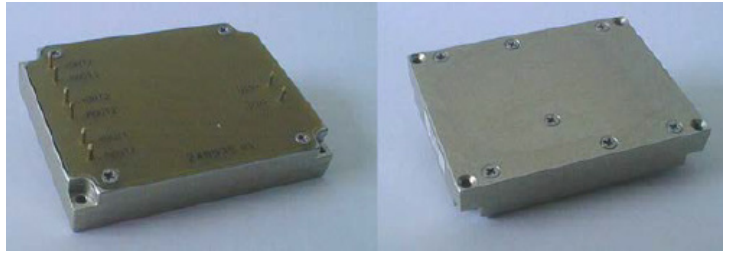


M647-0X-SERIES

MINIATURE, HIGH DENSITY,
TRIPLE OUTPUT,
DC/DC CONVERTERS
(UP TO 20W)



APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- EMI/RFI 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 $+85^{\circ}\text{C}$ (baseplate)

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

RELIABILITY

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

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

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275 (100V for 50 mSec) &

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

Over-voltage shutdown with auto-recovery

Efficiency: 75%, Typical (up to 85%)

EMI/RFI:

Designed to meet MIL-STD-461C - CS01, CS02,

CE03, RS02 & RS03, MIL-STD-461D - CE102-16

Isolation:

100V between Input and Outputs

100V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

Less than 2% (no load to full load, -55°C to $+85^{\circ}\text{C}$)

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

Current limiting (Foldback):

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on output.

Over temperature protection:

Automatic Thermal Shutdown with

Automatic recovery for each output.

Isolation:

100V between Outputs and Input

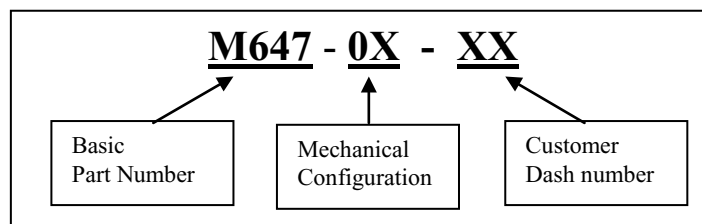
100V between Output and Case

PIN ASSIGNMENT

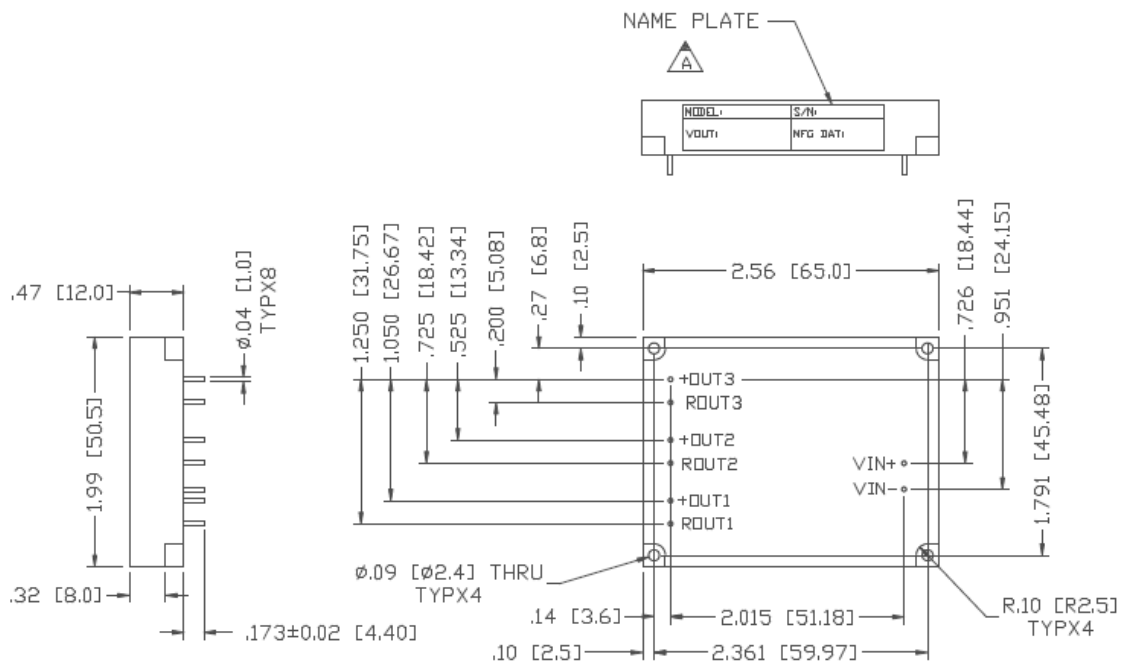
PIN No.	PIN Function	PIN No.	PIN Function
1	VIN +	5	ROUT 2
2	VIN -	6	OUT 2 +
3	ROUT 1	7	ROUT 3
4	OUT 1 +	8	OUT 3 +

