

Instruction Manual

Model 2000-32-3624

Power Supply

September 2017, Rev. 0



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INSTRUCTION MANUAL
MODEL 2000-32-3624 Power Supply

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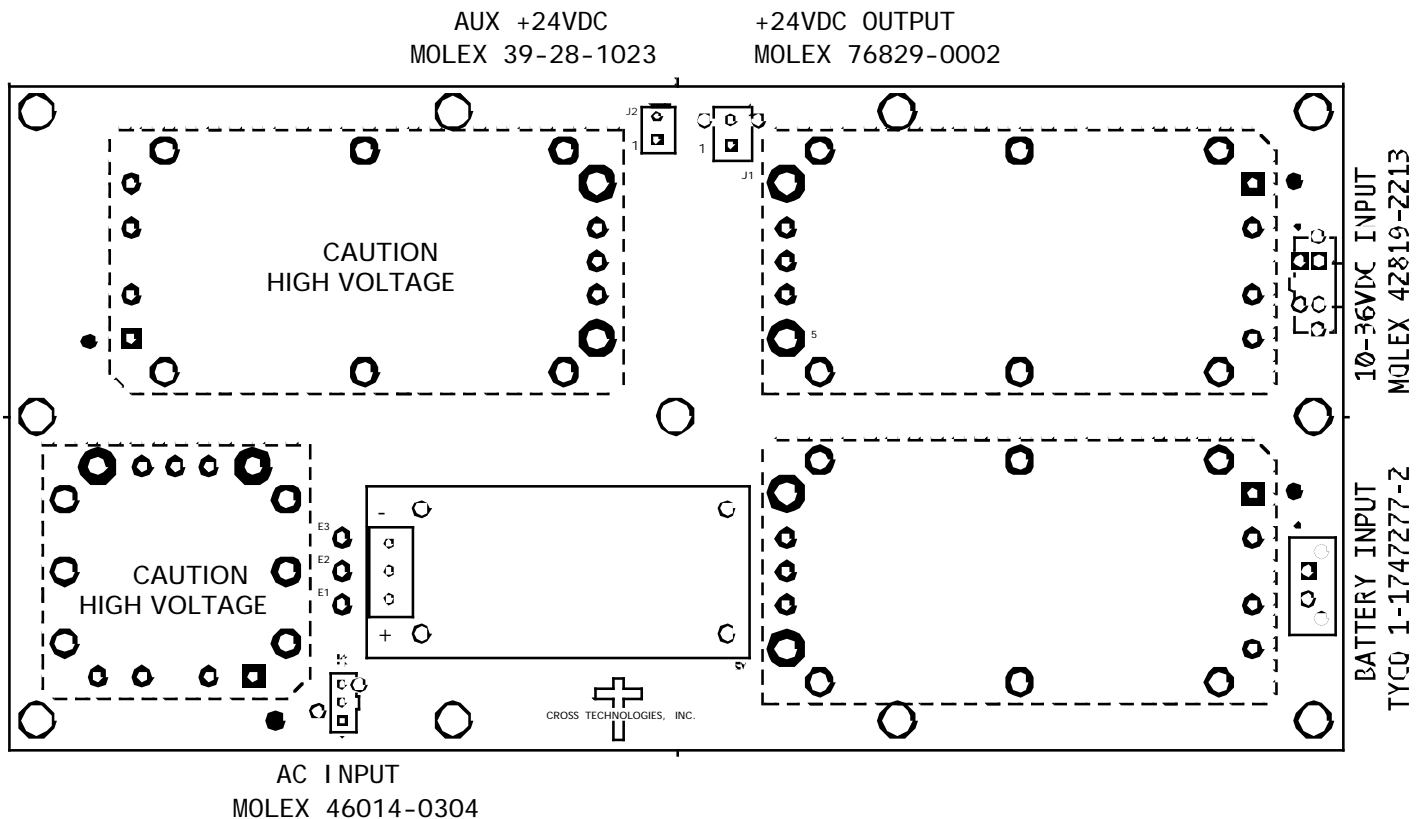
MODEL 2000-32-3624 Power Supply

1.0 General

1.1 Equipment Description

The 2000-32-3624 Power Supply provides +24VDC @ 400W maximum from one of three power sources. The AC input operates from a 90-132VAC or 180-264 VAC input operating anywhere from 47 to 880 Hz. The DC input can be anywhere from +10VDC to +36VDC. The battery input can be between +20 and +36 VDC. The power supply selects the utilized input with the priority of 1-AC, 2-DC and 3-Battery. The power supply is mounted to a 12"x 6"x 0.125" plate which should be mounted to a user provided heat sink using eleven mounting screws and appropriate thermal material. The assembly is 12"x 6"x 2'.

