



NEW ULTRA HIGH POWER MODULES GENERATION: 550/600W+

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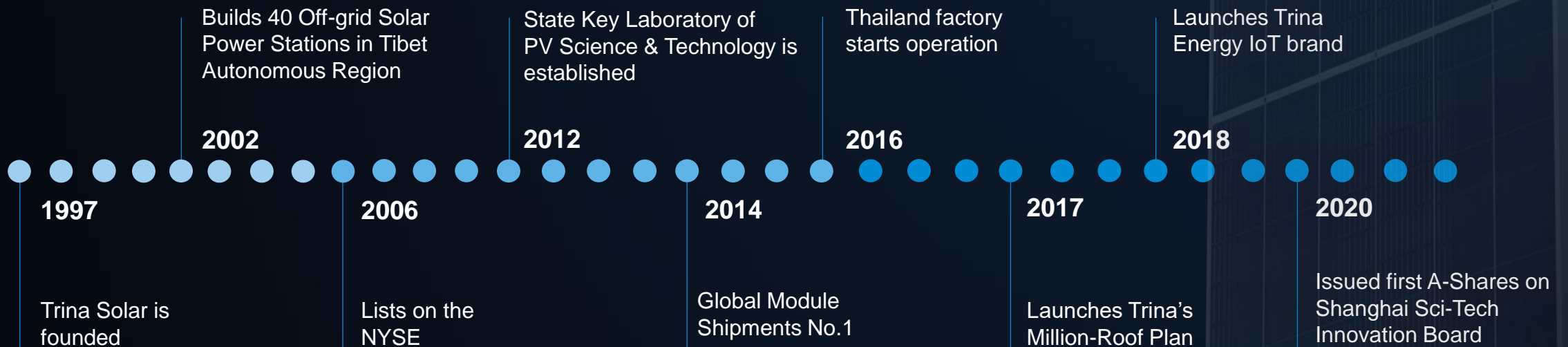


TrinaSolarMEA

The World Leading PV And Smart Energy Total Solution Provider



Tier 1 company ranked as the
“Most Bankable Module Brand”
in Bloomberg New Energy Finance’s (BNEF) Module Bankability
Report



