

TRU Series Up to 1100W

AC-DC High Power Supplies



Product Highlights:

- Efficient AC-DC power conversion
- Wide Input Voltage & Frequency Range Options
- Output w/ low noise Peak-Peak Noise Filtering
- Mil-Std-461E Input EMI Filtering
- Mil-Std-704A, Mil-Std-1399 Type I
- Mil-Std-810 Environments
- Rugged Military Aircraft & Shipboard Applications
- Over-Temperature Shutdown Option
- -10°C to +71°C max baseplate operating temperature

General Specifications

	TRU-101	TRU-102	TRU-103	TRU-104	TRU-105
Input Voltage	115 LN / 200 LL	115 LN / 200 LL	115 LN / 200 LL	115 LN / 200 LL	115 LN / 200 LL
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 (Lo Line to Hi Line)	2%	2%	2%	2%	2%
Load Regulation (1/2-FL, w/ sense)	2%	2%	2%	2%	2%
Pk-Pk Noise (Eo) DC- 20MHz % (Eo)	1%	1%	1%	1%	1%
THD 60 / 400 Hz	< 5% / 3%	< 5% / 3%	< 3%	< 3%	< 3%
Inrush Current Limit	< 200% (lin)	< 200% (lin)	< 200% (lin)	< 200% (lin)	< 200% (lin)
Load Step Recovery (1/2 to FL)	0.5mS	0.5mS	0.5mS	0.5mS	0.5mS
Efficiency (min)	84%	83%	85%	83%	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; CS101, CS114, CS116, RE101, RE102, RS103				

Temperature Specifications

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

Note: Other output voltages & Environmental Stress Screening available. Please consult factory for details.



Arnold Magnetics Corporation, 841 Avenida Acaso, Camarillo, Ca 93012
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Note: Specifications subject to change without notice.

02/21/2020

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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 – TRU 101 specification example	
Maximum Case Size	11.3"D x 8.4"W x 5.8"H (excludes handles & connectors)
Cooling Method	Conduction cooled through baseplate
Encapsulation / Conformal Coat	Clear RTV, 1B31
Enclosure Finish	Black Anodized per Mil-A-8625, Type II, Class 2
Baseplate Finish	Clear Iridite per Mil-C-5541, Type II, 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	56 lbs. typical



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Case Outline and Mounting:

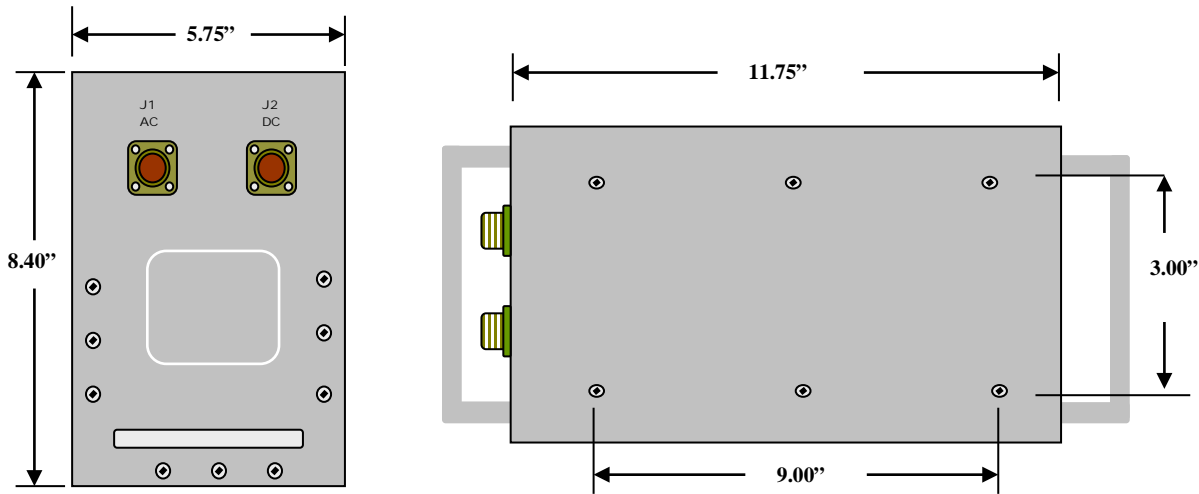


Figure 1: TRU 101 Case Outline & Mounting

- Notes: 1) Above Dimensions and tolerance per ASME Y14.5-2009
 2) Tolerance .xx = ± 0.03 ", xxx = ± 0.010 "

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Connector and Pin out Assignments:

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

Table II. TRU101 AC INPUT			
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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