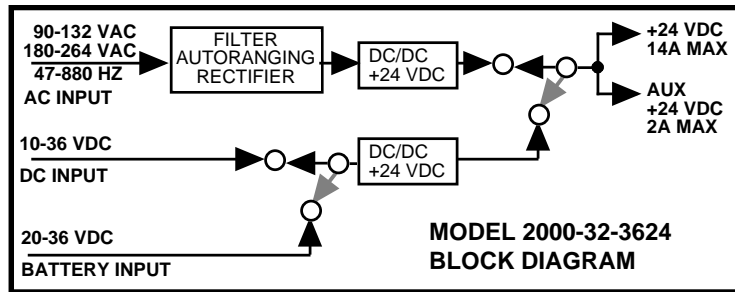
FIGURE 1.1 - TOP PANEL



1.2 Technical Characteristics

TABLE 1.0 2000-32-3624 Power Supply Equipment Specifications*	
AC Input Characteristics**	
Voltage	90-132VAC or 180-264VAC
AC Frequency	47-880 Hz
Input Power	500 Watts Maximum
DC Input Characteristics**	
Voltage	+10VDC to +36VDC
Input Current	47A Maximum
Battery Input Characteristics**	
Voltage	+20VDC to +36VDC
Input Current	24A Maximum
DC Output Characteristics**	<i>Note: Total Output Power is 400W Maximum</i>
Voltage/Current	+24VDC @ 14A Maximum
Auxiliary DC Output Characteristics	
Voltage/Current	+24VDC @ 2A Maximum
Load Regulation	± 0.5% Maximum
LED Indicators - NONE	
Physical Characteristics - NOT INCLUDING Mating Connectors	
Size	12" x 6" x 2"
Weight	≤ 3.5 lbs.
Mounting	11 Screws
Heat Sink Specification (User Provided)	
0.50° C/W Maximum Thermal Resistance to Ambient	
I/O Connectors	
AC Input	Molex 46014-0304
DC Input	Molex 42819-2213
Battery Input	Tyco 1-1747277-2
+24VDC Output	Molex 76829-0002
Aux +24VDC Output	Molex 39-28-102
Environmental	
Temperature***	0°C - +50°C
Humidity	< 95%, Non-Condensing
<p>* Specifications subject to change without notice.</p> <p>** Consult Factory for different Input and Output Voltage Requirements.</p> <p>*** Temperature specification assumes mounting to minimum specified Heat Sink.</p>	

