

# M8737 SERIES

**MINIATURE, HIGH DENSITY,  
TRIPLE OUTPUT,  
DC/DC CONVERTERS  
(UP TO 50W)**



## **APPLICATIONS**

Military, Ruggedized, Telecom, Industrial

## **SPECIAL FEATURES**

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- External synchronization capability
- TTL logic enable (Inhibit)
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage protection
- Over temperature shutdown with auto-recovery

## **ENVIRONMENTAL**

Meets or exceeds MIL-STD-810D

Temperature:

Operating  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  (baseplate)

Storage  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

## **RELIABILITY**

150,000 hours, calculated per  
MIL-STD-217F at  $+85^{\circ}\text{C}$  baseplate,  
ground fixed.

## **ELECTRICAL SPECIFICATIONS**

### **DC INPUT**

DC Input range: 18 to 48 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: up to 80%

EMI/RFI:

Desing to meet or exceed MIL-STD-461C

CE03, CE07, CS01, CS02, CS06, RE02, RS02, RS03

Isolation:

200V between Input and Output

200V between Input and Case

### **DC OUTPUT (floating)**

Line/Load regulation:

Less than 1% (no load to full load,  $-55^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ )

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting (Hiccup):

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of  $+105^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Automatic recovery at baseplate temperature

lower than  $+95^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Isolation:

200V between Output and Input

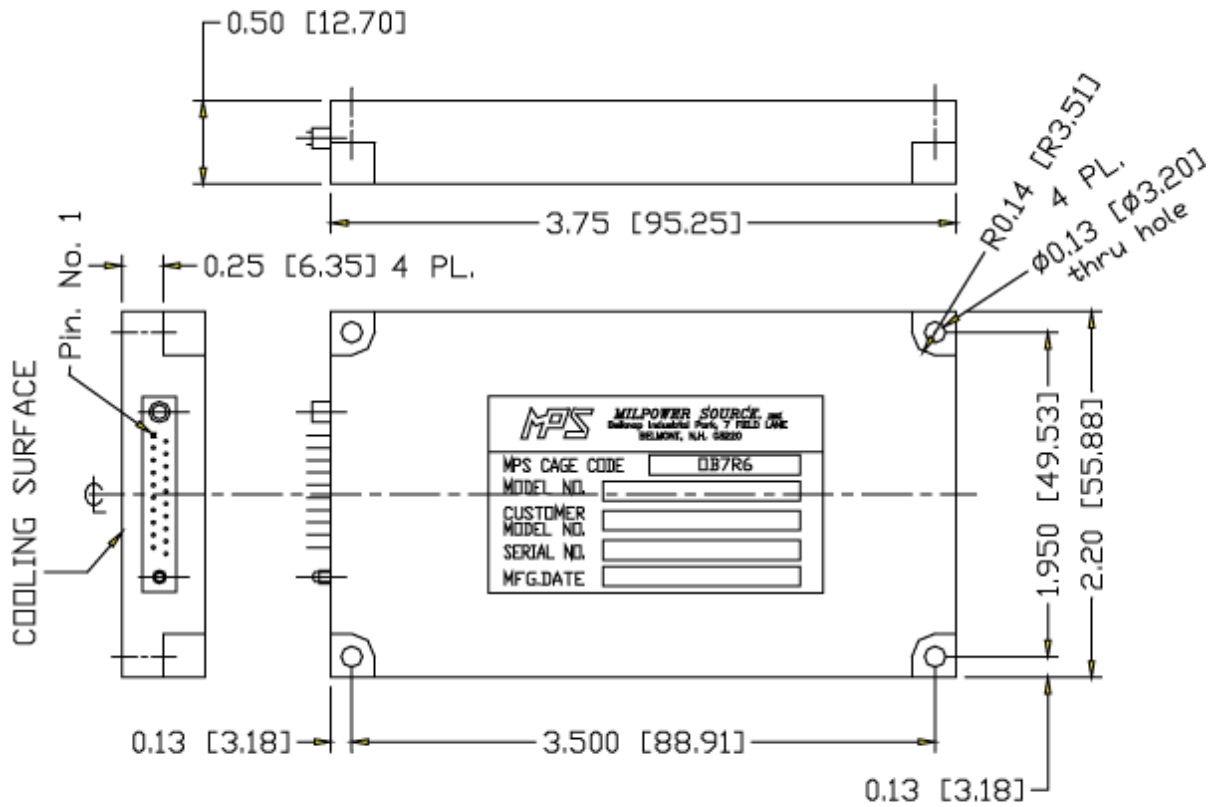
100V between Output and Case

## PIN ASSIGNMENT

PIN No.	PIN Function	PIN No.	PIN Function
1	+ OUT 2	11	- OUT 2
2	+ OUT 3	12	SYN IN
3	- OUT 3	13	GND
4	+ VIN	14	INHIBIT
5	+ VIN	15	SIGNAL RTN
6	+ SENSE 1	16	VIN RTN
7	VIN RTN	17	- SENSE 1
8	+ OUT 1	18	+ OUT 1
9	+ OUT 1	19	- OUT 1
10	- OUT 1	20	- OUT 1

\* Signal RTN for the INHIBIT and the SYN signals.

**OUTLINE DRAWING**



Connector: AIRBORNE RM272-020-312-2900 or equivalent

**Notes**

1. Dimensions are in Inches [mm]
2. Tolerance is:  
.XX ±0.01 IN  
.XXX ±0.005 IN
3. Weight: Approx. 4.4 Oz (125 gr)

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