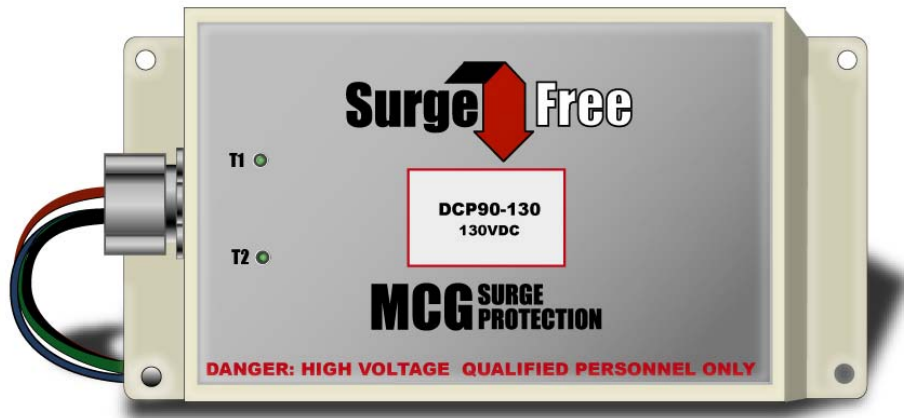


DCP-90 Installation Instructions



Application: The DCP-90 is a dual redundant, high energy surge protector used to protect DC powered equipment from the damaging effects of surges. One common application is protecting the inverters and charge controllers used in photovoltaic systems. The no load (open circuit) output voltages of photovoltaic arrays will not affect the surge protector as sufficient headroom is built into the protector. The model name buildup is DCP-90-xxxVDC, where xxxVDC is the nominal DC voltage of the system. The DCP-90 is designed to provide years of trouble free surge protection for your equipment.

Installation Procedure

IMPORTANT WARRANTY INFORMATION:

MCG surge protectors are designed to work at specific voltages. Installation of the surge protector improperly on the power system will automatically void the warranty.

1) Confirm DC voltage:

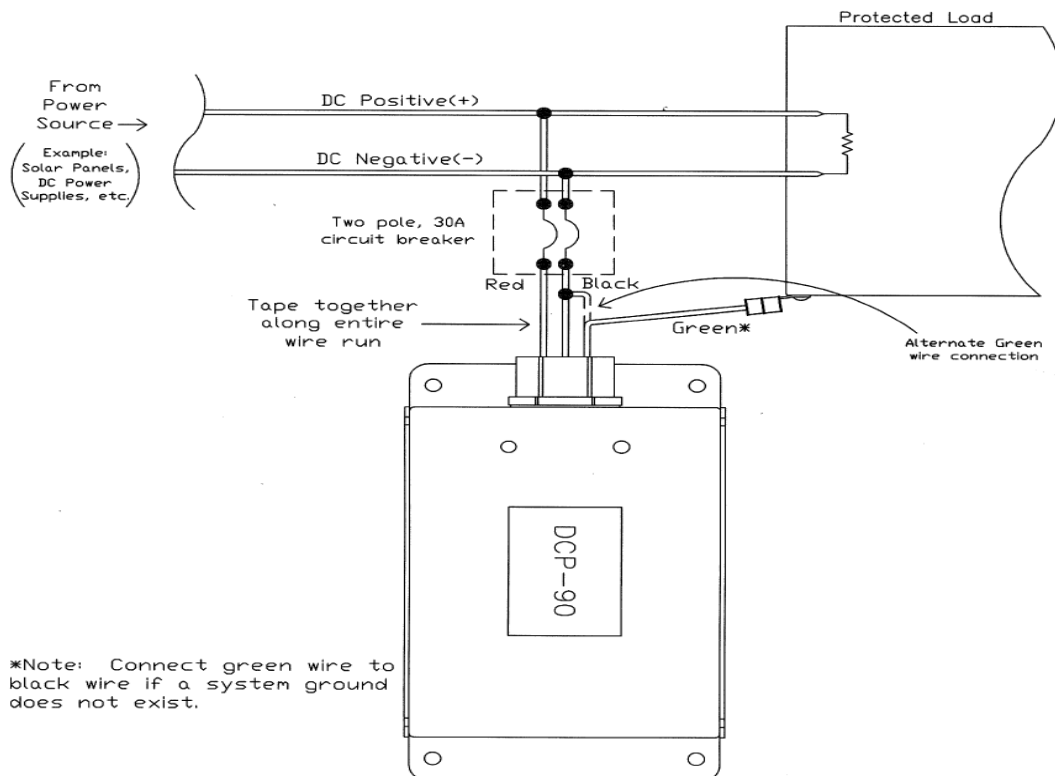
Confirm that the protector's voltage is correct for your application. If not, contact factory at 1-800-851-1508 for assistance.

Caution: Never install during a lightning storm.

2) To install:

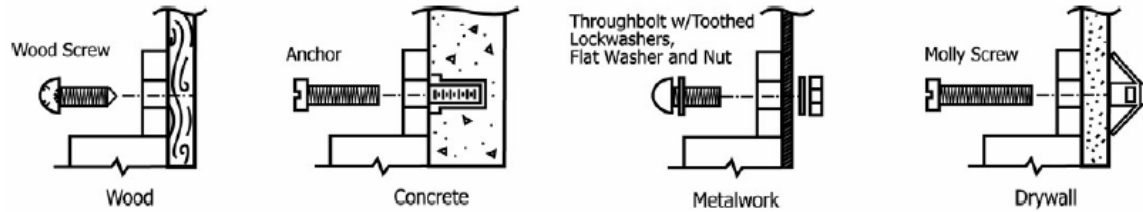
- a) Disconnect power before installing the DCP-90.
- b) Locate and mount protector next to the equipment it is protecting.
NOTE: If protector is to be located outdoors and exposed to elements, mount protector inside a suitable weatherproof enclosure.
- c) Cut back protector's leads as short as possible for best performance.
- d) Use a 30A, two-pole breaker (preferred) in series with the protector's red and black leads. Note: if a breaker is not available, use a two-pole fused disconnect switch or a two-pole fuse block. Fuses shall be 30A, time-delay type.
- e) Tape protector wires together for the entire wire run to reduce impedance.
- f) Connect breaker to system positive (+) and negative (-). Keep leads short. See Figure 1.
- g) Connect the protector's red wire to the positive (+) side of breaker.
- h) Connect the protector's black wire to the negative (-) side of breaker.
- i) Connect the protector's Green wire to the system ground, which is usually the Green wire ground (chassis). If your system does not have a Ground, then splice the Green wire to the Black wire, which is connected to the (-) side of the breaker.

Figure 1



*Note: Connect green wire to black wire if a system ground does not exist.

MOUNTING OPTIONS:



3) Restore power:

- a) Restore power to system. Bring protector on line by turning on breaker to the protector.
- b) Observe two green LEDs illuminated on protector. Full protection present when both LEDs illuminated.

4) Operation:

The DCP-90 is a parallel, voltage dependent surge protector. If an overvoltage situation occurs (i.e. lightning), the protector will momentarily turn on (conduct) and divert the surge current safely through the protector. When the event is over, the protector will return back to its standby mode automatically, ready for the next overvoltage.

The DCP-90 is a dual-redundant protector. Should one of the two protection circuits fail, the adjacent protection circuit will maintain protection to your equipment. Contact MCG sales at 1-800-851-1508 for service.

DIMENSIONS

