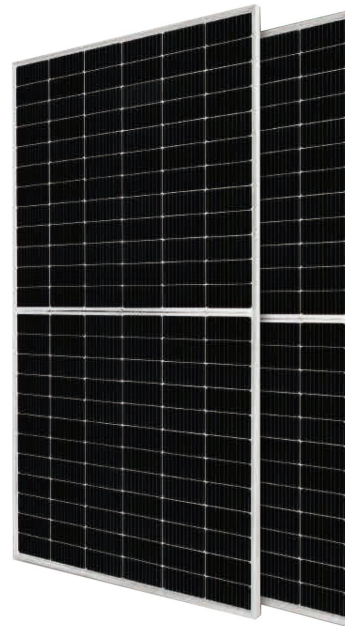




中国电子科技集团有限公司  
浙江嘉科新能源环保科技有限公司  
ZHEJIANG JEC NEW ENERGY TECHNOLOGY CO.,LTD



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

## About Us

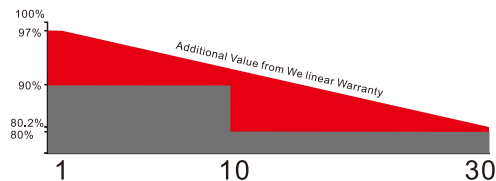
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We will uphold the rigorous style of military workers, provide the best quality products and service to our customers and help them create value.

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## Quality Guarantee

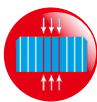
Industry-Leading Warranty Based on Nominal Power



- \* 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

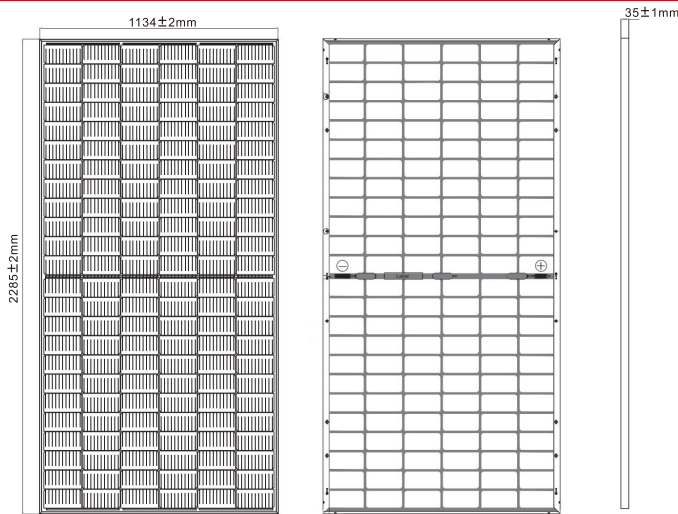
**NES144/525-550W**  
**182mm MBB**  
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**Electrical Characteristics**

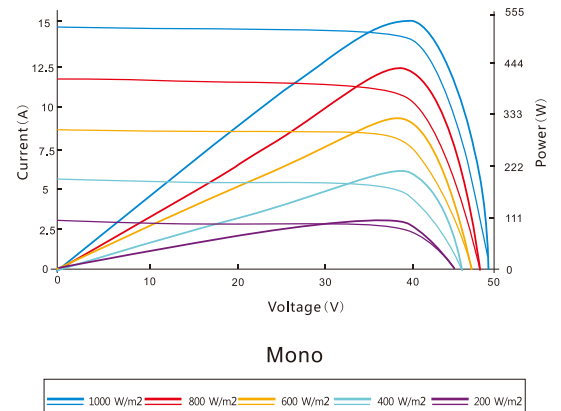
Model	NES144-7-525M	NES144-7-530M	NES144-7-535M	NES144-7-540M	NES144-7-545M	NES144-7-550M
Maximum Power(Pmax)	525W	530W	535W	540W	545W	550W
Optimum Operating Voltage(Vmp)	41.15V	41.31V	41.47V	41.64V	41.80V	41.96V
Optimum Operating Current(Imp)	12.76A	12.83A	12.90A	12.97A	13.04A	13.11A
Open Circuit Voltage(Voc)	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/m<sup>2</sup>, 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 irradiance intensity of 800W/m<sup>2</sup> (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m<sup>2</sup>) 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 mm <sup>2</sup> (0.006 inches <sup>2</sup> ), 300mm/Customized
Connectors	MC4 connectors

**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

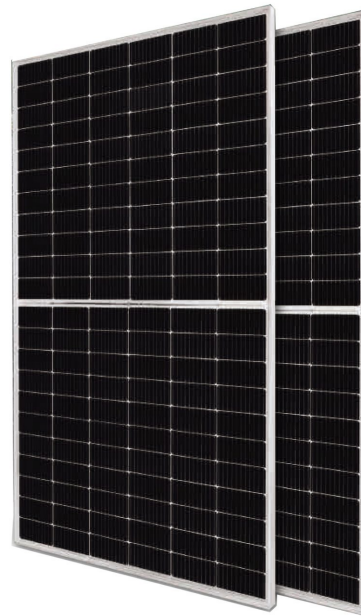
**Packing Configuration(35mm)**

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

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



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

## About Us

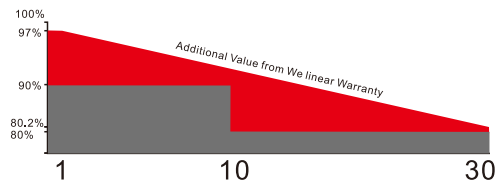
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## Quality Guarantee

