



Power Beyond Solar

The World Leading PV and Smart Energy IoT Total Solution Provider



Trina Solar
Official Website



Vertex Product
information

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

Vertex 510W+

THE KING OF DISTRIBUTION PV MODULE

- 510W+ Ultra-high Power
- 21.2%+ High Efficiency



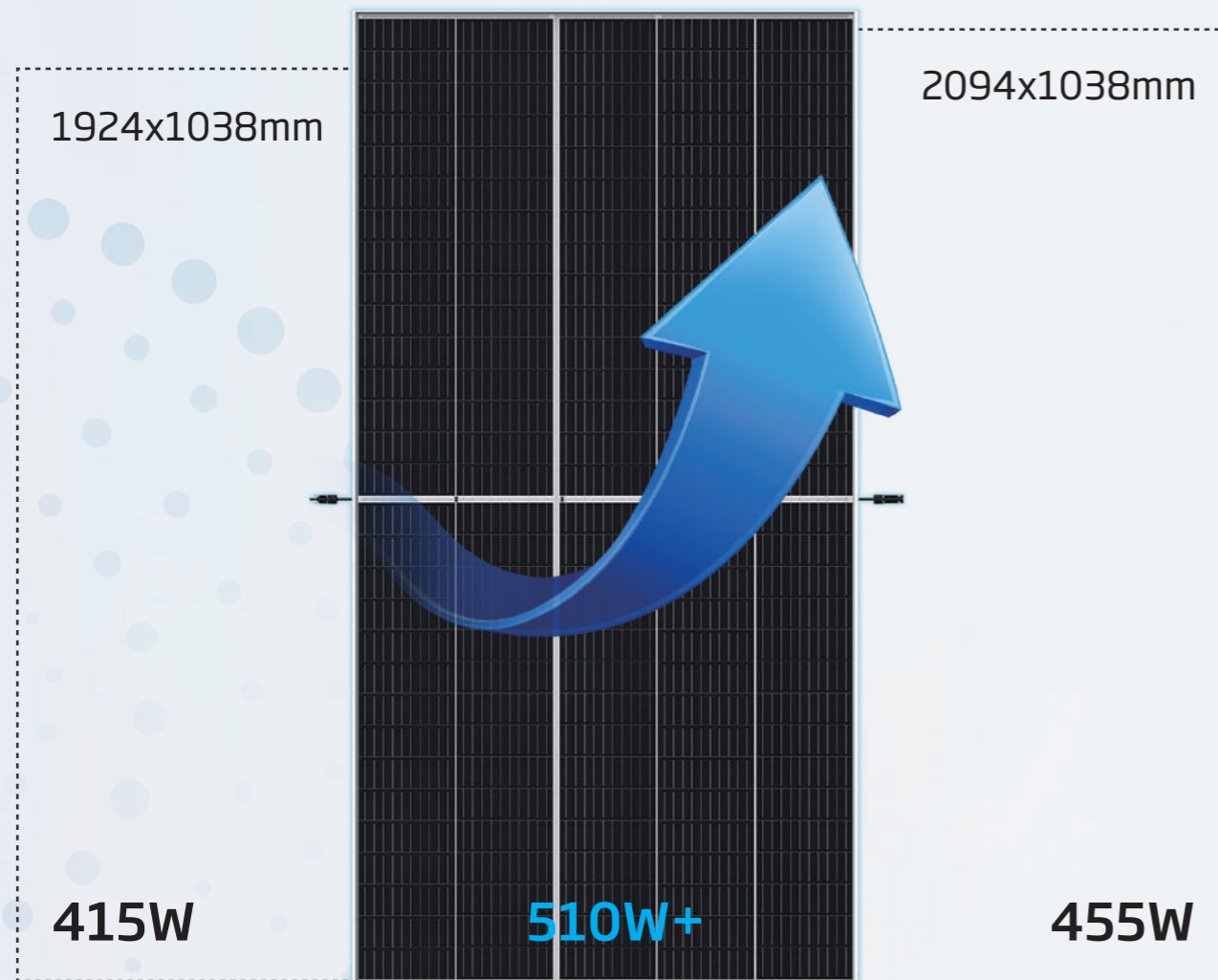
Vertex

Productive / Reliable
/ User-friendly



Introduction of Vertex 510W+

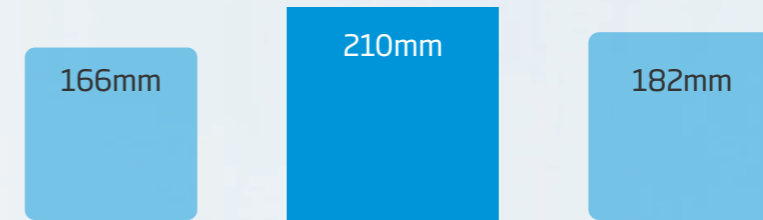
50~90W+ higher power output
with similar size



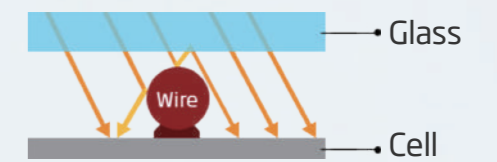
Vertex module size: 2187x1102x35mm
Weight(monofacial): 26.5kg Weight(bifacial): 30.1kg

210, The Future from Now On!

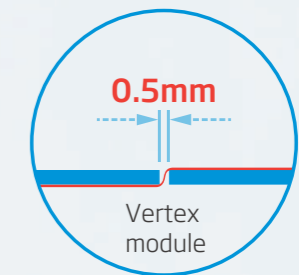
