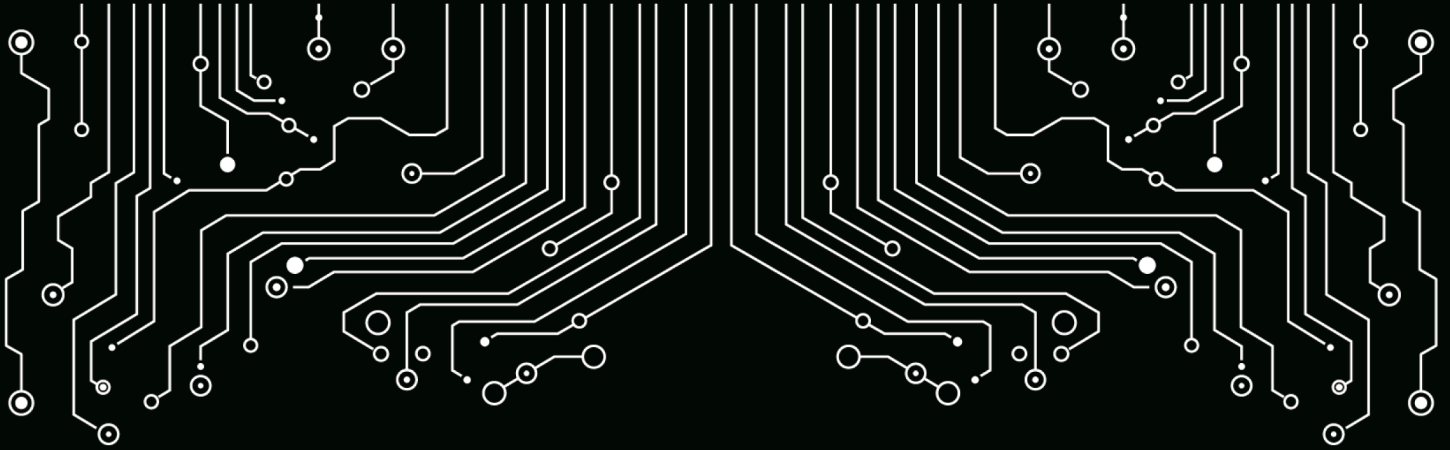
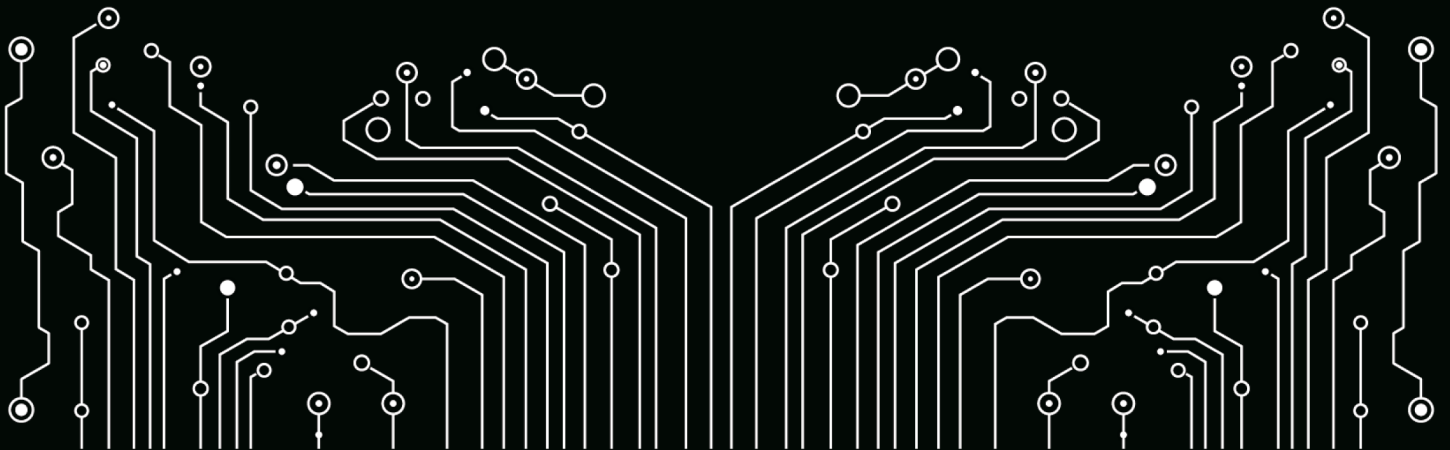


ALPHA MINER

PSU-1000 | PSU-1600 | PSU-1800 | PSU-2000



ALPHA MINER



MANUAL & TROUBLESHOOTING GUIDE

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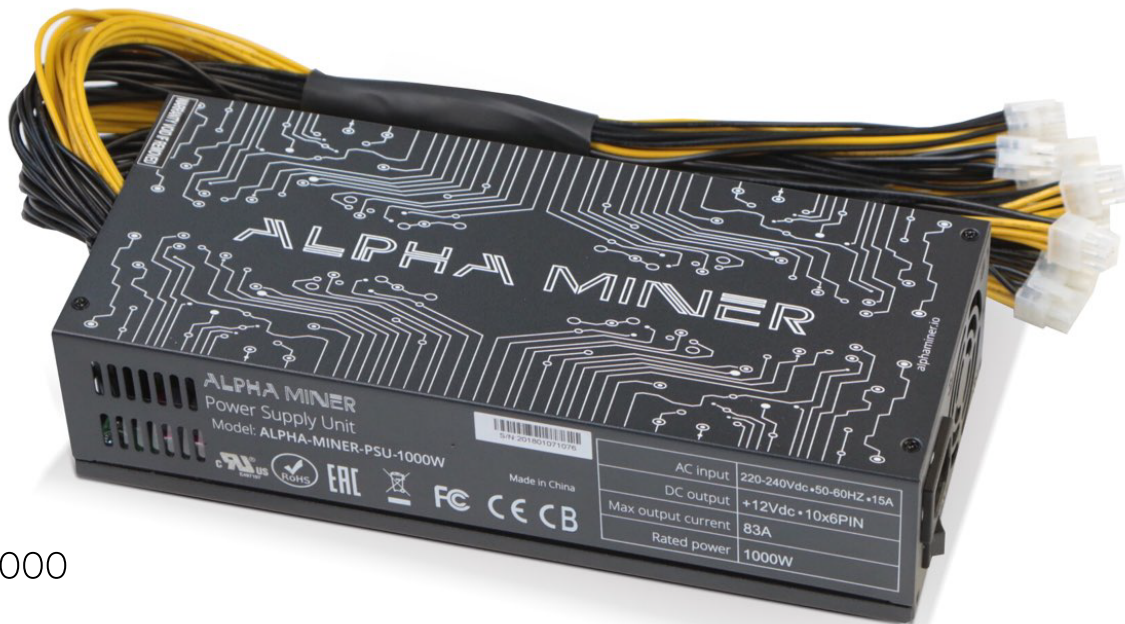
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INTRODUCTION

Thank you for purchasing the Alpha Miner power supply.

