



DATASHEET

AC-DC CONVERTERS

Three Phase AC-DC Converters

Ultra-light Weight Solutions

The all-electronic alternative to our TRUs and ATRUs, is our three phase PFC solutions, which provide higher packing density and lighter weight for avionics, aircraft systems, naval and land based systems.

Our front-end power factor correction (PFC) converters can be used stand-alone or to supply regulated voltage to DC-DC converters.

The PFC converter can be analog or digitally controlled and provides power factors near 1.0 with very low harmonic distortion, which will meet commercial and military specifications.

For further information on our full product portfolio, please email us at:

power.sales@ttelectronics.com



Designed to meet
DO-160G and MIL-STD-1399
Section 300 harmonics

Key Features:

- 115VAC 50/60 Hz and 360 to 800 Hz input
- High Power Density > 150W/in³
- Companion EMI Filter
- Digital control and telemetry
- Tolerant to phase loss
- Protection circuits including OVP and over-temperature

Electrical Performance:

- Power Factor > .99
- Up to 96% efficiency

Three Phase TRUs and ATRUs

High Reliability Solutions

We design and manufacture multi-phase transformer rectifier units and lightweight auto-transformer rectifier units suitable for avionics and aircraft systems, as well as military shipboard electronics.

ATRUs/TRUs are a high reliability solution for applications requiring reduction of input line current harmonics and Power Factor Correction.

Electrical Performance:

- Power Factor typically > .99
- Peak to peak output ripple <5% of output voltage



Key Features:

- Converts 3-phase power to bulk DC while controlling line harmonics to <3%
- Meets DO-160G and MIL-STDs
- 50/60 Hz version for ground based and naval applications
- 400/800 Hz (wild frequency) version for airborne applications
- Non-isolated ATRU versions provide higher power density
- Power ratings from 500W to 20kW
- Output voltage ranges from 28V to 385 VDC or custom DC output voltages
- High reliability with >100,000 hours MTBF
- 15-phase (30-pulse) rectification requires less external filtering
- Isolated design or weight-saving non-isolated ATRU

Single Phase AC-DC Converters

Power Supply Solutions

Our AC-DC power supply solutions include high-power rectifiers, off-line switchers and custom AC-DC power systems. All of our systems can be fully ruggedized for harsh environments.



Key Features:

- High Density Packaging
- Multiple Outputs
- High Reliability Designs
- Ruggedized for Harsh Environments
- Unique Form Factors
- Industry Standard Cooling Methods
- Digital Controls and Telemetry

CONTACT US

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