

DAS SOLAR

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01 About DAS Solar



Core Values

Collaboration and Mutual Success

Vision

Become a respected international new energy enterprise

Mission

Light Up Your Life

6127+

Staffs
(As of 30 June 2023)

179+

Patents
(As of 30 Sep. 2023)

15

Ph.D

DASOLAR

2018

- Foundation

2019

- Capital Infusion

2020

- Decentralized Manufacturing

2021

- R&D Team Expansion

2022

- Launch An IPO
- Ranking Among the Global Top 10 Module Shipments

2023

TIER 1 & Top 10

- Annual Shipment 18GW+

Cell / Module Capacity

0.35GW / 0.35GW

1.2GW / 0.9GW

1.2GW / 0.9GW

5GW / 2GW

20GW / 20GW

30GW / 30GW

Efficiency Roadmap

TOPCon1.0 / 22.3%

TOPCon1.0+ / 23.5%

TOPCon2.0 / 24.5%

TOPCon3.0 / 25.8%

TOPCon4.0 / 26.36%

01

Liu Yong

Founder CEO

- MSE master of USTC(University of Science and Technology of China)
- Former SMIC factory director, CTO&COO of top 3 enterprises
20+ years experience in semiconductor and PV industry
- Core member of SEMI
- Chairman of the Asian Federation of the SEMI Photo- voltaic Technology Roadmap Committee

