

# PRODUCT BROCHURE

Premium High Performance  
Solar PV Modules



2022

ABOUT SUNEVO

## A WORLD-CLASS SOLAR MODULE MANUFACTURER

As a world-class solar products manufacturer, SunEvo specializes in research, development, production, and sales of solar PV products. Since its foundation in 2011, SunEvo Solar has accomplished significant achievements which outpaced most of our main competitors in terms of production capacity and in the number of innovative designs. SunEvo upholds its belief that innovation is the key driver behind advancement by pursuing new technologies and higher efficiencies. We are proud to be a leader in the PV industry in terms of technological innovations.

SunEvo serves worldwide customers with high-quality products and professional services. So far more than 8GW SunEvo Solar' s products have been widely applied in over 80 countries.

 **TIER1**  
Solar Module Maker

 **8GW+**  
Modules Installed

 **100+**  
Technology Patents

 **80+**  
Destination Countries

 **5GW**  
Production Capacity

 **50+**  
Global Partners





ABOUT SUNEVO

## GLOBAL SALES NETWORK

Adhering to the idea of integrating global resources, we fully integrate capital, technology, brands, networks, and manufacturing resources, forging a talented team, R&D platform, after-sales service and market networks for internationalized operation, driving and managing global industrial layout and business development. Based on the core capabilities in project engineering, trade services, system integration and globalization, we implement a diversified strategy and achieve a comprehensive platform for the clean energy industry.

Our Partners

|  |   |   |
|--|---|---|
|  HUAWEI         | SUNGROW   |  Growatt                     |
|  solis          |  PYLONTECH |  GOODWE<br>YOUR SOLAR ENGINE |
|  SOLAX<br>POWER |  invt      |  hoymiles                    |

# EXPERIENCE AND A COMMITMENT TO EXCELLENCE

Over the years, SunEvo has established itself as a leader in solar industry, a pioneer in technical innovation, and a perfectionist in quality assurance. SunEvo has been continuously challenging itself to develop new technologies, higher efficiency products, and provide better services. SunEvo has been certified to international performance and safety standards by independent third party laboratories.

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- 2011 SunEvo first solar PV module factory founded in China; Received ISO9001/ISO14001/OHSAS18001 certificates.

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  - 2012 SunEvo upgraded the construction and expanded its solar module production line from 120MW to 200MW.

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  - 2013 "SunEvo" brand was rewarded "ANHUI Provincial Excellent Brand".

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  - 2016 Total solar module capacity of SunEvo exceeded 600MW in China.

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  - 2017 Awarded Deloitte "Top 50 High-tech and High Growth Enterprise of China 2009" ; Get UL and CQC certificate.

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  - 2018 SunEvo new automated and intelligent solar module manufacturing plant was officially put into operation in Wuxi city, Jiangsu Province. SunEvo Solar self-developed dual glass solar module was promoted into Australia and America markets.

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  - 2019 SunEvo global cumulative module shipment reached 5GW. The company' s independently research and developed nano-texturing high-efficiency cell technology obtained exclusive patent. SunEvo launched half cut cell solar modules.

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  - 2020 SunEvo lanch Evo 4 series solar module with 166mm half cell. SunEvo receiving UL 61730 certificate.

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  - 2021 SunEvo lanch Evo 5 series solar module with 182mm half cell. SunEvo new HJT solar cell efficiency reach to 24.4%.

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  - 2022 SunEvo lanch Evo 6 series solar module with 210mm half cell,lead the new 600W+ era.
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## Mission:

Optimize the energy portfolio and take responsibility for enabling a sustainable future.

## Vision:

Provide an one-stop solution for clean energy and become an industry leader.





WHY SUNEVO

## SMARTER MANUFACTURING SMARTER CHOICE

SunEvo positions itself as a leader in the solar industry not only in leading-edge product performance, but also in manufacturing equipment, quality control, and customer service. SunEvo strives to meet all of clients' expectations by utilizing fully automated manufacturing facilities, advanced quality control system, and self-developed fully transparent quality management system.

