ENERCON
TECHNOLOGIES LTD

FIELD-PROVEN COTS, MOTS AND CUSTOM MILITARY POWER SOLUTIONS

M251 SERIES

3-PHASE AC/DC POWER SUPPLY

PRODUCT HIGHLIGHTS

- HIGH EFFICIENCY
- SINGLE OUTPUT
- HIGH VOLTAGE OUTPUT
- 3-PHASE AC/DC POWER SUPPLY
- UP TO 2000 W

NON ITAR

AS9100D CERTIFIED ISO 9001

ENERCON TECHNOLOGIES LTD

Global Headquarters

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APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Compact size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (400 kHz)
- Logic Inhibit
- EMC filters included
- Limited Inrush Current
- Indefinite short circuit protection 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 Notice 2 at +85 °C baseplate, Ground Fixed.

ELECTRICAL SPECIFICATIONS

AC INPUT

Input Type and Range:
3-Phase 115 $V_{RMS,L-N}$ ± 10%, 400 Hz

Efficiency: 90%, Typical

Power Factor: 85% - 90% @ 50-100% load

EMC:
Designed to meet MIL-STD-461C
CE03, CS01, CS02, CS06, RS02, RS03, RE02

Input Transient Protection:
Meets or exceeds MIL-STD-704A

Isolation:
Input to Output: 500 V_{DC}
Input to Case: 500 V_{DC}

DC OUTPUT (floating)

Line/Load regulation:
Up to ±1% (0 to 100% load, –55 °C to +90 °C)

Ripple and Noise:
300 mV_{p-p}, typical (max. 1%)

Current limiting:
Continuous protection for unlimited time

Over-voltage protection:
Passive transorb on outputs.

Over temperature protection:
Shutdown if baseplate temperature rises above +105 °C ± 5 °C;
Automatic recovery when baseplate temperature falls below +95 °C ± 5 °C

Isolation:
Output to Case: 500 V_{DC}

PIN ASSIGNMENT

CONNECTOR J1 (OUTPUT)

Connector type: M24308/23-38F or eq.
Mating connector: M24308/4-2F or eq.

Pin Function	Pin No.
V_{OUT}	4, 5, 11, 12
V_{OUT} RTN	7, 8, 14, 15
ON/OFF	3

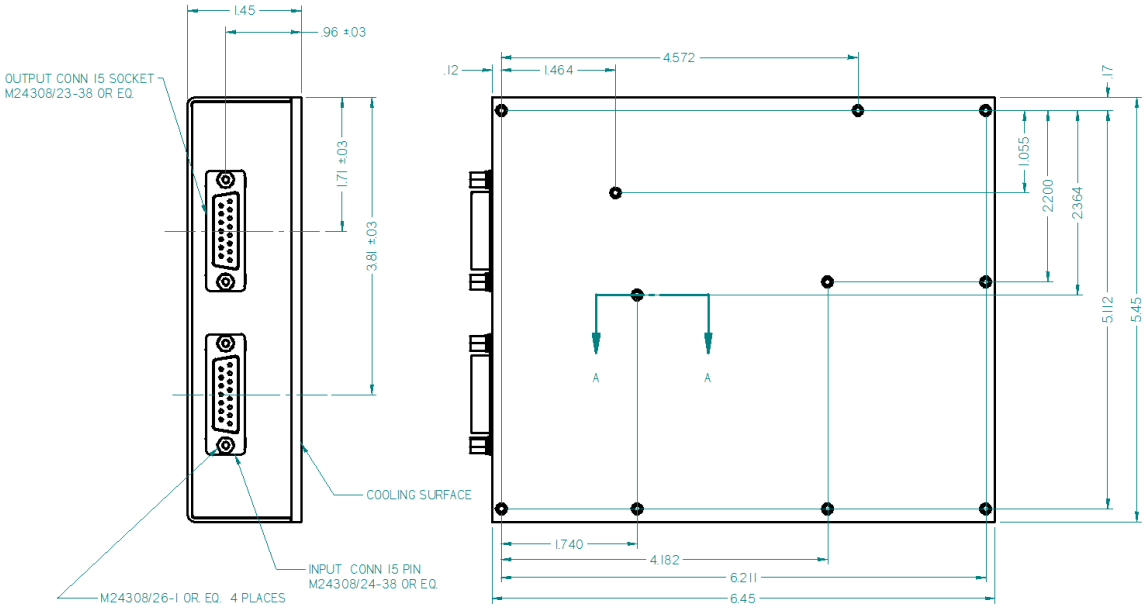
CONNECTOR J2 (INPUT)

Connector type: M24308/24-38F or eq.
Mating connector: M24308/2-2F or eq.

Pin Function	Pin No.
PHASE A	7, 14, 15
PHASE B	4, 5, 12
PHASE C	2, 9, 10
CHASSIS	1

OUTLINE DRAWING

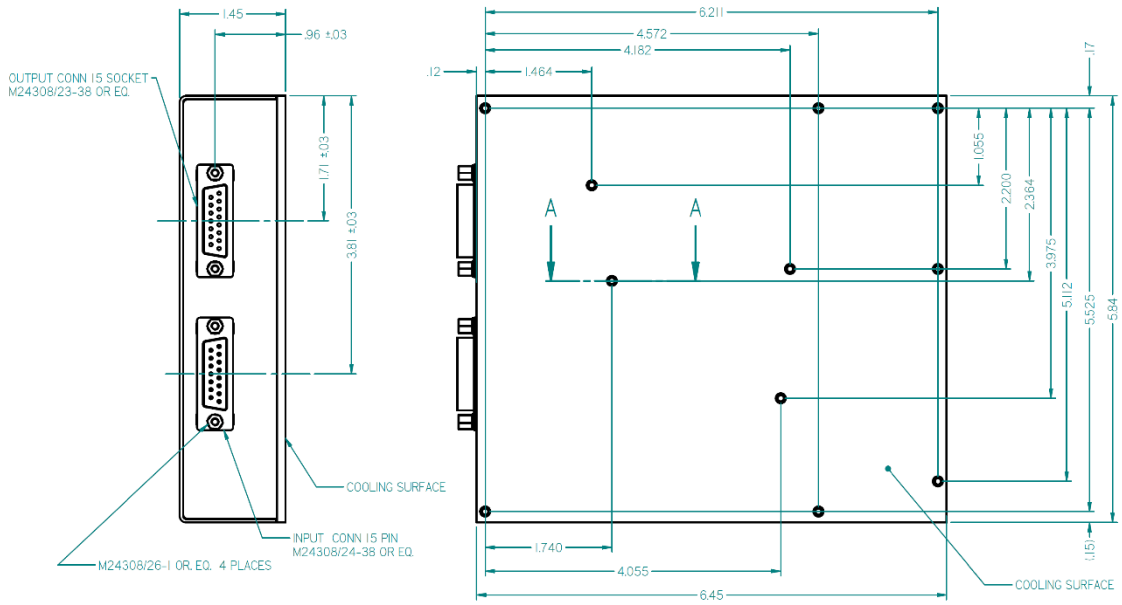
Non-parallelable version



Notes

1. Dimensions are in inches
2. Tolerance is:
   .XX ± .02 in
   .XXX ± .01 in
3. Weight: Approx. TBD lbs (TBD

Parallelable version



Notes

4. Dimensions are in inches
5. Tolerance is:
   .XX ± .02 in
   .XXX ± .01 in
6. Weight: Approx. 3.48 lbs (1.58 kg)

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