2.0 - Installation
2.1 - Block Diagram



2.2 - Operation

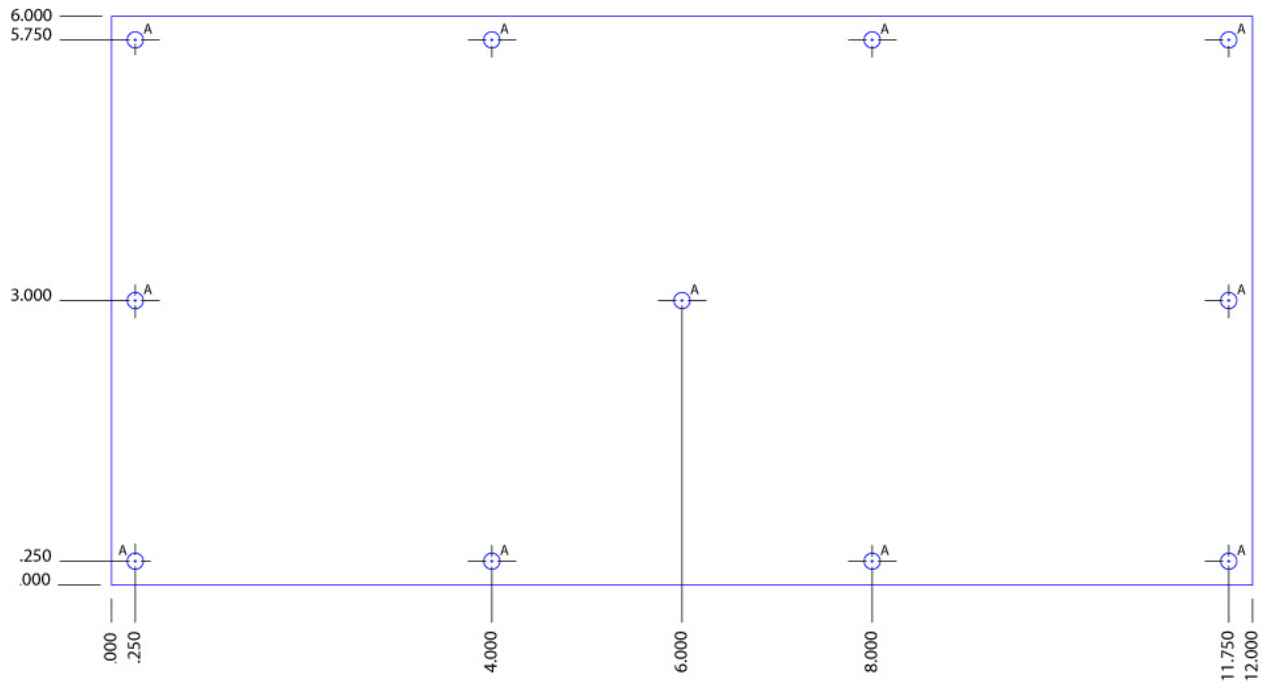
The 2000-32-3624 power supply provides +24VDC from one of three different power sources. The unit will operate from any input but only operating from one source at a time. The input power source priority is #1 AC power, #2 DC input and #3 Battery input. Each power source must be capable of providing 500W of input power to the 2000-32-3624. The outputs of the 2000-32-3624 are divided into a +24VDC @ 14 Amps output (Primary) and an Aux +24VDC @ 2A output. The Aux +24VDC output has a resettable fuse in series with the output. Should the Aux output current be exceeded the fuse will open. Should the Aux output fuse open, disconnect the output and correct the overload condition. Once the overload condition has been resolved reconnect the output and the unit should return to normal operation.

2.3 - 2000-32-3624 Connector Chart

Model 2000-32-3624 Connector Chart				
I/O Type	Vendor	PWB Header	Mating Receptacle	Mating Contact
Battery Input	Tyco/Amp	1-1747277-2	1-1747276-2	1747499-2
DC Input	Molex	42819-2213	42816-0212	42815-0032
AC Input	Molex	46014-0304	39-01-4031	45750-3111
+24VDC Output	Molex	76829-0002	171692-0102	76823-0321
Aux +24VDC Output	Molex	39-28-1023	39-01-2020	39-00-0039

2.4 Mechanical/Layout

Figure 2.1 Mounting Plate Drawing



Eleven holes designated 'A' (.170 Diameter) are for mounting heatsink.



Heatsink Mounting Plate

2.5 Warnings / Installation

2000-32-3624 Power Supply

WARNINGS

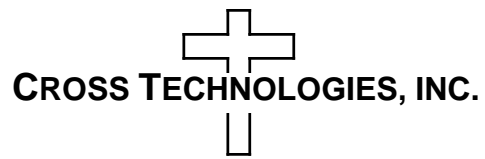
1. The 2000-32-3624 power supply operates on high voltage AC inputs and has internal circuitry that generates voltages in excess of 350V. Not taking proper precautions may result in serious injury or death.
2. The 2000-32-3624 power supply must not come in contact with moisture. Exposure to moisture may cause a catastrophic failure and/or hazardous conditions.
3. Proper heat sinking is of the utmost importance to provide the specified performance over the ambient temperature range. Failure to provide proper thermal management will cause the unit to fail and/or may cause hazardous conditions.
4. Use proper wire gauges for the intended applications and I/O connectors. Additional information for the supplied mating connectors can be found at the Molex and Tyco websites.

www.molex.com

www.te.com

INSTALLATION

- 1 . Before the 2000-32-3624 can be used it must be mounted to an appropriate heat sink and should be installed in a suitable enclosure.
- 2 . The power supply has no ON/OFF provision. Once a suitable input power source is connected to the 2000-32-3624 the unit will power up and the +24VDC outputs will be enabled. With this in mind the installation sequence should be as follows:
 - a) Make any output connections that are required for your application.
 - b) Make the input power connections to the power supply making sure the power sources are within the specified ranges for Voltage and Current.
 - c) Enable the power source(s) to power up the 2000-32-3624 power supply and check that the +24VDC outputs are working correctly.



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