

M7025 SERIES

THE MOST COMPLETE
MINIATURE, HIGH DENSITY,
SINGLE OUTPUT,
DC/DC CONVERTERS
(UP TO 500W)

APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 36 W/IN³
- Input / Output isolation
- Remote sense
- Parallel connection of modules
- Redundancy connection
- Fixed switching frequency (250 KHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Output voltage adjustment with external resistor
- 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 +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

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: 80 ÷ 85%

EMI/RFI:

Meets or exceeds MIL-STD-461D

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 +90°C)

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

Current limiting (HickUp):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and

a passive transistor 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

SELECTION GUIDE

Model	Input	Output	Minim Load	Maxim Load	Regulation	Ripple (0.5%)
M622	48V DC	12V DC	0 A	30A	± 1%	50mV
M623	48V DC	15V DC	0 A	8 A	± 1%	50mV
M624	48V DC	24V DC	0A	7.5A	± 1%	50mV
M625	48V DC	28V DC	0 A	5 A	± 1%	50mV
M628	48V DC	28V DC	0 A	0A	± 1%	50mV
M629	48V DC	15V DC	0 A	0A	± 1%	50mV
M621	48V DC	48V DC	0A	5.2A	± 1%	50mV

Note: other voltages and currents are available; consult factory

PIN ASSIGNMENT

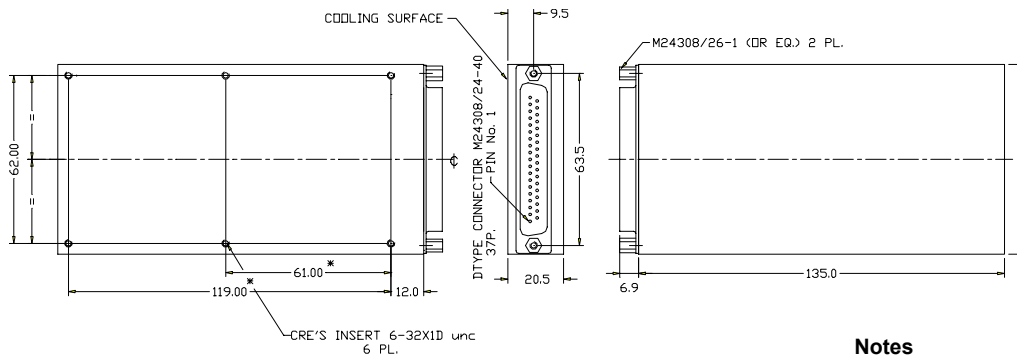
PIN No.	PIN Function
1	+ SENSE
2	+ OUT
3	+ OUT
4	+ OUT
5	- OUT
6	- OUT
7	- OUT
8	- OUT
9	- SENSE
10	SYNOUT

PIN No.	PIN Function
11	INHIB
12	+ VIN
13	+ VIN
14	- MI
15	- MI
16	N.C.
17	CURR. SHAR
18	N.C.
19	N.C.
20	+ OUT

PIN No.	PIN Function
21	+ OUT
22	+ OUT
23	+ OUT
24	+ OUT
25	- OUT
26	- OUT
27	- OUT
28	- OUT
29	SYNIN
30	+ VIN

PIN No.	PIN Function
31	+ VIN
32	+ VIN
33	- MI
34	- MI
35	- MI
36	N.C.
37	- SENSE

OUTLINE DRAWING



Notes

- Dimensions are in inches
- Tolerance is:
.XX ±0.01
.XXX ±0.01
- Weight 310±365 gr
- The +SENSE and -SENSE pins should be connected to the +OUT and -OUT pins respectively. For best load regulation, the connection should be made at the load terminals.

* Specifications are subject to change without notice

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