

MODEL 81-084-01 TRANSFORMER-RECTIFIER UNIT

28 VDC, 300A OUTPUT



FEATURES

- 300 Amps at 28 volt output
- 115 VAC, 3 phase, 400 Hz input
- Fan cooled
- Passively regulated
- Very low current THD (<12%)
- 12 pulse rectification
- Output current sense (x2)
- Output voltage sense (x2)
- Overtemperature sensor
- Fan underspeed detection
- 120A continuous at loss of cooling

APPLICATIONS

- Aircraft DC Bus Power

POWER CONVERSION

For over 45 years, Crane Aerospace & Electronics has led the way in the development of reliable aircraft AC-DC power conversion. Our line of transformer rectifier units provide affordable, efficient, light weight and reliable conversion while meeting today's new stringent power quality requirements.

As the world's leading supplier of Transformer Rectifier Units (TRUs) for commercial aircraft, ELDEC offers you field-proven, exceptionally reliable solutions. We have thousands of TRUs in the field for a wide variety of aircraft programs. Features include Unregulated configuration for simplicity, Regulated configurations with tight voltage control, Options for free, forced or fan cooling, Long-life field-proven fan, and clean output power, ensuring compatibility with avionics loads

Our companies are known for their technical strength, proven product reliability, innovative solutions and overall value. Each company is ISO9001/AS9100 certified and committed to Operational Excellence and world-class processes. From application engineering, through design and manufacturing, Crane Aerospace & Electronics offers a comprehensive approach to product specification, design certification and service.

YOUR NEEDS

Crane Aerospace & Electronics offers a complete line of power conversion products. Not sure about which type of power conversion is best for your application? Please give us a call or write – our engineers have a great deal of experience in many types of power conversion methods and will help select the right one for you. Also, be sure to check out our web site at www.craneae.com for more detailed information.

EXPORT ADMINISTRATION REGULATIONS

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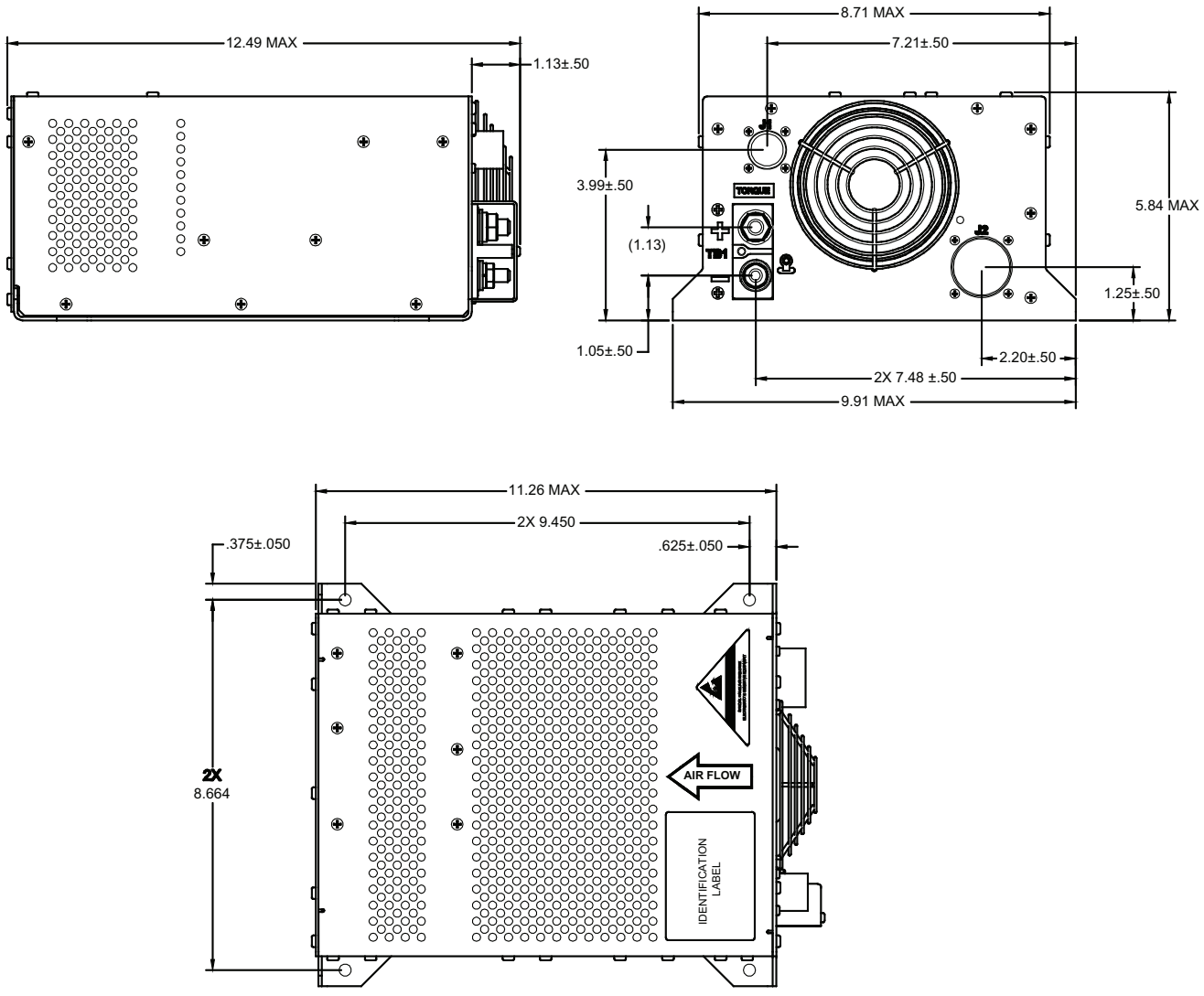
CHARACTERISTICS