10% Higher equipment effectiveness

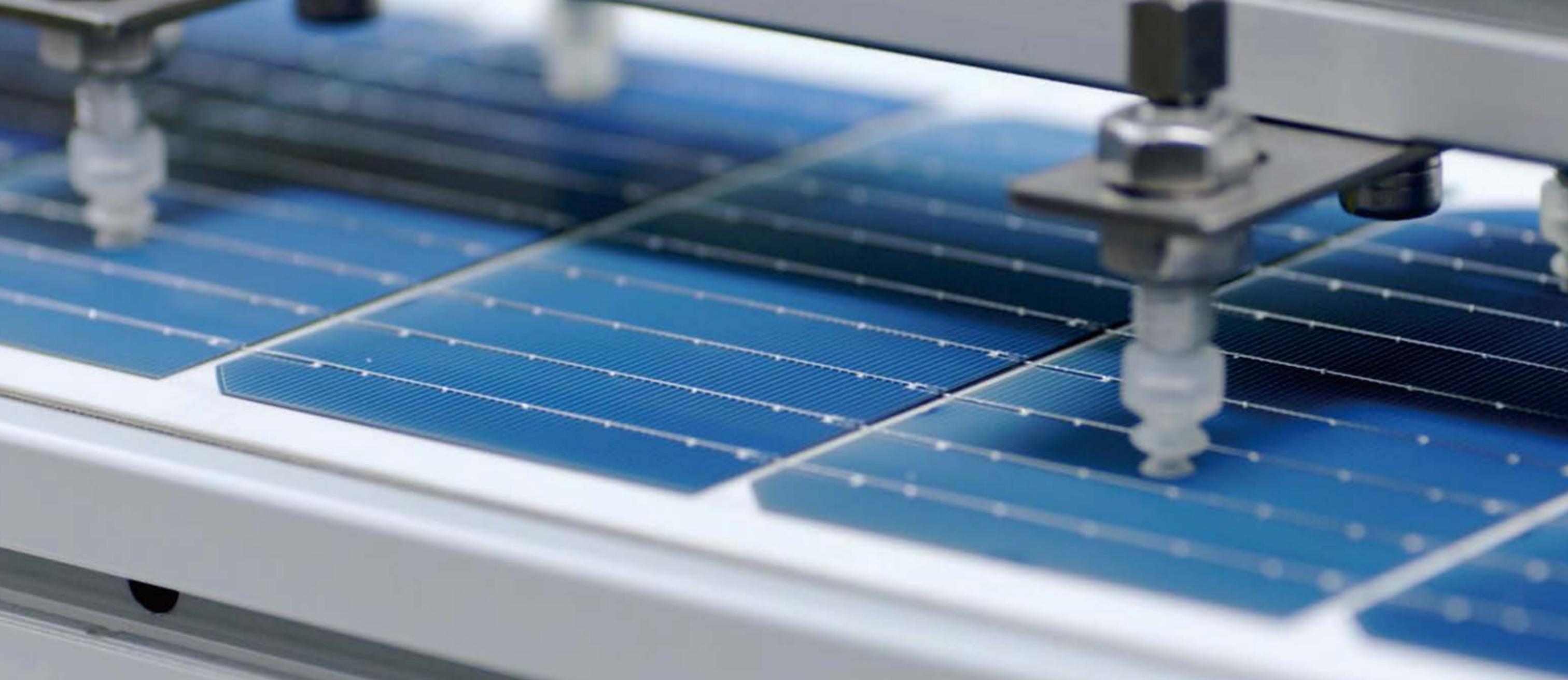
99% Good product yield rate

24<sup>7</sup> Real-time online monitoring

35% Higher production efficiency

40<sup>+</sup> Patents on production process optimization

10% Lower production cost



WHY SUNEVO

## STRICT QUALITY CONTROL SYSTEM

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Stringent quality control is the cornerstone of SunEvo's manufacturing. Our customers have come to expect uncompromising quality in our products. To meet this expectation of high quality, we continue to invest in state-of-the-art equipment and professional training for our employees. We are proud of our product quality and their reliable performance even in the most extreme conditions.

### MATERIAL CONTROL

- Stringent Supplier Management
- Spot Check Every Feedstock Batch
- Supplier Quality Engineering
- Automatic Material Filtration and Sorting
- Proper Storage at Fixed Temperature and Humidity
- Incoming-material Quality Assurance

### AFTER PRODUCTION

- Open Box Audit (OBA) Test

### PRODUCTION CONTROL

- 300+ Quality Check Points
- 3 \* EL Tests
- In-process Quality Control
- A+A+A+ Rated H.A.L.M. Sun Simulator



WHY SUNEVO

## PROVEN HIGHER MODULE EFFICIENCY AND OUTPUT

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**THREE TIMES  
MORE THAN INDUSTRY  
STANDARDS  
IEC61215 AND IEC61730**

SunEvo passed the strictest accelerated stress testing and characterization under DNV GL PVEL, LLC's (DNV GL) Product Qualification Program (PQP). The PQP is a comprehensive evaluation of environmental sensitivities and degradation mechanisms of PV module designs.

