



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

NES144/420-450W
F 35mm
9BB Mono Solar Panel

Key Features



High Conversion Efficiency

Module efficiency up to 20.37% achieved through advanced cell technology and manufacturing capabilities



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)



Withstanding Harsh Environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

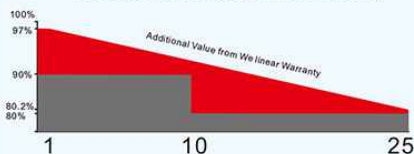
About Us

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 inverter, Intelligent controllers, 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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Industry-Leading Warranty Based on Nominal Power



- * 25-year linear power output warranty
- * 10-year product warranty

Quality Guarantee

*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

*Max System Voltage DC1500V(IEC)

Certificates

*ISO9001:2008

*ISO14001:2004

*TUV、CE、CQC、SGS、INMETRO



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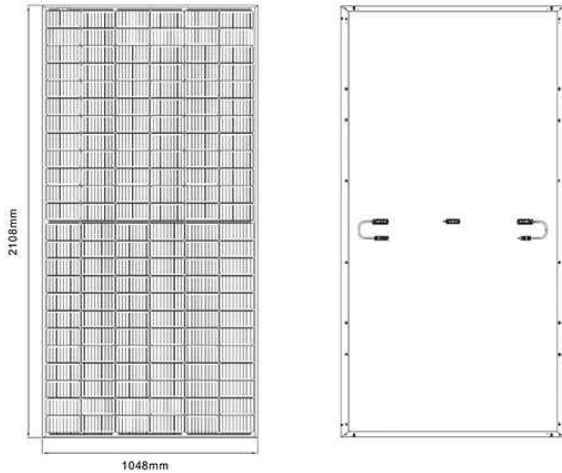
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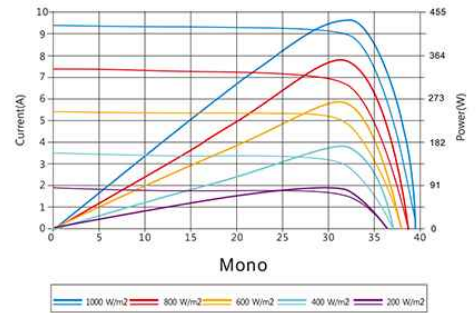
Electrical Characteristics

STC	NES144-6-420M	NES144-6-430M	NES144-6-440M	NES144-6-450M
Maximum Power(Pmax)	420W	430W	440W	450W
Optimum Operating Voltage(Vmp)	40.04V	40.00V	40.50V	41.00V
Optimum Operating Current(Imp)	10.49A	10.74A	10.86A	10.98A
Open Circuit Voltage(Voc)	48.13V	48.40V	49.00V	49.50V
Short Circuit Current(Isc)	11.00A	11.18A	11.30A	11.42A
Module Efficiency	19.01%	19.46%	19.92%	20.37%
Operating Module Temperature	-40°C to +85°C			
Maximum System Voltage	1500V DC (IEC)			
Power Tolerance	0~+5W			
STC	Irradiance 1000 W/m ² , 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/m² (AM 1.5, 25°C), 95.5% or higher of the STC efficiency(1000W/m²) is achieved.

Mechanical Characteristics

Solar Cell	Monocrystalline silicon cells
No. of Cells	144(6x12x2)
Dimensions	2108x1048x35mm
Weight	24.5Kgs
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), symmetrical lengths(-) 300mm and (+) 300 mm
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