M1987 SERIES

SINGLE-OUTPUT, 300W FILTER

Intended for use with Single-Phase PFC AC/DC power supply M1982.
The M1987 is a series of mechanically robust, base plate cooled, high performance, 300W input filter, for Navy shipboard applications.
The M1987 has input per MIL-STD-1399-300B.
The product meet MIL-STD requirements (specified herein)

Standard Models List (for other voltages – consult factory)

Part number	Input	Output	
	Voltage range	Voltage	Current
M1987-100	90 to 150 V_{AC}	90 to 150 V_{AC}	5 A

- Additional standard configurations available. **Contact factory for more details.**

All of our products can be configured to comply with EU REACH regulations. **Contact factory for**

THE MAIN FEATURES OF THE M1987 ARE:

- UP to 300W
- Miniature size
- Wide input range
- Improve 1399-300B performance

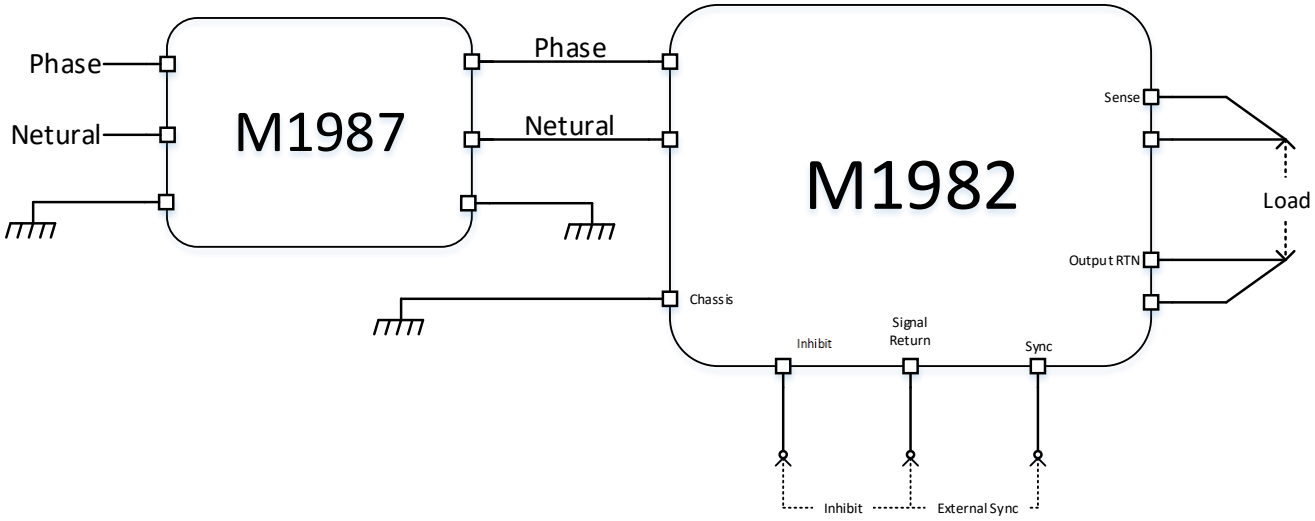
SPECIFICATIONS:

AC Input	***Voltage Range***	85 to 265 VAC ; 50/60Hz Single-phase, 5A max
	Isolation	AC Input to Chassis: 1000 VDC
AC Output	***Rating***	Following input

Specifications (Cont.):

Environment Designed to meet MIL-STD-810F	***Temperature***	Methods 501.4 & 502.4 Operating: –40°C to +85°C (at baseplate) Storage: –55°C to +125°C (ambient)
	Humidity	Method 507.4 Up to 95% RH
	Salt-fog	Method 509.4
	Altitude	Method 500.4 Procedures I – Storage/Air transport: up to 70,000 ft. (non-operational) Procedure II – Operation/Air Carriage: up to 40,000 ft. (operational)
	Mechanical Shock	Method 516.5 Procedure I 20 g / 11 ms terminal peak sawtooth shock pulse
	Vibration	Method 514.5 Procedure I, Category 24 General minimum integrity exposure IAW Figure 514.5C-17 1 hour per axis.
	Fungus	Method 509.4
EMI	***MIL-STD-461F****	CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103 * When tested with M1982 at full load and in accordance with the provisions of MIL-STD-461F– with shielded Output and Signals cables.
Reliability	2M hours, calculated IAW MIL-HDBK-217F Notice 2 at +85°C baseplate, Ground fixed conditions.	
Cooling Requirements	The M1987 is a baseplate cooled unit. The base of the M1987 should be thermally attached to a suitable heatsink that maintains it below +85 °C.	
Form factor	3.965'' wide, 1.34'' high and 4.179'' deep. For detailed dimensions and tolerances see Drawing: M1987001	
Weight	380gram Typical	
Connectors	See Page 6	