In addition, our module products have received the China Quality Certification Center's ("CQC") Top Runner Program level-one energy efficiency certification

Thresher test (300% the IEC standards) includes a series of tests for thermal cycling, damp heat, PID, UV, humidity freeze and hot spot. It is designed to test whether or not modules can maintain their power output during adverse conditions throughout their lifetime.

| Project         | Condition            | IEC Criteria | Thresher Criteria |
|-----------------|----------------------|--------------|-------------------|
| Thermal Cycles  | -40-80°C             | 200 cycles   | <b>600 cycles</b> |
| Damp Heat       | 85°C 85%RH           | 1000h        | <b>3000h</b>      |
| PID             | —                    | —            | <b>96h</b>        |
| UV Resistance   | —                    | 15 kW/m      | <b>45 kW/</b>     |
| Humidity Freeze | -40°C- 80°C 85%RH    | 10 cycles    | <b>30 cycles</b>  |
| Hot Sport       | 60kwh/m <sup>2</sup> | 5h           | 20h               |

OUR PRODUCTS

## EVO 6 SERIES

In order to create the ultimate cost-effective product, SunEvo launched a new generation of ultra-high efficiency modules, the Evo 6 series. The new series integrates 210mm silicon wafers, with PERC, bifacial, multi-busbar cell technology and high-density encapsulation. The maximum power output on the front side of the two formats, 60 and 66, have both exceeded 600W. Meanwhile, based on different installation environments, the rear side power generation gain is between 10-30%.

