

TrinaSolar

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 N

“Excellent balance of
compatibility and value”

up to **625W**

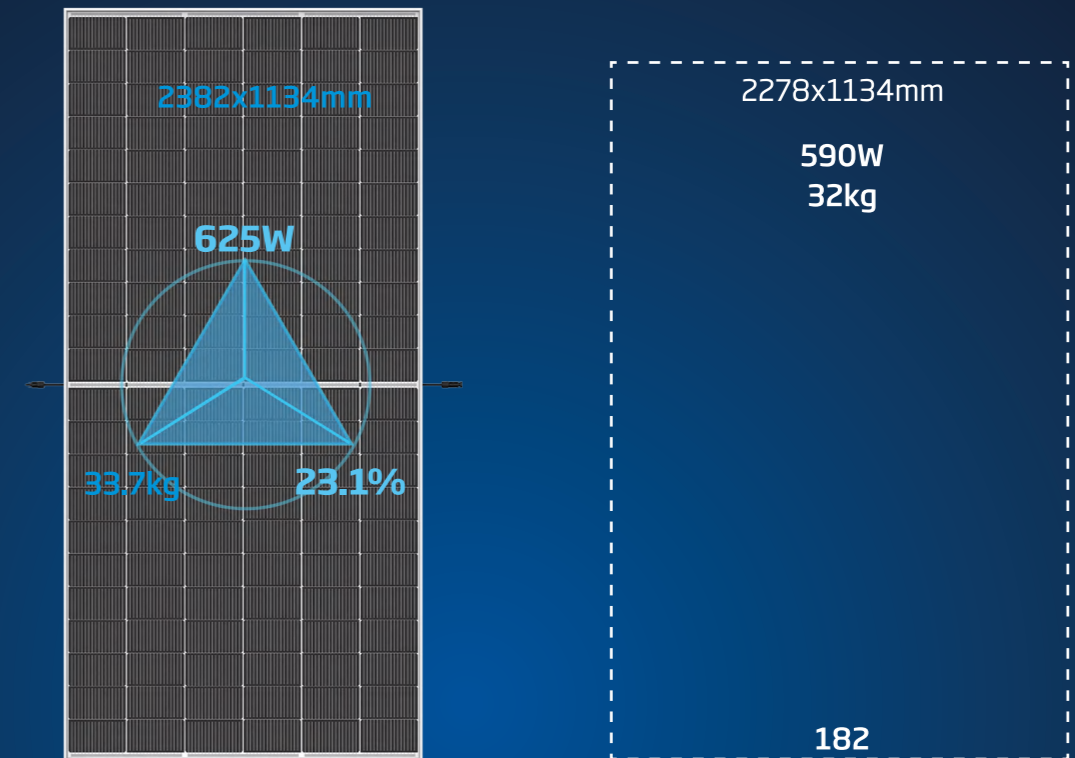


HIGH EFFICIENT COST-SAVING

5.1% BOS Cost Reduction

2.4% LCOE Reduction

30W+ HIGHER POWER



Vertex 625W module size: 2382x1134x30mm(Bifacial)
Weight: 33.7kg (Bifacial)

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	210R-N-66	182-N-72
Module power (W)	625w	590w
Module efficiency	23.1%	22.8%
Module weight (kg)	33.7	31
Module length (mm)	2382	2278
Module width (mm)	1134	1134
Module area (m ²)	2.7	2.6
Short-circuit current-Isc(A)	15.92	14.07
Open-circuit voltage-Voc(V)	49.9	52.9
Module per container(pcs)	720	720
Power per container(W)	450,000	424,800

Most advanced technology

Advanced 210 Technology Platform



The most advanced silicon product in photovoltaic industry

Multi-busbar Technology



Multi-busbar technology, improving optical utilization rate with higher electricity performance

