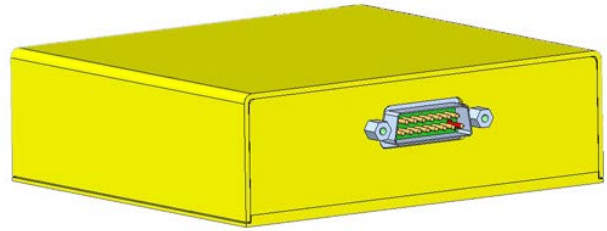


M6242 SERIES

**MINIATURE, HIGH DENSITY,
SINGLE OUTPUT,
DC/AC CONVERTER**
(60-100VA, 47-400Hz)
Preliminary



Applications		
Military (Airborne, ground-fix, shipboard), Ruggedized, Telecom, Industrial		
Special Features		
<ul style="list-style-type: none"> • Miniature size • High efficiency • Wide input range • Input / Output isolation • BIT report 	<ul style="list-style-type: none"> • Not encapsulated • EMI/RFI filters included • Indefinite short circuit protection with auto-recovery 	<ul style="list-style-type: none"> • Over-voltage shutdown with auto-recovery • Over temperature shutdown with auto-recovery
Electrical Specifications		
<u>DC Input:</u> DC Input range: 18 to 36 Vdc, per MIL-STD-704A.	<u>AC Output – Single Phase:</u> Output range – 26V to 115V Output max current – 2.3A Output power – 100VA	<u>Isolation:</u> 200V between Input and Output 100V between Output and Case
<u>Line/Load regulation:</u> Less than 3% (no load to full load, -55°C to +90°C).	<u>Efficiency :</u> Up to 60-75% from 40% load	<u>EMI/RFI:</u> Design to meet MIL-STD-461E CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103
<u>Wave form:</u> Sinusoidal, with a maximum level of 3% total harmonic distortion into resistive, capacitate or inductive load		
Protections *		
<u>Input</u> <ul style="list-style-type: none"> • Over voltage protection – 	<u>Output</u> <ul style="list-style-type: none"> • Electronic over voltage protection – Electronic shutdown with automatic recovery and a passive transzorb on output. • Current limiting – Continuous protection for unlimited time with Automatic recovery. 	<u>General</u> <ul style="list-style-type: none"> • Over temperature protection: Shutdown at baseplate temperature of +95°C (±5°C) Automatic recovery at baseplate temperature lower than +90°C (±5°C)

* Thresholds and protections can be modified / removed – please consult factory.

Environmental

Design to Meet MIL-STD-810F

Temperature:

Operating: -55°C to +85°C
(baseplate)

Storage: -55°C to +125°C

Humidity:

Method 507.4 - Up to 95%.

Altitude:

Method 500.4, Procedure I & II, 30,000
ft. and 70,000 ft. Operational

Vibration and Shock:

Shock – Saw-tooth, 20g peak, 11mS.
Vibration - Figure 514.5C-17. General
minimum integrity exposure. (1 hour per
axis.) - can support up to 50g

Salt Fog:

Method 509-4

Reliability

150,000 hours, calculated per
MIL-STD-217F 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

PIN No.	PIN Function
1	+OUT, PHASE
2	N.C.
3	+OUT, NEUTRAL
4	N.C.
5	+ BIT SIGNAL

PIN No.	PIN Function
6	INHIBIT
7	-VIN
8	+VIN
9	+OUT, PHASE
10	N.C.

PIN No.	PIN Function
11	+OUT, NEUTRAL
12	N.C.
13	- BIT SIGNAL
14	-VIN
15	+VIN

INHIBIT signal

The INHIBIT signal is used to turn the power supply ON and OFF. It is an open collector

OPEN – will turn on the power supply.

SHORT to -VIN – will turn off the power supply.

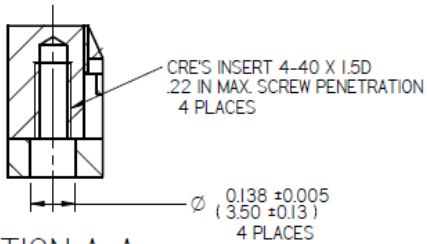
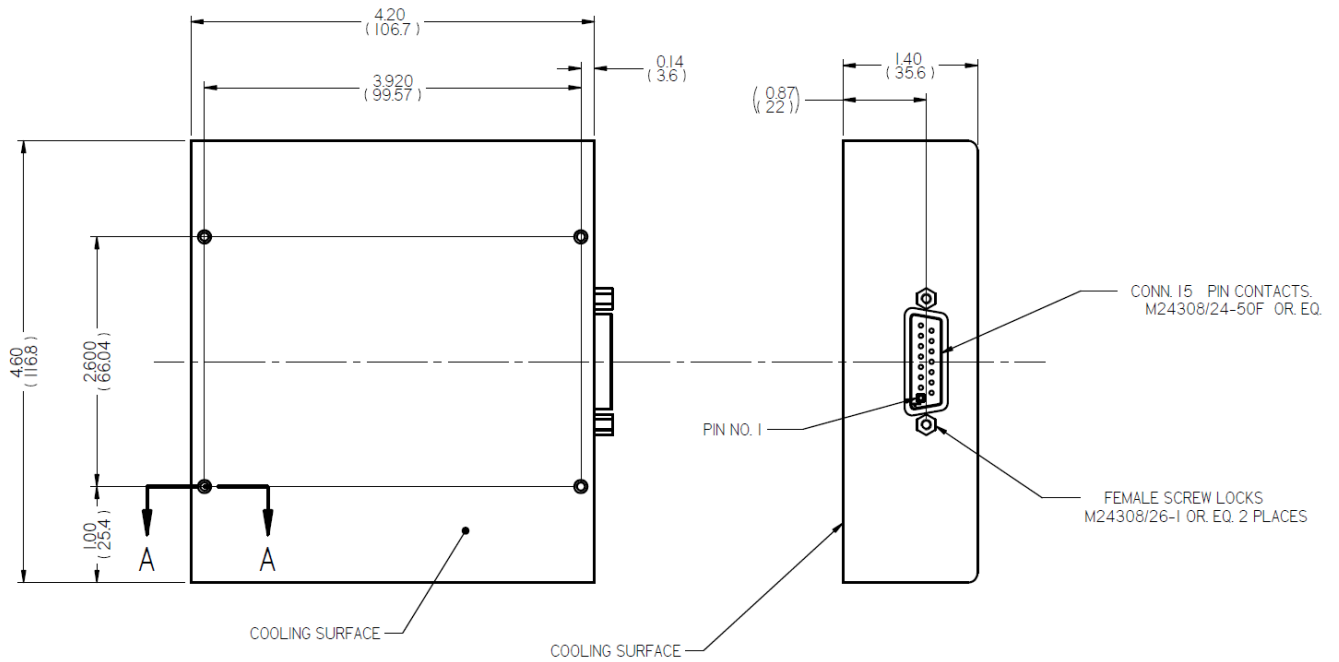
BIT signal

The BIT signal is used to indicate if the output voltage is OK.

TTL “1”- output is within the required tolerances.

TTL “0” - output is not within the required tolerances.

Outline Drawing (M6242-1)



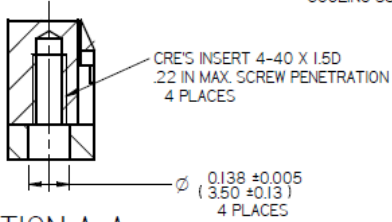
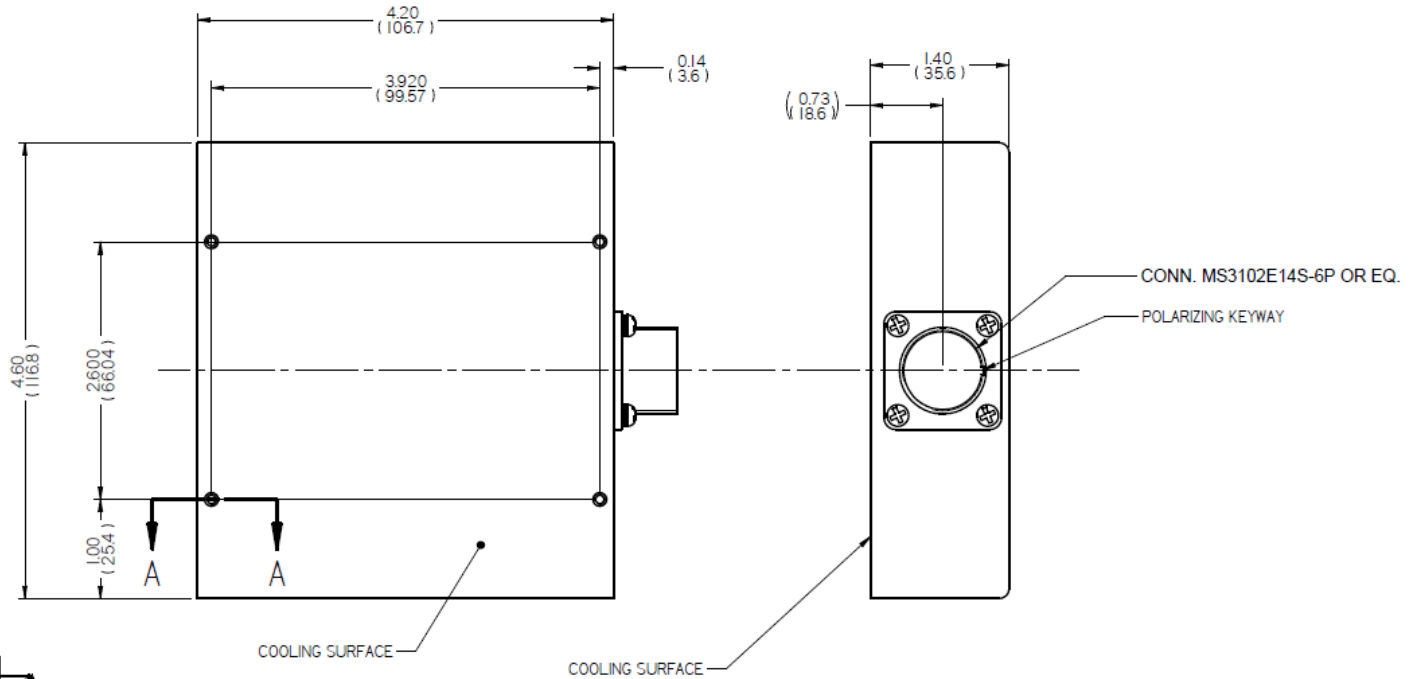
SECTION A-A

Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ±0.01 IN
.XXX ±0.005 IN
3. Weight: TBD Oz (gr)

*Specifications are subject to change without prior notice by the manufacturer

Outline Drawing (M6242-2)



SECTION A-A

Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
 .XX ± 0.01 IN
 .XXX ± 0.005 IN
3. Weight: TBD Oz (gr)

*Specifications are subject to change without prior notice by the manufacturer