

# TRU Series Up to 2kW

## Transformer Rectifier Unit



### Product Highlights:

- Efficient AC-DC power conversion
- Input Voltage & Frequency Range Options
- Output w/ low noise Pk-Pk Output Filter
- Mil-Std-461E Input EMI Filter
- Mil-Std-704, Mil-Std-1399 Type I, <3% THD
- Mil-Std-810 Severe Environments
- Rugged Military Aircraft & Shipboard Applications
- Over-Temperature Shutdown Option
- 0°C to +71°C max baseplate operating temperature

### General Specifications

	TRU-101	TRU-102	TRU-103	TRU-104	TRU-105
Input Voltage	115 L-N/200 L-L	115 L-N/200 L-L	115 L-N/200 L-L	115 L-N/ 200 L-L	115 L-N/ 200 L-L
Input Source	3Ø, Delta	3Ø, Delta	3Ø, Delta	3Ø, Delta	3Ø, Delta
Frequency Range	57-63/375-425Hz	57-63/375-425Hz	375-425Hz	375-425Hz	375-425Hz
Output Voltage	270V @ 3.5A	160V @ 6.25A	270V @ 4.0A	160V @ 6.5A	300V @ 3.4A
Output Power	950W	1000W	1080W	1040W	1020W

### Electrical Specifications

	TRU-101	TRU-102	TRU-103	TRU-104	TRU-105
Line Regulation (Low Line to High Line max.)	20%	20%	20%	20%	20%
Load Regulation (1/2 to FL max.)	20%	20%	20%	20%	20%
Pk-Pk Noise Eo DC to 20MHz	1%	1%	1%	1%	1%
THD 60 / 400 Hz	< ±5% / ±3%	< ±5% / ±3%	< ±3%	< ±3%	< ±3%
Inrush Current Limit	< 600% (lin)	< 600% (lin)	< 600% (lin)	< 600% (lin)	< 600% (lin)
Load Step Recovery ½ - FL typical	0.5mS	0.5mS	0.5mS	0.5mS	0.5mS
Efficiency (min)	85%	85%	85%	85%	85%
Isolation	> 100MΩ @ 1000VDC, Input to Output & Input to Case; > 100MΩ @ 500VDC Output(s) to Case				
EMI Filtering	Mil-Std-461E, CE101 and CE102 on the input.				

### Temperature Specifications

Operating Temperature:	-10°C to +71°C Baseplate
Storage Temperature	-40°C to +100°C
Temperature Coefficient	0.02%/°C

Note: Other output voltages and Environmental Screening also available. Please consult factory for details.



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Note: Specifications subject to change without notice.

Last Update: 09/07/06

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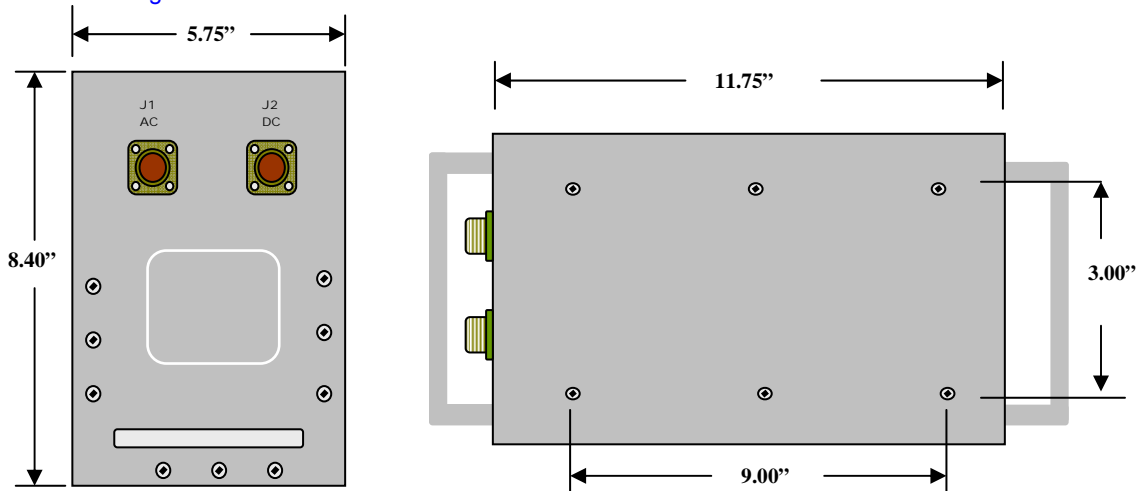
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Environmental Specifications	
Pressure-Altitude	Per MIL-STD-810F, Method 500.4, Procedure I and II
High Temperature	Per MIL-STD-810F, Method 501.4, Procedure I and II
Low Temperature	Per MIL-STD-810F, Method 502.4, Procedure I
Humidity	Per MIL-STD-810F, Method 507.4, Procedure I
Fungus	Per Mil-Std-810F, Method 508.5, Procedure I
Salt Fog	Per Mil-Std-810F, Method 509.4, Procedure I
Sand and Dust	Per Mil-Std-810F, Method 510.4, Procedure I and II
Explosive Atmosphere	Per Mil-Std-810F, Method 511.4, Procedure I
Acceleration	Per MIL-STD-810F, Method 513.5, Procedure I and II
Vibration	Per MIL-STD-810F, Method 514.5, Procedure I, Category 1, 4, 7 thru 14 and 16 thru 21
Shock	Per MIL-STD-810F, Method 516.5, Procedure I, IV

Physical Characteristics	
Maximum Case Size	11.75"D x 8.40"W x 5.75"H (excludes handles & connectors)
Cooling Method	Conduction cooled through baseplate
Conformal Coat	Clear HumiSeal 1A 20
Enclosure Finish	Black Anodized per Mil-A-8625F, Type II, Class 2
Baseplate Finish	Gold Iridite Mil-C-5541E, Class 1A
Input/Output Connectors and Terminations	Circular MIL grade J1, J2 typical (See Pin-out Assignment Table I & II)
Mounting:	Baseplate Flange Mounting 4-40 (12 places)
Weight	< 55 lbs. typical

**Outline and Mounting:**



- Notes: 1) Above Dimensions and tolerance per ANSI-STD-14.5  
 2) Tolerance .xx = 0.03, xxx = 0.005



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Connector and Pin out Assignments:

<b>Table I. TRU101 DC OUTPUT</b>			
J2 MS27508E12A3S			
Mate: MS27508E12A3P			
Pin	Signal Name	Pin	Signal Name
A	+ 270V DC	C	SPARE
B	- 270V DC		

<b>Table II. TRU101 AC INPUT</b>			
J1 MS27508E12A4P			
Mate: MS27508E12A4S			
Pin	Signal Name	Pin	Signal Name
A	PHASE A	C	PHASE C
B	PHASE B	D	CHASSIS GROUND

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