High-density Interconnection(HDI) Technology



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

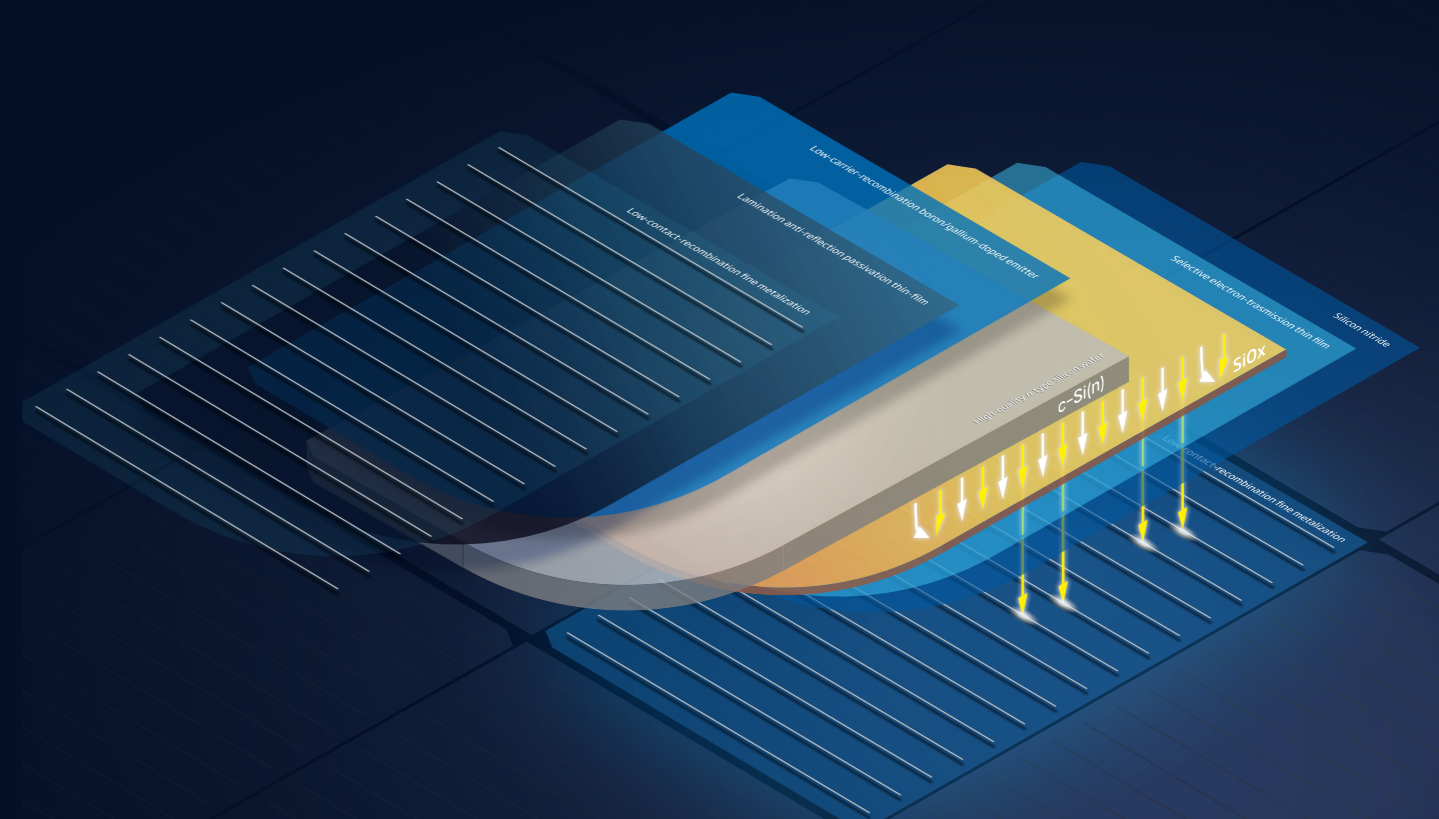


Cross-section from conventional cutting

Cross-section from NDC

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

With *n* type silicon wafer as substrate, The minority carrier life is higher than P-type silicon wafer



