Design Guide

APsystems DC Connector Polarity

Version 1.0 12/14

APsystems
600 Ericksen Ave NE. Ste 200; Seattle, WA 98110
TEL: 844-666-7035 EMAIL: info@APsystems.com
WEB: www.APsystems.com

MATING APSYSTEMS MICROINVERTERS WITH PV MODULES USING DC CONNECTORS

APsystems microinverters need to mate with PV modules through the appropriate DC connectors. Follow these guidelines to ensure correct polarity between the microinverter and the PV module.

Make sure the positive DC output of the PV module (+) connects to the microinverter connector labeled negative (-), which is really the electrical positive (+) inside the microinverter.

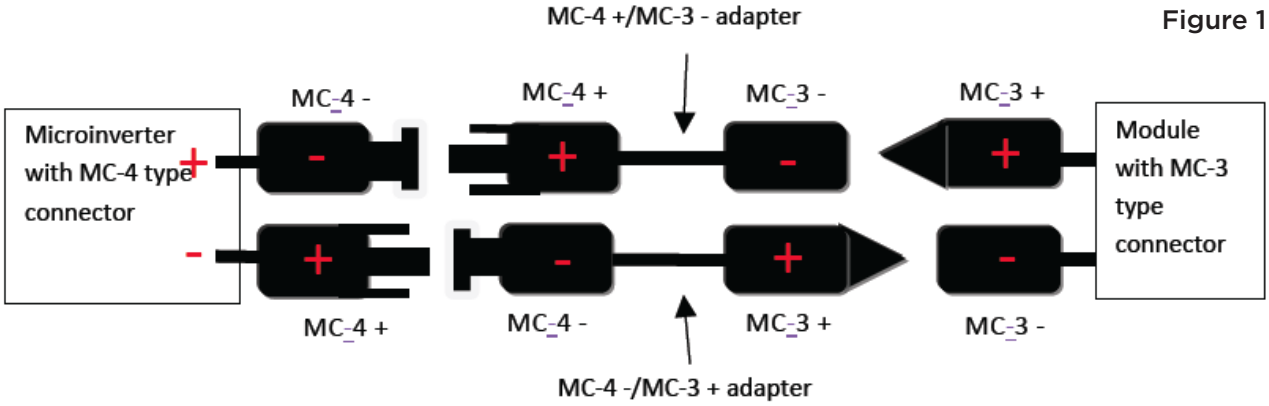
APsystems microinverters are normally manufactured with one type of DC cable that mate with PV modules: MC-4 compatible locking connectors.

CASE 1: When PV modules have MC-4 compatible connectors and are directly connected to the microinverter, those connectors automatically mate. These connections are straightforward and consistent.

CASE 2: If re-termination of a module's connectors is required, it is critical to identify the positive output of the PV module from the markings on the junction box. Then add the correlated MC-4 compatible connectors.

CASE 3: When PV modules have MC-3 compatible connectors, MC-4 to MC-3 adapters are needed. The figure below illustrates the MC-4/MC-3 adapters and the way to connect an APsystems Microinverter with MC-4 connectors to a PV module with MC-3 connectors.

Figure 1



Customers may special order microinverters with the following DC cables:
- PV module connectors are assigned and supplied by the customer.
- Bare wire cables without connectors.

CASE 1: When a microinverter has the same connectors as the module, connectors mate to each other automatically. These connections are straightforward and consistent.

CASE 2: When a microinverter has bare wire DC cables, the customer needs to add connectors. Make sure the microinverter cable labeled negative (-) connects to the positive DC output of the PV module (+).