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1 MXi1002U POWER SUPPLY CHASSIS

The MXi1002U Power Supply Chassis Assembly 41D2274G2&G4 consists of a standard 19" rack mountable 5.25" (3RU) enclosure containing the power supplies, a front panel interface boards, the touch LCD and the main controller board with connectors for interfacing to external equipment.

The rear of the MXi1002U Power Supply Chassis has the following connectors:

- 12V and main DC monitoring and control for Amp 1(J11) and Amp 2 (J13)
- Main DC input connection to Amp 1 (J12) and Amp 2 (J14)
- AC connections for both power supply 1 (TB1) and power supply 2 (TB2)
- EXT1 INT'K interlock connection (J6)
- REM CTLS remote control 15-pin D-shell connector (J5)
- CMBR DETR combiner metering and AMP1 and AMP 2 on/off control (J10)
- AMP1 SERIAL nine-pin connector (J1)
- AMP2 SERIAL nine-pin connector (J2)
- RS232 serial nine-pin connector (J4)
- ETHER RJ45 Ethernet connector (J3)
- AMP2 RF OUT SMA connector (J9)
- RF IN SMA connector (J7)
- AMP1 RF OUT SMA connector (J8)
- RF Detector Inputs FWD, RFL, REJ

The MXi1002U Power Supply Chassis Assembly consists of a standard 19" rack mountable 5.25" (3RU) enclosure containing four high efficiency self cooled switching power supplies. Two of these are 3kW power supply which provides power to one of the amplifiers, there is no current sharing between power supplies. The second set of power supplies provide the +12V to run the control system and the fans. The chassis also contains the main user interface and overall system monitoring.

The main controller mounted at the rear of the chassis reads the current consumption of each power supply using onboard current sensors. It also communicates with each amplifier serially through two serial ports mounted on the board. Also mounted on the main controller is a 2 way splitter that takes the RF IN from the upconverter and splits it so it can be sent to each amplifier.

The touch LCD on the front panel provides the user with status and telemetry information from each amplifier as well as over all metering information from the combined amplifiers. This information is gathered from the main controller though the serial communications with each.

Mounted on the rear panel above the main control is a diode detector which takes RF signals for Forward, Reflected and Reject power and converts them to DC levels to be read by the main controller.

The chassis is wired according to the functional diagram 41D2372S3 and S4 as shown in Figure 1 and Figure 2.

