GEP
GREEN ENERGY POWER

# OMEGA MAX SERIES

## MONO – PERC – 144 HC

# 540 - 560W

21.68% Max. Efficiency

30Years Product Warranty

+5Wp Max. Tolerance

Less Hot Spot Shading Effects

Anti-PID Low LID Performance

Half Cut Cell Technology

Lower BOS & LCOE

## About GEP-Solar

**GEP-Solar**, legal name Jiangsu Green Energy Power Technology Co., Ltd is a subsidiary of Sun Group Corporation (Stock Code: 835967) specializing in the production of Photovoltaic Modules covering an annual capacity of 4.7GW spread over three production units in China and two in Vietnam.

### Higher Power Output

Higher module conversion efficiency benefit from bigger wafer and half-cell structure.

MBB technology enhances current collection with lower series resistance.

### Excellent Temperature Coefficient

Lower operating temperature and temperature coefficient increases the power output

### Long-Term Reliability

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal).

Excellent anti-PID performance to guarantee a better sustainability in harsh environment.

### Lower Hot Spot and Crack Risk

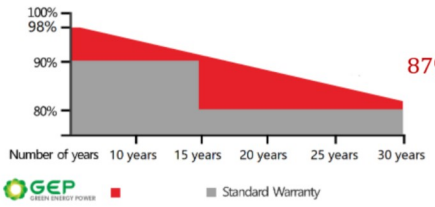
Reduce hot-spot risk with optimized electrical design and lower operating current.

Reduce crack risk by MBB solar cell design.

## Product Intro

Our **PERC** Modules Range offers 30 years Product Workmanship Warranty. 30 years Linear Power Output Warranty. The power degradation for the first year will be less than 1%. From the 2nd year and onwards, the annual degradation will be less than 0.4%.
Guaranteed performance ratio of 87.4% after 30 years.

### Power Warranty




30 Years Workmanship

30 Years Linear Power Output

### Insurance

Munich RE

太平洋保险 CPIC

### Certificates

## Electrical Characteristics

| Module Type | Max 540 MH | | Max 545 MH | | Max 550 MH | | Max 555 MH | | Max 560 MH | |
|---|---|---|---|---|---|---|---|---|---|---|
| Testing Condition | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT |
| Maximum Power (Pmax) | 540 | 408 | 545 | 412 | 550 | 416 | 555 | 420 | 560 | 424 |
| Maximum Power Voltage (Vmp) | 42.16 | 38.93 | 42.38 | 39.20 | 42.53 | 39.39 | 42.73 | 39.67 | 42.93 | 39.86 |
| Maximum Power Current (Imp) | 12.81 | 10.47 | 12.86 | 10.51 | 12.91 | 10.55 | 12.99 | 10.59 | 13.05 | 10.64 |
| Open-circuit Voltage (Voc) | 49.90 | 46.34 | 50.01 | 46.55 | 50.10 | 46.66 | 50.30 | 46.86 | 50.50 | 47.06 |
| Short-circuit Current (Isc) | 13.64 | 11.09 | 13.69 | 11.13 | 13.73 | 11.18 | 13.79 | 11.23 | 13.85 | 11.28 |
| Module Efficiency(%) | 20.90% | | 21.09% | | 21.29% | | 21.48% | | 21.68% | |

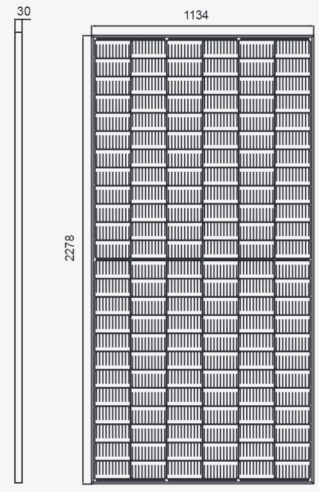
STC: Irradiance 1000W/m², Cell Temperature 25℃, Air Mass AM1.5.
*Measuring tolerance: 0 ~ +5W

NMOT: Irradiance at 800W/m², Ambient Temperature 20℃, Wind Speed 1m/s.

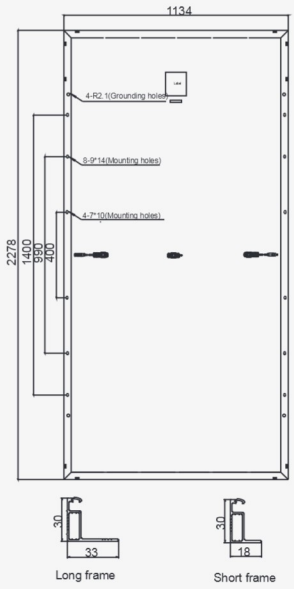
## Mechanical Parameters

| | |
|---|---|
| Solar Cells | Monocrystalline (182mm) |
| No. of Cells | 144 [2 x (12 x 6) ] |
| Module Dimensions | 2278*1134*30mm |
| Weight | 28.5kg |
| Glass | 3.2mm, High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant Material | EVA/POE |
| Backsheet | White |
| Frame | Anodized Aluminium Alloy |
| J-Box | IP68 |
| Output Cable | 4.0mm² |
| (Including Connector) | Length Portrait:300/300mm (can be customized) |
| Connector | MC4 Compatible |

## Dimensions (Unit: mm)




Front View




Back View

## Temperature Ratings

| | |
|---|---|
| NMOT (Nominal operating cell temperature) | 45℃(±2℃) |
| Temperature Coefficient of Pmax | -0.350%/℃ |
| Temperature Coefficient of Voc | -0.275%/℃ |
| Temperature Coefficient of Isc | +0.045%/℃ |

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

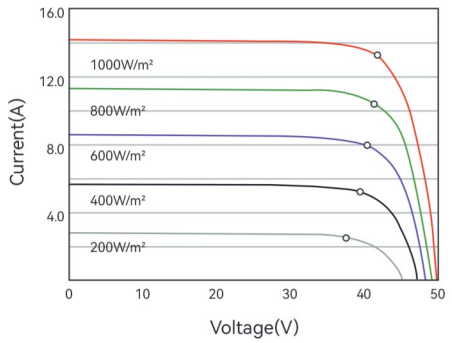
## Operating Parameters

| | |
|---|---|
| Operational Temperature | -40℃~+85℃ |
| Maximum System Voltage | 1500V DC (IEC) |
| Maximum Series Fuse Rating | 25A |
| Bifacility | / |

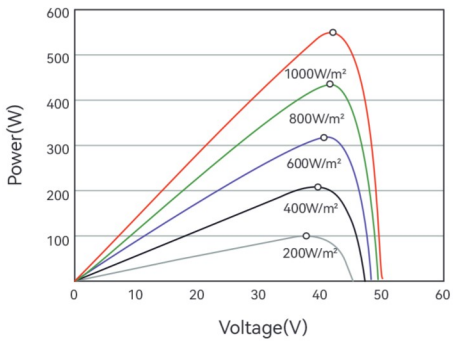
## Packaging

| |
|---|
| Pcs per Pallet: 36 |
| Pcs per 40' HC: 720 |

## I-V Curves of PV Module (550W)




## P-V Curves of PV Module (550W)



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