

Compatibility of Bi-facial Modules with SolarEdge Power Optimizers

Version History

- Version 1.0 (Nov. 2018) – Initial release

SolarEdge offers power optimizers that are compatible with a wide range of modules, including bi-facial modules. Compatibility of bi-facial modules with SolarEdge power optimizers depends on the electrical characteristics of a given module and a selected power optimizer.

Matching Optimizers

When using bi-facial modules, SolarEdge recommends selecting an optimizer that supports the maximum power, current and voltage of the module, taking into account the **maximum bi-facial gain stated in the module datasheet**.

You may select a matching optimizer using lower bi-facial gain calculated or predicted for the specific installation.



NOTE

Make sure the optimizer input power, voltage and current are not exceeded.

If the module will operate at a power, voltage or current that is above the optimizer specifications, any resulting damage to the optimizer will not be covered by the product warranty.

System Design

When designing the system, use module STC power + 15% bi-facial gain to make sure maximum inverter DC/AC oversizing and maximum string power are not exceeded, regardless of expected bi-facial power gain.

For example:

- Specifications (example, refer to product datasheets for actual numbers):
 - Module STC: 300W
 - Maximum string power: 5700W
 - Inverter AC power: 5000W
 - Inverter maximum DC/AC sizing: 7750W
- Design:
 - Module power: $STC+15\% = 1.15 \times 300W = 345W$
 - Max. number of modules in a string: $5700W/345W = 16$
(not $5700W/300W = 19$)
 - Max. number of modules connected to the inverter: $7750W/345W = 22$
(not $7750W/300W = 25$)