

# M8747 SERIES

**MINIATURE, HIGH DENSITY,  
QUAD OUTPUT,  
DC/DC CONVERTERS**  
(UP TO 100W)

## **APPLICATIONS**

Military, Ruggedized, Telecom, Industrial



## **SPECIAL FEATURES**

- Miniature size
- High efficiency
- Wide input range
- Up to 15 W/IN<sup>3</sup>
- Input / Output isolation
- Fixed switching frequency (250 kHz)
- TTL logic enable
- EMI filters included
- Indefinite short circuit protection with auto-recovery
- Input over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

## **ENVIRONMENTAL**

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

## **RELIABILITY**

150,000 hours, calculated per MIL-STD-217F at +85°C baseplate, ground fixed.

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

## **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/D (80V for 0.1 Sec) Over-voltage shutdown with auto-recovery

Efficiency: Up to 82%

EMC:

Designed 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°C to +85°C)

Ripple and Noise: 50mV<sub>p-p</sub>, typical (max. 1%)

Current limiting (Foldback):

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on output.

Over temperature protection:

Shutdown at baseplate temperature of +100°C (±5°C)

Automatic recovery at baseplate temperature lower than +90°C (±5°C)

Isolation:

100V between Output and Case

## PIN ASSIGNMENT

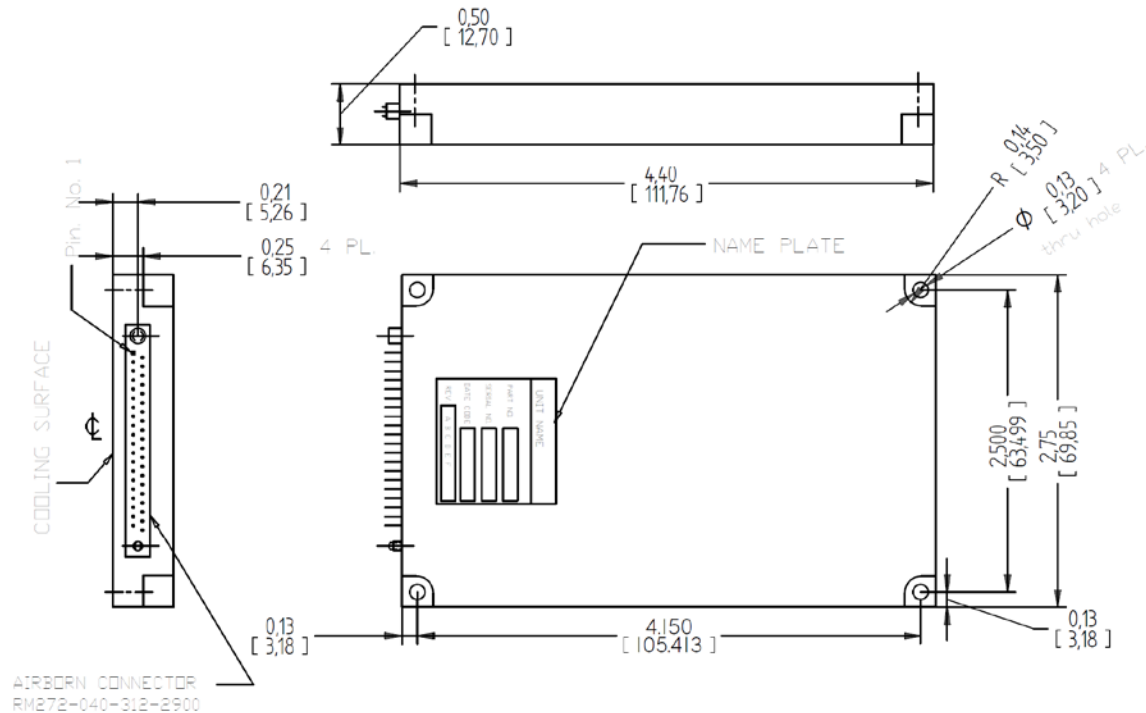
Pin No.	Pin Function
1	INHIBIT
2	SYN IN.
3	- OUT 2 SENSE
4	- OUT 1
5	- OUT 1
6	- OUT 1 SENSE
7	+ OUT 1
8	+ OUT 1
9	+ OUT 1 SENSE
10	-OUT 3
11	+ OUT 2 SENSE
12	+ OUT 3
13	- VIN
14	+ VIN

Pin No.	Pin Function
15	- OUT 4
16	+ OUT 4
17	- OUT 2
18	- OUT 2
19	- OUT 2
20	- OUT 2
21	SIGNAL RTN
22	CHASSIS
23	- OUT 1
24	- OUT 1
25	- OUT 1
26	- OUT 1
27	+ OUT 1
28	+ OUT 1

Pin No.	Pin Function
29	+ OUT 1
30	+ OUT 1
31	- VIN
32	- VIN
33	- VIN
34	+ VIN
35	+ VIN
36	+ VIN
37	+ OUT 2
38	+ OUT 2
39	+ OUT 2
40	+ OUT 2

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

## OUTLINE DRAWING



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### Notes

- Dimensions are in Inches [mm]
- Tolerance is:  
.XX ± 0.01 in  
.XXX ± 0.005 in
- Weight: Approx. 6 Oz (170 gr)