

OPTIMAL POWER[®]

Series: DZ100
Universal AC to DC @ 100W Power Bricks

Data Sheet

Revision B

2010

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 DZ200-7EU 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. 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.

100 Watt Power Supply Bricks

DZ100 Series

Product Description: DZ100 Series Power Supplies are low profile height Power Bricks. DZ100 Series is a compact and a highly reliable power supply series. It is designed for Universal AC to 100Watt DC 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



DZ100 series is a reliable, efficient and inexpensive solution for all kind of AC to DC power supply applications where small size and efficiency is of utmost importance.

Main Features

- Compact Size (5" X 3" X 1.35") or (127.0mm X 76.2mm X 34.4mm) Max.
- 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
- 100W with active PFC Free Air Convection Cooling
- 130W 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 @ 115VAC
Over Voltage Type.....Latch off
Overload Protection.....Auto-Recovery

Short Circuit Protection.....Auto-Recovery
 Efficiency.....85-90% Typical
 Operational Temperature.....0°C to 50°C
 Storage Temperature.....-20°C to 85°C
 Cooling.....Free Air Convection for 100W, 18CFM for 130W
 Inrush Current (cold).....Less than 50A @ 220VAC 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

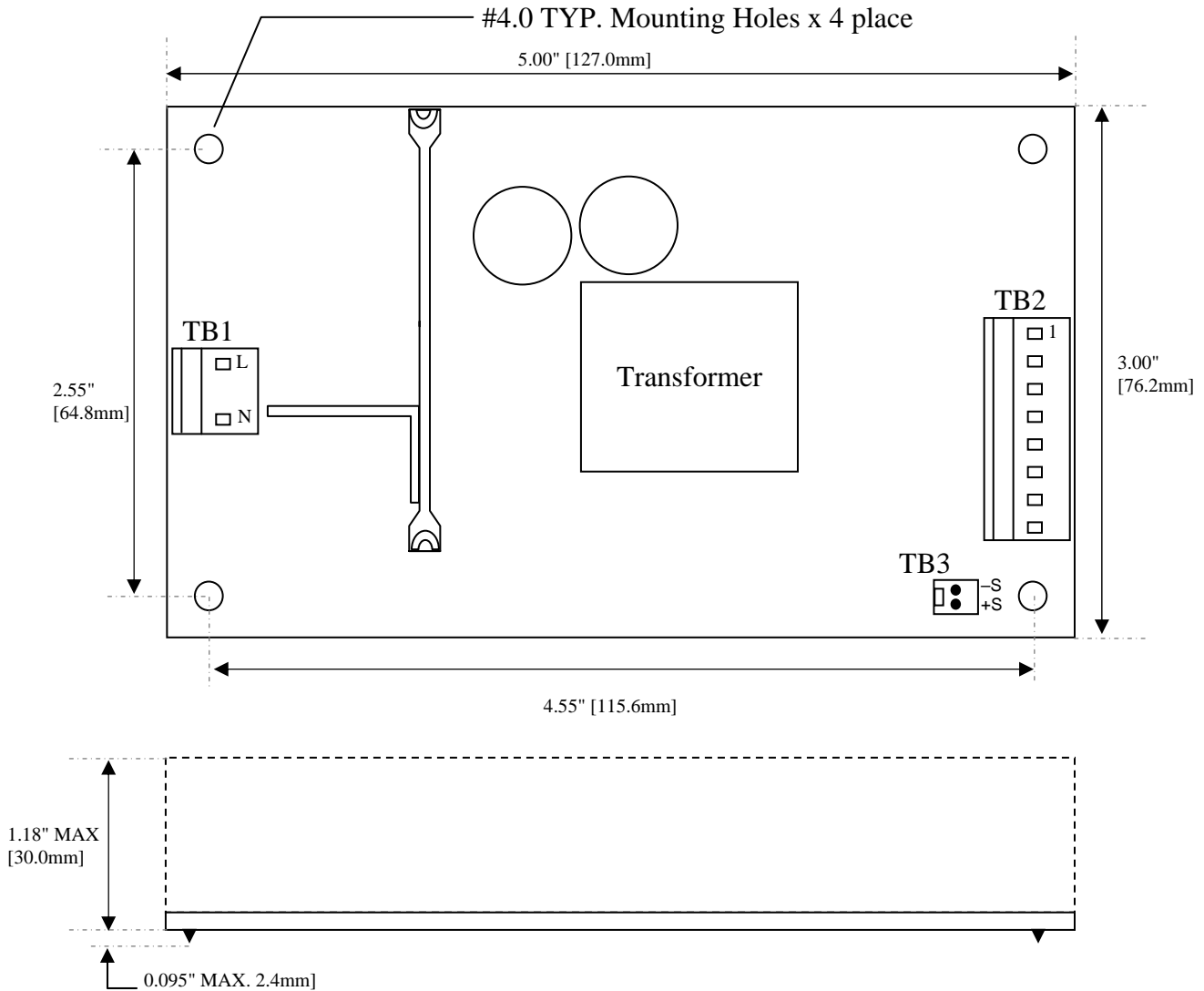
Model Number Table

Model	Volt (VDC)	Current (A)			Watts	Tolerance ±	Ripple & Noise	Regulation	
		Min	Typ.	Max				Line	Load
DZ100-18	+3.3V	0	25	30	100	1%	50mV	0.5%	±1%
DZ100-6	+5V	0	20	26	100	1%	50mV	0.5%	±1%
DZ100-7	+12V	0	9	10.8	100	1%	120mV	0.5%	±1%
DZ100-8	+15V	0	7	8.7	100	1%	120mV	0.5%	±1%
