

# 2023 Qn-SOLAR Company Profile



**Qn-SOLAR PV LIMITED**

E-mail: [info@qn-solarpv.com](mailto:info@qn-solarpv.com)  
Web: [www.qn-solarpv.com](http://www.qn-solarpv.com)

The right of interpretation ultimately belongs to Qn-SOLAR.  
No reproduction, modification, and copy without permission.

VERSION Q2 2023

A large solar tower (heliostats) in a desert landscape under a clear blue sky. The tower is a tall, white, cylindrical structure with a dark base. It is surrounded by a vast field of solar panels that reflect the sunlight, creating a shimmering effect. The landscape is flat and arid, with a few small buildings and structures visible in the distance.

## ABOUT QN-SOLAR

Since our inception, Qn-SOLAR has quickly risen to the top of the PV manufacturing industry. Our senior team has more than 15 years of comprehensive expertise in PV technology and PV solutions. From 2014 to now, the installed capacity of our projects has reached 15GW. Our own asset of PV power stations have exceeded 1.5GW. Qn-SOLAR officially launched global PV business in 2022.

Our headquarters is in Shanghai of China, and we have six manufacturing bases in China. As a professional and integrated company, Qn-SOLAR has laid out various fields of PV upstream and downstream, including a combined annual production capacity of 40GW PV cells, 20GW PV modules in 2023.

Nowadays, under the trend of global carbon reduction, Qn-SOLAR can generate about 23 billion kWh of electricity from our asset power stations per year, and reduce about 22 million tons of carbon emissions every year in the current projects. We believe that we will witness a clean world with all mankind shortly.





## MILESTONES

### 2014-2017

Our completed EPC projects are more than **500MW**.

Key business: EPC

Key customer:

**China Tier 1 utility-scale company.**

### 2018-2019

Our own projects have reached 600MW.

Gradually rated as 3A, 4A, 5A company by China institution.

Co-work with strategic partner of investors, such as Top 5 Chinese Tier 1 utility-scale projects owner.

### 2020

Our first wind power project is completed in Si County, Suzhou City, Anhui Province, China.

Whole business covers all China, set up many branches in Shanghai, Beijing, Wuhan, etc.

Our own asset of PV and wind power projects are more than **800MW**.

### 2021

Pre IPO by financing.

Integrated "PV+energy storage+EV charging" in smart energy service market.

Our own asset of PV and wind power projects exceeded **1GW**.

### 2022

Launched production of N-type TOPCon PV cell and PV module.

Our own asset of power station exceeded **1.5GW**.

PV and wind power projects had installed **15GW**, and turnover of 600 million US dollars.

Officially launch global PV business.

### 2023

Production Capacity: **40GW** PV cells, **20GW** PV modules.

Global business ongoing.

**10+**  
Shipping  
Countries

**20GW+**  
PV Modules Capacity

**40GW+**  
PV Cells Capacity

**10+**  
Global Branches

**1.5GW**  
Self-owned  
Power Station

**Reliable quality** is our core value for customers due to our constant cooperation with **Utilities in downstream, Tier 1 supplier in upstream**

**BloombergNEF Tier 1 + Bankability** is in process

More than 15 years of business experience in utility-scale make us focus more on **the world-class quality**

**15GW+**  
Cumulative  
Installed

**10000+**  
Global Employees

**23BIL.**  
Electricity generation

**22MIL.**  
Carbon reduced

**1000+**  
Global Customers





## GLOBAL DEPLOYMENT

Globalization is Qn-SOLAR's strategy. We have set up branches in many countries including the USA, Japan, Germany, Brazil, Malaysia, Spain, Italy, Greece and Poland, etc. We have also built six manufacturing bases in China.