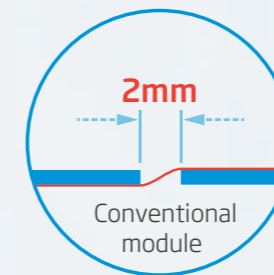
Vertex module with 510W+ power and 21.2%+ efficiency



The most advanced silicon product in photovoltaic industry

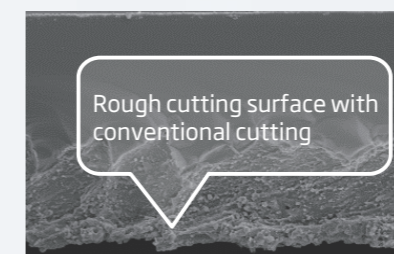


Multi-busbar technology, improving optical utilization rate with higher electricity performance,
Module power increase 2~3%, efficiency increase 0.4~0.6%

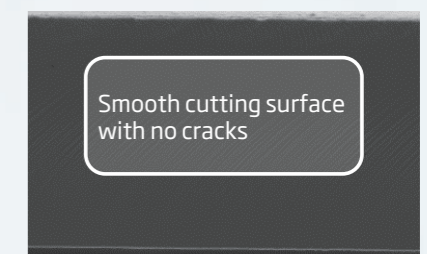


High density encapsulation technology, optimizing power output with good balance between
reliability and efficiency, module efficiency increase 0.2~0.3%

Non-destructive Cutting(NDC) Technology



Cross-section from conventional cutting



Cross-section from NDC

Achieving better cell strength, lower micro-cracks risk for better product reliability