DZ100-9	+24V	0	4.5	5.4	100	1%	200mV	0.5%	±1%
DZ100-14	+48V	0	2.3	2.7	100	1%	200mV	0.5%	±1%
DZ100-19	+3.3V	0	10	15	100	3%	50mV	0.5%	±1%
	+5V		8	10		5%	50mV	0.5%	±5%
	+12V		0.5	1		5%	100mV	0.5%	±5%
DZ100-3	+5V	0	7.0	10	100	1%	50mV	0.5%	±1%
	+12V		8.0	10		5%	120mV	0.5%	±5%
DZ100-2	+5V	0	11.5	15	100	1%	50mV	0.5%	±1%
	+12V		3	5		5%	100mV	0.5%	±5%
	-12V		0.5	1		5%	100mV	0.5%	±5%

Note:

1. Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
5. The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47 µF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to 95% output voltage at rated load and nominal line.

DZ100-XX Series Mechanical Specifications



Notes

1. Dimensions shown in mm as above. Tolerance: +/- 0.4mm.

2. Size

DZ100-6,-7,-8,-9,-14,-18
127.0mm X 76.2mm X 32.4mm
5" X 3" X 1.28"

DZ100-2,-3,-19
127.0mm X 76.2mm X 34.4mm
5" X 3" X 1.35"

Connector Table

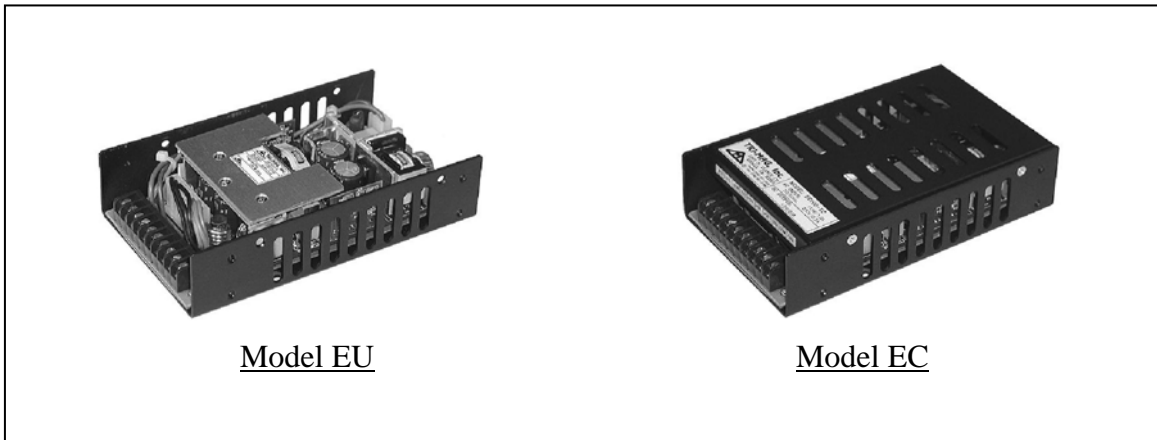
Connector	Function	Type
TB1	AC Input	Molex5277-02A or equivalent
TB2	DC Output	Molex 5273 or equivalent
TB3	Remote Sense	Molex 5045-02A or equivalent

DZ100-XX Series DC Output Pin Assignments

Model	TB2 Pin Numbers									
	1	2	3	4	5	6	7	8	9	10
DZ100-18	+3.3V	+3.3V	+3.3V	COM	COM	COM				
DZ100-6	+5V	+5V	+5V	COM	COM	COM				
DZ100-7	+12V	+12V	+12V	COM	COM	COM				
DZ100-8	+15V	+15V	+15V	COM	COM	COM				
DZ100-9	+24V	+24V	+24V	COM	COM	COM				
DZ100-14	+48V	+48V	+48V	COM	COM	COM				
DZ100-19	+3.3V	+3.3V	COM	COM	COM	COM	COM	+5V	+5V	+12V
DZ100-3	+12V	+12V	COM	COM	COM	COM	+5V	+5V		
DZ100-2	+5V	+5V	+5V	COM	COM	COM	COM	+12V	+12V	

For your specific voltage requirements other than shown or for EU/EC Models contact Optimal Power® at sales@optimal-power.com

Note: All specifications and prices subject to change without notice



"U" shape and enclosed available.