Our Business



Smart Energy

3.0



Energy storage system



Energy cloud-platform



Distribution networks

System Solutions

2.0



Utility project



Distributed PV system



TrinaPro

PV Product

1.0



High-efficiency module

550W+

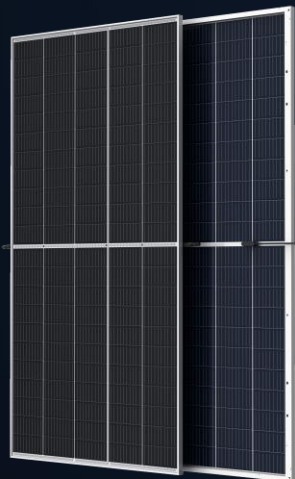
Mono-facial

DE19



Bi-facial

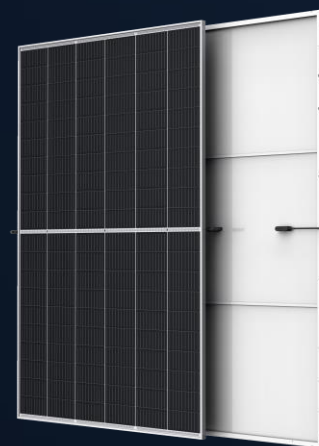
DEG19C.20



600W+

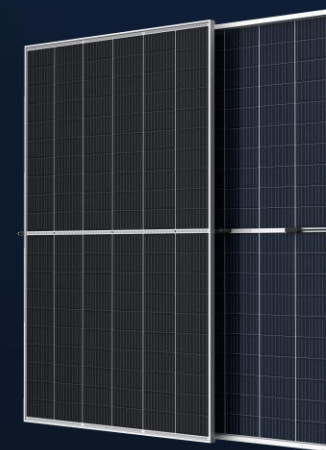
Mono-facial

DE20



Bi-facial

DEG20C.20

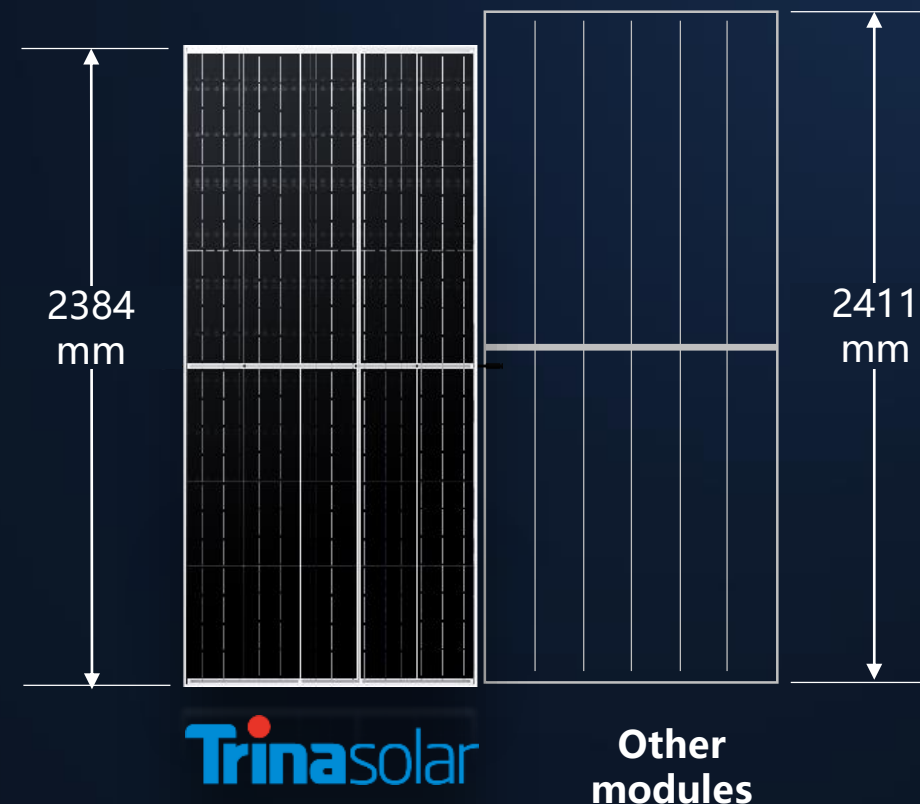
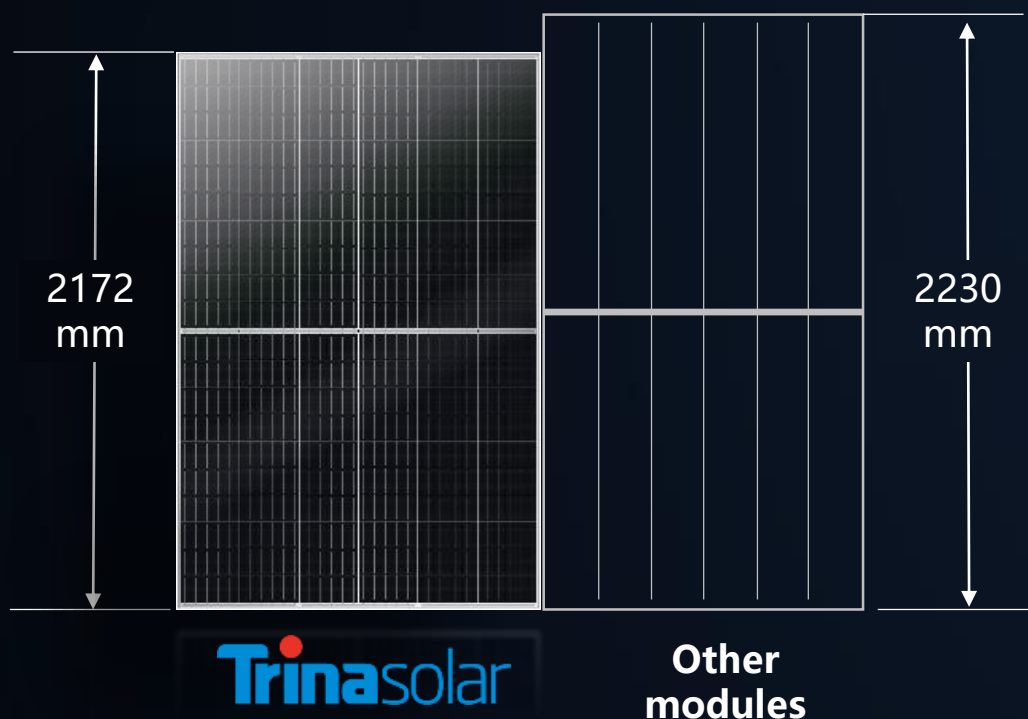