This power supply features 1000 to 2000 Watts of continuous power delivery with at up to 93% efficiency, clean voltage output, every possible protection, and operational stability. Alpha Miner PSU are professional grade devices built to provide the best efficiency in toughest conditions, reliably working 24/7/365 even with overclocked systems.



PSU-1000

WHAT'S IN THE BOX?

Included with your Alpha Miner power supply offers the following items for proper installation and optional testing:

- Alpha Miner Power Supply - 1
- Power Cord Cable - 1

SAFETY INFORMATION

WARNING!

- This unit has no user-serviceable parts inside. Opening the casing presents a risk of electrocution and will void the product's warranty. Alpha Miner will not be responsible for any result of improper use, including but not limited to, any use of the product outside of its intended purpose or use inconsistent with the warranty terms available online. Warranty information and manuals are available at www.alphaminer.io/support.
- Alpha Miner PSU must be connected to 180V – 240V electrical power. **THEY WILL NOT WORK FROM 110V.** If you intend to use Alpha Miner PSU in a household in North America or another country with residential 100V-120V grid, make sure it is connected to a three phase 220V electrical outlet such as used to power your electrical dryer, for example.
- Install in accordance with all manufacturer's instruction and safety warnings. Failure to do so may result in damage to your power supply or system, and may cause a serious **INJURY OR EVEN DEATH.**
- High voltages are present in the power supply. **DO NOT OPEN** the power supply case or attempt to repair the power supply; there are no user-serviceable components.
- The PSU is designed for indoor use only.
- Do not use PSU near water or in temperature or humidity beyond the limits set in the Specifications.
- Do not insert or place any objects into any PSU openings.
- Do not modify the cables or connectors.

Failure to comply with any manufacturer instructions and/or any of these safety instructions voids all the warranties and guarantees.

FEATURES

STABLE POWER

To allow the highest possible overclock while providing the most stable and reliable power to all components, Alpha Miner PSUs have outstanding electrical performance with very stable voltage and clean power output.

TOP QUALITY PROTECTION

Alpha Miner PSU have top notch fire safety protect user equipment by providing every single protection:

- OVP (Over Voltage Protection)
- UVP (Under Voltage Protection)
- SCP (Short Circuit Protection)
- OCP (Over Current Protection)
- OTP (Over Temperature Protection)
- OPP (Over Power Protection)
- Off switch

REGULATORY PROTECTION

Alpha Miner PSU are built to be safely and legally used in commercial operations and feature a suite of certifications:

- UL 60950-1: 2007*
- CE/EMC EN 55032:2015; EN 6100-3-2-2014; EN 61000-3-3-2013; EN 55035-2017
- CE/LVD EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
- CB IEC 61558
- EAC 004/2011; 020/2011; IEC 60950-1-2014; 30804.3.2-2013; 30804.3.3-2013; 30805.22-2013
- RoHS 2002/95/EC
- FCC Rules 15, Part B

ALPHA MINER



EAC



FC

CE

CB



* UL Recognized component. Requires UL installation inspection in commercial applications.

FEATURES

HIGHEST EFFICIENCY

Alpha Miner PSU-1000, PSU-1600, and PSU-2000 are 80 Plus Gold certified and provide efficiency up to 93%, costing users less to operate high wattage equipment.

SUPERIOR BUILD QUALITY

Alpha Miner PSU are built to power high wattage equipment 24/7/365, providing the highest level of protection to expensive equipment, to premises it is in, and business running it. The used components allow non-stop operation in facilities without heating or air conditioning, including in freezing temperatures as low as -4°F/-20°C and in heat as high as 122°F/50°C.

WARRANTY

Our PSU come covered with a one-year manufacturer warranty.

INSTALLATION

- Unpack the product
- Connect the enclosed power cable to the PSU
- Connect PCI-E connectors to PCI-E ports on your equipment, one at a time. Pull the wire harnesses lightly to make sure 6-pin Molex connectors fastened securely
- Connect the enclosed power cable to a 220V (180V-240V) electrical outlet. Check to make sure the connection is secure
- Turn On the switch on the PSU front
- Turn On the connected equipment if necessary

WARNING: Do not block the fan, allow air access. Do not wrap the PSU in any kind of material. Do not have any flammable material touch the PSU during operation.

TROUBLESHOOTING

1. Make sure the PSU is plugged into 220V outlet, NOT 110V.
2. Switch PSU on to make sure the fan is working. If it doesn't, check the power cord connection and voltage in your electrical grid.
3. Switch PSU off using the switch on the front, connect to a miner. All connectors must be connected to the miner properly.
4. Once all 6-PIN PCI-E Molex connectors are properly plugged in, switch the PSU on.
5. If the PSU shuts down, wait 30 minutes and turn it back on.
6. If a PSU shuts down and doesn't go back up after 30 minutes, it is not enough to turn it off/on with a power switch - also the cable needs to be disconnected from the PSU. This is because the high wattage PSUs feature high volume capacitors and de-facto the chain is closed with this cable, so the remaining charge will not go anywhere. It will be fixed in place by processors thus not allowing to re-start the PSU. The most likely reason for that is bad quality connection to the miner power ports, so please recheck the connection to your equipment.
7. If PSU still does not work, replace it with another PSU and try again. If a replacement PSU works, fill out the RMA form and send it with the problematic PSU to us.

The best way to solve the problem is to make a video of what you do and how it happens. You can upload the video onto any platform where we can watch it and send us a link. Detailed pictures of PSU connected to a miner will do if for some reason a video does not work.

CONTACT


For support please contact us at [**support@alphaminer.io**](mailto:support@alphaminer.io)

For sales, dealer, and distributor inquiries please contact us at [**sales@alphaminer.io**](mailto:sales@alphaminer.io)

ALPHA MINER PSU-1000 SPECIFICATIONS

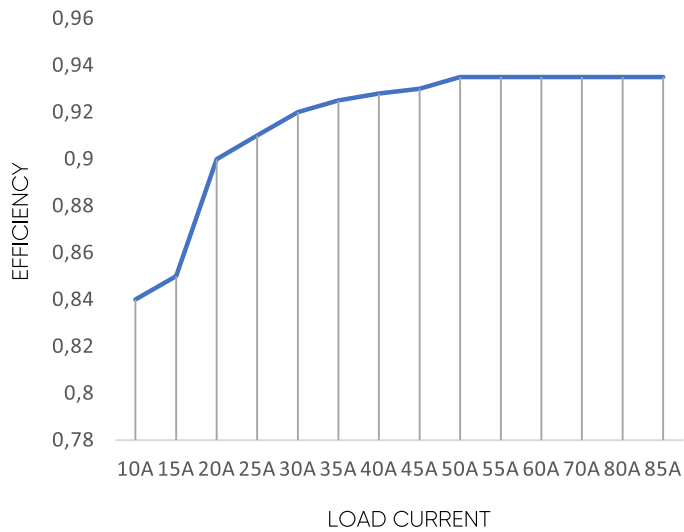
Output	DC Voltage	12V
	Rated Current (220V input)	83A
	Rated Power (220V input)	1000 W
	Ripple & Noise	<1%
	Voltage Regulation	<2%
	Source Regulation	<1%
	Load Regulation	<1%
	Setup, Rise Time	<2S
	Power off Protection Trip Time	>9mS
	Noise Level	72 dB
	Interface Type	10 6-pin PCI-E connectors
Input	Voltage Range	180-240V AC
	Starting Voltage	170V AC
	Frequency Range	50-60 Hz
	Power Factor	>0.94 (full load)
	Leakage Current	<1.5mA (220V 50Hz)
Protection	Under Voltage Protection (UVP)	Yes, 135-155V AC
	Over Voltage Protection (OVP)	Yes
	Short Circuit Protection (SCP)	Yes
	Over Current Protection (OCP)	Yes, 182-266A
	Over Temperature Protection (OTP)	Yes
	Over Power Protection (OPP)	Yes
	Power Switch	Input Switch
Environmental Conditions	Operating Temperature	-4°F - 122°F or -20°C - 50°C
	Operating Humidity	20% - 90% relative humidity (non-condensing)
Individual packaging	Dimensions	13.6" x 7.5" x 4.1" or 345 * 190 * 105 mm
	Weight	5.8 lbs. or 2.6 kg
Unit	Dimensions	10.5" x 4.3" x 2.5" or 267 * 110 * 64 mm
	Weight	4.63 lbs. or 2.1 kg
Cooling type	Fan	Forced-air cooling
	Cooling time	10 seconds after switching off

EFFICIENCY ACCORDING TO 80 PLUS GOLD CERTIFICATION

	Alpha Miner PSU 1000	
	Load	Efficiency
	20%	91.25%
	50%	93.93%
	100%	93.43%

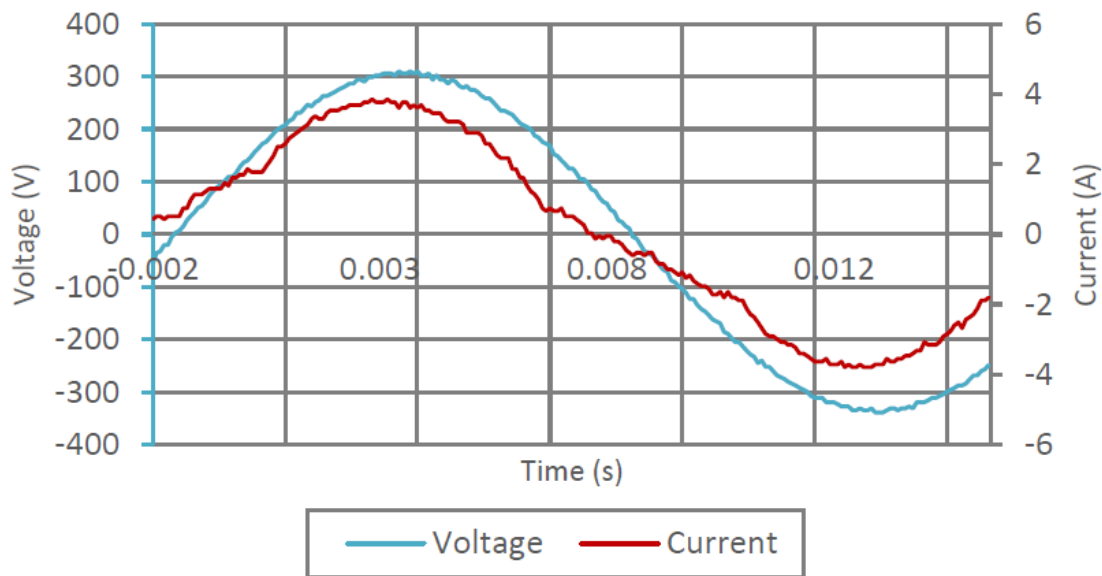
ALPHA MINER PSU-1000 SPECIFICATIONS

Power efficiency curve



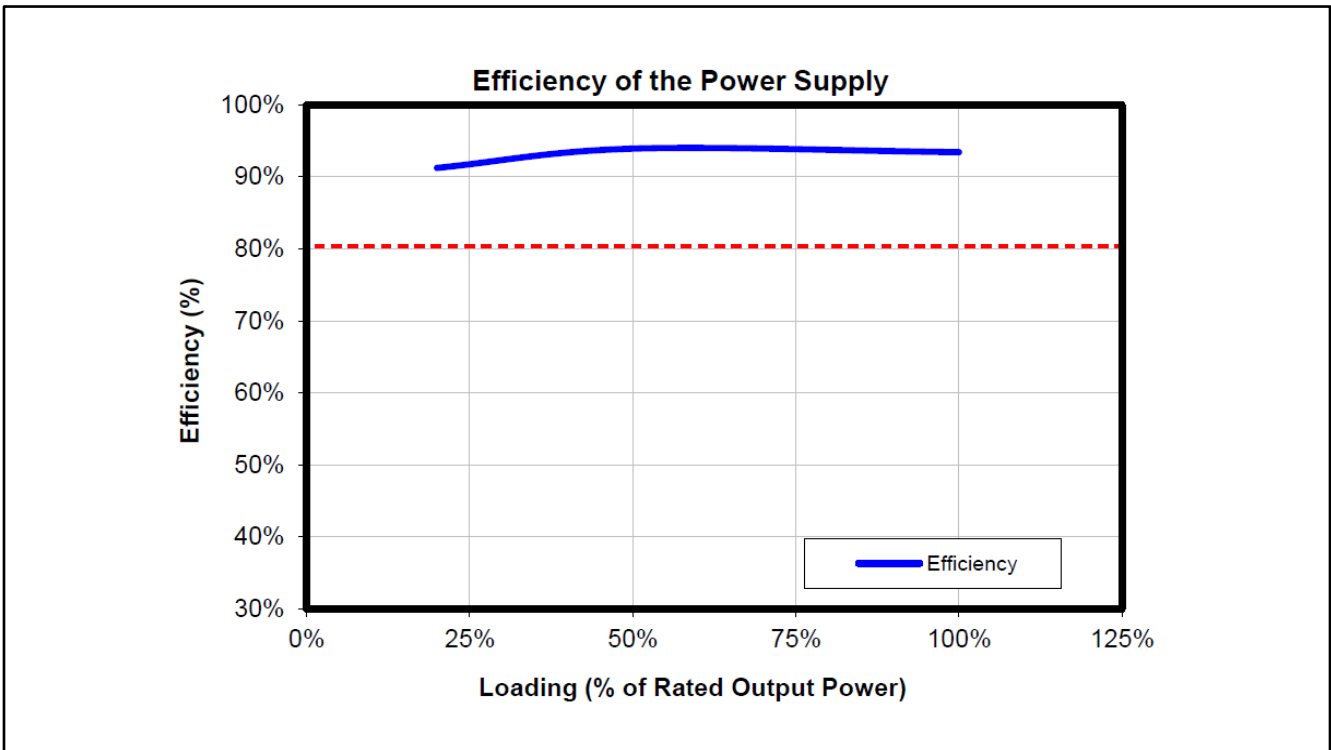
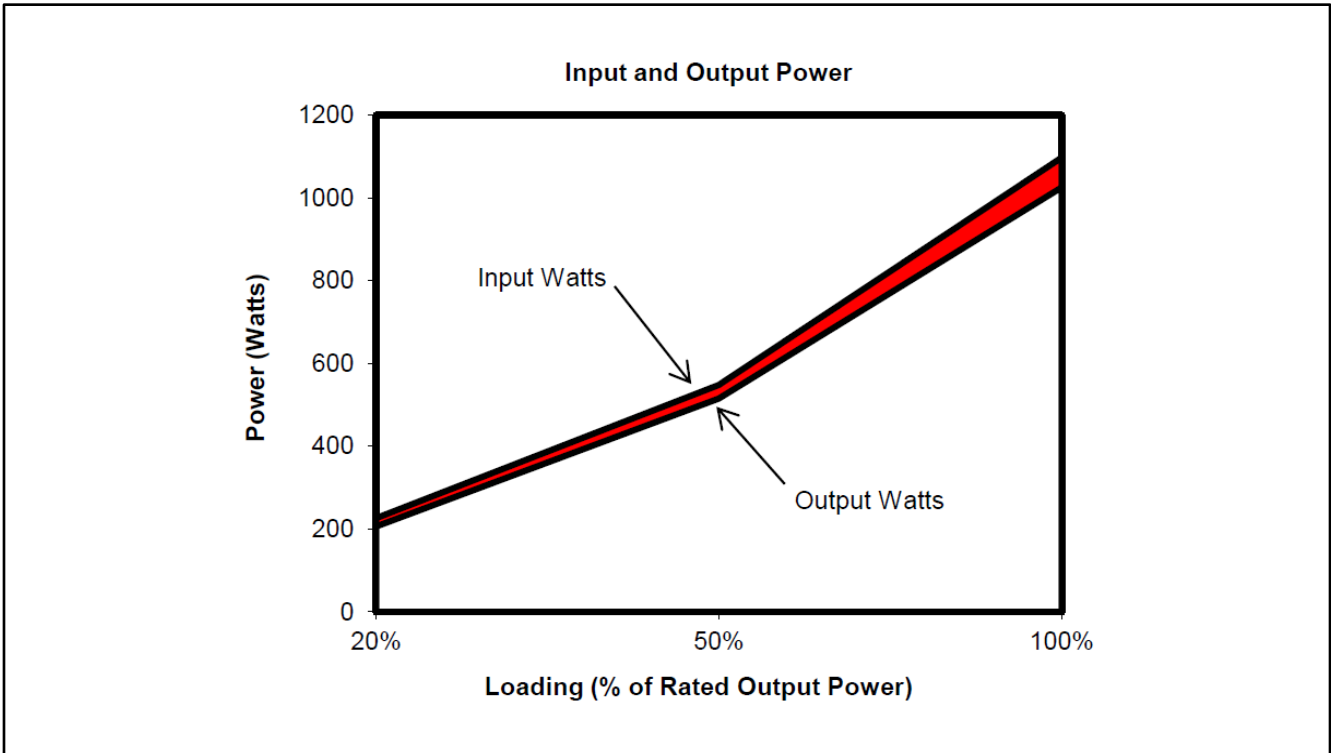
Load Current	Efficiency
10A	0,84
15A	0,85
20A	0,9
25A	0,91
30A	0,92
35A	0,925
40A	0,928
45A	0,93
50A	0,935
55A	0,935
60A	0,935
70A	0,935
80A	0,935
85A	0,935

Input Current and Voltage Waveforms



Input AC Current Waveform (ITHD = 14.19%, 50% Load)

ALPHA MINER PSU-1000 SPECIFICATIONS



ALPHA MINER PSU-1600 SPECIFICATIONS

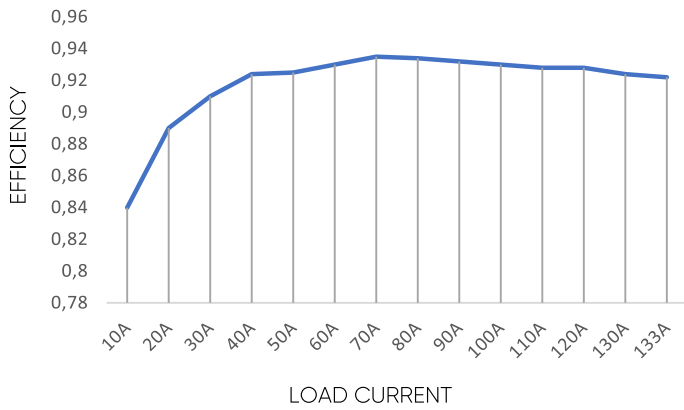
Output	DC Voltage	12V
	Rated Current (220V input)	133A
	Rated Power (220V input)	1 600 W
	Ripple & Noise	<1%
	Voltage Regulation	<2%
	Source Regulation	<1%
	Load Regulation	<1%
	Setup, Rise Time	<2S
	Power off Protection Trip Time	>9mS
	Noise Level	72 dB
	Interface Type	10 6-pin PCI-E connectors
Input	Voltage Range	180-240V AC
	Starting Voltage	170V AC
	Frequency Range	50-60 Hz
	Power Factor	>0.94 (full load)
	Leakage Current	<1.5mA (220V 50Hz)
Protection	Under Voltage Protection (UVP)	Yes, 135-155V AC
	Over Voltage Protection (OVP)	Yes
	Short Circuit Protection (SCP)	Yes
	Over Current Protection (OCP)	Yes, 182-266A
	Over Temperature Protection (OTP)	Yes
	Over Power Protection (OPP)	Yes
	Power Switch	Input Switch
Environmental Conditions	Operating Temperature	-4°F - 122°F or -20°C - 50°C
	Operating Humidity	20% - 90% relative humidity (non-condensing)
Individual packaging	Dimensions	13.6" x 7.5" x 4.1" or 345 * 190 * 105 mm
	Weight	5.8 lbs. or 2.6 kg
Unit	Dimensions	10.5" x 4.3" x 2.5" or 267 * 110 * 64 mm
	Weight	4.63 lbs. or 2.1 kg
Cooling type	Fan	Forced-air cooling
	Cooling time	10 seconds after switching off

EFFICIENCY ACCORDING TO 80 PLUS GOLD CERTIFICATION

Alpha Miner PSU 1600		
80 PLUS GOLD	Load	Efficiency
	20%	93.21%
	50%	93.78%
	100%	91.23%

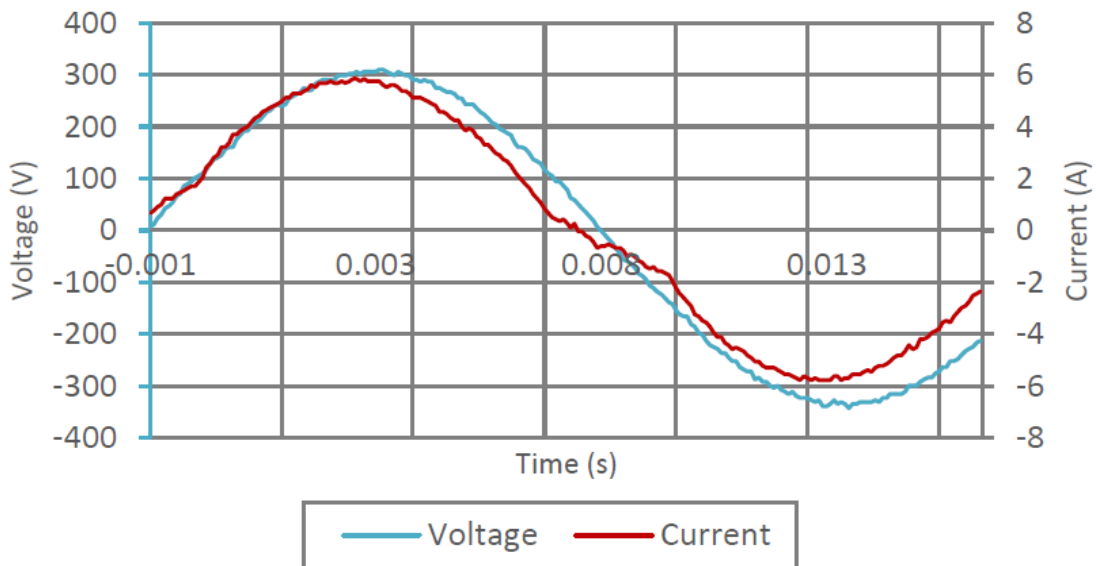
ALPHA MINER PSU-1600 SPECIFICATIONS

Power efficiency curve



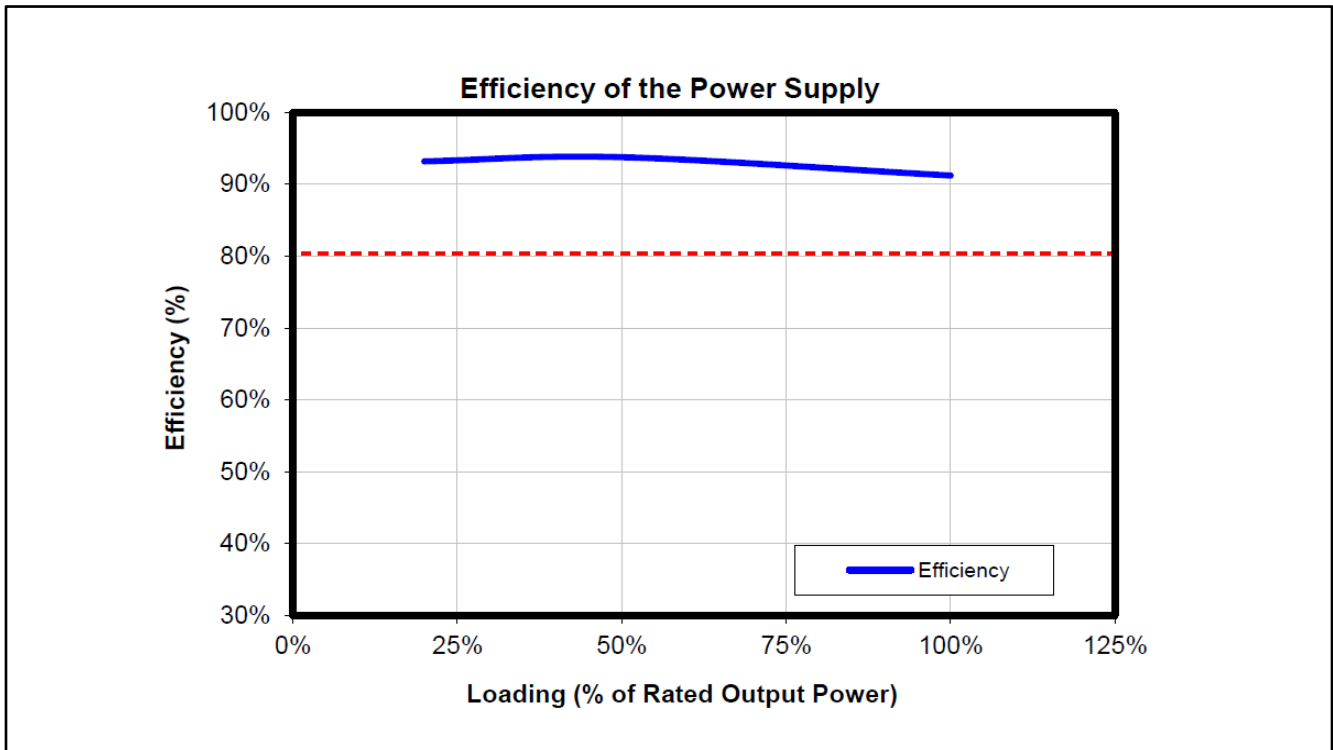
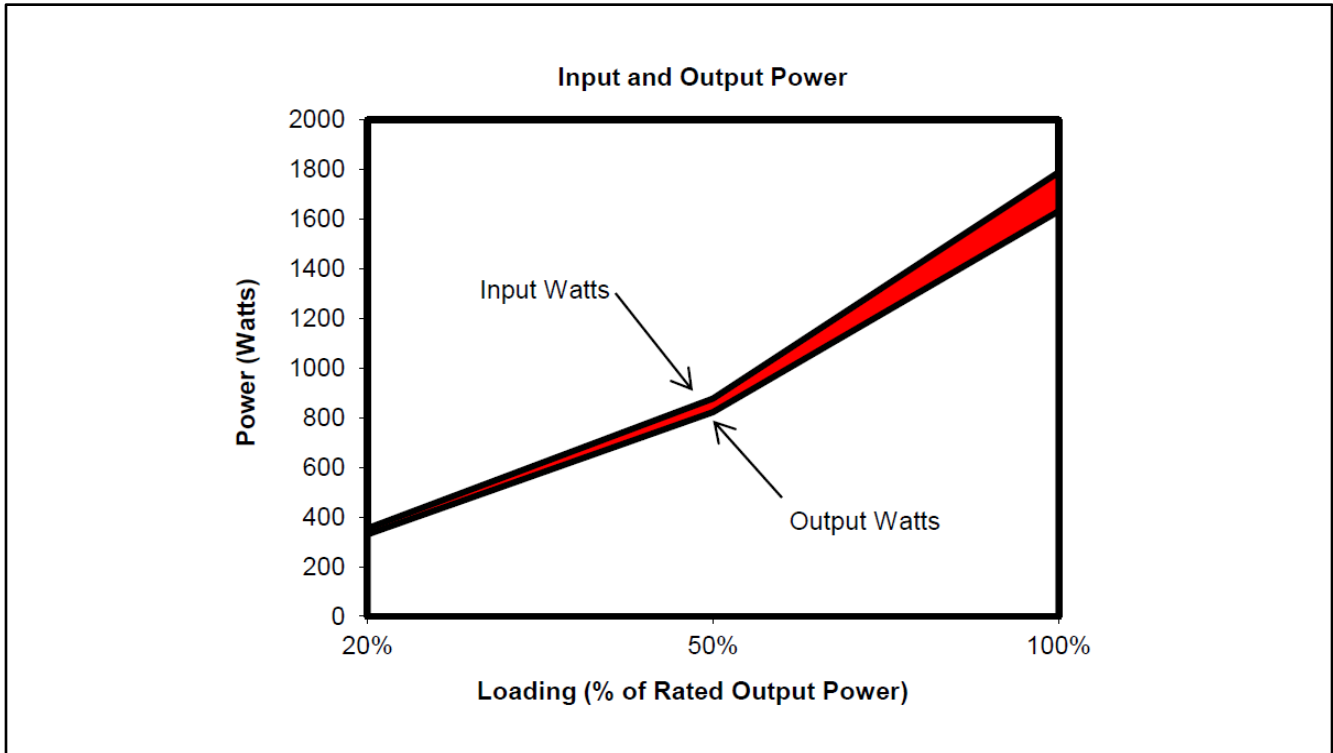
Load Current	Efficiency
10A	0,84
20A	0,89
30A	0,91
40A	0,924
50A	0,925
60A	0,93
70A	0,935
80A	0,934
90A	0,932
100A	0,93
110A	0,928
120A	0,928
130A	0,924
133A	0,922

Input Current and Voltage Waveforms



Input AC Current Waveform (ITHD = 10.45%, 50% Load)

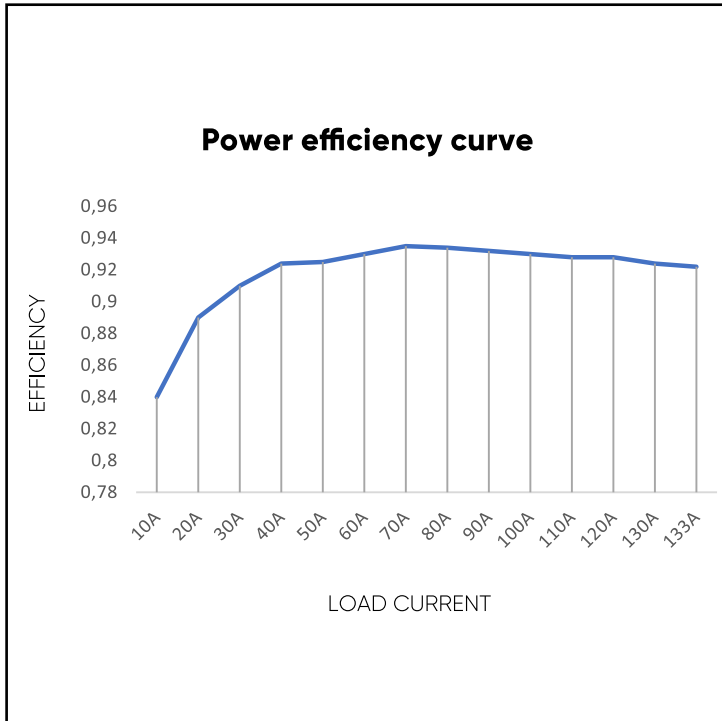
ALPHA MINER PSU-1600 SPECIFICATIONS



ALPHA MINER PSU-1800 SPECIFICATIONS

Output	DC Voltage	12V
	Rated Current (220V input)	150A
	Rated Power (220V input)	1 800 W
	Ripple & Noise	<1%
	Voltage Regulation	<2%
	Source Regulation	<1%
	Load Regulation	<1%
	Setup, Rise Time	<2S
