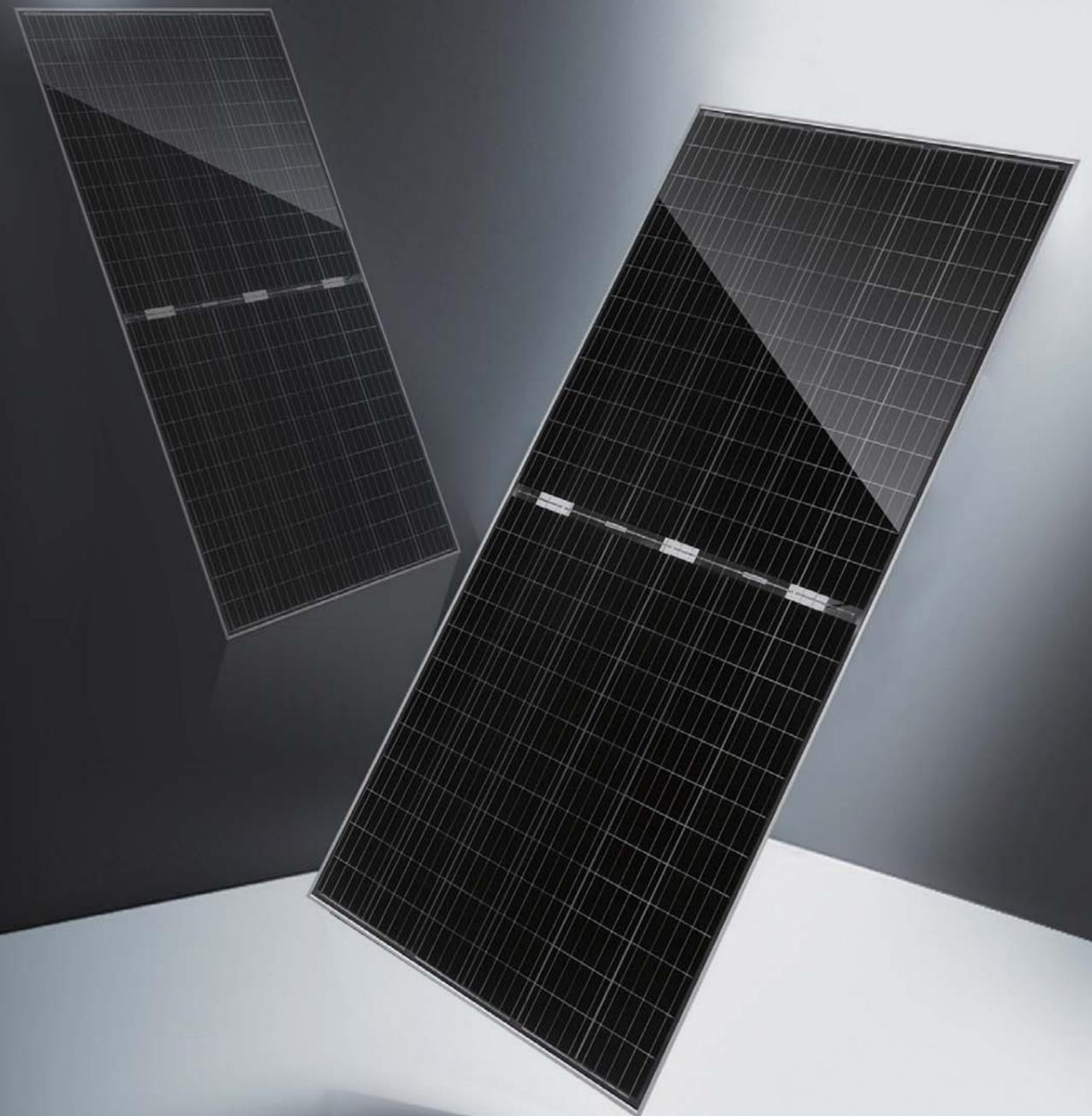
