

## Power Beyond Solar

The World Leading PV and Smart Energy IoT Total Solution Provider



Vertex Product information



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For more information regarding Vertex S+ module,  
Please follow our social media accounts or scan the QR codes to visit us at our website.

# Vertex S+

450W+

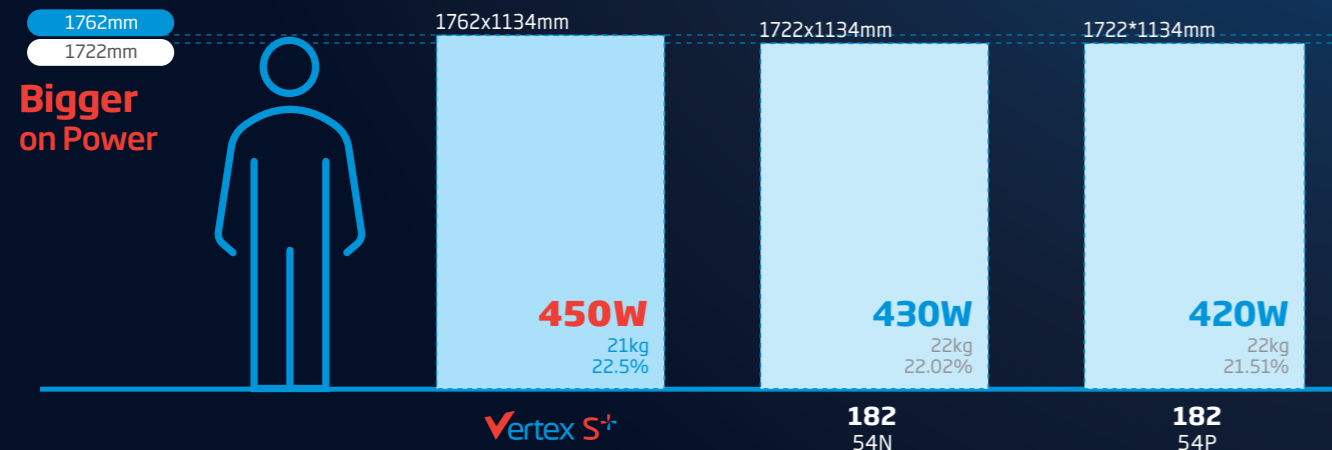
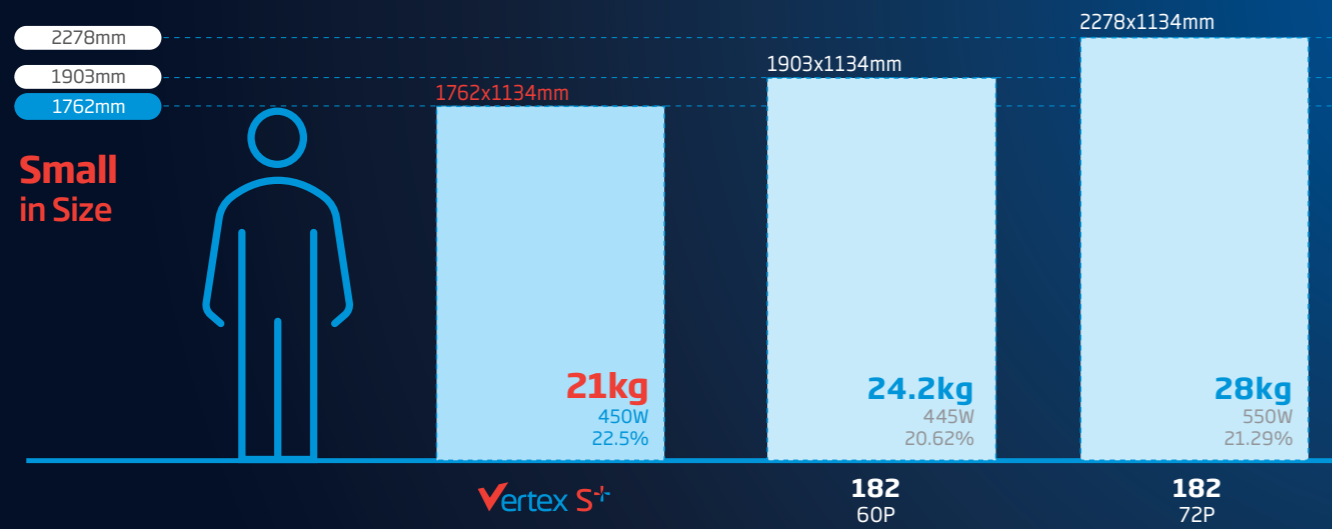


