

Trina Solar INTRODUCTION OF **670W** VERTEX MODULE

Vertex

High Power

670W

High Efficiency

21.6%

Mechanical data

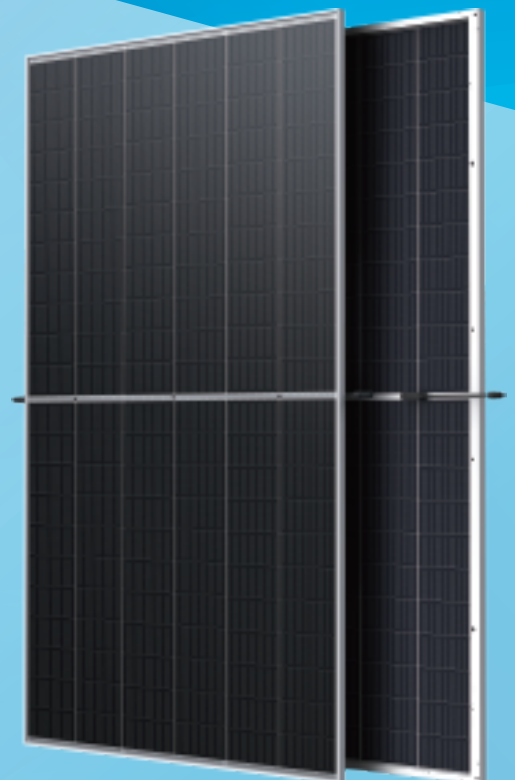
Size: 2384*1303mm

Weight: 33.9kg

Electrical Data

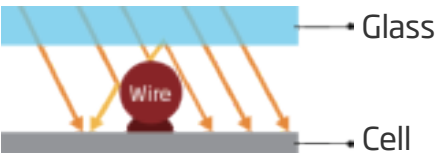
Low voltage concept design

Voc: 45.7V Isc: 18.5A

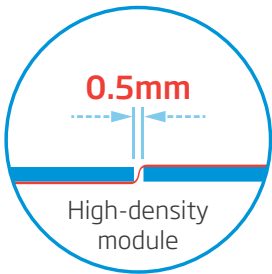
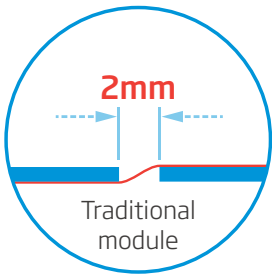


210,The Future from Now On!

Vertex module with 670W+ power
and 21.6%+ efficiency

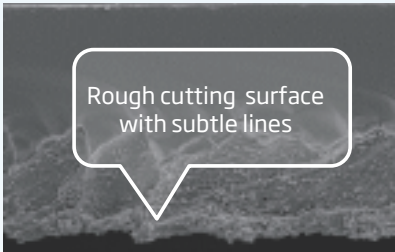


Multi-busbar technology,improving optical utilization rate with higher electricity performance,
Module power increase **2~3%**, efficiency increase **0.4~0.6%**

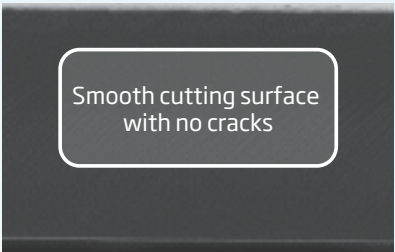


High density encapsulation technology, optimizing power output with good balance between
reliability and efficiency, module efficiency increase **0.2~0.3%**

Non-destructive Cutting(NDC) Technology



Cross-section from
conventional cutting



Cross-section from NDC

Achieving better cell strength, lower micro-cracks riskfor better product reliability

LOWER VOLTAGE BRINGS HIGHER STRING POWER **34%**

Module Type	String Module Number	Module Pmax	String Power	Higher Power
210	28	670W	18,760	34%
182	26	540W	14,040	-

