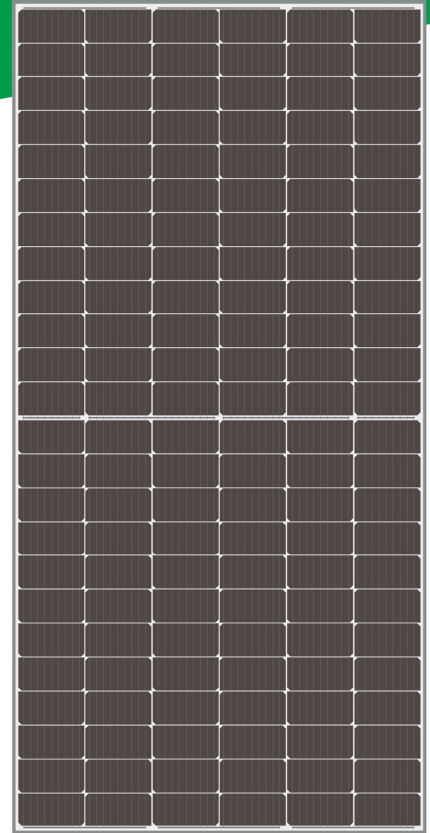


# HELIOS PLUS

## 445-455W

by Eco Green Energy

M6 / 166 mm Cell - 144 cells



Founded in 2008, Eco Green Energy is a french brand solar PV manufacturer and distributing now its PV module in more than 60 countries over the world. Helios Plus solar modules are made only with grade A cells for highest power generation, lowest LCOE, and ensured more than 25 years lifespan.

### KEY FEATURES



PERC Cells Technology



Lower LCOE and BOS



Anti PID/ Low LID protection



Less Hot Spot Shading effects



Lower temperature coefficient

### 144-Cell

MONOCRYSTALLINE MODULE

### 20.81%

MAXIMUM EFFICIENCY

### 0~+5W

POSITIVE POWER TOLERANCE

### GRADE A

CELLS GUARANTEED

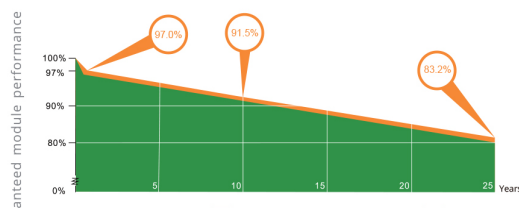


French Quality Module



### LINEAR PERFORMANCE WARRANTY

12-Year Product Warranty · 25-Year Linear Power Warranty



### COMPREHENSIVE CERTIFICATES

IEC 61215/ IEC 61730 / IEC 61701/ UL 61730

ISO 9001 : Quality Management Systems



**HAI-TEC**

Solar Power Plants

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HAI-TEC GmbH reserves the right to adjust specification above without notice.

V2021.2.10



## ELECTRICAL DATA AT STC\*

Power output (Pmax)	445 W	450 W	455 W
Power tolerance	0~+5 W	0~+5 W	0~+5 W
Module efficiency	20.36%	20.58%	20.81%
Maximum power voltage (Vmp)	40.84 V	40.96 V	41.06 V
Maximum power current (Imp)	10.90 A	10.99 A	11.08 A
Open circuit voltage (Voc)	49.14 V	49.28 V	49.41 V
Short circuit current (Isc)	11.48 A	11.57 A	11.66 A

\*Standard Test Conditions: Irradiance: 1 000 W / m<sup>2</sup> • Cell temperature: 25°C • AM: 1.5

## ELECTRICAL DATA AT NMOT\*

Power output (Pmax)	331.80 W	335.53 W	339.26 W
Maximum power voltage (Vmp)	38.29 V	38.40 V	38.49 V
Maximum power current (Imp)	8.65 A	8.73 A	8.80 A
Open circuit voltage (Voc)	45.57 V	45.70 V	45.82 V
Short circuit current (Isc)	9.33 A	9.41 A	9.48 A

\*Nominal Operating Cell Temperature: Irradiance: 800 W / m<sup>2</sup> • Ambient temperature: 20°C  
• AM: 1.5 • Wind speed: 1 m/s

## MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline (166x83mm)
Number of cells	144
Dimensions	2102x1040x35mm
Weight	24.5 kg
Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction box	IP68 rated (3 by pass diodes)
Cable	4.0 mm <sup>2</sup> , 300/1300mm ; Length can be customized
Connector	MC4 EVO2 compatible
Max front load (e.g.: snow)	5400 Pa
Max back load (e.g.: wind)	2400 Pa

## TEMPERATURE CHARACTERISTICS

NMOT	41 °C ±3 °C
Temperature coefficient of Pmax	-0.35%/°C
Temperature coefficient of Voc	-0.30%/°C
Temperature coefficient of Isc	+0.05%/°C

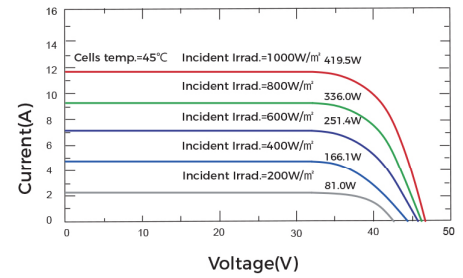
## MAXIMUM RATINGS

Operating temperature range	-40 °C ~+85 °C
Maximum system voltage	1000V/DC(IEC) 1500V/DC(IEC)
Max series fuse rating	25 A

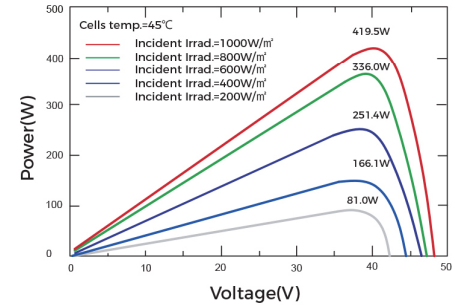
## PACKAGING (2102x1040x35mm)

Type	Pcs	Weight
Per Pallet	31 pcs	800 kg
40ft HQ Container	682 pcs (22pallets)	17.60 t

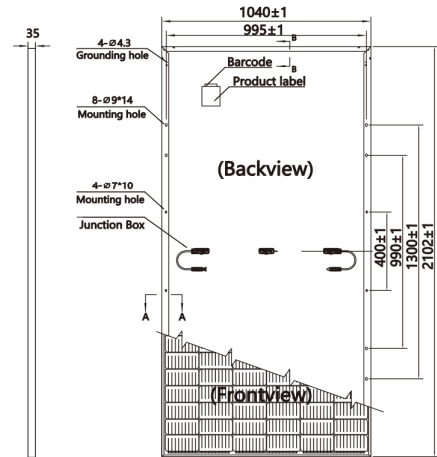
## PV MODULE : EGE-450W-144M(M6)



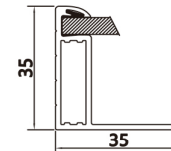
## PV MODULE : EGE-450W-144M(M6)



## Dimension of PV Module (mm)



## Frame Cross Section A-A



## Frame Cross Section B-B

