

# 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.

REVISION: JULY 2009  
pn 888-0216-001



EBERLE DESIGN INC.

3510 East Atlanta Avenue Tel (480) 968-6407  
Phoenix, AZ 85040 USA Fax (602) 437-1996  
www.EDItraffic.com



THE MODEL 216EP SERIES POWER SUPPLY IS DESIGNED AND MANUFACTURED  
IN THE USA BY  
EBERLE DESIGN INC.  
PHOENIX, ARIZONA  
AN ISO 9001:2008 REGISTERED COMPANY

INFORMATION CONTAINED HEREIN IS PROPRIETARY TECHNICAL INFORMATION OF EBERLE  
DESIGN INC. PUBLICATION, REPRODUCTION OR USE IN WHOLE OR PART IS NOT PERMITTED  
EXCEPT UNDER TERMS AGREED UPON IN WRITING.

© COPYRIGHT 2009 EDI.

**1.1 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.

**1.2 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.

**1.3 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.

**1.4 SPECIFICATIONS**

**1.4.1 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%

**1.4.2 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
<small>Note: Ripple is measured at 20MHz of bandwidth using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf capacitor.</small>	
Minimum Holdup Time (5 Amp load) .....	50 milliseconds

**1.4.3 Mechanical**

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

**1.4.4 Environmental**

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

**1.5 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:

