



中国电子科技集团有限公司
浙江嘉科新能源科技有限公司
ZHEJIANG JEC NEW ENERGY TECHNOLOGY CO.,LTD

NES144/525-550W 182mm MBB Bifacial Half Cell Mono Solar Panel



About Us

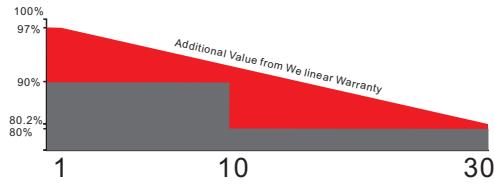
Zhejiang JEC New Energy Technology CO., Ltd (CETCsolar) located in Jiaxing, Zhejiang Province. Formly New Energy Sector of No.36 Research Institute of CETC(No.36 Research Institute), is a holding company of No. 36 Research Institute. Our core products are PV modules, commercial, public and household PV system, PV micro system. We have a professional system design capability, specializes in design, construction, operation and maintenance for distributed PV power station and environmental PV system, has a Zhejiang Province key enterprise institute---Institute of PV equipment and intelligent control.

We will uphold the rigorous style of military workers, provide the best quality products and service to our customers and help them create value.

Address: No.587 Taoyuan Road, Jiaxing, Zhejiang, P.R.China
Tel: +86-0573-82651222
Fax: +86-0573-82651223
E-mail: sales1@cetcsolar.com
Web: www.cetcsolar.com www.cetcsolarpv.com

Quality Guarantee

Industry-Leading Warranty Based on Nominal Power



* 30-year linear power output warranty

* 10-year product warranty

* The first year attenuation $\leq 2\%$

*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 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

Certificates

*ISO9001:2015

*ISO14001:2015

*ISO45001:2018

*TUV、CE、CQC、SGS、INMETRO、DEKRA



WeChat Official Accounts

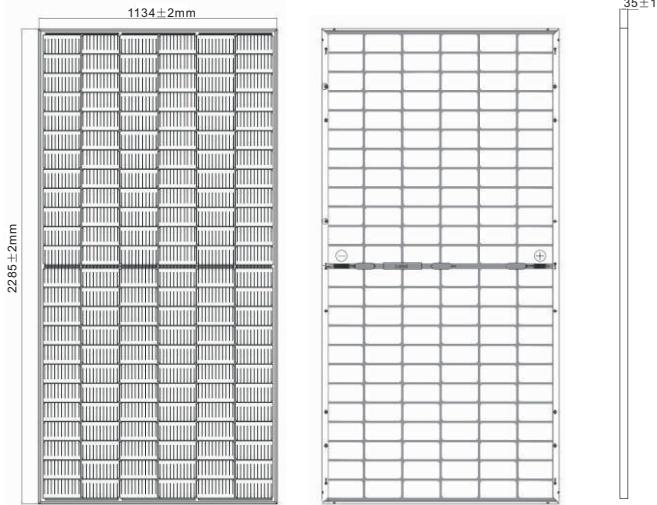
**NES144/525-550W
182mm MBB
Bifacial Half Cell Mono Solar Panel**

Electrical Characteristics

STC	NES144-7-525M	NES144-7-530M	NES144-7-535M	NES144-7-540M	NES144-7-545M	NES144-7-550M
Maximum Power(Pmax)	525W	530W	535W	540W	545W	550W
Optimum Operating Voltage(Vmp)	41.15V	41.31V	41.47V	41.64V	41.80V	41.96V
Optimum Operating Current(Imp)	12.76A	12.83A	12.90A	12.97A	13.04A	13.11A
Open Circuit Voltage(Voc)	49.15V	49.30V	49.45V	49.60V	49.75V	49.90V
Short Circuit Current(Isc)	13.65A	13.72A	13.79A	13.86A	13.93A	14.00A
Module Efficiency	20.26%	20.45%	20.64%	20.84%	21.03%	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 25°C, AM=1.5; Best in Class AAA solar simulator (IEC 60904-9) used

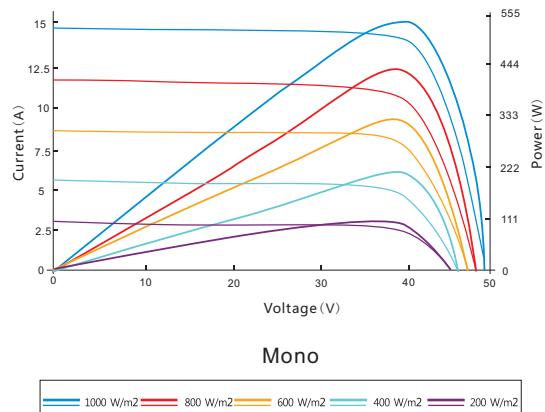
Engineering Drawing



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 mm ² (0.006 inches ²), 300mm/Customized
Connectors	MC4 connectors

I-V Curve



Mono

1000 W/m² 800 W/m² 600 W/m² 400 W/m² 200 W/m²

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.

