Amphenol
MILITARY HIGH SPEED

# CF-02EM6242
## DC&AC INVERTER

### DESCRIPTION:
The M6242 Series DC&AC Inverter is a compact, high-efficiency inverter designed for reliable power conversion. It features a wide input range and ensures robust input/output isolation. The inverter includes an “Output Good” Built-In Test (BIT) signal for real-time performance monitoring. EMI filters are included for electromagnetic interference. The M6242 Series also offers non-latching protections against overload, short-circuit, over-voltage, and over-temperature conditions.

### APPLICATIONS:

Military (Airborne, mobile, ground-fix, shipboard), Ruggedized, Telecom, Industrial Power Supply)

### FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Output Good (BIT) Signal
- EMI filters included
- Non-latching protections:
    - o Overload/Short-Circuit
    - o Over-voltage
    - o Over temperature

### HOW TO ORDER

| Part number | Input | Output | | |
|---|---|---|---|---|
| | Voltage Input Range | Voltage | Frequency | Current |
| CF-02EM6242 | 18 to 36 VDC | 115 VAC | 400Hz | 1 A |

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## PRODUCT SPECIFICATIONS:

| Electrical Specifications | |
|---|---|
| **DC Input** | Voltage range: 18 to 36 VDC |
| **Output Voltage Regulation** | Better than ±3% (no load to full load, –55°C to +90°C, and over input voltage range). |
| **Output Waveform** | Sinusoidal, with up to 3% THD when driving resistive, capacitate or inductive load |
| **AC Output** | Voltage range: 26 to 115Vrms<br>Current range: 0 to 2.3 A<br>Power range: 0 to 100 VA |
| **Efficiency** | 60-75% typical from 40% load |
| **Isolation** | Input to Output: 500 VDC<br>Input to Case: 100 VDC<br>Output to Case: 500 VDC |
| **EMC** | Designed to meet* MIL-STD-461F<br>CE102, CS101, CS114, CS115,<br>CS116, RE102, RS103 |

| Protections | |
|---|---|
| **Input** | Over-Voltage Lock-Out |
| **Output** | Over-Voltage Protection: Electronic shutdown with automatic recovery and a passive transorb on output. |
| | Current limiting: Continuous protection for unlimited time with Automatic recovery. |
| **General** | Over Temperature protection: Shutdown in case baseplate temperature rises above +95°C ± 5°C. Automatic recovery upon cooldown to below +90°C ± 5°C. |

| | |
|---|---|
| **Reliability** | 150000 hours, calculated per MIL-HDBK-217F Notice 2 at +85°C base-plate, Ground fixed. |
| **Environmental Stress Screening (ESS)** | Including random vibration and thermal cycles is also available. Please consult factory for details. |

## PIN ASSIGNMENT:

Connector type: MS3102E14S-6P-626-9 or eq.
Mates with: MS3106T-14S-6S-626-9 or eq.

| Pin # | Function | P |
|---|---|---|
| A | VIN | + |
| B | VIN RTN | – |
| C | OUT (PHASE) | ~ |
| D | OUT RTN (NEUTRAL) | 0 |
| E | BIT | + |
| F | INHIBIT | + |

## FUNCTIONS AND SIGNALS:

### INHIBIT

The INHIBIT signal is used to turn the power supply ON and OFF.

