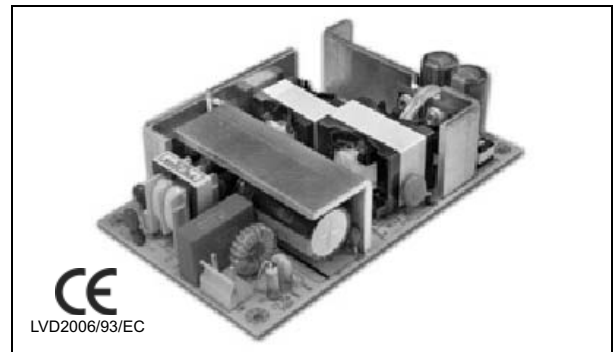


BB SERIES SINGLE OUTPUT SWITCHERS

120 Watts Open Frame, 5" x 3" Footprint

FEATURES

- ◆ Industry Standard 5" x 3" Footprint
- ◆ 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)
BB3000	12V	10A	120W	3%	120mV
BB4000	15V	8A	120W	2%	150mV
BB4002	18V	6.67A	120W	2%	180mV
BB4003	19V	6.32A	120W	2%	190mV
BB5000	24V	5A	120W	2%	240mV
BB6002	30V	4A	120W	2%	300mV
BB6004	32V	3.75A	120W	2%	320mV
BB8000	36V	3.34A	120W	2%	360mV
BB7000	48V	2.5A	120W	2%	480mV

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
Input EMI Filter EN55022 Curve B
FCC20780 pt. 15J Curve B
Harmonic Distortion EN61000-3-2
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 Fuse

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max 120 Watts
Total Regulation¹, see model listing
Ripple & Noise, Pk-Pk² see model listing
Holdup Time, Full Load @ 115VAC 16mS
Dynamic Response³ 300µS
Temperature Coefficient ±0.04%/°C
Minimum Load 0A
Overload Protection 150% Full Load, Auto Recovery
Overvoltage Protection 110-130% Rated Output

GENERAL SPECIFICATIONS

Efficiency⁴ 85% at Full Load
Switching Frequency 50kHz
Isolation, Class I, min.⁵
Input-Output 3000VAC/4242VDC
Input-Ground 1500VAC/2121VDC
Output-Ground 50VDC
MTBF (Bellcore) 535,000 Hours
Safety Standards UL60950-1, CSA22.2 No.60950-1
..... EN60950-1

