Behlman Power Products

AC Power Source/ Frequency Converter

P2002

FEATURES

- **Low output THD**
- **Unique overload protection**
- **Remote programming- RS232, USB, Ethernet**

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, USB and Ethernet interface.

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.

INPUT

Voltage:	120 VAC, +/- 10%
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:	3:1
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
Thermal:	Internal temperature sensor prevents heat damage
Over voltage:	Voltage in excess of 20% of maximum 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.

CONTROLS / INDICATORS

Power On/Off:	Circuit Breaker
Display:	Vacuum fluorescent display with 24 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)
Shift push-button:	Set resolution; 0.1, 1.0, 10.0, 100.0
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
Range:	Push button switch (High/Low)
Local/Remote:	Recessed slide switch
Indicators:	Output on, high range, busy
Remote interface	RS232, USB & Ethernet interface

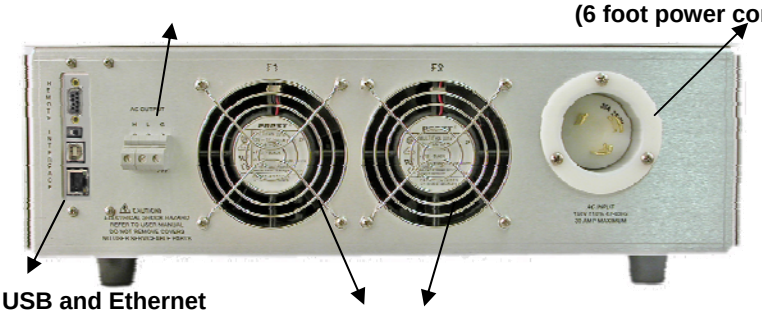
Settings and measurements: See Table 1 (reverse)

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)
Cooling:	Internal fans. Air flow front to rear.
Input Connections:	Twist-lock receptacle supplied with plug and six foot line cord with unterminated end
Output Connections:	Enclosed terminal block on rear
Remote Interface:	DB-9, USB & Ethernet

Table 1: P2002 Settings and Measurements

	Setting Resolution	Accuracy
Voltage	0.1 V	+/- 0.5% of full scale +/- 1 LSB (45-500Hz) +/- 0.7% of full scale +/- 1 LSB (500-1000Hz)
Frequency	0.1 Hz	+/- 0.1 Hz
Current	NA	+/- 1% of full scale +/- 0.1 A
Current Limit	0.1 A	+/- 0.2 A
Watts	NA	+/- 2.5% of full scale (150 W to FS)
Power Factor	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