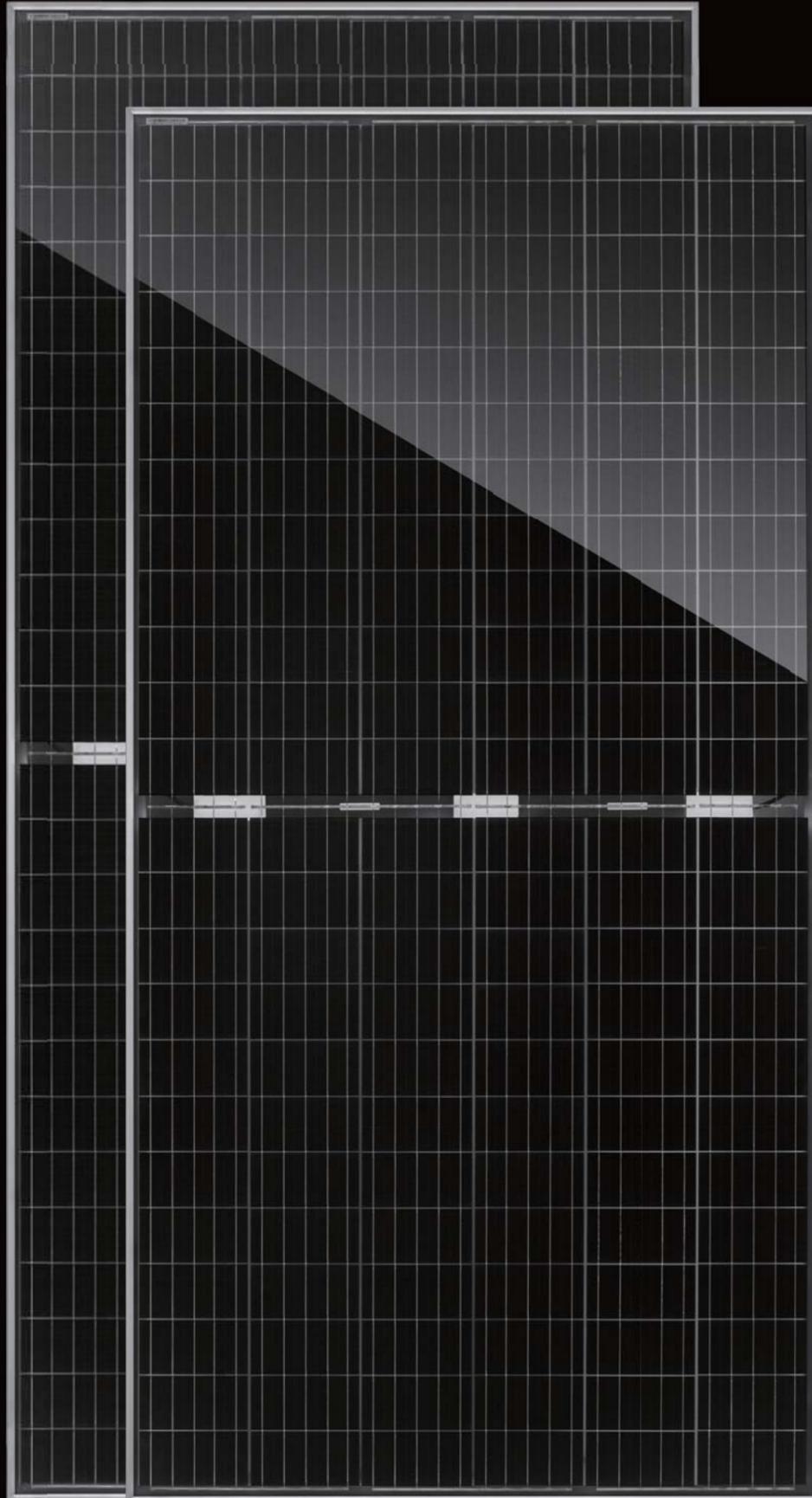


