

## TOPCON G12 Series 565-585W

144-cell TOPCon Half Cell Module



Power up to  
**585W**



### 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 **25** years

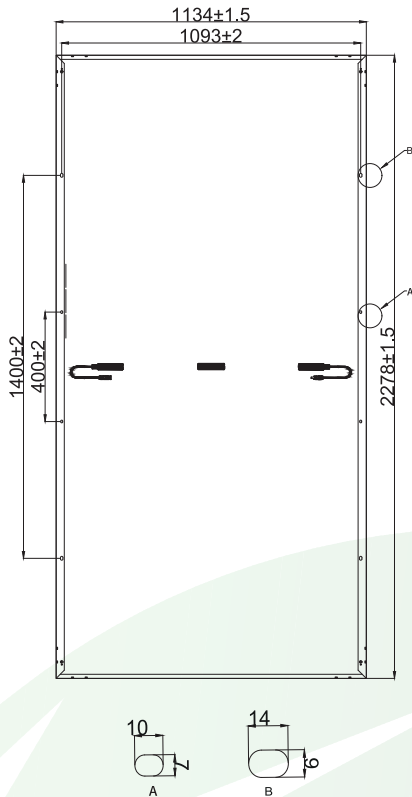
Linear  
Power  
Warranty **30** years



## TOPCon G12 Series 565-585W 144-cell TOPCON Half Cell Module

### Engineering Drawings

Unit: mm



### Electrical Characteristics (STC\*)

THS-D72HN	565W	570W	575W	580W	585W
Maximum Power (P <sub>max</sub> )	565W	570W	575W	580W	585W
Module Efficiency (%)	22.9%	22.1%	22.3%	22.5%	22.6%
Optimum Operating Voltage(V <sub>mp</sub> )	43.53V	43.68V	43.83V	43.98V	44.13V
Optimum Operating Current (I <sub>mp</sub> )	12.98A	13.05A	13.12A	13.19A	13.26A
Open Circuit Voltage (V <sub>oc</sub> )	51.33V	51.48V	51.64V	51.79V	51.92V
Short Circuit Current (I <sub>sc</sub> )	13.57A	13.64A	13.71A	13.78A	13.85A
Operating Module Temperature	-40 to +85°C				
Maximum System Voltage	DC1500V (IEC)				
Maximum Series Fuse	25A				
Power Tolerance	0~+5W				

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, AM=1.5. Tolerance of P<sub>max</sub> is within +/- 3%.

### NMOT\*

Maximum Power (P <sub>max</sub> )	430W	433W	437W	441W	445W
Optimum Operating Voltage(V <sub>mp</sub> )	40.8V	41.0V	41.2V	41.4V	41.6V
Optimum Operating Current (I <sub>mp</sub> )	10.54A	10.56A	10.61A	10.65A	10.70A
Open Circuit Voltage (V <sub>oc</sub> )	48.7V	48.9V	49.1V	49.2V	49.3V
Short Circuit Current (I <sub>sc</sub> )	11.40A	11.47A	11.53A	11.60A	11.67A

\*NMOT: Front side irradiation 800W/m<sup>2</sup>, wind speed 1m/s, ambient temperature 20°C.

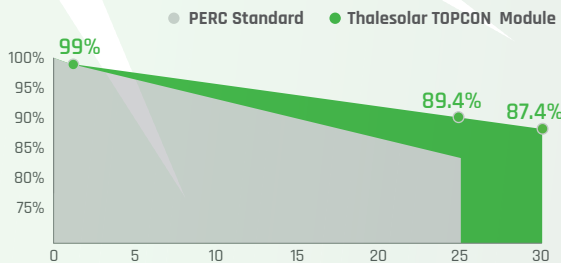
### Temperature Characteristics

Nominal Operating Cell Temp.(NOCT)	43°C ± 2°C
Temperature Coefficient of P <sub>max</sub>	-0.30%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.26%/°C
Temperature Coefficient of I <sub>sc</sub>	0.046%/°C

### Safety & Warranty

Safety Class	Class II
Product Warranty	25 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 182X91mm
Cell Connection	144(6X24)
Module Dimension	2278X1134X35mm
Weight	28.5kg
Junction Box	IP68
Output Cable	4mm <sup>2</sup> , 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	Solar glass 3.2mm

### Shipping Configurations

Container Type	HC
Container Size	40'
Pallets Per Container	20
Modules Per Pallet (pcs)	31
Modules Per Container (pcs)	620