

M115 SERIES

AC/DC CONVERTERS

THE MOST COMPLETE, MINIATURE,
HIGH DENSITY, 3 PHASE, 400 Hz INPUT,
500W, SINGLE OUTPUT CONVERTERS

APPLICATIONS

Military, Ruggedized, Telecom, Industrial



SPECIAL FEATURES

- 1 Miniature size
- 1 High efficiency
- 1 Wide input range
- 1 Input / Output isolation
- 1 Fixed switching frequency (250KHz)
- 1 External synchronization capability
- 1 EMI/RFI filters included
- 1 Indefinite short circuit protection with auto-recovery
- 1 Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +90°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

AC INPUT

AC input range: 115 (98-150)VAC, 3 Phase, 400Hz

Efficiency: up to 85%

EMI/RFI:

Meets or exceeds MIL-STD-461D
CE101, CE102, CS101, CS114, CS115,
CS116, RE101, RE102, RS101, RS103

Isolation:

500V between Input and Output

500V between Input and Case

DC OUTPUT (floating)

Line /load regulation:

Less than $\pm 1\%$ (no load to full load, -40°C to +90°C)

Ripple and noise: 100mVp-p, typical (max. 1%)

Current limiting (FoldBack):

Continuous protection for unlimited time

Passive transzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of +105°C ($\pm 5^\circ\text{C}$)

Automatic recovery at baseplate temperature
lower than +95°C ($\pm 5^\circ\text{C}$)

Isolation:

500V between Output and Input

100V between Output and Case



PTC

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SELECTION GUIDE

Model	Input	Output	Minimum Load	Maximum Load	Regulation	Ripple (20MHz BW)
M115-1	98 to 150VDC	5VDC	0A	40A	± 1%	100 mVp-p
M115-2	98 to 150VDC	12VDC	0A	20A	± 1%	100 mVp-p
M115-3	98 to 150VDC	15VDC	0A	20A	± 1%	100 mVp-p
M115-4	98 to 150VDC	28VDC	0A	18A	± 1%	200 mVp-p
M115-6	98 to 150VDC	28VDC	0A	20A	± 1%	200 mVp-p
M115-7	98 to 150VDC	28VDC	0A	10A	± 1%	200 mVp-p
M115-8	98 to 150VDC	28VDC	0A	20A	± 1%	200 mVp-p
M115-9	98 to 150VDC	10.5VDC	0A	15A	± 1%	100 mVp-p
M115-10	98 to 150VDC	28VDC	0A	20A	± 1%	200 mVp-p
M115-11	98 to 150VDC	16VDC	0A	16A	± 1%	150 mVp-p
M115-12	98 to 150VDC	28VDC	0A	6A	± 1%	200 mVp-p

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

PIN ASSIGNMENT

PIN No.	PIN Function	PIN No.	PIN Function	PIN No.	PIN Function	PIN No.	PIN Function
1	OUT	11	INHIBIT	21	OUT	31	OUT RTN
2	OUT	12	SYN*	22	OUT	32	N.C.
3	OUT	13	SYN RTN	23	OUT	33	PHASE A
4	OUT	14	N.C.	24	OUT	34	N.C.
5	OUT	15	PHASE A	25	SENSE RTN	35	PHASE B
6	SENSE	16	N.C.	26	OUT RTN	36	N.C.
7	OUT RTN	17	PHASE B	27	OUT RTN	37	PHASE C
8	OUT RTN	18	N.C.	28	OUT RTN		
9	OUT RTN	19	PHASE C	29	OUT RTN		
10	OUT RTN	20	OUT	30	OUT RTN		

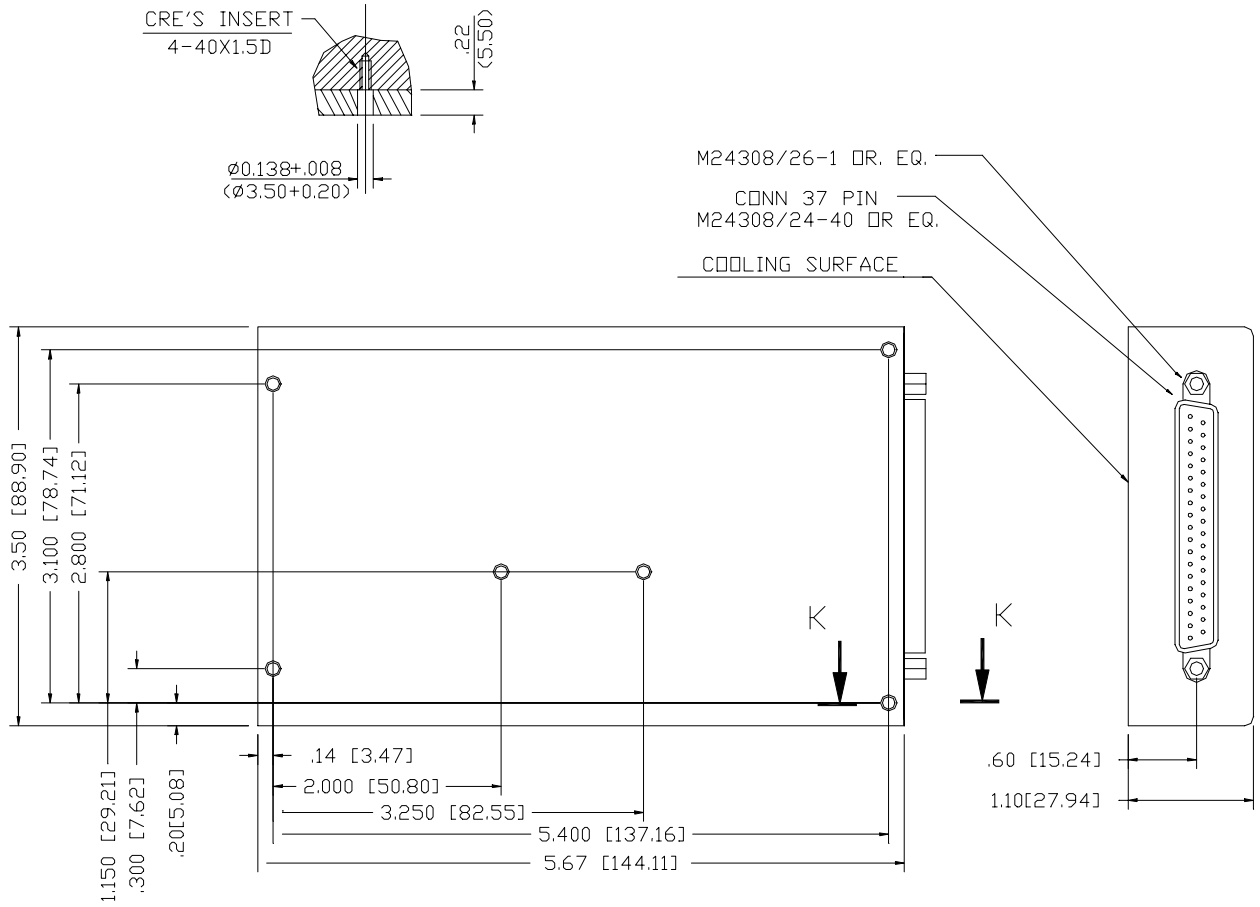
* Note: on models M115-6 & M115-8 used for Inhibit.



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OUTLINE DRAWING



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ± 0.02 IN
.XXX ± 0.01 IN
3. Weight: 1.28 lb (580gr)

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

