

OPTIMAL POWER[®]

Model Number: OPB300U48S

Data Sheet

Revision A

August 2009

www.optimal-power.com

PROPRIETARY DATA

All data in this datasheet is proprietary and may not be disclosed, duplicated or used for procurement or manufacturing purposes, without prior written permission by
OPTIMAL POWER SUPPLIES LLC

LIABILITY

DO NOT OPERATE OR SERVICE THE OPB300U48S MODEL WITHOUT READING THE ENTIRE CONTENT OF THIS DATA SHEET

Optimal Power Supplies LLC is not responsible for any kinds of damages sustained through the use of this or any other Optimal Power Supplies LLC products. It is entirely the customer's responsibility to take all the necessary precautionary measures when installing this unit.

WARRANTY

Optimal Power warrants all of its products against defects in materials and workmanship for one year from date of delivery. We will repair, or replace parts which prove to be defective during the warranty period provided that:

1. A Return Maintenance Authorization (RMA) is obtained from OPTIMAL POWER at (251) 209-8088 or www.optimal-power.com. Please reference your RMA number on the outside of the box the item is shipped in.
2. Shipping charges are pre-paid.

Optimal Power does not endorse any other warranty, expressed or implied, and is not liable for consequential damages. Products that are damaged, opened, or modified do not qualify for a warranty. All terms specified in our website are final. Terms are subject to change. The same procedures must be followed for repairs outside the warranty period.



**1U High Rack Mount Universal AC to 48V DC @ 300W
Power Supply System**

OPB300U48S 1U High Rack Mount Power Brick

Product Description

OPB300U48S 1U High Rack Mount Power Brick is a unique, cost effective and a highly reliable power supply. It is primarily designed for Universal AC to 48VDC power supply applications, with secondary output of 5V @ 2A. Because of this feature this compact power supply can be used anywhere in the world. This power supply is mainly used in the following applications:

- Computer Peripherals and Networking Applications
- Telecommunications and Fiber Optic Network
- Voice, Data and Analog Communications
- Universities and Educational Facilities
- Instrumentation and Electronics
- Utility and Power Industries
- Data Acquisition
- Medical
- Military

OPB300U48S 1U High Rack Mount Power Brick is a reliable, efficient and inexpensive solution for all kind of AC to 48VDC power supply applications.

Main Features

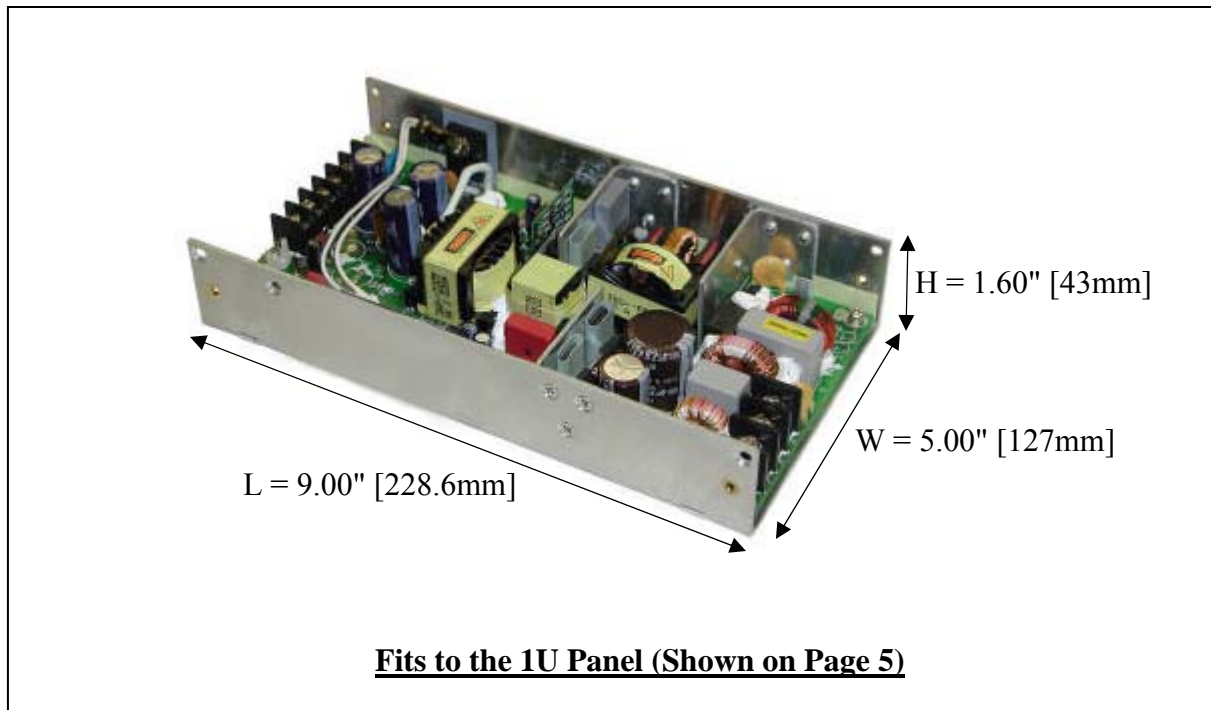
- Compact Size (5.1" X 19.0" X 1.75") or (129.5mm X 482.6mm X 44.5mm)
- Universal AC (Alternate Current) Input Range of 90VAC to 264VAC
- EMI FCC Class B Clearance
- Single and Multiple Output
- Highly Efficient Design
- 1U Low Profile Rack Mount
- NO Minimum Load Required
- Remote Sense
- Status Indicator Green LED On Front Panel
- 300W with active PFC (max output 360W with 18CFM)
- Cost Effective and Reliable Rack Mount Power Supply Solution

