

# PS-175

## Heavy Duty Rack Power Supply Operations Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR THE PS-175 SERIES POWER SUPPLY. INCLUDED ARE GENERAL DESCRIPTION, OPERATIONAL DESCRIPTION, INSTALLATION, AND SPECIFICATIONS.

**THE PS-175 SERIES POWER SUPPLY IS DESIGNED AND MANUFACTURED IN THE USA BY EBERLE DESIGN INC., PHOENIX, ARIZONA.**

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## 1.1 OVERVIEW

The PS-175 Rack Power Supply is a rack mounted high efficiency switching power supply that provides four independent channels of regulated 24 VDC power for a Nema TS-1 Detector Rack. The PS-175 meets or exceeds all requirements of the NEMA Standard TS-1 1989 R2000. The AC Line input is rated for universal 89 to 270 Vac operation at 50 or 60 Hertz.

## 1.2 OUTPUT CONFIGURATION

The PS-175 provides four independent regulated outputs each rated at 0.75 Amps over the full -30°F to 165°F (-34°C to +74°C) Nema operating temperature range. Each output is fused for over-current protection. Each output is also protected against voltage transients by a 1500 Watt suppressor.

## 1.3 INDICATORS

A separate green LED indicator is provided to display output status and fuse integrity for each of the four supply outputs.

## 1.4 ELECTRICAL

### 1.4.1 Power Requirements

AC Operating Voltage Minimum ..... 89 Vac  
AC Operating Voltage Maximum ..... 270 Vac  
AC Operating Frequency ..... 45 to 65 Hz

### 1.4.2 DC Outputs

DC Output Voltage ..... 24 Vdc +/- 15%  
DC Output Voltage Maximum (no load) ..... 27.5 Vdc  
DC Output Current Maximum (per channel) ..... 0.75 Amps

### 1.4.3 Mechanical

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

### 1.4.4 Environmental

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

## 1.5 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 Common
B	2	Channel 1 DC Output
C	3	Channel 2 DC Output
L	10	Chassis Ground
M	11	AC Neutral
N	12	AC Line
U	17	Channel 3 DC Output
V	18	Channel 4 DC Output

All other pins are not connected.