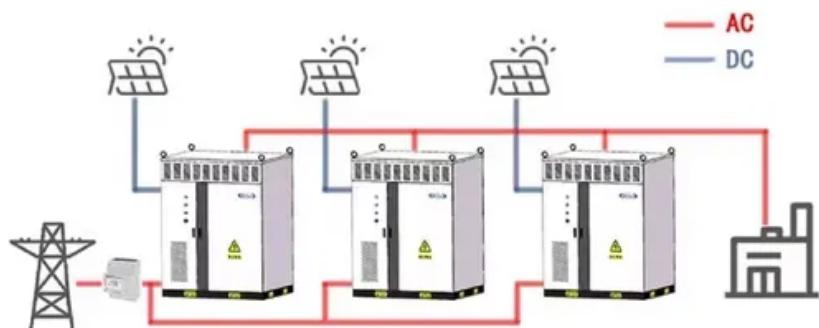


NKOSITHANDILEB SOLAR

# Double-sided double-glass module model

## WORKING PRINCIPLE



## Overview

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A simulation model of finite differences describing a double-glass multi-crystalline photovoltaic module has been developed and validated using experimental data from such a photovoltaic module. This simulation model is used to predict the performance of the module under various operating conditions.

### What is a double glass module?

In contrast, double glass modules replace the polymer layer with another glass sheet, creating a robust sandwich structure. At IBC SOLAR, we use 2,0 mm x 2,0 mm glass layers, whereas some other market offerings use thinner 1,6 mm x 1,6 mm layers. This ensures greater durability and longevity.

### 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?

Double glass solar modules are solar cells encapsulated between two layers of glass. This creates a robust and durable module structure. The glass layers protect the solar cells from the elements and provide a high level of durability. Double glass solar modules are often used in applications where high durability is required, such as in roof-mounted systems or in harsh outdoor environments. They are also used in bifacial modules, which can capture energy from both sides of the module.

### Are double glass modules bifacial?

Dual-sided energy Capture: Many double glass modules are bifacial, allowing them to harness sunlight from both sides. This can lead to energy gains of up to 25%, especially when installed over reflective surfaces.

## Double-sided double-glass module model

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Double glass PV module is known as the ultimate solution for the module encapsulation technique. Although double glass modules have many advantages, they are not yet widely used in photovoltaic power plants, for which one important reason is the large power loss due to the transmission of light in the cell gap region.

**Dual-sided energy Capture:** Many double glass modules are bifacial, allowing them to harness sunlight from both sides. This can lead to energy gains of up to 25%, especially when installed over reflective surfaces.

Outline Introduction Loss characterization in double-glass bifacial PV modules Optical loss Resistive loss Approaches for high performance double-glass bifacial module ...

The new n-type Silk® Nova Duetto high efficiency glass/glass double-sided panel with 156 half-cut cells, with a power range from 615 to 625 Watts, ...

**Superior protection; Environmental shielding:** Double glass modules provide excellent defense against moisture, corrosion, and UV radiation, reducing the risk of potential ...

Excellent product appearance and performance Two-sided double-glazed modules, symmetrical structural design, low risk of hidden cracks.

The effectiveness of the simulation model was verified by building an experimental platform, and the output characteristics of the optimal line spacing between the double-sided p-v module and ...

Double glass PV modules is an area of significant investigation by many companies and institutes in recent years, for example Dupont, Trina, Apollon, SERIS, MIT, Meyer Burger and Talesun. ...

Superior protection; Environmental shielding: Double glass modules provide excellent defense against moisture, corrosion, and UV ...

PERC double-glass double-sided modules integrate the anti-PID characteristics of double-glass modules, and have the advantages of high efficiency and low-cost systems ...

A simulation model of finite differences describing a double-glass multi-crystalline photovoltaic module has been developed and validated using experimental data from such a ...

The new n-type Silk® Nova Duetto high efficiency glass/glass double-sided panel with 156 half-cut cells, with a power range from 615 to 625 Watts, completes the FuturaSun model range.

EGing's Double-sided, Double-Glass Module adopts high-efficiency PERC double-sided battery technology combined with battery half-cutting technology and twin glazed module construction. ...

ENGINEERING The bifacial dual sided glass module (G2G) generates more electricity by

converting direct, radiant and scattered solar energy on both the front and the ...

## Contact Us

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For catalog requests, pricing, or partnerships, please contact:

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