

PS-250

Nema TS-2 Cabinet Power Supply Operations Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR
THE PS-250 SERIES POWER SUPPLY.

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THE PS-250 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-250 Cabinet Power Supply is a shelf mounted high efficiency switching power supplies that provide regulated DC power, unregulated AC power, and a line frequency reference for the BIUs and other auxiliary equipment. The PS-250 meets and/or exceeds all requirements of the NEMA TS2-2003 (R2008) Standard.

The PS-250 is intended for applications requiring higher power in the detector rack for devices such as video detection. Power Factor Correction is provided reducing peak AC Line input current and associated stress on wiring. The outputs are protected against voltage transients by a 1500 Watt suppressor.

1.2 INDICATORS

A separate LED indicator is provided to display output status and fuse integrity for the two DC supply outputs (12VDC, 24VDC) and the 12 Vac output (12VAC). The Line Frequency Reference indicator pulses to show 60 Hz activity. An indicator is also provided for the AC Line input (POWER).

1.3 SPECIFICATIONS

1.3.1 POWER REQUIREMENTS

AC Operating Voltage Minimum 80 Vac
 AC Operating Voltage Maximum 135 Vac
 AC Operating Frequency 45 to 65 Hz
 Power Factor (120 Vac at full load).....0.98

1.3.2 DC OUTPUT

24VDC Output Voltage 24 Vdc +/- 2 Vdc
 24VDC Output Current Maximum3 Amps
 12VDC Output Voltage 12 Vdc +/- 1 Vdc
 12VDC Output Current Maximum5 Amps
 12VAC Output Voltage Minimum (At AC Line = 89Vac) 7.5 Vac
 12VAC Output Current Maximum0.25 Amps
 Minimum Holdup Time..... 50 milliseconds
 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.

1.3.3 MECHANICAL

Height 6.0 inches
 Width 4.0 inches
 Depth (including connector) 8.4 inches

1.3.4 ENVIRONMENTAL

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

1.4 MAIN CONNECTOR

The main connector mates with an MS3106()-18-1SW or equivalent.

Pin	Function	Pin	Function
A	AC Neutral	F	Reserved
B	Line Frequency Reference	G	Logic Ground
C	AC Line	H	Earth Ground
D	+12 Vdc Output	I	12 Vac Output
E	+24 Vdc Output	J	Reserved