	Power off Protection Trip Time	>9mS
	Noise Level	72 dB
	Interface Type	10 6-pin PCI-E connectors
Input	Voltage Range	180-240V AC
	Starting Voltage	170V AC
	Frequency Range	50-60 Hz
	Power Factor	>0.94 (full load)
	Leakage Current	<1.5mA (220V 50Hz)
Protection	Under Voltage Protection (UVP)	Yes, 135-155V AC
	Over Voltage Protection (OVP)	Yes
	Short Circuit Protection (SCP)	Yes
	Over Current Protection (OCP)	Yes, 182-266A
	Over Temperature Protection (OTP)	Yes
	Over Power Protection (OPP)	Yes
Power Switch	Input Switch	
Environmental Conditions	Operating Temperature	-4°F - 122°F or -20°C - 50°C
	Operating Humidity	20% - 90% relative humidity (non-condensing)
Individual packaging	Dimensions	13.6" x 7.5" x 4.1" or 345 * 190 * 105 mm
	Weight	5.8 lbs. or 2.6 kg
Unit	Dimensions	10.5" x 4.3" x 2.5" or 267 * 110 * 64 mm
	Weight	4.63 lbs. or 2.1 kg
Cooling type	Fan	Forced-air cooling
	Cooling time	10 seconds after switching off

