

SIEMENS

Ingenuity for life

Maximizing the power of the sun

Siemens Microinverter System



usa.siemens.com/microsolar

Microinversion technology

What is a microinverter?

The inversion process takes the DC voltage produced by the solar module and converts this power into grid compatible AC voltage. A microinverter is connected to each photovoltaic module and converts the DC voltage immediately to AC voltage reducing the number of system components required.



The example below shows the exact same configuration of panels with a traditional string inverter (Figure 1) and microinversion technology (Figure 2). Shading has covered one of the photovoltaic modules, reducing the amount of power produced by that panel. Notice, in Figure 1, how with a traditional string inverter, each module reflects

the same power production. The entire system is limited by the weakest link. With microinversion this does not occur. As shown in Figure 2, if shading covers part of one module it loses efficiency, but each of the other modules is connected to its own microinverter and functions as a stand-alone power producing unit, increasing the efficiency of the entire system.

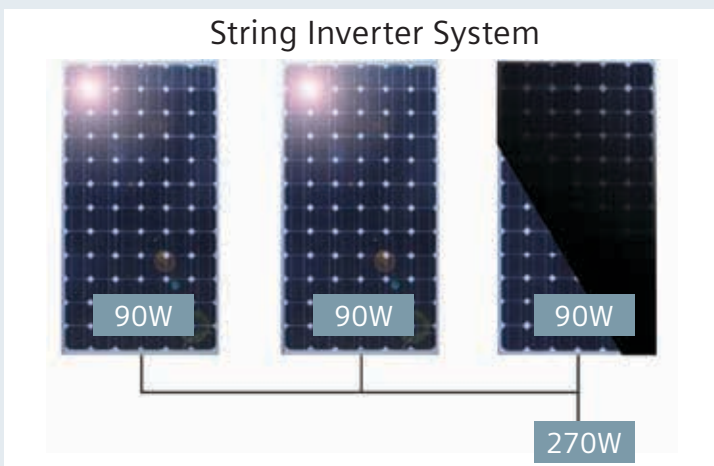


Figure 1

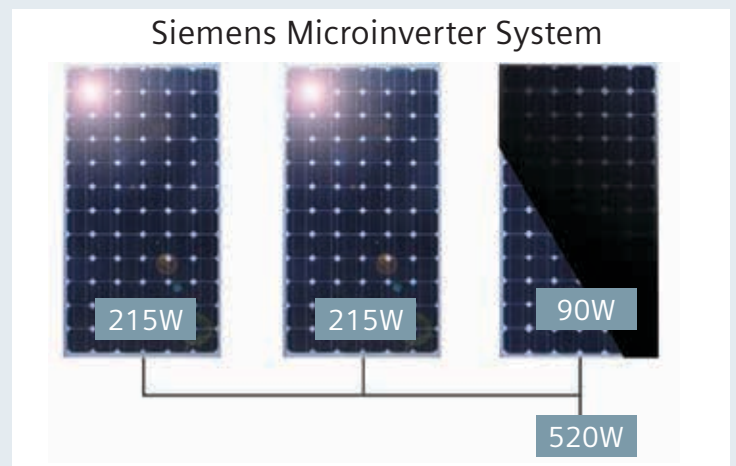


Figure 2

Siemens Microinverter System benefits

No single point of failure

- Each photovoltaic panel and microinverter act as its own clean energy power producing unit, increasing system efficiency

Safe DC voltage levels

- Low voltage DC provides a safe solution for residential and light commercial applications

Balance of systems

- Siemens provides distribution and circuit protection products to complete installations

Web based system monitoring

- Analysis of each individual module

Labor savings

- No string calculations and simplified wiring technology for an easy installation



Envoy Communications Gateway

- Collects and transmits data to Enlighten website
- Plugs into any standard AC outlet
- No additional wiring necessary
- Connects to broadband router



Enlighten monitoring software

- Module by module monitoring and analysis
- Web based application for easy access
- Smart Phone application available
- Lifetime subscription included with Gateway



Trunk and Drop Cable

- Simplified wiring system reduces installation times
- Less wire required, yielding balance of systems savings
- Clean installations



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