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# 48VDC to 24VDC External Power Supply

# P30060

# Description & Installation

T0454 Rev. A

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# 1.0 SCOPE

This document describes the technical specifications, technical requirements and installation instructions for the P30060 SNC Lyte Lynx® 48VDC to 24VDC External Power Supply. It provides an understanding of the basic functions and features available with this product.

#### 2.0 PRODUCT OVERVIEW

#### 2.1 System Requirements

This power supply is designed to externally power a 3-slot (P30075), 6-slot (P30112) or a 12-slot (P30069) Lyte Lynx® card shelf requiring -24VDC for station-side operation. Refer to document T0335 (P30075 3-Slot Card Cage) and T0349 (12-Slot Card Cage) shipped with the Lyte Lynx® Card Cages for specifications and Installation information. A local 48VDC 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 24VDC for operation. The P30060 Power Supply converts 48VDC power from a local source to 24VDC to power one 3-slot Card Cage or one P30069 12-slot Card Cage.

NOTE: ALL fiber type (Voice, ISDN, ADSL, OPX) cards used with this power supply must be optioned for 24VDC.

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 network from harm and to provide a personnel safety barrier against high voltages. This specifically includes protection from longitudinally induced voltage surges and Ground Potential Rise (GPR) that may occur during power system faults.

## 3.0 PRODUCT FEATURES

This is an external stand-alone power supply designed to be used with Lyte Lynx® 3-slot and 12-slot card cages. The power supply connects to a 48 VDC local power source at the substation and converts it to 24VDC.

#### 3.1 Input Powering

The P30060 requires a local 48VDC power source.

#### 3.2 Power Output

The P30060 output is 25 watts.

## 4.0 INSTALLATION



**Figure 1**: Power Supply with Mounting Bracket

#### 4.1 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.

- 1. Using the mounting bracket and screws provided, mount the bracket on a nonmetallic wall or backboard near the Lyte Lynx® card cage. See Figure 1.
- 2. Position the power supply so the input and output wires will not be stressed when they are connected.
- 3. Connect a wire from the Ground terminal on the power supply to pin 3 of J4 station terminal connector located inside card cage on station side (upper) backplane. Connect a wire from -24 terminal on the power supply to pin 1 of J4 station terminal connector. See Figure 2.
- 5. Run 48VDC to input terminals of the P30060 power supply.
  - 6. The P30060 power supply is now ready to supply power to the station side backplane in the card cage.



## 5.0 TESTING

There are no test jacks to verify the DC output voltage of the power supply. A VOM may be used to measure the output voltage of the power supply by measuring between Ground and -24 Terminals.

### 6.0 PHYSICAL CHARACTERISTICS

#### 6.1 Mechanical Configuration

#### TABLE 1: PHYSICAL CHARACTERISTICS

P30060	Dimensions
Height	3.00" (7.6 cm)
Width	8.375" (21.3 cm)
Depth	9.00" (22.9 cm)

#### 6.2 Environmental Requirements

The Lyte Lynx® system may be installed in an indoor or moderate outdoor environment and is guaranteed operable in temperatures ranging from  $-0^{\circ}$ C to  $50^{\circ}$ C ( $32^{\circ}$ F to  $158^{\circ}$ F) and under humidity conditions from 0-95 percent.

#### 7.0 SPECIFICATIONS

#### **TABLE 2: PERFORMANCE SPECIFICATIONS**

PARAMETER	SPECIFICATIONS
INPUT POWER REQUIREMENT - P30060	48VDC +/- 10%
OUTPUT - P30060	24 VDC +/- 10% (25 Watts)

For further information or for technical support - call 800-558-3325 or visit www.sncmfg.com



SNC Manufacturing Co., Inc. 101 West Waukau Ave., Oshkosh, WI 54902-7299 800-558-3325 or 920-231-7370 FAX 920-231-1090 E-mail: <u>telecom@sncmfg.com</u> Website: www.sncmfg.com

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