

BM Dual glass series 182T-144DG

Efficient bifacial Topcon monocrystalline silicon half cells PV module



580 W

Maximum output power



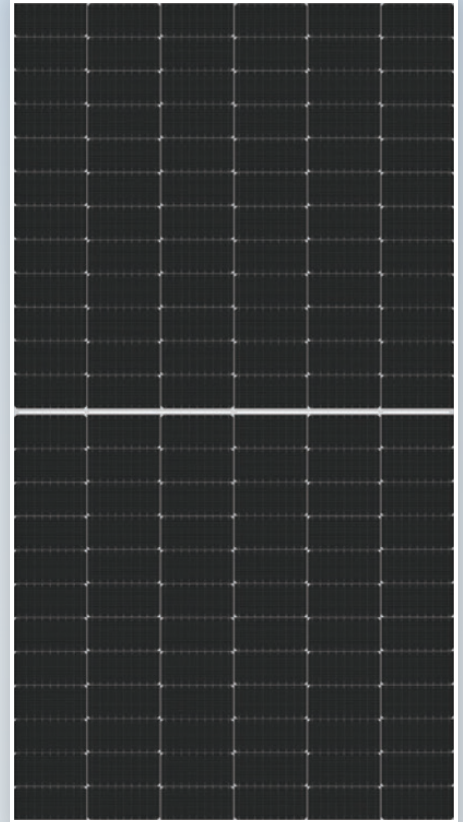
22.45%

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

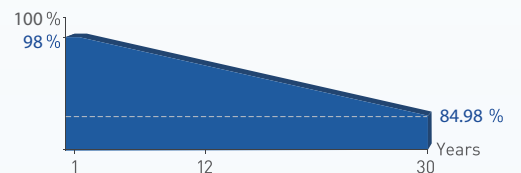
 Fire-proof grade A, ensure more safetyA

 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 **30**year Power warranty

Excellent warranty, with a commitment to a 30-year power warranty and a linear power attenuation of 0.4%



Electrical Data (STC)

Peak Power	P _{max} (W)	560	565	570	575	580
Maximum Power Voltage	V _{mp} (V)	42.48	42.68	42.88	43.08	43.28
Maximum Power Current	I _{mp} (A)	13.18	13.24	13.29	13.35	13.40
Open Circuit Voltage	V _{oc} (V)	50.84	51.04	51.24	51.44	51.64
Short Circuit Current	I _{sc} (A)	14.13	14.17	14.21	14.25	14.29
Module Efficiency	(%)	21.68	21.87	22.07	22.26	22.45
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)	421	425	429	432	436
Maximum Power Voltage	V _{mp} (V)	39.84	39.89	39.95	40.00	40.19
Maximum Power Current	I _{mp} (A)	10.57	10.65	10.73	10.81	10.85
Open Circuit Voltage	V _{oc} (V)	48.29	48.48	48.67	48.86	49.05
Short Circuit Current	I _{sc} (A)	11.42	11.47	11.52	11.56	11.60

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

Electrical Data

Bifacial power gain (reference to 10 % irradiance ratio)

Peak Power	P _{max} (W)	616	621	627	632	638
Maximum Power Voltage	V _{mp} (V)	44.34	44.54	44.74	44.94	45.14
Maximum Power Current	I _{mp} (A)	13.89	13.94	14.00	14.06	14.13
Open Circuit Voltage	V _{oc} (V)	52.62	52.82	53.02	53.22	53.42
Short Circuit Current	I _{sc} (A)	14.57	14.61	14.65	14.69	14.73
Module Efficiency	(%)	23.85	24.04	24.25	24.47	24.70
Irradiation Ratio	sc(A)			10%		

Structural Parameters

Number of Cells	144 pieces [6*24]
Module Dimension	2278*1134*35mm
Weight	32.0kg
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 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

Packing Method

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

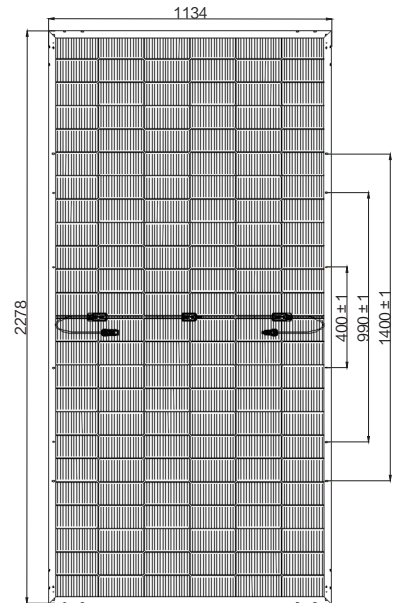
Limit Parameters

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

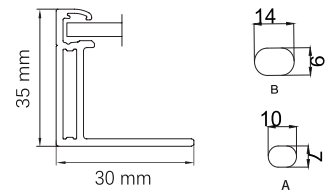
Optional Configuration

Connector Original PV

Module Dimension

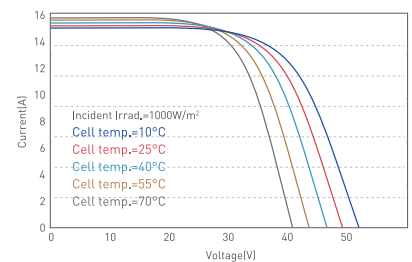


Rear View



Curve Chart

I-V curves at different temperatures (580W)



I-V curves/P-V curves at different irradiance (580W)

