

# OPTIMAL POWER<sup>®</sup>

**Model Number: DZ200-9EU / DZ200-9EC  
Universal AC to 24VDC @ 200W Power Brick**

Data Sheet

Revision A

March 2007

[www.optimal-power.com](http://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 DZ200-9EU 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.

In the interest of improving internal design, operational function, and/or reliability, Optimal Power Supplies LLC reserves the right to make changes to the products described in this document without notice.

## **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](http://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.

## **DZ200-9EU Low Profile Power Brick**

### **Product Description**

DZ200-9EU Low Profile Power Brick is a unique and a highly reliable power supply. It is designed for Universal AC to 24VDC power supply applications. 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

DZ200-9EU Low Profile Power Brick is a reliable, efficient and inexpensive solution for all kind of AC to 24VDC power supply applications.

### **Main Features**

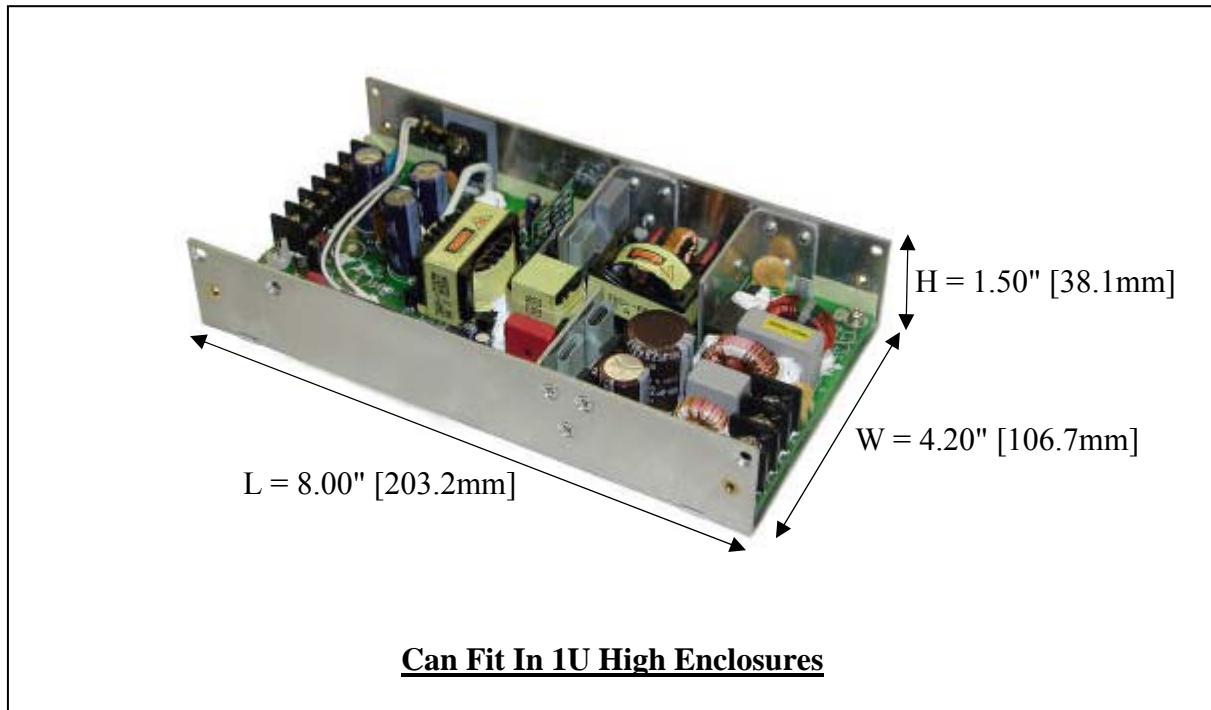
- Compact Size (4.2" X 8.0" X 1.5" ) or (106.7mm X 203.2mm X 38.1mm)
- Universal AC (Alternate Current) Input Range of 90VAC to 264VAC
- EMI FCC Class B Clearance
- Single and Multiple Output
- Highly Efficient Design
- 1U Low Profile Height
- NO Minimum Load Required
- Remote Sense and LED Connections
- 200W with active PFC Free Air Convection Cooling
- 250W with 18CFM
- Cost Effective and Reliable 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.....	82-87% Typical
Operational Temperature.....	0°C to 50°C
Storage Temperature.....	-20°C to 85°C
Cooling.....	Free Air Convection for 200W, 18CFM for 250W
Inrush Current (cold).....	Less than 20A @ 115VAC or 40A @ 230VAC cold start, 25°C

