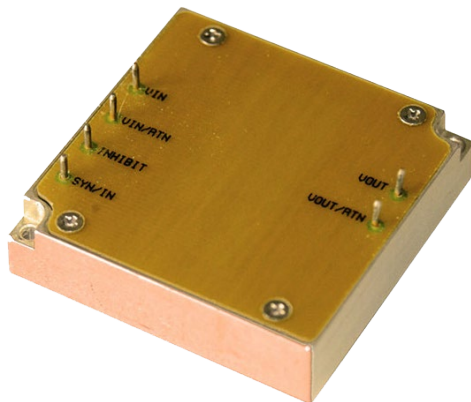


## M7119 SERIES

DC/DC POWER SUPPLY



### PRODUCT HIGHLIGHTS

- MINIATURE
- HIGH DENSITY
- SINGLE OUTPUT
- DC/DC CONVERTER
- UP TO 50W

## Applications

Military, Ruggedized, Telecom, Industrial

## Special Features

- Extremely Miniature size
- High efficiency
- Wide input range
- Up to 26 W/IN<sup>3</sup>
- Input / Output isolation
- Fixed switching frequency (250 kHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

## Environmental Conditions

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 82%

Designed to meet\* MIL-STD-461F: CE101, CE102,  
CS101, CS114, CS115, CS116, RE101, RE102, RS101,  
RS103

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  $+85^{\circ}\text{C}$ )

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

Current limiting (Hiccup):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and a passive  
transorb on output.

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

\* EMC compliance achieved when tested with 5  $\mu\text{H}$  LISNs, shielded harness and static resistive load.

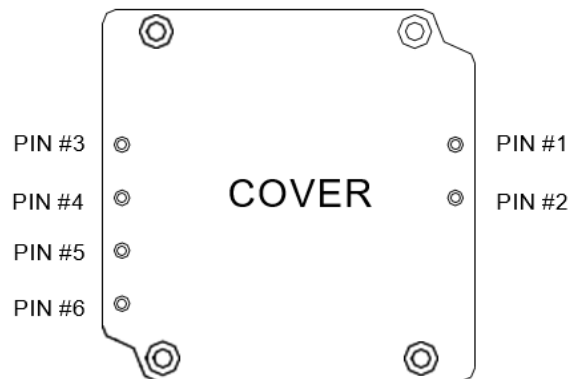
**SELECTION GUIDE**

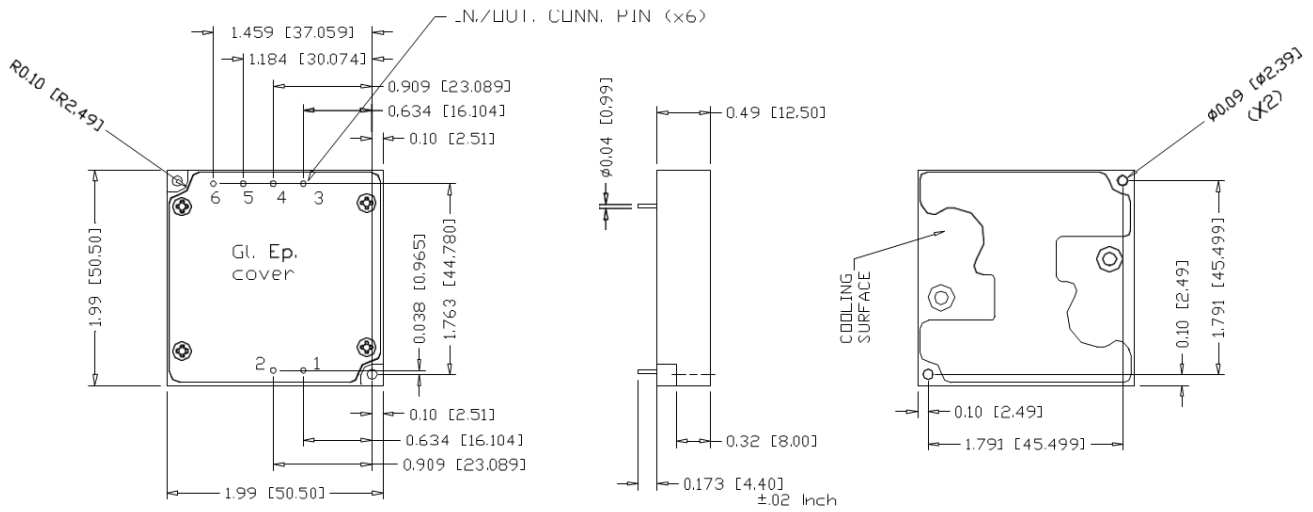
Model	Total Power	Input	Output
M7119-100	40W	18 to 48 VDC	5V @ 8A
M7119-101	36W	18 to 48 VDC	12V @ 3A
M7119-102	37.5W	18 to 48 VDC	15V @ 2.5A
M7119-103	48W	18 to 48 VDC	24V @ 2A
M7119-104	39.2W	18 to 48 VDC	28V @ 1.4A
M7119-105	38.4W	18 to 48 VDC	28V @ 1.4A

Note: other voltages and currents are available, consult factory.

**PIN ASSIGNMENT**

PIN No.	PIN Function
1	VOUT
2	VOUT RTN
3	VIN
4	VIN RTN
5	INHIBIT
6	SYN IN





**Notes**

1. Dimensions are in Inches [mm]
2. Tolerance is:  
 .XX ±0.015 IN  
 .XXX ±0.007 IN
3. Weight: 1.98 oz (56 g.)

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