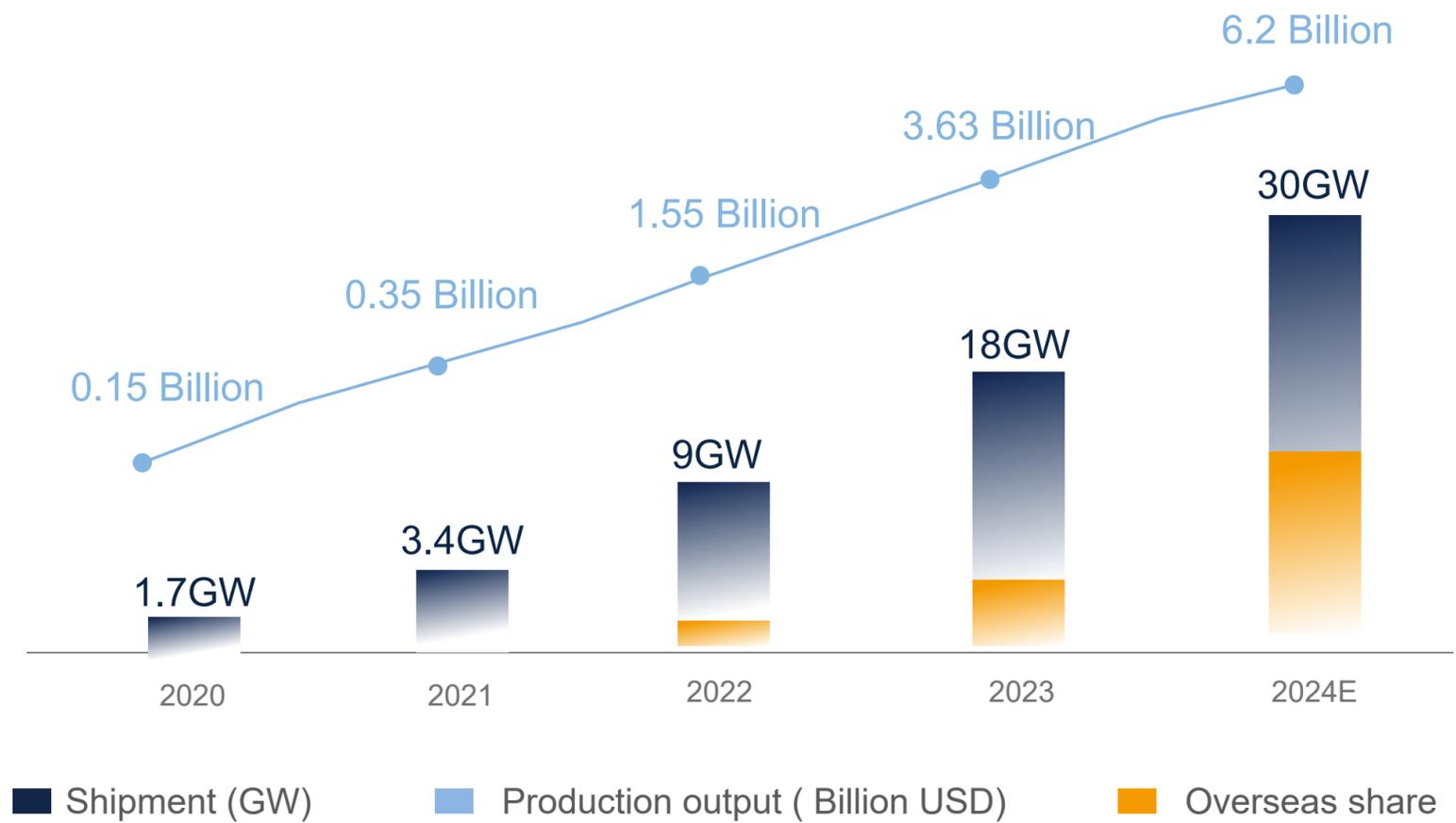
02

Song Dengyuan

CTO

- PhD, professor and doctoral supervisor in Photovoltaic Engineering, University of New South Wales, Australia
- State Department Special Allowance Expert, Chief Expert of National High-tech R&D Program (863 Program)
- **Pioneer and leader of N-type cell technology in China**
- Former Director of State Key Laboratory of Photovoltaic Materials and Technologies, former Director of State Key Laboratory of Energy Photovoltaic Technology
- Member of IEC TC82
- Chairman of SEMI China
- Deputy Director of China ECOPV Alliance

Solid financial performance & Global Shipment



Sales Revenue Growth Rate



2023 PRODUCTION CAPACITY

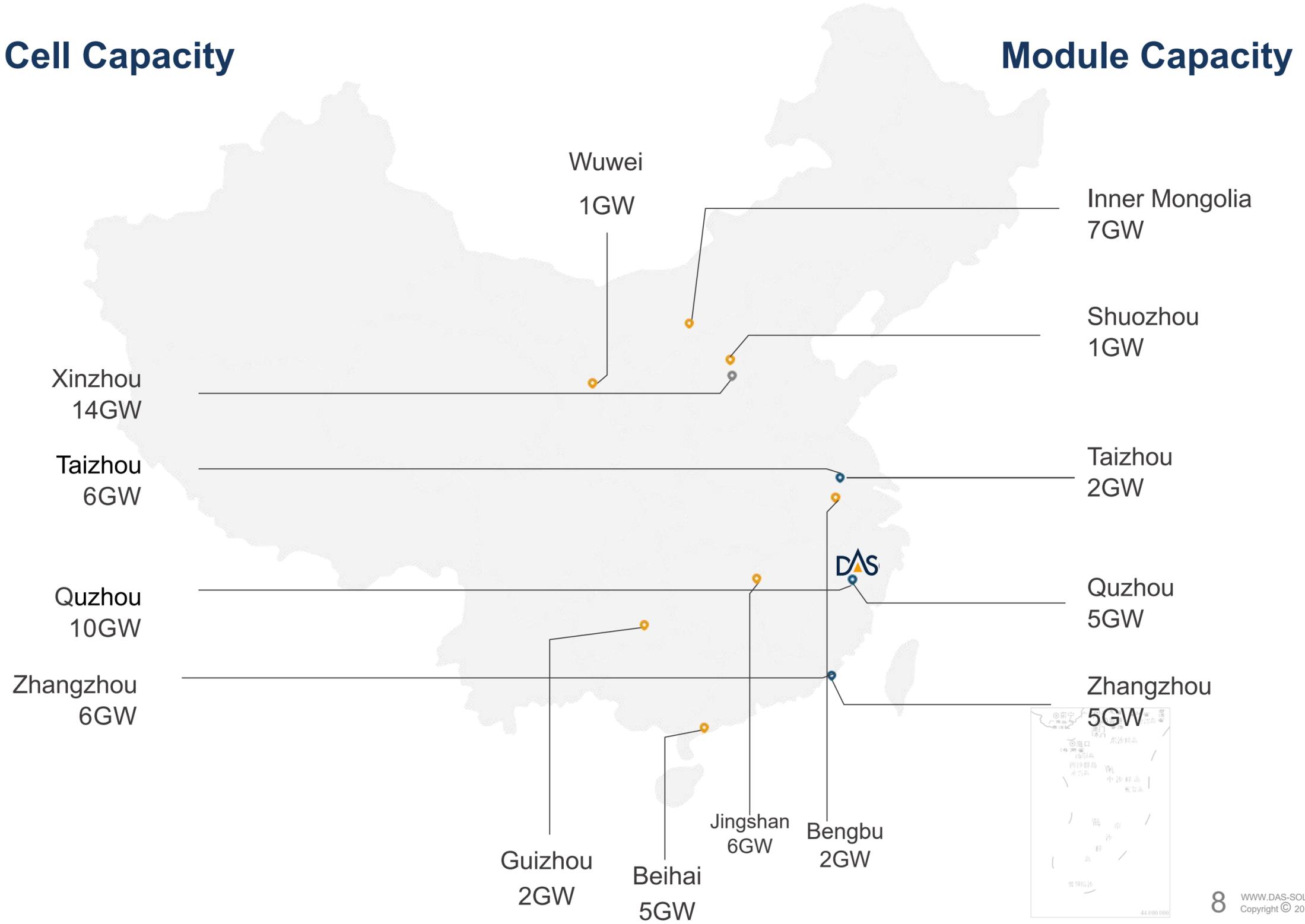
30+ GW Module

30+ GW Cell

- Module Capacity
- Cell+Module Capacity
- Cell Capacity

Cell Capacity

Module Capacity





VENTURE 50

Carbon Neutral in the Investment
Community of 2023

1.37 Billion USD

Credit line of DAS Solar
has accumulated

TOP Favored

PV financing list of 2022
(PV Tech China)

02 A Leader in N-type technology

I 179+ Patents (Until 30 Sep. 2023)

- **Top 100** of patents in the new energy industry in 2022
- **Ranked 86th** in the number of authorized patents
- A leader in the number of **patents for N-type technology**

I Advanced Technology

- **National CNAS** laboratory accreditation
- CTF witness laboratory qualification from **TÜV SÜD & TÜV NORD**

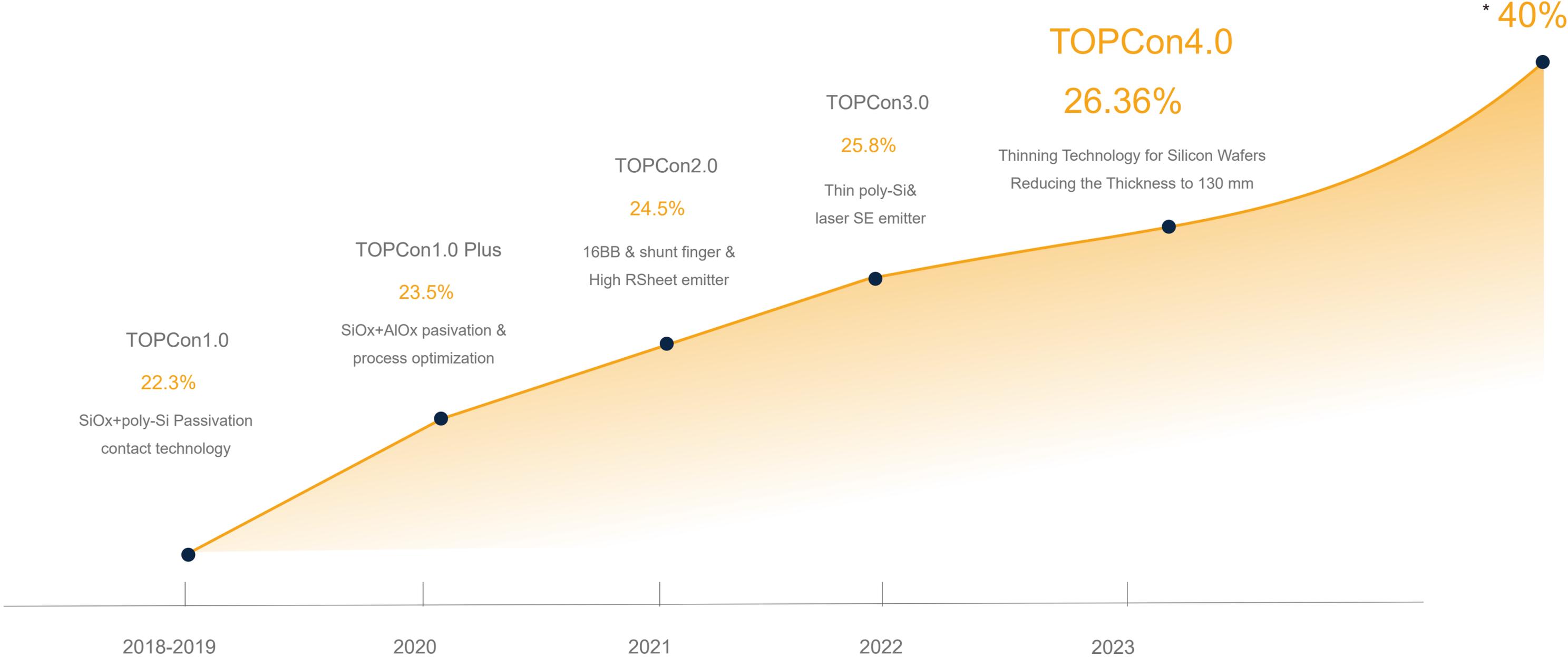


High-tech enterprises



Patent leadership





*Startup with the Team of Dr. Martin Green for the development of ultra-high efficiency of solar cell exceeding 40%