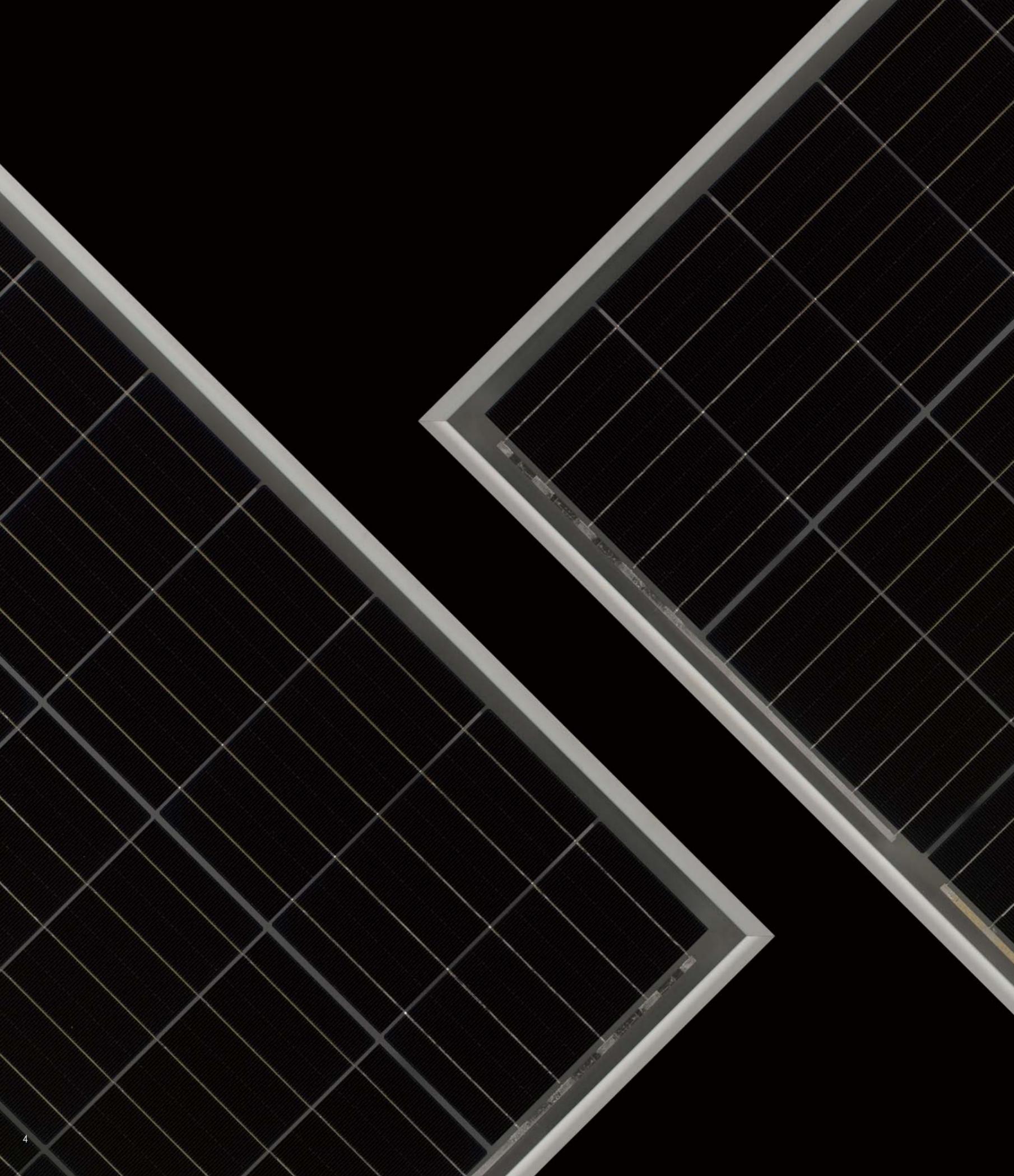
# Swan Bifacial Module





# Bifacial Energy Generation

Up to 25% energy gain from the rear-side



# More Power

Up to 500 / 540W  
(front and rear side)



