



Deutsche
Qualität
Garantiert

AURORA
P-TYPE PERC TECHNOLOGY

MD-132BD 485W-505W

High in energy yield, reliability and durability

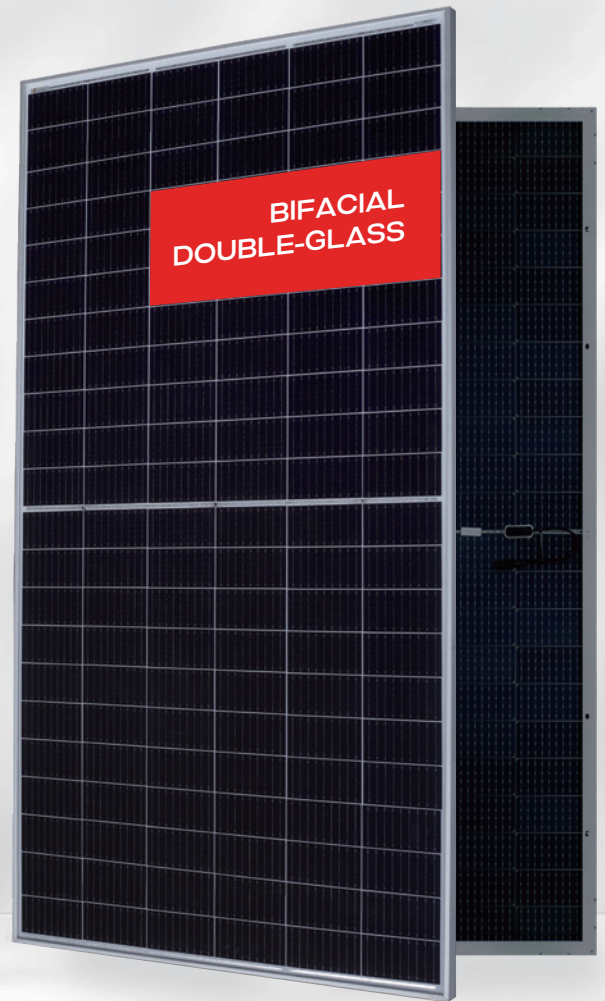
21.29%
MAXIMUM EFFICIENCY

132
HALF CELLS

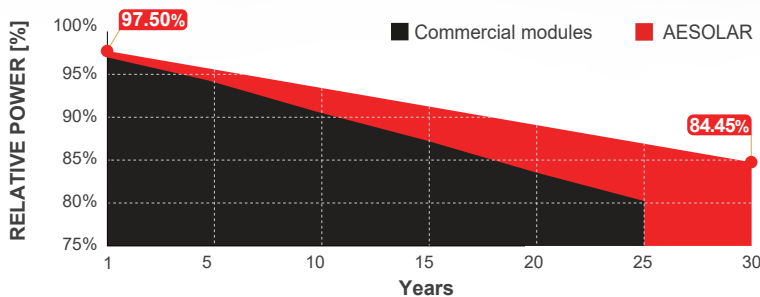
30 YEARS Performance Warranty up to **30 YEARS*** Product Warranty

*The regular product warranty is 15 years, please refer to the latest version of AESOLAR Limited Warranty for the duration of the product warranty under special conditions. For extensions, please contact AESOLAR staff.

- LID
RESISTANT
- PID
RESISTANT
- SALT CORROSION
RESISTANT
- SAND
RESISTANT
- AMMONIA
RESISTANT
- HIGHLY STABLE
AND TOUGH



OUR PERFORMANCE WARRANTY



SYSTEM AND PRODUCT CERTIFICATIONS



IEC 61215 IEC 61730
Regular Production Surveillance
www.tuv.com
ID 1111257249

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)

