



**SolarTech Power Solutions**

# **Double-glass module s own advantages**



## Overview

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Glass-glass solar modules (bifacial modules) increase energy production by approximately 2% to 5% compared to traditional glass-backsheet modules, thanks to their ability to capture light from both sides. Why should you choose a double glass module?

**Mechanical robustness:** The dual-glass structure offers exceptional resistance to mechanical loads, such as wind and snow, making them ideal for challenging environments. **Environmental shielding:** Double glass modules provide excellent defense against moisture, corrosion, and UV radiation, reducing the risk of potential-induced degradation (PID).

What is a double glass solar module?

In the ever-evolving world of photovoltaic technology, double glass solar modules are emerging as a game-changer. By encapsulating solar cells between two layers of glass, these modules offer unparalleled durability and efficiency. But what exactly sets them apart?

What are double glass solar modules?

What are the advantages of double glass solar panels?

**Environmental shielding:** Double glass modules provide excellent defense against moisture, corrosion, and UV radiation, reducing the risk of potential-induced degradation (PID). **Thermal stability:** The identical thermal expansion coefficients of the glass layers minimize stress on solar cells during temperature fluctuations.

Why are double glass modules symmetrical?

**Mechanical constraints on cells:** the fact that the structure of the double glass modules is symmetrical implies that the cells are located on a so-called neutral line, the upper part of the module being in compression during a

downward mechanical load and the lower glass surface being in tension.

What is the bifaciality of a double glass module?

Bifaciality: The bifaciality of double glass modules produces a gain of around 10-11% compared to the power measured on the front panel alone, for TOPCon type modules under so-called BNPI (bifacial nameplate irradiance) test conditions.

Why are double glass solar panels bifacial?

Thermal stability: The identical thermal expansion coefficients of the glass layers minimize stress on solar cells during temperature fluctuations. Dual-sided energy Capture: Many double glass modules are bifacial, allowing them to harness sunlight from both sides.

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