### Headquarters

- Shanghai, China

### Manufacturing Bases

- Jiangsu, China
- Anhui, China
- Hubei, China
- Guangxi, China
- Sichuan, China
- Inner Mongolia, China

### Global Presence/Branches

- Hong Kong, China
- Tokyo, Japan
- Malaysia
- Poland
- Munich, Germany
- Italy
- Spain
- Greece
- Los Angeles, USA
- Sao Paulo, Brazil





Xuzhou Base

Dangyang Base

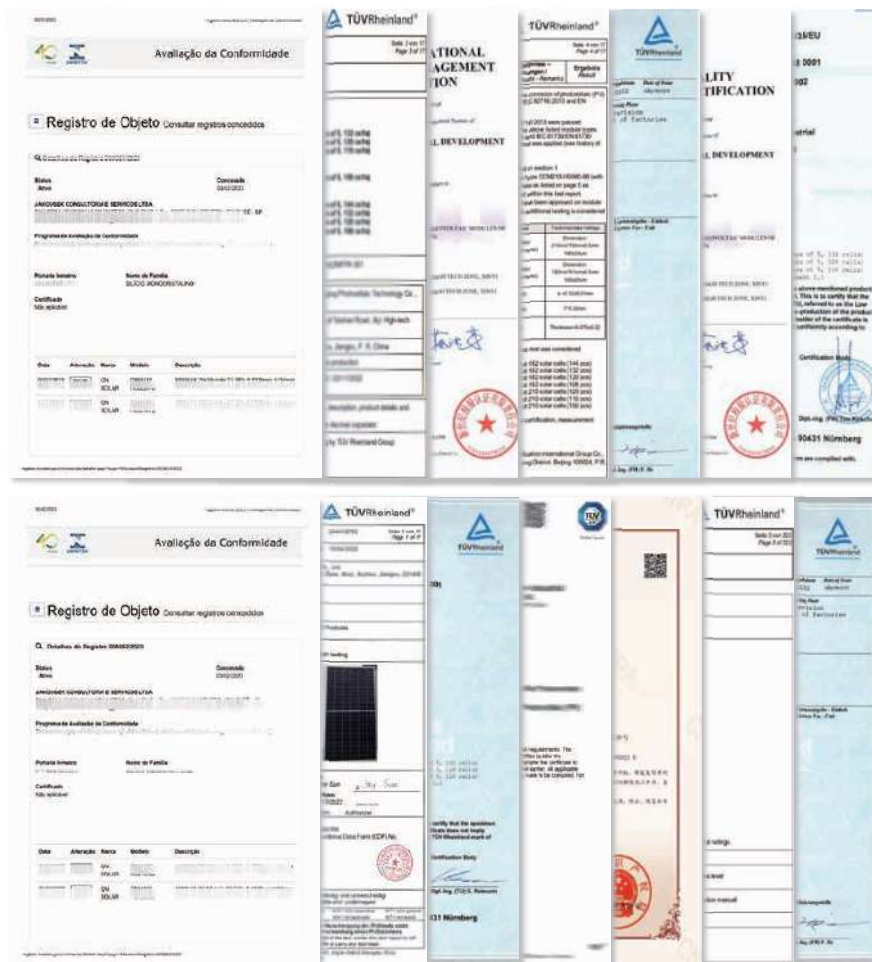
Baise Base

Hualbei Base

Inner Mongolia Base

Xichong Base

# CERTIFICATE



Comprehensive Certificates

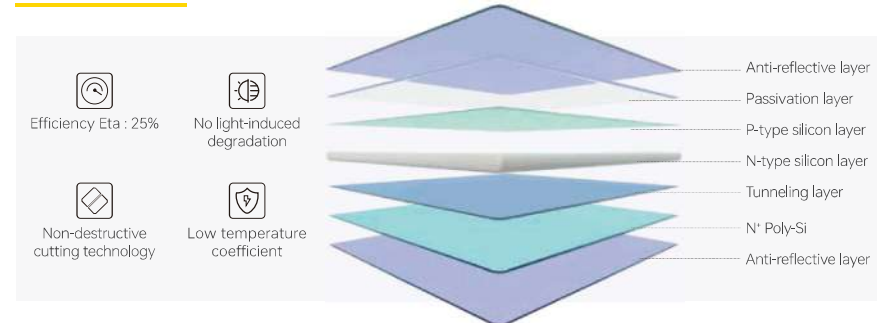
Performance Insurance





# N-TOPCON

## TOPCon PV Cell Structure



## N-TOPCon 182mm 16BB Bifacial PV Cell

CC003 CC-ZC-PS-03



## N-TOPCon 182mm 10BB Bifacial PV Cell

CC004 CC-ZC-PS-04

	MAX Efficiency	Eta 24.8%
	Dimension	182mmx182mm $\pm$ 0.25mm, $\Phi$ 247mm $\pm$ 0.25mm
	Thickness	130 $\pm$ 20 $\mu$ m
	Front( - )	10*0.03 $\pm$ 0.015mm busbars(silver),150 fingers, blue anti-reflecting coating(silicon nitride)
	Back(+)	10*0.03 $\pm$ 0.015mm busbars(silver), 150 fingers, blue anti-reflecting coating (silicon nitride)



## N-TOPCon 182mm Bifacial Half-Cell PV Module

QNN182-HG-72