Vertex 510W+

Productive, Reliable, User-friendly

More installation capacity, lower BOS cost



1MW industrial reference project

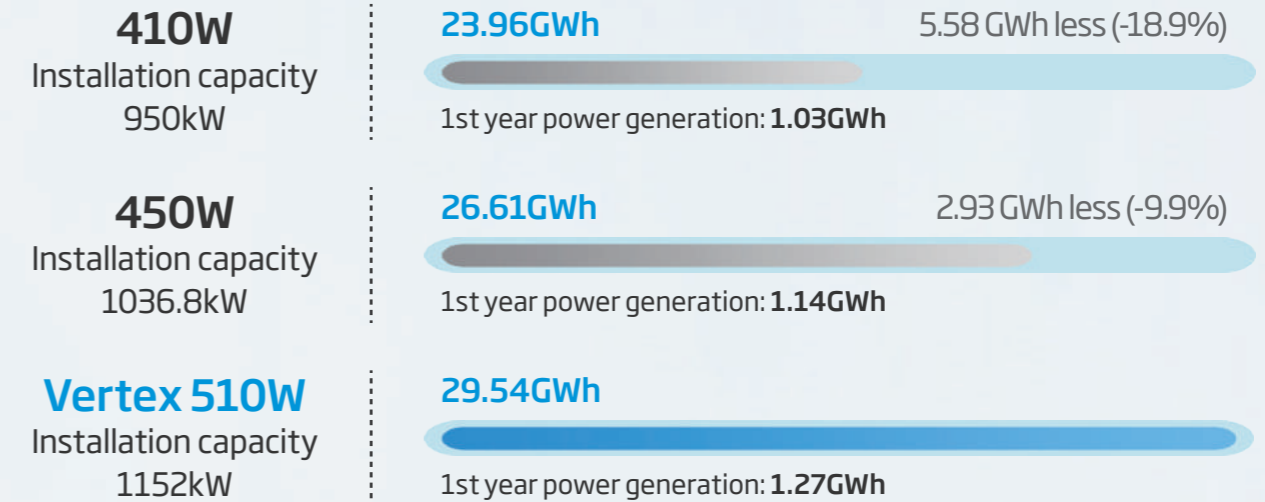
Location: Mid-latitude region
 Type: flat factory rooftop
 Size: 120x80m
 Area: 9600m²

Case study with Vertex 510W module

| | 410W 158 72/166 66 | 450W 166 72 | Vertex 510W |
|--|-----------------------|----------------|----------------|
| Installed capacity (kWp) | 944.64 | 1036.8 | 1152 |
| Inverter price (c USD/W) | + 0.2 | Baseline | - 0.2 |
| Rail (c USD/W) | + 0.39 | Baseline | - 0.39 |
| Cables(DC+AC) (c USD/W) | + 0.39 | Baseline | - 0.39 |
| Combiner box (c USD/W) | + 0.23 | Baseline | - 0.2 |
| Other costs (incl. installation cost) (c USD/W) | + 0.69 | Baseline | - 0.69 |
| Difference in BOS (c USD/W) | + 1.9 | Baseline | - 1.87 |

Installation capacity increase up to **11~22%**
 BOS saving up to **1.87~3.77 c USD/W**

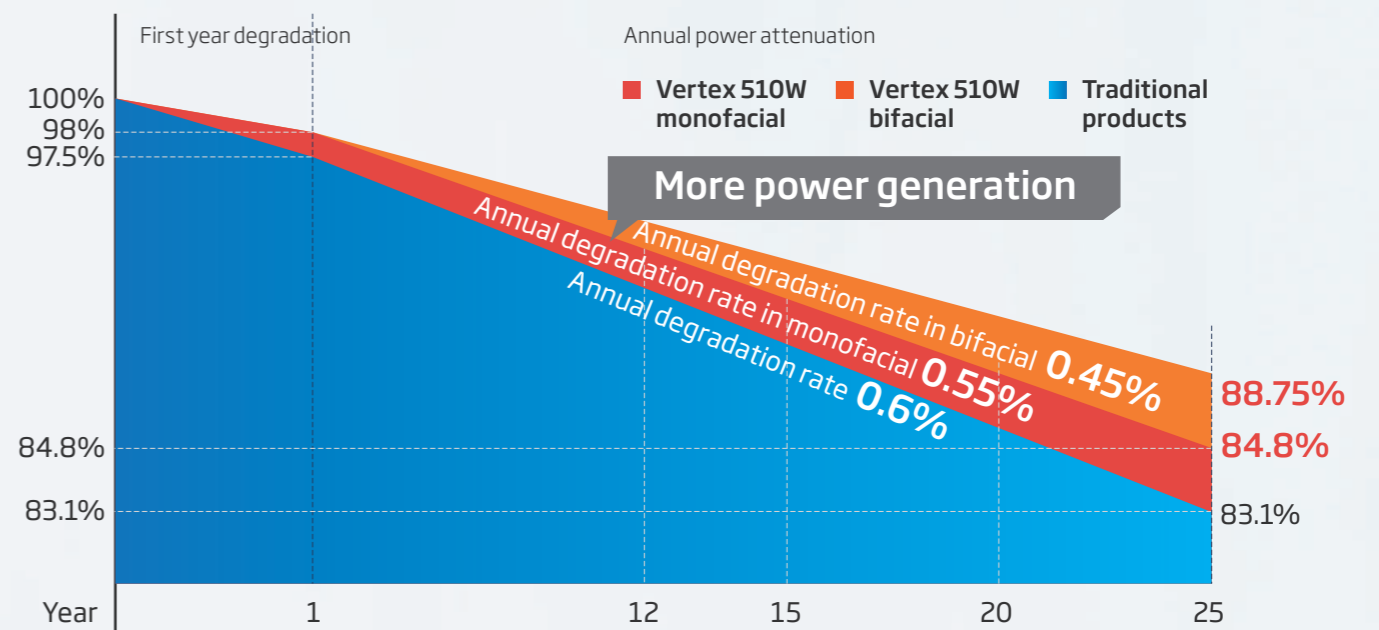
More power generation in lifespan Shorter investment pay-back time



