GP-NES144/530-600W
182mm MBB
Bifacial Half Cell Mono Solar Panel

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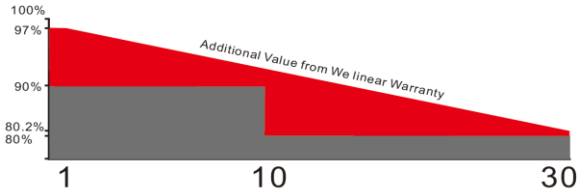
Industry-Leading Warranty Based on Nominal Power



* 30-year linear power output warranty
* 10-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

Key Features

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 reliablity

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)

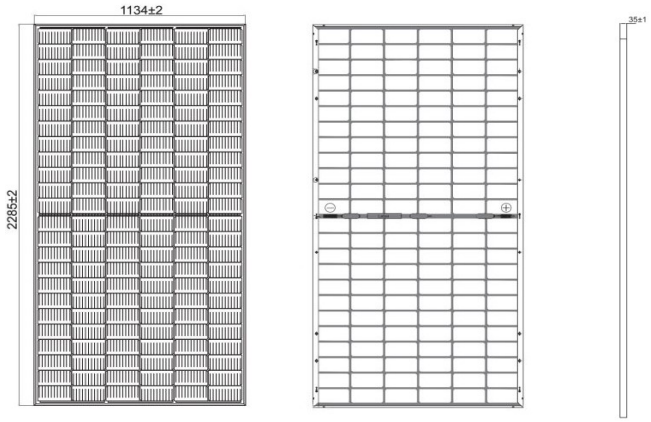
1500V
Backsheet and junction box supporting 1500V system

Certificates
*ISO9001:2015
*ISO14001:2015
*ISO45001:2018
*TUV 、CE 、CQC 、SGS 、INMETRO 、DEKRA

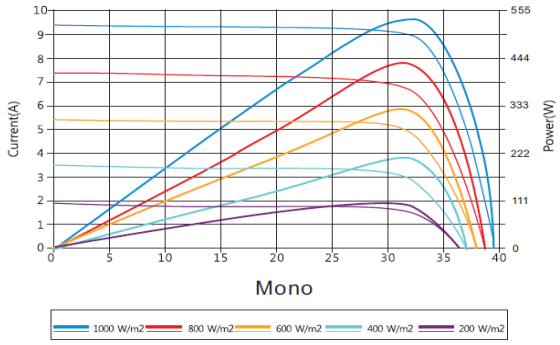
Specifications

STC	NES144-7-530M	NES144-7-535M	ES144-7-540M	NES144-7-545M	NES144-7-550M	NES144-7-600M
Maximum Power(Pmax)	530W	535W	540W	545W	550W	600W
Optimum Operating Current(Imp)	12.83A	12.90A	12.97A	13.04A	13.11A	14.3
Optimum Operating Voltage(Vmp)	41.31V	41.47V	41.64V	41.80V	41.96V	42.06V
Open Circuit Voltage(Voc)	49.30V	49.45V	49.60V	49.75V	49.90V	50.03
Short Circuit Current(Isc)	13.72A	13.79A	13.86A	13.93A	14.00A	15.27
Module Efficiency	0.2045	20.64%	20.84%	21.03%	21.23%	21.23%
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 25oC, 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/m^2 (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m^2) is achieved.

Mechanical Characteristics

Solar Cell	182mm MBB Monocrystalline silicon cells
No. of Cells	144(6x12x2)
Dimensions	2285±2mmx1134±2mmx35±1mm
Weight	31.6kg±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 mm2 (0.006 inches2), 300mm/Customized
Connectors	MC4 connectors

Temperature Characteristics

NOCT	45±2°C
Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Voc	-0.275%/°C
Temperature Coefficient of Isc	0.045%/°C

Packing Configuration(35mm)

Per Pallet	30Pieces
Per Container (20' GP)	250Pieces
Per Container (40' HQ)	624Pieces

Note: Specifications subject to technical changes and tests