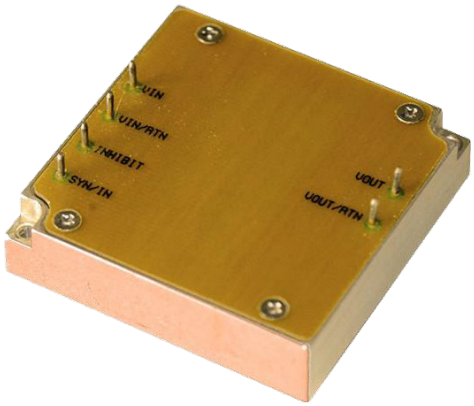
Amphenol
MILITARY HIGH SPEED

M7119 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

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

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• www.amphenol-aerospace.com

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MILITARY HIGH SPEED

M7119 SERIES DC/DC POWER SUPPLY

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°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 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°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°C (±5°C)
Automatic recovery at baseplate temperature lower than +95°C (±5°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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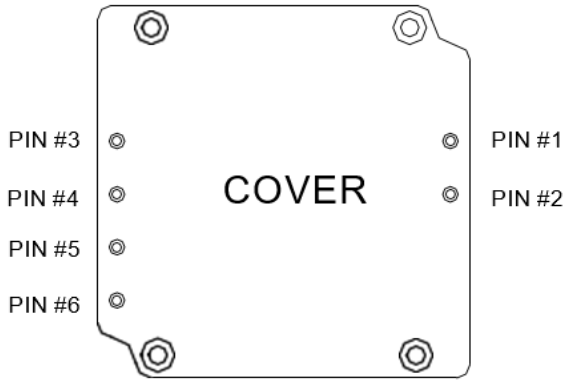
SELECTION GUIDE

Model	Total Power	Input	Output
M7119100	40W	18 to 48 VDC	5V @ 8A
M7119101	36W	18 to 48 VDC	12V @ 3A
M7119102	37.5W	18 to 48 VDC	15V @ 2.5A
M7119103	48W	18 to 48 VDC	24V @ 2A
M7119104	39.2W	18 to 48 VDC	28V @ 1.4A
M7119105	38.4W	18 to 48 VDC	28V @ 1.4A

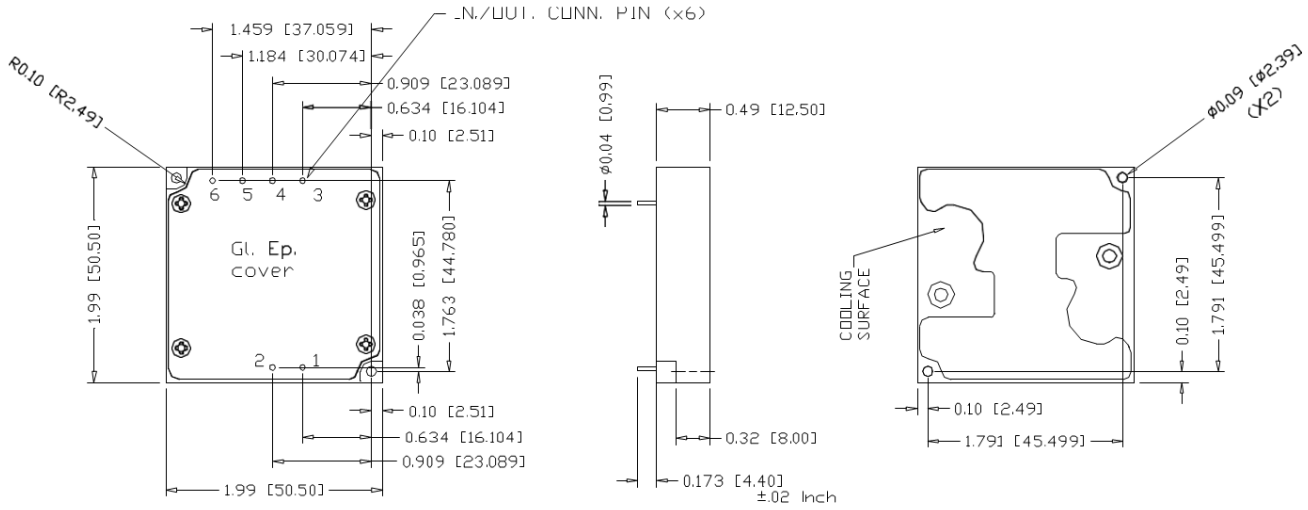
Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT

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



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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

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Standard Variants

Part number	Input configuration	Output configuration
M7119100	18-48 V_{DC}	5 V_{DC} / 8 A
M7119101	18-48 V_{DC}	12 V_{DC} / 3 A
M7119102	18-48 V_{DC}	15 V_{DC} / 2.5 A
M7119103	18-48 V_{DC}	24 V_{DC} / 2 A
M7119104	18-48 V_{DC}	28 V_{DC} / 1.6 A
M7119105	18-48 V_{DC}	48 V_{DC} / 0.8 A
M7119800*	18-48 V_{DC}	5 V_{DC} / 8 A
M7119801*	18-48 V_{DC}	12 V_{DC} / 3 A
M7119802*	18-48 V_{DC}	15 V_{DC} / 2.5 A
M7119803*	18-48 V_{DC}	24 V_{DC} / 2 A
M7119804*	18-48 V_{DC}	28 V_{DC} / 1.6 A
M7119805*	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.

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