## Better Structural Strength

Less prone to bending and cracking during transportation and installation

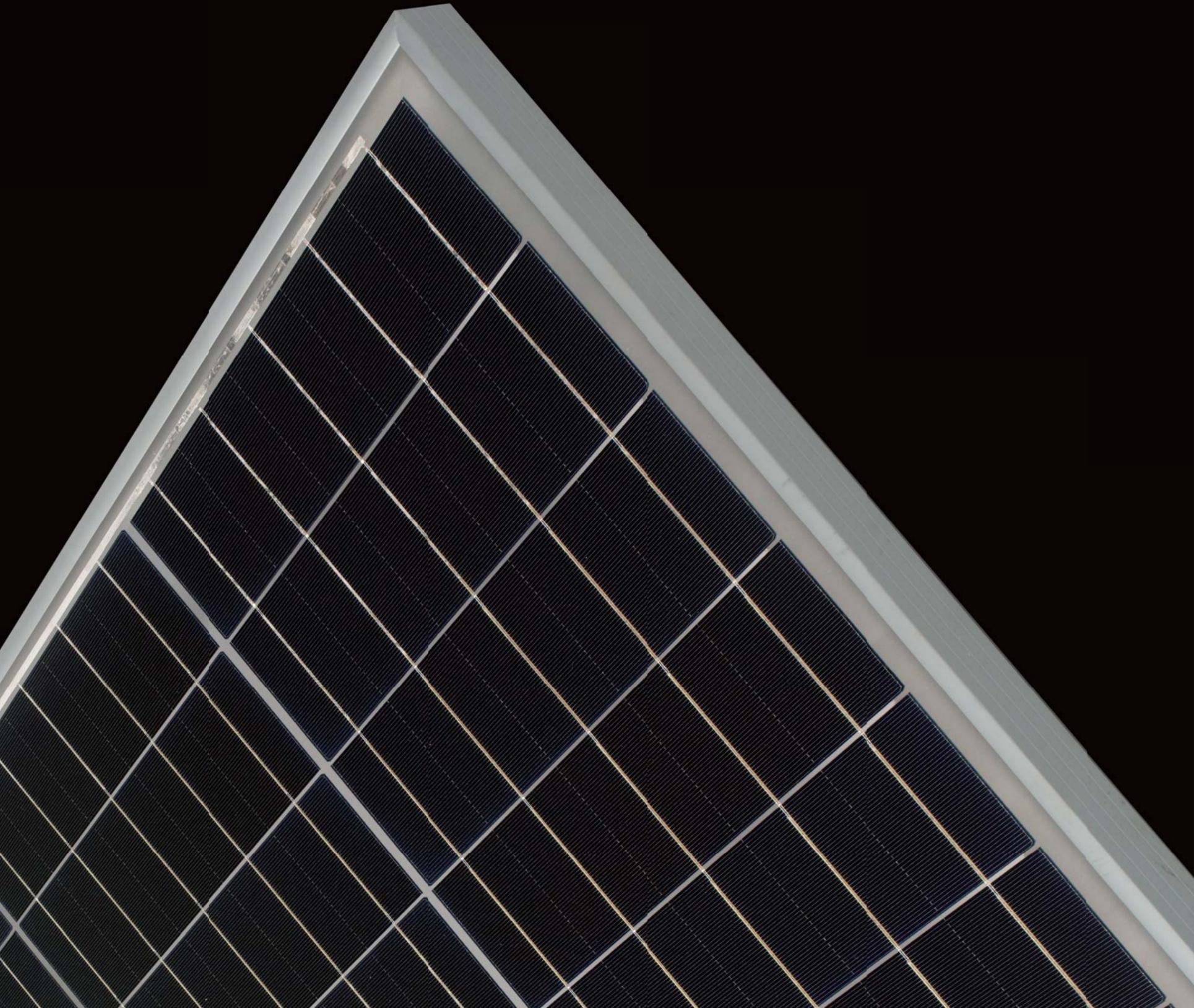


## Light-Weight, Easy to Install

Decrease of labor costs  
(related to module installation)