High Reliability

Dedicated design for distribution projects and utility projects with harsh environment

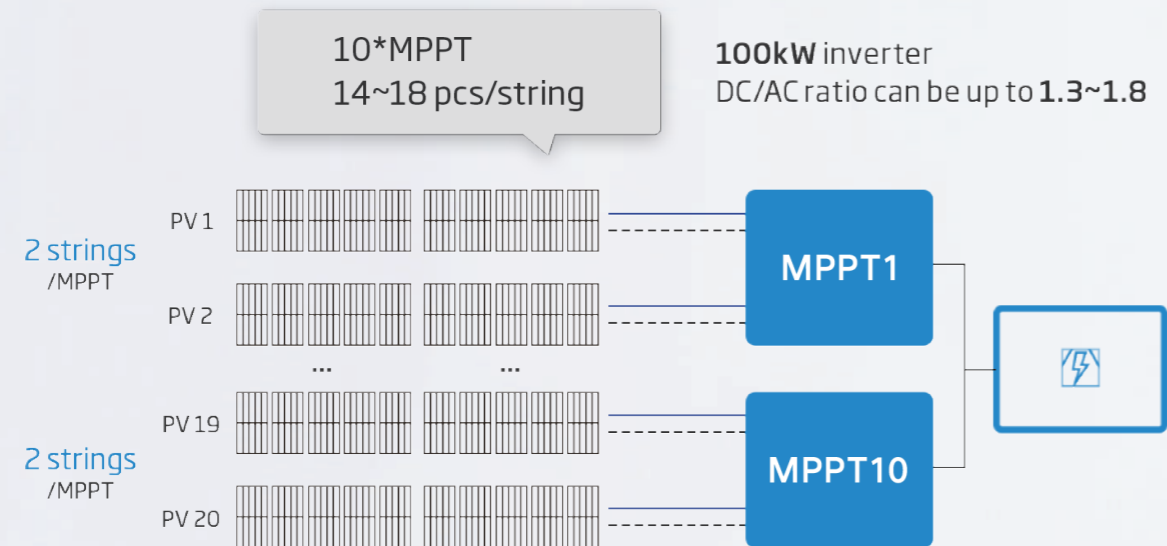
| Product warranty | First year degradation | Annual power attenuation | Power warranty |
|--|------------------------|--|--|
| 12 year (Extendable to 15 years or longer) | 2% | Monofacial 0.55% Bifacial 0.45% | Monofacial 25 year Bifacial 30 year |