General Power Supply Specifications

Input Voltage.....	Universal 90VAC to 264VAC
Input Frequency.....	47Hz to 63Hz
Power Factor.....	>0.95
Holdup Time.....	>20ms
Over Voltage Type.....	Latch off
Overload Protection.....	Auto-Recovery
Short Circuit Protection.....	Auto-Recovery
Efficiency.....	80-90% Typical
Operational Temperature.....	0°C to 70°C De-rated 2.5%/°C > 50°C
Storage Temperature.....	-20°C to 85°C
Cooling.....	Free Air Convection for 300W, 18CFM for 360W
Inrush Current (cold).....	Less than 30A @ 110VAC or 60A @ 220VAV cold start, 25°C

Typical Safety Rating

Designed in full compliance with.....	UL60950 CSA 22.2 No. 234 EN60950
EMI.....	FCC "B" EN55022 "Class B"
EMS.....	EN61000-4-2,-3,-4,-5,-6,-8,-11
Harmonics.....	EN61000-3-2 Class D

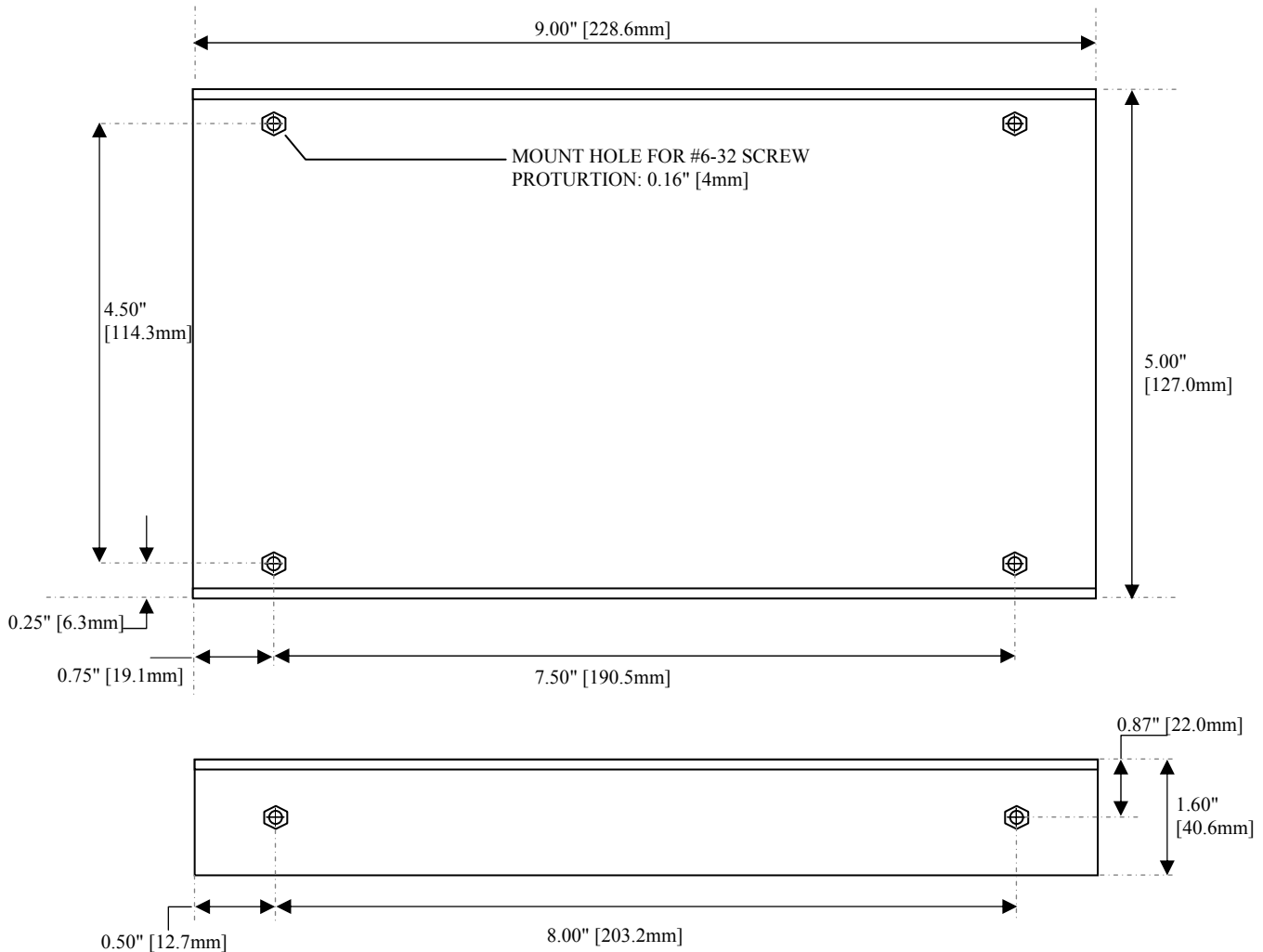


Specifications

Electrical

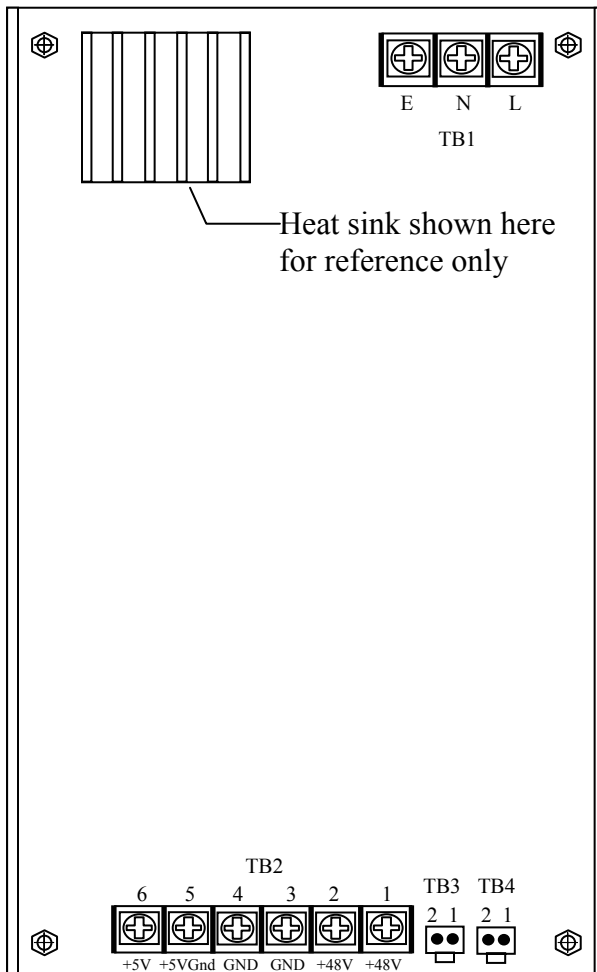
Output Voltage	DC Output 1	DC Output 2
	48V DC @ 6.25A (max. 7.3A)	5V DC @ 2A max.
Ripple and Noise	200 mV (Typical)	50 mV (Typical)
Output Power	300W (convection cooling) / 360W at 18CFM	10W (about)
Line Regulation	±1%	±1%
Load Regulation	±1%	±1%
Tolerance	±0.5%	±2%
Input Voltage	Universal 90VAC to 264VAC input	
Input Frequency	47Hz to 63Hz	