Small in Size **Bigger on Power**

# Small in Size, Bigger on Power

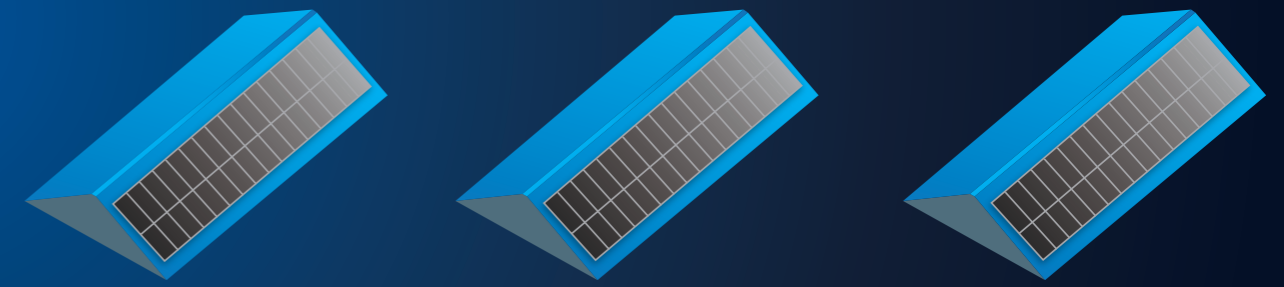
Excellent Balance between Power, Size and Weight

1.76m module size, up to **40W<sup>+</sup>** power higher



	210R 48 N	182 54 N	182 54 P
Power(W)	450	430	420
Efficiency(%)	22.5	22.02	21.51
Structure	Dual-glass	Backsheet	Backsheet
Dimension(mm)	1762*1134*30	1722*1134*30	1722*1134*30
Weight(kg)	21	22	22
Mechanical load(Pa)	5400/4000	5400/2400	5400/2400
Fireproof Class	Class A+C	Class C+C	Class C+C
TransportationCapacity(Kw/40HC Container)	421	402	393
Warranty(Year)	up to 25+30	15+30	12+30

# More Installation, Less Cost, and High Revenue



**182-54P 420W**  
2rows16columns  
13.44kW installed capacity

**182-54N 430W**  
2rows16columns  
13.76kW installed capacity

**Vertex S<sup>+</sup> 450W**  
2rows16columns  
**14.4kW** installed capacity

For 25-year power generation on a south-faced sloping rooftop with size of 16.7m x 5.5m



The power generation in the 25 years could be **15.1%** more and the extra **57,826kwh** electricity gain can drive the EV for **404,377km**

