



P30102 External Power Supply

120VAC / 130VDC to 48VDC  
Without Backup Battery

Description & Installation

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## 1.0 PRODUCT SCOPE

This document describes the technical specifications, technical requirements and installation instructions for the P30102, SNC Lyte Lynx® 120VAC/130VDC to 48VDC external power supply. It provides an understanding of the basic functions and features available with this product.



Figure 1: P30102

## 2.0 PRODUCT OVERVIEW

### 2.1 System Requirements

SNC's P30102 power supply is designed to externally power a 3-slot (P30075), 6-slot (P30112) or a 12-slot (P30069) Lyte Lynx® card shelf requiring -48VDC for station side operation. Refer to document T0335 (P30075 3-slot card shelf), T0359 (P30112 6-slot card shelf) and T0349 (12-slot card shelf) shipped with the Lyte Lynx® card shelves for specifications and installation information. A local 120VAC or 130VDC power source is required for this power supply.

### 2.2 Intended Uses

The power supply is used to power the electronics on the station (upper) side of the Lyte Lynx® fiber optic isolation cards which require -48VDC for operation. The P30102 power supply converts 120VAC or 130VDC power from a local source to 48VDC.

**NOTE: ALL fiber optic type cards (Voice, ISDN, ADSL, OPX) used with this power supply must be optioned for 48VDC.**

SNC Lyte Lynx® systems are intended for use at power substations, cellular radio sites and similar locations where high voltage isolation is required on the incoming copper communications pairs to protect the telecom network from harm and to provide a personnel safety barrier against voltages. This specifically includes protection from longitudinal voltage surges and Ground Potential Rise (GPR) that may occur during power system faults or lightning strikes.

## 3.0 PRODUCT FEATURES

The P30102 is an external stand-alone power supply designed to be mounted near the Lyte Lynx® 3-slot, 6-slot or 12-slot card cage. It plugs into a 120VAC or connects into a 130VDC power source at the substation, and converts it to 48VDC.

### 3.1 Battery Backup

The P30102 external power supply does not include a backup battery. If a backup battery is required, specify a P30108 power supply.

### 3.2 Powering

The P30102 requires 120VAC or a 130VDC power from the substation. Two power cords are provided. Use the appropriate power cord for the power available at the substation.

### 3.2 Power Output

The P30102 provides a maximum power output of 65 watts.

## 4.0 INSTALLATION



**CAUTION: To provide personnel isolation from local ground, stand on a thick rubber mat and use other adequate insulation devices (rubber gloves) when working on the Lyte Lynx® system.**

### 4.1 Mounting

Mount the enclosed bracket to a non-metallic wall or backboard near the Lyte Lynx® Card Cage using two or four 1/4-20 screws.

### 4.2 Positioning

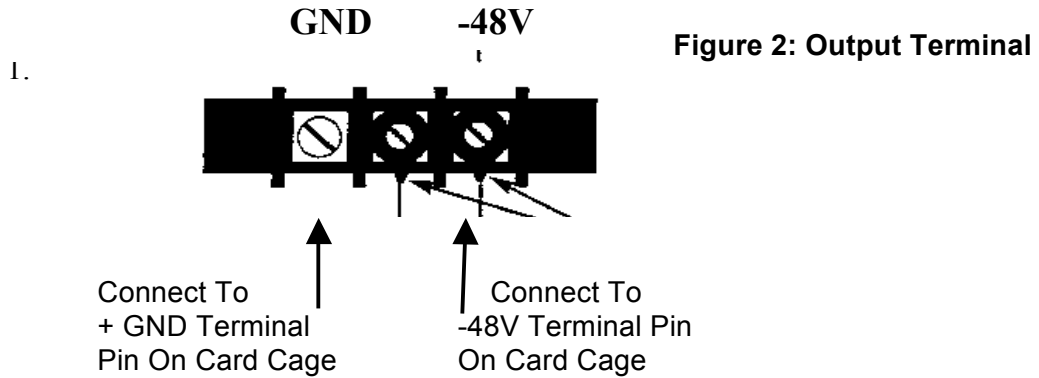
Position the power supply so the power cord and wires running to the card cage will not be stressed when they are connected. Set the power supply on the mounting bracket and firmly press down to engage the velcro on the bottom of the power supply with the velcro on the top of the mounting bracket.

### 4.3 Connecting

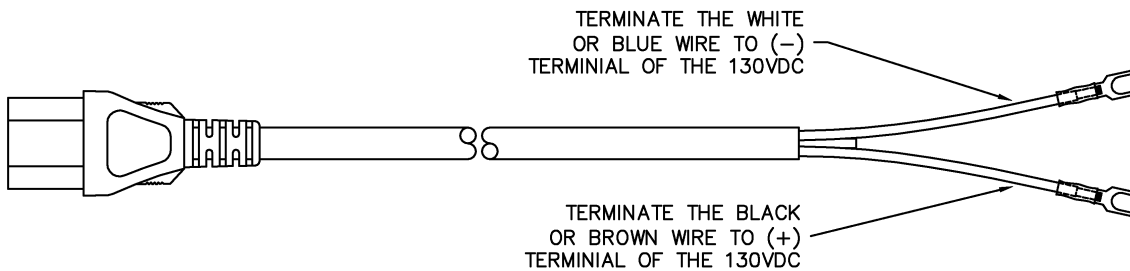
Connect from GND of the power supply to +GND terminal pin on the card cage, and from -48V of the power supply to -48V terminal pin on the card cage. (See Figure 2 and the appropriate documentations for the card cage being used.) For example: assuming the power supply is used with a P30075 card cage, connect a (22 AWG or bigger) wire from the GND terminal on the power supply to pin 13 of J4 station terminal connector, located inside card cage on station side (upper) backplane. Connect a wire (22 AWG or bigger) from -24 terminal on the power supply to pin 14 of J4 station terminal connector.

#### 4.4 Power Cord

If a 120VAC outlet is available, plug the AC power cord into the power supply, then into a 120VAC power source. If the input source is a 130VDC, use the modified power cord shown in Figure 3 below. Plug the DC power cord into the power supply then connect the modified end to the output of the 130VDC power source.



**Figure 3: DC Power Cord**



## 5.0 PHYSICAL CHARACTERISTICS

### 5.1 Mechanical Configuration

**Table 1:** Physical Dimensions

<b>P30102</b>	<b>Dimensions</b>
Height	3.00" (7.6 cm)
Width	8.375" (21.3 cm)
Depth	9.0" (22.9 cm)

## 5.2 Environmental Requirements

The Lyte Lynx® system may be installed in an indoor or moderate outdoor environment, and is guaranteed operable in temperatures ranging from -10°C to 60°C (14°F to 140°F) under humidity conditions from 20–90% relative humidity non-condensing.

## 6.0 SPECIFICATIONS

**Table 2:** Performance Specifications

PARAMETER	SPECIFICATIONS
Input Voltage Range	90 VAC – 264 VAC 120 VDC – 370 VDC
Input Frequency Range	47 Hz – 440 Hz
Output Voltage	48 VDC +/- 2%
Output Power	65 Watts
Output Current Range	0 – 1.35 Amps
Input/Output/Ground Isolation	100 MΩ / 500V

For further information or for technical support - call 800-558-3325  
or visit [www.sncmfg.com](http://www.sncmfg.com)



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