**PIONEER-1**

**565 - 585W**  
 Output Power

**22.6%**  
 Max Module Efficiency

No light-induced degradation

0-5w positive power tolerance

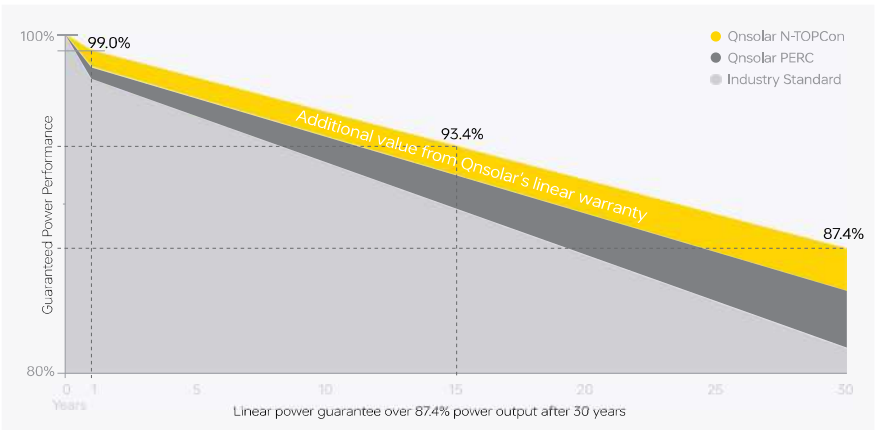
2400Pa wind load  
5400Pa snow load

Low temperature coefficient

Excellent weak light performance

Excellent Anti-PID

## Linear Performance Warranty



## N-TOPCon 182mm Monofacial Half-Cell PV Module

QNN182-HS-72

**PIONEER-1mono**

**560 - 585W**  
 Output Power

**22.6%**  
 Max Module Efficiency

## N-TOPCon 210mm Bifacial Half-Cell PV Module

QNN210-HG-66

**PIONEER-2**

**685 - 705W**  
 Output Power

**22.7%**  
 Max Module Efficiency

Comprehensive Certificates



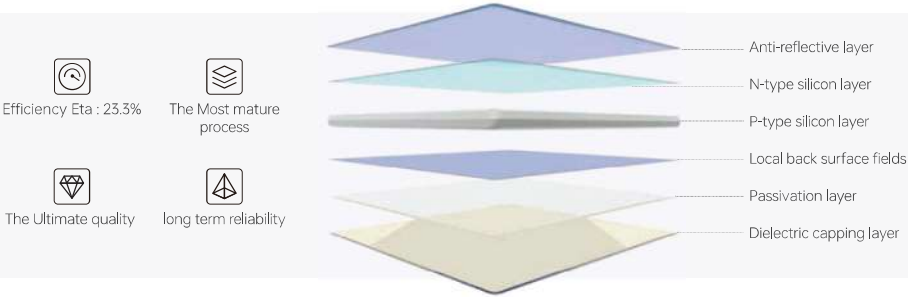
Performance Insurance







PERC PV Cell Structure



PERC 182mm 10BB Bifacial PV Cell

CC001 CC-ZC-PS-01

	MAX Efficiency	Eta 23.30%
	Dimension	182mm*182mm±0.5mm
	Thickness	150±20μm
	Front( - )	10*0.06mm busbars(silver),160fingers, blue anti-reflecting coating(silicon nitride)
	Back(+)	1.9mm wide soldering pads(silver), 164fingers, blue anti-reflecting coating(silicon nitride)