670W

String Power
18,760W

28 pcs/string
53.3 Strings/MW

Rack Steel
33.76 ton/MW

VS

540W

String Power
14,040W

26 pcs/string
71.4 Strings/MW

Rack Steel
37.15 ton/MW

HIGHER STRING POWER BRINGS LOWER COST

CUSTOMER VALUE OF 670W VERTEX MODULES



Case study

Location: Minnesota
Project Capacity: 100MW
Inverter: String Inverter
Capacity ratio: 1.2
Fixed Tilt



-15%
Racks



-17%
Foundation



-11%
Cable

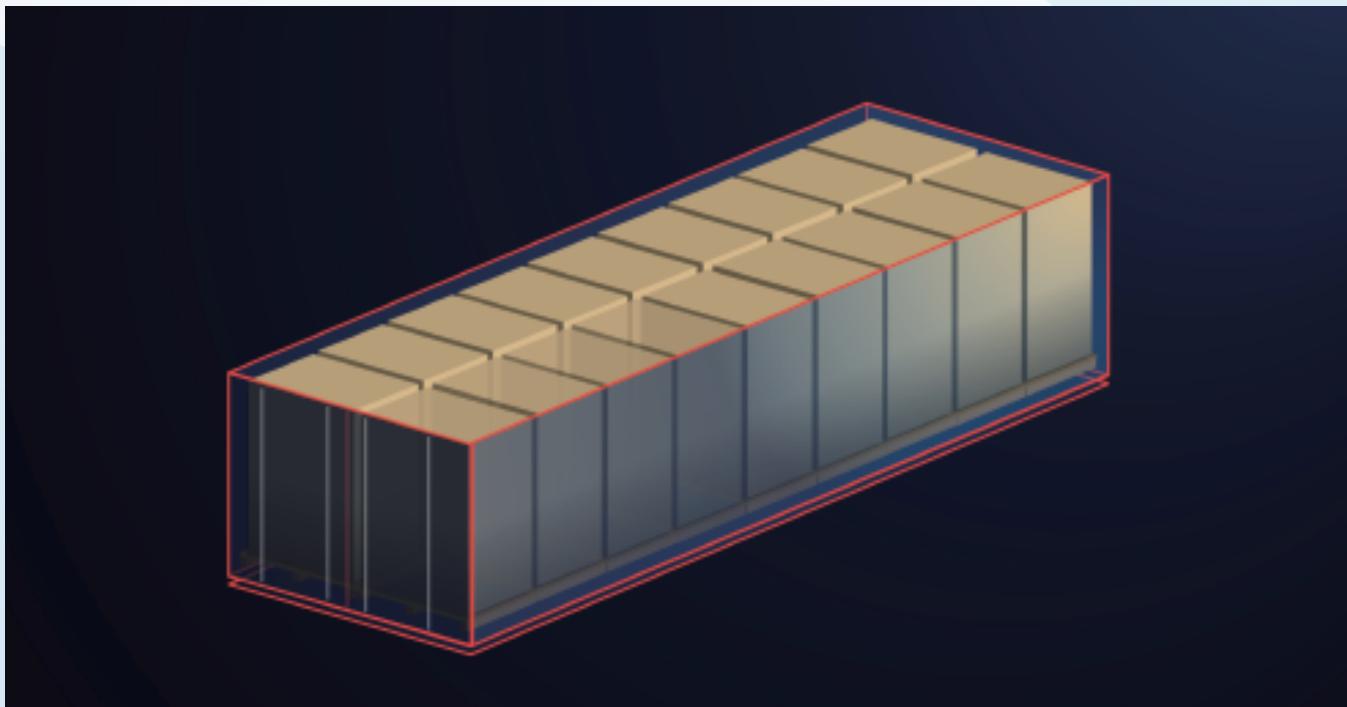
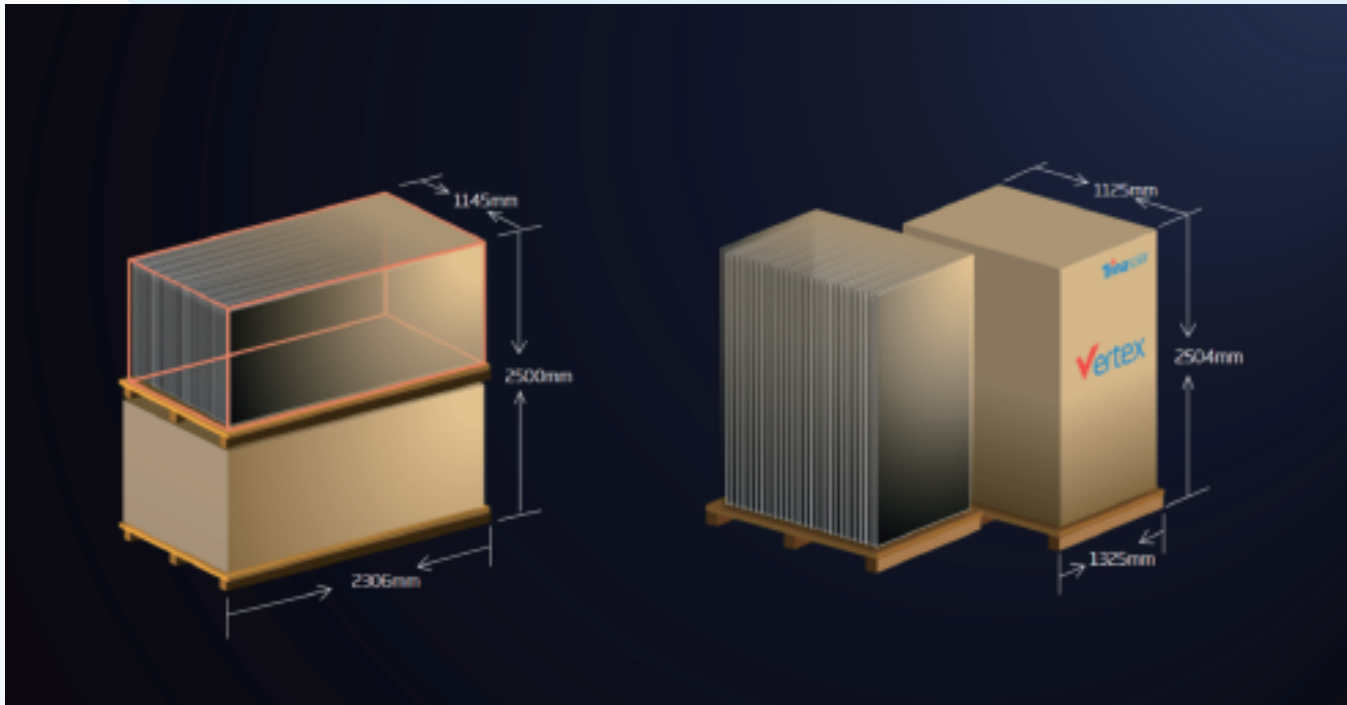