Temperature Characteristics

NOCT	45±2°C
Temperature Coefficient of Pmax	-0.350%/°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

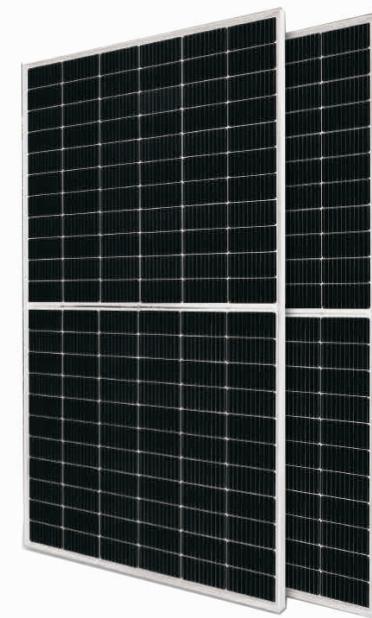
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NES132/480-505W 182mm MBB Bifacial Half Cell Mono Solar Panel



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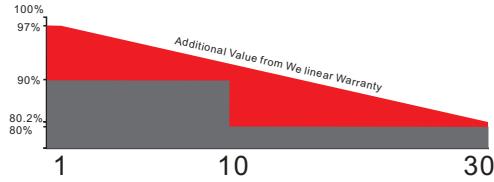
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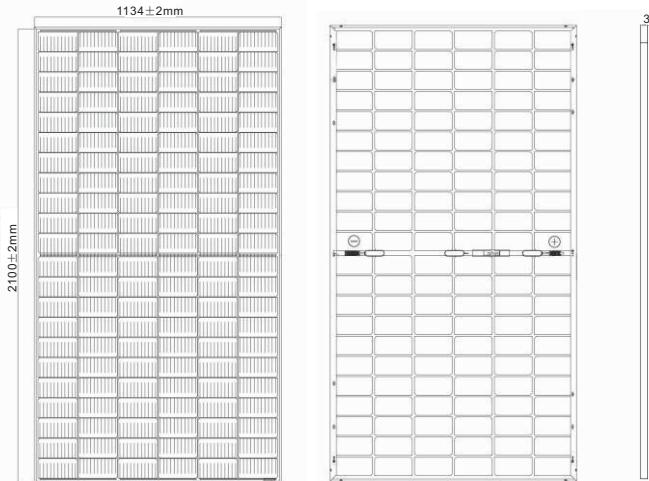
**NES132/480-505W
182mm MBB
Bifacial Half Cell Mono Solar Panel**

Electrical Characteristics

STC	NES132-7-480M	NES132-7-485M	NES132-7-490M	NES132-7-495M	NES132-7-500M	NES132-7-505M
Maximum Power(Pmax)	480W	485W	490W	495W	500W	505W
Optimum Operating Voltage(Vmp)	37.62V	37.81V	37.99V	38.17V	38.35V	38.53V
Optimum Operating Current(Imp)	12.76A	12.83A	12.90A	12.97A	13.04A	13.11A
Open Circuit Voltage(Voc)	45.07V	45.20V	45.33V	45.46V	45.59V	45.72V
Short Circuit Current(Isc)	13.65A	13.72A	13.79A	13.86A	13.93A	14.00A
Module Efficiency	20.15%	20.37%	20.58%	20.79%	21.00%	21.21%
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

