



120VAC/ 130VDC to 24VDC
External Power Supply
Without Backup Battery

P30059 Isolation Card

Description & Installation

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1.0 SCOPE

This document describes the technical specifications, technical requirements and installation instructions for the P30059, SNC Lyte Lynx® 120VAC/ 130VDC to 24VDC external power supply. It provides an understanding of the basic functions and features available with this product.



Figure 1: P30059

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 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 -24VDC for operation. The P30059 power supply converts 120VAC or 130VDC power from a local source to 24VDC.

NOTE: ALL fiber optic type cards (Voice, ISDN, ADSL, OPX) 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 standalone power supply designed to be mounted near the Lyte Lynx® 3-slot or 6-slot card cage. It plugs into a 120VAC or connects into a 130VDC power source at the substation and converts it to 24VDC.

3.1 Battery Backup

This model does not include backup battery. If a backup battery is required, use the SNC P30058 power supply.

3.2 Powering

The P30059 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.

3.3 Power Output

The P30059 is a 65 watt power supply without battery back up.

4.0 INSTALLATION

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. Mount the enclosed bracket to a non-metallic wall or backboard near the Lyte Lynx® card cage using (2) 1/4-20 screws.
2. 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.
3. If a power supply is used with the P30075, connect a wire from the Ground terminal on the power supply to pin 13 of the J4 station terminal connector located inside the card cage on the station side (upper) backplane. Connect a wire from the -24 terminal on the power supply to pin 14 of the J4 station terminal connector.

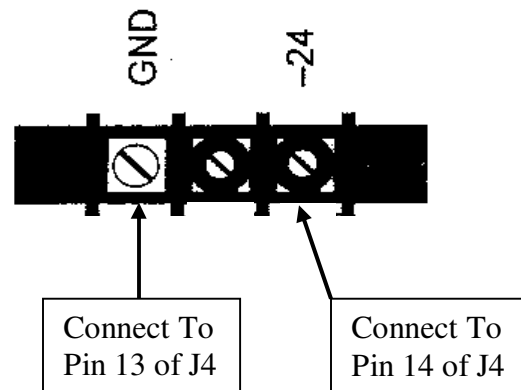


Figure 2: Output Terminal

4. 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 below. Plug the DC power cord into the power supply then connect the modified end to the output of the 130VDC power source.

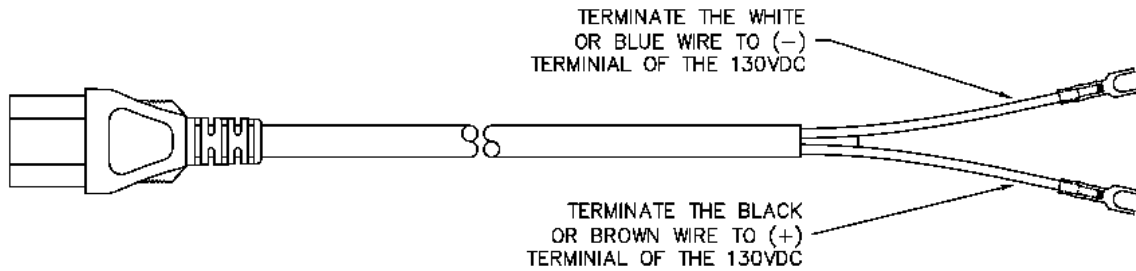


Figure 3: DC Power Cord

- The 120VAC/ 130VDC to 24VDC power supply is now ready to supply power to the station side backplane in the card shelf.

5.0 PHYSICAL CHARACTERISTICS

5.1 Mechanical Configuration

Table 1: Physical Dimensions

P30059	Dimensions
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) and 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	24 VDC +/- 2%
Output Power	65 Watts
Output Current Range	0 – 2.7 Amps
Input/ Output/ Ground Isolation	100 MΩ / 500V

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