Technical characteristics

Shorter modules to reduce the wind load



Lighter trackers



Forces on the tracker increase with the square of the module length

Technical characteristics

Reinforced frame



Higher mechanical strength



Other modules

455W

550W

600W

460W

580W

Area

2.20 m²

2.61 m²

2.83 m²

2.20 m²

2.73 m²

Frame thickness

30 mm

35 mm

40 mm

40 mm

35 mm



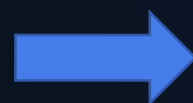
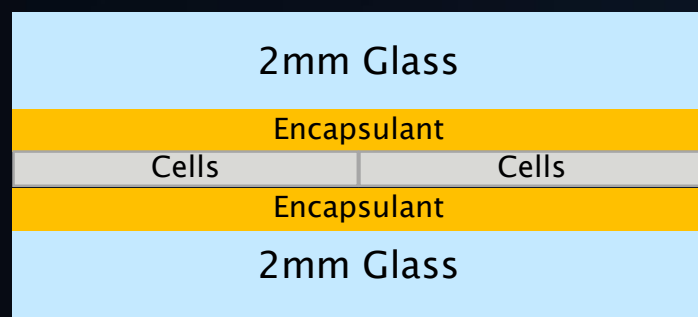
Larger module
larger frame



Larger module
Smaller frame

Technical characteristics

Double glass → No flexing stress

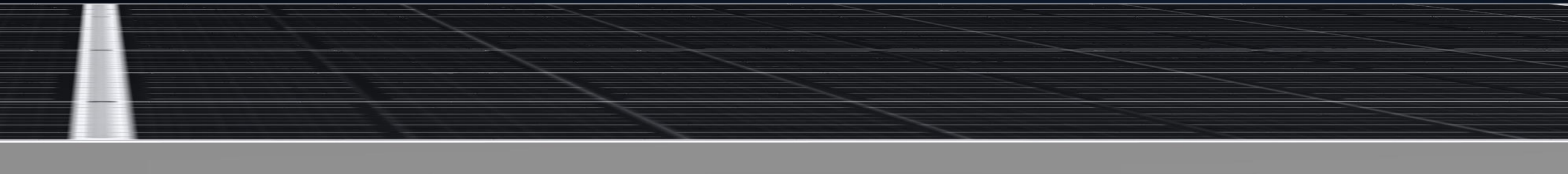


Less risk of microcracks



Thinner frames

Transportation
Installation
Vibration / Torsion
Cleaning

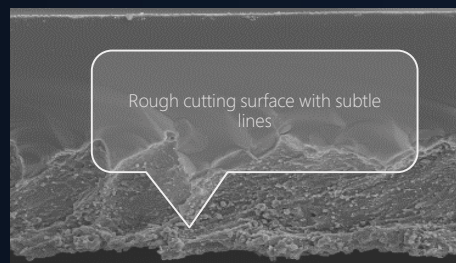
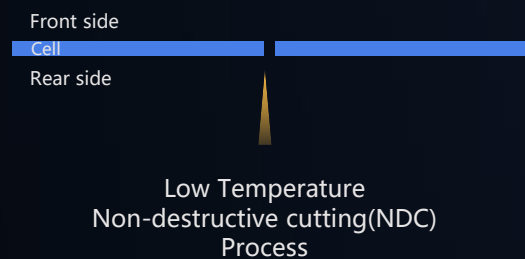
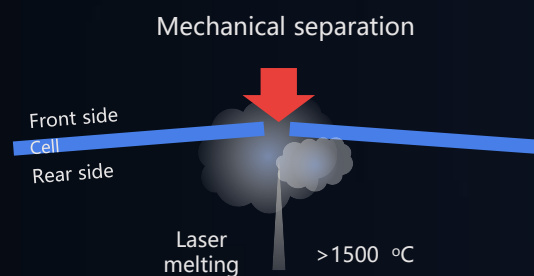