High reliability with low operating temperature

Low temperature coefficient: $-0.29\%/^{\circ}\text{C}$
Power generation 3% higher than P-PERC



Optimize bifacial power generation performance Increase utility power generation revenue

Module bifaciality up to 80%, 10%+ higher than P-type modules
Under different surface reflectivity conditions, the power generation(per watt) gain of Vertex N can be increased by up to 5.42% compared with P-type modules



LOWER VOLTAGE BRINGS HIGHER STRING POWER **14.1%**

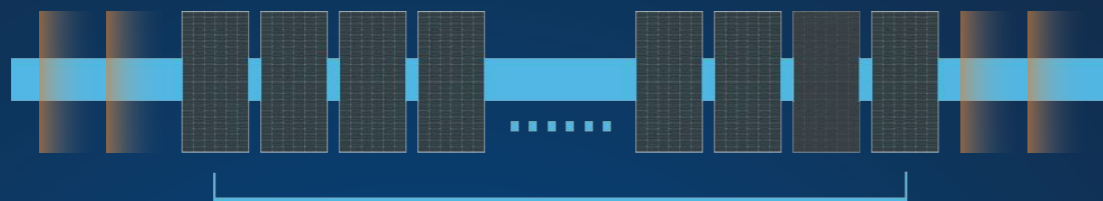
Module Type	Module Per String	Module Power	String Power	Additional Power
182-N	26	590W	15,340	-
210R-N	28	625W	17,500	14.1%

625W String Power 17,500W



28 modules/string

590W String Power 15,340W



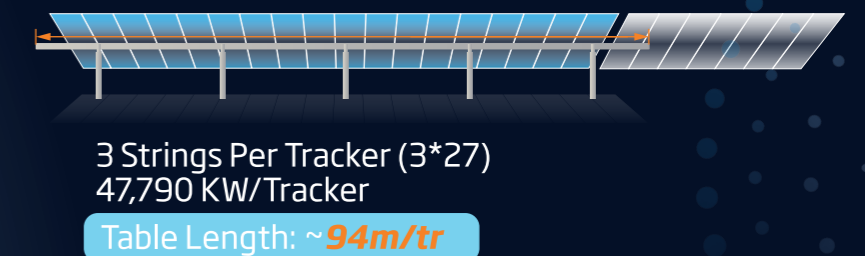
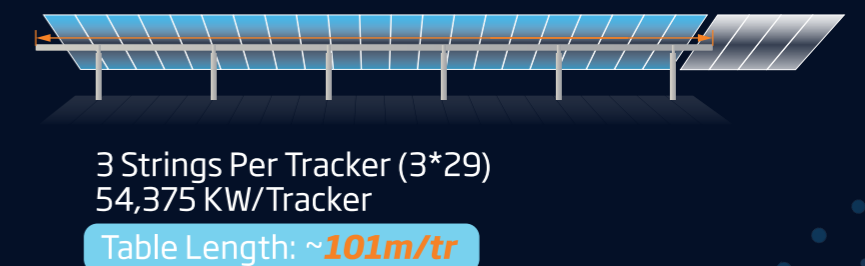
26 modules/string

THE AVERAGE ANNUAL POWER GENERATION INCREASED BY **0.9%**

Module Type	210R-66N 625W	182-72N 590W
30 years of total power generation (MWh)	204186	202410
Average annual power generation (MWh)	6806	6747
30 years of total power generation hours (KWh/KWp)	51174	50750
Average annual power generation hours (KWh/KWp)	1706	1692

Excellent Compatibility for Tracking System

**Data estimated based on projects in Australia*



BOS Cost Reduction 5.1%



Case study

Location: State of Texas, America
 Inverter type:String inverter
 Mounting type:1P tracker
 Module type: bifacial module

