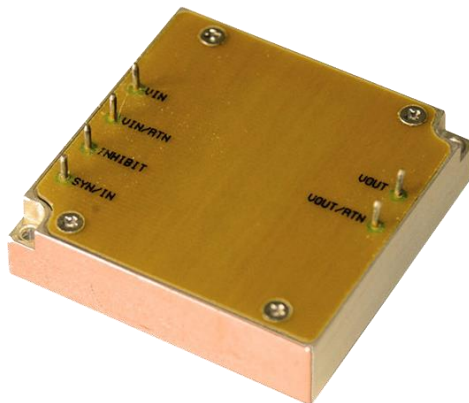


M7119 SERIES

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/IN³
- 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°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.

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°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 μH LISNs, shielded harness and static resistive load.

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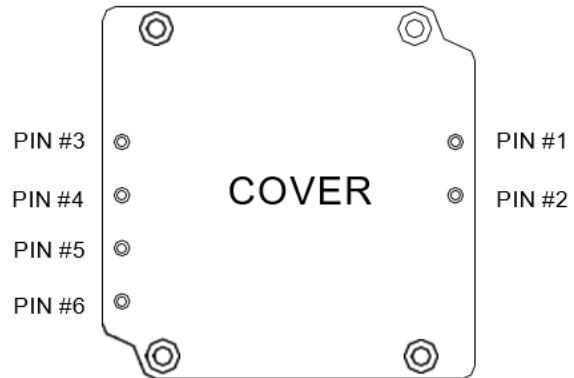
SELECTION GUIDE

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

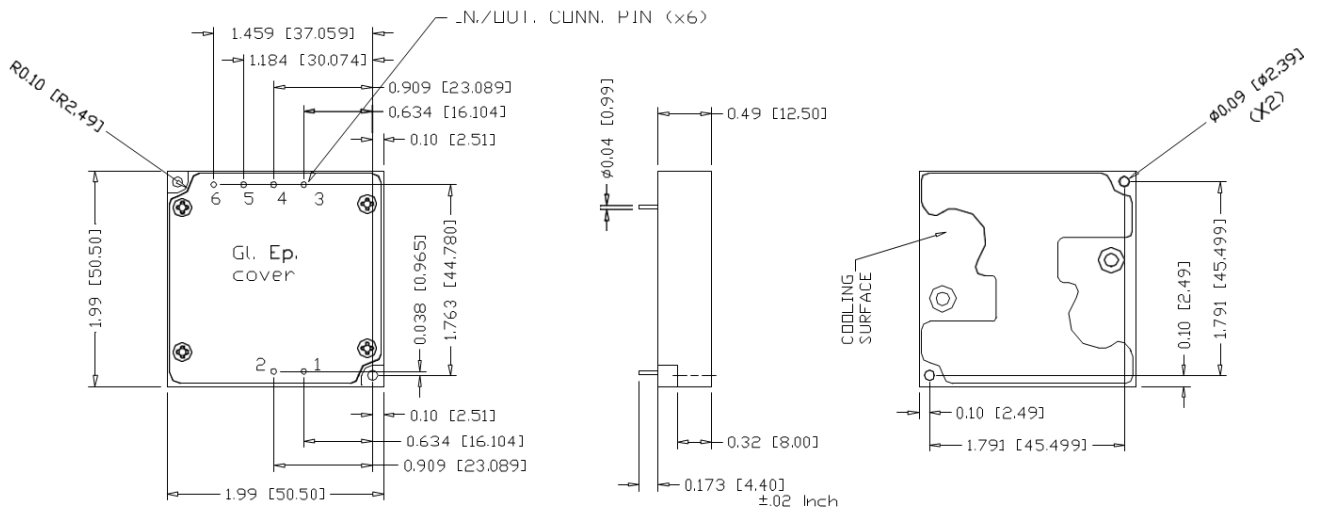
Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT

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



M7119 SERIES DC/DC POWER SUPPLY



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

Standard Variants

Part number	Input configuration	Output configuration
M7119-100	18-48 V _{DC}	5 V _{DC} / 8 A
M7119-101	18-48 V _{DC}	12 V _{DC} / 3 A
M7119-102	18-48 V _{DC}	15 V _{DC} / 2.5 A
M7119-103	18-48 V _{DC}	24 V _{DC} / 2 A
M7119-104	18-48 V _{DC}	28 V _{DC} / 1.6 A
M7119-105	18-48 V _{DC}	48 V _{DC} / 0.8 A
M7119-800*	18-48 V _{DC}	5 V _{DC} / 8 A
M7119-801*	18-48 V _{DC}	12 V _{DC} / 3 A
M7119-802*	18-48 V _{DC}	15 V _{DC} / 2.5 A
M7119-803*	18-48 V _{DC}	24 V _{DC} / 2 A
M7119-804*	18-48 V _{DC}	28 V _{DC} / 1.6 A
M7119-805*	18-48 V _{DC}	48 V _{DC} / 0.8 A

* This Product is REACH Compliant.

* The aluminum parts comprising this converter are chromate conversion coated per MIL-DTL-5541F, Type II CLASS 1A or eq.

Note: Specifications are subject to change without prior notice by the manufacturer.