

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 various regulatory 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. Extended frequency range up to 1000 Hz and Motor Test option, which has the capability to start motors, pumps and compressors thereby eliminating the need for high power devices, available on most models; contact factory for additional details related to these options.

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: 5000 VA
Voltage: 0-135 V, L-N, 3 phase, 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: 12.5 Amps / phase
Resolution: 0.1 Amp, +/-1 digit
Accuracy: +/-2 % of full scale
Crest Factor: 3:1
Power Factor: 100% power, 0.7 lead to 0.7 lag
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

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

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 of 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/off...external synch

MECHANICAL & ENVIRONMENTAL

Dimensions:

Single ø Input: **C-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)
C-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)

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: Varies by model and options selected; contact Behlman factory for details.

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
-T5-270: 0-270VAC @ 6.2A[†]
-T5-300: 0-300VAC @ 5.5A[†]
-T5D-135/270: 0-135VAC @ 12.5A / 0-270VAC @ 6.2A^{††}
-T5D-150/300: 0-150VAC @ 11A / 0-300VAC @ 5.5A^{††}
-V: Fixed output voltage (e.g., 115VAC)
-F: Fixed output frequency (e.g., 400Hz)
-21-00: Cabinet with casters

[†] All voltages are L-N, add 7" chassis

^{††} 'T5D' output ranges switch-selectable

Option	Voltage +/- 10%	Frequency	Comments
C-1	120/208 VAC, 3 phase	47Hz – 63Hz	
C-2	220/380 VAC, 3 phase	47Hz – 63Hz	
C-3	277/480 VAC, 3 phase	47Hz – 63Hz	
C-4	200 VAC, DELTA, 3 phase	47Hz – 63Hz	
C-5	346/600 VAC, 3 phase	47Hz – 63Hz	Requires contactor and fuses in place of circuit breaker
C-6	230/400VAC, 3 phase	47Hz – 63Hz	
C-7	240/415 VAC, 3 phase	47Hz – 63Hz	
C-8	N/A	N/A	N/A
C-9	230 VAC, 1 phase	47Hz – 63Hz	Includes 21-00 stand alone cabinet
C-9A	230 VAC, 1 phase	47Hz – 63Hz	In a 8.75"H chassis
C-10	480 VAC, 1 phase	47Hz – 63Hz	Includes 21-00 stand alone cabinet

Table 1: Input Voltages

(Contact factory for other input voltages)

Ordering Information

BL 5 0 0 0 C - N - V - F - X

Model Input Options (see above)

Examples:

BL5000C-1-T5-270-E

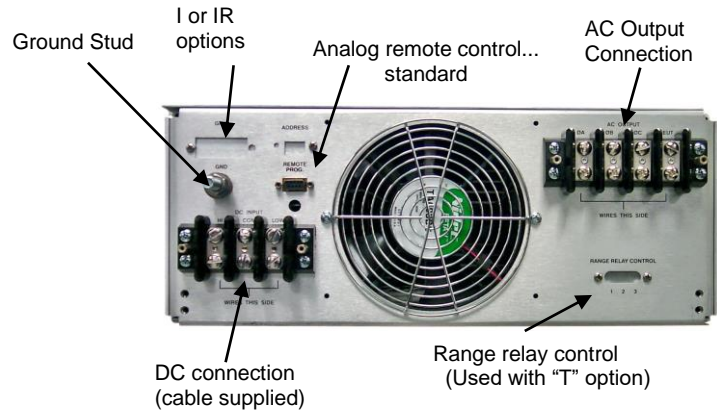
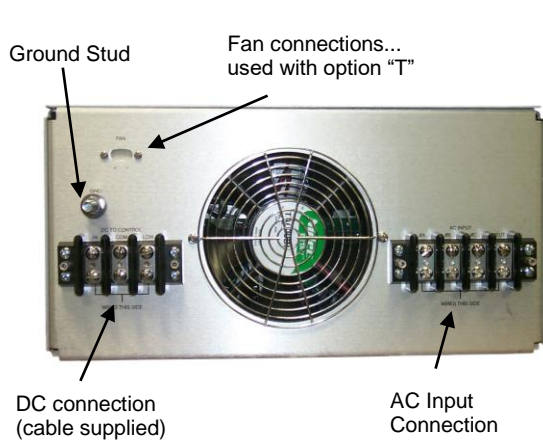
120/208VAC 3-Phase Input Optional 0-270VAC Output Transformer Optional 45-1000Hz Extended Frequency

BL5000C-3-120-6

277/480VAC 3-Phase Input 120VAC Fixed Output Voltage 60Hz Fixed Output Frequency

(Contact factory for additional options)

AC Power Source/ Frequency Converter



Rear View



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