

Single Glass Monocrystalline Module

BM

Single
glass
series

182P-144HW

Efficient bifacial PERC monocrystalline silicon half cells PV module



550 W

Maximum output power



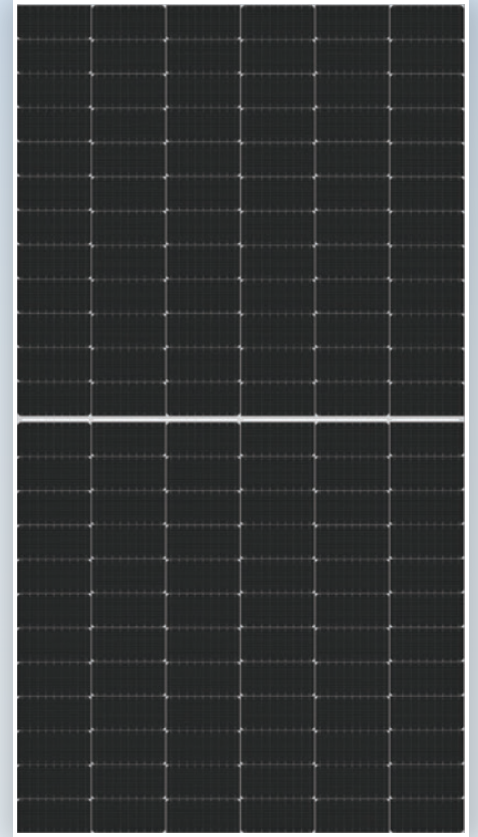
21.3%

Maximum efficiency



0~+5 W

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



EVA 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

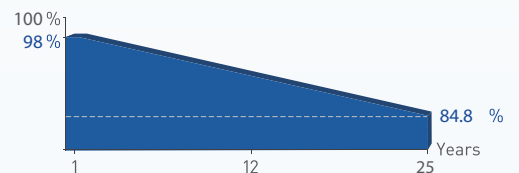


Optimized packaging materials and strict process scheme ensure the PID resistance of modules



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

Industry leading linear warranty



12year Product Warranty **25**year Power warranty

Excellent warranty, with a commitment to a 25-year power warranty and a linear power attenuation of 0.55%



Electrical Data (STC)

Peak Power	P _{max} (W)	530	535	540	545	550
Maximum Power Voltage	V _{mp} (V)	41.30	41.50	41.70	41.90	42.1
Maximum Power Current	I _{mp} (A)	12.83	12.89	12.95	13.01	13.06
Open Circuit Voltage	V _{oc} (V)	49.20	49.40	49.60	49.80	50
Short Circuit Current	I _{sc} (A)	13.69	13.75	13.8	13.86	13.92
Module efficiency	(%)	20.52	20.71	20.90	21.10	21.29
Power tolerance	(W)	0~+5				

*STC : atmospheric mass AM1.5, irradiance 1000 W/m², cell temperature 25 °C

Electrical Data (NMOT)

Peak Power	P _{max} (W)	401.0	404.8	408.6	412.4	416.2
Maximum Power Voltage	V _{mp} (V)	38.47	38.74	39.01	39.28	39.55
Maximum Power Current	I _{mp} (A)	10.44	10.46	10.48	10.50	10.52
Open Circuit Voltage	V _{oc} (V)	46.52	46.74	46.96	47.18	47.40
Short Circuit Current	I _{sc} (A)	10.85	10.88	10.91	10.94	10.97

*NMOT : irradiance 800 W/m² ambient temperature 20 °C, wind speed 1 m/s

Structural Parameters

Number of Cells	144 pieces (6*24)
Module Dimension	2278*1134*35mm
Weight	28.0kg
Front Glass	3.2mm, high transparency coated glass
Rear Panel	White
Frame	Anodized Aluminum alloy
Junction Box	IP68 rated
Cable	4mm ² , 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 _{sc})	+0.05%/C
Temperature coefficient (V _{oc})	-0.28%/C
Temperature coefficient (P _{max})	-0.34%/C

Limit Parameters

Operating temperature	-40~+85°C
Maximum system voltage	1500V DC
Maximum rated current of fuse	25A

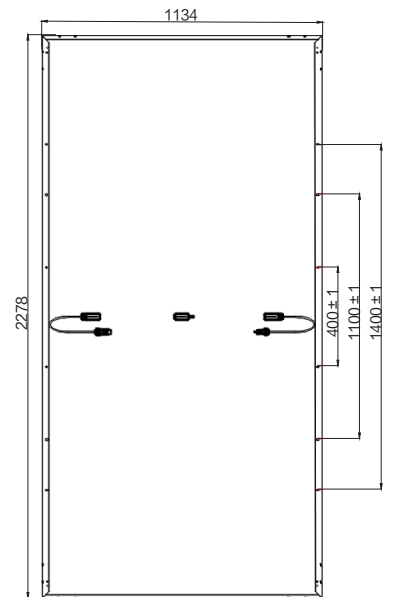
Packing Method

Modules per box	31 pieces
Modules per 40' container	620 pieces

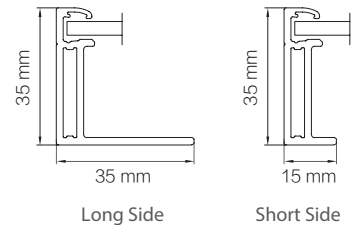
Optional Configuration

Connector	Original PV
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Module Dimension

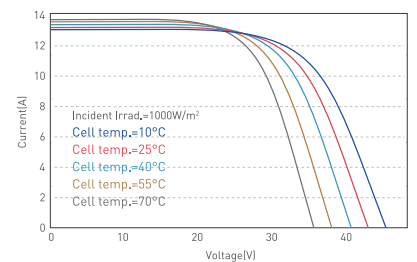


Back View



Curve Chart

I-V curves at different temperatures (550W)



I-V curves/P-V curves at different irradiance (550W)

