



ELMA
Your Solution Partner

Model: BPA-R250-120

Total Power	250 Watts
Input Voltages	85-264 VAC
Outputs	Single plus 5VSB



SPECIAL FEATURES

- Active Power Factor Correction
- Wide Range Input
- Redundant operation
- Single wire current sharing
- Diode isolation
- Power good signal
- PS_On
- RoHS compliant – LF designation on power supply label indicates RoHS compliance
- UL, cUL, CB scheme and DEMKO to EN60950-1
- CE compliant

ENVIRONMENTAL SPECIFICATIONS

Humidity: Up to 95% non-condensing

Storage Temperature: -20° to +85°C

Temperature coefficient: ±0.01% / °C

Ambient Operating Temperature: 0 to +50°C continuous duty, full rating. Derate linearly to 50% of full rating at +71°C.

Cooling: 10-CFM fan cooling required

SAFETY APPROVALS

UL & cUL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment – Safety – Part 1: General Requirements)
IEC 60950-1 (2005) (2nd_Edition): Am 1:2009 + Am 2:2013
Demko EN 60950-1:2006/A11 :2009, EN 60950-1:2006/A12:2011, EN 60950-1:2006/A1:2010, EN 60950-1:2006 /A2:2013

- **250 Watts**
- **High Density - 1U Profile**
- **Power Factor and Harmonic Current Correction**
- **Redundant Operation**

ELECTRICAL SPECIFICATIONS

Input Specifications

- Input Range**..... 85-264 VAC
Frequency..... 50-440 Hz
EMI filter..... EN55022 Class B, FCC Part 15
Inrush Current..... ≤32A @ 230 VAC
Input Current..... 5A
Isolation..... 4242 VDC (Input to Output)
Efficiency..... 80% @ 120 VAC
Active PFC..... 0.99
Switching Frequency..... 134KHz.
Leakage..... <300uA @ 63Hz

Output Specifications

- DC Output**..... Maximum continuous output power 250 Watts with 10-CFM fan cooling.
- Line Regulation**..... ±0.05%
- Load Regulation**..... ±1% on both outputs
- Ripple and Noise**..... 1% Pk to Pk
- Transient Response**..... 2% Maximum deviation; returns to initial condition in 1 msec max.

Model: BPA-R250-120

ELECTRICAL SPECIFICATIONS (CONT')

Output Specifications

Long Term Stability..... 0.01% after 20 minute warm-up.

Hold-Up Time..... 20msec minimum

OVP..... 115% to 135% on both outputs. AC must be recycled to restart the unit.

Short-circuit Protection..... Hiccup method.

Overload Protection..... The overload protection feature will reduce the output voltage to a safe dissipation level when the output power rating exceeds 125% of maximum rated power. The unit will automatically return to regulation upon removal of the overload.

Diode Isolation..... Internal diode isolation provided for N+1 redundant operation.

Current Sharing..... VO1 output will current share within 5% when interconnected by a single wire.

Power Good..... A TTL high logic signal is provided on pin P3-1 when the output voltages are within normal operating conditions.

PS_On..... The secondary outputs are enabled only upon mating pin P3-2 to output common on the customer's backplane.

OVERALL MECHANICAL DIMENSIONS

U-Bracket Construction

5”L x 3.3”W x 1.5”H

(127mm L X 83.82mm W X 38.1mm H)

PIN ASSIGNMENTS

DC Output Connectors

P2-1, 2, 3, 4, 5..... DC Common

P2-6, 7, 8, 9, 10..... +VO1

P3-8..... Fan 2 Sense

P3-7..... Fan 1 Sense

P3-6..... +VO1 Current Share

P3-5..... +5VSB

P3-4..... -VO1 Sense

P3-3..... +VO1 Sense

P3-2..... PS_On

P3-1..... Power Good

CONNECTOR

AC input

Molex 26-60-4050

DC output

P2 - Molex 26-60-4100

P3 – AMP 640456-8

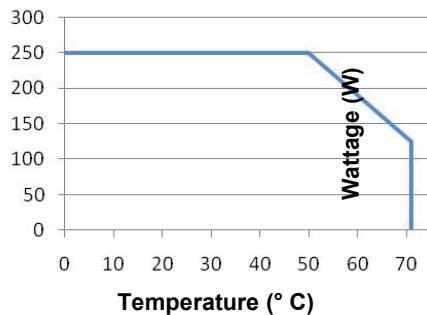
NOTES

- Specifications subject to change without notice.
- All dimensions in inches/mm
- Warranty: 1 year
- Weight: 1.25 lbs.

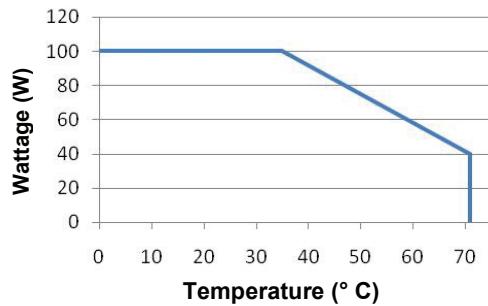
VOLTAGE/CURRENT RATING CHART

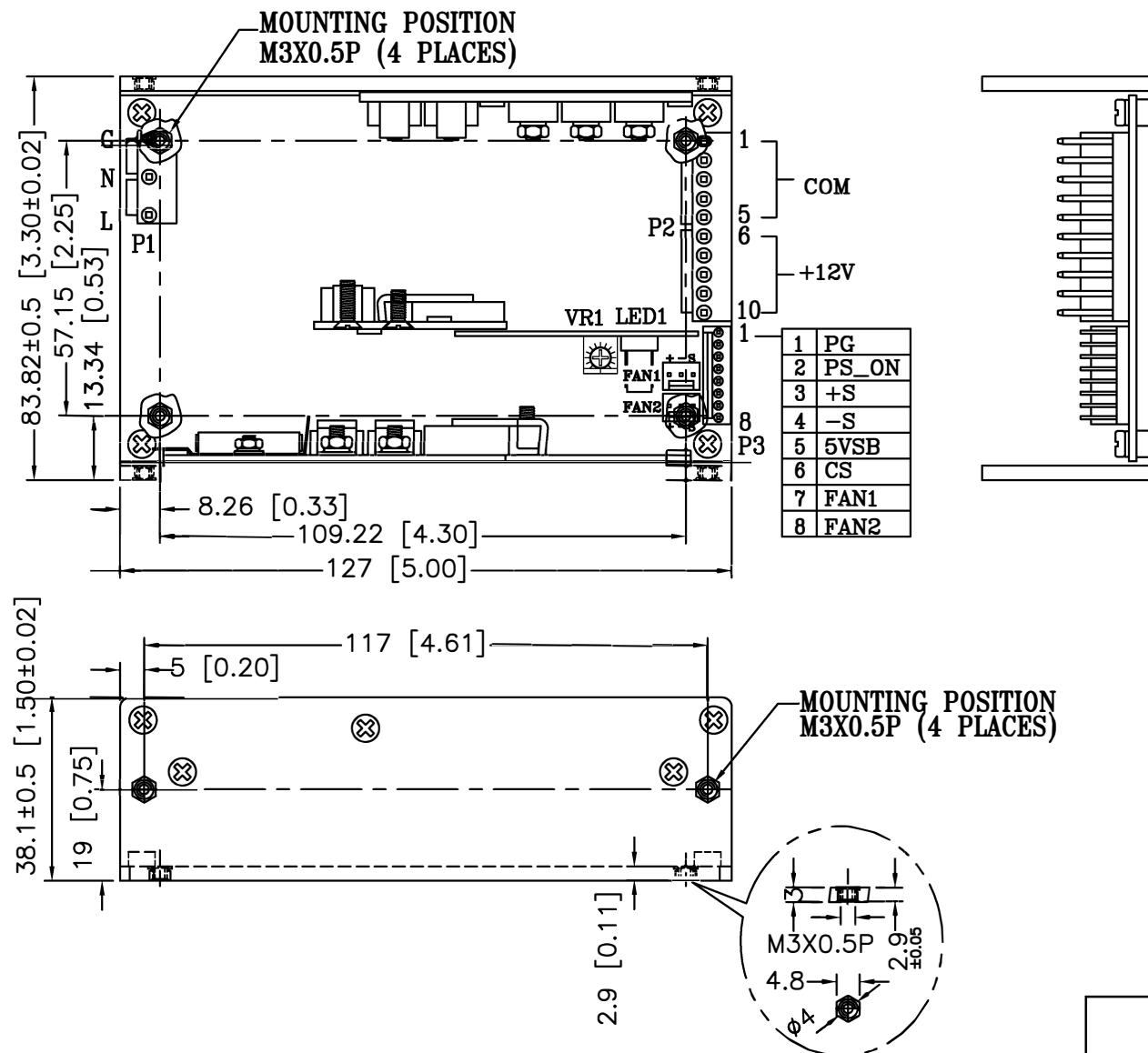
Part Number	Assignment	Voltage	Minimum	Maximum
BPA-R250-120	VO1	+12V	0A	20.8A
	5VSB	+5V	0A	0.1A

Power Damping Curve with 10EPMF Cooling



Power Damping Curve with Convection Cooling



*BluTek Power*

TITLE	OUTLINE DRAWING
DRAWN C. M. WU	DRG. NO. BLU-155
CHECKED	MODEL NO. BPA-R250-120

UNIT	mm[inches]	REV. NO.	I	SCALE	0.7 : 1	MAT'L	t=
THIRD	⊕	1	TOL.	± 0.2	DATE	09. 25. 2007	



MODEL NO. : BPA-R250-120 LF

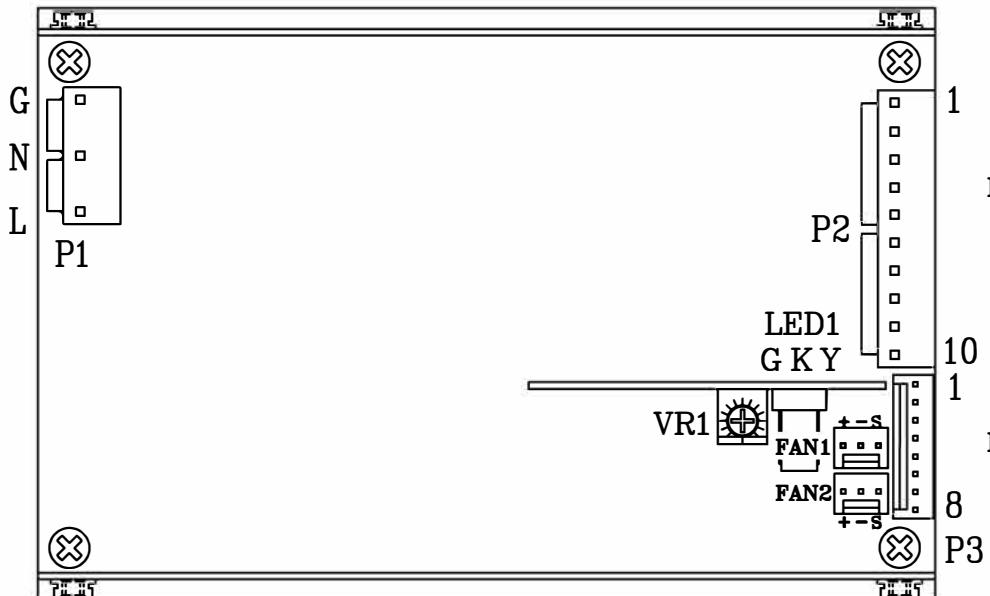
INPUTS :

<u>ASSIGNMENT</u>	<u>A.C. VOLTAGE</u>	<u>CURRENT</u>	<u>PIN NBR</u>
L :	100-240V~	5A	P1-1
N :			P1-2
GND :		50-440Hz	P1-3

IN/OUTPUT RATING & PIN ASSIGNMENTOUTPUTS :

<u>ASSIGNMENT</u>	<u>D.C. VOLTAGE</u>	<u>CURRENT</u>	<u>PIN NBR</u>
V01:	+12V ---	20.8A	P2-6,7,8,9,10
DC COM:			P2-1,2,3,4,5
PG:			P3-1
PS_ON:			P3-2
+S:			P3-3
-S:			P3-4
+5VSB:			P3-5
CS:			P3-6
FAN1:			P3-7
FAN2:			P3-8

MAXIMUM OUTPUT POWER: 250W

P1: Molex 26-60-4050
or LCU P3060-05-2P2: Molex 26-60-4100
or LCU P3060-10P3: AMP 640456-8
or LCU P2050-08