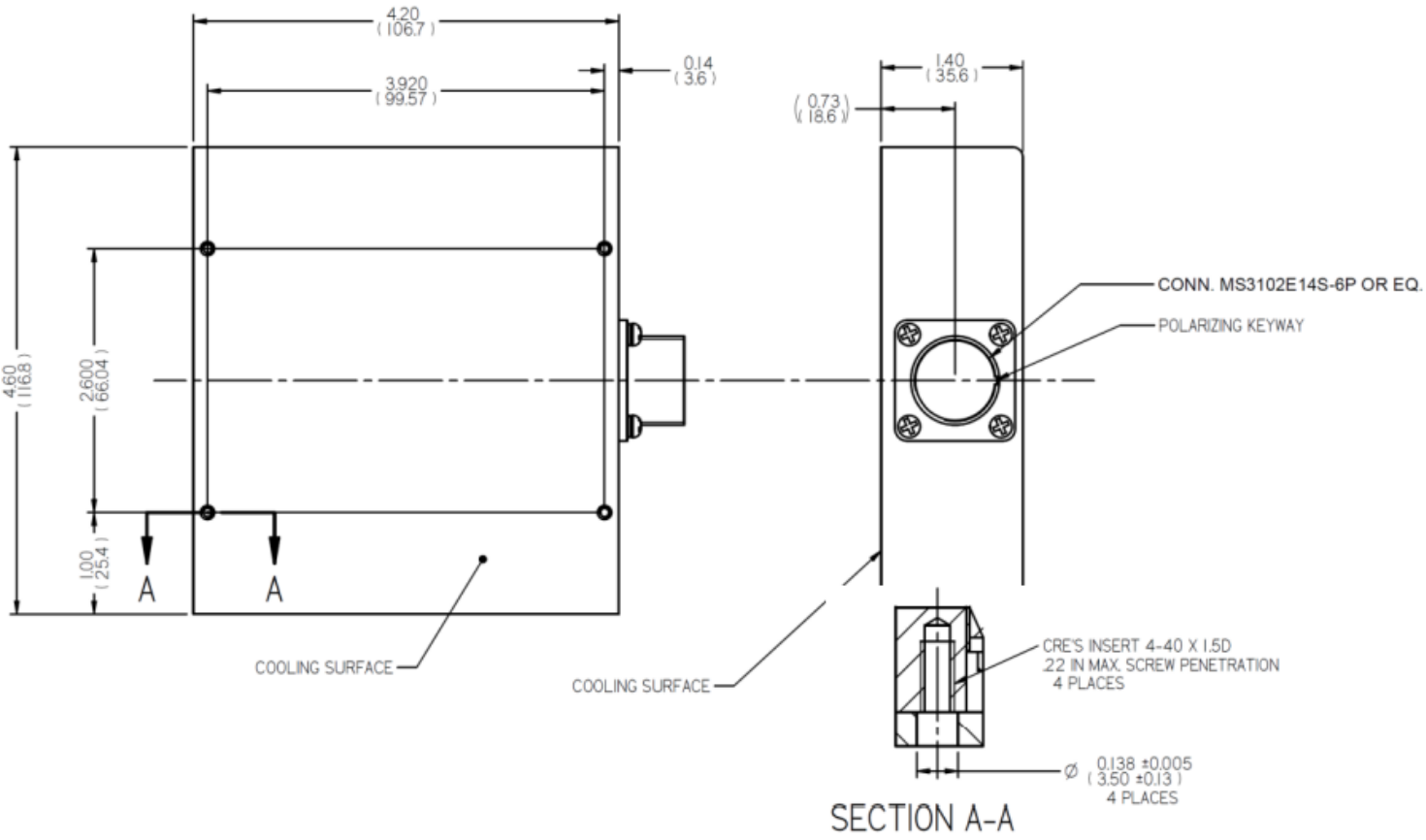
- Leaving it open will turn the power supply ON.
- Shorting it to **IN RTN** will turn the power supply OFF.

This signal is referenced to **VIN RTN.**

### BIT

The **BIT** signal is used to indicate if the output voltage is within range.
TTL “1” means the output is within the required tolerances.
TTL “0” means the output is not within the required tolerances.
This signal is referenced to **BIT RTN.**

## OUTLINE DRAWING:




Notes
1. Dimensions are in Inches [mm]
2. Tolerance is:
   .XX ± 0.02 IN
   .XXX ± 0.01 IN
3. Weight: TBD



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