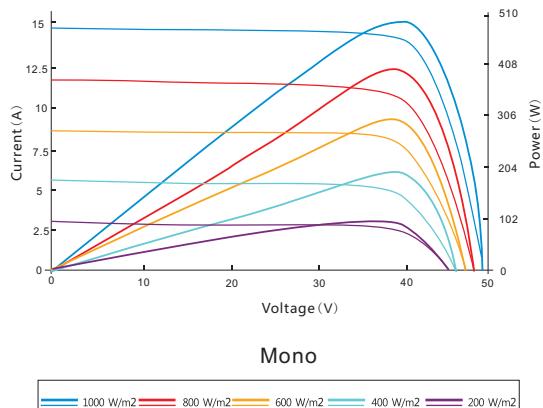
Engineering Drawing



Mechanical Characteristics

Solar Cell	182mm MBB Monocrystalline silicon cells
No. of Cells	132(6x11x2)
Dimensions	2100±2mmx1134±2mmx35±1mm
Weight	29kg±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

I-V Curve



Mono

1000 W/m² 800 W/m² 600 W/m² 400 W/m² 200 W/m²

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.

Temperature Characteristics

NOCT	45±2°C
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Packing Configuration(35mm)

Per Pallet	30Pieces
Per Container (20' GP)	250Pieces
Per Container (40' HQ)	690Pieces

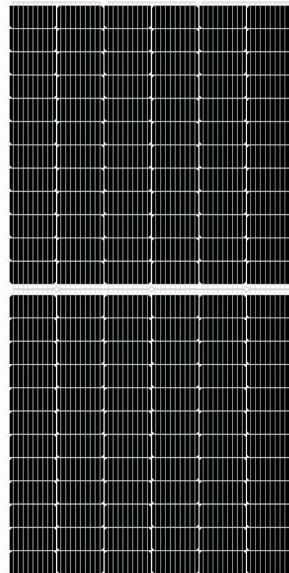
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NES144/440W 166mm 9BB Bifacial Half Cell Mono Solar Panel



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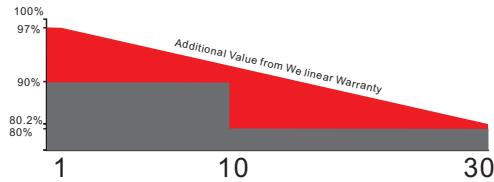
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Key Features



Half Cell

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



PVB Film

Encapsulate with PVB, high light transmission, lower water permeability, strong impact resistance



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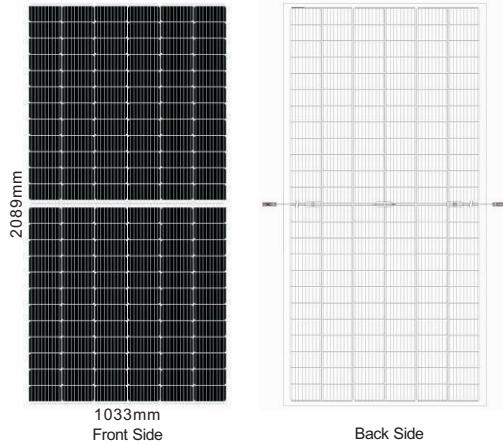
**NES144/440W
166mm 9BB
Bifacial Half Cell Mono Solar Panel**

Electrical Characteristics

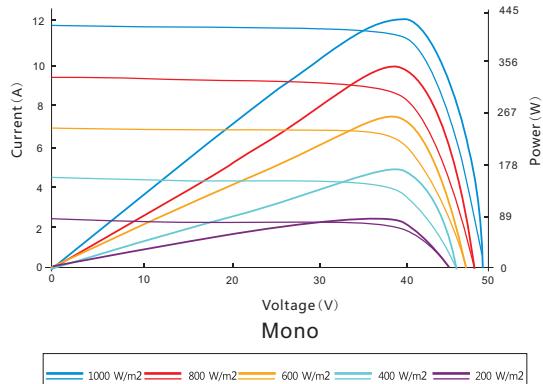
STC	NES144-6-440M
Maximum Power(Pmax)	440W~450W
Optimum Operating Voltage(Vmp)	41.20V
Optimum Operating Current(Imp)	10.70A
Open Circuit Voltage(Voc)	49.30V
Short Circuit Current(Isc)	11.20A
Module Efficiency	20.39%
Power Tolerance	0~+5W
Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	20A

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.

