



Vertex

600W/550W Ultra-high Power with over 21% High Efficiency
Low Voltage Design , High String Power

Vertex 550W Bifacial	530W	535W	540W	545W	550W
V _{OC} (V)	37.3	37.5	37.7	37.9	38.1
I _{SC} (A)	18.19	18.24	18.30	18.35	18.39
V _{MPP} (V)	31.0	31.2	31.4	31.6	31.8
I _{MPP} (A)	17.11	17.16	17.21	17.24	17.29
Module dimension	2384 × 1096 × 35 mm				

Vertex 600W Bifacial	580W	585W	590W	595W	600W
V _{OC} (V)	40.9	41.1	41.3	41.5	41.7
I _{SC} (A)	18.21	18.26	18.31	18.36	18.42
V _{MPP} (V)	33.8	34.0	34.2	34.4	34.6
I _{MPP} (A)	17.16	17.21	17.25	17.30	17.34
Module dimension	2172 × 1303 × 40 mm				



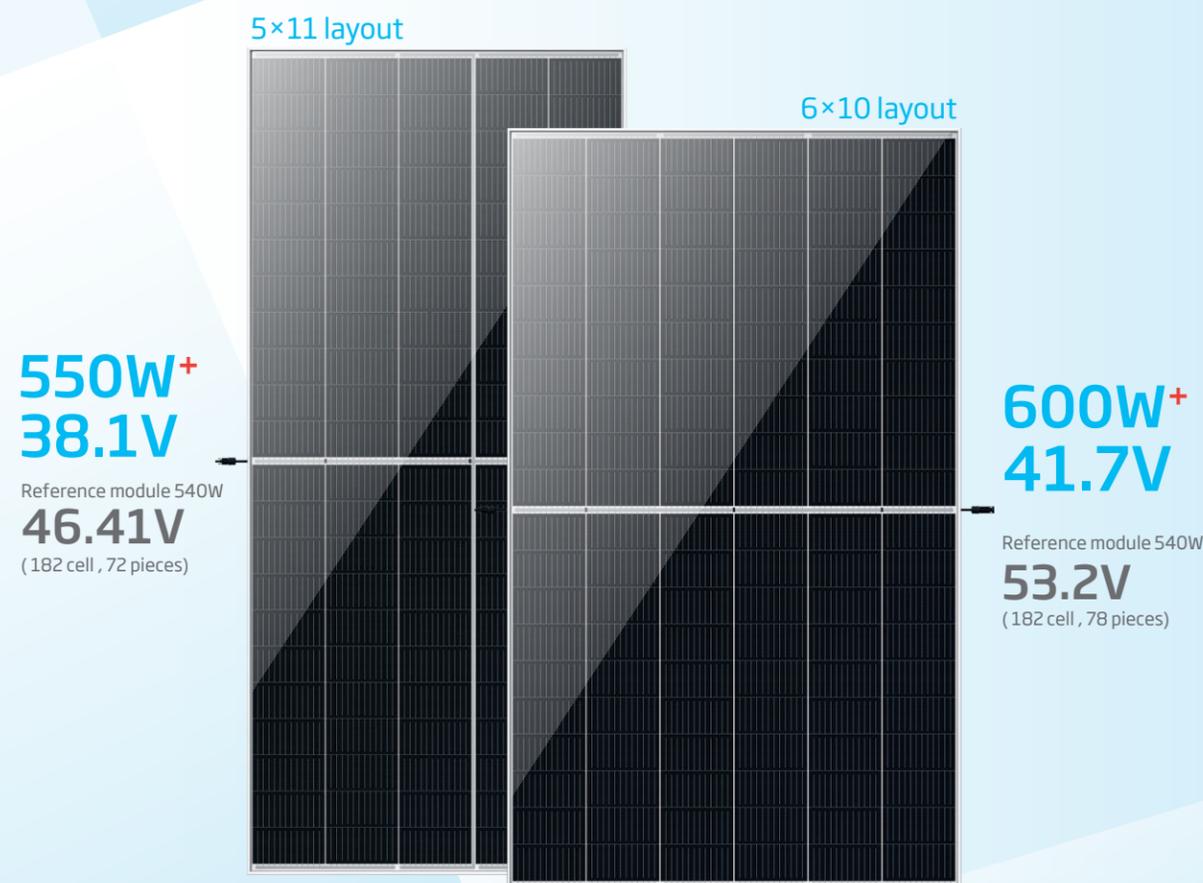


ULTRA-HIGH POWER MODULE FOR THE ULTIMATE 600W+ ERA

Trina Solar Vertex series modules, with a module conversion efficiency over 21%, boast a power output up to 600 W. Incorporating 210mm cells, the new Vertex series modules are designed for utility and large commercial & industrial projects and come in two versions - the bifacial double-glass modules and back sheet modules.