N-Type Bifacial Double Glass Module



Power Output: **420~620W**

Maximum Module Efficiency: **22.8%**



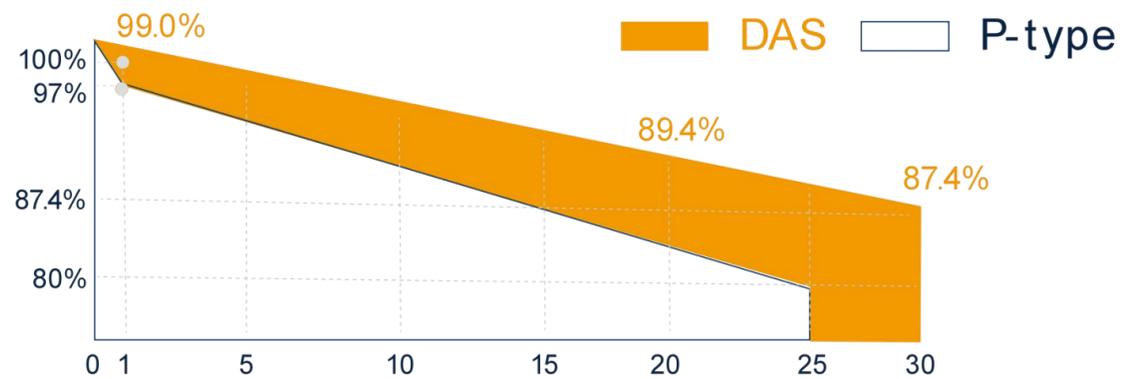
N-Type Bifacial Double Glass Module

▶ Lower Power Degradation

1.73% more annual energy yield than P-type during warranty period