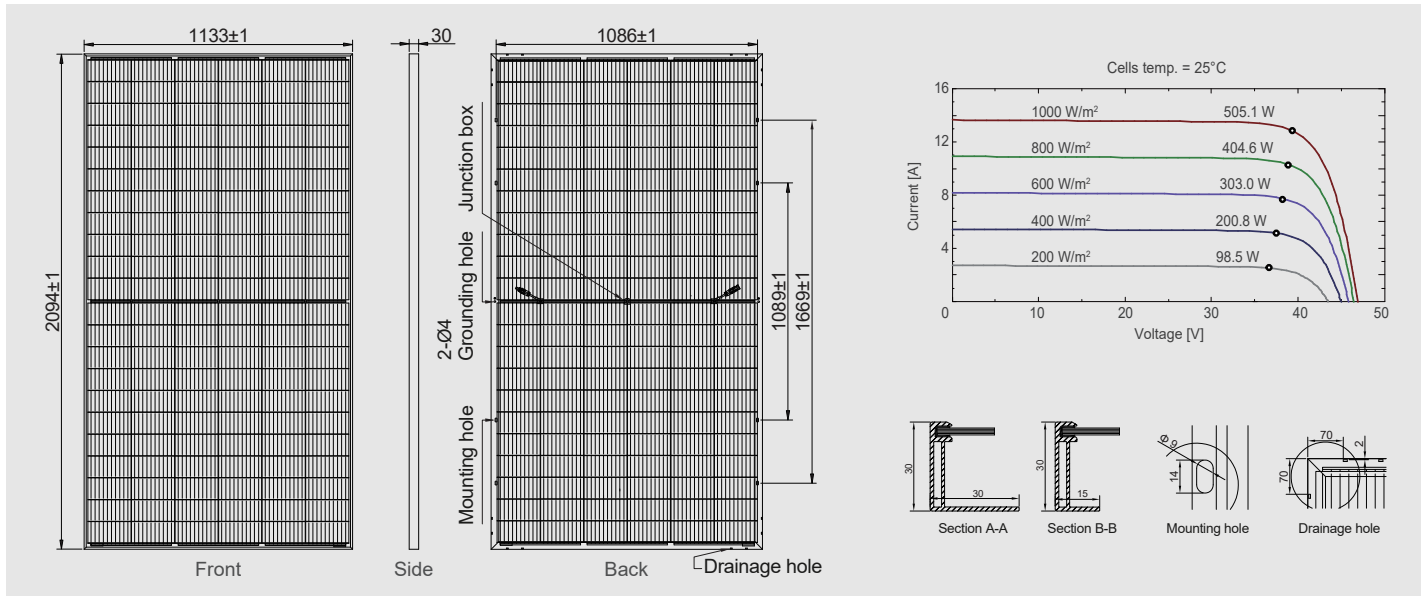


www.ae-solar.com

AE MD-132BD 485W-505W

P-TYPE PERC TECHNOLOGY PV MODULE

BIFACIAL • DOUBLE-GLASS



Electrical specifications (STC*):

| Parameter | P_{max} (Wp) | 485 | 490 | 495 | 500 | 505 |
|----------------------------|----------------|-------|-------|-------|-------|-------|
| Nominal max. power | P_{max} (Wp) | 485 | 490 | 495 | 500 | 505 |
| Maximum operating voltage | V_{MPP} (V) | 38.31 | 38.55 | 38.79 | 39.03 | 39.27 |
| Maximum operating current | I_{MPP} (A) | 12.66 | 12.71 | 12.76 | 12.81 | 12.86 |
| Open-circuit voltage | V_{oc} (V) | 45.75 | 46.05 | 46.34 | 46.64 | 46.93 |
| Short-circuit current | I_{sc} (A) | 13.42 | 13.47 | 13.52 | 13.57 | 13.62 |
| Module efficiency | η (%) | 20.44 | 20.65 | 20.86 | 21.07 | 21.29 |
| Power tolerance | (W) | 0~+5 | | | | |
| Maximum system voltage | (V) | 1500 | | | | |
| Maximum series fuse rating | (A) | 25 | | | | |

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5), measurement tolerance P_{max} : ±3%

Electrical specifications (NMOT*):

| Parameter | P_{max} (Wp) | 363 | 366 | 370 | 373 | 377 |
|---------------------------|----------------|-------|-------|-------|-------|-------|
| Nominal max. power | P_{max} (Wp) | 363 | 366 | 370 | 373 | 377 |
| Maximum operating voltage | V_{MPP} (V) | 35.80 | 36.00 | 36.20 | 36.40 | 36.60 |
| Maximum operating current | I_{MPP} (A) | 10.13 | 10.17 | 10.21 | 10.25 | 10.29 |
| Open-circuit voltage | V_{oc} (V) | 43.00 | 43.20 | 43.40 | 43.60 | 43.80 |
| Short-circuit current | I_{sc} (A) | 10.74 | 10.78 | 10.82 | 10.86 | 10.90 |

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

Bifacial electrical specifications

| Max. power front-side | 485 | | | | | | | | | | 490 | | | | | | | | | | 495 | | | | | | | | | | 500 | | | | | | | | | | 505 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|
| P_{max} front (Wp) | 485 | | | | | | | | | | 490 | | | | | | | | | | 495 | | | | | | | | | | 500 | | | | | | | | | | 505 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Backside power gain | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | 5% | 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total equivalent power | 509 | | | | | | | | | | 534 | | | | | | | | | | 514 | | | | | | | | | | 539 | | | | | | | | | | 520 | | | | | | | | | | 544 | | | | | | | | | | 525 | | | | | | | | | | 550 | | | | | | | | | | 530 | | | | | | | | | | 556 | | | | | | | | | |
| P_{max} equ (Wp) | 509 | | | | | | | | | | 534 | | | | | | | | | | 514 | | | | | | | | | | 539 | | | | | | | | | | 520 | | | | | | | | | | 544 | | | | | | | | | | 525 | | | | | | | | | | 550 | | | | | | | | | | 530 | | | | | | | | | | 556 | | | | | | | | | |
| Module efficiency | 21.46 | 22.49 | 21.68 | 22.72 | 21.91 | 22.95 | 22.13 | 23.18 | 22.35 | 23.41 | 21.46 | 22.49 | 21.68 | 22.72 | 21.91 | 22.95 | 22.13 | 23.18 | 22.35 | 23.41 | 21.46 | 22.49 | 21.68 | 22.72 | 21.91 | 22.95 | 22.13 | 23.18 | 22.35 | 23.41 | 21.46 | 22.49 | 21.68 | 22.72 | 21.91 | 22.95 | 22.13 | 23.18 | 22.35 | 23.41 | 21.46 | 22.49 | 21.68 | 22.72 | 21.91 | 22.95 | 22.13 | 23.18 | 22.35 | 23.41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| η (%) | 21.46 | | | | | | | | | | 22.49 | | | | | | | | | | 21.68 | | | | | | | | | | 22.72 | | | | | | | | | | 21.91 | | | | | | | | | | 22.95 | | | | | | | | | | 22.13 | | | | | | | | | | 23.18 | | | | | | | | | | 22.35 | | | | | | | | | | 23.41 | | | | | | | | | |

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

Mechanical and design specification

| | |
|-----------------|--|
| Cell type | Gallium-doped mono c-Si PERC, half-cut cells |
| No. of cells | 132 |
| Bifaciality | 70 ± 5% |
| Front cover | 2.0 mm glass, high transmission, AR coated, tempered |
| Encapsulation | POE |
| Back cover | 2.0 mm, high transmission solar glass, tempered |
| Junction box | IP68 rated, 3 bypass diodes |
| Frame | 30 mm anodized aluminium alloy |
| Cable | 1 x 4 mm ² , 350 mm length or customized |
| Connectors | MC 4 / MC 4 compatible |
| Dimension | 2094 mm x 1133 mm x 30 mm |
| Weight | 28 kg |
| Hail resistance | Max. Ø 25 mm at 23 m/s |
| Wind load | 2400 Pa or 244 kg/m ² |
| Snow load | 5400 Pa or 550 kg/m ² |

Temperature ratings

| | |
|--------------------------------|--------------|
| Operating temperature | -40 to +85°C |
| Temp. coefficient of P_{max} | -0.35 %/°C |
| Temp. coefficient of V_{oc} | -0.275 %/°C |
| Temp. coefficient of I_{sc} | 0.045 %/°C |
| Nom. operating cell temp. NOCT | 45 ± 2°C |

Packaging information

| | |
|-------------------------|-----------------------------|
| Packaging configuration | 36 pcs / pallet |
| Loading capacity | 792 pcs / 40 HQ |
| Size / Pallet | 2125 mm x 1140 mm x 1245 mm |
| Weight | 1048 kg / pallet |

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices. The specifications included in the datasheet are subject to change without prior notice.