

Minimum Wire Size

The NEC requires that the wires carrying the system current never exceed 80% of the conductors' current rating. The table below provides the minimum size of copper wire allowed by NEC for the TS-45 and TS-60 versions. Wire types rated for 75°C and 90°C are included.

Minimum wire sizes for ambient temperatures to 45°C are provided in the table below:

TS-45	75C Wire	90C Wire	TS-60	75C Wire	90C Wire
≤ 45C	16 mm ² (6 AWG)	10 mm ² (8 AWG)	≤ 45C	25 mm ² (4 AWG)	16 mm ² (6 AWG)

Table 2.3-6b Minimum Wire Size

Both copper and aluminum conductors can be used with a TriStar controller. If aluminum wire is used, the minimum size of the aluminum conductor must be one wire size larger than the minimum wire size specified in the table above.

Ground Connection

Use the grounding terminal in the wiring compartment to connect a copper wire to an earth ground or similar grounding point. The grounding terminal is identified by the ground symbol shown below that is stamped into the enclosure:



The minimum size of the copper grounding wire:

- TS-45 6 mm² (10 AWG)
- TS-60 10 mm² (8 AWG)

Connect the Power Wires

First, confirm that the DIP switch #1 is correct for the operating mode intended.

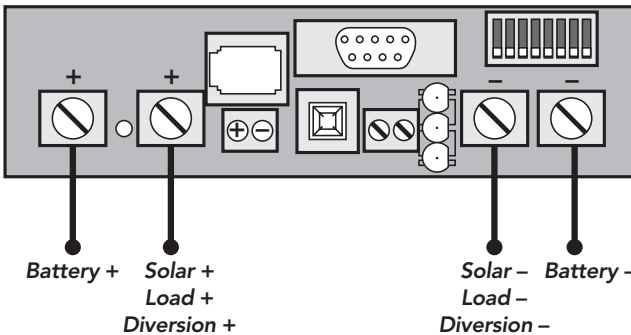


Figure 2.3 - Step 6 Power Wire Connections