PERC 210mm 12BB Bifacial PV Cell

CC002 CC-ZC-PS-02

	MAX Efficiency	Eta 23.30%
	Dimension	210mm*210mm±0.5mm
	Thickness	150±20μm
	Front( - )	12*0.1mm busbars(silver), 174fingers, blue anti-reflecting coating(silicon nitride)
	Back(+)	1.60±0.3mm wide soldering pads(silver), 198fingers , blue anti-reflecting coating (silicon nitride)

## PERC Half-Cell PV Module



182mm-54	182mm-60	182mm-72	210mm-50	210mm-55	210mm-60	210mm-66
395~415W	440~460W	530~555W	490~510W	535~560W	590~610W	650~670W

## PERC PV Module Features

The superior MBB technology and leading process ensures high efficiency.



Effectively reduces the loss of up to 2% caused by mismatch and maximizes the output power of the system.



0-5w positive power tolerance peak power output ensures the reliability of the module.



Module shows excellent weak light performance in the morning, evening and cloudy days.



Improved cell technology and selected materials make the module has good PID resistance.

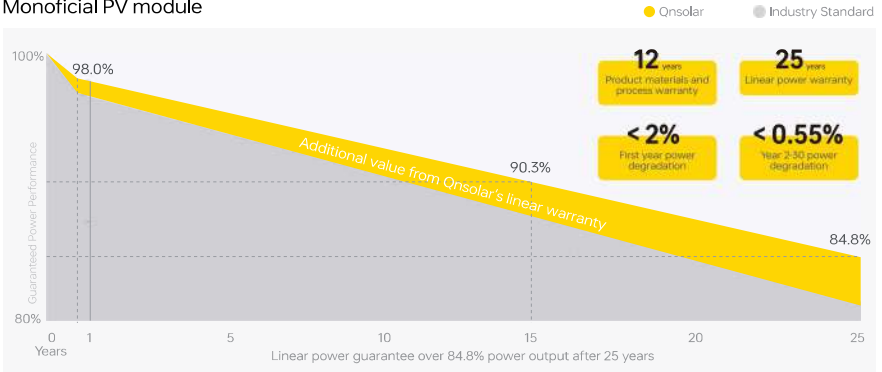


The module can withstand wind load of up to 2400Pa and snow load of 5400Pa.

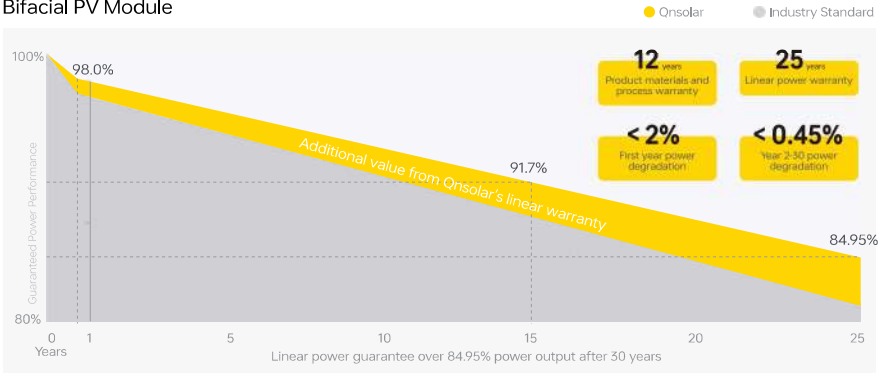


## Linear Performance Warranty

Monofacial PV module



Bifacial PV Module



## Packaging Configuration of 40'HC

Module	182-54	182-60		182-72		210-55		210-60		210-66	
Frame	30mm	30mm	35mm	30mm	35mm	30mm	35mm	30mm	35mm	30mm	35mm
Pcs	936	744	864	720	620	700	620	648	558	648	558
Pcs/Pallet	36	31	36	36	31	35	31	36	31	36	31
Pallet/Container	26	24	24	20	20	20	20	18	18	18	18



