



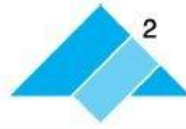
Avionic Instruments LLC
Aerospace Power Electronics



Acme Aerospace Inc.



TRU & RTR Technology Overview



50A-500A 28VDC Transformer Rectifier Units (TRU)

- Strong base platforms UH-60, P-8A, T-38, CH-47, 787 Completions
- 12 Pulse Isolated Designs
- Compatible with Dynamic/Pulse Loads
- Fan cooled designs
- Custom Diode Array
- **Typical applications**
 - ✓ Point of use loads – Motors, Actuators, Lighting upgrades, Increase of DC power
- **Markets Served**
 - ✓ Military fighters and trainers
 - ✓ Commercial and military transport aircraft
 - ✓ Commercial and military helicopters
 - ✓ Business and Regional Jet aircraft

50A TRU
T-38,
787



125A TRU
P-8A, CH-47



400A TRU
UH-60

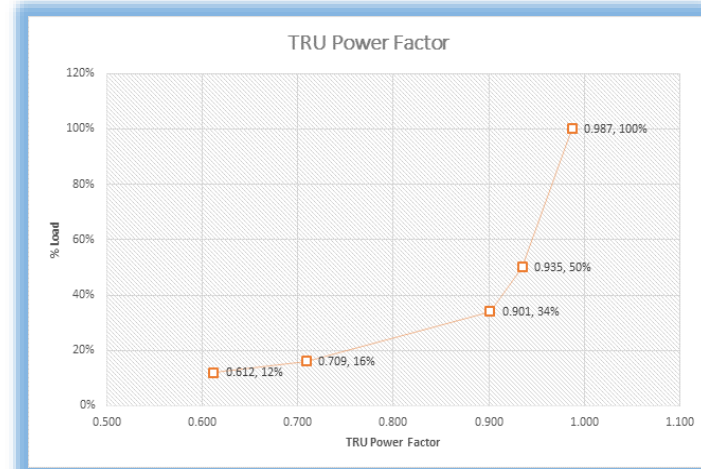
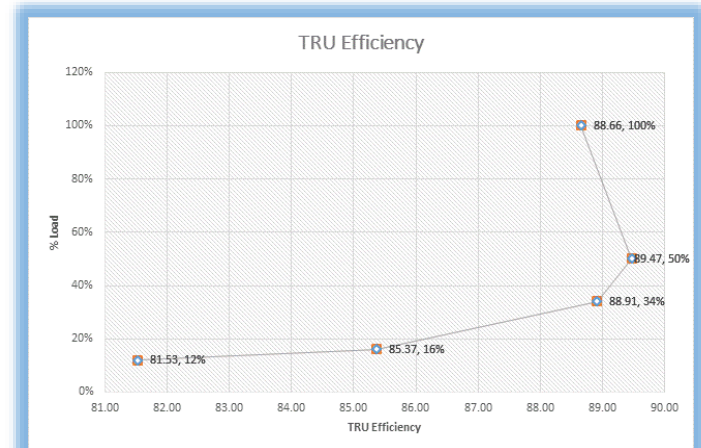


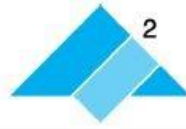


50A-500A 28VDC Transformer Rectifier Units (TRU)

Advantages

- Low Parts Count, Reliable design with MTBF >140K Hours
- Custom diode array with superb environmental, dielectric and electrical performance
- High Efficiency > 87% (above 50% load) with high overload Capacity
- High Input Power Factor > 0.95 PF (above 50% load)
- 12 Pulse Topology with THD < 12%
- Meet DO-160G Power Quality Requirements

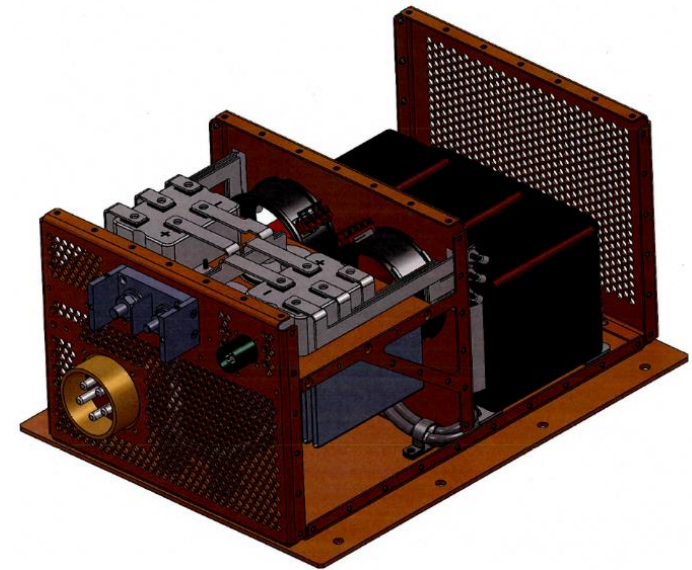


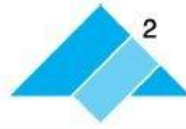


270VDC TRU Solution

- **Advantages**

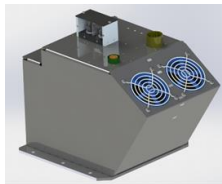
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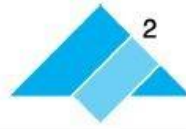




120A-400A 28VDC Regulated Transformer Rectifiers (RTR)

- Strong base platforms C-130, CH-47, CH-53K, Completions
 - Unique 90% TRU/10% Line Conditioner Design
 - Provides output voltage regulation of 1% and this can yield significant weight savings for the power distribution network and able to power voltage sensitive loads
 - Innovative Technical Design – Unique in the market
- **Typical applications**
 - ✓ Main DC Power Distribution with remote sensing functionality – Motors, Actuators, Lighting upgrades, Increase of DC power
 - **Markets Served**
 - ✓ Military fighters and trainers
 - ✓ Commercial and military transport aircraft
 - ✓ Commercial and military helicopters
 - ✓ Business and Regional Jet aircraft





120A-400A 28VDC Regulated Transformer Rectifier (RTR)

- Technology Advantages

- Low Parts Count, Reliable design with MTBF >60K Hours
- Weight Factor RTR/TRU 1.6 Leading in the Market
- EMI is clean due to TRU topology front end
- 1% voltage line/load regulation
- High Efficiency > 85% (above 50% load) with high overload Capacity
- High Input Power Factor > 0.95 PF (above 50% load)
- 12 Pulse Topology with THD < 12%
- Meets DO-160G Power Quality Requirements
- Fails safe as a TRU
- Remote sensing – Line drop compensation 0.5VDC.

