

Model 216EP-2412

Model 216EP-24

High Efficiency ITS Cabinet Power Supply Operations Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR THE MODEL 216EP SERIES POWER SUPPLY. INCLUDED ARE GENERAL DESCRIPTION, OPERATIONAL DESCRIPTION, INSTALLATION, AND SPECIFICATIONS.

THE MODEL 216EP SERIES POWER SUPPLY IS DESIGNED AND MANUFACTURED IN THE USA BY EBERLE DESIGN INC., PHOENIX, ARIZONA.

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OVERVIEW

The Model 216EP-2412 Cabinet Power Supply is a 19" rack mounted high efficiency dual switching power supply that provides a regulated +24VDC output and a fully independent and isolated +12VDC output for the ITS Cabinet. The Model 216EP-24 provides only a single +24VDC output. The units are intended to be mounted in the rear of the cabinet rack in order to conserve often scarce front rack space.

The Model 216EP series provides output regulation across changes in AC Line voltage and full output load over the operating temperature range of -34C to +74C with no derating necessary. Power Factor Correction is also provided reducing peak AC Line input current and associated stress on wiring.

1.1 OUTPUT CONFIGURATION

The Model 216EP-2412 provides one +24VDC output rated at 5 Amps and one independent and isolated +12VDC output rated at 5 Amps. The Model 216EP-24 provides only a single +24VDC output rated at 5 Amps. All outputs are rated at full load over the full -30°F to 165°F (-34°C to +74°C) operating temperature range. Both outputs are fused for over-current protection with 8A Slow blow fuses. The outputs are also 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. Separate green LED indicators are also provided to display output status and fuse integrity for the DC outputs.

1.3 SPECIFICATIONS

1.3.1 AC Power Requirements

AC Operating Voltage.....	80 to 270 Vac
AC Operating Frequency	45 to 65 Hz
Power Factor (120 Vac at full load)	0.98
24VDC Efficiency (120 Vac at full load).....	86%

1.3.2 DC Outputs

+24VDC Output Voltage	24 Vdc +/- 2%
+24VDC Output Current Maximum	5 Amps
+12VDC Output Voltage	12 Vdc +/- 3%
+12VDC Output Current Maximum	5 Amps
DC Output Ripple Maximum	200 mVpp

Note: Ripple is measured at 20MHz of bandwidth using a 12" twisted pair-wire terminated with a 0.1uf & 47uf capacitor.

Minimum Holdup Time (5 Amp load)	50 milliseconds
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1.3.3 Mechanical

Rack Height (2U).....	3.5 inches
Rack Width.....	19.0 inches
Depth	7.25 inches

1.3.4 Environmental

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

1.4 DC CONNECTOR

Model 216EP-24			
Pin	Function	Pin	Function
13	+24VDC Output	14	+24VDC Output
15	DC Ground	16	DC Ground

Model 216EP-2412			
Pin	Function	Pin	Function
13	+12VDC Output	14	+24VDC Output
15	12VDC Ground	16	24VDC Ground

The connector mates with a Beau S-5404 or equivalent. Viewed from Connector end:

