



**PEAK PV**  
SOLAR

Mono-PERC ....

990

## High Performance Monocrystalline PERC Bifacial Module

# PEAK144-530-550MP-BF

**144 CELL**

Half-Cut Cell

**530-550Wp**

Power Output Range

**1500VDC**

Maximum System Voltage

**10 BB**

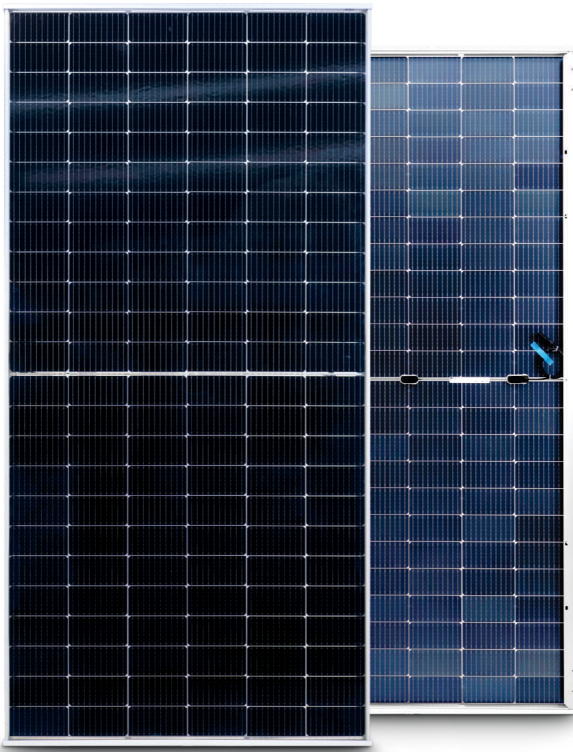
Busbar Technology

**21.3%**

Maximum Efficiency

**Mono-PERC**

P-Type Cell



### KEY FEATURES



Better Temperature Coefficient



Excellent low irradiance performance



Excellent PID resistance



Triple EL testing ensuring defect-free products



Module Imp binning radically reduces string mismatch loss



Certified to withstand severe environmental conditions

- Anti-reflective & anti-soiling surface minimise power loss from dirt and dust
- Severe salt mist, ammonia & blown sand resistance, for seaside, farm and desert environments
- Excellent wind load 2400Pa & snow load 5400Pa resistance under certain installation method



Comprehensive product and system certification

- IEC 61215:2021; IEC 61730:2023
- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- ISO 45001:2018 Occupational Health & Safety Management System
- ISO 50001:2018 Energy Management System
- ISO/IEC 27001:2022 Information Security Management System
- ISO 10002:2018 Customer Satisfaction Management System

SGS

SGS  
TUV  
SAAR

ISO

IEC

TSE

CE



Our factory complies with ISO (9001, 10002, 14001, 27001, 45001, 50001) standards & the solar panels produced are in international IEC (61215, 61730, 62716, 61701, 60068, 62804) standards.

★ As there are different certification requirements in different markets, please contact your local PEAK PV SOLAR sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

For more details, please contact:

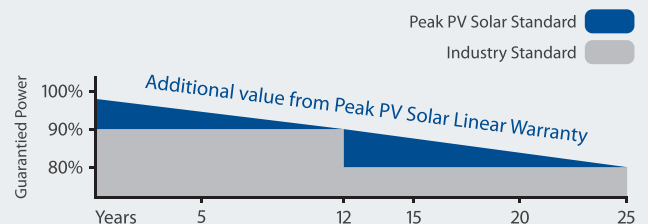
**Peak PV Solar Teknolojileri A.Ş.**

HQ: Saray Mah. Atom Cad. No:17 Kahramankazan/Ankara, P. +90.312 815 48 80 (pbx)

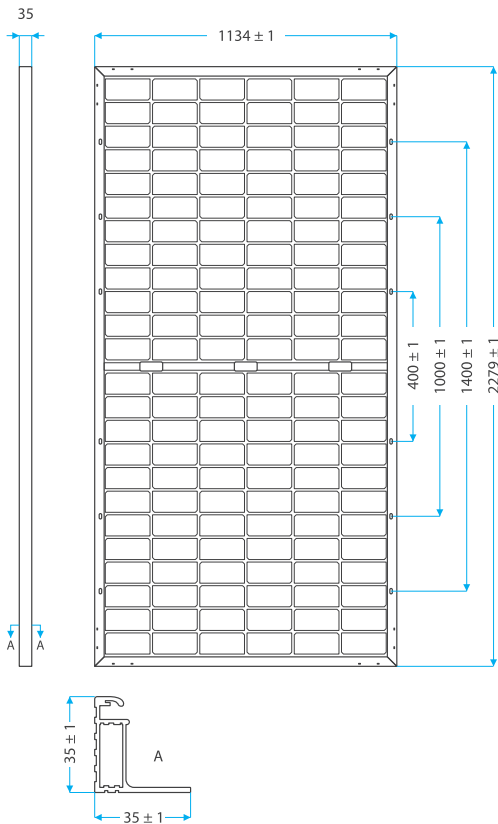
Factory: ASO 2 OSB, Alıcı OSB Mah. 2033. Cd. No:16, Sincan/Ankara, P. +90.312 309 03 44 (pbx)

