

## BL7000C-5056 FREQUENCY CONVERTER SPECIFICATIONS

### INPUT

115/200 VAC, 3 Ph, WYE/Delta, 400 Hz, @ 30 Amps / phase max.  
Multi Pulse Input Transformer for Low Input Current THD.

### OUTPUT

Power: 7000 VA  
Voltage: 115 VAC, 1 Phase  
Frequency: 60 Hz  
Current: 58.5 Amps  
Current Crest Factor: 3:1  
Power Factor: 100% of rated output into any power factor load.  
Distortion: 1.5% Typical THD  
Load Regulation: +/- 0.7% No Load to Full Load  
Line Regulation: +/- 0.1% for +/- 10% Line Change  
Efficiency: Minimum 70% from 40% of full load to full load.



### PROTECTIVE CIRCUITS:

Input Protection: Main circuit breaker.  
Constant Current Mode: Overload automatically causes voltage fold-back to provide maximum current without distorting output waveform.  
Short Circuit Protection: Short Circuit electronically latches output open to protect load. Power restored by recycling circuit breaker.  
Thermal Protection: Internal temperature sensor prevents heat damage.

### DISPLAY AND CONTROL

Microprocessor controller with 24 characters X 2 lines Vacuum Fluorescent display. Has the ability to set Current Limit. Displays Volts, Frequency and Current. Has fault indicator for Over Voltage, Over Current, Over Temperature, Constant Current and Short Circuit.  
Output ON/OFF Switch with Indicator  
Local/Remote Manual Switch

### REMOTE CONTROL:

Remote Control: RS232 Interface for remote display of front panel  
Output ON/OFF Control: Customer supplies 28VDC to turn output of unit ON. Removing 28VDC disables Output. Use contact closure

### MECHANICAL SPECIFICATIONS:

Dimensions: 19" Rack Mount Chassis, 10.5"H X 22"D.  
Weight: Approximately 120 lbs.  
Cooling: Internal Fans  
Air Intake: Air Flow from front and side panels.  
Air Exhaust: Air Flow to rear panels.  
Label: Additional to mfg. markings, Customer P/N "03CD0041-1"

**ENVIRONMENT SPECIFICATIONS:** Design to meet the conditions as defined in Mil-Std-810, Method 520.2

|                        |  |
|------------------------|--|
| Operating Temperature: | -20 to 50° C.  |
| Storage Temperature:   | -40 to 60° C.  |
| Shock                  | Design to meet, 18 impacts of 15G's for the duration of 11+/-1 millisec.   |
| Vibration:             | Random Vibration to Frequency range of 20 to 1000Hz with Power spectrum density of 0.04g <sup>2</sup> /Hz and from 1KHz to 2KHz beginning at 0.04g <sup>2</sup> /Hz and drop at a linear -6db/octave rate. |
| Humidity:              | 0-95% RH non-condensing.   |
| Altitude:              | Design to operate at altitudes of 10,000 feet. Can be exposed to 40,000 feet in a non-operating state, and operate normal when returned to 10,000 feet or less.  |
| Fungus:                | Designed not to afford fungus nutrition.   |

**ELECTROMAGNETIC INTERFERENCE:**

Design to meet or exceed MIL-STD-461E requirements, intended for installation on Aircraft, Air Force.  
To meet this requirement, shielded cable shall be used for Input and Output Cabling.

**ELECTRICAL CONNECTIONS:**

**J1 - Power Input Connector, P/N MS3452W24-10P**

**Pin assignment:**

|             |                        |
|-------------|------------------------|
| "A" -       | 115V, Phase "A", 400Hz |
| "B" -       | 115V, Phase "B", 400Hz |
| "C" -       | 115V, Phase "C", 400Hz |
| "D" -       | Neutral (WYE)          |
| "E" -       | Chassis Ground         |
| "F" & "G" - | Spares                 |

**J2 - Power Output Connector, P/N MS3452W32-17S**

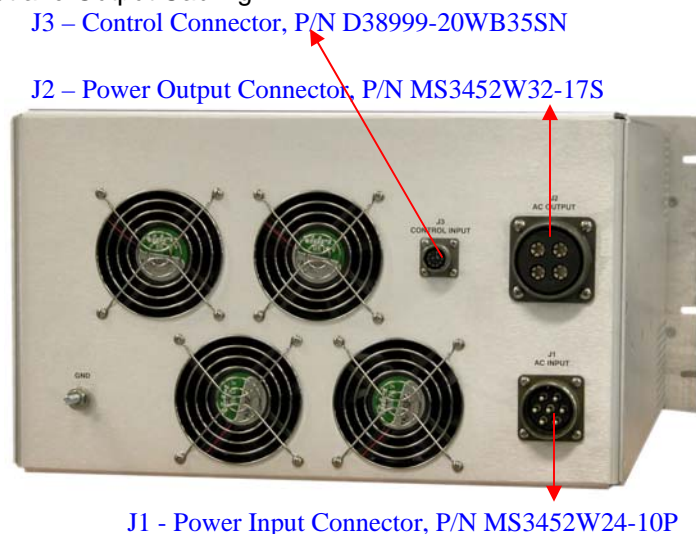
**Pin assignment:**

|       |   |
|-------|---|
| "A" - | 120V, 60Hz (bussed internally to J2, Pin "C")   |
| "B" - | 60Hz Neutral (bussed internally to J2, Pin "D") |
| "C" - | 120V, 60Hz (bussed internally to J2, Pin "A")   |
| "D" - | 60Hz Neutral (bussed internally to J2, Pin "B") |

**J3 - Control Connector, P/N D38999-20WB35PN**

**Pin assignment:**

|           |  |
|-----------|--|
| "1"       | Not Used   |
| "2"       | Received Data (RXD)  |
| "3"       | Transmitted Data (TXD)   |
| "4"       | Data Terminal Ready (DTR)  |
| "5"       | Ground (GND)   |
| "6"       | Not Used   |
| "7"       | Not Used (Connected Internally with Pin 8)   |
| "8"       | Not Used (Connected Internally with Pin 7)   |
| "9 to 11" | Not Used   |
| "12"      | Relay Return   |
| "13"      | Customer Supplies 28VDC for Output Control. 28VDC equals ON. Lack of 28VDC equals output OFF |



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