1.00% degradation in the 1st year

0.40% annual degradation from the 2nd year



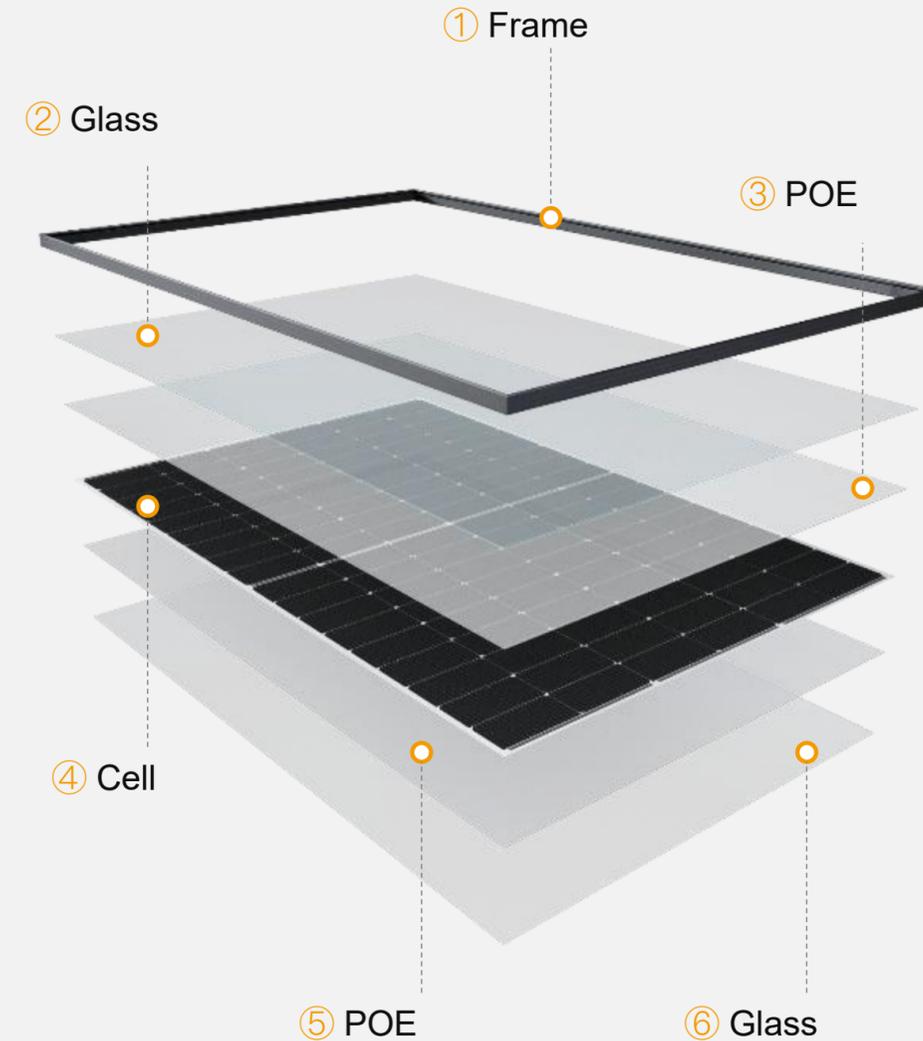
Product Warranty



Linear Power Warranty

▶ Dual POE encapsulation

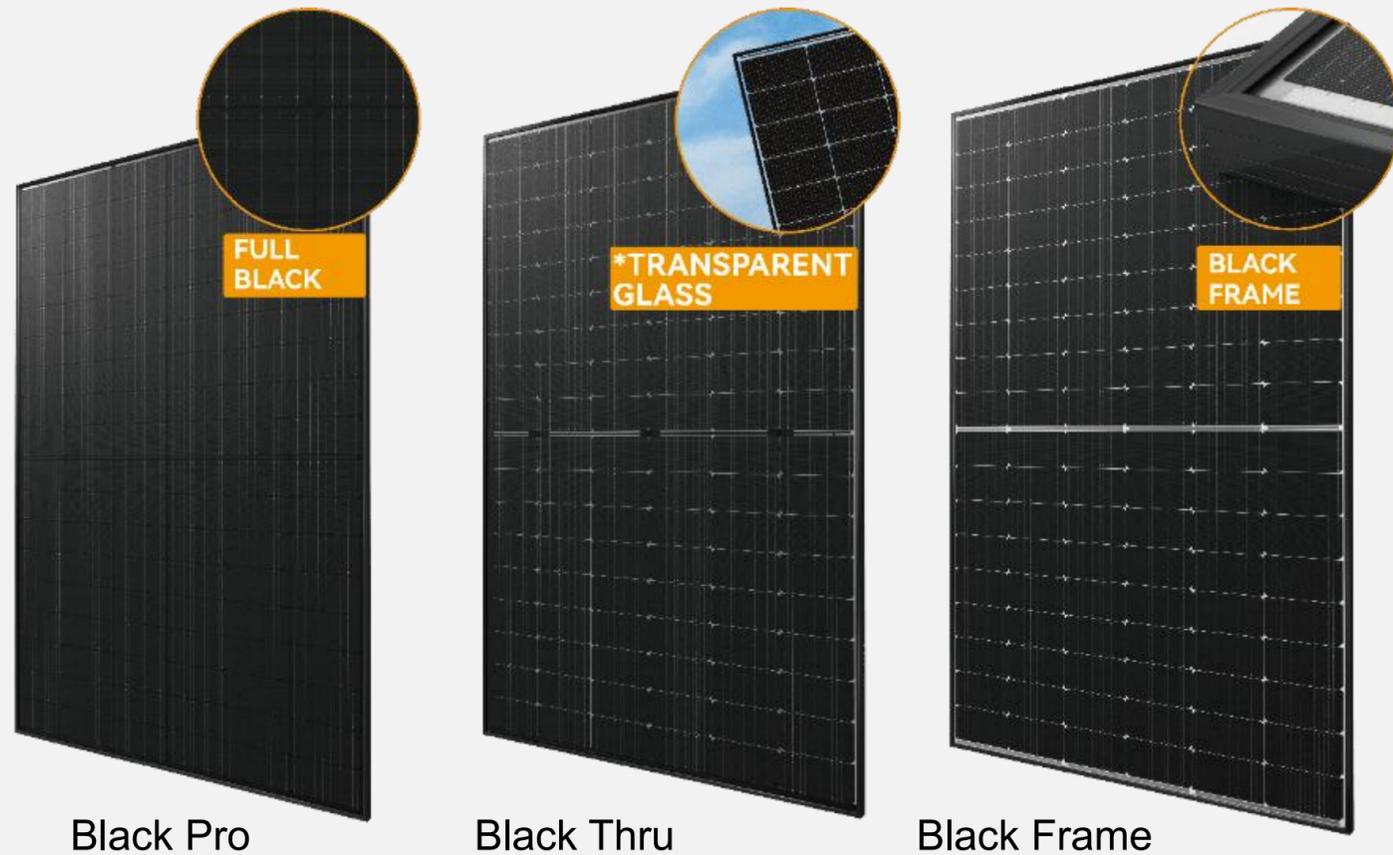
Aging resistance, water resistance, insulation resistance, PID resistance



