# INSTALLATION INSTRUCTIONS

MicroComm DXI

## PSU-530 N+1 Redundant Power Supply

## 1 Intent & Scope

This document describes the installation procedure for the PSU-530-N+1 Redundant Power Supply.

## 2 Description

The PSU-530-N+1 Redundant Power Supply provides an output of ±12 Vdc/32A. (Devices that require +24 volts can be driven from across both outputs of the ±12 Vdc supply.)

The PSU-530 power supply is constructed in a modular fashion with 6 individual +12 VDC/15A power supply units that are pre-wired to provide ± 12 VDC supply with 48A capability. The extra current capacity provides redundancy with uninterrupted power if any of the individual units fails. A form C relay output is available that provides an alarm output if any one of the units fails

The PSU-530 power supply is designed for mounting in EIA standard 19″ equipment racks and occupies 3 U (5.25″) of vertical rack space.


**PSU-530 Power Supply**

## 3 Installation

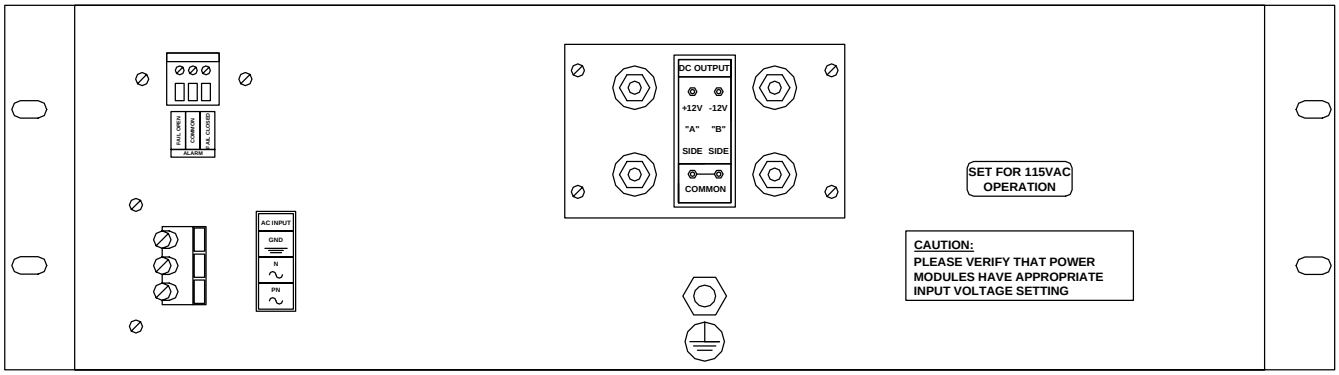
Each I/O card cage should be supplied with its own power supply, mounted below it and in the same equipment rack. The PSU-530 power supply requires 120 Vac input power that should be provided by a UPS if the system is required to operate during main power failures.

## 3.1 Connections

The 120 Vac input is connected to the screw terminals on the left hand side of the PSU-530 when looking at the back. The AC input lines are connected via a three hole Phoenix compression block. The ±12Vdc power supply outputs are provided on a four 3/16 inch screw terminals located in the center of the back. Connections are made to the terminals labeled +12, -12 and either one of the two terminals labeled COMMON (these terminals are strapped together).

The alarm terminals of a relay that is activated in case one of the units fails are located on a separate terminal block located on the left of the unit.

The minimum allowable wire size for connecting the power supplies to the card cages is #10 awg. Each output terminal on the power supply terminal block has to be connected to the corresponding terminal on the I/O card cage that it powers. When terminating the cables, ensure that the clamping screws are tightened snugly and the cables are secure in the terminal block.




**Power Supply Terminations on Current PSU-530**

## 3.2 Enginneering Conditions of Acceptibility

a) The power shelf terminals and/or connectors are suitable for factory wiring only.

b) The maximum investigated branch circuit rating is 30A. The power shelf is to be provided with an external UL listed 30A/250V circuit breaker in the end application.

c) The power shelf model BR3U-D-Q5940 can house 6 units of OLC53-12-EU series and outputs of each three of them are connected together in the back plane board. Thus +/-12V outputs are energy hazard, i. e., larger than 240VA. Disconnecting means (breakers) are to be provided (40A/60Vdc each) for connecting dual output of power shelf and loads in the end use system.

# 4 Safety Instructions

A readily accessible disconnect device shall be incorporated in the building installation wiring.