

### FEATURES

- Fixed 50, 60 or 400Hz and variable frequency and voltage
- Low input current distortion
- Small footprint
- Easy installation

## BL PLUS 30KVA, 3-PHASE OUTPUT

### 30 KVA OF AC POWER IN A CABINET ONLY 22"W X 32"D

Behlman's BL Plus solid state AC power frequency converter offers greater efficiency, reduced downtime, and a significantly smaller footprint and easier installation than the motor generator it was designed to replace. The BL Plus has all 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 output current without waveform distortion. The BL Plus optional manual controller has three DMM's for volts, frequency and amps and an oscillator that has three fixed frequencies of 50 Hz, 60 Hz and 400 Hz as well as a variable frequency of 45-500 Hz. Optional analog remote control is available with the manual controller or you can opt for the microprocessor controller with RS232 interface standard and optional IEEE-488.

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



Shown with Option M

### INPUT

Multi-pulse input transformer for low input current THD

#### Voltage/frequency:

<b>C1:</b> 120/208, 57-63 Hz	<b>C5:</b> 346/600, 57-63 Hz
<b>C2:</b> 220/380, 47-53 Hz	<b>C6:</b> 230/400, 47-53 Hz
<b>C3:</b> 277/480, 57-63 Hz	<b>C7:</b> 240/415, 47-53 Hz
<b>C4:</b> 200 delta, 57-63 Hz	<b>CX:</b> Custom input

### OUTPUT

<b>Power:</b>	30 KVA
<b>Voltage:</b>	-XXX: Fixed at any L-N, 3-phase
<b>Accuracy:</b>	0.25% of Full Scale +/- 1 V
	-1: 0-132 VAC, L-N, 3-phase
	-2: 0-264 VAC, L-N, 3-phase
	-3: 0-305 VAC, L-N, 3-phase
<b>Frequency:</b>	-XXX: Fixed at any frequency from 45-500 Hz
<b>Accuracy:</b>	+/- 0.1 Hz
<b>Current:</b>	-1: 76 Amps/phase @ 0-132 V
	-2: 38 Amps/phase @ 0-264 V
	-3: 33 Amps/phase @ 0-305 V
<b>Accuracy:</b>	2% of Full Scale +/- 1 A
<b>Peak current:</b>	Repetitive peak not to exceed 150 amps
<b>Power Factor:</b>	100% of rated output into any power factor load
<b>Distortion:</b>	3.0% THD typical, measured at full current, 115 Volts, 60 Hz into a linear load
<b>Line Regulation:</b>	+/- 0.5% for +/- 10% line change
<b>Load Regulation:</b>	+/- 0.7%, no load to full load
<b>Efficiency:</b>	80% typical
<b>Line drop compensation:</b>	+10% adjustable to compensate for output line losses

### PROTECTIVE CIRCUITS

<b>Input:</b>	Electron ic circuit breaker
<b>Constant current:</b>	Overload automatically causes voltage fold-back to provide maximum current without distorting output waveform
<b>Short circuit:</b>	Short-circuit overload electronically latches output open to protect load... power restored by recycling circuit breaker
<b>Thermal:</b>	Internal temperature sensor prevents heat damage by turning output off...output will turn on when reaching safe temperature

### CONTROLS / INDICATORS

<b>Power On/Off:</b>	Push to start...push to stop
<b>Line drop compensation:</b>	Three recessed potentiometers for 10% adjustment phase A, B, C

**MECHANICAL SPECIFICATIONS**

**Dimensions:** -1: 49"H x 31.6"D x 22.1"W,  
(134.6 cm X 80.3 cm X 56.1 cm)  
including fork lift base  
-2: 59"H x 31.6"D x 22.1"W,  
(160 cm x 80.3 cm x 56.1 cm)  
including fork lift base  
-3: 59"H x 31.6"D x 22.1"W,  
(160 cm x 80.3 cm x 56.1 cm)  
including fork lift base

**Weight:** -1: 900 lbs. (408 kg)  
-2: 1200 lbs. (544 kg)  
-3: 1200 lbs. (544 kg)

**Operating Temperature:** 32 to 104° F, (0 to 40° C)  
**Storage Temperature:** -4 to 158° F, (-20 to 70° C)

**Humidity:** 0-95 % RH non-condensing

**Input Connections:** Four pressure terminals:  
A, B, C, N...protective ground  
stud provided

**Output Connections:** Four pressure terminals:  
A, B, C, N

**NOTES:**

1. See separate specification for MAC 2000
2. See separate specification for PAC 2000

**OPTIONS:** Contact factory for additional options including custom input and output

**WF:** "Wild Frequency" range of 350 to 880 Hz  
**M:** **MAC2000** manual controller with three fixed frequencies of 50 Hz, 60 Hz and 400 Hz and variable frequency of 45-500 Hz



**MA:** MAC2000 with 0-10 VDC remote control for voltage and frequency, contact closure for output On/Off

**P:** **PAC2000** programmable controller with 40 characters X 2 line Vacuum Fluorescent display and front panel pushbutton control or remote control using RS232 interface supplied with terminal block.

**P3:** Programmable Controller with independent Voltage adjustment A, B, C with RS232 Interface



**Set:** Volts, frequency, current limit, phase angle, and output On/Off  
**Display:** Volts A, B, C; current A, B, C; frequency, current limit and 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)  
*Remote sense in place of line drop compensation.*

**PI:** PAC2000 with IEEE-488 interface

**P3I:** Programmable Controller with independent Voltage adjustment A, B, C with IEEE-488 Interface

**MODEL SELECTION GUIDE**

**Model BL+30-3-(Input)-(Output V/F)-(Options)**

**Examples:**

**Model:** BL+30-3-C1-115/400  
**Power:** 30 KVA unit, 3 phase output  
**Input:** 120/208 VAC, 57-63 Hz  
**Output:** Fixed volts (115/200 VAC), fixed frequency (400 Hz)

**BL+30-3-C2-1-P-WF**  
**30 KVA, 3 phase output**  
**220/380 VAC, 47-53 Hz**  
**0-132 VAC, L-N, 3-phase**  
**P: Programmable controller**  
**WF: Frequency range, 350-880 Hz**



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