Reduction of BOS cost

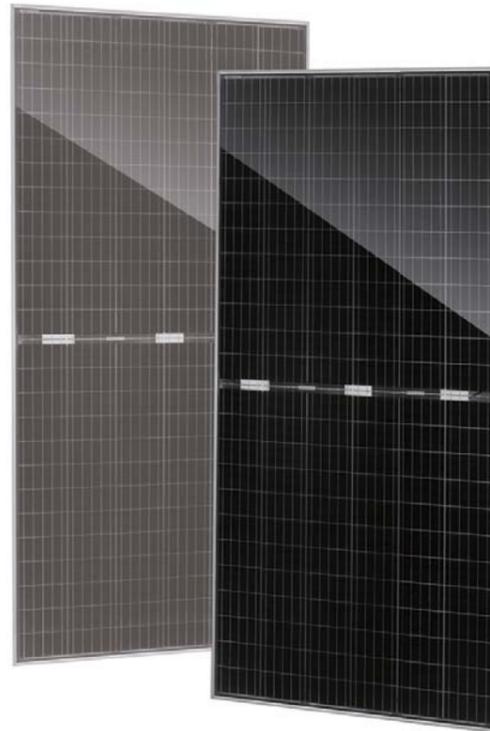
Minimizing LCOE and  
maximizing IRR



# Enhanced Reliability

30-year PV module  
performance warranty

## JinkoSolar Swan Bifacial Module



### Product Profile

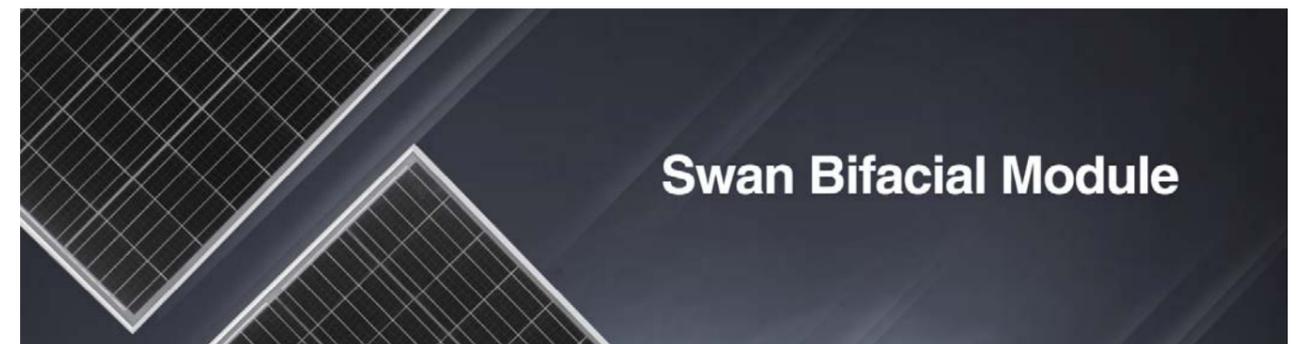
Jinko's bifacial module with transparent backsheets has been developed out of the necessity to support the energy market transition from feed-in tariffs and governmental subsidies towards IPP/PPA schemes and grid parity scenario, which requires maximizing kWh yield and PV plant performance while limiting complexity. Bifacial technology is at present the solution that allows a step change in LCOE reduction.

Swan module achieves the same power output and rear-side power gain as with a dual-glass bifacial module, combining the benefits and extra yield of bifacial technology and the simplicity and easy installation of standard-glass backsheets modules. It reduces BOS costs thanks to its lighter weight and easier installation method which is identical to traditional glass-backsheet, framed modules.