### LINEAR PERFORMANCE WARRANTY

12-year Product Warranty | 25-year Linear Power Warranty



### Dimensions of PV Module Unit: mm



### TYPE FAMILY PEAK144-530-550MP-BF

| Pmp (W)               | 530      | 535      | 540      | 545      | 550      |
|-----------------------|----------|----------|----------|----------|----------|
| Voc (V)               | 49.40    | 49.50    | 49.60    | 49.70    | 49.80    |
| Isc (A)               | 13.55    | 13.64    | 13.74    | 13.84    | 13.94    |
| Vmp (V)               | 41.75    | 41.87    | 41.99    | 42.11    | 42.23    |
| Imp (A)               | 12.70    | 12.79    | 12.87    | 12.96    | 13.03    |
| Module Efficiency (%) | 20.5     | 20.7     | 20.9     | 21.1     | 21.3     |
| Power Tolerance       | 0 + 4.99 | 0 + 4.99 | 0 + 4.99 | 0 + 4.99 | 0 + 4.99 |

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C, AM=1.5 according to EN 60904-3  
★ Module Efficiency (%): Round-off to the nearest number. Measurement Tolerance: ±3

### Electrical Characteristics with 10% Rear Side Power Gain

| Pmp (W) | 583   | 588   | 594   | 599   | 605   |
|---------|-------|-------|-------|-------|-------|
| Voc (V) | 49.40 | 49.50 | 49.60 | 49.70 | 49.80 |
| Isc (A) | 14.76 | 14.85 | 14.97 | 15.08 | 15.19 |
| Vmp (V) | 41.75 | 41.87 | 41.99 | 42.11 | 42.23 |
| Imp (A) | 13.97 | 14.05 | 14.15 | 14.23 | 14.33 |

Bifaciality Gain: The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

★ BNPI (Bifacial Nameplate Irradiance); It corresponds to 1000 W/m<sup>2</sup> radiation values applied to the front surface of the module and 135 W/m<sup>2</sup> applied to the back surface.

### Electrical Data (NMOT)

| Model Number     | Pmp (W) | Voc (V) | Isc (A) | Vmp (V) | Imp (A) |
|------------------|---------|---------|---------|---------|---------|
| PEAK144-530MP-BF | 394.49  | 46.00   | 11.00   | 38.60   | 10.22   |
| PEAK144-535MP-BF | 398.61  | 46.10   | 11.09   | 38.70   | 10.30   |
| PEAK144-540MP-BF | 402.74  | 46.20   | 11.20   | 38.80   | 10.38   |
| PEAK144-545MP-BF | 406.89  | 46.30   | 11.29   | 38.90   | 10.46   |
| PEAK144-550MP-BF | 411.06  | 46.40   | 11.38   | 39.00   | 10.54   |

★ NMOT: Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20 °C, Wind Speed 1 m/s, AM=1.5

### Mechanical Data

| Solar Cells                                                                             | Cell Configuration | Module Dimensions        | Weight                |
|-----------------------------------------------------------------------------------------|--------------------|--------------------------|-----------------------|
| MonoPERC                                                                                | 144 Cells          | 2279 x 1134 x 35 mm      | 27,8 kg               |
| Front Glass                                                                             |                    | Frame                    | J-Box                 |
| 3.2 mm High Transmission, Low Iron, Tempered ARC Glass                                  |                    | Anodized Aluminium Alloy | IP68, 3 bypass diodes |
| Cables*                                                                                 |                    |                          | Connector             |
| 4.0 mm <sup>2</sup> (IEC), Positive (+) 1200 mm, Negative (-) 1200 mm (Connector incl.) |                    |                          | MC4-EVO2              |

★ Cable lengths are optional. May vary depending on the project.

### Temperature & Maximum Ratings

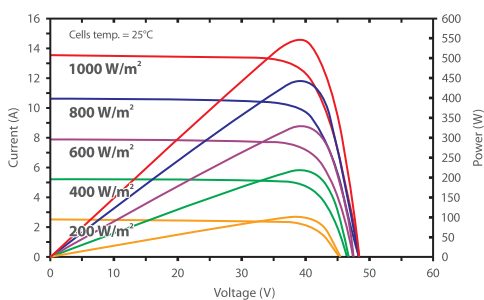
| Nominal Module Operating Temperature (NMOT) | Temperature Coefficient of Voc | Temperature Coefficient of Isc | Temperature Coefficient of Pmax |
|---------------------------------------------|--------------------------------|--------------------------------|---------------------------------|
| 43°C ± 2°C                                  | -0.25% / °C                    | 0.045% / °C                    | -0.32% / °C                     |
| Operational Temperature                     | Maximum System Voltage         | Max Series Fuse Rating         |                                 |
| -40°C ~ +85°C                               | 1500VDC                        | 25A                            |                                 |

### Packaging Configuration

| Container                                  | Number of Modules per Container | Number of Modules per Pallet | Number of Pallets per Container |
|--------------------------------------------|---------------------------------|------------------------------|---------------------------------|
| 40 ft (HQ)                                 | 704                             | 32                           | 22                              |
| Packaging Box Dimensions (L x W x H) in mm |                                 | Box Gross Weight (kg)        |                                 |
| 2325 x 1150 x 1250                         |                                 | 910                          |                                 |

#### PEAK144-535MP-BF

#### I-V characteristics at different irradiances



#### I-V characteristics at different temperatures