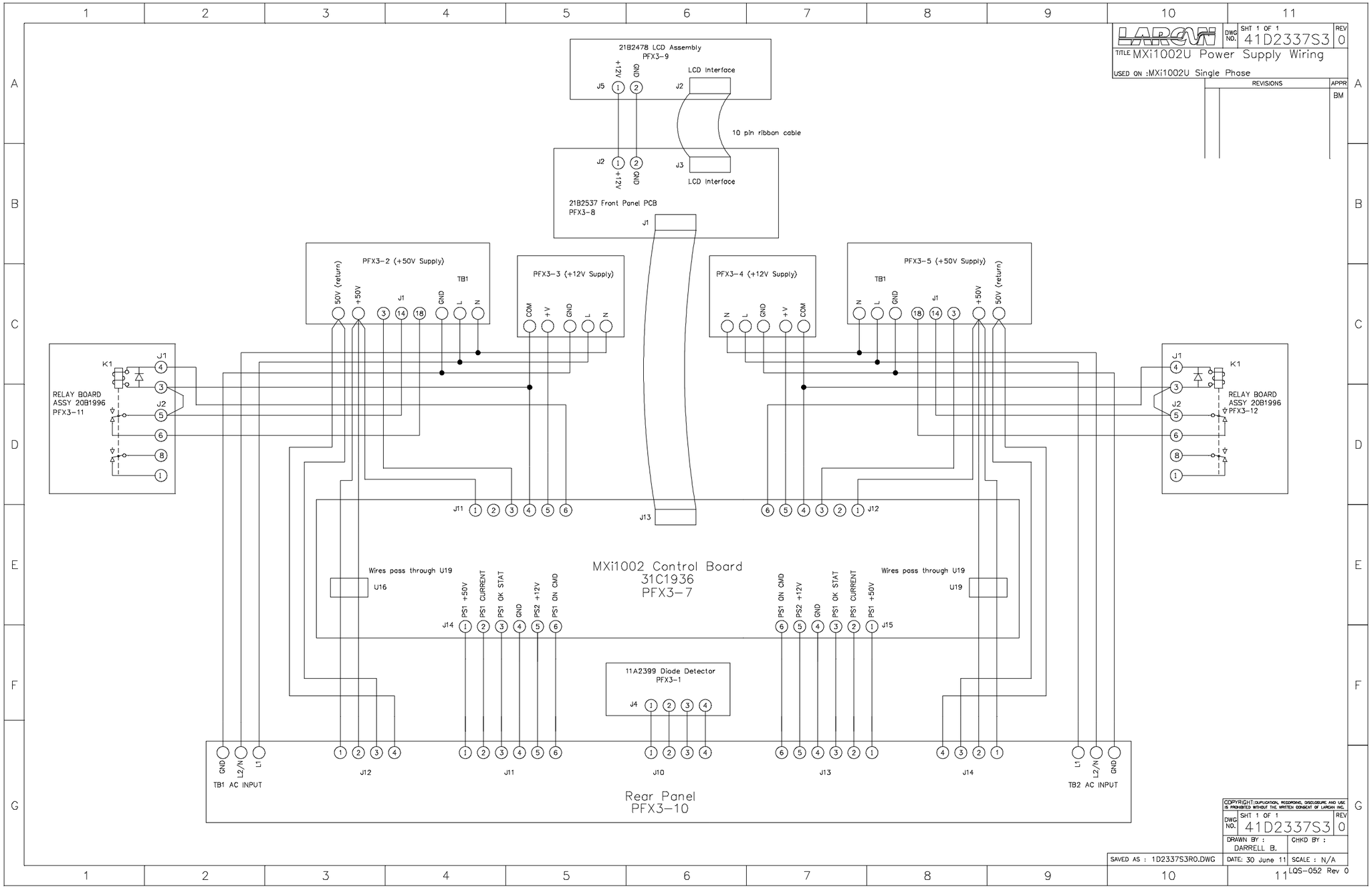

Figure 1 41D2337S3 MXi1002 Single Phase Power Supply Chassis Wiring Schematic

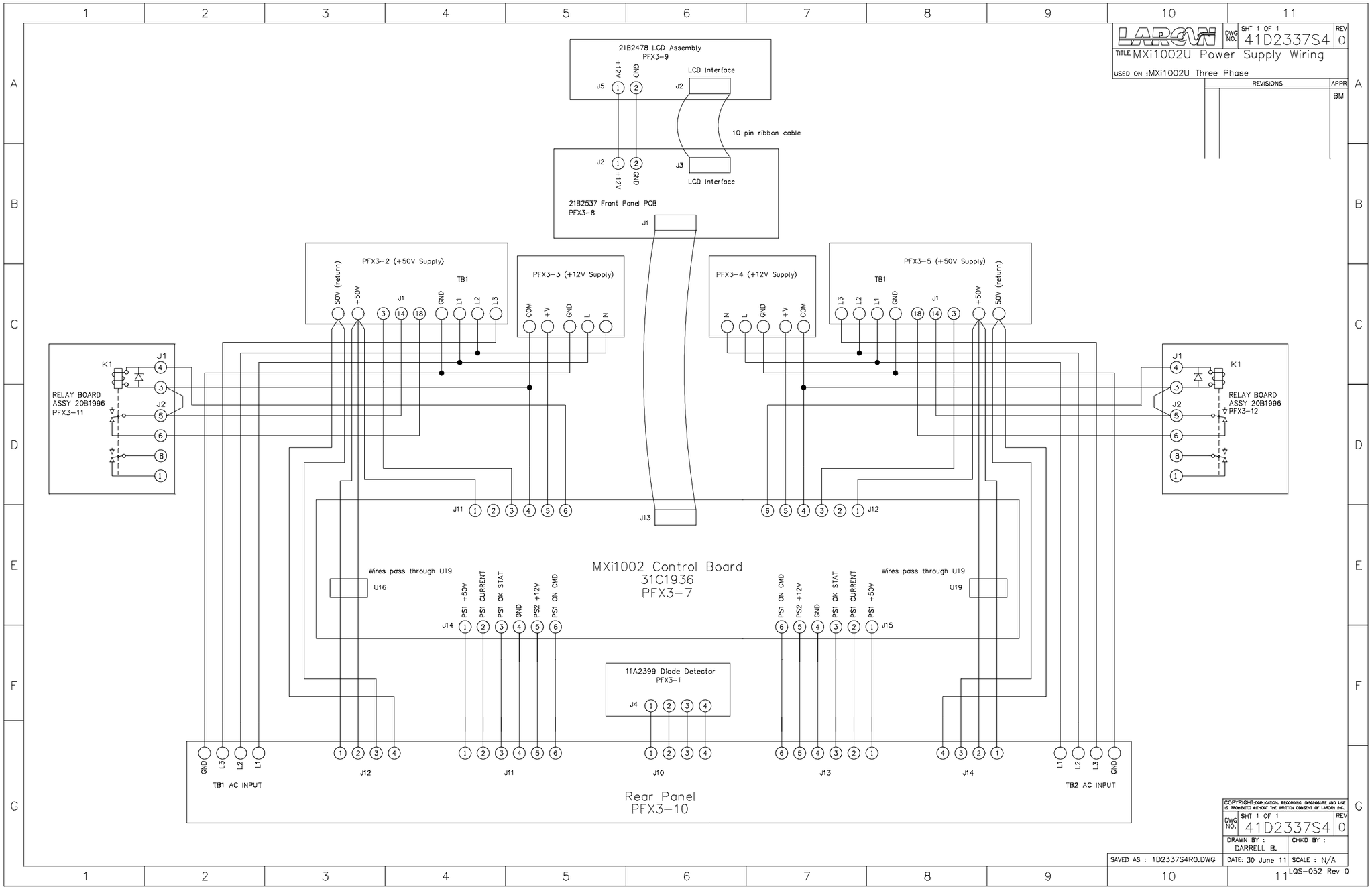

Figure 2 41D2337S4 MXi1002 Three Phase Power Supply Chassis Wiring Schematic

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