



Front Connect Rectifier — 500 / 600 Watt AC to DC 24/27V and 48/54V Technical Specifications

AC INPUT

Voltage: 90—264VAC (tested to 300Vac)
Frequency: 47-63Hz
Peak Inrush Current: <45A
Power Factor: 0.99 typical
Efficiency: 90% typical with 230VAC input at 50-100% load
Hold-Up Time: 20mS min. at 23V / 46V threshold
Input Overcurrent: 8A Fuse in Line and Neutral

DC OUTPUT

Voltage: 21—28V or 42—56V
Power: 500W (600W at 180-275VAC)
Initial Accuracy at center load: $\pm 50\text{mV}$
Ripple & Noise: 1% V P-P Measured with 20Mhz Bandwidth
Line Regulation: Less than $\pm 0.25\%$
Load Regulation: $\pm 2\%$ max (1.0% typical) from nominal value
Parallel Use: May be paralleled with other like units for increased system output, an isolation OR-ing device included
Current Sharing: Slope program current share, (droop)
Temperature Coefficient: $< \pm 0.02\%$ per °C

ELECTRONIC ALARMS (Basic Set, others available)

AC Fail: low when AC input is out of range (activates 5ms before output falls below 23V / 46V)
Output Low: A TTL Low signal if the output voltage falls 10% below the actual output voltage set point (10 mA sink capability)
Over-temperature warning: TTL Low 5°C below over-temperature shutdown
(NOTE: above signals are referenced to signal ground)
Isolated Output Low: open collector signal, isolated from both AC input and DC output: high impedance if the output voltage falls below 10% of its set point.
Power Supply present (shorted internally to signal ground)

VISUAL FAULT INDICATORS

Power Good: A front panel Green "Power Good" LED will be lit if the AC input is within the acceptable range.
Output Low: An amber summary fault front panel indicator "Fault" LED will be lit if the output voltage falls 10% below voltage set point.

ELECTRONIC CONTROL INPUTS

Remote Inhibit: Application of a TTL High input signal referenced to signal ground will cause the supply to shut down and an Output Low fault alarm will be issued. (TTL High = Inhibit). Inhibit Low or open circuit enables power supply.
Remote Program: Provides about +7.5%, -30% of set point voltage with 0 to 5V control signal. Open circuit or 4V control= no output change
PS ON: Remote Enable (need to be shorted to signal ground to turn on power supply)- last make first break pin.

TEMPERATURE

Normal Operation: -40 to +55 °C
Low Temperature: -40 °C requires 1 minute warm-up
Storage / Transportation: -40 °C to +85 °C
Humidity Operating: 0% to 95% RH non-condensing
Storage: 0% to 95% RH non-condensing

PHYSICAL DIMENSIONS

Dimensions: 1U, H38.4x W106 x D219mm max (1.51 x 4.16 x 8.61" max) excluding handle and output connector

Weight: 2.5 lb (1.1kg)

AGENCY COMPLIANCE

CE Marked: Low Voltage Directive only
Electrical safety: EN60950-1, CUL UL 60950-1
EMI (conducted): FCC Part 15, Sub-part J, class A and EN55022, class A
EMI (radiated): EN55022, class A in a rack.
Harmonics: EN 61000-3-2, Class A
EN 61000-4-3 Electromagnetic Immunity (error-free), Level 2 stand-alone
RoHS with Lead Solder Exemption



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DEMANDING APPLICATIONS DEMAND TDI POWER

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Uses & Benefits

The 500 Watt Front Connect rectifier is an efficient, high-reliability power conversion module which installs in 1U Power Shelves. It's AC input range of 90-264 Volts makes this parallelable, fan-cooled rectifier an ideal choice for solving power needs. This rectifier can be deployed nearly anywhere.

This fan-cooled rectifier solves power problems.

This product can be installed in TDI Power's 1U Power Center to make a compact Power System with redundant rectifiers, power distribution, monitoring and battery connections.

Features

- 500 / 600 Watts
- 91% Efficient
- Parallelable
- Front Panel Input
- 1U High
- RoHS & WEEE Compliant

Outline

