

### BL5100-(Input)-RR-(V/F) Railroad Signal Source SPECIFICATIONS

Behlman's RR series of Railroad Signal Sources/Frequency Converters are low cost, highly reliable, switch mode units built for Railroad Signaling. The RR series can be supplied with any single or three-phase input and outputs a clean, regulated AC at a precise frequency from 25 Hz to 250 Hz. These rugged signal sources are built to support the rigors of operating in the harsh environment of Railroad signaling equipment.

#### FEATURES

- Input & Output Isolation Transformers
- Short circuit protection with Auto-reset
- Rugged construction
- Optional Alarm contacts and LED indicators
- Optional AAR terminals for input & output



#### INPUT

Voltage

- C8:** 120 VAC +/- 10%, Single-phase
- C9:** 240 VAC +/- 10%, Single-phase
- C10:** 480 VAC +/- 10%, Single-phase

Frequency:

57 - 63 Hz. Other frequency available, contact factory.

#### OUTPUT

Voltage:

Any Fixed voltage 100 to 480 VAC, single-phase,  
**Transformer Isolated and Floating.**

Frequency:

Any Fixed Frequency from 50 to 250 Hz +/- 0.25 Hz

Power:

5000 VA

Current Crest Factor:

3:1

Power Factor:

100% of rated output into any power factor load

Distortion:

2.0% Typical THD, full resistive load.

Load Regulation:

$\pm 1.0\%$  No Load to Full Load

Line Regulation:

$\pm 0.5\%$  for  $\pm 10\%$  Line Change

Efficiency:

80% typical

#### CONTROL CIRCUIT

External Sync:

Synchronize AC output with 120 VAC external input.

### PROTECTIVE CIRCUITS / INDICATORS

Input:	Main circuit breaker and surge arrestors.
Constant Current Mode:	Overload automatically causes voltage fold-back to provide maximum current without distorting output waveform.
Overload Protection:	Short Circuit overload electronically disables output to protect load. <b>Automatic reset upon overload removal.</b>
Thermal Protection:	Internal temperature sensor prevents heat damage.
Output:	Surge arrestors & transformer isolated.
Meters:	Digital Meters for Volts, Amps & Frequency Accuracy, +/- 2% Full Scale / +/- 1 digit.

### MECHANICAL SPECIFICATIONS

Dimensions:	High strength rack cabinet with casters 30"H x 31.6"D x 22.1"W.
Weight:	400lbs
Operating Temperature:	0 to 50° C.
Cooling:	Internal fans.
Input connections:	Screw type terminals.
Output connections:	Screw type terminals.
Sync connections:	Screw type terminals

### OPTIONS:

- A: Alarms**, Contact closure & Indicator
1. Inv OK - Loss of Inverter output.
  2. Sync - Loss of sync input
  3. Lock - Out of phase condition between Inverter output and Sync Input
  4. Over Temp - Over Temperature

**AAR: AAR Terminals**, input and output

**ID: Input Turn on Delay**

### Model Selection:

#### BL5100-C9-RR480/100-A-AAR

Input: 230 VAC, single-phase  
Output: 480 VAC, 100 Hz  
Option: Alarms & AAR terminals



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