625W VS 590W

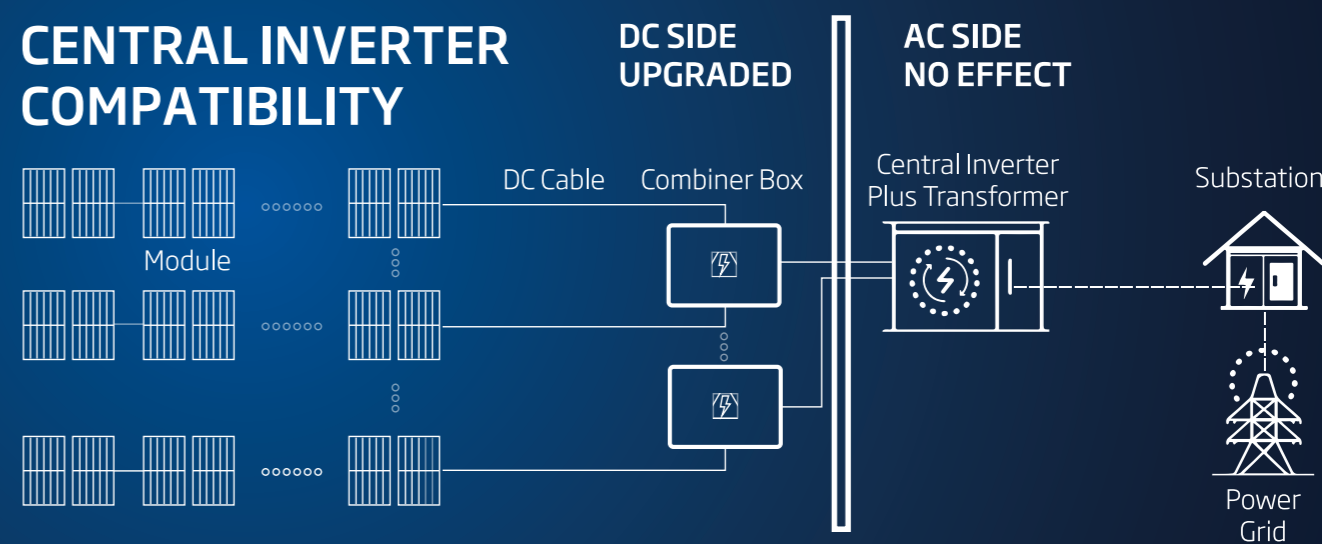
Item	Module type	210R-N-66p-625W	182-N-72p-590W
Module	Module power (W)	625W	590W
	Module size (mm)	2382 x 1134 x 30	2278 x 1134 x 30
Mounting	Installation	1P tracker	
	Pitch	E-W 5.63m	E-W 5.38m
Inverter	Inverter type	SG320HX	
Layout	Module/string	28	26
	String power	17,500	15,340
	String/tracker	4	4
	String number	228	260
	Module number	6384	6760
BOS Comparison	Total BOS (\$/W)	0.2904	0.3059
	BOS saving (\$/W)	-0.0155	BL
LCOE Comparison	Total LCOE (\$/KWh)	0.0406	0.0416
	LCOE saving	-2.4%	BL

