M199 SERIES

AC/DC POWER SUPPLY

PRODUCT HIGHLIGHTS

- **MINIATURE**
- **HIGH DENSITY**
- **HIGH EFFICIENCY**
- **QUAD OUTPUT**
- **UP TO 460W**

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APPLICATIONS

Military, Ruggedized, Telecom, Industrial
Designed to support full system requirement

SPECIAL FEATURES

Miniature size High efficiency
Wide input range
Input / Output isolation Fixed
switching frequency Logic Inhibit
EMI/RFI filters included Limited
Inrush Current
Indefinite short circuit protection with auto-recovery
Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D
High vibration level per MIL-STD-810D Method 514.3
Procedure I category 7B Fig D

Frequency	PSD (g2/Hz)	Remarks
15 to 120	0.04	
120 to 300	Rise to 0.04	4db/oct
300 to 1000	0.14	
1000 to 2000	Decrease 6db/oct	

Temperature:
Operating -55°C to +85°C (baseplate) Storage -55°C to +85°C

RELIABILITY

100,000 hours, calculated per
MIL-STD-217F at +85°C baseplate, ground fixed.

ELECTRICAL SPECIFICATIONS

AC INPUT

AC input range: 115 ±10%VAC, 400Hz, 3

Phase Efficiency: up to 82%

EMC:
Designed to meet MIL-STD-461F*:
CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103

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

Isolation:
500V between Input and Output 500V between Input and Case

DC OUTPUT (floating)

Line /load regulation:
Less than 1.5% (no load to full load, -55°C to +85°C)

Ripple and noise: 50mVp-p, typical (max. 1% of typical output voltage)

Current limiting:
Continuous protection for

unlimited time. Passive transorb on

outputs.

Isolation:
500V between Output and Input 100V between Output and Case

OTHER FUNCTIONS

Inhibit floating from inputs and outputs for integration in an airborne system.
Turn On sequence
option BIT signal
report
Sense compensation for low output voltages

* Compliance achieved with external filter shielded harness and static resistive load.

SELECTION GUIDE

Unit is available in the output voltage range. For new revisions, consult factory for minimum QTY order.	Output #1	Output #2	Output #3	Output #4
	2V ÷ 12V	2V ÷ 12V	5V ÷ 18V	5V ÷ 18V
Max V	**40V Max**	**300V Max**	**60V Max**	**60V Max**

Note: For current options – please consult factory.

PIN ASSIGNMENT

J1 9PIN DTYPE MALE

M24308/24-37F OR EQ.

Pin No.	No. of Pins	Pin Designation
3, 7	2	PHASE A
4, 8	2	PHASE B
5, 9	2	PHASE C
1, 6	2	CHASSIS
2	1	N.C.

J2 37PIN DTYPE FEMALE

M24308/24-40F OR EQ.

Pin No.	No. of Pins	Pin Designation
1-8, 20-27	16	+5V OUT
12-19, 30-37	16	5V RTN
11	1	+5V SENSE
9	1	5V SENSE RTN
10, 28, 29	3	N.C.

J3 25PIN DTYPE FEMALE

M24308/24-39F OR EQ.

