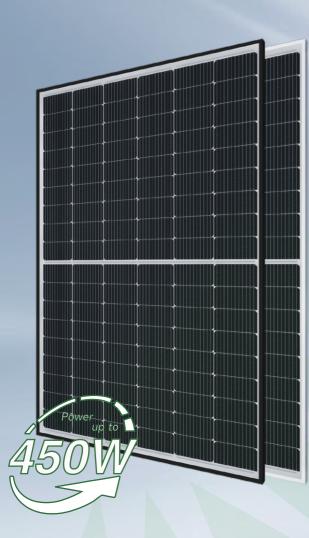
# **Thales** Jar

## 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 extent 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 **25** years



Linear Power Warranty **30** years



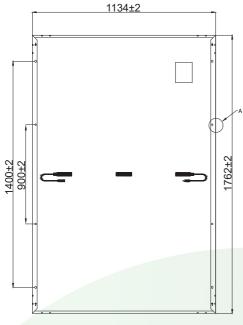
The spectication and key teatures described in this datasheet may deviate slightly and are not guaranteed. Shanghai thalesolar reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the latest version of the datasheet which shall be duly incorporated into the binding contract made by the parties govering all transactions related to the purchase and sale of the products described herein.

### **TOPCon G10 Series 430-450W**

Unit: mm

108-cell TOPCon Half Cell Module

### Engineering Drawings



### A

#### **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.



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Module Efficiency (%) 21.5% Optimum Operating Voltage(Vmp) 32.38V

THS-D54HN

Maximum Power

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 Temper	ature	-40 to +85°C				
Maximum System Voltage	2	DC1500V (IEC)				
Maximum Series Fuse		25A				
Power Tolerance		0~+5W				

435W

435W

21.8%

**Thales** Jar

440W

44NW

22.0%

445W

445W

22.3%

450W

450W

22.5%

\*STC: Irradiance 1000 W/m², cell temperature 25  $^\circ\text{C}$ , AM=1.5. Tolerance of Pmax is within +/- 3%.

**Electrical Characteristics (STC\*)** 

(Pmax)

430W

430W

NOCT*						
Maximum Power	(Pmax)	323W	327W	331W	335W	339W
Optimum Operating Voltag	e(Vmp)	30.10V	30.33V	30.56V	30.76V	30.99V
Optimum Operating Currer	nt (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	(lsc)	11.09A	11.14A	11.19A	11.25A	11.31A

\*\*NOCT: Front side  $\,$  rradiance 800W/m2; wind speed 1m/s, ambient temperature 20  $^\circ\!C$  .

### **Mechanical Characteristics**

Cell Type	TOPCon Mono 16BB					
Cell Connection	108(6X18)					
Module Dimension	1762X1134X30mm					
Weight	21kg					
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	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	

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