### Technological Advancement

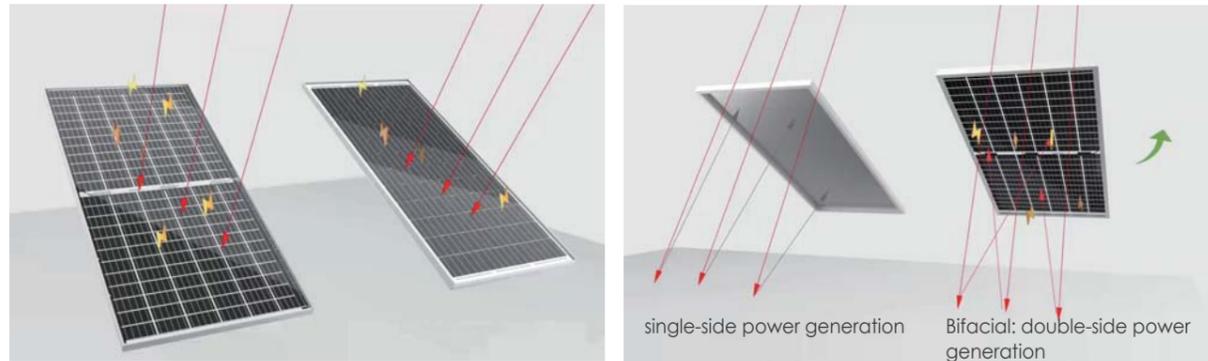
The p-type bifacial big cells module with DuPont™ Clear Tedlar® technology is produced for the first time in the market by Jinko and represents the union between bifacial technological advancement and standard module structure simplicity. Swan uses high-efficiency Jinko Solar high performance Mono big cell technology which enables bifacial module to reach high power output. Swan module production is highly compatible with standard production processes, thus GW-scale capacity is achievable at competitive manufacturing costs.

Swan bifacial module with 158.75mm cell size can reach up to 405/440Wp front side, also combined with Jinko half-cell technology, which reduces power loss and the possibility of hot spots, enabling to improve the module power and reliability. Bifacial with transparent backsheets assures lightweight modules like traditional glass-backsheet laminates and the framed structure simplifies their handling and installation, while mesh clear backsheets improve the internal reflection in the glass-cell-backsheet interlayered structure.



## Technological Benefits to Ensure High IRR

### 1. Bifacial energy generation



Up to 25% power gain depending on albedo and PV system design

### 2. Lower LCOE

- > 3% BOS cost savings ,
- > 20% reduction of labor cost related to module installation



Bifacial module with transparent backsheet



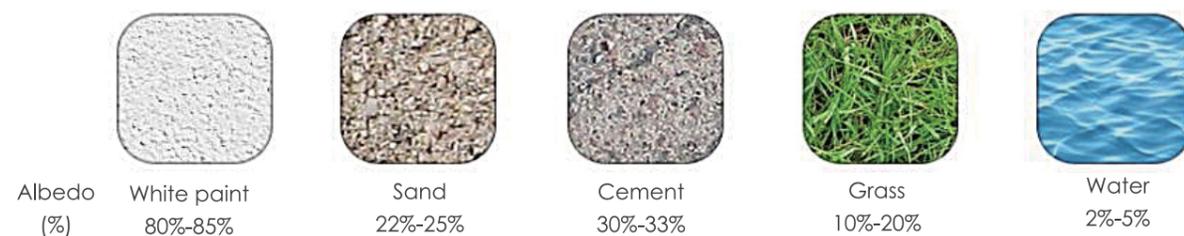
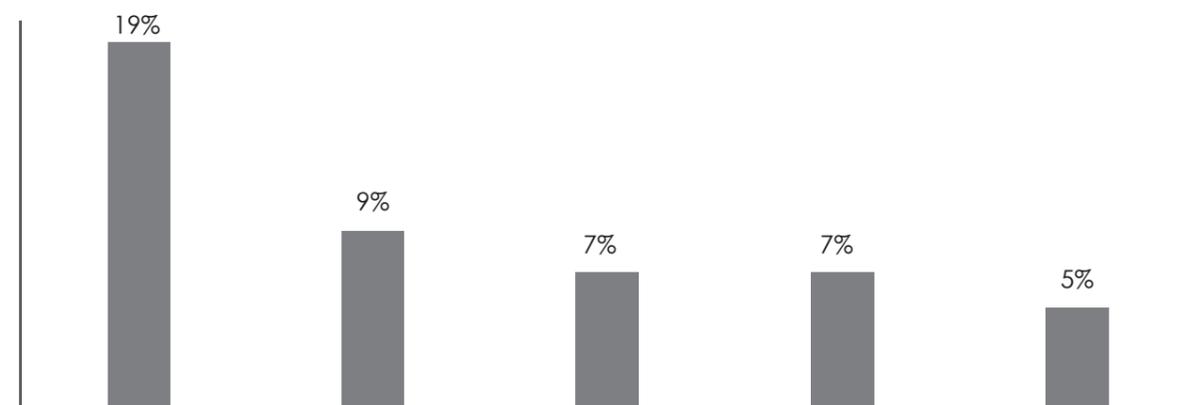
Bifacial module with dual glass



