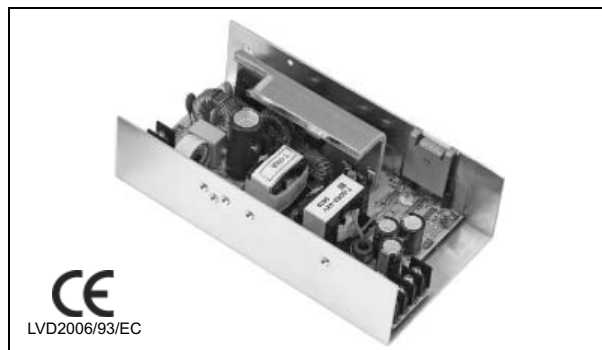


BD SERIES SINGLE OUTPUT MEDICAL SWITCHERS

FEATURES

- ◆ Full Medical Approvals
- ◆ Universal AC Input
- ◆ Outputs from 12VDC to 48VDC
- ◆ Active Power Factor Correction
- ◆ Class B EMI



STANDARD MODELS

Model Number	Output Voltage	Output Current	Output Power	Total Regulation	Ripple & Noise (Vp-p)
BD3000M	12V	16.66A	200W	5%	240mV
BD4001M	16V	12.50A	200W	5%	300mV
BD4003M	19V	10.53A	200W	5%	300mV
BD4004M	20V	10.00A	200W	5%	300mV
BD5000M	24V	8.33A	200W	5%	300mV
BD8000M	36V	5.555A	200W	5%	300mV
BD7000M	48V	4.166A	200W	5%	300mV

SPECIFICATIONS

Typical at Nominal 115/230VAC Line, Full Load and 25°C Unless Otherwise Noted.

INPUT SPECIFICATIONS

Nominal Input Voltage	100-240VAC
Input Operating Range	90-264VAC
Power Factor	>0.90
Input Frequency	47-63Hz
Inrush Current	<60A Peak @ 230VAC, cold start
Leakage Current	<300µA @ 264VAC
Input EMI Filter	EN55018 Curve B FCC20780 pt. 18 Curve B
Harmonic Distortion	EN61000-3-2 class D
Input Immunity, Conducted	
Fast Transients, Line-Line	±1kV (EN61000-4-4)
Surges, Line-Line	±1kV (EN61000-4-5)
Surges, Line-Ground	±2kV (EN61000-4-5)
Input Protection	Internal Fuses

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max	200 Watts
Total Regulation ¹ ,	see model listing
Ripple & Noise, Pk-Pk ²	see model listing
Holdup Time, Full Load @ 115VAC	16mS
Dynamic Response ³	300μS
Temperature Coefficient	±0.04%/°C
Minimum Load	0A
Overload Protection	110-160% Full Load, Auto Recovery
Overvoltage Protection	110-130% Rated Output
No Load Power Consumption	<500mW

GENERAL SPECIFICATIONS

Efficiency ⁴	87% at Full Load
Switching Frequency	75kHz
Isolation, Class I, min. ⁵	
Input-Output	4000VAC/5656VDC
Input-Ground	1500VAC/2121VDC
Output-Ground	50VDC
MTBF (Bellcore)	466,000 Hours
EMI Standards	EN60601-1-2
Safety Standards	UL60601-1, CSA22.2 No.60601-1
	EN60601-1, IEC60601-1

ENVIRONMENTAL SPECIFICATIONS

ENVIRONMENTAL CONDITIONS

Operating Temperature	0°C to 70°C Ambient
Derating	2.5% / °C, 40°C to 70°C
Storage Temperature	-10°C to +85°C
Cooling	Natural Convection

PHYSICAL SPECIFICATIONS

PHYSICAL DIMENSIONS

Format	U-Channel Chassis
Dimensions, Inches(mm).....	1.97 H x 3.74 W x 6.94 D (50 x 95 x 176)
Weight	1.54 lbs. (0.7 kg.)

- NOTES:**
1. No load to full load, including line regulation and load regulation.
 2. 20MHz bandwidth. Measure with 0.1 μ F ceramic and 10 μ F tantalum capacitors in parallel across the output.
 3. <4% deviation recovering to within 1% for 25% load change.
 4. Typical efficiency is at low end of range for 5V output and at high end of range for 48V output.
 5. Input-output isolation figure is for isolation components only, 100% production. H_{inf} tested.

Top view diagram of the 1000 Series 1000W Power Supply Unit. The unit is rectangular with overall dimensions of 176.0 mm in width and 95.0 mm in height. The diagram shows the internal layout of components, including a large central transformer, several electrolytic capacitors, and various electronic components. The unit is labeled with "L" and "N" on the left side, indicating the input terminals. The output terminals are labeled on the right side: +V, +V, -V, and -V. A dimension of 6.0 mm is indicated for the distance from the right edge to the output terminals. A dimension of 7.5 mm is indicated for the distance from the bottom edge to the output terminals.

