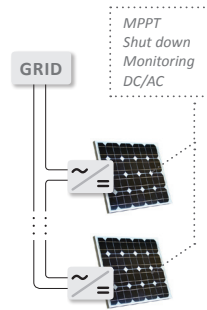


A COMPARISON OF MICROINVERTERS & POWER OPTIMIZERS

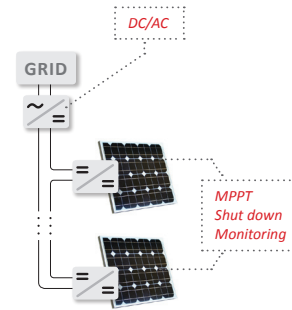
Module level electronics overcome the shortcomings of traditional inverters and enable maximum power, module level monitoring, flexible design and enhanced safety.

However, there is no need to add an inverter to every module if DC power optimizers can achieve all these benefits at lower cost, higher efficiency and higher reliability.

Microinverters



Power Optimizers



Benefits	Microinverter Solutions	SolarEdge Solution	Details
Cost per W Scalability	Higher Not Scalable	Lower Scalable	<ul style="list-style-type: none"> SolarEdge system cost is 20%-50% lower, including inverter and power optimizers, (both with 25 year warranty) built-in ethernet gateway, and 25 years of module level monitoring The cost/watt of a SolarEdge system decreases as the installation size increases
Added Energy	Lower	Higher	<ul style="list-style-type: none"> SolarEdge inverters are 97.5% CEC. The best Microinverter is 96% SolarEdge Power Optimizers have a wider MPPT range and track voltage from 5V. Microinverters have a higher minimum voltage requirement equaling a lower shade tolerance SolarEdge Power Optimizers support up to 400W modules with no energy loss due to clipping in any solar conditions
Reliability	Lower	Higher	<ul style="list-style-type: none"> SolarEdge Power Optimizers have about 1/3 of the parts count of a typical Microinverter. Fewer parts equals lower failure rates and extended product life time SolarEdge Power Optimizers use ceramic capacitors. Some microinverters use electrolytic capacitors. The lifetime of an electrolytic capacitor will be greatly reduced if it is exposed to high temperatures Microinverters generate more heat due to their lower efficiencies leading to accelerated module degradation and reduced reliability
Compatibility	Limited	Broad	<ul style="list-style-type: none"> Power Optimizers are compatible with any c-Si modules, up to 400W / 96 cells. Microinverters are limited by their DC input range to 60 cell Modules
Communication and Monitoring	Vulnerable	Robust	<ul style="list-style-type: none"> SolarEdge inverters use Power Line Communications in a controlled DC environment. MicroInverters use AC Power Line Communications which is highly susceptible to interference caused by AC devices SolarEdge inverters have an ethernet gateway built in. Microinverters require an external communication gateway
Installation Flexibility and Cabling	Limited	Flexible	<ul style="list-style-type: none"> SolarEdge fixed string voltage allows for fewer strings with up to 25 optimizers per string. Microinverters are limited to 17 modules per branch circuit SolarEdge Power Optimizers and Inverters are wired with standard PV wire. Microinverters require an expensive trunk cable and dedicated AC load center prior to the AC disconnect