Max. Power Output: **465W**

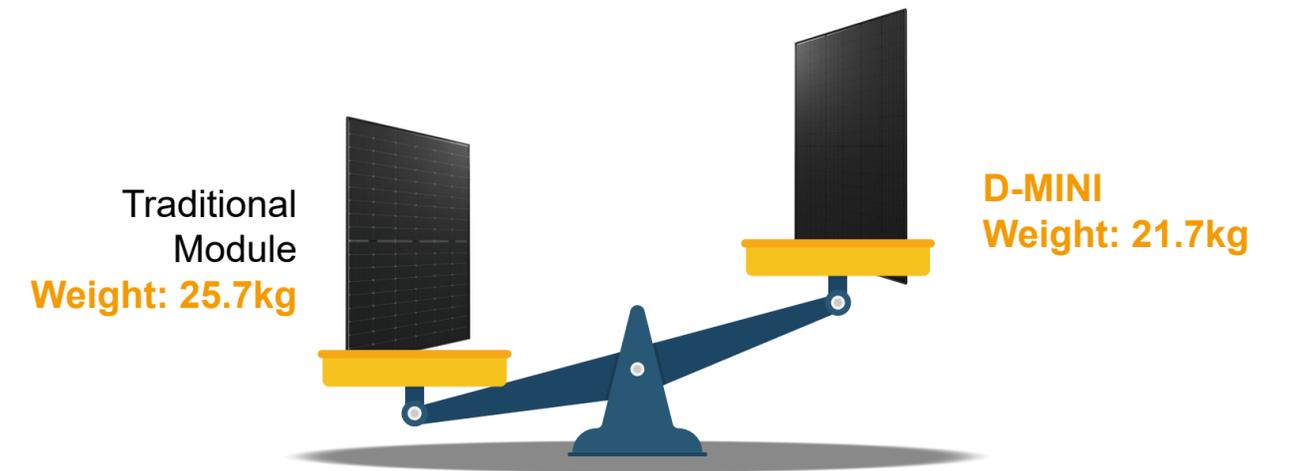
Max. Efficiency: **22.8%**

Size: **1722*1134*30mm / 1800*1134*30mm** ▲



▲ Rectangular Silicon Wafer Module Dimensions

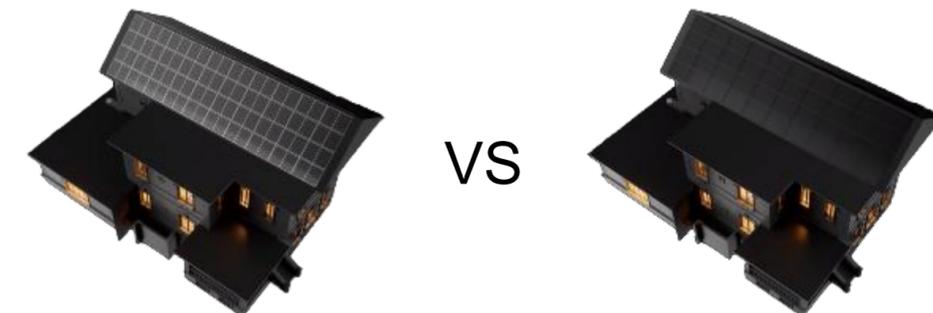
► Ultra Thin Glass



► Black-Pro Elegant Aesthetics

Deep black PV cells by innovative coating technology

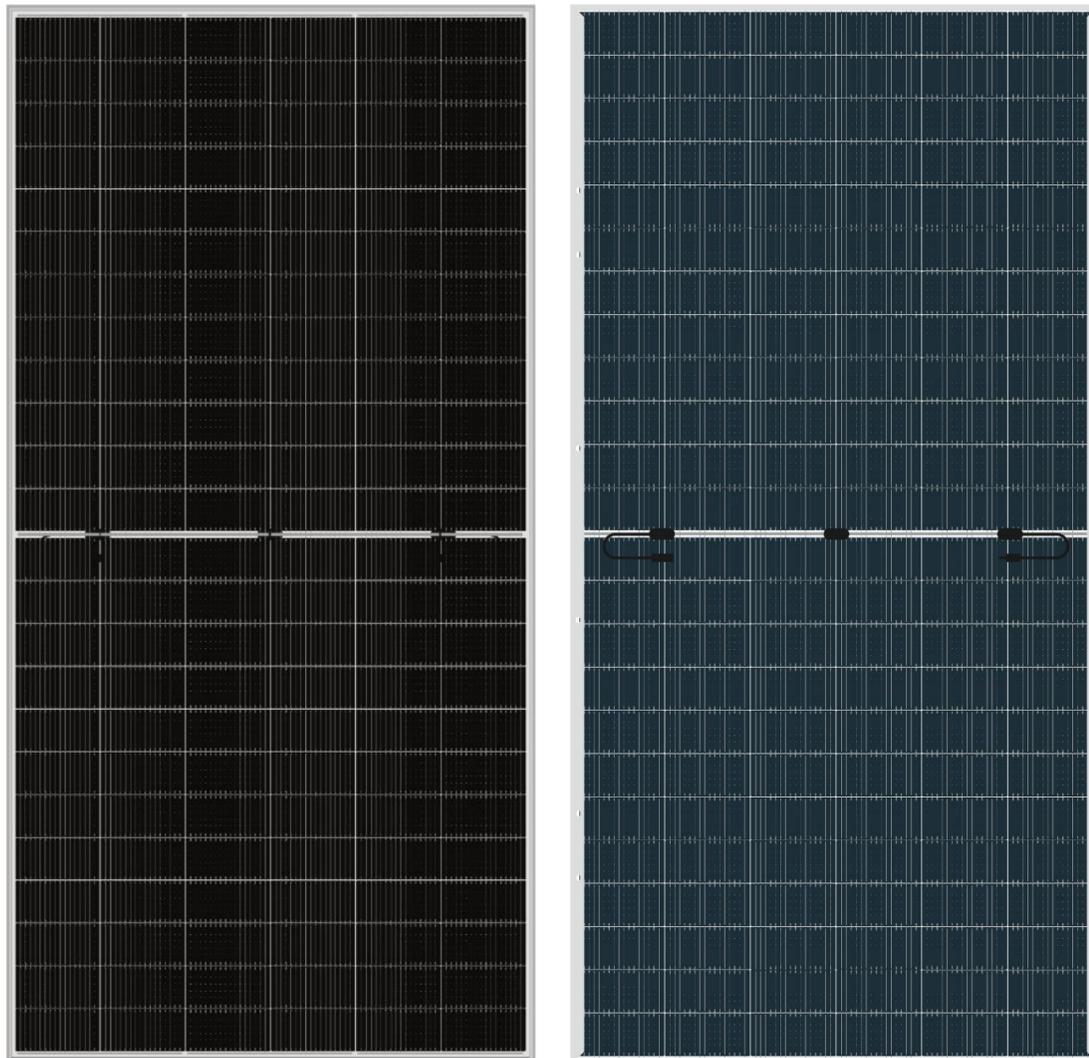
Fine-designed black busbar and frame



Max. Power Output: **620W**

Max. Efficiency: **23%**

Size: **2278*1134*30mm / 2382*1134*30mm** ▲



High power, low cost



Duplex power generation



Excellent low irradiation performance



Excellent appearance and performance



High reliability



Wide range of application scenarios

Application scenarios:

- industrial and commercial photovoltaic projects
- large ground power stations

Item type	Yinchuan, Ningxia		
Module type	182.2*191.6 (72 type)	182.0*210.0 (66 type)	210*210.0 (66 type)
Module power (w)	600	600	690
Module size (mm)	2382*1134	2382*1134	2384*1303
Module efficiency (%)	22.2	22.2	22.2
Bifaciality (%)	80	80	80
Plant life (y)	30	30	30
First-year power decays (%)	1.00	1.00	1.00
Power decays for the remainder of the year (%)	0.40	0.40	0.40
Nominal Max. Power(Pmax)	-0.280%/°C	-0.280%/°C	-0.300%/°C
inverter	Series inverter		
support	The fixed brackets are in two rows		
Power station yield gain (%)	baseline	-0.06%	-0.12%
BOS cost of power station (%)	baseline	+1.39%	0%
Kilowatt-hour cost -LCOE (%)	baseline	+0.72%	+0.09%
Total return on investment-IRR (%)	baseline	-0.09%	-0.02%

Yinchuan 100MW PV farm as an example