Part Number Configuration

Enclosed (Add EC at the end of DZ100 series part number = DZ100-XXEC)

U-Shaped (Add EU at the end of DZ100 series part number = DZ100-XXEU)

For dimension for EU and EC series refer to the next page.

Dimensions for EU and EC Units

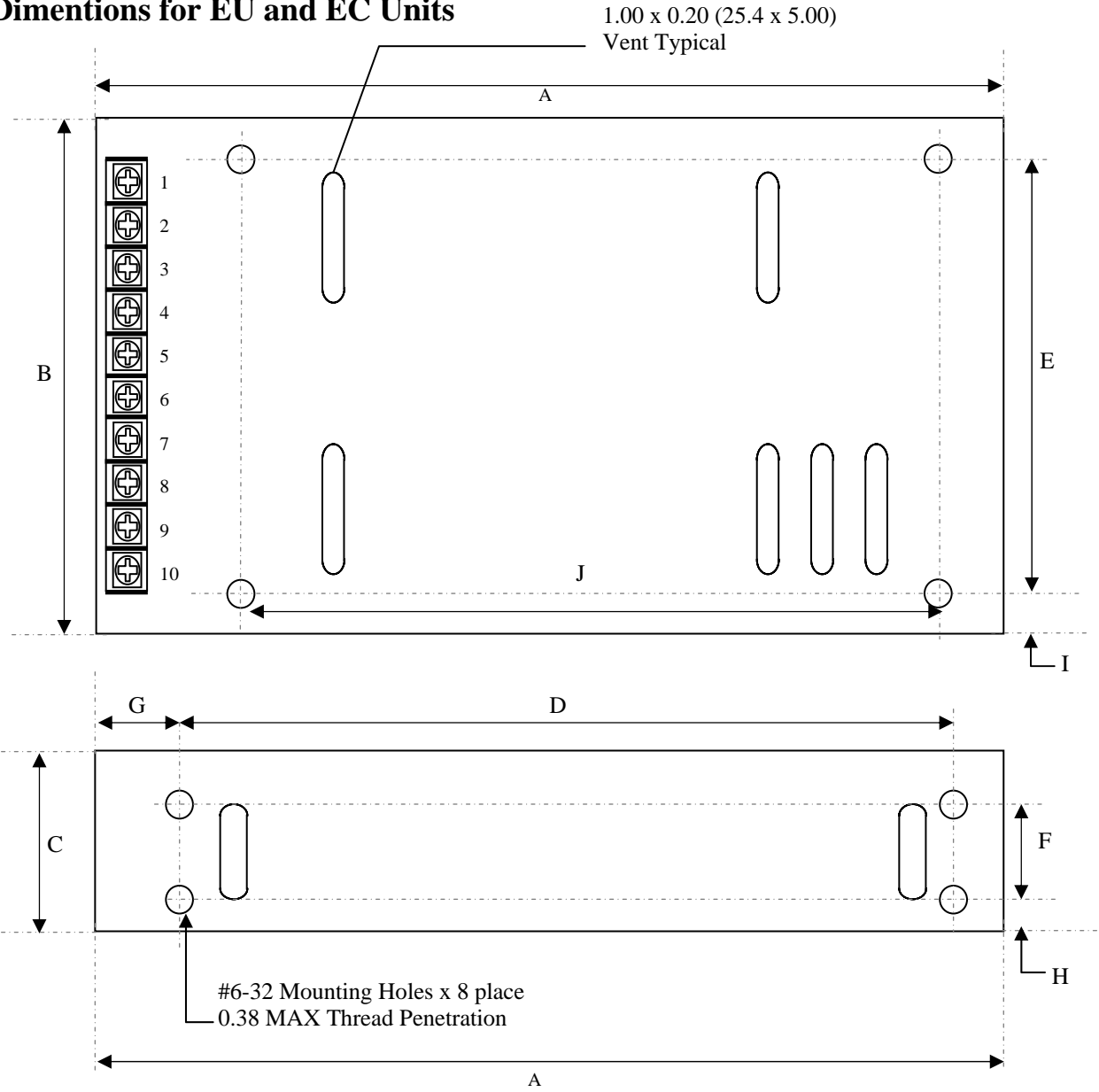


Figure	Inches	[mm]
A	6.22	158
B	3.66	93
C	1.45	36.8
D	5.00	127
E	1.93	49
F	0.79	20
G	0.79	20
H	0.28	7.11
I	0.86	21.8
J	4.00	101.6