power generation **↑ 15.1%**

=

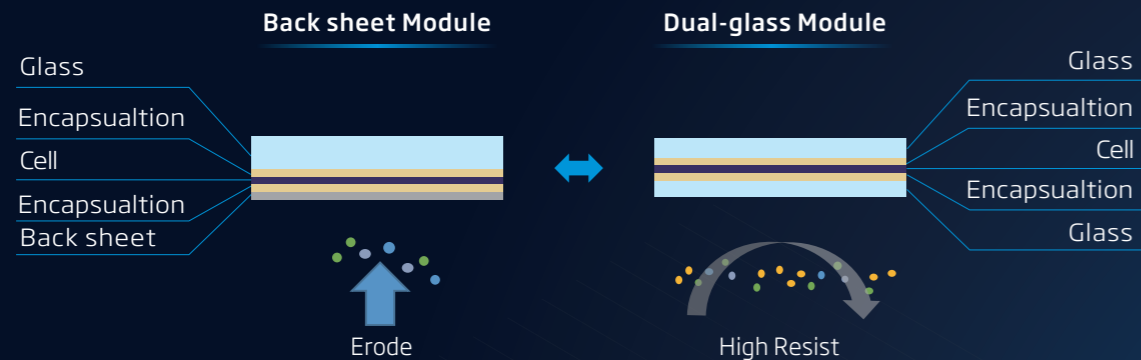
drive the EV **+ 404,377km**



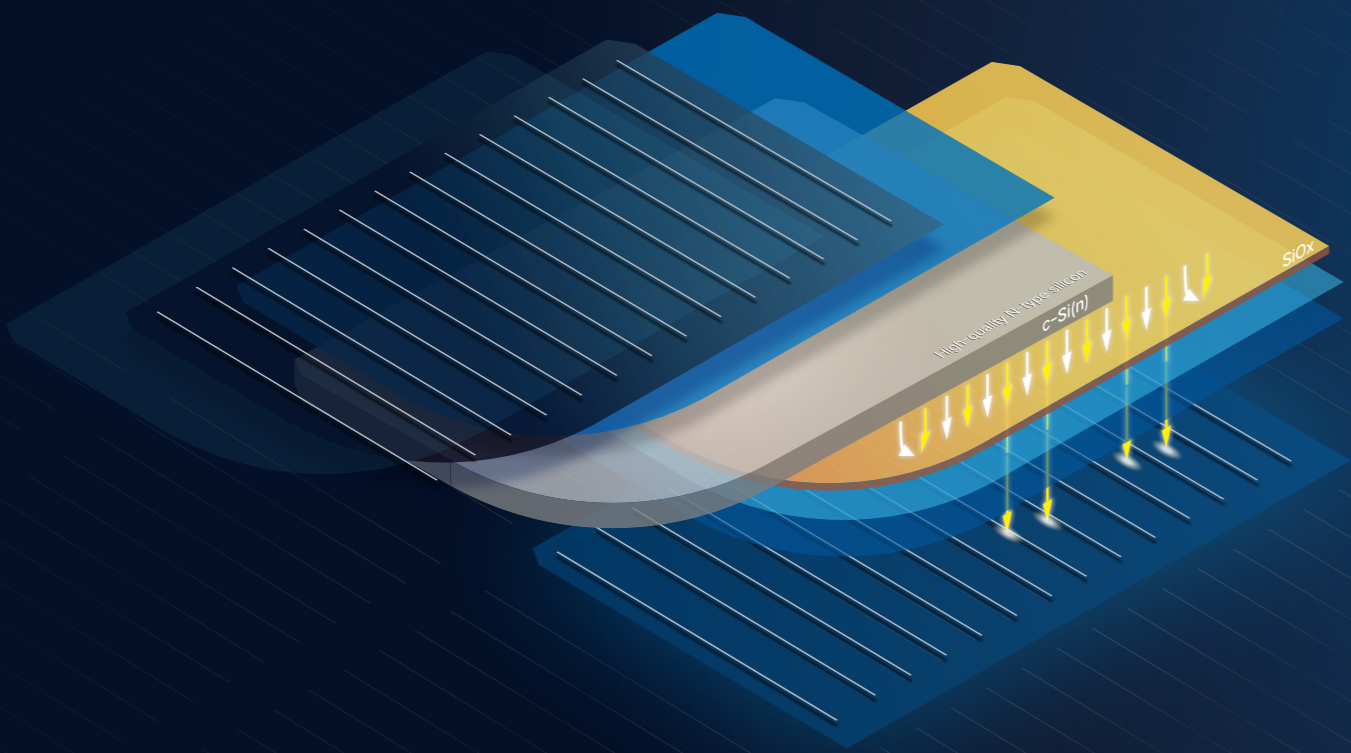
# Advanced technology, High reliability

## High reliability

1.6+1.6mm **dual glass** design



## n type i-TOPCon technology with 210mm innovative platform



## Low temperature coefficient: -0.30%/°C



With N-Type silicon wafer as substrate, the minority carrier life is longer than P-type silicon wafer

# Outstanding Mechanical Load



Positive mechanical load up to **5400Pa** with snow thickness of **50cm\***



Pass 35mm Hail Test according to IEC61215-2 : 2016 ;



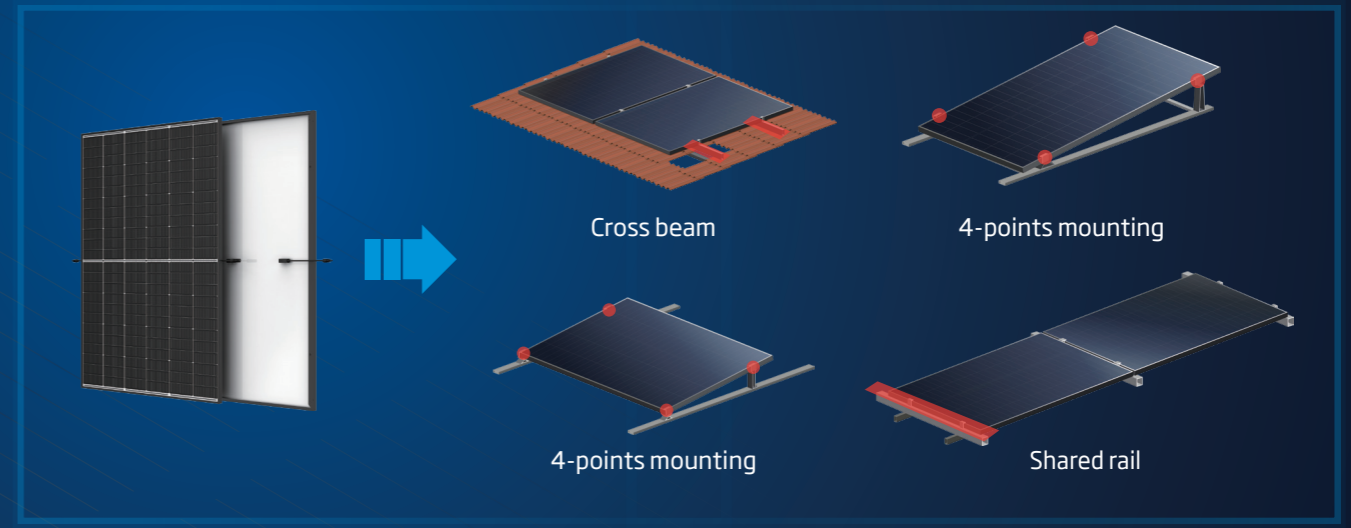
Negative mechanical load up to **4000Pa** with wind speed of 235km/h

## Better frame design for Vertex S+ :

- thicker frame profile
- stronger material strength
- larger frame chamber to disperse loading pressure

Vertex S+ is specially designed for working at extreme weather conditions thanks to its excellent mechanical performance.

