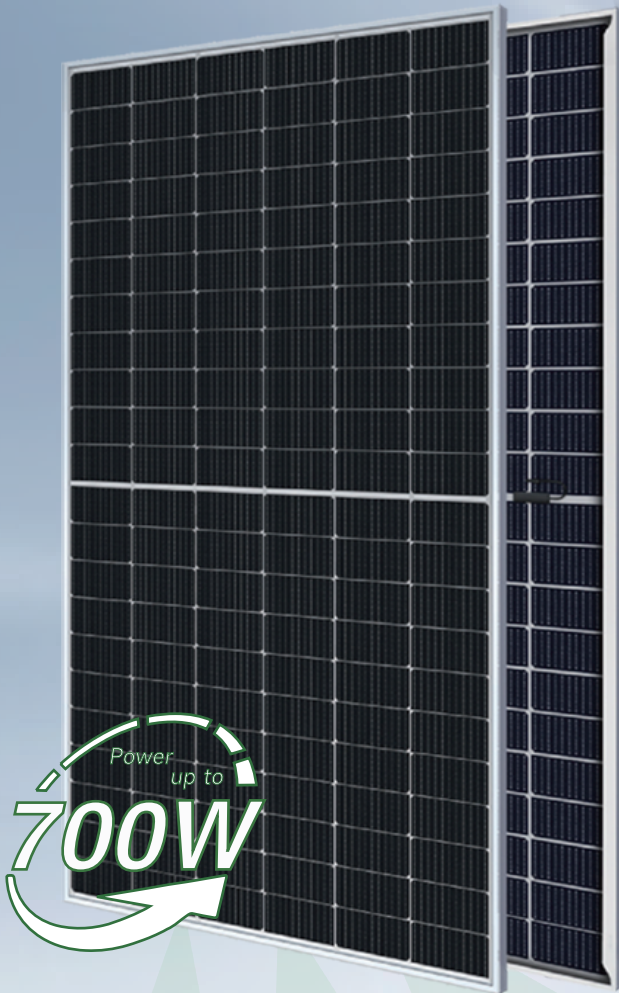


TOPCON G12 Series 680-700W

132-cell Bifacial TOPCon Half Cell
Double-glass Solar Module



TOPCon Cell Technology

N-type with very Lower LID, Better low irradiance response



SMBB design with Half-Cut Technology

Shorter current transmission distance, less resistive loss and higher cell efficiency.



Up to 90% Bifaciality

Natural symmetrical bifacial structure bringing more energy yield from the backside.



Sealing with PIB based sealant

Stronger water resistance, greater air impermeability to extend module lifespan.



Higher reliability

Industrial leading product and performance warranty, ensuring modules' consistent outstanding performance.



Suitable for Utility project

Lower BOS cost, lower LCOE.

WARRANTY

Product
Warranty **30** years

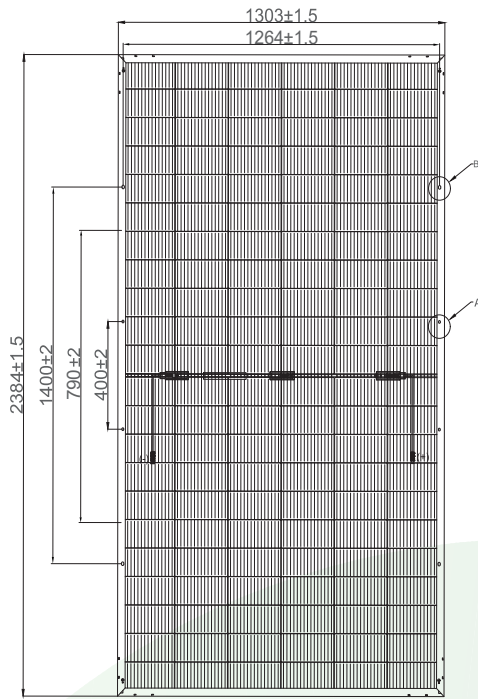
Linear
Power
Warranty **30** years



TOPCon G12 Series 680-700W 132-cell Bifacial TOPCON Half Cell Module

Engineering Drawings

Unit: mm



Electrical Characteristics (STC*)

THS-D66HND	680W	685W	690W	695W	700W
Maximum Power (Pmax)	680W	685W	690W	695W	700W
Module Efficiency (%)	21.9%	22.1%	22.2%	22.4%	22.5%
Optimum Operating Voltage(Vmp)	39.92V	40.12V	40.32V	40.52V	40.72V
Optimum Operating Current (Imp)	17.04A	17.08A	17.12A	17.16A	17.20A
Open Circuit Voltage (Voc)	47.90V	48.14V	48.38V	48.82V	48.86V
Short Circuit Current (Isc)	17.80A	17.84A	17.88A	17.93A	17.97A
Operating Module Temperature	-40 to +85°C				
Maximum System Voltage	DC1500V (IEC)				
Maximum Series Fuse	35A				
Power Tolerance	0~+5W				
Bifaciality	80%±10%				

*STC: Irradiance 1000 W/m², cell temperature 25°C, AM=1.5. Tolerance of Pmax is within +/- 3%.

BSTC*

	742W	759W	765W	770W	776W
Maximum Power (Pmax)	742W	759W	765W	770W	776W
Optimum Operating Voltage(Vmp)	39.92V	40.12V	40.32V	40.52V	40.72V
Optimum Operating Current (Imp)	18.88A	18.92A	18.97A	19.01A	19.06A
Open Circuit Voltage (Voc)	47.90V	48.14V	48.38V	48.82V	48.86V
Short Circuit Current (Isc)	19.72A	18.92A	18.97A	19.87A	19.91A

**BSTC: Front side irradiation 1000W/m², back side reflection irradiation 135W/m²,AM=1.5, ambient temperature 25°C.

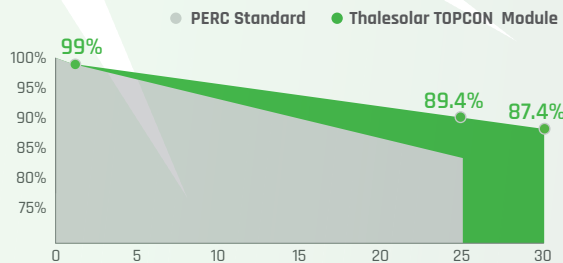
Temperature Characteristics

Nominal Operating Cell Temp.(NOCT)	43°C ± 2°C
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.046%/°C

Safety & Warranty

Safety Class	Class II
Product Warranty	30 yrs Workmanship
Performance Warranty	30 yrs Linear Warranty*

*Less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year is no more than 0.4%, and the power is no less than 87.4% until the 30th year.



*Refer to Thalesolar standard warranty for details

Mechanical Characteristics

Cell Type	TOPCon Mono 210X105mm
Cell Connection	132(6X24)
Module Dimension	2384X1303X33mm
Weight	38.3kg
Junction Box	IP68
Output Cable	4mm ² , 300mm in length, length can be customized/UV resistant
Connectors Type	MC4 original/MC4 compatible
Frame	Anodised aluminum alloy
Encapsulant	PDE/EPE
Front Load	5400Pa
Rear Load	2400Pa
Glass Thickness	Double solar glass 2.0mm

Shipping Configurations

Container Type	HC
Container Size	40'
Pallets Per Container	18
Modules Per Pallet (pcs)	33
Modules Per Container (pcs)	594