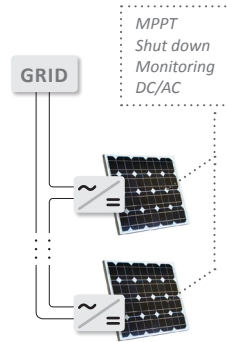


# A COMPARISON OF MICROINVERTERS & POWER OPTIMIZERS

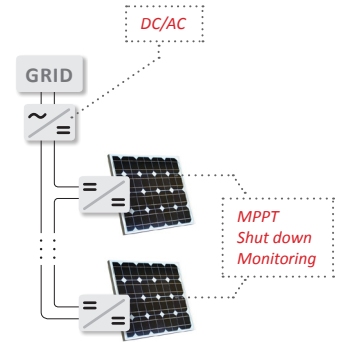
Module level electronics overcome the shortcomings of traditional inverters and enable maximum power, module level monitoring, flexible design and enhanced safety.

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	Microinverters	SolarEdge Solution	Details
Cost per Watt	Higher	Lower system cost - 20-50% cheaper than leading MI brand	<ul style="list-style-type: none"> <li>• Microinverters cost includes trunk cables and gateway</li> <li>• SolarEdge system cost includes inverter, built-in module level monitoring and 25 year warranty for inverters and power optimizers</li> </ul>
Scalability	Not scalable	Scalable	<ul style="list-style-type: none"> <li>• The cost/Watt of a SolarEdge system decreases as installation size increases</li> </ul>
Added Energy	Lower	Higher	<ul style="list-style-type: none"> <li>• Power optimizers have higher efficiency (99.5%) than microinverters</li> <li>• Lower efficiency of microinverters increases heat dissipation which enhances module degradation</li> <li>• Microinverters have a higher minimum voltage requirement than power optimizers:                             <ul style="list-style-type: none"> <li>- Less shading tolerance</li> <li>- Late wake up leading to fewer production hours</li> </ul> </li> </ul>
Compatibility	Limited	Broad	<ul style="list-style-type: none"> <li>• Microinverters have a limited AC output power</li> <li>• Clipping: when connected to higher capacity modules, the excess DC power is lost. E.g. in a 6kW installation of 260W modules, only 5kW AC power will be produced</li> <li>• No support for 72-cell module</li> </ul>
Reliability	Lower	Higher	<ul style="list-style-type: none"> <li>• Microinverters have much higher part count leading to increased failure rate</li> <li>• Some microinverters work with electrolytic capacitors which have a short life time</li> <li>• Microinverters create higher temperatures</li> </ul>