**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 BL7000 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 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.

**INPUT**

- **Voltage:** See table 1
- **Frequency:** 47-63 Hz

**OUTPUT**

- **Power:** 7000 VA
- **Voltage:** 0-135 V, single phases, isolated
  - Resolution: 1 V
  - Accuracy: +/-2 % of full scale
- **Frequency:** 45-500 Hz
  - (Option E: 45-1000 Hz)
  - Resolution: 1 Hz
  - Accuracy: +/-2 Hz
- **Current:** 52 Amps / phase
  - Resolution: 0.1 Amp, +/-1 digit
  - Accuracy: +/-2 % of full scale
- **Crest Factor:** 3:1
- **Power Factor:** 100% of rated output into any power factor load
- **Distortion:** 3.0% 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 (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
- **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/off...external synch

**PROTECTIVE CIRCUITS**

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

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**MECHANICAL & ENVIRONMENTAL**

**Dimensions:**
- Single ø Input: 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)
- Three ø Input: (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)

**Weight:** 250 lbs (113.5 kgs)

**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

**OPTIONS**

- **E:** Extended frequency range, 45-1000 Hz
- **I:** 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
- **V:** Fixed output voltage (ie 115VAC)
- **F:** Fixed output frequency (ie 400Hz)
- **21-00:** Cabinet with casters

**Input Voltages Table 1**

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

*Contact factory for additional options.*

**Ordering Information**

```
Model       Input       Options
BL X X 0 0 C - X - X
Optional Output transformer
BL100000C-1-T10-E
Optional Extended Frequency
BL(F) X X 0 0 C - X - V -F
Fixed Output Voltage
Fixed Output Frequency
```

*Contact factory for other input voltages*
AC Power Source/
Frequency Converter

Ground Stud

Fan connections...
used with option “T”

AC Input
Connection

DC connection
(cable supplied)

Ground Stud

AC Output
Connection

I or IR
options

Analog remote control...
standard

DC connection
(cable supplied)

Range relay control
(used with “T”)