MPS can customize this product to your requirements - contact us!

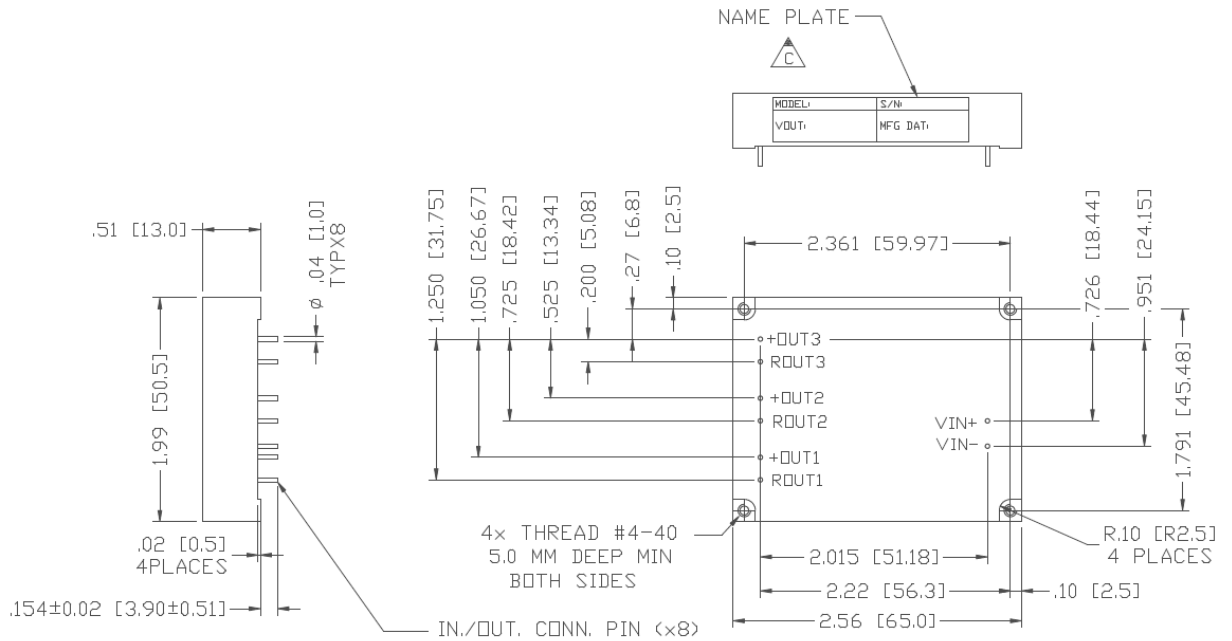
PART NUMBERING



OUTLINE DRAWING - Option 1 – Baseplate cooling – (M647-01-XX)



OUTLINE DRAWING - Option 2 – Cooling corners (M647-02 - XX)



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ±.02 IN
.XXX ±.01 IN
3. Weight: Approx. 2.5 Oz (70 gr)

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