Technical characteristics

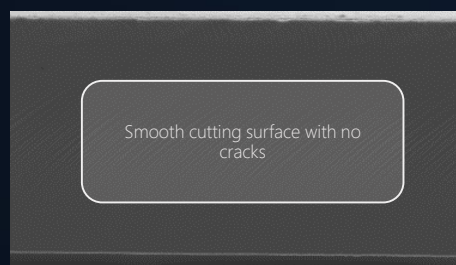
Non-destructive cutting(NDC)



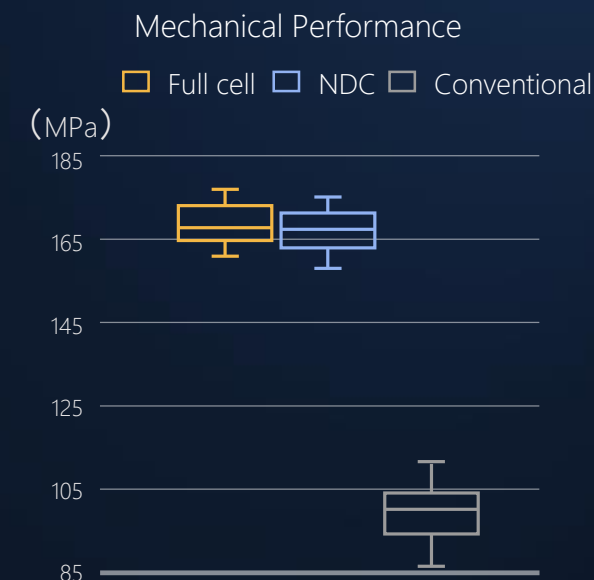
Mechanical strength as a full cell



Section after traditional cutting



Section after Non-destructive cutting



Lower risk of micro cracks

Technical characteristics

High-density interconnection



Lower thermal stress

TrinaSolar

Same or better
efficiencies than
overlapping

High-density module

Gap
0.5mm



Overlapping

Stacking on the edge of
cell

-0.2~-0.5mm



Other modules

Risk of micro
cracks in
overlapped areas



Example: Trina Solar 600W
efficiency is 21.2%.

Competition module of
580W is 21.2%

Technical characteristics

Lighter modules than any comparable module



Lighter trackers



Other modules

Backsheet

Module weight	30.9 kg	28.6 kg	30.9 kg
Power / weight	19.4 W/kg	19.2 W/kg	18.7 W/kg
Weight / m ²	10.92 kg/m ²	10.96 kg/m ²	11.31 kg/m ²

Double glass

Module weight	35.3 kg	32.6 kg	32.3 kg
Power / weight	17.0 W/kg	16.9 W/kg	16.7 W/kg
Weight / m ²	12.47 kg/m ²	12.49 kg/m ²	12.63 kg/m ²



**Low Module Voltage,
High String Power**



Higher power per string



BOS savings

Vertex
550W series

35.8%

Higher string power
compared to
reference module

Module characteristics comparison

Module Type	182cell 72pcs backsheet	VERTEX 550 series
Power (W)	540	550
Length (mm)	2256	2384
Width (mm)	1133	1096
Weight (kg/pcs)	27.2	28
Isc (A)	13.85	18.52
Voc (V)	49.5	37.9
Module eff.	21 %	21 %

Comparison Module Quantity per String& Power

Module	Module Quantity/String	Per Module Power	Total Power per String
Trina Solar VERTEX 550W series	36	550W	19800W
Reference Module	27	540W	14580W

10 degrees below zero , 1500 V system

Thanks for watching!

 **Vertex** Trina Solar 550/600W+



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