M647 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- MINIATURE
- HIGH DENSITY
- TRIPLE OUTPUT
- DC/DC POWER SUPPLY
- UP TO 20 W

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Amphenol
MILITARY HIGH SPEED

M647 SERIES - DC/DC POWER SUPPLY

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°C (baseplate)
Storage: 55°C to +125°C

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

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°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

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PIN ASSIGNMENT

PIN NO.	PIN FUNCTION
1	VIN +
2	VIN -
3	ROUT 1
4	OUT 1 +

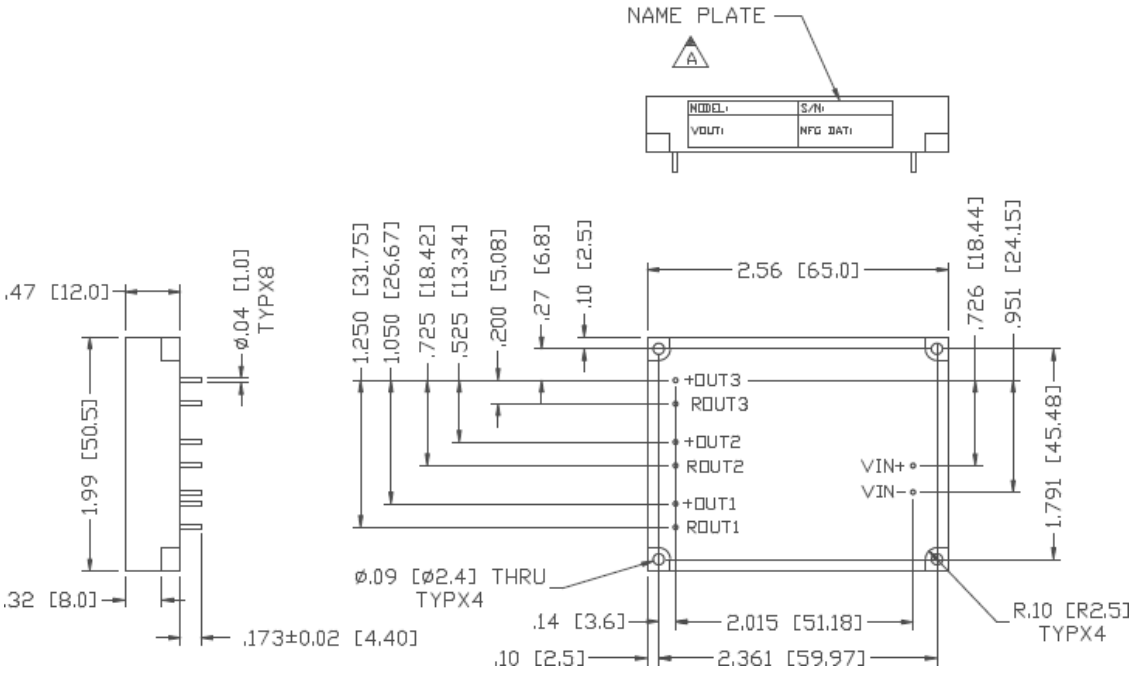
PIN NO.	PIN FUNCTION
5	ROUT 2
6	OUT 2 +
7	ROUT 3
8	OUT 3 +

PART NUMBERING

M647 - 0X - XX

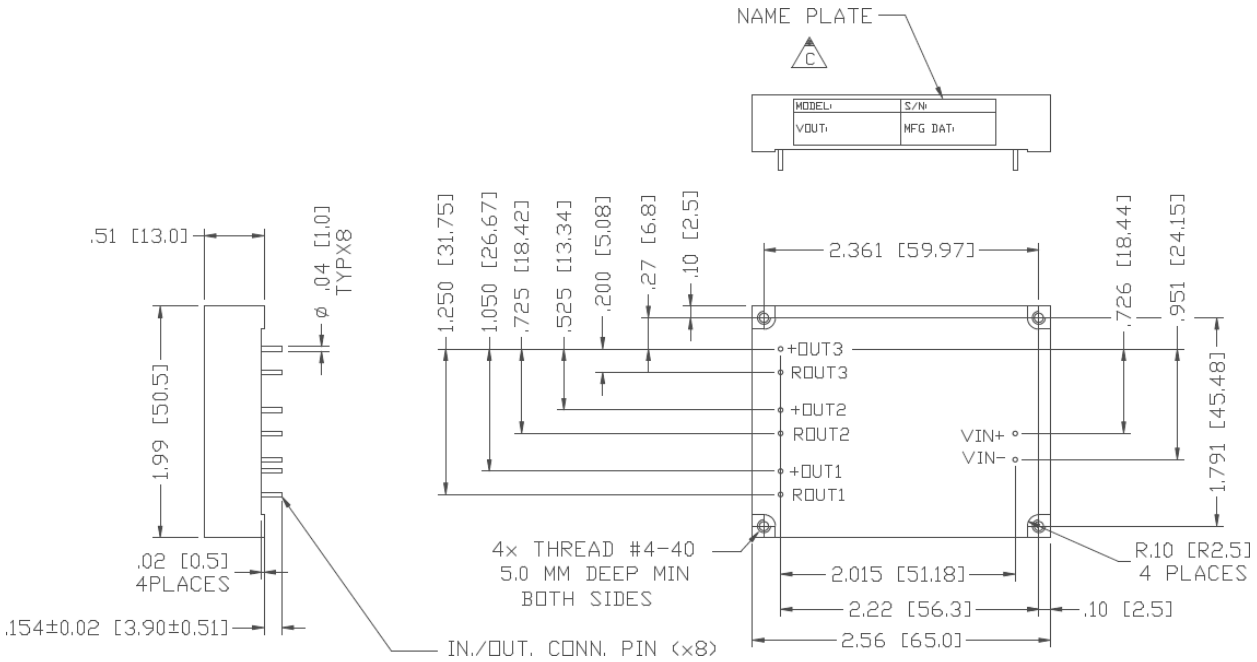
Basic Part Number	Mechanical Configuration	Customer Dash number

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



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



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

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