Temperature Characteristics

NOCT	45±2°C
Temperature Coefficient of Pmax	-0.380%/°C
Temperature Coefficient of Voc	-0.300%/°C
Temperature Coefficient of Isc	0.060%/°C

Packing Configuration(5.3mm)

Panel/Pallet	35Pieces
Pallet	20Pieces
Panel/Container (40' HQ)	700Pieces

Mechanical Characteristics

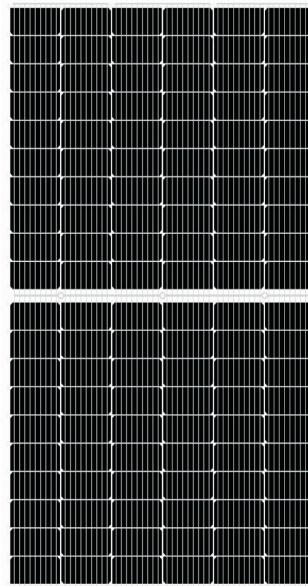
Solar Cell	166mm 9BB Half cell monocrystalline silicon cells
No. of Cells	144(6x12x2)
Dimensions	2089x1033x5.3mm
Weight	25.2kg
Transmittance	8%
Glass	Tempered glass
Frame	No frame
Film Material	PVB Film
Output Cables	TÜV (2Pfg1169:2007)
Connectors	MC4 connectors

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ZHEJIANG JEC NEW ENERGY TECHNOLOGY CO.,LTD

NES120/370W 166mm 9BB Bifacial Half Cell Mono Solar Panel



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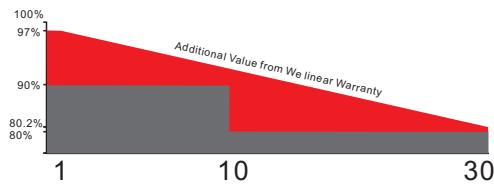
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Extended Wind and Snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads(5400 Pascal)



1500V

Backsheet and junction box supporting 1500V system

Certificates

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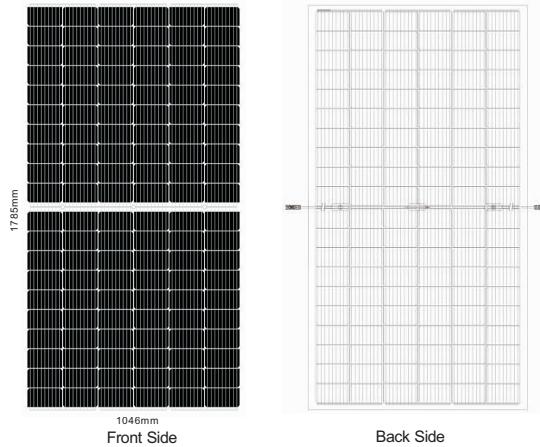
**NES120/370W
166mm 9BB
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Electrical Characteristics

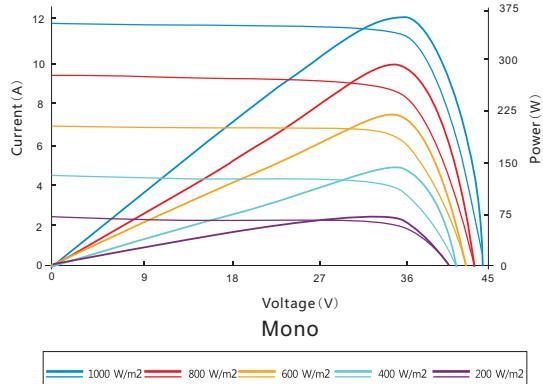
STC	NES120-6-370M
Maximum Power(Pmax)	370W
Optimum Operating Voltage(Vmp)	34.00V
Optimum Operating Current(Imp)	10.89A
Open Circuit Voltage(Voc)	41.20V
Short Circuit Current(Isc)	11.41A
Module Efficiency	19.82%
Power Tolerance	0~+5W
Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	20A

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	166mm 9BB Half cell monocrystalline silicon cells
No. of Cells	120(6x10x2)
Dimensions	1785x1046x5.3mm
Weight	22kg
Transmittance	10%
Glass	Tempered glass
Frame	No frame
Film Material	PVB Film
Output Cables	TÜV (2Pfg1169:2007)
Connectors	MC4 connectors

Temperature Characteristics

NOCT	45±2°C
Temperature Coefficient of Pmax	-0.380%/°C
Temperature Coefficient of Voc	-0.300%/°C
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Packing Configuration(5.3mm)

Panel/Pallet	35Pieces
Pallet	24Pieces
Panel/Container (40' HQ)	840Pieces