Think Ahead, Design Ahead

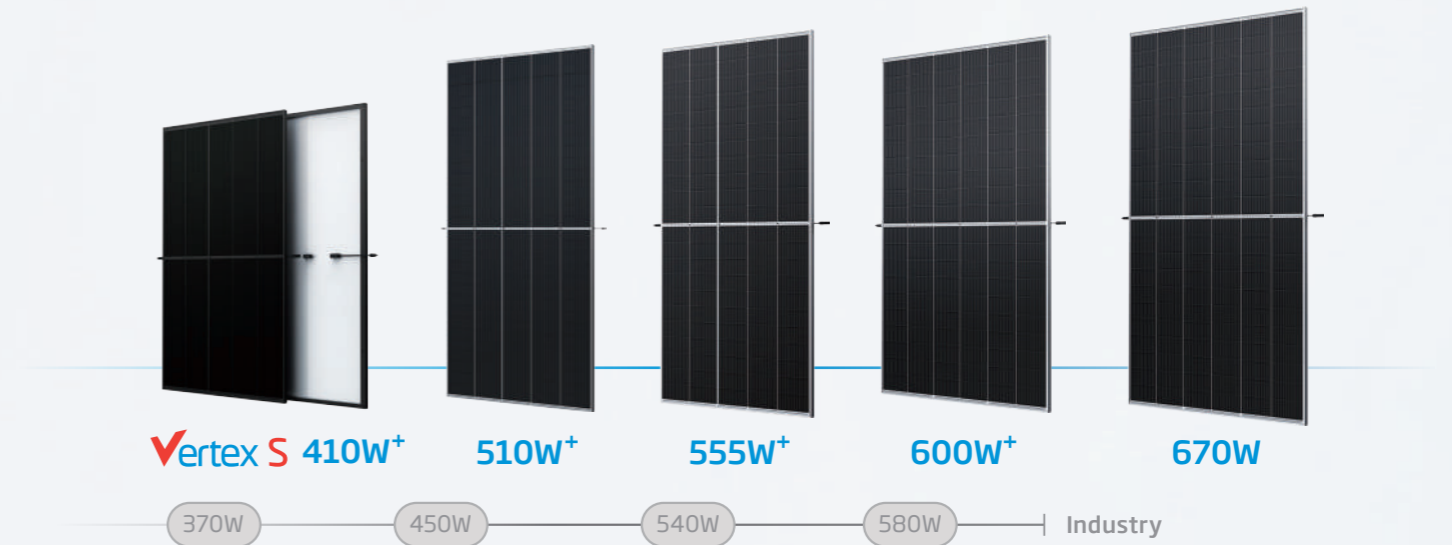
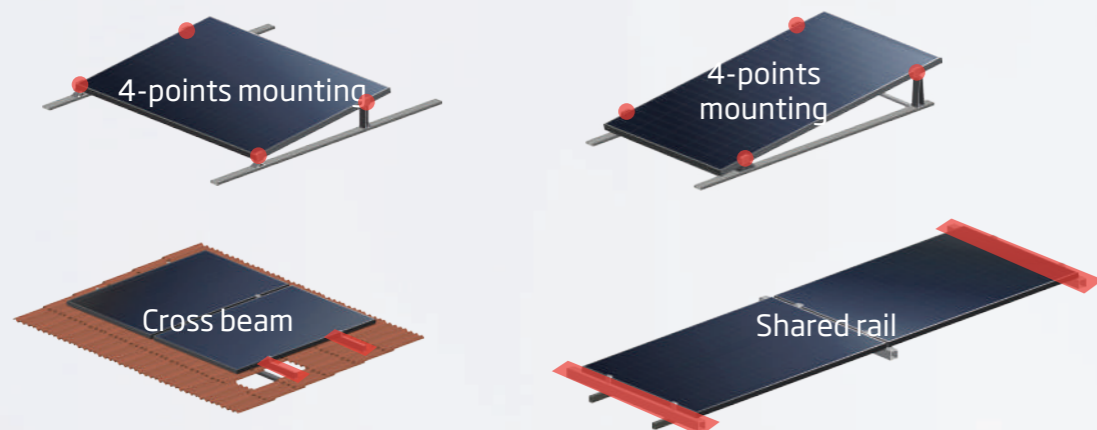
Plug-and-play design without worrying about system compatibility

Vertex 500W Module Monofacial Isc: 12.1A Voc: 51.5V



Simplify design and installation work, Compatible with multiple installation methods

For details, please refer to Trina Solar User Manual or contact technical support team



510W⁺
21.2%

- 510W⁺ ultra-high power with 21.2%+ high efficiency

Utility
C&I

- More electricity generation in lifespan
- 1st year degradation 2%, Annual degradation rate in bifacial 0.45%, in monofacial 0.55%

options

- Monofacial and bifacial modules

12
YEAR
30

- 12 years product warranty, 25/30 years power warranty

I&V

- Plug-and-play design without worrying about system compatibility
- System adaption in one step

Revenue

- Shorter investment pay-back time

5A00Pa
2A00Pa

- Compatible with multiple installation methods
- Simplify design and installation work

BOS saving

- BOS saving up to 1.87~3.77 cUSD/W

