

# BM Dual glass series 182P-108DG

Efficient bifacial PERC monocrystalline silicon half cells PV module



**420 W**

Maximum output power



**21.51%**

Maximum efficiency



**0~+5W**

Power tolerance

## Boamax's long-term stable quality is trustworthy

- Automatic production line and leading photovoltaic technology
- EL testing is performed respectively before and after lamination, ensuring the reliability of the modules.
- Passed various long-term reliability tests
- Strict execute international standard management systems, including ISO 9001, ISO 14001, and ISO 45001.



Multi-Busbar welding design, optimizes optical and electrical properties of modules



POE sealing, enables effective resistance to various harsh environments



Fire-proof grade A, ensure more safety



The cell slicing technology. Significantly reduces the string current, reduces the loss of internal conversion efficiency, and effectively reduces BOS and LCOE

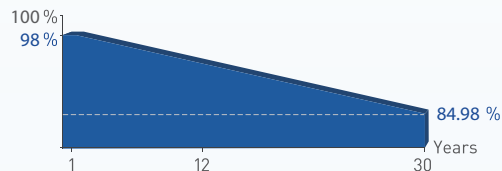


Optimized packaging materials and strict process scheme ensure the PID resistance of modules



Advanced non-destructive slicing technology, with small cell damage and reduce the risk of cracking

## Industry leading linear warranty



**12**year Product Warranty **30**year Power warranty

Excellent warranty, with a commitment to a 30-year power warranty and a linear power attenuation of 0.45%

Electrical Data (STC)

|                        |                      |       |       |       |       |       |       |
|------------------------|----------------------|-------|-------|-------|-------|-------|-------|
| Peak Power             | P <sub>max</sub> (W) | 395   | 400   | 405   | 410   | 415   | 420   |
| OMaximum Power Voltage | V <sub>mp</sub> (V)  | 30.32 | 30.42 | 30.52 | 30.62 | 30.79 | 30.95 |
| Maximum Power Current  | I <sub>mp</sub> (A)  | 13.03 | 13.15 | 13.27 | 13.39 | 13.48 | 13.57 |
| Open Circuit Voltage   | V <sub>oc</sub> (V)  | 36.90 | 36.98 | 37.06 | 37.14 | 37.31 | 37.48 |
| Short Circuit Current  | I <sub>sc</sub> (A)  | 13.71 | 13.78 | 13.85 | 13.92 | 14.01 | 14.08 |
| Module Efficiency      | (%)                  | 20.23 | 20.48 | 20.74 | 21.00 | 21.25 | 21.51 |
| Power Tolerance        | (W)                  | 0~+5  |       |       |       |       |       |

\*STC : atmospheric mass AM1.5, irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C

Electrical Data (NMOT)

|                       |                      |       |       |       |       |       |       |
|-----------------------|----------------------|-------|-------|-------|-------|-------|-------|
| Peak Power            | P <sub>max</sub> (W) | 298   | 301   | 305   | 308   | 312   | 315   |
| Maximum Power Voltage | V <sub>mp</sub> (V)  | 28.51 | 28.68 | 28.84 | 29.01 | 29.18 | 29.34 |
| Maximum Power Current | I <sub>mp</sub> (A)  | 10.45 | 10.50 | 10.56 | 10.62 | 10.68 | 10.74 |
| Open Circuit Voltage  | V <sub>oc</sub> (V)  | 34.46 | 34.66 | 34.86 | 35.06 | 35.26 | 35.46 |
| Short Circuit Current | I <sub>sc</sub> (A)  | 11.00 | 11.04 | 11.08 | 11.12 | 11.16 | 11.20 |

\*NMOT : irradiance 800 W/m<sup>2</sup> ambient temperature 20 °C, wind speed 1 m/s