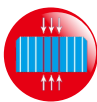
Industry-Leading Warranty Based on Nominal Power



- \* 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



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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

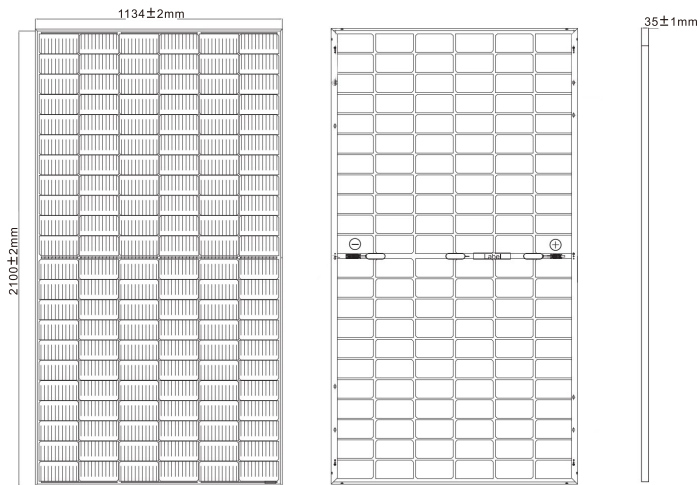
**NES132/480-505W**  
**182mm MBB**  
**Bifacial Half Cell Mono Solar Panel**

**Electrical Characteristics**

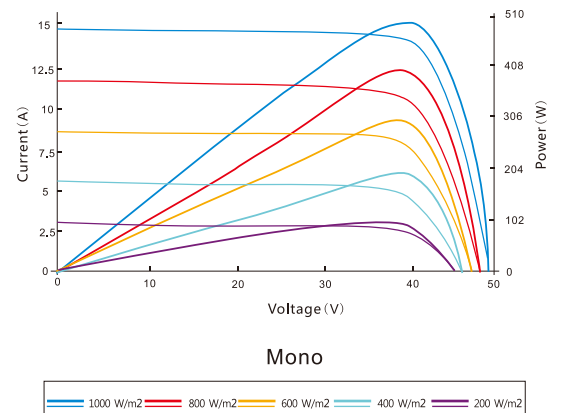
Model	NES132-7-480M	NES132-7-485M	NES132-7-490M	NES132-7-495M	NES132-7-500M	NES132-7-505M
Maximum Power(Pmax)	480W	485W	490W	495W	500W	505W
Optimum Operating Voltage(Vmp)	37.62V	37.81V	37.99V	38.17V	38.35V	38.53V
Optimum Operating Current(Imp)	12.76A	12.83A	12.90A	12.97A	13.04A	13.11A
Open Circuit Voltage(Voc)	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/m<sup>2</sup>, 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 irradiance intensity of 800W/m<sup>2</sup> (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m<sup>2</sup>) is achieved.

**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 <sup>2</sup> (0.006 inches <sup>2</sup> ), 300mm/Customized
Connectors	MC4 connectors

**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)**

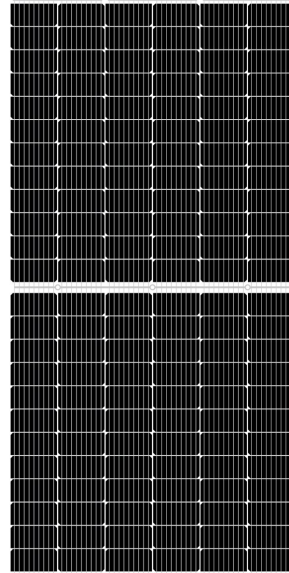
Per Pallet	30Pieces
Per Container (20' GP)	250Pieces
Per Container (40' HQ)	690Pieces

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



## About Us

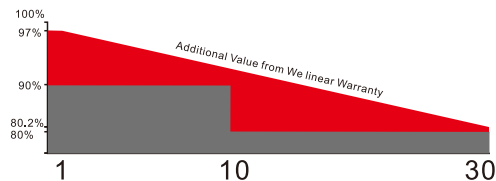
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## Quality Guarantee

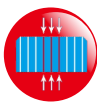
Industry-Leading Warranty Based on Nominal Power



- \* 30-year linear power output warranty
- \* 10-year product warranty
- \* The first year attenuation  $\leq 2\%$

- \*9BB 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



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



**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

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- \*ISO14001:2015
- \*ISO45001:2018
- \*TUV、CE、CQC、SGS、INMETRO、DEKRA