**675**<sup>W</sup>

Max Output Power

**210**<sup>mm</sup>

Solar PV Cell Type

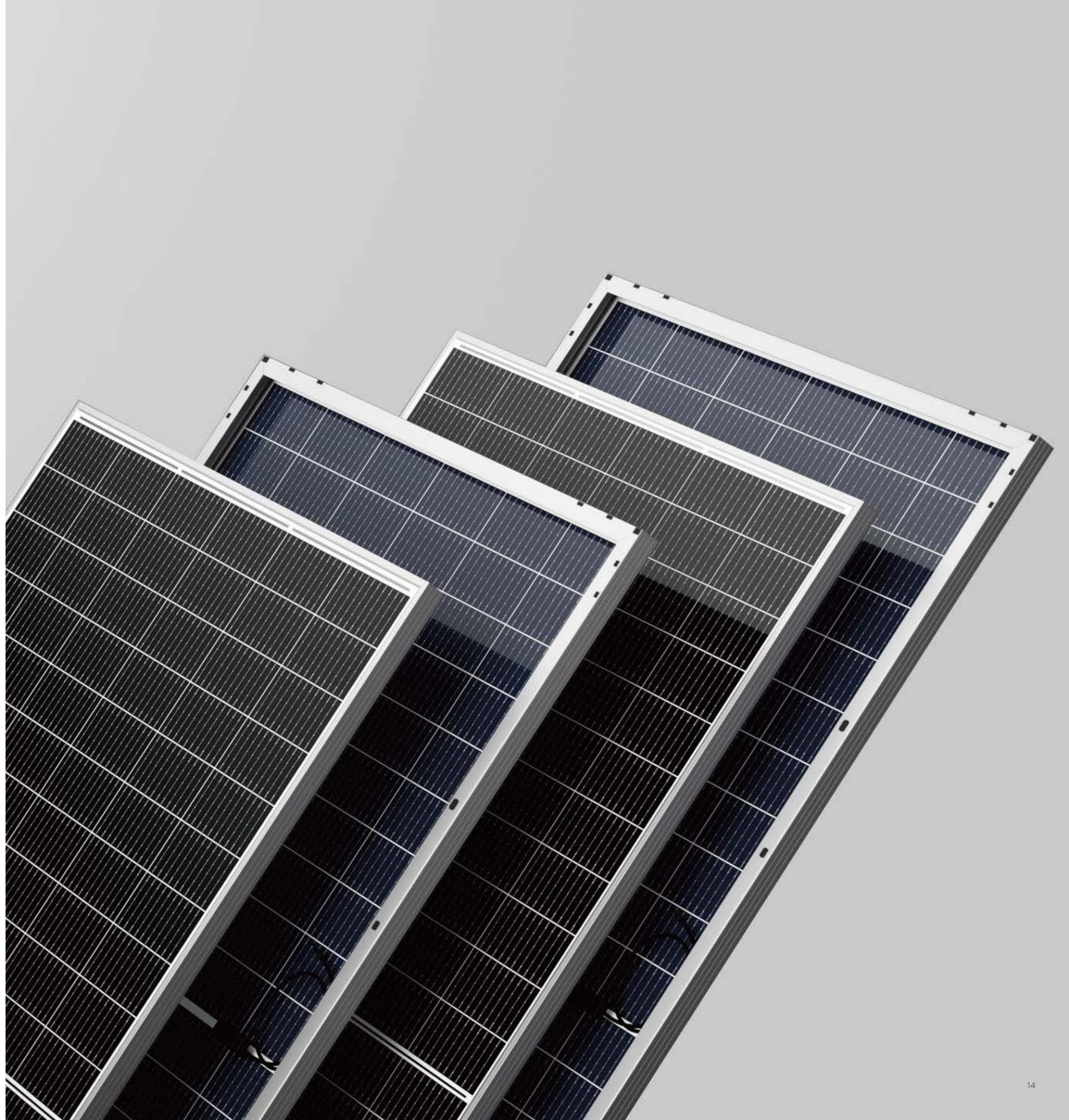
**30**<sup>Year</sup>

Linear Power Warranty

**21.7**<sup>%</sup>

Module Efficiency

| Module              | Maximum Power | Size / Weight           |
|---------------------|---------------|-------------------------|
| SE6-60H             | 595-615W      | 2172×1303×35mm / 30.9kg |
| SE6-66H             | 655-675W      | 2384×1303×35mm / 34.8kg |
| SE6-60HBD(Bifacial) | 590-610W      | 2172×1303×35mm / 34.8kg |
| SE6-66HBD(Bifacial) | 650-670W      | 2384×1303×35mm / 38.2kg |



OUR PRODUCTS

## EVO5 SERIES

SunEvo focuses on value creation and in the winter of 2020 launches a new generation of high efficiency PV modules, the Evo 5 series. The new series integrates 182mm large-size silicon wafers with PERC, multi-busbar, half-cell, bifacial technologies and high-density encapsulation. Technology integration enables the Evo 5 series to increase the efficiency of the module up to 21.9%, and a maximum power output on the front side of 560W.

