# Behlman Power Products

AC Power Source/ Frequency Converter

### **FEATURES**

- Low output THD
- Unique overload protection
- Remote programming



P2002

#### CLEAN AC POWER WITH MICROPROCESSOR CONTROL AND VACUUM FLUORESCENT DISPLAY

In the P2002 you'll find the quality features you expect from Behlman; fully adjustable voltage and frequency, low-output THD, high efficiency, plus excellent line and load regulation. There's also a unique overload protection system that folds back voltage to maintain rated current without output waveform distortion. The unit can be controlled with the front panel pushbuttons or remotely using the standard RS232 interface.

**INPUT** 

120 VAC, +/- 10% Voltage:

Frequency: 47-63 Hz (Option for 400 Hz input)

**OUTPUT** 

Power: 2000 VA

Voltage: 0-135 V or 0-270 V

Frequency: 45-500 Hz (Option E: 45-1000 Hz)

**Current:** 15 Amps, 0-135 V Range,

7.5 Amps, 0-270 V Range

**Current limit:** Settable from 0 to maximum amps

**Crest Factor:** 

Power Factor: 100% of rated output into any

power factor load

Distortion: 1.0% THD typical, measured at full load,

115 Volts, 60 Hz

Line Regulation: +/- 0.1% for +/- 10% line change Load Regulation: +/- 0.7%, no load to full load

Efficiency: 80% typical

PROTECTIVE CIRCUITS

Input: Circuit Breaker

Constant Current: Overload automatically causes voltage

fold-back to provide maximum current without distorting output waveform

**Short Circuit:** Short circuit overload electronically

> latches output open to protect load... power restored by recycling input power

Internal temperature sensor prevents

Thermal:

heat damage

Voltage in excess of 20% of maximum Over voltage:

> electronically latches output to protect load... power restored by recycling input

power

**Current Limit:** Adjustable from 10% to full scale via front

panel. Output will latch open if limit is

exceeded.

Available options include IEEE-488 interface, extended frequency range, 45 Hz to 1000 Hz and rack mount kit.

Small size, quiet operation and high efficiency make the P2002 ideal for industrial product testing, precision avionic test, power conversion and Automatic Test Equipment testing.

## **CONTROLS / INDICATORS**

Power On/Off: Circuit Breaker

Vacuum fluorescent display with 24 Display:

> characters x 2 lines. Displays volts, amps, frequency and current limit. Fault indication for over voltage (O/V), over current (O/I), over temperature (O/T), constant current (C/C) and overload latch (O/L), Watts (W), power factor (PF)

Set resolution; 0.1, 1.0, 10.0, 100.0 Shift push-button: Mode push-button: Selects the parameter required

Up push-button: Increment up Down push-button: Increment down

Reset: Reset system to default setting

Output On/Off: Push button switch

Push button switch (High/Low) Range:

Local/Remote: Recessed slide switch

Indicators: Output on, high range, busy

RS232 interface Remote interface

Settings and measurements: See Table 1 (reverse)

### **MECHANICAL & ENVIRONMENTAL**

**Dimensions:** High-strength bench top chassis

> with removable rubber feet, 5.25"H x 17"W x 21"D

(13.3 cm x 43.2 cm x 53.3 cm)

Weight: 65 lbs (29.5 kgs)

Operating Temperature: 32° to 131° F (0° to 55° C)

Internal fans. Air flow front to Cooling:

**Input Connections:** Twist-lock receptacle supplied

with plug and six foot line cord

with unterminated end

**Output Connections:** Three safety sockets on front

panel and enclosed terminal

block on rear

Remote Interface: DB-9 connector

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**Table 1: P2002 Settings and Measurements** 

	Setting Resolution	Setting Accuracy	Measurement Accuracy
Voltage	0.1 V	+/- 0.3% of full scale +/- 0.1 V	+/- 0.3% of full scale +/- 0.1 V
Frequency	0.1 Hz	+/- 0.01 Hz	+/- 0.1 Hz
Current	NA	NA	+/- 1% of full scale +/- 0.1 A
Current Limit	0.1 A	+/- 0.2 A	+/- 0.2 A
Watts	NA	NA	+/- 2.5% of full scale (150 W to FS)
Power Factor	NA	NA	+/- 0.035 (150 W to FS)

# Fault indications for the following:

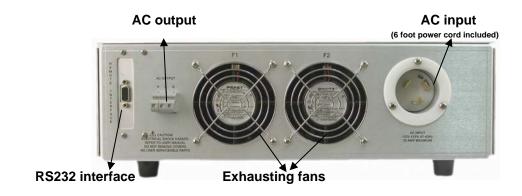
O/V: Over Voltage
O/I: Over Current
O/T: Over Temperature
C/C: Constant Current
O/L: Overload latch

**OPTIONS: Contact factory for additional options.** 

**400:** 400 Hz input (350-440 Hz)

E: Extended frequency range, 45-1000 Hz

I: IEEE-488 interface
RM: Rack Mount kit
ET: Ethernet interface









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