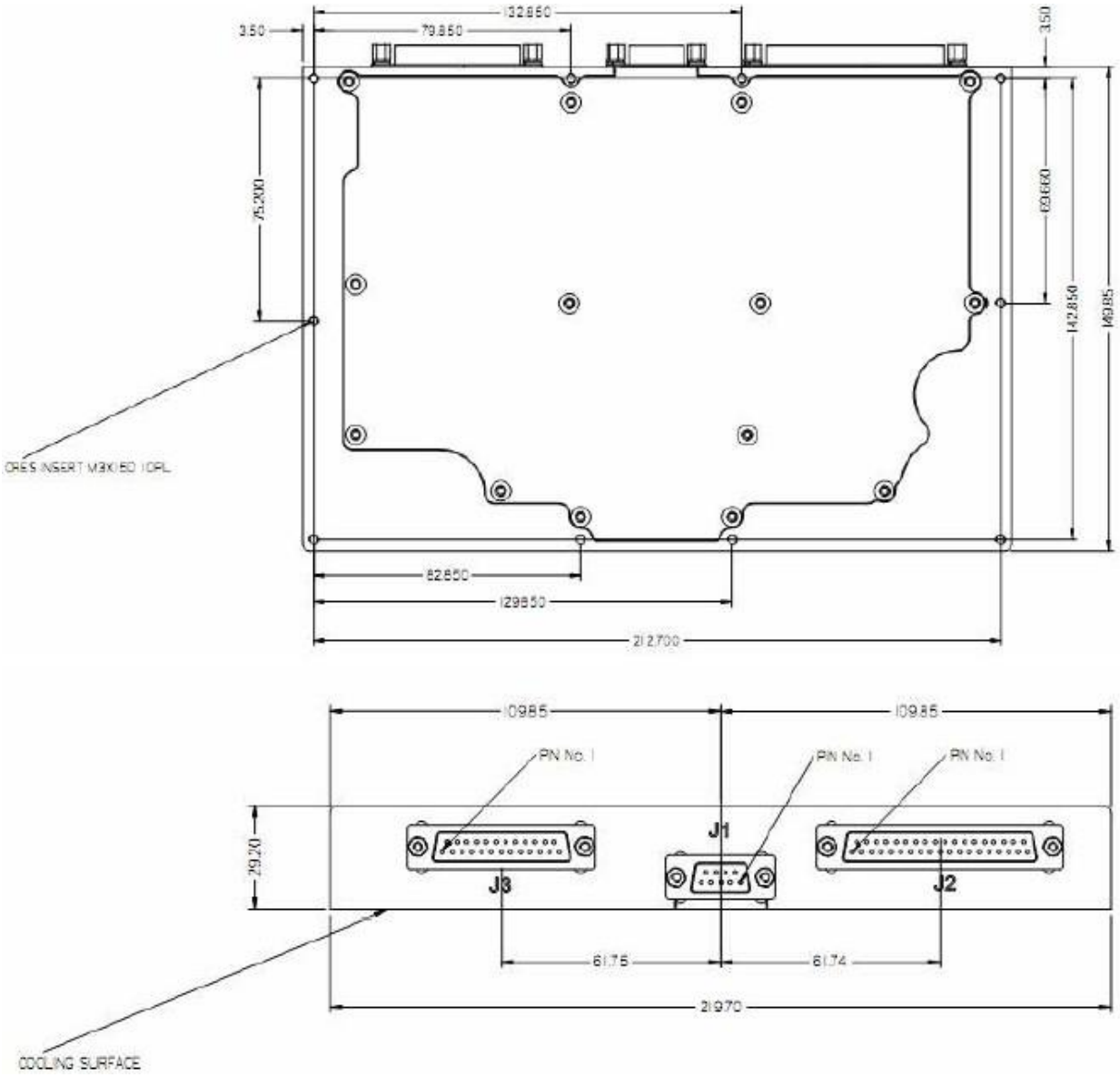
Pin No.	No. of Pins	Pin Designation
5,6,17,18,19	5	+3.3V
2,3,14,15,16	5	+3.3V RTN
4	1	+3.3V SENSE
1	1	3.3V SENSE RTN
7,20	2	+12V OUT
8,21	2	+12V OUT RTN
10,23	2	-12V OUT
9,22	2	-12V OUT RTN
11	1	INHIBIT
12	1	SYN
25	1	VGOOD
13	1	SIGNAL RTN
24	1	N.C.

INHIBIT PINS ARE FLOATING FROM INPUT AND OUTPUTS:

INHIBIT PINS SHORTED = OFF
INHIBIT PINS OPEN = 0N

Note: for details on SYN and VGOOD - please consult factory.

OUTLINE DRAWING



Notes

1. Dimensions are in mm
2. Tolerance is:
   .XX ±..04 mm
   .XXX ±.025mm
3. Weight: 1250g (2.75lb)

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