

## SolarInnovate Energy Solutions

# How much is the gain of the double-glass module



## Overview

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In the unused usage environment, double-glass modules can gain 5%-30% power generation increment, and the comprehensive power generation efficiency is much higher than single-sided modules. What is a double glass module?

Double glass module contains two sheets of glass, whereby the back sheet is made of heat strengthened (semi-tempered) glass to substitute the traditional polymer backsheet. With \* Corresponding author. Tel.: +86 13776101913; fax: +86 51268961413.

What is double glass PV module?

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.

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 maximum deformation of a double glass module?

The maximum deformation of long side is tested according to the mechanical load of +5400 Pa for DH1000h, and -5400 Pa for DH2000h. Test result is that double glass module has no problems such as bubbles and delamination after tested under the condition of distortion +DH2000h, and the power loss is 2%.

Does double glass module lose power after aging?

The test result (Fig. 4) shows the power loss of double glass module is small

after aging, less than 5% and there is no abnormality in appearance and insulation performance. Fig. 4. Power attenuation after dynamic load + shear sequence test.

Does double glass module have bubbles and delamination?

The test result (Fig. 5) shows that the double glass module has no obvious appearance abnormalities such as bubbles and delamination after this sequence test, and the power loss of the module is smaller than 5%. Jing Tang et al. / Energy Procedia 130 (2017) 87â€“93 91 J. Tang et al./ Energy Procedia 130 (2017) 87â€“93 Fig. 5.

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