**560<sup>W</sup>**

Max Output Power

**182<sup>mm</sup>**

Solar PV Cell Type

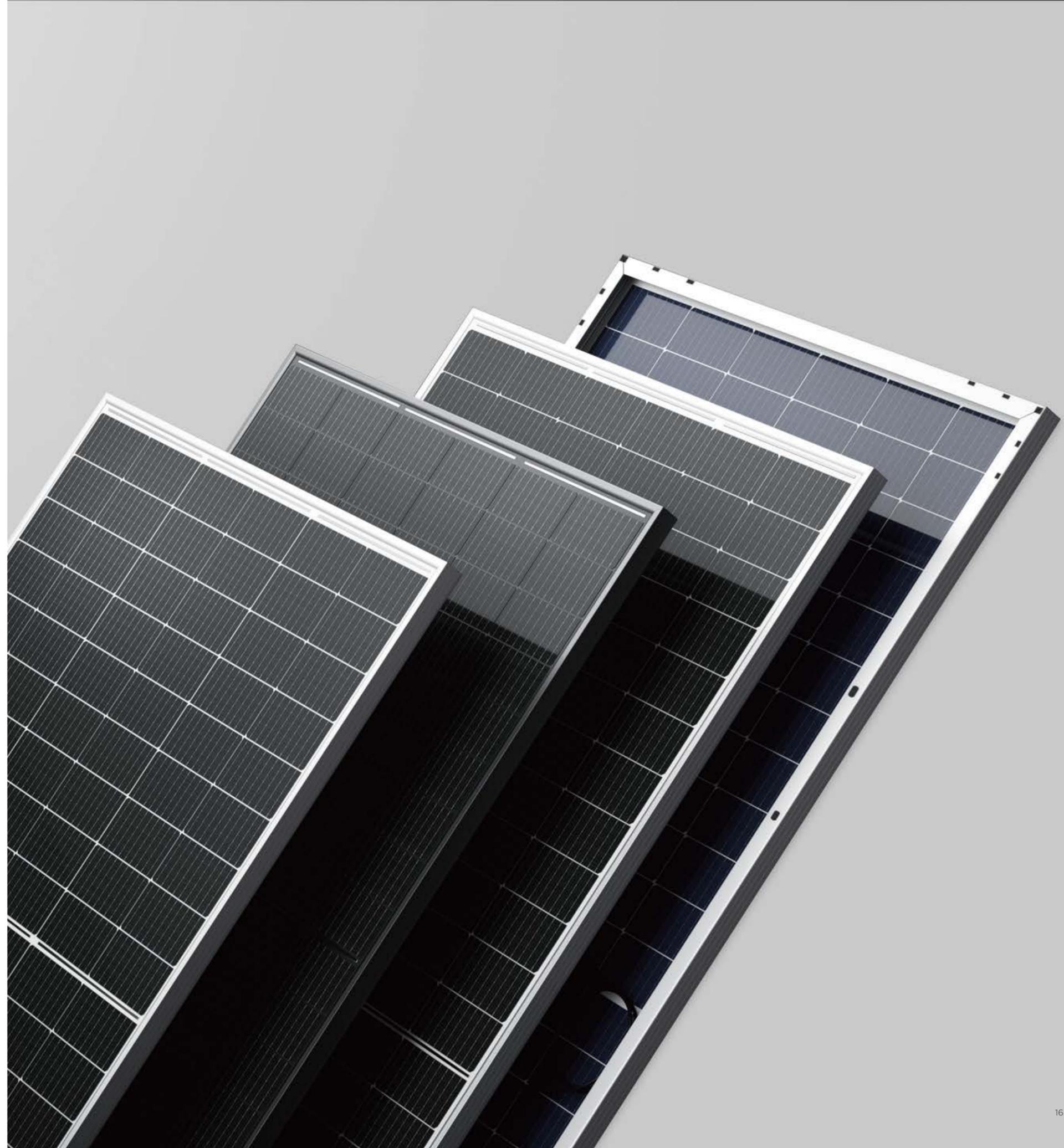
**30<sup>Year</sup>**

Linear Power Warranty

**21.9<sup>%</sup>**

Module Efficiency

| Module              | Maximum Power | Size / Weight           |
|---------------------|---------------|-------------------------|
| SE5-54H             | 400-420W      | 1722×1134×35mm / 20.8kg |
| SE5-72H             | 540-560W      | 2278×1134×35mm / 26.9kg |
| SE5-54H(Black)      | 400-415W      | 1722×1134×35mm / 20.8kg |
| SE5-72HBD(Bifacial) | 535-555W      | 2278×1134×35mm / 32.6kg |



OUR PRODUCTS

## EVO4 Series

SunEvo redefined the high-efficiency module series by integrating 166mm silicon wafers with bifacial, multi-busbar, and half-cut cell technologies. The maximum module efficiency of the Evo 4 series is 22%, and the maximum power output of the front side is 460W.

