



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



NES144/440-460W
F 35mm
9BB Mono Solar Panel

About Us

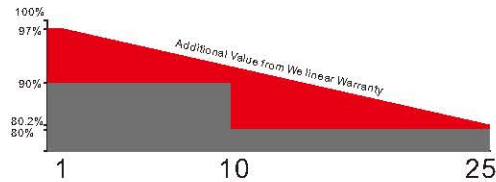
Zhejiang JEC New Energy Technology CO., Ltd (CETCsolar) located in Jiaxing, Zhejiang Province. Formerly New Energy Sector of No.36 Research Institute of CETC(No.36 Research Institute), is a holding company of No. 36 Research Institute. Our core products are PV modules, commercial, public and household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

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Quality Guarantee

Industry-Leading Warranty Based on Nominal Power



- * 25-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
- 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

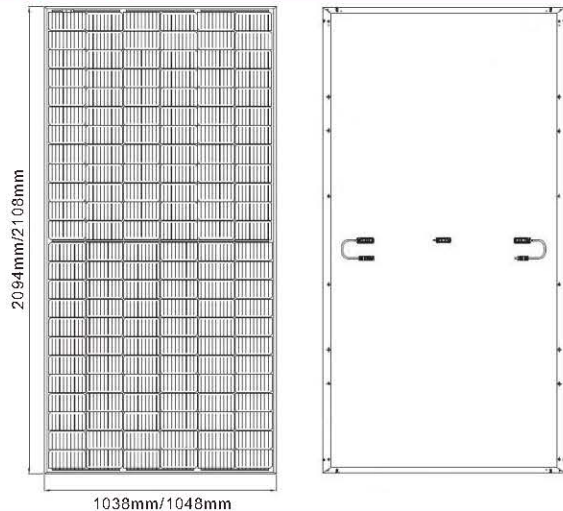
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Electrical Characteristics

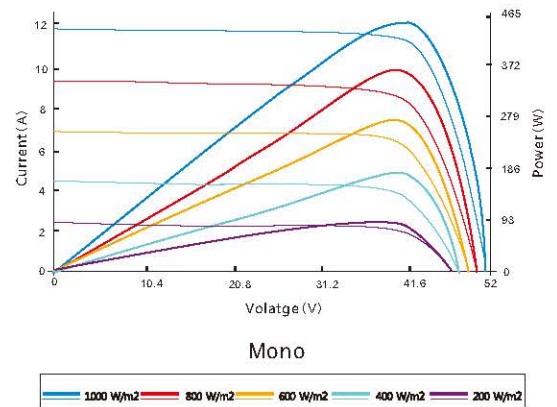
STC	NES144-6-440M	NES144-6-445M	NES144-6-450M	NES144-6-460M
Maximum Power(Pmax)	440W	445W	450W	460W
Optimum Operating Voltage(Vmp)	40.50V	40.80V	41.00V	42.13V
Optimum Operating Current(Imp)	10.86A	10.92A	10.98A	10.92A
Open Circuit Voltage(Voc)	49.00V	49.20V	49.50V	50.01V
Short Circuit Current(Isc)	11.30A	11.36A	11.42A	11.45A
Module Efficiency	20.24%	20.47%	20.70%	21.16%
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	166mm 9BB Monocrystalline silicon cells
No. of Cells	144(6x12x2)
Dimensions	2094x1038x35mm ; 2108x1048x35mm
Weight	24.5kg
Front Glass	3.2mm(0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip67 rated
Output Cables	TÜV (2Pfg1169:2007) 4.0 mm ² (0.006 inches ²), 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(35mm)

Per Pallet	30Pieces
Per Container (20' GP)	282Pieces
Per Container (40' HQ)	704Pieces

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

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