



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



**NES108/410-430W**  
**182MM N-TOPCon**  
**MBB Half Cell Solar Panel**

## About Us

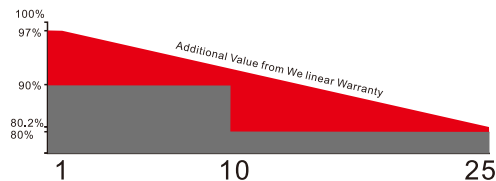
Zhejiang JEC New Energy Technology CO., Ltd (CETCsolar) located in Jiaxing, Zhejiang Province. Formerly New Energy Sector of No.36 Research Institute of CETC( No.36 Research Institute), is a holding company of No. 36 Research Institute. Our core products are PV modules, commercial, public and household 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

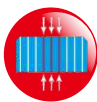
Industry-Leading Warranty Based on Nominal Power



- \* 25-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



**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

## Certificates

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



WeChat Official Accounts

# NES108/410-430W 182MM N-TOPCon MBB Half Cell Solar Panel



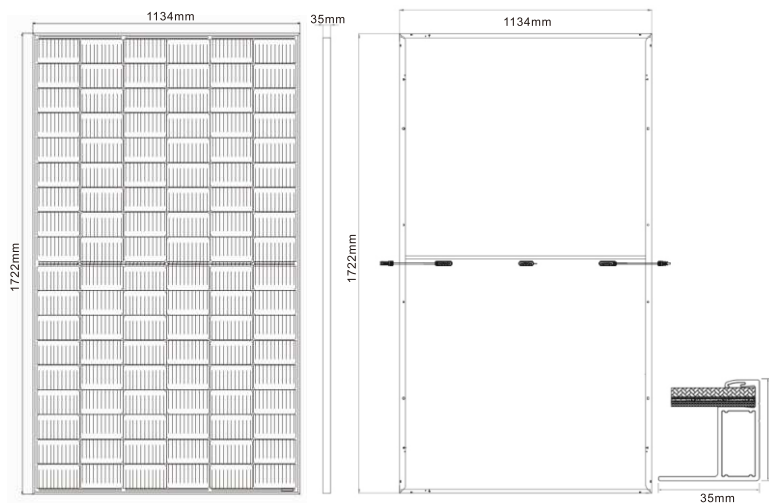
中国电子科技集团有限公司  
浙江嘉科新能源环保科技有限公司  
ZHEJIANG JEC NEW ENERGY TECHNOLOGY CO.,LTD

## Electrical Characteristics

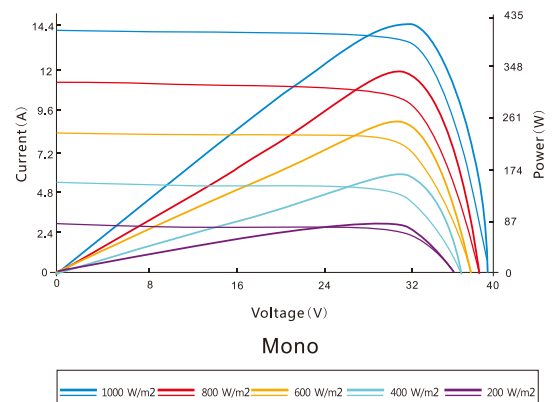
STC	NES108-7-410M	NES108-7-415M	NES108-7-420M	NES108-7-425M	NES108-7-430M
Maximum Power(Pmax)	410W	415W	420W	425W	430W
Optimum Operating Voltage(Vmp)	31.81V	32.02V	32.23V	32.44V	32.65V
Optimum Operating Current(Imp)	12.89A	12.96A	13.03A	13.10A	13.17A
Open Circuit Voltage(Voc)	38.10V	38.34V	38.57V	38.81V	39.04V
Short Circuit Current(Isc)	13.82A	13.89A	13.96A	14.03A	14.01A
Module Efficiency	21.00%	21.25%	21.51%	21.76%	22.02%
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	108(6x9x2)
Dimensions	1722mmx1134mmx35mm
Weight	21.5kg±3%
Front Glass	3.2mm(0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated
Output Cables	TÜV (2Pfg 1169:2007) 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	-0.360%/°C
Temperature Coefficient of Voc	-0.280%/°C
Temperature Coefficient of Isc	0.050%/°C

## Packing Configuration(35mm)

Per Pallet	31Pieces
Per Container (40' HQ)	806Pieces

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