.97V
60%	**27.281A**	**5.966A**	**6.032A**	**1.991A**	389.704	88.997%	1761	37.7	42.75°C	0.983
	12.092V	5.031V	3.283V	5.025V	437.883				48.18°C	229.97V
70%	**31.924A**	**6.965A**	**7.044A**	**2.196A**	454.951	88.526%	1797	38.1	43.23°C	0.985
	12.086V	5.027V	3.28V	5.011V	513.916				49.57°C	230V
80%	**36.577A**	**7.963A**	**8.056A**	**2.3A**	519.722	87.907%	1806	38.3	43.75°C	0.987
	12.079V	5.023V	3.277V	5.001V	591.214				51.75°C	230.01V
90%	**41.635A**	**8.467A**	**8.551A**	**2.405A**	585.133	87.233%	1811	38.4	44.92°C	0.989
	12.072V	5.02V	3.274V	4.991V	670.768				54.54°C	230.01V
100%	**46.441A**	**8.969A**	**9.077A**	**3.028A**	649.971	86.355%	1813	38.4	45.46°C	0.99
	12.064V	5.018V	3.272V	4.956V	752.675				57.28°C	230.01V
110%	**51.125A**	**9.973A**	**10.186A**	**3.032A**	714.609	85.268%	1819	38.4	46.07°C	0.992
	12.055V	5.014V	3.269V	4.949V	838.076				61.76°C	230V
CL1	**0.116A**	**11.97A**	**12.069A**	**0A**	101.306	81.631%	1449	32.4	40.98°C	0.929
	12.119V	5.03V	3.289V	5.129V	124.101				46.83°C	230.07V

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**	**19.929A**	**0A**	**0A**	101.399	80.258%	1262	28.8	40.99°C	0.93
	12.123V	5.018V	3.301V	5.134V	126.342				46.71°C	230.06V
CL3	**0.115A**	**0A**	**20.097A**	**0A**	67.394	74.639%	1092	24.2	40.91°C	0.894
	12.121V	5.052V	3.284V	5.13V	90.292				46.05°C	230.07V
CL4	**53.863A**	**0A**	**0A**	**0.001A**	649.742	87.058%	1815	38.4	45.53°C	0.99
	12.063V	5.038V	3.282V	5.111V	746.331				55.57°C	230.01V

The results above are not used in the certification process

Light Load Tests 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	**1.226A**	**0.495A**	**0.5A**	**0.195A**	20.012	72.35%	615	<6.0	36.89°C	0.62
	12.126V	5.053V	3.302V	5.133V	27.661				40.05°C	230V
40W	**2.697A**	**0.693A**	**0.7A**	**0.293A**	40.01	80.066%	627	6.4	37.89°C	0.781
	12.124V	5.052V	3.3V	5.127V	49.967				41.94°C	230V
60W	**4.169A**	**0.891A**	**0.9A**	**0.391A**	60.008	84.251%	640	7.6	38.27°C	0.856
	12.122V	5.05V	3.299V	5.121V	71.226				42.94°C	230V
80W	**5.639A**	**1.09A**	**1.101A**	**0.489A**	79.981	86.288%	828	15.4	39.45°C	0.895
	12.120V	5.049V	3.298V	5.116V	92.659				43.9°C	230V

The results above are not used in the certification process

Ripple Measurements 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	9.62mV	11.33mV	8.29mV	8.30mV	Pass
20% Load	12.62mV	11.99mV	8.90mV	8.66mV	Pass
30% Load	16.28mV	11.94mV	9.20mV	9.93mV	Pass
40% Load	14.76mV	12.70mV	9.41mV	11.11mV	Pass
50% Load	17.25mV	12.70mV	10.07mV	13.04mV	Pass
60% Load	20.35mV	13.42mV	10.58mV	15.44mV	Pass
70% Load	21.22mV	14.08mV	11.60mV	17.07mV	Pass

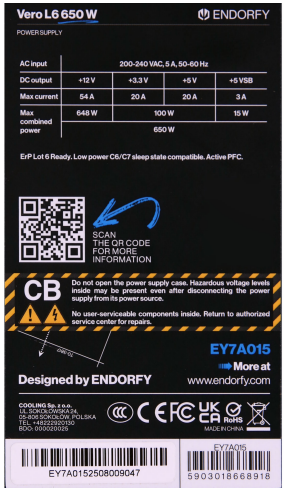
Test	12V	5V	3.3V	5VSB	Pass/Fail
80% Load	26.97mV	14.89mV	19.02mV	18.75mV	Pass
90% Load	33.07mV	16.27mV	19.79mV	20.38mV	Pass
100% Load	36.00mV	17.28mV	20.96mV	21.30mV	Pass
110% Load	41.86mV	18.45mV	22.78mV	22.30mV	Pass
Crossload1	11.07mV	17.22mV	20.04mV	9.18mV	Pass
Crossload2	13.33mV	25.30mV	9.16mV	8.05mV	Pass
Crossload3	13.43mV	12.50mV	28.53mV	10.70mV	Pass
Crossload4	38.98mV	13.30mV	12.36mV	13.25mV	Pass

The results above are not used in the certification process

Endorfy Vero L6 650W



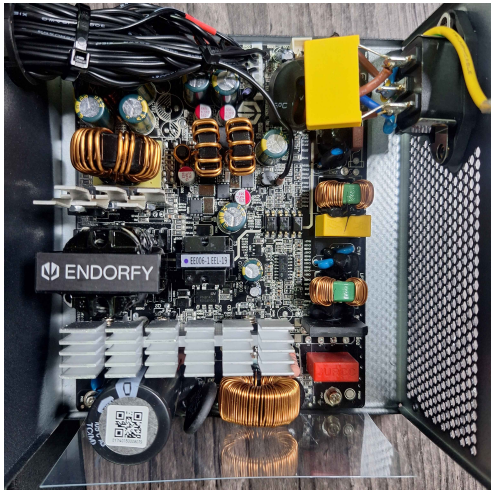
Top side



Power specifications label



Fan



PSU Internals

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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