Thales

TOPCON G12 Series **690-710W**

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

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



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 Warranty **30** years

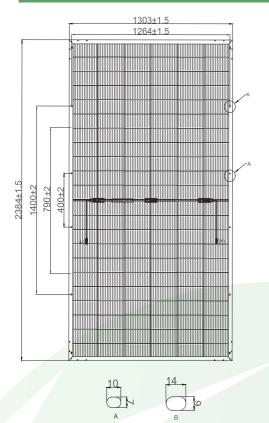




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TOPCon G12 Series 690-710W 132-cell Bifacial TOPCON Half Cell Module

Engineering Drawings Unit: mm



Temperature Characteristics

43°C ± 2°C

-0.30%/°C

-0.26%/°C

0.046%/°C

Class II

30 vrs Workmanship

Nominal Operating Cell Temp.(NOCT)

Safety & Warranty

Temperature Coefficient of Pmax

Temperature Coefficient of Voc

Temperature Coefficient of lsc

Safety Class

Electrical Characteristics (STC*)

THS-D66HND	690W	695W	700W	705W	710W	
Maximum Power (Pmax)	690W	695W	700W	705W	710W	
Module Efficiency (%)	22.2%	22.4%	22.5%	22.7%	22.9%	
Optimum Operating Voltage(Vmp)	40.32V	40.52V	40.72V	40.92V	41.12V	
Optimum Operating Current (Imp)	17.12A	17.16A	17.20A	17.20A	17.27A	
Open Circuit Voltage (Voc)	48.38V	48.82V	48.86V	48.90V	48.94V	
Short Circuit Current (Isc)	17.88A	17.93A	17.97A	18.01A	18.05A	
Operating Module Temperature			-40 to +85°C			
Maximum System Voltage	DC1500V (IEC)					
Maximum Series Fuse	35A					
Power Tolerance		0~+5W				
Bifaciality	80%±10%					

Thales Jar

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

BSTC*						
Maximum Power	(Pmax)	765W	770W	776W	782W	788W
Optimum Operating Voltag	ge(Vmp)	40.32V	40.52V	40.72V	40.92V	41.12V
Optimum Operating Curre	nt (Imp)	18.97A	19.01A	19.06A	19.11A	19.16A
Open Circuit Voltage	(Voc)	48.38V	48.82V	48.86V	48.90V	48.94V
Short Circuit Current	(lsc)	19.83A	19.87A	19.91A	19.95A	20.01A

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

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	POE/EPE			
Front Load	5400Pa			
Rear Load	2400Pa			
Glass Thickness	Double solar glass 2.0mm			

Shipping Configurations

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

Product Warranty Performance Warranty 30 vrs Linear Warrantv*

*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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