



# Using The ICT100-RIM 100 Amp Isolation Module With Positive Ground Systems

## OVERVIEW

The ICT 100A Redundant Isolation Module (ICT100-RIM) connects two power supplies in parallel to create a redundant 12, 24, or 48V power system for critical loads. Under normal operation low loss electronically controlled solid state switches connect each supply to the output so they can share the load of up to 100A equally. If the voltage on one of the supplies falls below the output level due to a failure or other reason, the switch on that input will immediately open to ensure the failed supply cannot pull down the output of the good supply. The higher voltage supply will then fully power the load without interruption.

The solid state MOSFET devices used in the Isolation Module have a much lower voltage drop and resulting heat dissipation than seen in a conventional diode based unit. This enables the module to run much cooler, with the load experiencing a minimal drop in the supply voltage.

## CORRECT GROUND CONNECTION

For -48V (positive ground) applications ensure the ground connection is made on the load side of the Isolation Module only (see Figure 1).

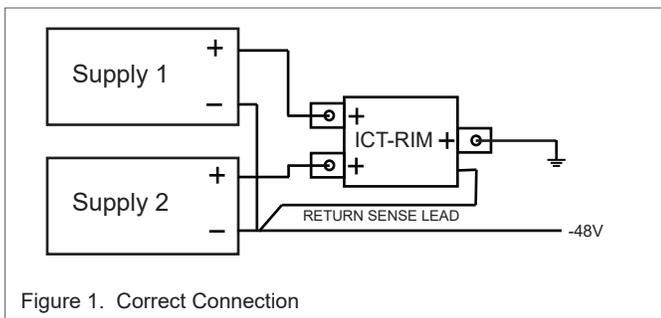


Figure 1. Correct Connection

## INCORRECT GROUND CONNECTION

It is important to not connect the negative outputs of the power source to the positive (+) inputs of the ICT Isolation Module as shown in Figure 2 below:

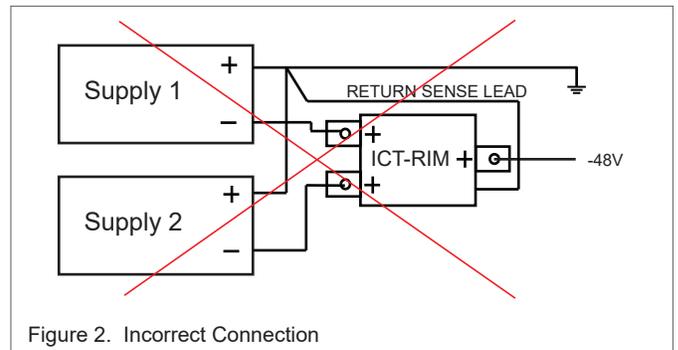


Figure 2. Incorrect Connection

In this configuration the Isolation Module will not function, and may be damaged.

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**Note:** When using back-up batteries with your supplies a battery must be independently connected to the +BAT terminal on each unit, with a common connection to the supply Negative terminals only. Do not tie the power supply +BAT input terminals together with a single battery, as this will defeat the isolation function of the ICT100-RIM device.

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