Electrical Data

Bifacial power gain (reference to 10 % irradiance ratio)

|                       |                      |       |       |       |       |       |       |
|-----------------------|----------------------|-------|-------|-------|-------|-------|-------|
| Peak Power            | P <sub>max</sub> (W) | 428   | 431   | 435   | 438   | 441   | 445   |
| Maximum Power Voltage | V <sub>mp</sub> (V)  | 30.73 | 30.91 | 31.11 | 31.28 | 31.45 | 31.64 |
| Maximum Power Current | I <sub>mp</sub> (A)  | 13.93 | 13.95 | 13.98 | 14.01 | 14.04 | 14.08 |
| Open Circuit Voltage  | V <sub>oc</sub> (V)  | 36.52 | 36.73 | 36.93 | 37.14 | 37.35 | 37.56 |
| Short Circuit Current | I <sub>sc</sub> (A)  | 14.61 | 14.67 | 14.73 | 14.79 | 14.85 | 14.91 |
| Module Efficiency     | (%)                  | 21.92 | 22.09 | 22.26 | 22.44 | 22.60 | 22.81 |
| Irradiation Ratio     | sc(A)                | 10%   |       |       |       |       |       |

Structural Parameters

|                             |  |
|-----------------------------|--|
| Number of Cells             | 108 pieces (6*18)  |
| Module Dimension            | 1722*1134*30mm   |
| Weight                      | 26.0kg   |
| Front Glass                 | 2.0mm, High transmission coated glass                        |
| Back Glass                  | 2.0mm, Semi-tempered glass                                   |
| Frame                       | Anodized Aluminum alloy                                      |
| Junction Box                | IP68 rated   |
| Cable                       | 4mm <sup>2</sup> , 300mm in length, length can be customized |
| Number of Diodes            | 3  |
| Wind Pressure/Snow Pressure | 2400 Pa/5400 Pa  |
| Connector                   | MC4  |

Temperature Characteristic

|   |          |
|---|----------|
| Nominal operating cell temperature          | 45±2°C   |
| Temperature coefficient (I <sub>sc</sub> )  | +0.05%/C |
| Temperature coefficient (V <sub>oc</sub> )  | -0.28%/C |
| Temperature coefficient (P <sub>max</sub> ) | -0.34%/C |

Packing Method

|                           |            |
|---------------------------|------------|
| Modules per box           | 31 pieces  |
| Modules per 40' container | 806 pieces |

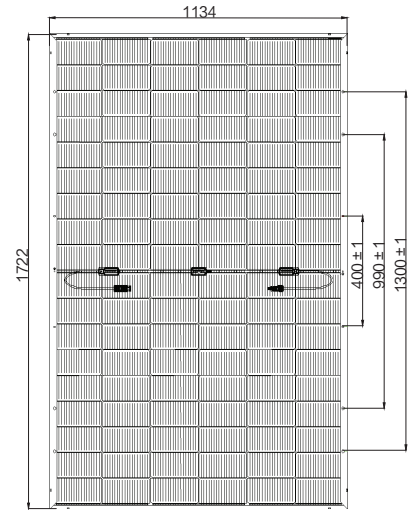
Limit Parameters

|                               |           |
|-------------------------------|-----------|
| Operating temperature         | -40~+85°C |
| Maximum system voltage        | 1500V DC  |
| Maximum rated current of fuse | 30A       |

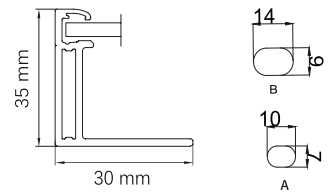
Optional Configuration

|           |                                      |
|-----------|--------------------------------------|
| Connector | <input type="checkbox"/> Original PV |
|-----------|--------------------------------------|

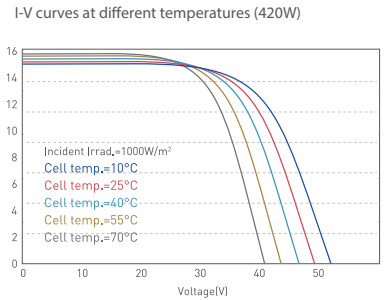
Module Dimension



Back View



Curve Chart



I-V curves/P-V curves at different irradiance (420W)