**15GW**  
Installed capacity

**20+**  
Cooperation

**10+**  
Area

**1.5GW**  
Power plants



**50MW** | Yingcheng City, Hubei Province  
Photovoltaic + Agriculture  
**PROJECTS**



**80MW** | Yingcheng City, Hubei Province  
Photovoltaic + Agriculture  
**PROJECTS**



**100MW** | Shayang County, Hubei Province  
PV + Poverty Alleviation  
**PROJECTS**



**80MW** | Dangyang City, Hubei Province  
PV + Poverty Agriculture  
**PROJECTS**



**20MW** | Baiyang County, Hubei Province  
Photovoltaic + Agriculture  
**PROJECTS**



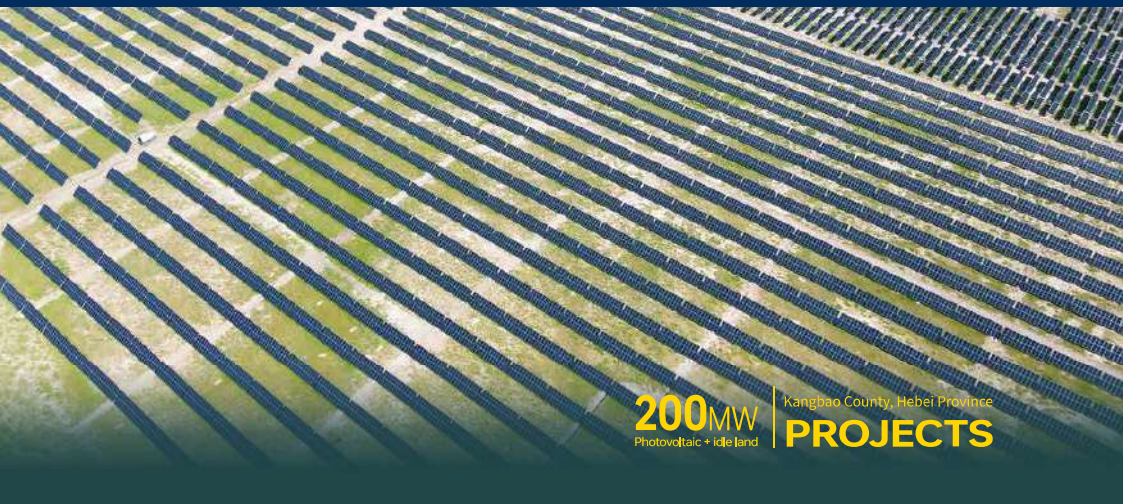
**40MW** | Macheng City, Hubei Province  
Photovoltaic + Idle land  
**PROJECTS**





**50MW**  
Photovoltaic + Agriculture  
**PROJECTS**

Yiyang County, Hunan Province



**200MW**  
Photovoltaic + Idle land  
**PROJECTS**

Kangbao County, Hebei Province



**30MW**  
Photovoltaic + Idle land  
**PROJECTS**

Dangyang County, Hubei Province



**80MW**  
Photovoltaic + Agriculture  
**PROJECTS**

Xiangyin County, Hunan Province



**40MW**  
Photovoltaic + Agriculture  
**PROJECTS**

Huarong county, Hunan Province



**100MW**  
PV + Poverty Alleviation  
**PROJECTS**

Kangbao County, Hebei Province



Xiaoju Charging Optical Storage Charging Demonstration Project

## THE FIRST CASE OF RENEWABLE ENERGY COMMERCIAL COMPOUND IN CHINA

# 1MW

📍 Xi'an City, Shanxi Province, China  
Commercial Compound Project  
On-grid in 2021





# OUR SERVICE

## PRE-SALE GUIDANCE

choose the best solution for clients, including PV modules type and power, PV system type and transport.



## PARTNERS

(Ranking in no particular order)



## DESIGN

Providing PV system design, in order to maximize the generated energy.



## O&M

Operation and maintenance with global service partners.



## CONSTRUCTION

Coordinate the project construction with the local EPC.



## DEVELOPMENT

Developing PV projects around the world, including location found, purchasing project rights, establishing SPV