-7%
installation

	Module Type Power	Reference module 540W	Vertex 670W
BOS(\$/W)	Racks	BL	-0.0035
	Foundation	BL	-0.0015
	Cable	BL	-0.0027
	installation	BL	-0.0053
	Sum	BL	-0.013
LCOE			~ -1.2%

*Source: Authority expert.

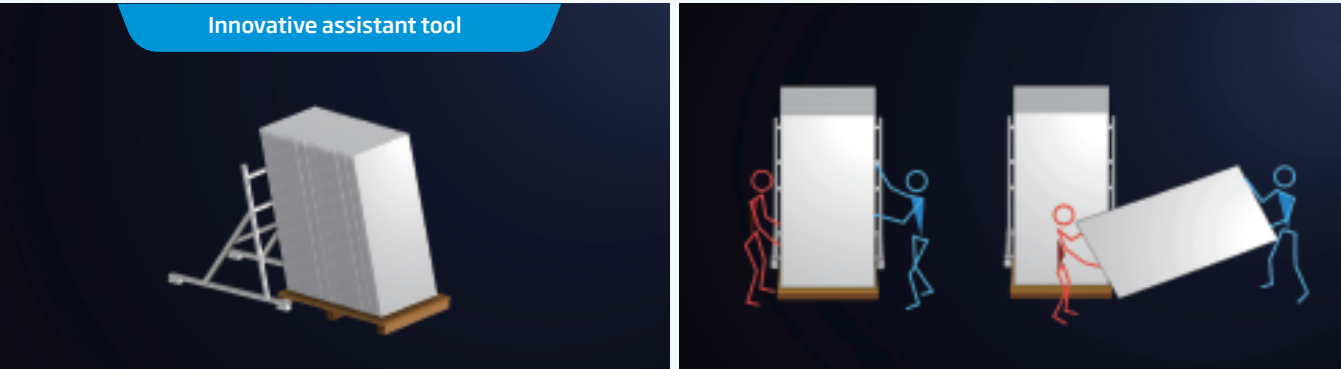
Logistic cost reduce **12%** per container



Category	Module Power	Piece per Pallet	Pallet NO. per Container	Power per Container
Other Module	540W	31	20	334,800W
Vertex Module	670W	31	18	373,860W

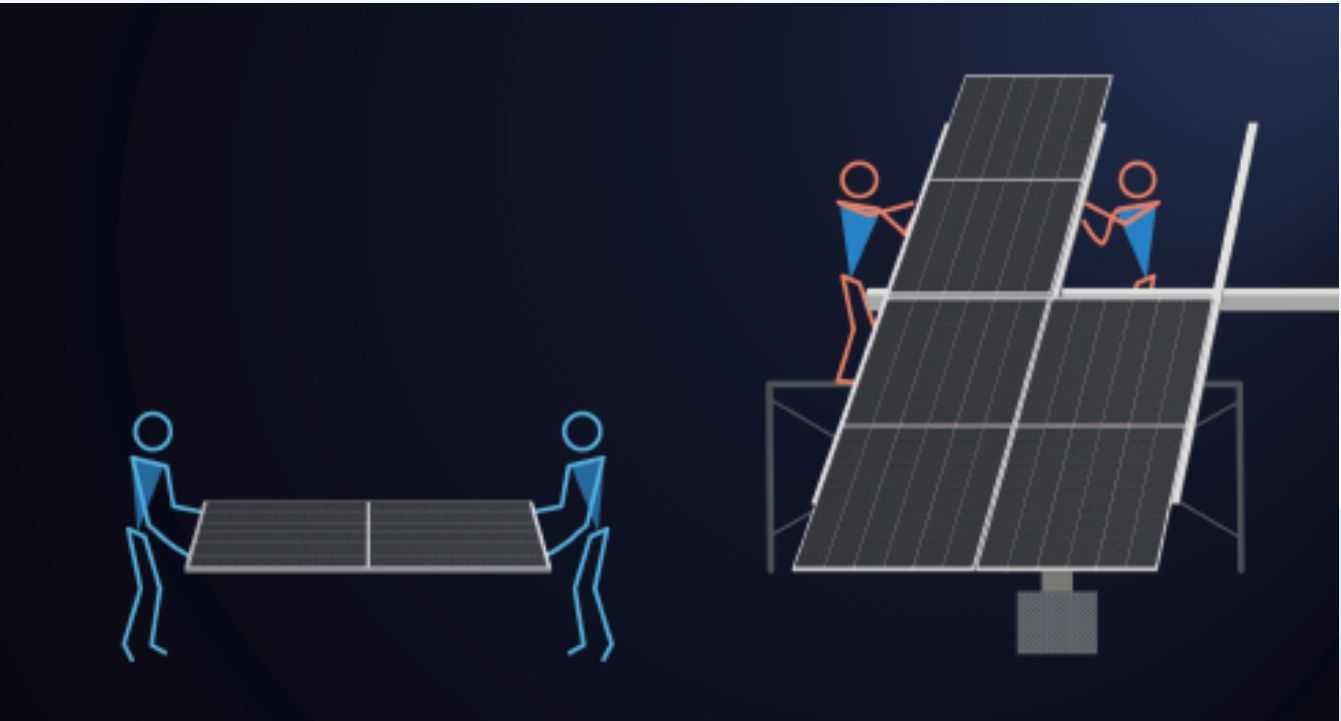
+390,60W (+12%)

