

# 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  $7750W/300W = 25$ )