

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 BL3100 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

INPUT

Voltage: See table 1
Frequency: 47-63 Hz

OUTPUT

Power: 3000 VA
Voltage: 0-135 V, single 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: 22 Amps
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

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



Shown with a single phase input

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
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: (2) 19" (48.3 cm) rack-mount chassis
7" H and 7" H x 22" D
(17.8 cm and 17.8 cm H x 55.9 cm D)
- Three ø Input: (2) 19" (48.3 cm) rack-mount chassis
3.5" H and 7" H x 22" D
(8.9 cm and 17.8 cm H x 55.9 cm D)

Weight: 150 lbs (68.1 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

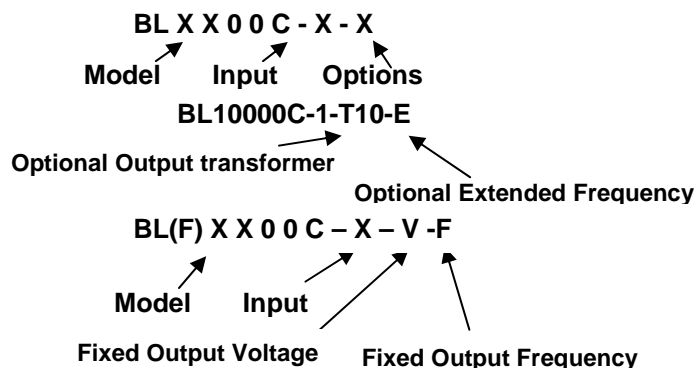
- E:** Extended frequency range, 45-1000 Hz
I: IEEE-488 Interface
IR: RS232 Interface
L: Locking pot
MA: Mounting Angles (2 per chassis)
MT: Motor test
R: Ruggedized for use in areas with shock and vibration
S: Slides
T31D: 0-135 & 0-270 VAC (adds 7" chassis)
V: Fixed output voltage (ie 115)
F: Fixed output frequency (ie 400)
21-00: Cabinet with casters

Input Voltages Table 1

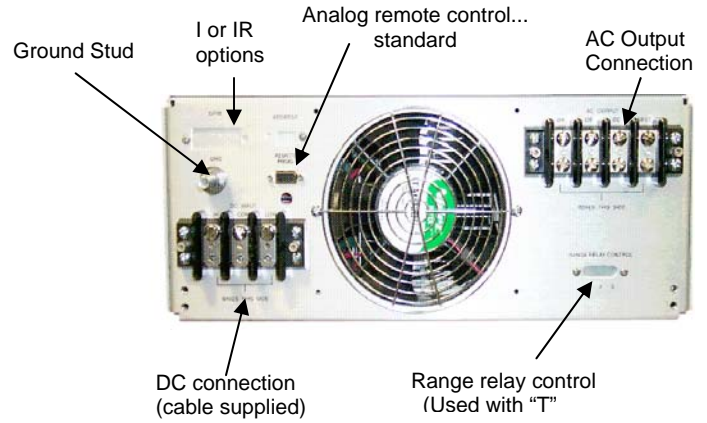
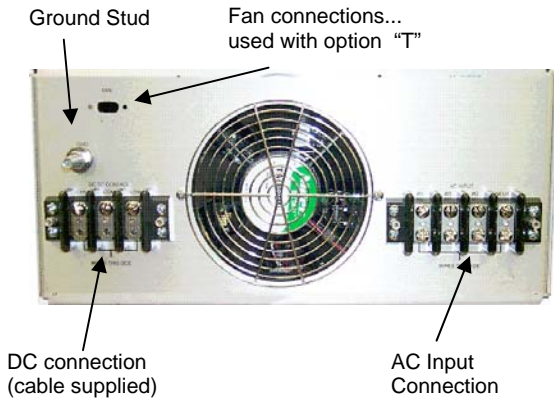
Option	Voltage +/- 10%	Frequency	Comments
C1	120/208 VAC, 3 phase	47Hz – 63Hz	
C2	220/380 VAC, 3 phase	47Hz – 63Hz	
C3	277/480 VAC, 3 phase	47Hz – 63Hz	
C4	200 VAC, DELTA, 3 phase	47Hz – 63Hz	
C5	346/600 VAC, 3 phase	47Hz – 63Hz	Requires contactor and fuses in place of circuit breaker
C6	230/400VAC, 3 phase	47Hz – 63Hz	
C7	240/415 VAC, 3 phase	47Hz – 63Hz	
C8	115/230 VAC, 1 phase	47Hz – 63Hz	Requires 7"H chassis in place of 3.5"H
C9	N/A	N/A	
C9A	N/A	N/A	
C10	N/A	N/A	

Contact factory for other input voltages

Ordering Information



Contact factory for additional options.



Rear View

