

Power Solutions for Today's Military

Power Systems from **COTS+** Building Blocks

HDF-AC AC EMI Filter Module

- ◆ Input 85 to 265 VAC 60 Hz (400Hz with reduced specs)
- ◆ Up to 8A
- ◆ Matched to Rantec's HDA PFC Module
- ◆ EMI Compliant
MIL-STD-461D-E:
CE101 & CE102
- ◆ Low Input Voltage Drop
- ◆ Isolated Case
- ◆ Low Internal Dissipation
- ◆ Operating temperature range: -55°C to +95°C
- ◆ Conduction Cooled
- ◆ MIL-S-901C Shock
- ◆ MIL-STD-810C
- ◆ MIL-STD-1399 Compliant (with external transorb)
- ◆ Competitively Priced



Rantec's HDF-AC is a complementary building block used to develop performance based "Power System Solutions" in today's military environment. Rantec's HDF-AC EMI filters allow the system designer to develop power systems which comply with the stringent requirements of MIL-STD-461, while employing the cost and schedule philosophies of Commercial Off-The-Shelf (COTS). These filters are specifically designed to interface with Rantec's HDF power factor correction module, and thereby the HDM DC-DC converter line, providing both differential and common mode filtering.

HDF-AC EMI FILTER MODULE

MODEL	PART NUMBER	INPUT	CURRENT
HDF-AC	PL31503	85 - 265 VAC	8A max

The System Designer's Choice



Rantec Power Systems Inc.

**Rantec Power Team Engineers
Offer Technical Assistance to:**
Evaluate Power System Requirements
Develop Power System Architecture
Reduce Time to Market

HDF-AC

AC EMI Filter Module

INPUT

PARAMETER		COMMENTS
Voltage	85-265 VAC	MIL-STD-1399 Compliant (with external transorb)
Current	8A max	
Efficiency	>99%	Power \geq 10W
Power Factor	0.99	Power \geq 50W
Surge Rating	350VAC	Up to 500mSec
Isolation	Input to Output	Not Isolated
	Input & Output to Case	10M Ω minimum @ 1000VDC
EMI Management		Suppresses conducted emissions from connected HDA/HDM modules operating at maximum power. Specific limits defined by the constraints of MIL-STD-461 D-E, CE101 and CE102.

MECHANICAL

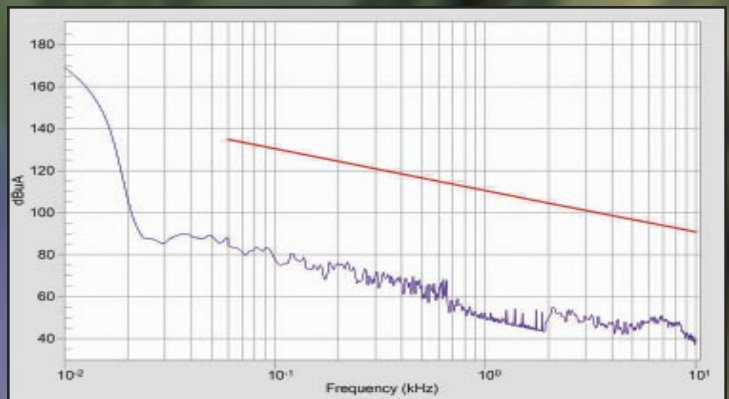
Construction	Fully shielded
Dimensions	See diagram
Mounting	See diagram
I/O Connection	Solder pins
Weight	13 oz. max.

ENVIRONMENTAL

Cooling	Conductively cooled baseplate, +95°C max
Operating Temperature	-55°C to +95°C, baseplate
Storage Temperature	-55°C to +125°C
Humidity	MIL-STD-810C, Method 507.1, Proc. IV
Altitude	up to 70,000 ft
Shock	MIL-S-901C, Grade A, Type A, Class 1 High impact shock
Vibration	MIL-E-5400, Curve IVa, 5 to 2kHz
Salt Spray	MIL-STD-810C, Method 509, Proc 1
MTBF	9,255,851 hours @ 55°C Naval Sheltered per MIL-STD-217F Note 2

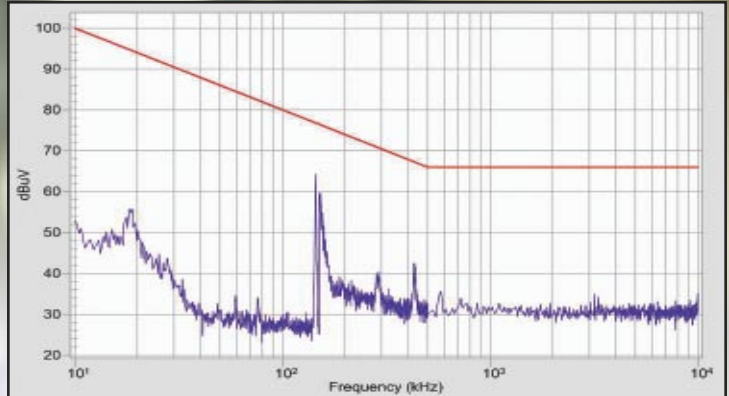
Specifications subject to change without notice.
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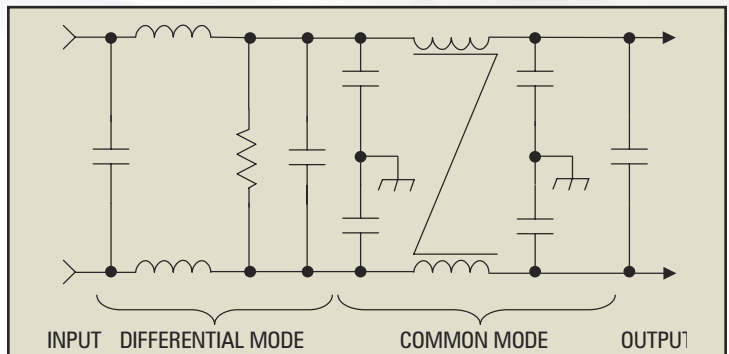
MIL-STD-461E 115V CE101

HDA-600-31, HDF-AC EMI Filter, 820 μ f Cap

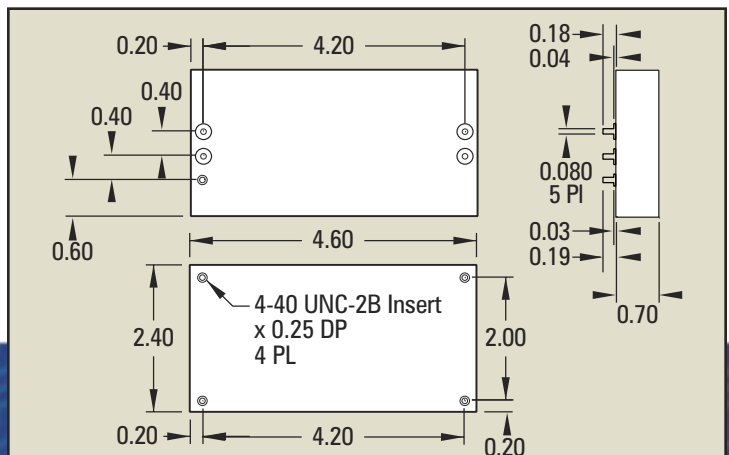


MIL-STD-461E 115V CE102

HDA-600-31, HDF-AC EMI Filter, 820 μ f Cap



SCHEMATIC



OUTLINE & MOUNTING DIAGRAM

Dimensions are for reference only