# **TRU Series**

3-Phase Transformer Rectifier Units (TRUs) With Patented 5% THD Harmonic Current Suppression Power Levels from 100 Watts to 10KW



## **KEY FEATURES:**

- Passive Harmonic Attenuator(Patent Pending#62/220,612).
- 60Hz Version Designed for Submarine/Shipboard Applications per MIL-STD-1399 Input Current THD < 5% & less than 3% on any single current harmonic.
- 400Hz Version Designed for Aircraft and Helicopter Platforms per MIL-STD-704.
- Clean Output Power Ensuring Compatibility with Avionics Loads.
- Built in Output Overload Protection The Passive Harmonic Attenuator also Provides a Magnetic Capacitive Current Limit Circuit for the TRU. As a Result, Fuse Replacement is not Required in the Event of an Output Overload, or Short Circuit.
- Low Parts Count for High MTBF up to 500,000 Hours (Airborne Environment).
- Input/Output Isolation Separate Primary and Secondary Windings.
- Numerous Standard Types Available From 10 to Over 100A.
- Ruggedized Mechanical Design MIL-STD-810 Compliant.
- Unregulated Configurations for Simplicity and Reliability.
- Options for Forced Air, Fan, or Conduction Cooling.
- Efficiencies Exceeding 90%.
- 12-Pulse Rectification.
- One Year Warranty
- Proudly Made in U.S.A.



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## **TRU Series**

### Performance Data:

Input	Input Voltage: 115/200 VAC, WYE 5 Wire 3 phase or 115V DELTA 4 Wire 3 phase. Input Frequency: 360-440 Hz or 54-66 Hz. Power Factor: > 0.99 (50-100% load). Efficiency: >88% (50-100% load). THD < 5% Input Current.
Output	Output Voltage: 24VDC, 28VDC, 48VDC, 56VDC, 270VDC (unregulated) other output voltages available upon request. Output Current: Up to 125 Amps. Output Ripple: < 1% Vp-p maximum. Overload Rating: 150% for 5 minutes. Load Regulation: 10% Typical from 1% load to 100% load. Line Regulation: N/A.
Environmental	Operating Temperature: -40°C to +85°C. Storage Temperature: -40°C to +105°C. EMC: Designed to meet MIL-STD-461F. Designed to meet MIL-STD-810G for Vibration, Shock, Acceleration, Fungus, Altitude, Sand Dust, Salt fog and Humidity. Design Life: > 20 years.
Isolation	Input to Output: 2250V. Input to Case: 2250V. Output to Case: 500V.
Interface	Consult factory for mechanical dimensions.

#### Part Number System:

Isolation TRU-xxxy-bbb-c

xxxx = Output Power (W) y = Input Voltage Type; either W for Wye input or D for Delta bbb: Output Voltage c = Cooling Method F – Fan; Blank – Forced Air Cooled; C – Conduction Cooled

*Example:* TRU-2000D-48-F is a 115V 3 Phase TRU at 2KW output power with integral Fan

