



P30108 External Power Supply  
120VAC to 48 VDC  
With Battery Backup

Description & Installation

## Table of Contents

1.0	PRODUCT SCOPE	2
2.0	PRODUCT OVERVIEW	2
	2.1 System Requirements	2
	2.2 Intended Uses	2
3.0	PRODUCT FEATURES	2
4.0	INSTALLATION	2
	4.1 Installation Instructions	3
	Figure 1: Front Panel	3
5.0	PHYSICAL CHARACTERISTICS	3
	5.1 Mechanical Configuration	3
	Table 1: Physical Dimensions	3
	5.2 Environmental Requirements	4
6.0	SPECIFICATIONS	4
	Table 2: Performance Specifications	4
7.0	MAINTENANCE	4
	Figure 2: Batteries Connection Diagram	4

## 1.0 PRODUCT SCOPE

This document describes the technical specifications, technical requirements and installation instructions for the P30108, Lyte Lynx® 120 VAC to -48VDC External Power Supply. It provides an understanding of the basic functions and features available with this product.

## 2.0 PRODUCT OVERVIEW

P30108 Power Supply



### 2.1 System Requirements

SNC's P30108 power supply is designed to externally power a 3-slot (P30075), 6-slot (P30112) or a 12-slot (P30069) Lyte Lynx Card Cage, requiring -48VDC for station-side operation. Refer to document T0335 (P30075 3-Slot Card Cage), T0359 (P30112 6-Slot Card Cage) and T0349 (12-Slot Card Cage) shipped with the Lyte Lynx® card shelves for specifications and Installation information. A local 120VAC 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 P30108 Power Supply converts 120VAC 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.

Lyte Lynx® systems are intended for use at power substations and similar locations where high voltage isolation is required on the incoming copper telecom pairs to protect the telecom network from harm and to provide a personnel safety barrier against high voltages. This specifically includes protection from longitudinal voltage surges and Ground Potential Rise (GPR) that may occur during power system faults or lightning strikes. It may also be used to power any equipment at substations or high voltage locations utilizing "smart jacks" which requires -48 volts DC for proper operation.

## 3.0 PRODUCT FEATURES

The P30108 is an external stand-alone power supply designed to be used with Lyte Lynx® 3-slot, 6-slot and 12-slot card cages. The power supply connects to a 120VAC local power source at the substation and converts it to 48VDC. The power supply accepts a wide range of AC voltage and provides a maximum power output of 65 watts.

## 4.0 INSTALLATION



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 Installation Instructions

- A. Using the mounting brackets and screws provided, mount the brackets onto a non-metallic wall or backboard near the Lyte Lynx® card cage.
- B. Position the power supply so the input and output wires will not be stressed when they are connected.
- C. Connect a 22 AWG wire or larger from the “GND” terminal on the power supply to “GND” terminal connector, located inside the card cage on the station side backplane. Connect a same size wire from –48 terminal on the power supply to –48V terminal connector in the card cage. See Figure 1 below and the document that comes with the card cage for details.
- D. Run the AC cord from the AC Input to a 120VAC outlet.

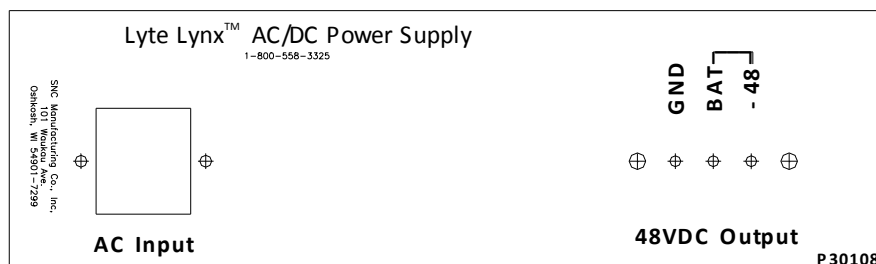


Figure 1: P30108 Power Supply – Front Panel

## 5.0 PHYSICAL CHARACTERISTICS

### 5.1 Mechanical Configuration

Table 1: Physical Dimensions

P30108	Dimensions
Height	3.50" (8.89cm)
Width	10.38" (26.35cm)
Depth	11.50" (29.21cm)
Weight	10 Lbs (4.5 Kg)

## 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

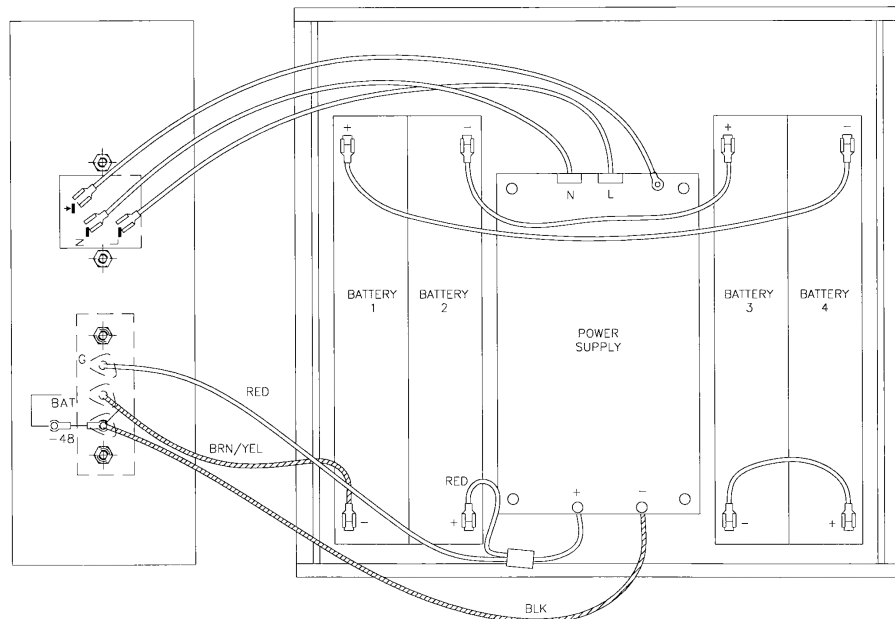
PARAMETER	SPECIFICATIONS
Input Voltage Range	90 VAC – 264 VAC 127 VDC – 370 VDC
Input Frequency Range	47 Hz – 440 Hz
Output Voltage	48 VDC +/- 2%
Output Power	65 Watts
Output Current Range	0 – 1.5 Amps
Input/Output/Ground Isolation	100 MΩ / 500V

## 7.0 MAINTENANCE

### 7.1 Battery Replacement

- Disconnect AC Power.
- Loosen the four Phillips head screws on the bottom of the power supply, then carefully remove the cover.
- Disconnect all spade terminals on batteries. Disconnect all jumper wires spade terminals from batteries.
- Replace with four 12V 2.2AH sealed lead acid batteries.
- Reconnect battery terminals. (See Figure 2)
- Position cover on power supply. Insert and firmly tighten screws.

Figure 2: Batteries Connection Diagram



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



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