Behlman Power Products

AC Power Source/ Frequency Converter

FEATURES

- Multi-Pulse Input Rectification Low Harmonic Distortion
- Analog Remote Control Remote Programming
- Low cost per VA Cost Savings
- Compact Size Less rack space

MANUAL CONTROL OR PROGRAMMABLE AC POWER

The BL5000 High-Power Series delivers all the quality features our customers have come to expect from Behlman; clean sine wave output with excellent line and load regulation, high efficiency and low harmonic distortion. A multi-pulse input transformer offers low-input harmonic distortion and high power factor as required by MIL-STD-1399 and European standards. Unique protection circuitry provides for over-temperature protection, short-circuit protection and voltage fold-back during overloads to maintain undistorted waveforms.

Amplitude and Frequency adjustment, line drop compensation, phase angle adjust and output on/off

See table 1

47-63 Hz

5000 VA

45-500 Hz

+/-2 % of full scale

12.5 Amps / phase

0.1 Amp, +/-1 digit

+/-2 % of full scale

power factor load

100% of rated output into any

3.0% THD typical, measured at full load, 115 Volts, 60 Hz

+/- 0.1% for +/- 10% line change

+/- 0.7%, no load to full load

(Option E: 45-1000 Hz)

1 V

1 Hz

3:1

+/-2 Hz

0-135 V, L-N, 3 phase, isolated

INPUT

Voltage: Frequency:

OUTPUT

Power: Voltage: Resolution: Accuracy: Frequency:

> Resolution: Accuracy:

Current: Resolution: Accuracy:

Crest Factor: Power Factor:

Distortion:

Line Regulation: Load Regulation: Efficiency:

PROTECTIVE CIRCUITS

Input: Fast-acting main circuit breaker Constant Current: Overload automatically causes voltage fold back to provide maximum current without distorting output waveform

80% typical

come standard. Units are supplied with analog remote control and available optional RS-232 and IEEE-488 remote control interfaces. Other options include Extended Frequency range up to 1000 Hz and Motor Test option which has the capability to soft-start motors, pumps and compressors thereby eliminating the need for high power devices.

Small size, quiet operation and high efficiency make the BL High Power series ideal for industrial product testing, precision avionic test and power conversion, ATE, bulk power and motor generator replacement.

PROTECTIVE CIRCUITS (cont)

| Short Circuit: | Short circuit electronically latches |
|----------------|--------------------------------------|
| | output open to protect load |
| | power restored by cycling circuit |
| | breaker |
| Thermal: | Internal temperature sensor |
| | prevents heat damage |

CONTROLS / INDICATORS

| Power On/Off: | Circuit breaker | | |
|---|----------------------------------|--|--|
| Meters: | Three (3) DMM: True RMS | | |
| | Volts, True RMS Amps, | | |
| | Frequency | | |
| Voltage Adjust: | Ten-turn potentiometer to adjust | | |
| | voltage | | |
| Frequency Adjust: | Ten-turn potentiometer to adjust | | |
| | frequency | | |
| Phase select: | Three-position switch for phase | | |
| | A, B or C | | |
| Phase angle adjust: Allows for front panel adjustment o | | | |
| | phase angle A-B and B-C | | |
| Output: | Toggle switch | | |
| Indicators: | Power On, Constant Current, | | |
| | Over-temp, Overload Latch | | |
| External Synch: | Synchronizes AC output with | | |
| | external input | | |
| Remote Control | 0-10 VDC programming for | | |
| | voltage and frequency | | |
| | contact closure for output | | |
| | on/offexternal synch | | |



BL5000

MECHANICAL & ENVIRONMENTAL

| -9A - (2) 19" (48.3 cm) rack-mount |
|---|
| chassis 7" H and 8.75" H x 22" D |
| (17.8 cm and 22.2 cm H x 55.9 cm D) |
| -9 - High-strength cabinet with casters |
| 28.3" H x 31.6" D x 22.1" W |
| (71.9 cm H x 80.3 cm D x 55.6 cm W) |
| 2) 19" (48.3 cm) rack-mount chassis |
| 7" H and 8.75" H x 22" D |
| 17.8 cm and 22.2 cm H x 55.9 cm D) |
| 250 lbs (113.5 kgs) three phase Input |
| |
| |

ENVIRONMENTAL / CONNECTIONS

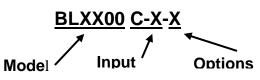
| Operating Temp: | 32° F to 131° F (0-55° C) |
|----------------------------|---------------------------|
| Humidity: | 0-95% RH non-condensing |
| Input Connections: | Barrier strip on rear |
| Output Connections: | Barrier strip on rear |
| Remote Control: | DB-9 connector |

Input Voltages Table 1

OPTIONS

| E: | Extended frequency range, 45-1000 Hz |
|--------|--|
| l: | IEEE-488 Interface |
| IR: | RS232 Interface |
| L: | Locking pot |
| MA: | Mounting Angles (2 per chassis) |
| MT: | Motor test |
| R: | Ruggedized for use in areas with shock |
| | and vibration |
| S: | Slides |
| T5: | 0-300 VAC, L-N (adds 7" chassis) |
| T5D: | 0-135 & 0-270 VAC (adds 7" chassis) |
| V: | Fixed output voltage (ie 115VAC) |
| F: | Fixed output frequency (ie 400Hz) |
| 21-00: | Cabinet with casters |
| | |

Ordering Information



Contact factory for additional options.

| Option | Voltage +/- 10% | Frequency | Comments |
|--------|-------------------------|-------------|--|
| C1 | 120/208 VAC, 3 phase | 47Hz – 63Hz | |
| C2 | 220/380 VAC, 3 phase | 47Hz – 63Hz | |
| C3 | 277/480 VAC, 3 phase | 47Hz – 63Hz | |
| C4 | 200 VAC, DELTA, 3 phase | 47Hz – 63Hz | |
| C5 | 346/600 VAC, 3 phase | 47Hz – 63Hz | Requires contactor and fuses in place of circuit breaker |
| C6 | 230/400VAC, 3 phase | 47Hz – 63Hz | |
| C7 | 240/415 VAC, 3 phase | 47Hz – 63Hz | |
| C8 | N/A | N/A | N/A |
| C9 | 230 VAC, 1 phase | 47Hz – 63Hz | Includes 21-00 stand alone cabinet |
| C9A | 230 VAC, 1 phase | 47Hz – 63Hz | In a 8.75"H chassis |
| C10 | 480 VAC, 1 phase | 47Hz – 63Hz | Includes 21-00 stand alone cabinet |

Contact factory for other input voltages

| Ground Stud | Fan connections used with option "T" | Ground Stud | I or IR options | | |
|-----------------------------------|---|--|--------------------|--------------------------------|--------------------------|
| DC connection (cable supplied) | AC Input Connectio | n | (cable supplie | | in the U.S.A. |
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