LOW VOLTAGE DESIGN



12-year product warranty, 30-year power warranty



Better temperature coefficient (-0.34%), lower working temperature result in more generated power



Enhanced frame structure to achieve better reliability



Up to 30% additional power gain from rear side in different installation environments



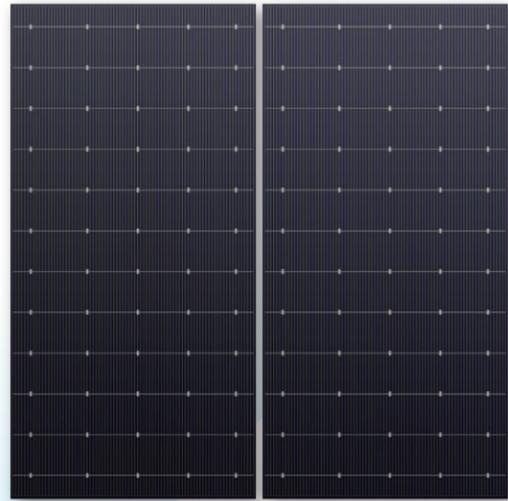
Excellent IAM (Incident Angle Modifier) and low light performance, validated by 3rd party certifications



Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load

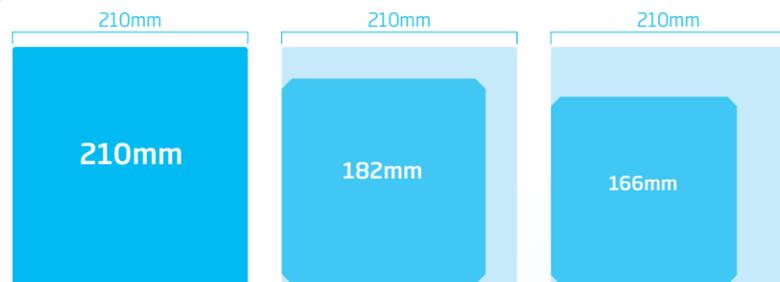
TECHNOLOGY

CUTTING-EDGE TECHNOLOGIES BRING HIGHER POWER AND EFFICIENCY



Trina Solar has initiated the development of modules based on 210mm-size cells and has started the mass production of the 500W+ Vertex modules as of March, 2020.

Based on Trina Solar's superior multi-busbar technology, the Vertex modules incorporate an innovative design that integrates half-cut, non-destructive cutting and high-density interconnect technologies. By virtue of low-voltage and higher module string power output, the new Vertex series unlocks huge potential for further reducing balance-of-system costs.



210mm silicon wafer brings the highest power output

The 500W+ Vertex module employs cells based on 210mm silicon wafers, which is the largest possible wafer size provided by the semiconductor industry and brings the highest power output.

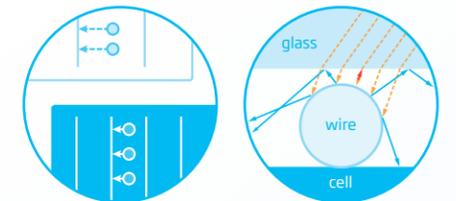
NDC technology brings best cell performance at chip level

Non-destructive cutting technology is adopted to achieve the best cell bending strength and section appearance, resulting in the best performance for the minimum cell unit.



MBB technology leads to 0.4%-0.6% increase on module efficiency

Multi-busbar, with the capability to increase light absorption, perfectly matches the large-area cell. Technology integration enables the Vertex series modules to achieve higher power and power generation capacity per watt.



High density interconnection technology optimizes module efficiency

By flattening cell connection areas of welding tape, the cell spacing is reduced to 0.5mm to optimize power output and efficiency, which will leave certain gap to reduce yield risk, micro-cracks and damage to the modules.



SUPER HIGH STRING POWER BRINGS MORE BOS SAVINGS



12150W
(String Power)
27 pcs/string

166mm
450W

BOS

LCOE

19075W
(String Power)
35 pcs/string

210mm
545W

-10.87%
BOS (450 as baseline)

-7.60%
LCOE (450 as baseline)

14445W
(String Power)
27 pcs/string

182mm
535W

-5.91%
BOS (450 as baseline)

-4.52%
LCOE (450 as baseline)

SYSTEM COMPATIBILITY

PV Module electrical diagram
Central Inverter



PV Module electrical diagram
String Inverter