TYPICAL CONNECTION DIAGRAM



PIN ASSIGNMENT:

Input Connector

Connector type*:* M24308/24-37F, OR EQ

Pin No.	Description
1	115V AC
2	115V AC
3	115V AC NEUTRAL
4	115V AC NEUTRAL
5	115V AC NEUTRAL
6	115V AC
7	CHASSIS
8	CHASSIS
9	CHASSIS

Output Connector

Connector type*:* M24308/23-55F, OR EQ

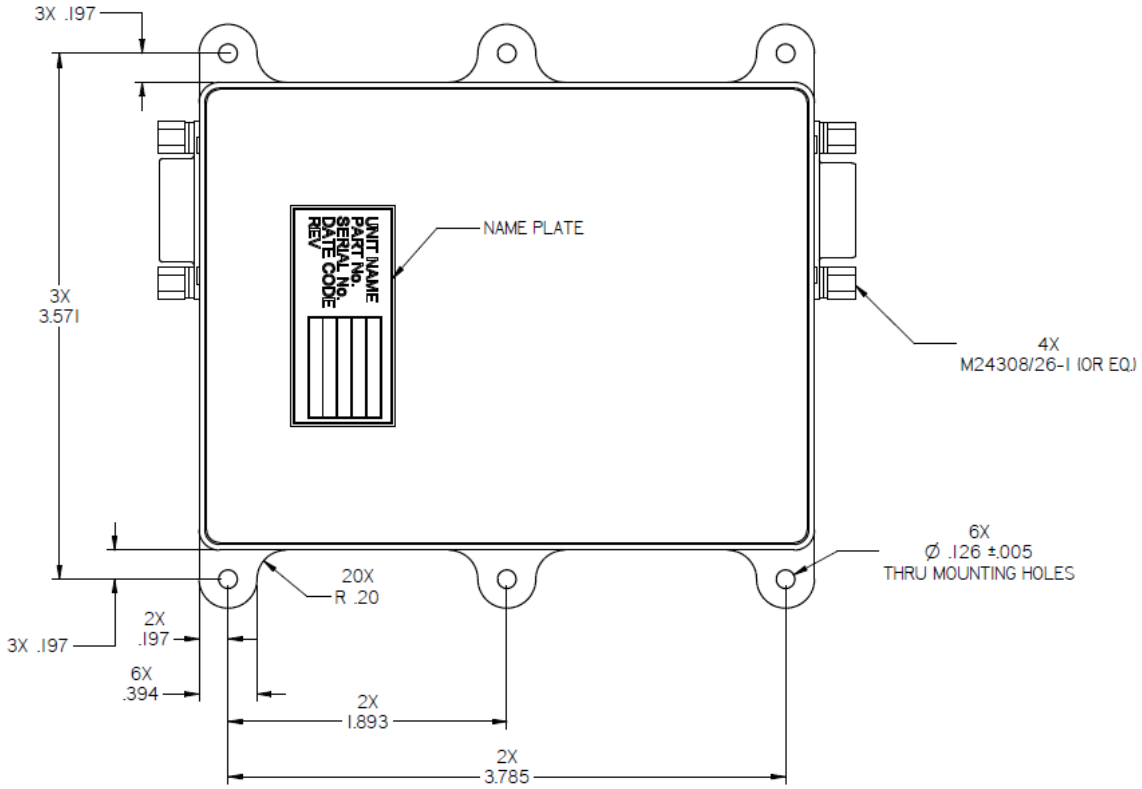
Pin No.	Description
1	115V AC NEUTRAL
2	115V AC NEUTRAL
3	115V AC NEUTRAL
4	115V AC
5	115V AC
6	CHASSIS
7	CHASSIS
8	CHASSIS
9	115V AC

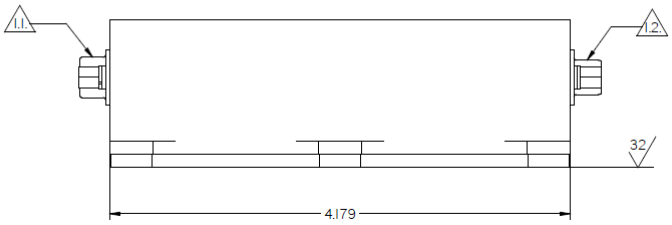
Note: All pins with identical function/designation should be connected together for optimal performance.