Saving labor cost related to module installation by **over 20%** using bifacial modules with transparent backsheet!

### Real Energy Generation Gain

Energy Generation Gain (%)



### -> 15% mounting structure cost saving

Bifacial with transparent backsheet



- Fewer supporting structures
- Compatible with the system of monofacial modules;
- Saving more than 15% mounting construction cost

Bifacial with dual glass

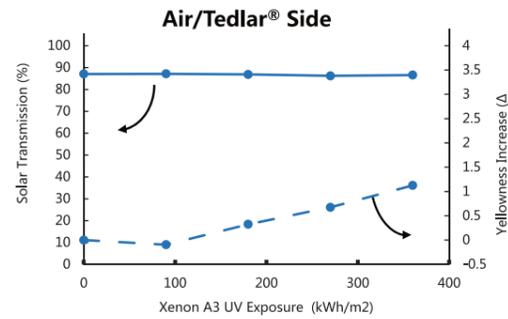
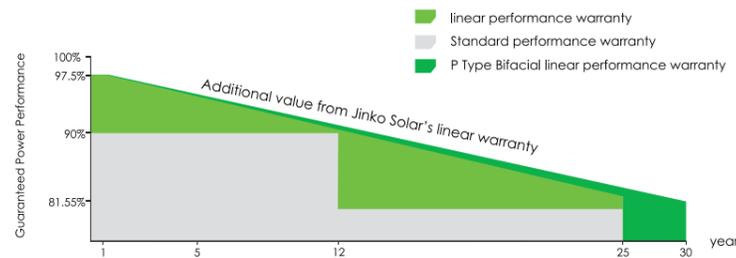


- More supporting structures
- Incompatible with the system of monofacial modules;
- Stronger load-bearing structure is requested

### 3. Enhanced Reliability of DuPont Clear Tedlar® Backsheet

#### LINEAR PERFORMANCE WARRANTY

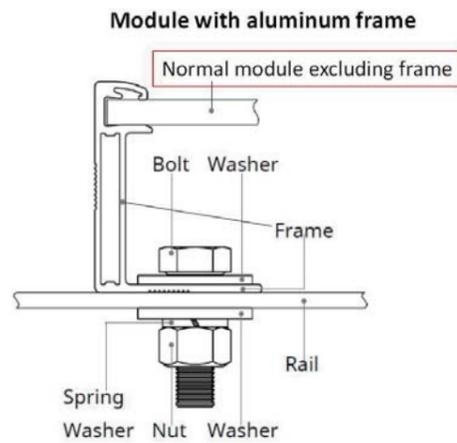
12 Year Product Warranty • 30 Year Linear Power Warranty  
0.55% Annual Degradation Over 30 years



30-year PV module performance warranty. (high and stable visible-light transmission rate around 90%, after 300 kWh/m2 UV exposure)

### 4. Frame Design - Higher structure strength

Frame Design → Common installation method



Installation convenience

Labor Cost

Mounting Construction Cost

Framed modules are less prone to bending and cracking during transportation and installation than frameless ones.

### 5. Light-weight , easy to install



### 6. Superior stain resistance

The hydrophobic surface of the transparent DuPont Tedlar film backsheet outer layer, offers excellent anti-staining performance, making cleaning of the modules easier, and reducing O&M costs and reducing water waste.