ALPHA MINER PSU-1800 SPECIFICATIONS




Load Current	Efficiency
10A	0,84
20A	0,89
30A	0,91
40A	0,924
50A	0,925
60A	0,93
70A	0,935
80A	0,934
90A	0,932
100A	0,93
110A	0,928
120A	0,928
130A	0,924
140A	0,922
150A	0,924

ALPHA MINER PSU-2000 SPECIFICATIONS

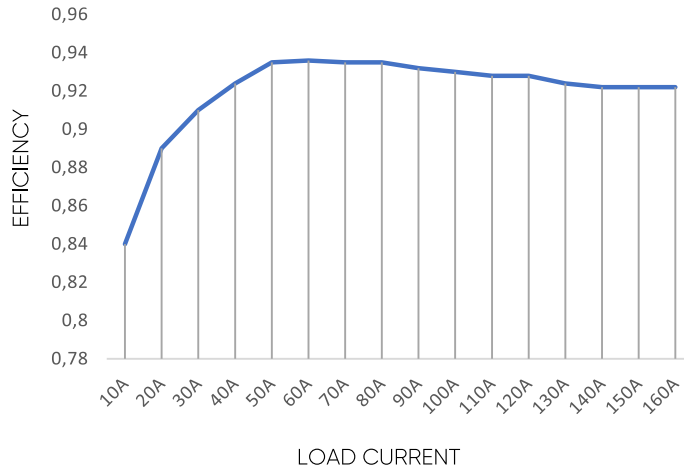
Output	DC Voltage	12V
	Rated Current (220V input)	166A
	Rated Power (220V input)	2000W
	Ripple & Noise	<1%
	Voltage Regulation	<2%
	Source Regulation	<1%
	Load Regulation	<1%
	Setup, Rise Time	<2S
	Power off Protection Trip Time	>9mS
	Noise Level	72 dB
	Interface Type	20 6-pin PCI-E connectors
Input	Voltage Range	180-240V AC
	Starting Voltage	170V AC
	Frequency Range	50-60 Hz
	Power Factor	>0.94 (full load)
	Leakage Current	<1.5mA (220V 50Hz)
Protection	Under Voltage Protection (UVP)	Yes, 135-155V AC
	Over Voltage Protection (OVP)	Yes
	Short Circuit Protection (SCP)	Yes
	Over Current Protection (OCP)	Yes, 182-266A
	Over Temperature Protection (OTP)	Yes
	Over Power Protection (OPP)	Yes
	Power Switch	Input Switch
Environmental Conditions	Operating Temperature	-4°F - 122°F or -20°C - 50°C
	Operating Humidity	20% - 90% relative humidity (non-condensing)
Individual packaging	Dimensions	13.6" x 7.5" x 4.1" or 345 * 190 * 105 mm
	Weight	6.2 lbs or 2.8 kg
Unit	Dimensions	10.5" x 4.3" x 2.5" or 267 * 110 * 64 mm
	Weight	5.07 lbs. or 2.3 kg
Cooling type	Fan	Forced-air cooling
	Cooling time	10 seconds after switching off

