



### APPLICATIONS

- Remote Electronics (Fiber)
- Central Offices
- MTSO
- Cellular
- CATV

### PRODUCT OVERVIEW

#### OVERVIEW

TDI-Telecommunications Power Systems rectifiers are the industry benchmark for reliability due to our field proven design. The light weight, compact modules feature power factor correction, automatic load sharing, current walk-in and international power input. Each module is equipped with representative telecommunication and cellular alarm outputs, and optional digital meters. The hot bus plug-in capability allows for easy removal and replacement of rectifiers without interrupting the power bus or system operation.

#### DESIGN FEATURES

The highly reliable 100 amp rectifier module is user friendly and minimizes installation, maintenance, and system downtime. The front panel features a user interface that includes a FAULT LED, AC ON LED, output voltage adjustment, bar chart/ammeter, and the AC ON / OFF circuit breaker. The breaker is linked to the module handle to ensure that it is in the off position when the rectifier is withdrawn from the rack assembly.

### FEATURES

- Switchmode Technology
- Hot Bus Plug-In Capability
- UL, CUL and TUV Recognized
- International 50/60 Hertz Input
- LED Bar Amp Meter
- Power Factor Corrected
- Current Walk-In
- Automatic Load Share
- Full 2 Year Warranty
- 7.8 Watts per Cubic Inch
- AC Power On Indicator (Green)
- Summary Fault Indicator (Red)
- 2-Pole Circuit Breaker Protection
- Soft Start Turn On
- Shelf Mounted
- Insert / Extract Handle
- V/A Digital Meter (Optional)
- Highly Accelerated Stress Screening Program

*Powering the Information Age*

### TDI - Transistor Devices

36 Newburgh Road • Hackettstown, NJ 07840 • Phone: 908.850.5088 • Fax: 908.850.1607 • [www.tdi-power.com](http://www.tdi-power.com)

### SPECIFICATIONS

#### INPUT

**Input Voltage:** 176-264 Volts AC, 47-63 Hz, Single Phase  
**Input Current:** 38 Amps RMS maximum at low line, rated power  
**Peak Inrush Current:** 95 Amps maximum  
**Power Factor:** 0.98  
**Harmonic Distortion:** Less than 5% total harmonic distortion at full load and less than 3% for each harmonic  
**Efficiency:** 84% at low line, full load

#### OUTPUT

**Output Voltage:** Adjustable from -50 to -59 Volts DC. Rectifiers are set to -54 Volts at the factory  
**Output Current:** 100 Amps  
**Output Power:** 5600 Watts maximum  
**Line Regulation:** Less than  $\pm 0.25\%$   
**Load Regulation:**  $\pm 0.2\%$  from 10% to full load.  $\pm 2\%$  from no load to 10% load.  
**Walk-In:** 5 seconds from -50 volts to -56 volts.  
**Paralleability:** May be paralleled with other like units for increased output.

#### PROTECTION

**Overvoltage:** Shutdown occurs if the output voltage exceeds the overvoltage set point. Reset is by re-cycling input power. Rectifiers are factory set to -60 volts.  
**Overcurrent:** 110 Amps maximum. Short circuit protected.  
**Overtemperature:** An internal thermostat turns the rectifier off if the heat sink temperature exceeds 100C. Recovery is automatic when the unit cools.

#### CONTROLS

**Fault:** A front panel amber "FAULT" LED will be lit if the rectifier has a low output voltage while the AC input is present.  
**AC on:** A front panel green "AC ON" LED will be lit if the AC input is above the minimum needed to operate.  
**Voltage Adjust:** The output voltage adjustment potentiometer is located on the front panel. The voltmeter displays "voltage reference." This aids in aligning all installed rectifiers to the

same setpoint without powering down any units.

**Volts/Amps Meter (Optional):** A front panel meter measures output current or rectifier voltage setpoint, selectable via a front panel switch. The ammeter accuracy is  $\pm 2$  amps and the voltmeter accuracy is  $\pm 0.1$  volt. An amp bar graph is standard.  
**AC on/off:** The input circuit breaker is mounted on the front panel and is protected from accidental operation by the handle assembly. The breaker is also linked to the handle to ensure that it is in the OFF position when the rectifier is withdrawn from the rack assembly.

#### ENVIRONMENTAL

**Cooling:** All units are forced convection cooled with a constant speed internal fan drawing cool air from the front and exhausting warm air out the rear of the unit.  
**Heat Dissipation:** 3100 BTU/hour  
**Operating Temperature:** 0 to +50C  
**Humidity:** 0% to 95% non-condensing  
**Operating Altitude:** -200 to +13,000 ft.

#### MECHANICAL

**Height:** 8.75" (5 RU)  
**Width:** 5.25"  
**Length:** 15.5"  
**Weight:** 38 lbs.

#### RELIABILITY

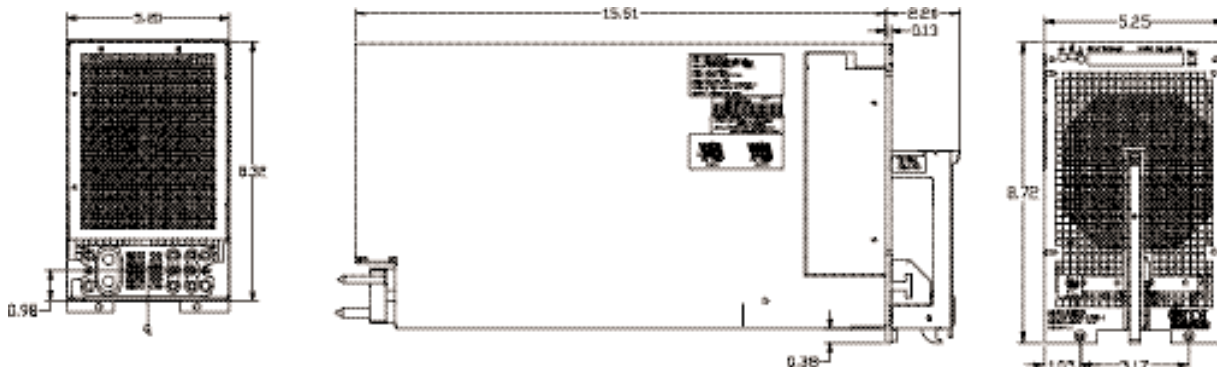
**MTBF:** This unit has a field demonstrated mean time between failure of 242,000 hours in normal operation.

#### AGENCY COMPLIANCE

**EMI:** Radiated and conducted noise on the input meets FCC Part 15, Subpart j, Class A, and VDE0871, Class A.  
**Safety:** This unit is designed to meet UL1950, IEC950, CSA 22.2#234 and TUV EN60950. CE pending.

For detailed performance specifications – See #702040

### 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.

*Powering the Information Age*

**TDI - Transistor Devices, Inc.**

36 Newburgh Road • Hackettstown, NJ 07840 • Phone: 908.850.5088 • Fax: 908.850.1607 • www.tdipower.com