

## 540-550 Wp

#### **PV POWER EVVO BIFACIAL**

EVVO PV Power's photovoltaic (PV) modules establish a standard of excellence in terms of dependable energy generation, efficient design, and environmental sustainability. The EVVO Modules are specifically engineered to maximize area efficiency, ensuring optimal utilization of available space.

# SOLAR MODULES MONO PERC 10BB 540-550 Wp

**Bifacial G2G IR Series** 

#### PRODUCT | KEY FEATURES



Anti-Reflective (AR) Coated Glass for Enhanced Power



Excellent Module Efficiency with Bifacial Power Gain



Positive Power Tolerance with Current Binning to Prevent Mismatch Losses



Pre and Post EL Checking With High Resolution Camera



IP68 Junction Box for Long Term Endurance



100% Hi-Pot Testing to Ensure Safety



MBB Half-Cell Technology provides Better Performance under Partial Shading

### MANUFACTURING UNIT: INDIA, CHINA

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THINK 25 YEARS
THINK EVVO



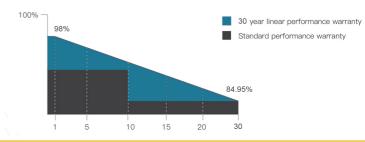




#### THE INDUSTRY'S BENCHMARK

EVVO Solar is a globally recognized and highly regarded provider of cost-effective solar energy solutions. With expertise in manufacturing high-efficiency PV modules and offering comprehensive EPC (Engineering, Procurement, and Construction) solutions, EVVO Solar stands out in the industry. EWO PV modules are renowned for their exceptional power output and long-term reliability, making them a top choice for customers seeking the best-in-class solar modules.

#### LINEAR PERFORMANCE WARRANTY



#### **TECHNICAL DATA**

**BACK VIEW** 

**SIDE VIEW** 

#### **ELECTRICAL DATA(STC)**

ELECTRICAL PERFORMANCE [Note: Power tolerance:  $0 \sim +4.99$  W. Power measurement uncertainty: <  $\pm 3\%$ . Average value of NOCT:  $44.28 \pm 2$  °C]

| ELECTRICAL CHARACTERISTICS*     | EVVO 540WC |         | EVVO 545WC |         | EVVO 550WC |         |
|---------------------------------|------------|---------|------------|---------|------------|---------|
|                                 | STC        | NOCT    | STC        | NOCT    | STC        | NOCT    |
| Nominal Maximum Power (Pmax)    | 540 W      | 400 W   | 545 W      | 403 W   | 550 W      | 407 W   |
| Optimum Operating Voltage (Vmp) | 41.86 V    | 38.54 V | 42.01 V    | 38.68 V | 42.14 V    | 38.80 V |
| Optimum Operating Current (Imp) | 12.91 A    | 10.37 A | 12.98 A    | 10.43 A | 13.07 A    | 10.49 A |
| Open Circuit Voltage (Voc)      | 49.78 V    | 46.82 V | 49.91 V    | 46.94 V | 50.06 V    | 47.09 V |
| Short Ciruit Current (Isc)      | 13.53 A    | 10.96 A | 13.59 A    | 11.01 A | 13.65 A    | 11.06 A |
| Module Efficiency               | 20.94 %    |         | 21.13 %    |         | 21.32 %    |         |

#### BIFACIAL OUTPUT - BACKSIDE POWER GAIN @ STC\* [Bifaciality Factor: 75% ± 10%]

[Note: The bifacial gain depends on the power plant design and site conditions. Electrical component ratings should be selected as per actual Bifacial gain at site (module currents indicated below)]

|   | =0/   | Nominal Maximum Power (Pmax)              | 567 W             | 573 W             | 578 W             |
|---|-------|-------------------------------------------|-------------------|-------------------|-------------------|
|   | 5%    | Module Short Circuit Current / Efficiency | 14.21 A / 21.99 % | 14.27 A / 22.18 % | 14.33 A / 22.39 % |
| ĺ | 4.00/ | Nominal Maximum Power (Pmax)              | 594 W             | 600 W             | 605 W             |
|   | 10%   | Module Short Circuit Current / Efficiency | 14.88 A / 23.03 % | 14.95 A / 23.24 % | 15.02 A / 23.46 % |
| Ī | 25%   | Nominal Maximum Power (Pmax)              | 676 W             | 682 W             | 688 W             |
|   | 25%   | Module Short Circuit Current / Efficiency | 16.91 A / 26.17 % | 16.99 A / 26.41 % | 17.06 A / 26.65 % |