EFFICIENCY ACCORDING TO 80 PLUS GOLD CERTIFICATION

	Alpha Miner PSU 2000	
	Load	Efficiency
	20%	93.84%
	50%	93.57%
	100%	89%

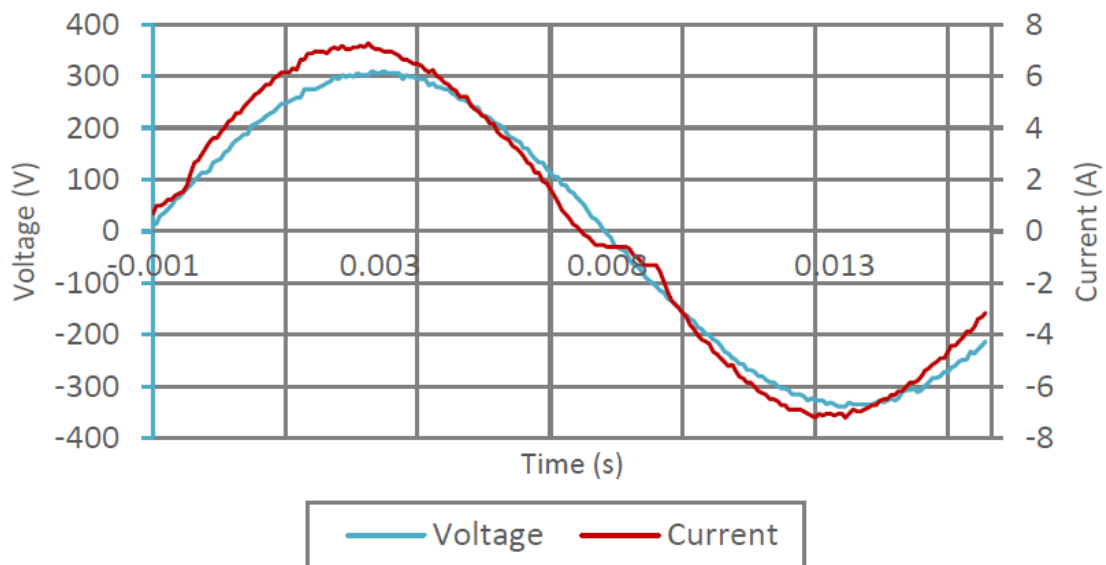
ALPHA MINER PSU-2000 SPECIFICATIONS

Power efficiency curve



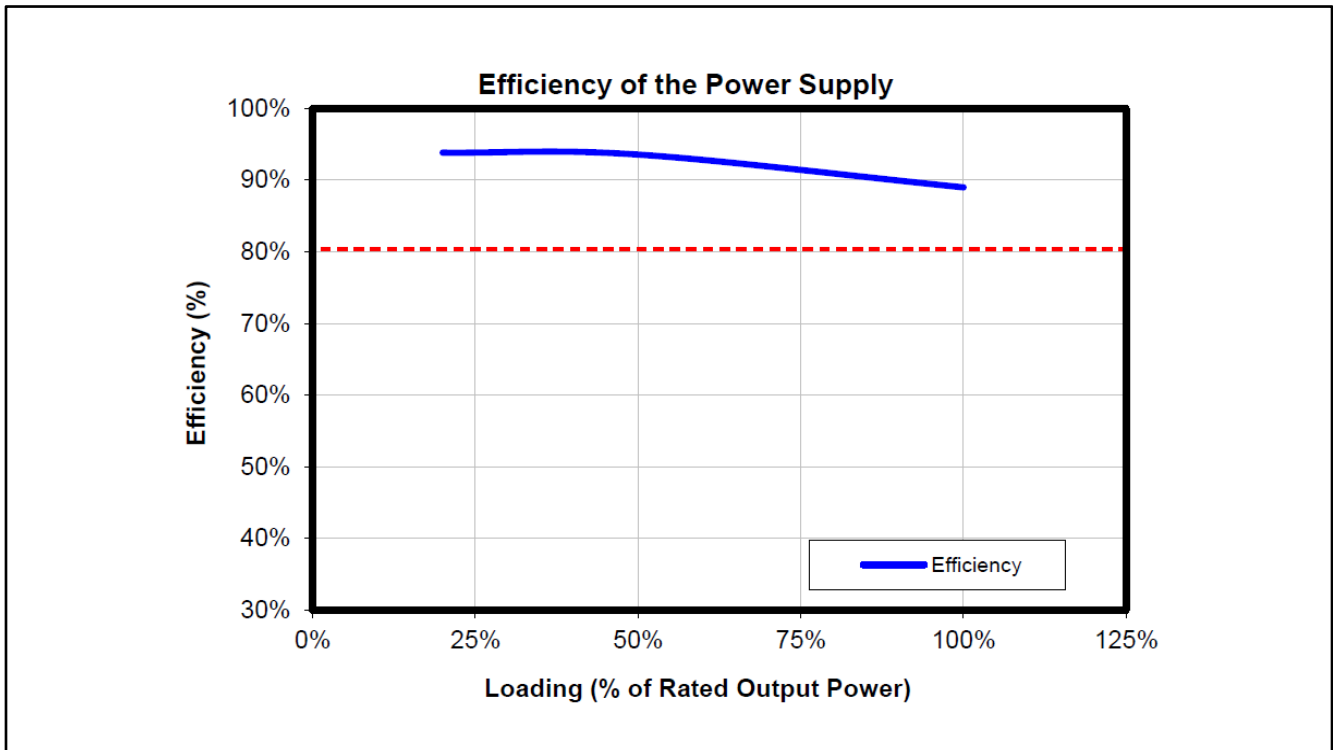
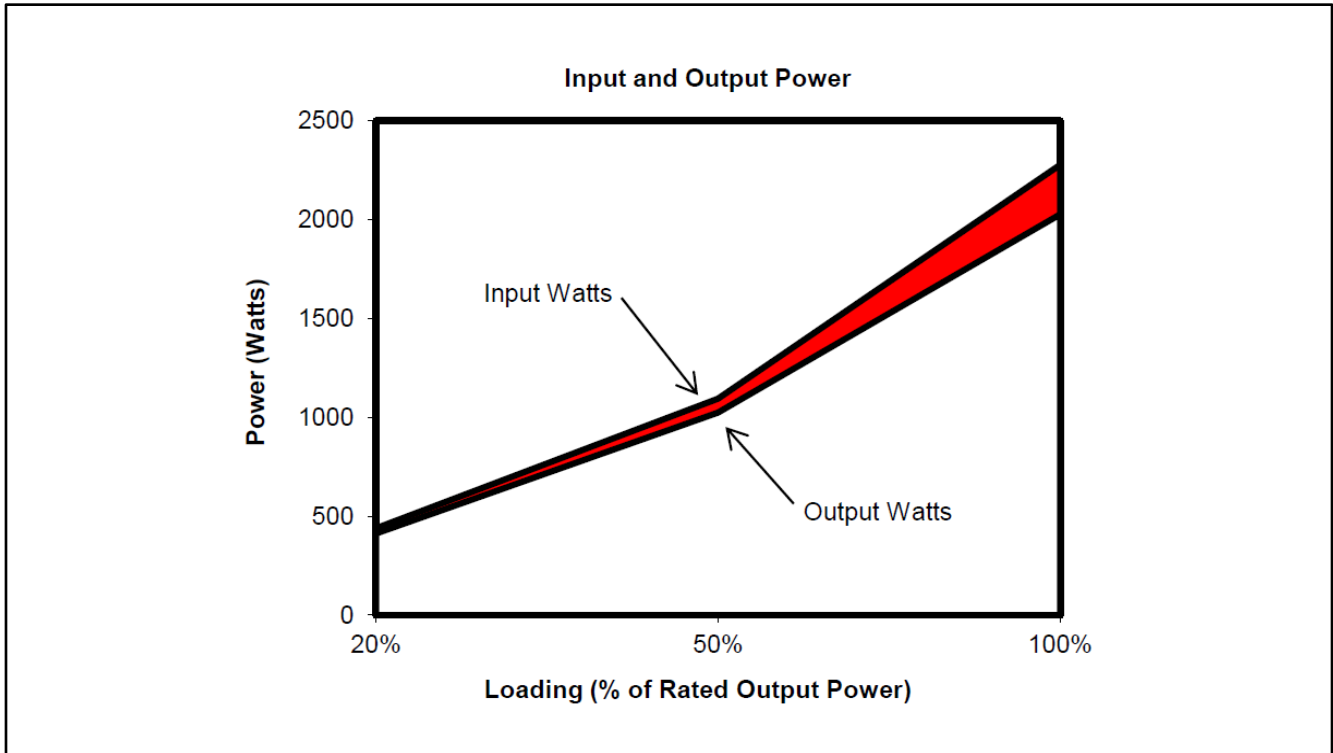
Load Current	Efficiency
10A	0,84
20A	0,89
30A	0,91
40A	0,924
50A	0,925
60A	0,93
70A	0,935
80A	0,934
90A	0,932
100A	0,93
110A	0,928
120A	0,928
130A	0,924
140A	0,922
150A	0,922
160A	0,922

Input Current and Voltage Waveforms



Input AC Current Waveform (ITHD = 8.92%, 50% Load)

ALPHA MINER PSU-1600 SPECIFICATIONS



**THANK YOU FOR CHOOSING
ALPHA MINER**

Alpha Miner, Ltd., Unit 04, 7/F, Bright Way Tower,
Nº33 Mong Kok Road, Kowloon, Hong Kong