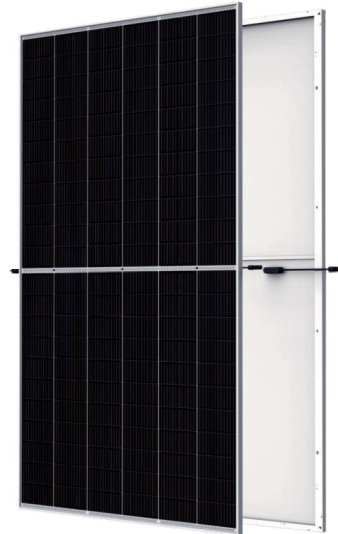
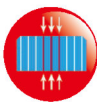


**NES132/690W
210MM N-TOPCon
MBB Half Cell Solar Panel**



Key Features



N-TOPCon Half Cell
The power of Half-cell solar panel increases, and the hot spot temperature reduces because of lower working current



Positive Tolerance
Positive tolerance of up to 0~+5W delivers higher outputs reliability



High PID Resistant
Advanced cell technology and qualified materials lead to high PID resistant



Current Sorting Process
System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



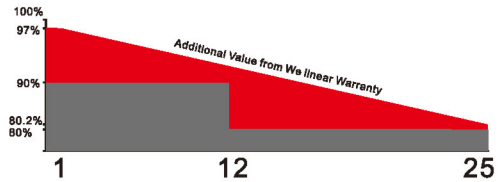
Extended Wind and Snow load tests
Module certified to withstand extreme wind (2400 Pascal) and snow loads(5400 Pascal)



1500V
Backsheet and junction box supporting 1500V system

Quality Guarantee

Industry-Leading Warranty Based on Nominal Power



- * 25-year linear power output warranty
- * 12-year product warranty
- * The first year attenuation ≤ 2%

- * MBB solar cells, Low resistance loss and higher conversion efficiency
- * Double EL test before and after lamination, highly control product defects
- * Solar panel classified by current, to improve system performance

Certificates

- * ISO9001:2015
- * ISO14001:2015
- * ISO45001:2018
- * TUV, CE, CQC, SGS, INMETRO, DEKRA



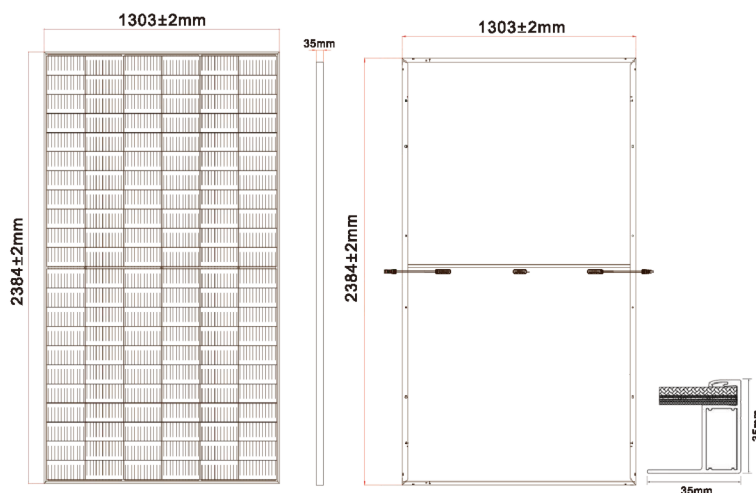
NES132/690W 210MM N-TOPCon MBB Half Cell Solar Panel

Electrical Characteristics

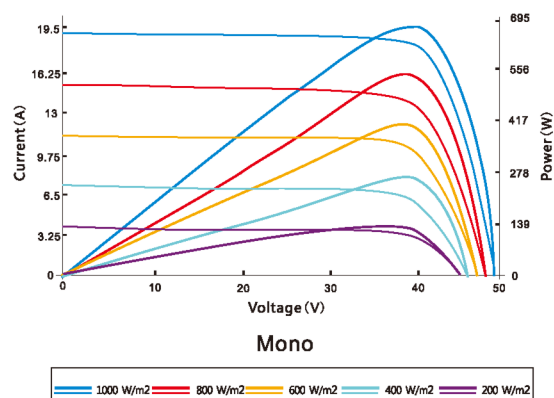
STC	NES132-7-690M
Maximum Power(Pmax)	690W
Optimum Operating Voltage(Vmp)	38.94V
Optimum Operating Current(Imp)	17.72A
Open Circuit Voltage(Voc)	46.88V
Short Circuit Current(Isc)	18.79A
Module Efficiency	22.21%
Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Power Tolerance	0~+5W

STC Irradiance 1000 W/m², module temperature 25°C, AM=1.5; Best in Class AAA solar simulator (IEC 60904-9) used

Engineering Drawing



I-V Curve



Excellent performance under weak light conditions: at an irradiation intensity of 800W/m² (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m²) is achieved.

Mechanical Characteristics

Solar Cell	210mm MBB Monocrystalline silicon cells
No. of Cells	132(6x11x2)
Dimensions	2384mmx1303mmx35mm
Weight	38kg±3%
Front Glass	3.2mm(0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated
Output Cables	TÜV (2Pfg1169:2007)
	4.0 mm ² (0.006 inches ²), 300mm/Customized
Connectors	MC4 connectors

Temperature Characteristics

NOCT	43±2°C
Temperature Coefficient of Pmax	-0.340%/°C
Temperature Coefficient of Voc	-0.250%/°C
Temperature Coefficient of Isc	0.040%/°C

Packing Configuration(35mm)

Per Pallet	31Pieces
Per Container (40' HQ)	527Pieces

Note: Specifications subject to technical changes and tests, We reserves the right of final interpretation.