ENVIRONMENTAL SPECIFICATIONS

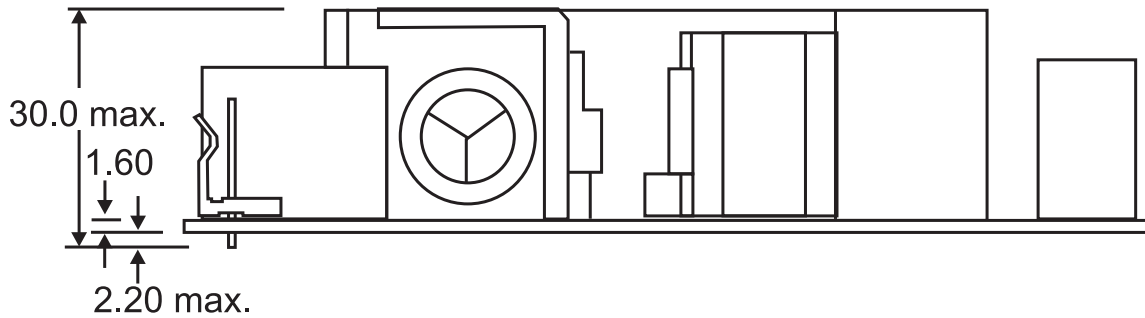
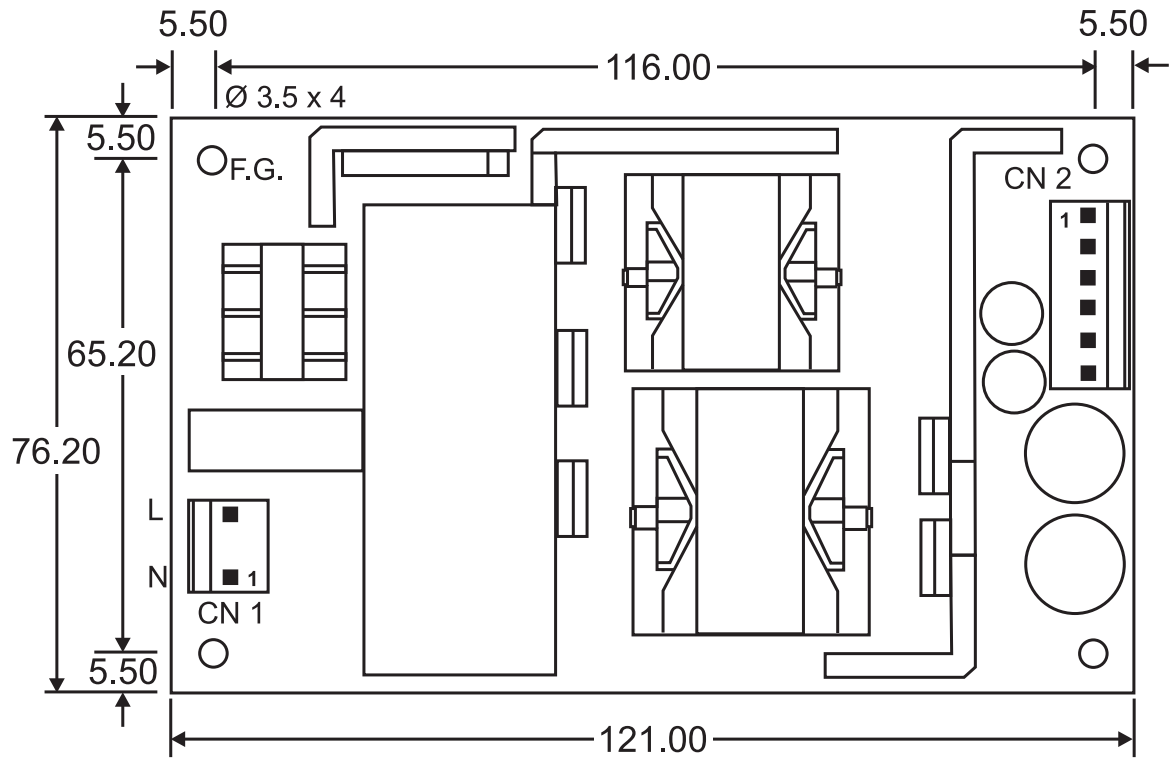
Operating Temperature 0°C to 70°C Ambient
Derating 2.5% / °C, 40°C to 70°C
Storage Temperature -10°C to +85°C
Cooling Natural Convection

PHYSICAL SPECIFICATIONS

Format Open PCB
Dimensions, Inches(mm) 1.34 H x 3.0 W x 5.0 D
(34 x 76.2 x 127.0)
Weight 0.77 lbs. (0.35 kg.)

- NOTES:**
1. No load to full load, including line regulation and load regulation.
 2. 20MHz bandwidth. Measure with 0.1µF ceramic and 10µF 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 Hipot tested.

MECHANICAL SPECIFICATIONS & CONNECTION DETAILS



CONNECTOR PINOUTS	
CN1	See outline drawing
CN2	Pin 1: Output -Ve Pin 2: Output -Ve Pin 3: Output -Ve Pin 4: Output +Ve Pin 5: Output +Ve Pin 6: Output +Ve

MATING CONNECTORS	
CN1	Housing: Molex 09-76-1020 or equivalent Pins (2): Molex 08-70-0012 or equivalent
CN2	Housing: Molex 09-52-4064 or equivalent Pins (6): Molex 08-70-0012 or equivalent

A kit containing one each housing and indicated number of pins is supplied with each unit as standard.