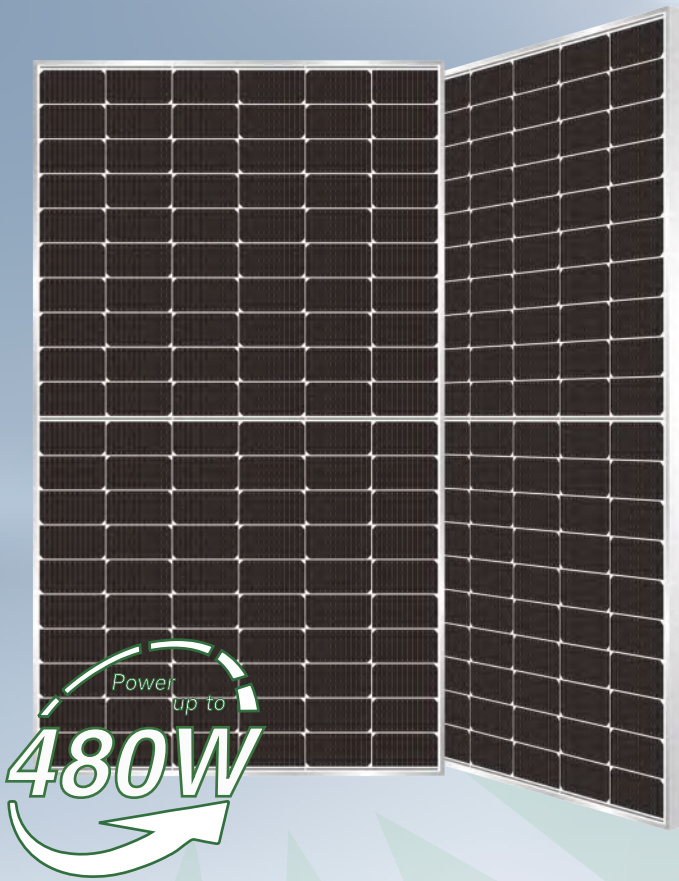


## TOPCon G10 Series 460-480W

120-cell TOPCon Half Cell 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.



### 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

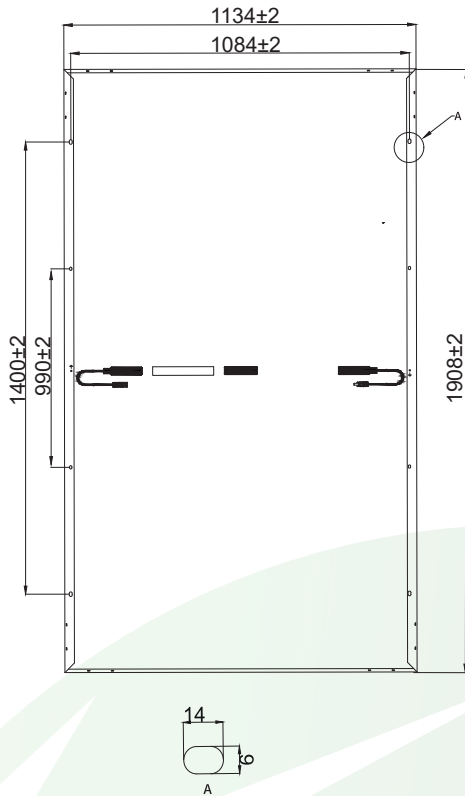
Linear  
Power  
Warranty **30** years



## TOPCon G10 Series 460-480W 120-cell TOPCon Half Cell Module

### Engineering Drawings

Unit: mm



### Electrical Characteristics (STC\*)

THS-D54HND	460W	465W	470W	475W	480W
Maximum Power (Pmax)	460W	465W	470W	475W	480W
Module Efficiency (%)	21.3%	21.5%	21.7%	22.0%	22.2%
Optimum Operating Voltage(Vmp)	34.72V	34.89V	35.05V	35.12V	35.38V
Optimum Operating Current (Imp)	13.25A	13.33A	13.41A	13.49A	13.57A
Open Circuit Voltage (Voc)	42.05V	42.22V	42.38V	42.54V	42.71V
Short Circuit Current (Isc)	13.99A	14.07A	14.15A	14.23A	14.31A
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 Pmax is within +/- 3%.

### NMOT\*

Maximum Power (Pmax)	351W	355W	359W	362W	366W
Optimum Operating Voltage(Vmp)	33.24V	33.40V	33.55V	33.62V	33.87V
Optimum Operating Current (Imp)	10.56A	10.63A	10.69A	10.75A	10.82A
Open Circuit Voltage (Voc)	40.26V	40.42V	40.57V	40.72V	40.89V
Short Circuit Current (Isc)	11.25A	11.32A	11.38A	11.45A	11.51A

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

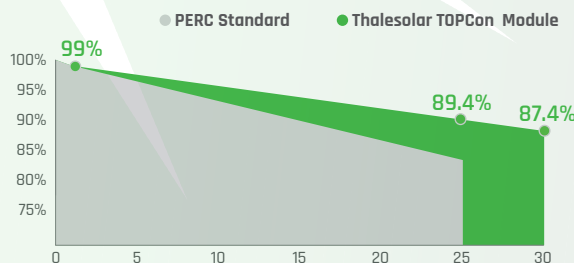
### Temperature Characteristics

Nominal Operating Cell Temp.(NOCT)	43°C ± 2°C
Temperature Coefficient of 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	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	120(6X20)
Module Dimension	1908X1134X30mm
Weight	22.5kg
Junction Box	IP68
Output Cable	4mm <sup>2</sup> , 1200mm in length, length can be customized/UV resistant
Connectors Type	MC4 original/MC4 compatible
Frame	Anodised aluminum alloy
Encapsulant	POE/EPE
Front Load	5400Pa
Rear Load	2400Pa
Glass Thickness	Solar glass 3.2mm

### Shipping Configurations

Container Type	HC
Container Size	40'
Pallets Per Container	24
Modules Per Pallet (pcs)	36
Modules Per Container (pcs)	864