AFC-7003-(50, -60 or -400)

FEATURES

- **Single rack space (6U high)**
- **Rugged construction**
- **Unique overload protection**
- **Microprocessor controller with Vacuum Fluorescent Display**
- **RS-232 or 28 VDC Output control**

AIRBORNE FREQUENCY CONVERTER

Behlman's AFC-7003 is a ruggedly built, modified COTS frequency converter designed to convert three-phase aircraft power to regulated three-phase (115/200 VAC) 50,60 or 400 Hz power. The AFC-7003 is ruggedly built to support aircraft takeoffs and landings and designed to meet the input power requirements of MIL-STD-704 and RTCA-DO-160.

In the AFC-7003 you'll find the quality features you expect from Behlman. 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. Units are supplied with RS-232 remote control and 28 VDC control of Output On/Off. In addition the unit has provisions for slide mounting.

Small size, rugged construction, quiet operation and high efficiency make the AFC-7003 ideal for use on aircraft to convert aircraft power to ground power.

INPUT

115/200 VAC, +/-10%, 3-Ph, WYE, 350-800 Hz, @ 30 Amps/phase max. (power derated above 700 Hz)
Multi Pulse Input Transformer for Low Input Current THD

OUTPUT

Power:	6900 VA
Voltage:	115/200 VAC, three-phase
Frequency: (F)	50 Hz, 60 Hz or 400 Hz
Accuracy:	+/- 0.1 Hz
Current:	20 Amps/ phase
Crest Factor:	3 : 1
Power Factor:	100% of rated output into any power factor load
Distortion:	1.5% 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 with guard
Constant Current:	Overload automatically causes voltage fold-back to provide maximum current without distorting output waveform
Short Circuit:	Short-circuit overload 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 with guard
Control/Display:	Microprocessor controller with 40 characters X 2 lines Vacuum Fluorescent display. Displays Volts, Frequency, Current and Current Limit. Fault indicator for Over Voltage (OV), Over Current (OI), Over Temperature (OT), Constant Current (CC) and Short Circuit (OL) (Set Current Limit with RS-232 interface)
Output On/Off:	ON- with Safety Interlock connector supplied with unit. ON/OFF- with customer supplied 28VDC. ON/OFF- with RS-232 Interface.
Output Indicator:	Indicates output relay is energized
Busy Indicator:	Indicated a command is being processed by the microprocessor
Reset Switch:	Recessed push-button switch to reset controller
Remote Control:	RS-232 to monitor unit, turn output On/Off and set current limit

MECHANICAL & ENVIRONMENTAL

Dimensions:	High-strength 19” (48.3 cm) rack mount chassis, 10.5”H X 22”D (26.7 cm X 55.9 cm)	**Air intake:**	Front and Sides
		Air Exhaust:	Rear
		Input Connections:	**J1-** MS3102-24-10P
Weight:	128 lbs (58 kgs) Max	**Output Connections:**	**J2-** MS3102-32-17S
Cooling:	Internal fans	**Remote control:**	**J3-** D38999-20WB35PN

Designed to meet the conditions as defined in MIL-STD-810, Method 520.2

Operating Temperature: -4° to 123° F (-20° to 50° C)

Storage Temperature: -4° to 140° F (-20° to 60° C)

Shock: Designed to meet, 18 impacts of 15G’s for the duration of 11+/-1 millisecond.

Vibration: Random Vibration Frequency range of 20 to 1000Hz with Power spectrum density of 0.04g²/Hz and from 1KHz to 2KHz beginning at 0.04g²/Hz and drop at a linear –6db/octave rate.

Humidity: 0-95% RH non-condensing.

Altitude: Designed to operate at altitudes of 10,000 feet. Can be exposed to 40,000 feet in a non-operating state, and operate normally when returned to 10,000 feet or less.

Fungus: Designed not to afford fungus nutrition

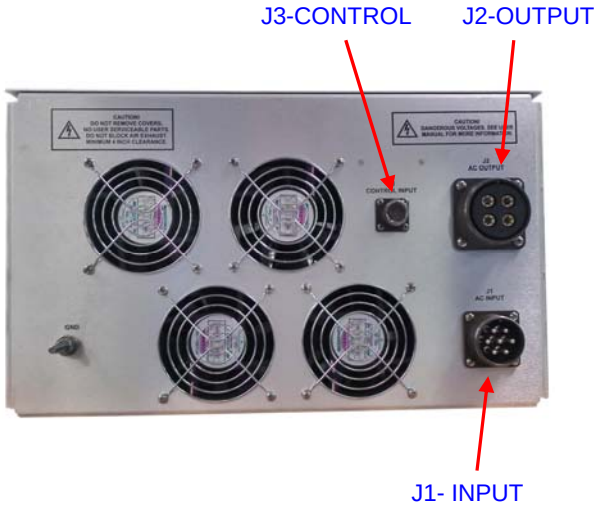
Electromagnetic Interference: Designed to meet or exceed MIL-STD-461E requirements, intended for installation on Aircraft. To meet RE102 requirement, shielded cable shall be used for Input and Output Cabling**.**

ELECTRICAL CONNECTIONS:

J1 - Power Input Connector

J2 – Power Output Connector

J3 – Control Connector
(Supplied with Safety Interlock plug)



OPTIONS

S Slides

MODEL SELECTION

AFC-7003-60-S

AFC-7003 with 115/200 VAC, three-phase, 60 Hz output and optional slides

Proudly made in the U.S.A.

www.behlman.com

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