

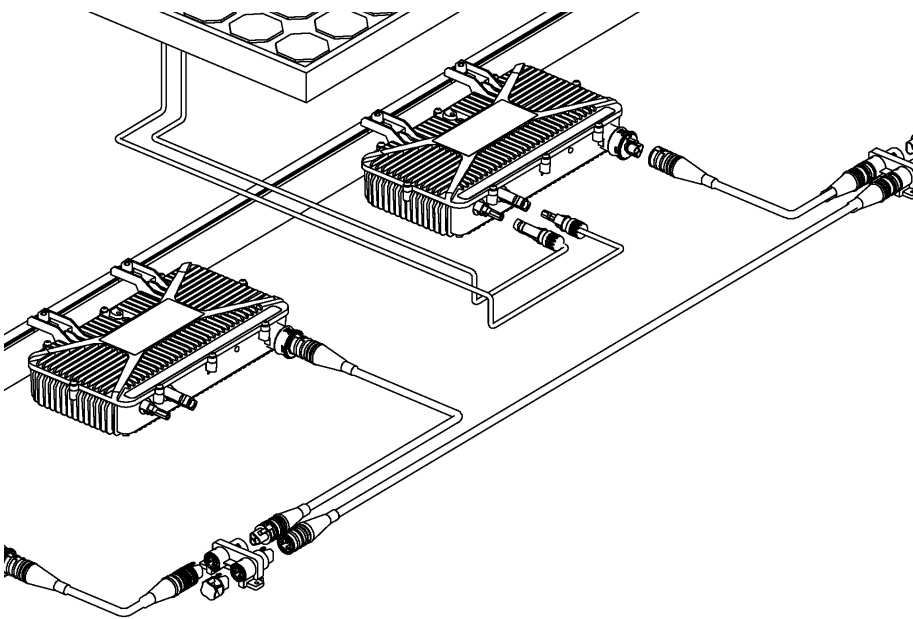
PLC System

Functionality und System Details

Powerline Communication

An effective way of communication between a PV-system and a monitoring station is realized using the Powerline standard.

A great advantage of Powerline communication is that it is carried out using the existing AC wiring, making additional communication connectors and wiring for the micro-inverter unnecessary.



How does it work?

Each micro-inverter is connected to a PV-module using the DC wiring. The DC power is individually converted into grid-compliant AC power. The inverter is equipped with one AC terminal on the right side of the connection area, a 20 A 3-pin AC connector. To connect multiple inverters, the micro-inverters are connected using AC-cabling and distributions blocks.

For the powerline communication, the generated alternating current is fed into the utility grid using a gateway or data logger. Using the gateway, the powerline connection is converted into RS485, which can be connected to a PC by means of the USB-RS485 interface converter, to visualize current and accumulated system data with the AEsolar software. Alternatively, a data logger can be connected to the gateway to monitor the system.