**475**<sup>W</sup>

Max Output Power

**166**<sup>mm</sup>

Solar PV Cell Type

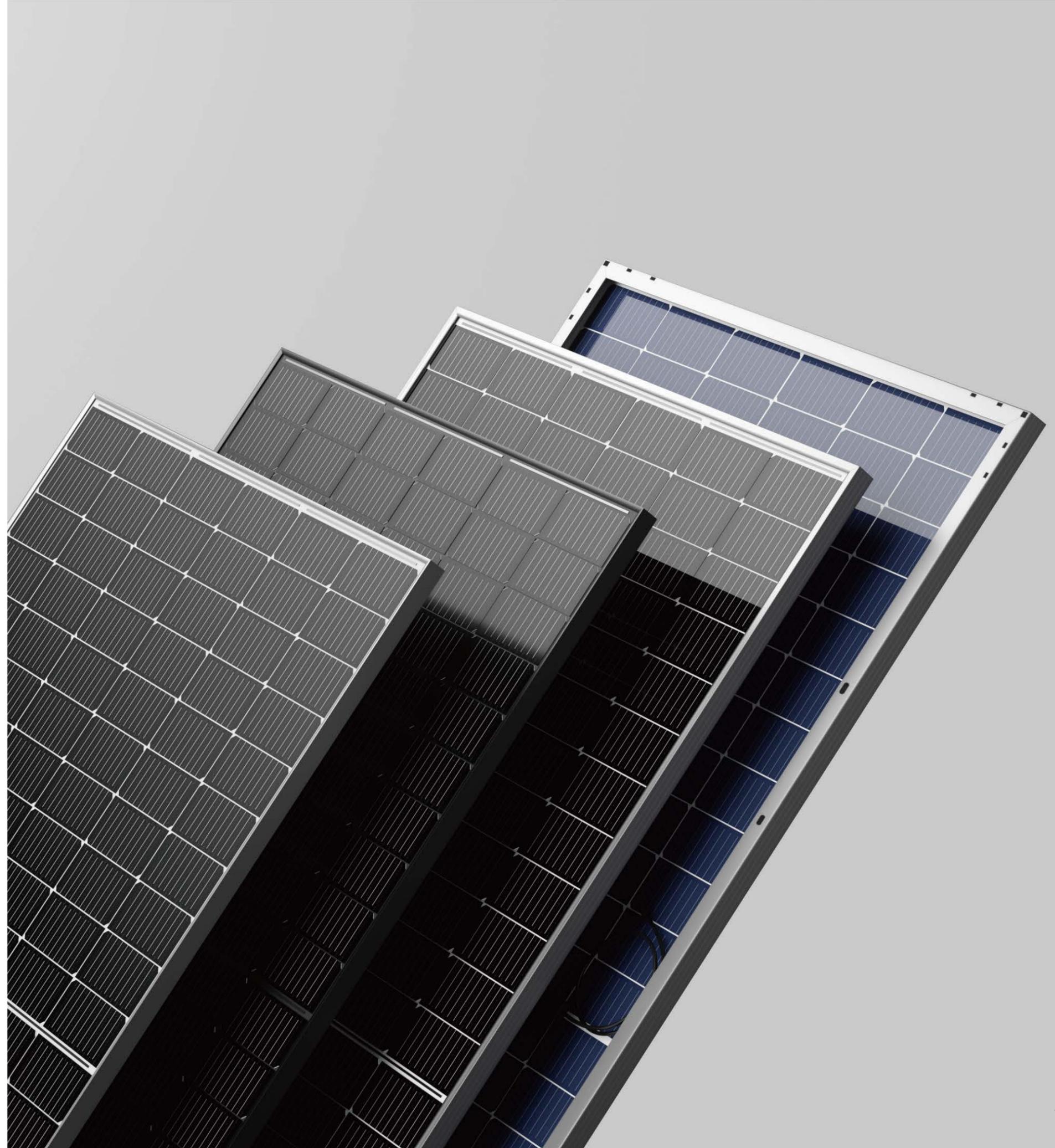
**30**<sup>Year</sup>

Linear Power Warranty

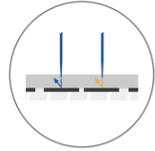
**22.0**<sup>%</sup>

Module Efficiency

| Module              | Maximum Power | Size / Weight           |
|---------------------|---------------|-------------------------|
| SE4-60H             | 370-400W      | 1755×1038×35mm / 20.0kg |
| SE4-72H             | 445-475W      | 2094×1038×35mm / 23.3kg |
| SE4-60H (Black)     | 360-390W      | 1755×1038×35mm / 20.0kg |
| SE4-72HBD(Bifacial) | 445-475W      | 2094×1038×30mm / 26.7kg |

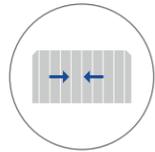


# WE PAY ATTENTION TO DETAIL



## PERC technology

The PERC technology features were the reduction of rear surface recombination by a combination of dielectric surface passivation and reduced metal/semiconductor contact area while simultaneously increasing rear surface reflection by use of a dielectrically displaced rear metal reflector.



## Multi-busbar cell technology

Increased cell bus-bar means more paths for electric charges, so there would be less resistance losses and more emitted electrons can be captured, thus it can increase power output by 2%.



