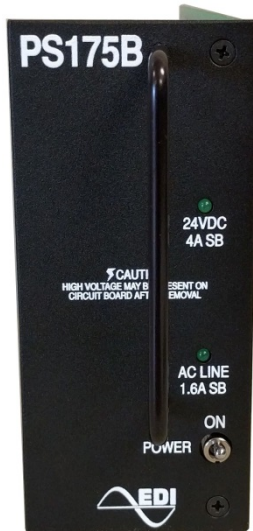


PS-175B

Heavy Duty Rack Power Supply Operations Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR THE
PS-175B SERIES POWER SUPPLY.

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WARNING

High voltages may be present on the circuit board after removal from the rack for up to 10 seconds. Do not touch device components or the PCB, and be careful placing the unit on a conductive surface during this time.

1.1 OVERVIEW

The PS-175B Cabinet Power Supply is a card style rack mounted high efficiency switching power supply. The PS-175B meets or exceeds all requirements of the NEMA Standard TS-1 1989 R2005 and is designed for a TS-1 Detector Assembly. The AC Line input is rated for universal 89 to 270 Vac operation, 50/60 Hz, and provides a regulated 24VDC output.

The PS-175B provides output regulation across changes in input voltage and output load over the full operating temperature range of -34C to +74C. Power Factor Correction is also provided reducing peak AC Line input current and associated stress on wiring. The 24VDC output is protected against voltage transients by a 1500 Watt suppressor.

1.2 INDICATORS

A green LED indicator is provided to display AC Line input status and fuse integrity. A separate green LED indicator is provided to display DC output status and fuse integrity.

1.3 ELECTRICAL

1.3.1 AC INPUT

AC Operating Voltage..... 85 to 270 Vac
 AC Operating Frequency 45 to 65 Hz
 Power Factor (120 Vac at full load).....0.98
 Maximum Input Surge20 Amps
 Efficiency..... >80%
 AC Fuse (5mm x 20mm)..... 1.6A Slow Blow

1.3.2 DC OUTPUT

DC Output Voltage 24 Vdc +/- 2 Vdc
 DC Output Current Maximum3.0 Amps
 DC Output Ripple Maximum 250 mVpp
 Note: Ripple is measured at 20MHz of bandwidth using a 12" twisted pair-wire terminated with a 0.1uf & 47uf capacitor.
 Maximum Power-up time (110 Vac, -34°C).....1000 milliseconds
 Minimum Holdup Time (110 Vac, full load) 50 milliseconds
 DC Fuse (5mm x 20mm) 4A Slow Blow

1.4 MECHANICAL

Height..... 4.5 inches
 Width..... 2.0 inches
 Depth (excluding handle)..... 6.875 inches

1.5 ENVIRONMENTAL

Storage Temperature Range -45 to +85 °C
 Operating Temperature Range -34 to +74 °C
 Humidity (non-condensing)..... 0 to 95% Relative

1.6 MAIN CONNECTOR

The main connector is a double sided 44 pin edge type with 0.156 inch center gold fingers.

Pin	Pin	Function
A	1	DC Ground
B	2	DC Output
C	3	DC Output
L	10	Chassis Ground
M	11	AC Neutral
N	12	AC Line
U	17	DC Output
V	18	DC Output