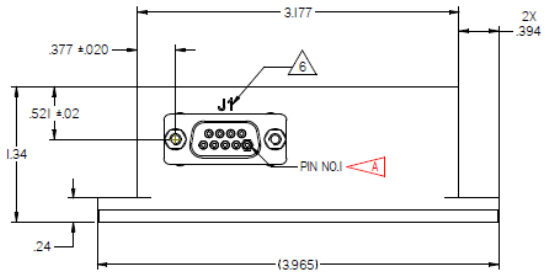
CHASSIS Note: The CHASSIS pin allows additional connection of unit's chassis to system ground.

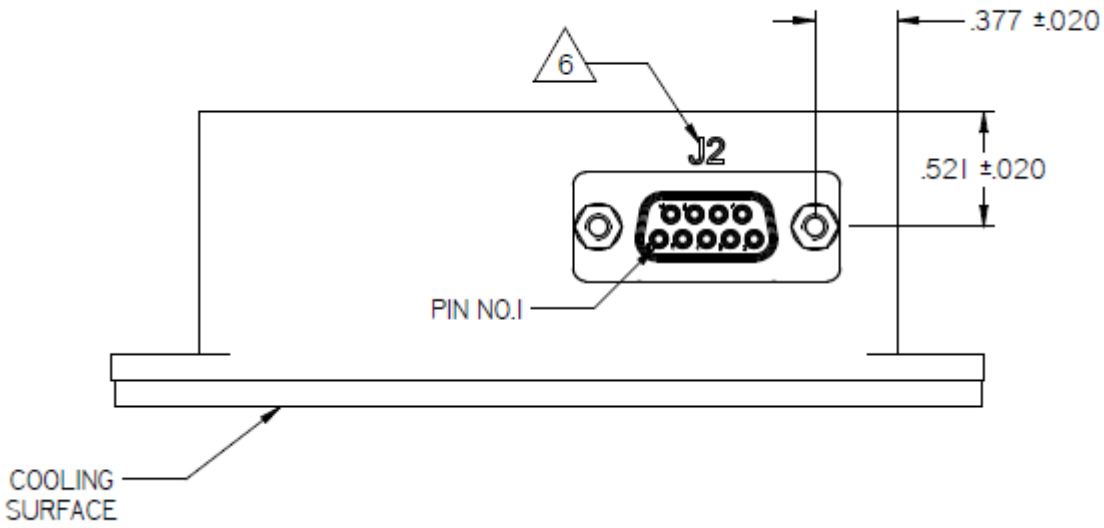
OUTLINE DRAWING:

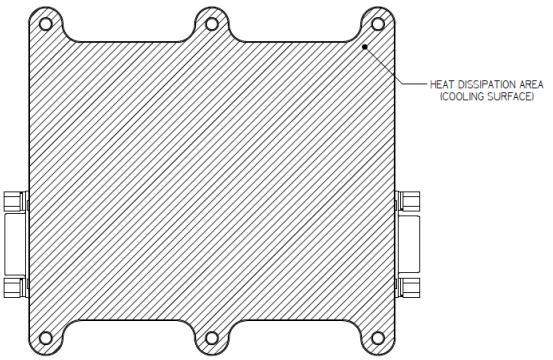
For detailed dimensions and tolerances see Drawing: M1987001

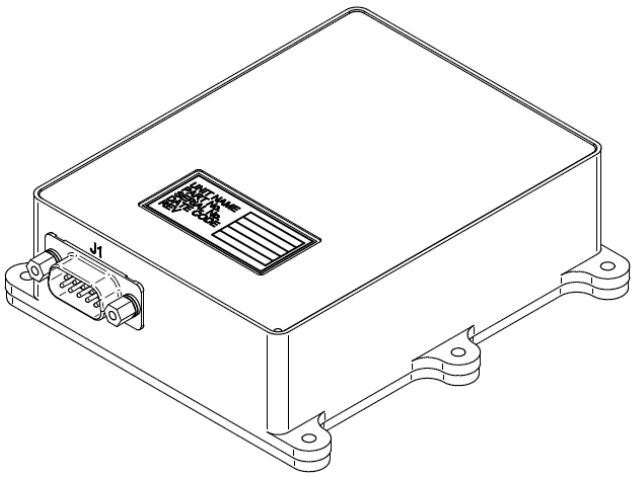












Note: Specifications are subject to change without prior notice by the manufacturer.