Inverter Compatibility

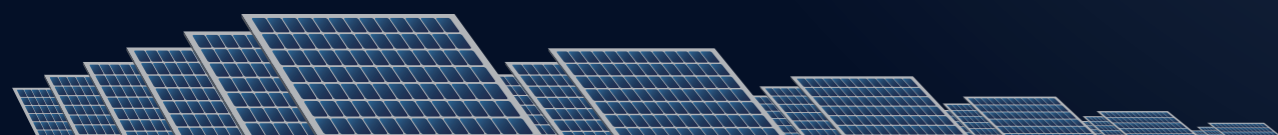
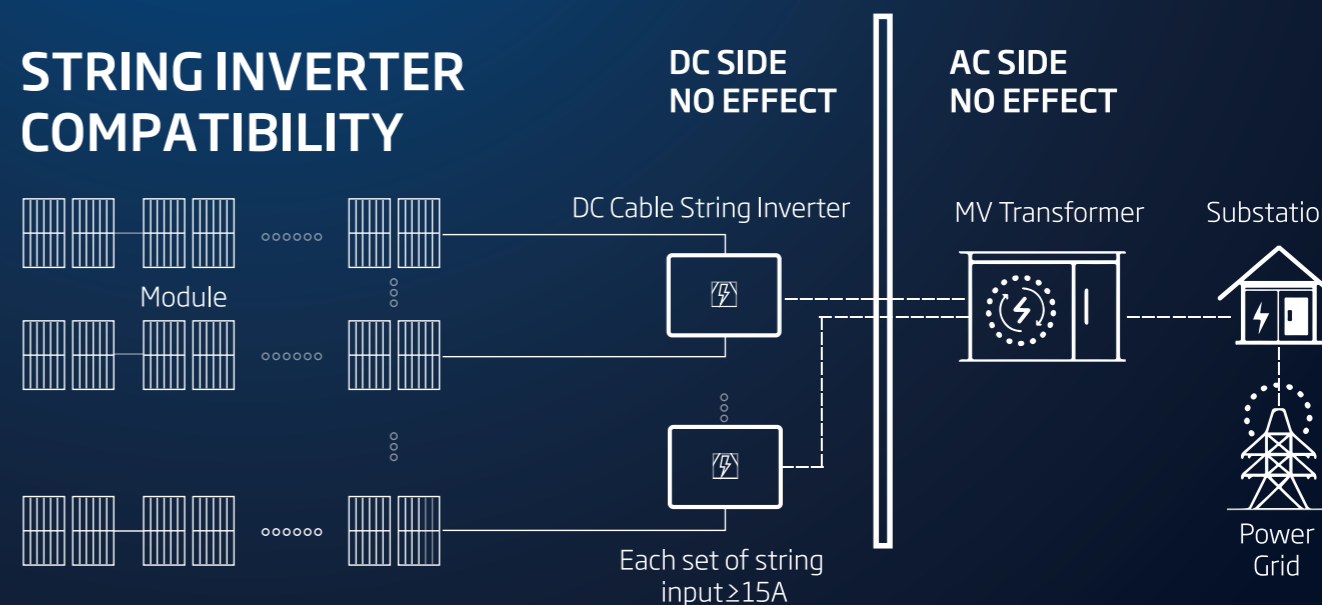
INVERTER TYPE	INVERTER BRAND	INVERTER MODEL
STRING INVERTER	HUAWEI	SUN2000-215KTL-H0, SUN2000-215KTL-H3
	SUNGROW	SG350HX
	GROWATT	MAX 185-253KTL3-X HV
	SOLIS	Solis-215K-EHV-5G-PLUS, Solis-255K-EHV-5G, Solis-255K-EHV-5G-PLUS,
	GOODWE	GW225/250K-HT, GW225/250KN-HT
	SOFAR SOLAR	SOFAR 255KTL-HV
	SMA	SUNNY HIGHPOWER 150-20
	FIMER	PVS-350-TL
	SINENG	SP-250K-H1, SP-275K-H1
	INGETEAM	INGECON SUN 160TL,

**The table only lists the main models of mainstream inverter brands in the market for utility, but does not cover all brands and models; The inverter models of manufacturers in the table are subject to change without notice.*

CENTRAL INVERTER COMPATIBILITY



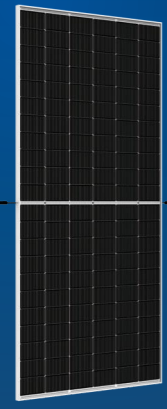
STRING INVERTER COMPATIBILITY



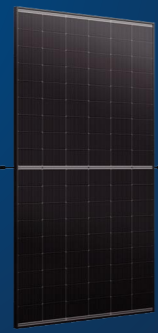
Vertex N



720W+



625W+



505W+



455W+