## Flexible installation and high system compatibility



\* According to IEC2016 with SF=1.5

Isc: 10.68A

Voc: 52.2V



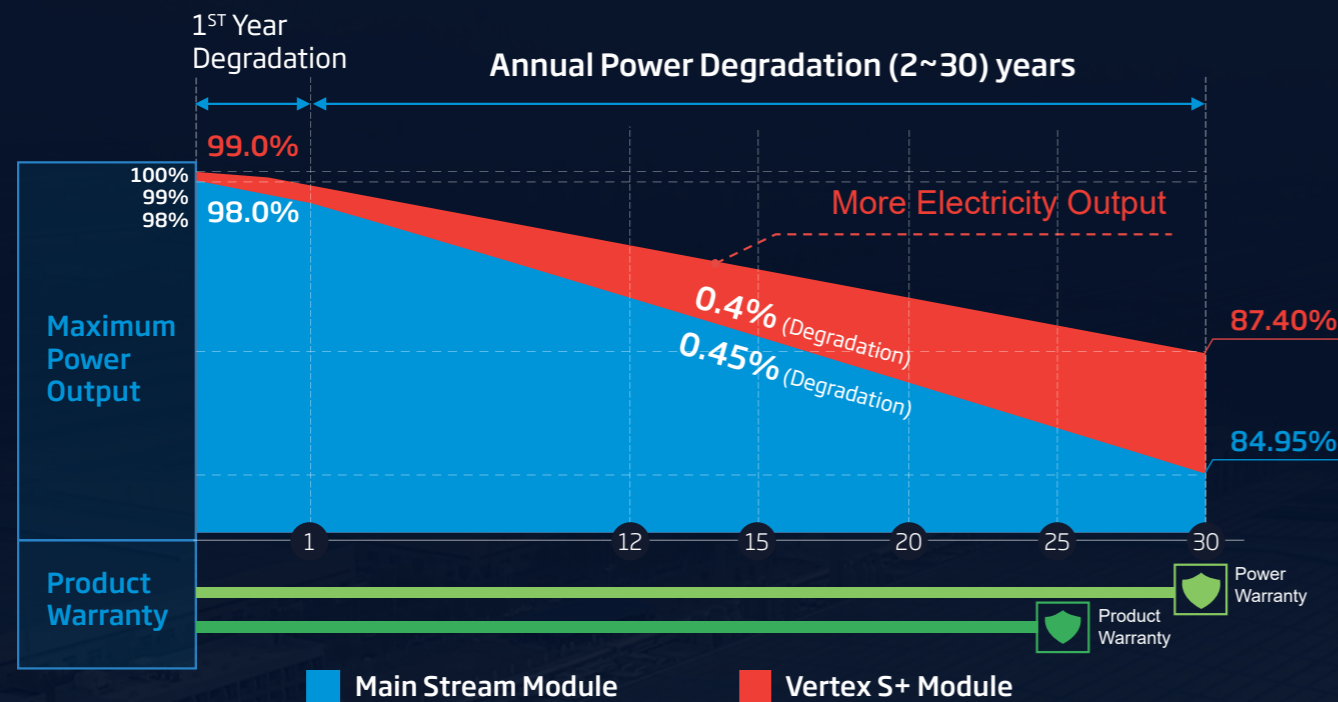
Plug-and-play, no need to worry about system compatibility.

# Long Guaranteed Product Lifecycle

Lower degradation, higher power generation, and longer product warranty

Product warranty	First year degradation	Annual power attenuation	Power warranty
up to <b>25 years</b>	<b>1%</b>	<b>0.4%</b>	<b>30 years</b>

Lower degradation, ~2.5% higher power reservation up to 30 years



# The Future From Now On, More than Bigger Power

Maximum power output

**450W<sup>+</sup>**

Maximum efficiency

**22.5%<sup>+</sup>**

- ✓ n type i-TOPCon technology with 210mm innovative platform
- ✓ 1.6+1.6mm dual glass design
- ✓ Higher Power, More Energy Gain
- ✓ Outstanding reliability and safety
- ✓ up to 25 years product warranty, 30 years power warranty
- ✓ 11% lower carbon footprint

**Vertex N**