Input:	115 Volt, 3 phase 400Hz	Overpressure:	RTCA/DO-160D, Section 4, -15,000 ft
Output Current:	300 Amps	Temperature Variation:	RTCA/DO-160D, Section 5, Category B
Output Voltage:	28 Vdc (nominal)	Humidity:	RTCA/DO-160D, Section 6, Category A
Weight:	≤ 18.5 lbs (8.41kg)	Operational Shock and Crash Safety:	RTCA/DO-160D, Section 7, Category B
Dimensions:	L = 12.49" including terminal block W = 9.91" including mounting feet H = 5.84"	Vibration:	RTCA/DO-160D, Section 8, Category S, Curve B for one hour in each of the TRU's three orthogonal axes
Cooling:	Internal Fan	Fungus Resistance	RTCA/DO-160D, Section 13, Category F
Loss of Cooling:	120A, +30°C, 15,000 ft, continuous	Audio Frequency Conducted Susceptibility - Power Inputs	RTCA/DO-160D, Section 18, Category A(CF)
Connections:		Induced Signal Susceptibility	RTCA/DO-160D, Section 19, Category Z
Signal:	D38999/20WC35PN	Radio Frequency Susceptibility (HIRF)	RTCA/DO-160D, Section 20, Category R
Input:	M53452L22-22P	Emission of Radio Frequency Energy	RTCA/DO-160D, Section 21, Category L
Power:	Terminal Block: 3/8-24 unf-2A thread stud for positive, 5/16-24 unf-2A thread stud for negative	Lightning Indirect Effects	RTCA/DO-160D, Section 22, Category A3G33
Efficiency:	>87%	MTBF	125,000 hours in a pressurized aircraft protected environment.
Current THD:	12% maximum	Design Life	> 20 years
Power Factor:	>0.95%		
Output Ripple:	<1.5V _{p-p}		
Overload Rating:	150% (400 amps) for 5 minutes 200% (750 amps) for 20 seconds 2000 amps for 2 seconds		
Operating Temperature:	-15°C to +40°C at 15,000 ft -15°C to +70°C at sea level		
Ground Temperature:	-55°C to +85°C		

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