

PS-100

NEMA TS-1 Rack Power Supply Operations Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR THE PS-100 SERIES POWER SUPPLY. INCLUDED ARE GENERAL DESCRIPTION, OPERATIONAL DESCRIPTION, INSTALLATION, AND SPECIFICATIONS.

THE PS-100 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-100 Rack Power Supply is a rack mounted high efficiency switching power supply that provides four channels of regulated 24 VDC power for a Nema TS-1 Detector Rack. The PS-100 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-100 provides four regulated outputs each rated at 0.25 Amps over the full -30°F to 165°F (-34°C to +74°C) Nema operating temperature range. Each output is independently 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) 0.25 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.