

M716 SERIES

THE MOST COMPLETE
MINIATURE, HIGH DENSITY
SINGLE OUTPUT
DC/DC CONVERTERS
(UP TO 50W)

APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 15 W/IN³
- Input / Output isolation
- Fixed switching frequency (250KHz)
- 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

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.

MPS can customize this product
to your requirements –
Contact us!



ELECTRICAL SPECIFICATIONS

DC INPUT

DC input range: 9 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1Sec)

Efficiency: up to 82%

EMI/RFI:

Design to meet or exceed MIL-STD-461D

CE101, CE102, CS101, RE101, RE102

Isolation:

500V between Input and Output

500V 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 (Hiccup):

Continuous protection for unlimited time.

Over voltage protection:

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

Over temperature protection:

Shutdown at baseplate temperature of +95°C (±5°C)

Automatic recovery at baseplate temperature

lower than +90°C (±5°C)

Isolation:

500V between Output and Input

100V between Output and Case

SELECTION GUIDE

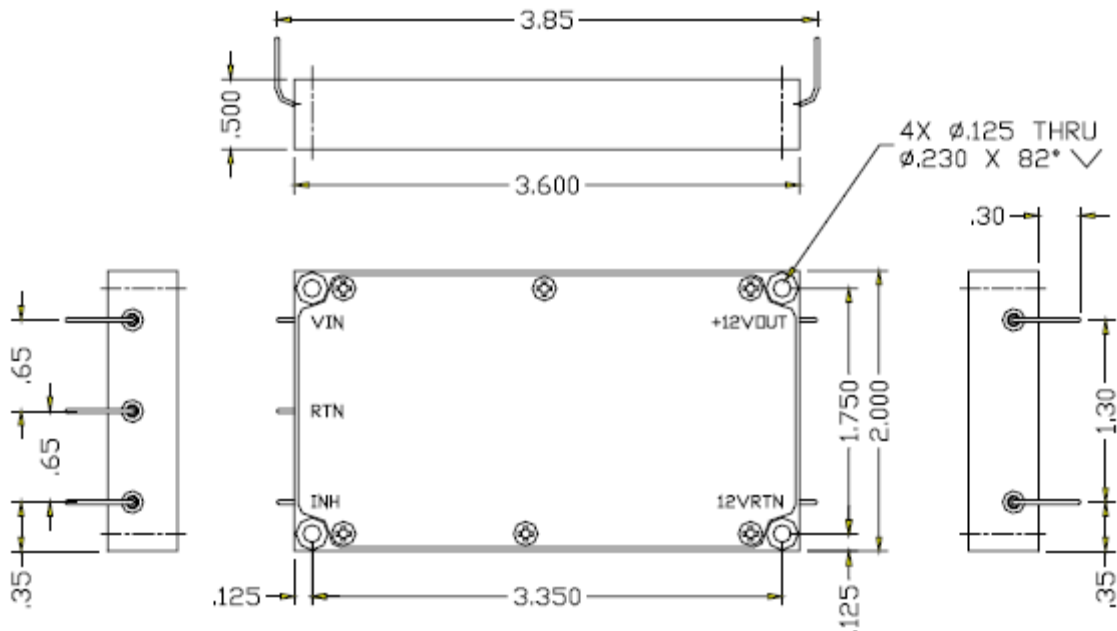
Model	Input	Output	Maximum Load	Regulation	Ripple (20MHz BW)
M716-1	18 to 36VDC	5 VDC	8 A	± 2%	50 mVp-p
M716-2	18 to 36VDC	12 VDC	3 A	± 2%	50 mVp-p
M716-3	18 to 36VDC	15 VDC	3.5 A	± 2%	50 mVp-p
M716-10	9 to 36VDC	5 VDC	8 A	± 2%	50 mVp-p
M716-11	9 to 36VDC	12 VDC	4 A	± 2%	50 mVp-p
M716-12	9 to 36VDC	28 VDC	2 A	± 2%	50 mVp-p

PIN ASSIGNMENT

Pin No.	Pin Function
1	VIN
2	VIN RTN
3	INHIBIT
4	VOUT
5	VOUT RTN

MPS can customize this product to your requirements – contact us!

OUTLINE DRAWING



Notes

- Dimensions are in Inches
- Tolerance is:
 .XX ±.01 IN
 .XXX ±.005 IN
- Weight: 3.5 Oz (100gr)

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