Easy for unpacking and prevent module from falling down



Manual handling

4 crews/group, same staffing as traditional installation

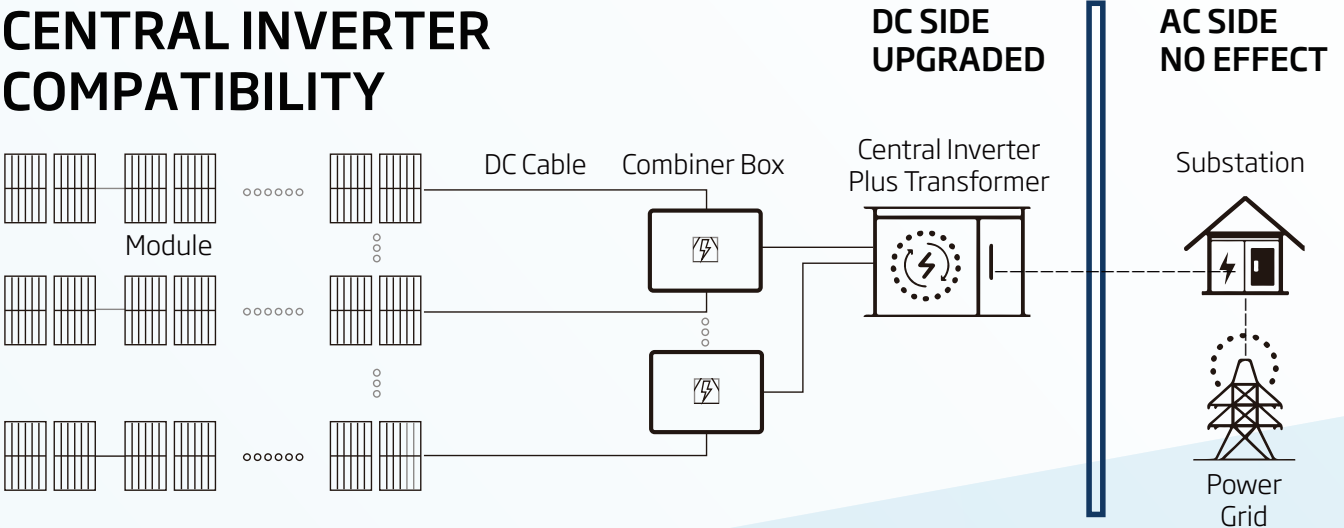


-24%
Module installation Quantity
Installation cost reduction 5-7%

ECOSYSTEM IS COMPLETELY IN PLACE

TYPE		BRAND	MODEL
INVERTER	Central	SUNGROW	1600/2500/3125KW
	String	SUNGROW	SG225HX/SG250HX
		HUAWEI	SUN2000-196KTL-H0/SUN2000-196KTL-H3
		SMA	Sunny Tripower 150-20
		SINENG	SP-225-H/SP-250K-H
COMBINER BOX		LongMax, Bentek, ConnectPV Shoals, SolarBOS	1500V High Current
CABLE		4MM²/6MM²	

CENTRAL INVERTER COMPATIBILITY



STRING INVERTER COMPATIBILITY