- 210*210 modules because of the larger current, leading to greater power loss during power generation, power generation performance is worse than 182*191 modules
- 182.2*191.6 Product represents the lowest LCOE cost

Intelligent Controlling

Integrated intelligent management ensures product quality, and improves operational efficiency and service efficiency.

Informatization

System integration & database:

OA、BI、ERP、CRM、SRM



Automation

Automation equipment, packaging lines & robots: MOM (MES, DAQ)



Digitization

MCS, Cache warehouse, AGV/logistics equipment



03

Certifications





DAS Solar PV modules continuously provide clean, green electricity.

It is estimated that by the end of **2023**

7.18 million tons of standard coal will be saved annually,
and carbon dioxide emissions will be reduced by
37.1 million tons cumulatively.

DAS Solar contributes to the global effort of “**Carbon Neutrality**”.

QS certifications

- ISO9001
- ISO14001
- ISO45001
- IEC62941
- Green Supply Chain
- Energy Management System Certification
- IP Management System Certification



ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018



ISO 50001 : 2018



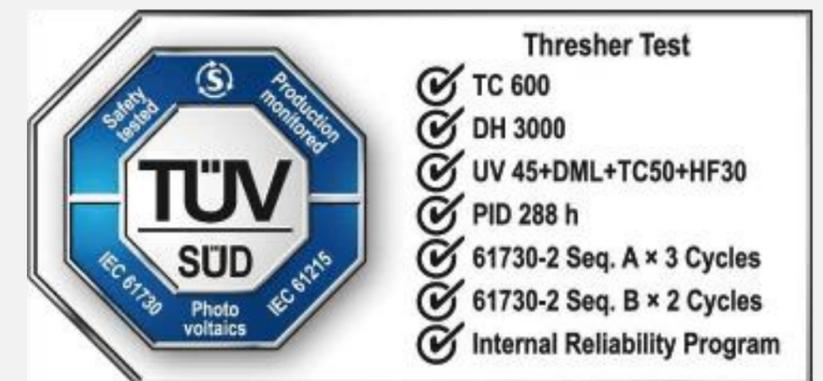
Product certifications

- CE
- CGC
- PCCC
- CQC
- BIS
- Brazil Inmetro
- CEC
- MCS
- UKCA
- DEWA
- JPEA
- Carbon Footprint
- REACH
- Abu Dhabi
- WEEE



Special certifications & test

- IEC61701 Salt mist corrosion testing
- IEC62716 Ammonia corrosion testing
- IEC60068-2-68 Sand and Dust Erosion Resistance Test
- IEC62804 Test methods for the detection of potential-induced degradation
- 3 times PID



04 Global Footprints

Business covers the whole world



Excited to collaborate with you!