## Split module design

Better performance in shading conditions with split module design



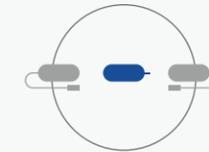
## Half-cut cell technology

Through reducing length of cell spacing, two half-cut cells can provide higher electric current, thus enhance 3% of power output. The output of two 9 bus-bar half-cut cells is even higher than one 12 bus-bar full cell.



## Bifacial cell technology

Generate electricity from backside of solar cell with environmental light reflections, brings additional 5%-30% more power generation.



## 1500V DC

High system voltage of J-box and glasses, reduce PV system cost.



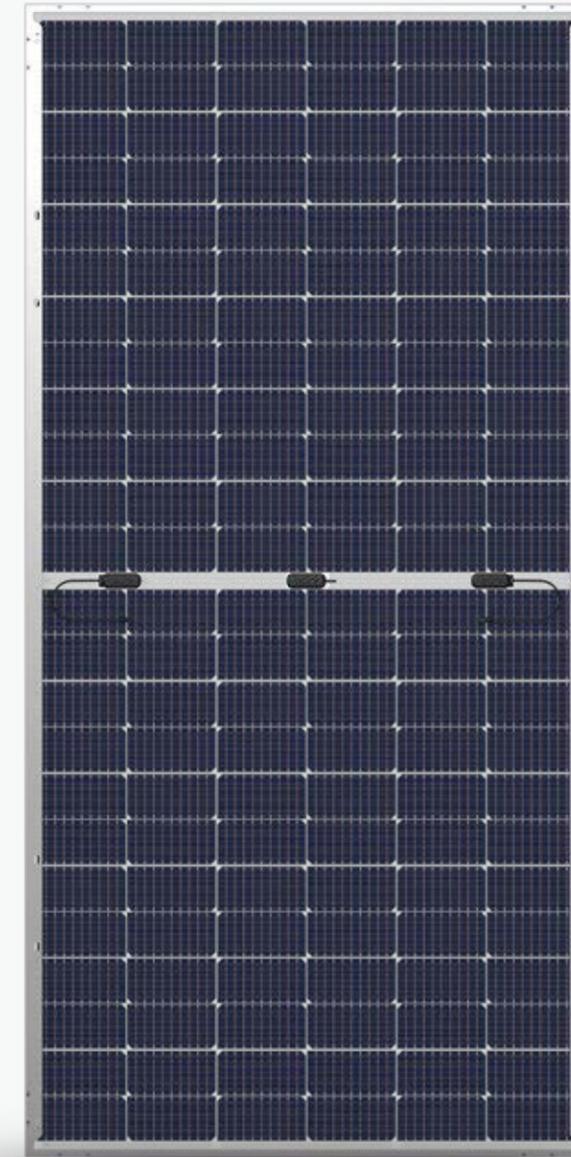
## Ultra high strength frame

Specially designed for bifacial dual-glass series, passed 7200 Pa (front) mechanical load test, reducing shading with no C side design for Split module design short frame. (Note: \*120 Cells series)



## Special frame design with anti-fouling patent

155-degree angle, excellent anti-fouling performance, improve long-term power generation performance



Our Business

# PROJECT ENGINEERING

As a global comprehensive clean energy solutions provider, SunEvo endeavors to enhance investment return for our customers by continuously optimizing LCOE of solar energy. After more than a decade of steadfast development, our business has covered project lifecycle operation and support, as well as a diverse energy distribution, such as solar energy, wind energy, biomass energy and geothermal energy.

Following the national 'One Belt, One Road' strategy, SunEvo, with 10 years of experience in energy engineering and international trade, comprehensively gives impetus for connecting traditional and new energy, centralized and distributed energy, energy generation and consumption, through which we are able to form such diverse energy layout and grow into a global and integrated clean energy solution provider step by step.



PROJECT CASE

# RESIDENTIAL

Thousands of houses around the globe are equipped with SunEvo solar PV modules, so they can now enjoy the clean power with a lower electricity bill and moreover, make profits from them.



PROJECT CASE

# COMMERCIAL

Either self-consumption or selling to the grid, commercial projects provide system owners with a new way of investment, in which module plays a key role. And SunEvo was, is, and will always be a reliable partner which you won't regret to choose.



PROJECT CASE

# UTILITY SCALE

With years of professional experience, SunEvo can provide you the perfect module product for your perfect projects so as to maximize your benefits of investments.



