

M647 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

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

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:

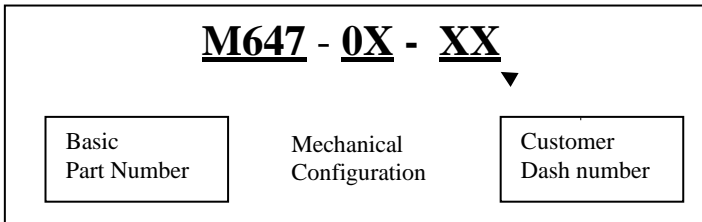
100V between Outputs and Input 100V between Output and Case

PIN ASSIGNMENT

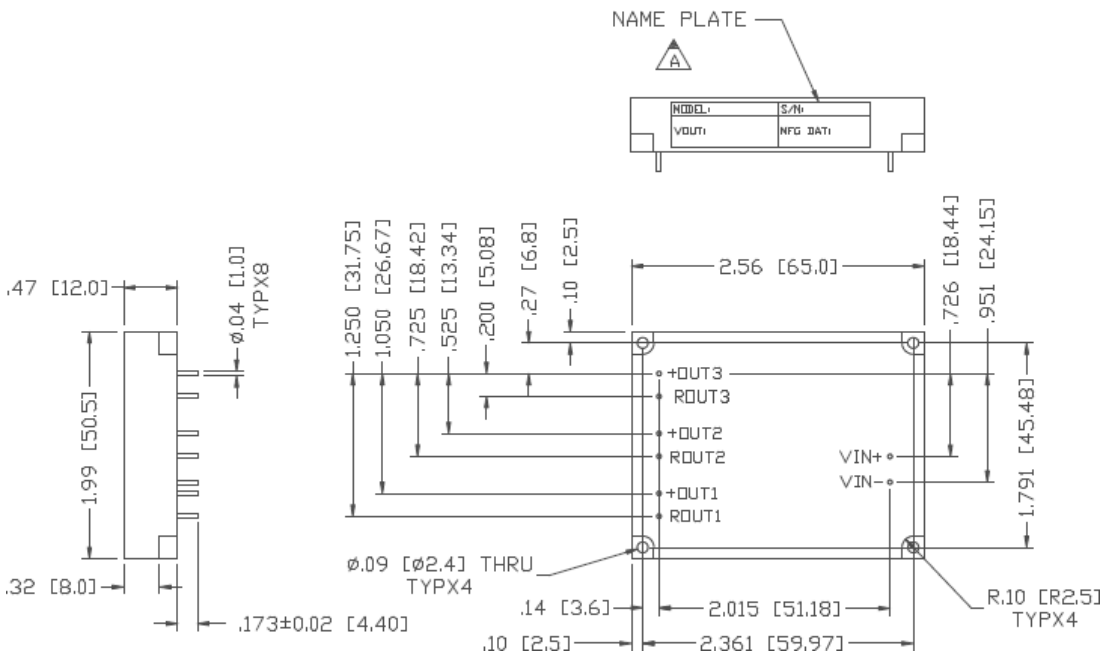
PIN NO.	PIN FUNCTION
1	VIN +
2	VIN -
3	ROUT 1
4	OUT 1 +

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

PART NUMBERING



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



M647 Series– DC/DC Power Supply

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