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05 **Project References**



Desert Projects



DAS Solar's bifacial double glass design provides heightened strength and hardness, enabling long-term resistance against the persistent erosion of wind and sand.



400MW

Awati · Xinjiang · China

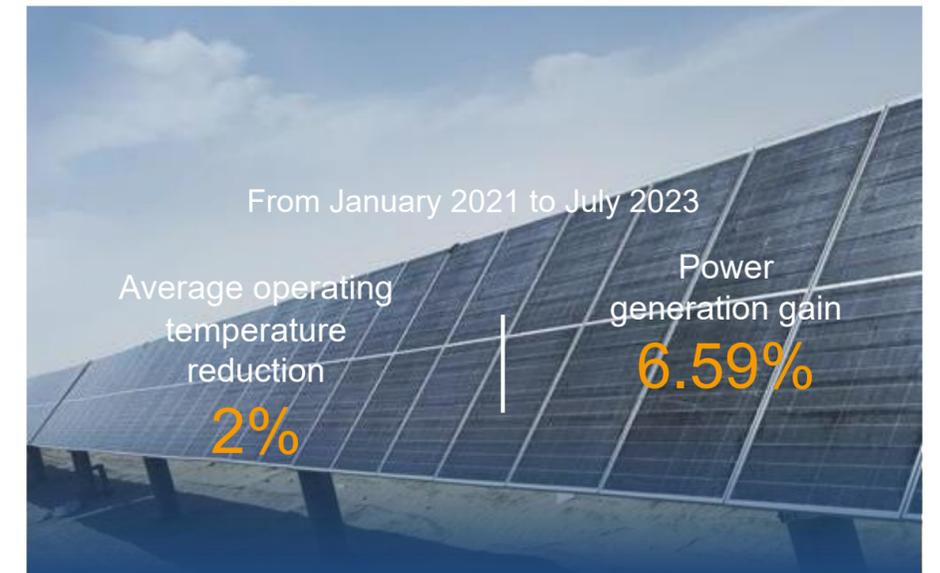
COD Date: 2023.04 DAS-DH144NA-560



150MW

Yulin · Shaanxi · China

COD Date: 2023.05 DAS-DH144NA-560



2.2MW

Utu Meiren · Qinghai · China

COD Date: 2020.12 DAS-DH144NA-410

“Photovoltaic + ecological restoration” projects drive rural revitalization, ecological governance, green transportation



Agri-voltaics PV Plant



Transportation Photovoltaic Plant



Medicinal Herb Agri-voltaics + Flexible Brackets PV Plant

100MW

Hainan · China

COD Date: 2022.10 DAS-DH144PA-540

3.2MW

Jinan · Shandong · China

COD Date: 2022.08

DAS-DH144NA-550/DAS-LOCP-320W

12.13MW

Yimen · Yunnan · China

Flexible PV Bracket

Exceptional temperature coefficient of only $-0.30\%/^{\circ}\text{C}$ and double glass design provides unmatched strength and hardness



Rugged and Arid Mountainous PV Plant

100MW

Binchuan · Yunnan · China

COD Date: 2022.12 DAS-WH144PA-545



High Altitude Extreme Climate Mountain PV Plant

136.7MW

Yunnan · China

COD Date: 2022.12 DAS-WH144PA-540

Floating Projects

With DAS Solar's high-performance module reduces water temperature and water evaporation.



World's largest single-scale floating PV power plant

650MW

Fuyang · Anhui · China

COD Date: 2022.12 DAS-DH144PA-540



Fishery Agri-voltaics PV Plant

100MW

Wan'an · Jiangxi · China

COD Date: 2021.06 DAS-WH144PA-535



Mudflat Agri-voltaics PV Plant

126MW

Lvsigang · Jiangsu · China

COD Date: 2022.03 DAS-DH144NA-560

Empowering Residential Market Toward a New Definition of Residential Rooftop PV Module



1.2MW
Germany · Europe
DAS-WH108NA-410



10MW
Xinyu · Jiangxi · China
COD Date: 2023.05 DAS-DH144NA-560



1MW
Madrid · Spain · Europe
COD Date: 2023.05 DH108NA-420



1MW
Szczecin · Poland · Europe



1.7MW
Tegucigalpa · Honduras
COD Date: 2019.09 DAS-WH144PA-545



6.6KW
Victoria · Australia
COD Date: 2020 DAS-WH120-330

06 Why DAS Solar



Tier1

BloombergNEF
Tier 1

Top10

Global **Shipment**

Top3

N-Type
module shipment



Global **Localization**
Services



Core team **15+**
years of experience



Green Supply Chain



Long-term
investment value

THANK YOU