## Typical Safety Rating

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

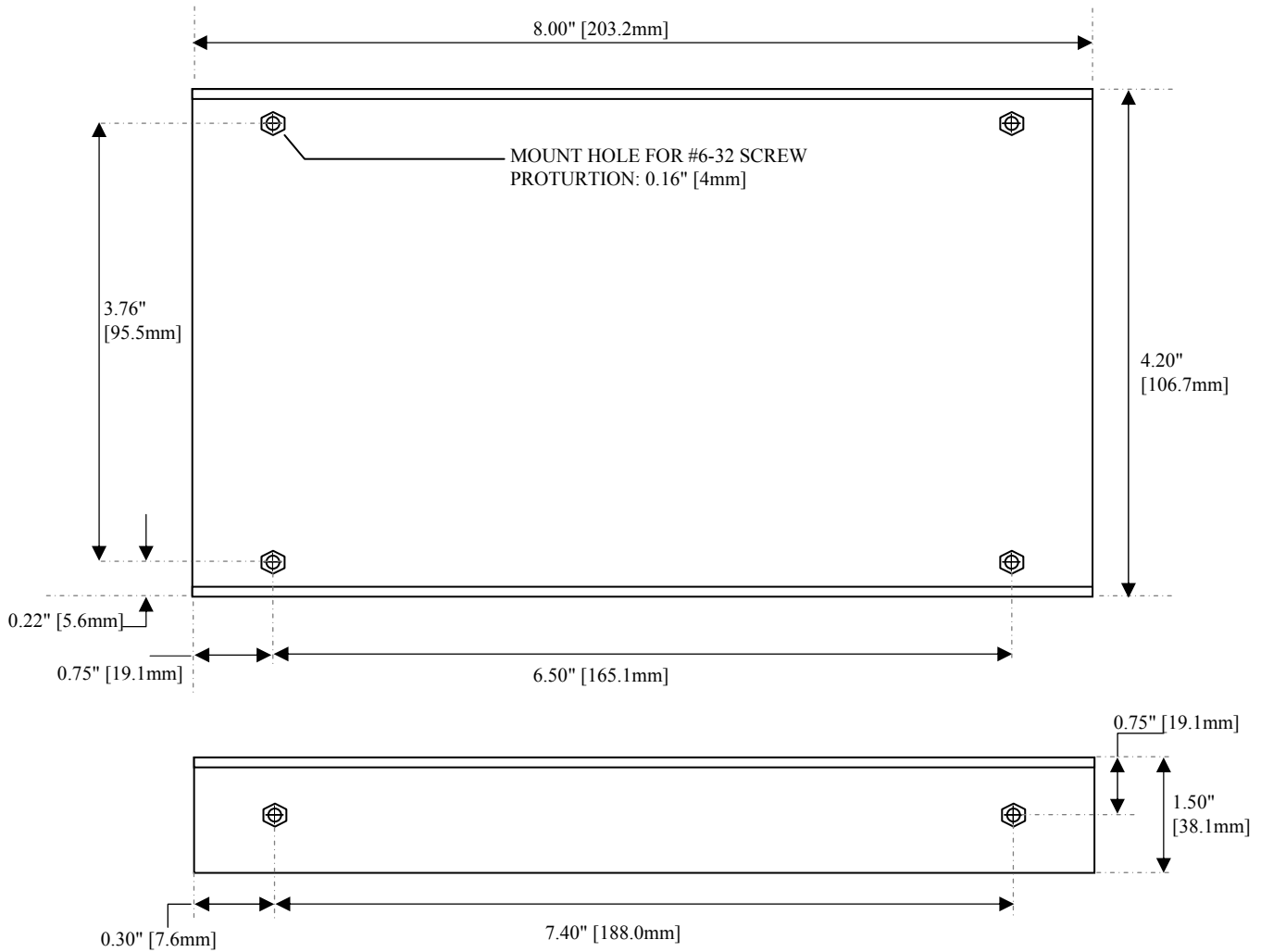


# Specifications

## Electrical

<b>Output Voltage</b>	24V DC @ 8.5A (max. 10.5A)
<b>Ripple and Noise</b>	200 mV (Typical)
<b>Output Power</b>	200W (convection cooling) / 250W at 18CFM
<b>Line Regulation</b>	±1%
<b>Load Regulation</b>	±1%
<b>Tolerance</b>	±5%
<b>Input Voltage</b>	Universal 90VAC to 264VAC input
<b>Input Frequency</b>	47Hz to 63Hz

## Mechanical



## Electrical Connections

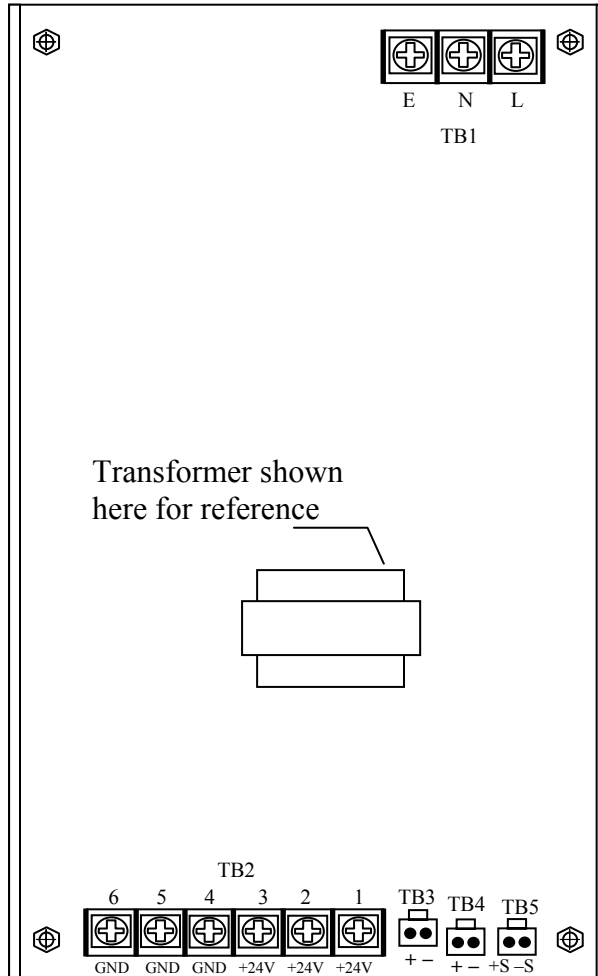
Connector	Function	Pin Numbers	Description
TB1	AC Input Connections	L	AC Line Input
		N	Neutral Line Input
		E	Earth / Chassis Ground
TB2	DC Output Connections	1	+24VDC
		2	+24VDC
		3	+24VDC
		4	Ground
		5	Ground
		6	Ground
TB3	FAN DC Output Connection	+	+24VDC
		-	Ground
TB4	LED DC Output Connection	+	+24VDC
		-	Ground
TB5	Remote Sense	+S	+ Remote Sense
		-S	- Remote Sense

### **Connectors**

AC Input: Terminal Blocks  
DC Output: Terminal Blocks  
Fan: Molex 5045-02A or equivalent  
LED: Molex 5045-02A or equivalent  
RS: Molex 5045-02A or equivalent

For connector locations refer to the figure on next page

## Electrical Connector Locations



**Note:**

Model Number with Top Cover: DZ200-9EC

Model Number without Top Cover: DZ200-9EU