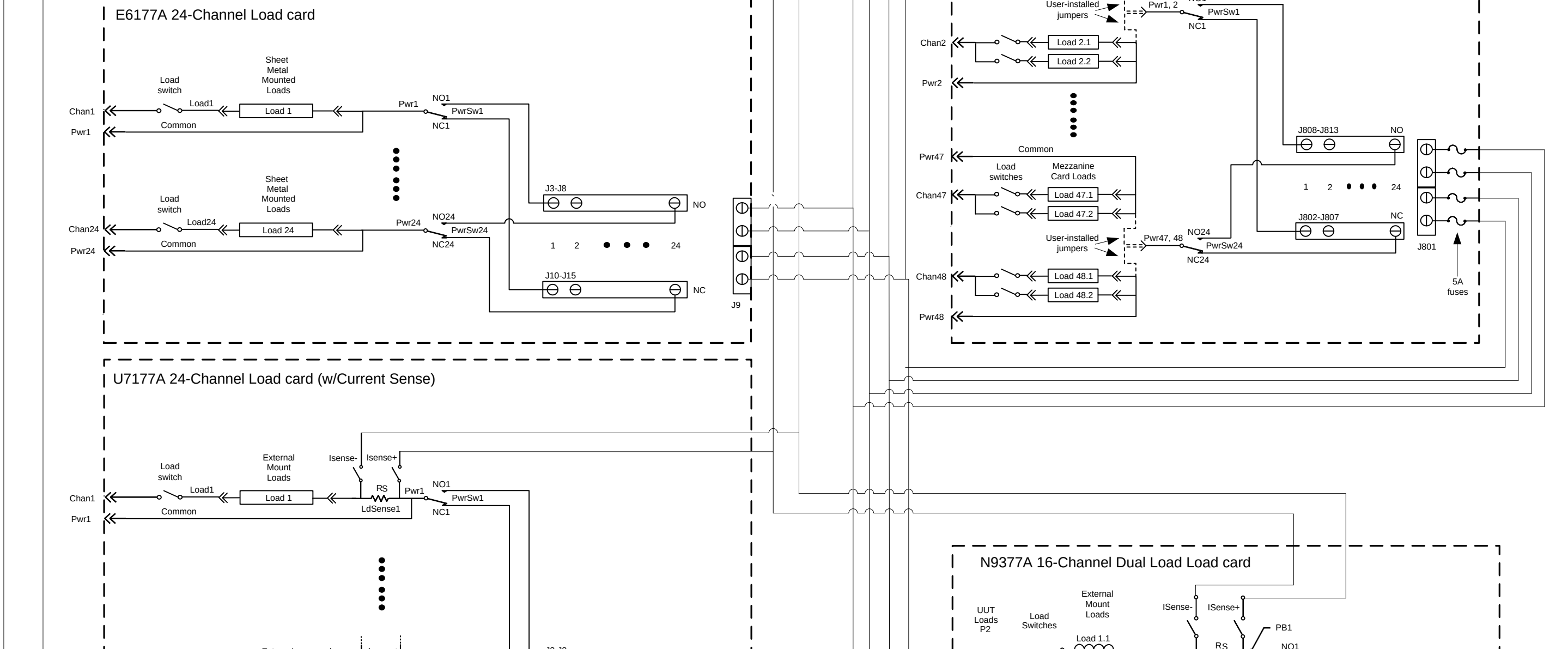
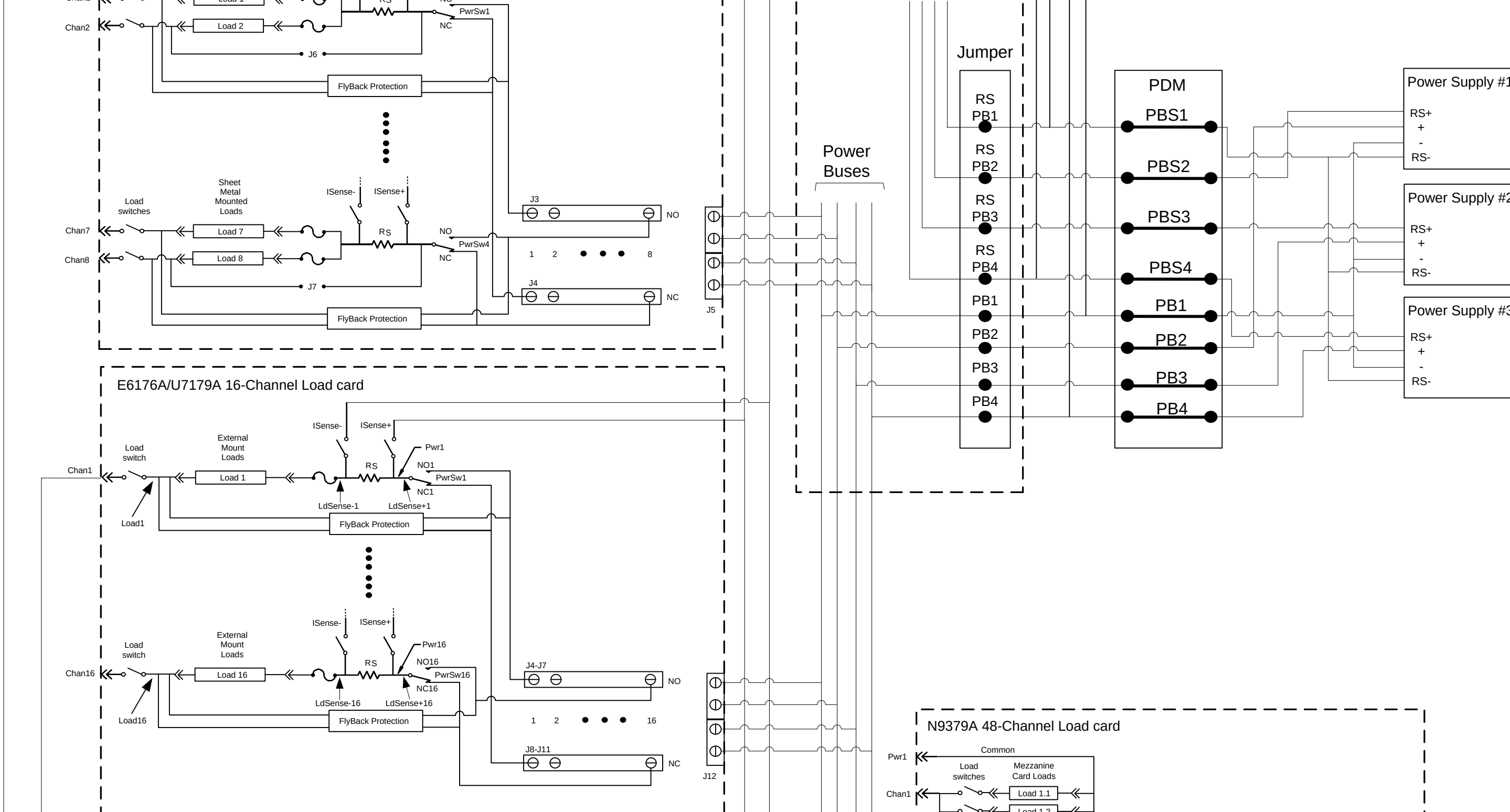


