

TOPCon G10 Series 430-450W

108-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

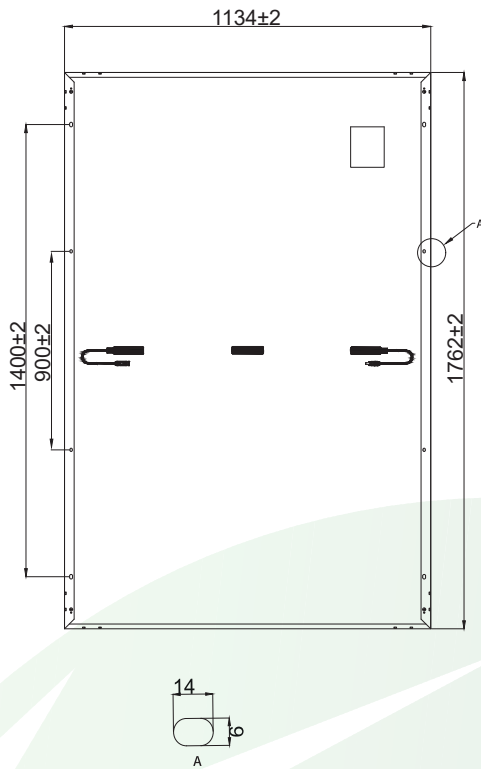
Linear
Power
Warranty **30** years



TOPCon G10 Series 430-450W 108-cell TOPCon Half Cell Module

Engineering Drawings

Unit: mm



Electrical Characteristics (STC*)

THS-D54HN	430W	435W	440W	445W	450W
Maximum Power (Pmax)	430W	435W	440W	445W	450W
Module Efficiency (%)	21.5%	21.8%	22.0%	22.3%	22.5%
Optimum Operating Voltage(Vmp)	32.38V	32.59V	32.81V	33.02V	33.23V
Optimum Operating Current (Imp)	13.28A	13.35A	13.41A	13.48A	13.55A
Open Circuit Voltage (Voc)	38.95V	39.16V	39.38V	39.59V	39.59V
Short Circuit Current (Isc)	13.73A	13.80A	13.86A	13.93A	14.48A
Operating Module Temperature	-40 to +85°C				
Maximum System Voltage	DC1500V (IEC)				
Maximum Series Fuse	25A				
Power Tolerance	0~+5W				

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

NOCT*

Maximum Power (Pmax)	323W	327W	331W	335W	339W
Optimum Operating Voltage(Vmp)	30.10V	30.33V	30.56V	30.76V	30.99V
Optimum Operating Current (Imp)	10.73A	10.78A	10.83A	10.89A	10.94A
Open Circuit Voltage (Voc)	37.00V	37.20V	37.41V	37.61V	39.81V
Short Circuit Current (Isc)	11.09A	11.14A	11.19A	11.25A	11.31A

**NOCT: Front side irradiance 800W/m²; wind speed 1m/s, ambient temperature 20 C.

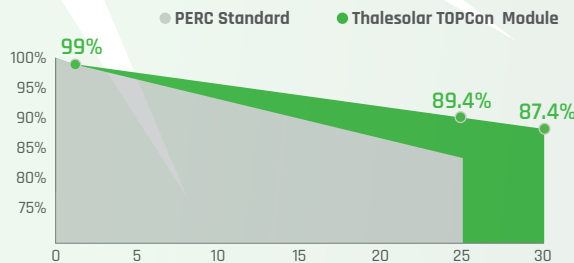
Temperature Characteristics

Nominal Operating Cell Temp.(NOCT)	45°C ± 2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.045%/°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 16BB
Cell Connection	108(6X18)
Module Dimension	1752X1134X30mm
Weight	21kg
Junction Box	IP68
Output Cable	4mm ² , 1200mm 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	Tempered coated solar glass 3.2mm

Shipping Configurations

Container Type	HC
Container Size	40'
Pallets Per Container	26
Modules Per Pallet (pcs)	36
Modules Per Container (pcs)	936