WeChat Official Accounts

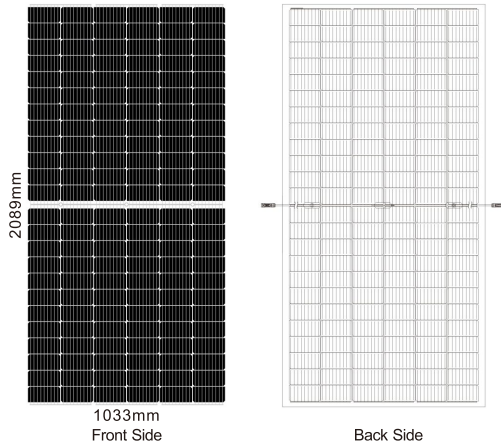


**NES144/440W**  
**166mm 9BB**  
**Bifacial Half Cell Mono Solar Panel**

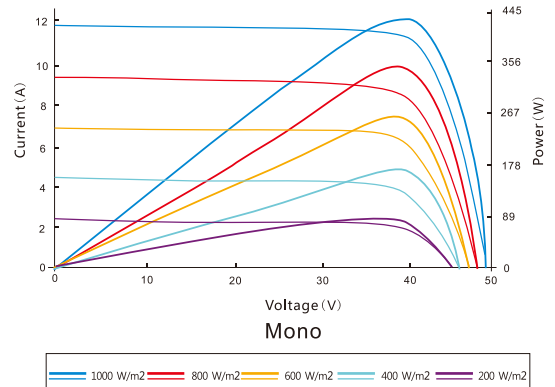
**Electrical Characteristics**

Model	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/m <sup>2</sup> , 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 irradiance intensity of 800W/m<sup>2</sup> (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m<sup>2</sup>) is achieved.

**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)
	4.0 mm <sup>2</sup> (0.006 inches <sup>2</sup> ), 300mm/Customized
Connectors	MC4 connectors

**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

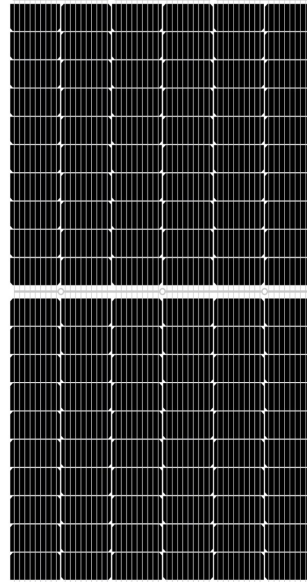
**Packing Configuration(5.3mm)**

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

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

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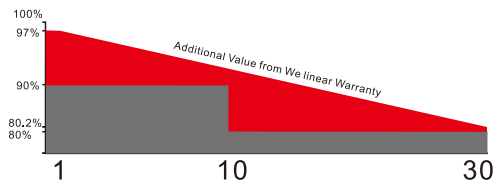
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## Quality Guarantee

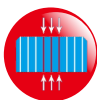
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- \* 30-year linear power output warranty
- \* 10-year product warranty
- \* The first year attenuation ≤ 2%

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- \*Double EL test before and after lamination, highly control product defects
- \*Solar panel classified by current, to improve system performance

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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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- \*ISO14001:2015
- \*ISO45001:2018
- \*TUV、CE、CQC、SGS、INMETRO、DEKRA



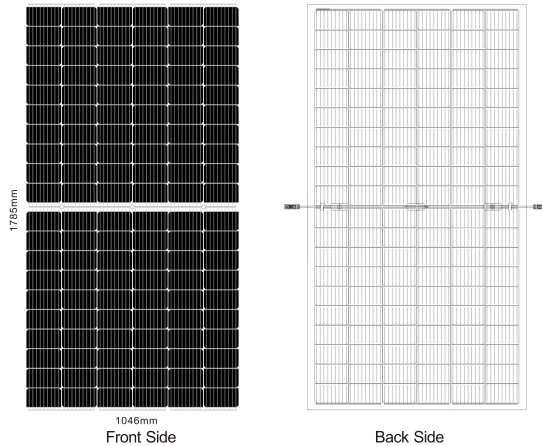
WeChat Official Accounts

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

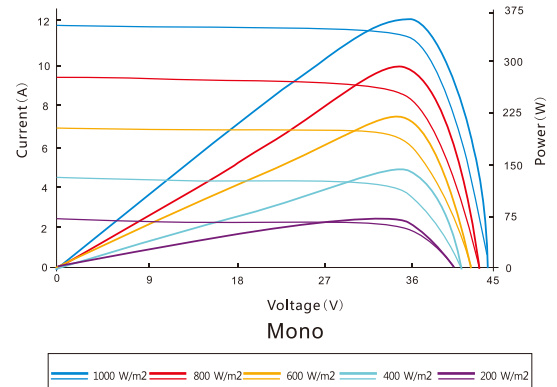
**Electrical Characteristics**

Model	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/m <sup>2</sup> , 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 irradiance intensity of 800W/m<sup>2</sup> (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m<sup>2</sup>) 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)
	4.0 mm <sup>2</sup> (0.006 inches <sup>2</sup> ), 300mm/Customized
Connectors	MC4 connectors

**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	24Pieces
Panel/Container (40' HQ)	840Pieces

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