The diagram illustrates a 100A 8-channel power distribution unit. It is divided into three main sections:

- E6198B 9-Channel Load Unit:** This top section includes digital I/O (DI 1-8, DO 1-8) and remote sense (Isense+, Isense-) connections.
- E61788A/U7178A 8-Channel Heavy Duty Load card:** This middle section provides a detailed view of two channels, Chan1 and Chan8. Each channel features a load switch, an external meter load, a current sense resistor (R_s), an LEM current transducer, and a feedback protection circuit. A 100WGU/7178A/U7178A/E61788A voltage isolated zero current sense amplifier is used for sensing. The channels are connected to a Chord Box and a Chord Bus. A 100A 8-Channel Load card is also shown, connected to the Chord Bus.
- E6175A 8-Channel Load card:** This bottom section shows a load switch, a sheet metal mounted load, and a current sense resistor (R_s).

Other components shown include fuses (F320), relays (J1), and terminal blocks (J1, J2). The diagram also includes a note about the 100A 8-Channel Load card being a "Sheet metal mounted load".



The schematic diagram illustrates the proposed system architecture. On the left, a switch is connected to a bus labeled 'Load24'. This bus is connected to a 'Load 24' block, which is in series with a resistor 'RS' and a 'PwrSns24' sensor. The sensor output is connected to a 'PerSns24' block, which then connects to a 'NC24' terminal. A 'Common' line is also shown. The main system consists of a series of components labeled 1, 2, ..., 24. A detailed inset on the right shows the internal logic of a protection device, featuring a 'Load1', 'LoadSense1', and 'LoadTrip1' blocks, all connected to a 'Relay Protection' block, which is also connected to a 'Microcontroller'.