#### **MECHANICAL SPECIFICATIONS**

| Dimensions (L x W x T in mm) 2278 x 1133 x 35 |                                                                                   |  |  |
|-----------------------------------------------|-----------------------------------------------------------------------------------|--|--|
| Weight(kg)                                    | 33                                                                                |  |  |
| Cell type / No Of Cell                        | 144 Half-cut Mono PERC Bifacial Solar cells                                       |  |  |
| Frame                                         | Anodized Aluminum Alloy (6005, Temper T6, Silver colour)                          |  |  |
| Front Cover                                   | Low Iron Heat-strengthened AR coated Glass (2 mm thick)                           |  |  |
| Encapsulate                                   | PID resistant and UV resistant polymeric film                                     |  |  |
| Back Cover                                    | Low Iron Heat-strengthened Glass (2 mm thick)                                     |  |  |
| Junction Box                                  | Split Junction Box (3 nos. with individual Bypass Diode)<br>– Weatherproof (IP68) |  |  |
| Bypass Diode                                  | 50 A, 45 V, 200 °C max. junction temperature                                      |  |  |
| Cable                                         | 400 mm length (1200 mm available on request)                                      |  |  |
| Connectors                                    | MC4 compatible (MC4 original available on request)                                |  |  |
| Application Class Rating                      | Class A                                                                           |  |  |
| Safety Class Rating                           | Class II                                                                          |  |  |
| Mechanical Load Test (as per IEC & UL)        | 5400 Pa-Front; 2400 Pa-Back                                                       |  |  |
| Mounting Holes Pitch (Y)-mm                   | [A] 1400, [B] 1100                                                                |  |  |
| Mounting Holes Pitch (X)-mm                   | 1095                                                                              |  |  |

#### MAXIMUM OPERATING CONDITIONS

 Operating Temperature:
 -40 C to +85 C
 Current (Isc):
 0.0286%/C

 Maximum System Voltage:
 1500V
 Voltage (Voc):
 -0.2488%/C

 Maximum Series Fuse Rating:
 25A
 Power (Pmax):
 -0.3290%/C

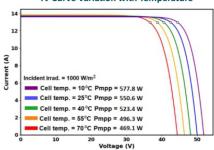
| STACKING STANDARD           | 32FT           | 40FT           |  |
|-----------------------------|----------------|----------------|--|
| No. of Modules              | 434            | 620            |  |
| No. of Pallets              | 14             | 20             |  |
| Modules per Pallet / Weight | 31 Nos/1070 Kg | 31 Nos/1070 Kg |  |
| Pallet Dimensions           | 2320*1130*1275 | 2320*1130*1275 |  |

# 2278 mm Y Pitch (M.) 1400 mm) Y Pitch (M.) 1400 mm) Junction Box Amm, 2 label (Fleukth 400 mm) Grounding Hole Grounding Hole (p4 mm, 2 loss)

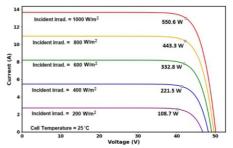
\*All dimensions are in mm with +/- 2mm tolerance

#### **IV Curve Variation with Temperature**

Mountin 9x14mm



#### **IV Curve Variation with Irradiance**



#### IV Curves for Front-Side Illumination of 550 Wp Panel

\*Graphics shown herein above are reference purpose only. Please consult EVVO Solar Technical Team for any further clarification

Caution: Please read safety and Installation Instructions before using the product. Warranty: Linear power warranty for 30 years, with degradation upto 2% in 1st year and 0.45% per year from 2 to year 30. Please read EVVO Warranty documents carefully. Disclaimer: Specifications included in the datasheet are subject to the change without prior notice owing to continuous innovation on the product development and R&D activities. EVVO reserves all the rights to make and adjustment to the information described here. Datasheet contained in this specification do not form a representative of a single module datasheet. @T&C Apply.

**TEMPERATURE COEFFICIENTS** 



