



DC-DC Modular Converter

+24 Vdc to -48 Vdc / 10 Amps



Applications

- Microwave Systems
- Cellular / PCS
- Wireless Local Loop

Features

- Modular, Compact Design
- Hot Bus Plug-In
- UL, CUL and TUV Recognized
- Digital Metering
- Front Access Design
- Automatic Load Share
- Full 2 Year Warranty
- Shelf Mounted
- Input Circuit Breaker
- Power On Indicator (Green)
- Fault Indicator (Red)

Product Overview

TDI-Telecommunications Power Systems' DC-DC converters offer the performance features required for advanced telecommunications systems. This unit is designed to be used with TPS +24 volt rectifiers and sub-rack system. The converter is available in 10 amp modules. The unique design simplifies installation and allows for expansion of the DC system. Each converter is equipped with representative telecommunication and cellular alarm outputs. The hot bus plug-in capability allows for easy removal and replacement of converters without interrupting the power bus or system operation.

DESIGN FEATURES

The highly reliable converter module is user friendly and minimize installation, maintenance and system downtime. The front panel features a user interface that includes a FAULT LED, DC ON LED, selectable volt / ammeter and the DC ON / OFF circuit breaker. Additional features include undervoltage protection, overvoltage shutdown, input circuit breaker, output blocking diodes and output current limit protection.

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TDI - Transistor Devices, Inc.

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Unit Specifications

DC INPUT

Input Voltage: +21 to +32 volts DC to start and operate.
Input Current: 16 Amps DC at +21 volts DC input rated load.
Efficiency: 75% at full load and input voltage above +21 volts.
Undervoltage: The unit will not be damaged while operating at input voltages below +21 volts.
Input Protection: A single pole circuit breaker rated at 20 amps is provided on the front panel.

OUTPUT

Output Voltage: Adjustable from -47 to -54 Volts DC. Converters are set to -50 Volts at the factory.
Output Current: 0 to 10 Amps (Model 124698-3 Metered).
Output Power: 540 Watts for 10 amp units
Regulation: The output voltage remains between -47 volts and -54 volts for all conditions of line, load and temperature within the defined operating ranges.
Walk In: 5 seconds from -47 volts to -50 volts.
Paralleability: May be paralleled with other like units for increased output.

PROTECTION

Overvoltage: Shutdown occurs if the output voltage exceeds -56 volts. Reset is by re-cycling input power.
Overcurrent: 12.0 Amp DC (Model 124698-3 Metered).
Overtemperature: An internal thermostat turns the converter off if the heat sink temperature exceeds 100C. Restart is automatic when the unit cools.

CONTROLS

Fault: A front panel re "FAULT" LED will be lit if the converter has a low output voltage while the DC input is present. Low output means less than -44 volts.

DC On: A front panel green "DC ON" LED will be lit if the DC is above the +23 volts minimum needed to operate.

Volt/Amp Meter: A front panel meter measures output current or voltage, selectable via a front panel switch. The ammeter accuracy is ± 2 amps and the voltmeter accuracy is ± 0.1 volt.

DC On/Off: The input circuit breaker is mounted on the front panel.

ENVIRONMENTAL

Cooling: All units are forced convection cooled a constant speed internal fan drawing cool air from the front and exhausting warm air out the rear.

Heat Dissipation: 550 BTU per hour (Model 124698-3 Metered).

Operating Temperature: 0 to +50C

Humidity: 0% to 95% non-condensing.

Operating Altitude: -200 to +13,000 ft.

MECHANICAL

Dimensions: 7" H x 2.62" W x 19.25" L

Weight: 6 lbs.

RELIABILITY

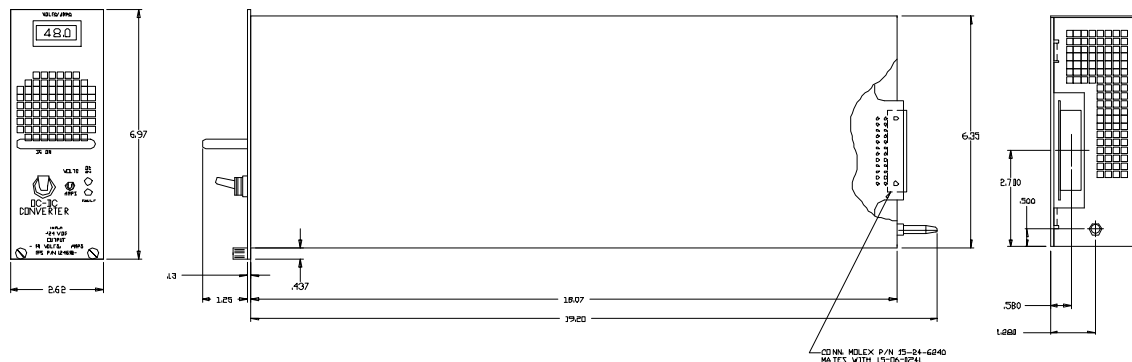
MTBF: This unit has a field demonstrated mean time between failure of 242,000 hours in normal operation.

AGENCY COMPLIANCE

EMI: The converter meets Bellcore NEBS objectives for radiated and conducted emissions.

Safety: This unit is designed to meet UL1950, IEC950, and CSA 22.2#950.

Outline



This data sheet is believed to be correct at time of publication and Transistor Devices, Inc. accepts no responsibility for consequences from printing errors or inaccuracies. Specifications are subject to change without notice.

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