Mechanical



Electrical Connections

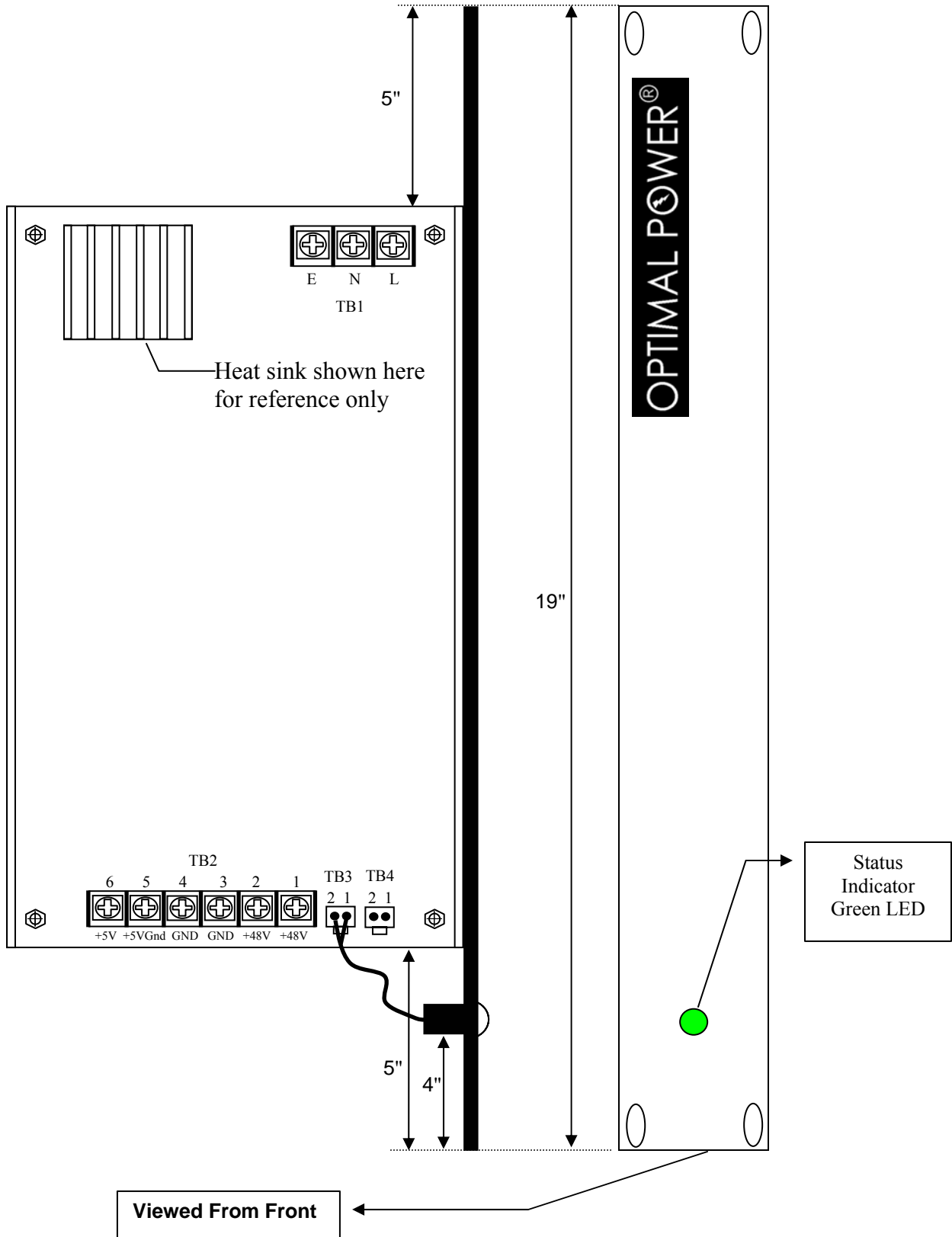
Connector	Function	Pin Numbers	Description
TB1	AC Input Connections HIGH VOLTAGE USE PRECAUTION	L	AC Line Input
		N	Neutral Line Input
		E	Earth / Chassis Ground
TB2	DC Output Connections NOTE: <i>For Maximum Current Flow 16AWG Wire Connection Is Required On Each Terminal</i>	1	+48VDC
		2	+48VDC
		3	Common (+48VDC)
		4	Common (+48VDC)
		5	Ground (+5V DC)
		6	+5V DC
TB3	LED DC Output Connection Molex Part. 5045-02A or equivalent	1	+ (5V DC)
		2	- (Ground)
TB4	Remote Sense Molex Part. 5045-02A or equivalent	1	+ RS
		2	- RS



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Model OPB300U48S Drawing



Picture

