

Photovoltaic Bi-facial Modules

Who We Are

Big Shine Worldwide, a renowned PV module manufacturer, has been at the forefront of manufacturing excellence since **1994**. Our unwavering commitment to **excellence** and **sustainability** shines through our **innovative designs**, **meticulous manufacturing processes**, and consistent delivery of **high-quality, efficient**, and durable products.

Why Choose Us



Industry Experience

Since our establishment in 1989, we have proudly served over 10,000 companies.



Turnkey Expertise

Our distinctive turnkey solution enables us to create products that perform reliably beyond the confines of standard testing conditions.



Guarantee

We provide products founded on integrity and offer services that guarantee optimal performance for your investment.

BSDM-S Energy Model

Bi-facial Technology

- Capable of Capturing Sunlight from the Front and Back of the Module
- Up to 10% Higher Production than Standard One-Sided Modules
- Durable Glass Back Sheet

Performance

- Split Cell Technology 144 Cells
- Multi-Busbar Technology
- Non-Destructive Cutting
- Positive Power Tolerance

Module Efficiency

- 540-550-Watt Options
- Up to 21.29% Module Efficiency
- 2% First-Year Degradation
- 0.45% Annual Degradation

Warranty

- 12 Year Workmanship Warranty
- 30 Year Power Output Guarantee

Contact Us

 845-444-5255

 www.bigshineworldwide.com

 www.bigshineenergy.com

ELECTRICAL PROPERTIES (STC)

Module Type	550W	545W	540W
Maximum Power - Pmax (W)	550	545	540
Open Circuit Voltage - Voc (V)	49.92	49.81	49.65
Short Circuit Current - Isc (A)	13.99	13.92	13.85
Maximum Power Voltage - Vmpp (V)	42	41.8	41.65
Maximum Power Current - Imp (A)	13.1	13.04	12.97
Module Efficiency	21.29%	21.10%	20.90%

ELECTRICAL PROPERTIES WITH DIFFERENT BACK SIDE POWER GAIN

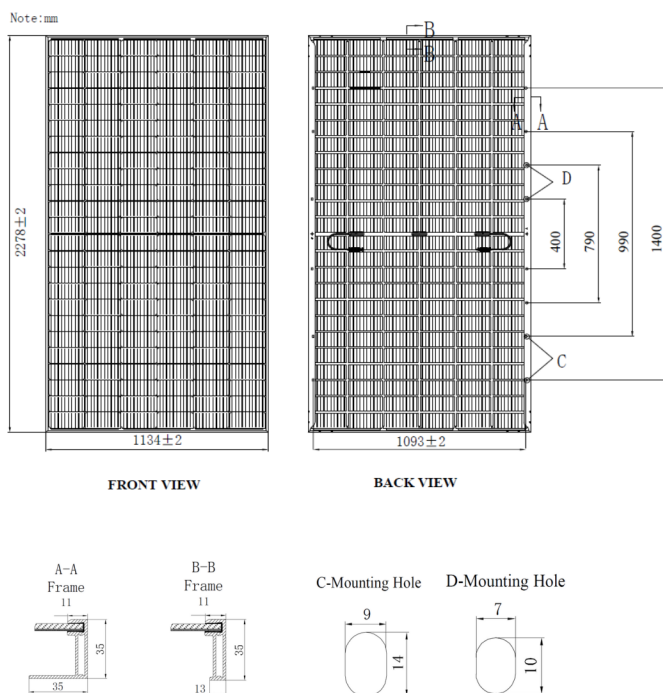
Power Max (W)	Voc (V)	Isc (A)	Vmpp (V)	Imp (A)	Power Max Gain
594	49.76	15.39	41.80	14.41	10%
600	49.81	16.79	41.75	15.72	10%
605	49.81	17.49	41.75	16.38	10%

MODULE ATTRIBUTES

Dimensions	2278×1134×35mm (L×W×H)	Maximum System Voltage [V]	1500
Weight	32.7kg	Series Fuse Rating [A]	30
Frame	Silver anodized aluminum profile	Bifacial Front/Back	70%±10%
Front Glass	AR-coating Semi-toughened glass, 2.0mm EVA	Fire Rating	Class C for IEC and TYPE 29 for US
Cell Encapsulation	(Ethylene-Vinyl-Acetate) or POE	PV module classification	Class II
Back Glass	Glazed & Semi-toughened glass, 2.0mm	Temperature Range	-40 °C to + 85 °C
Cells	12×12 pieces monocrystalline solar cells series strings	Maximum Surface Load	5,400 Pa
Junction Box	IP68, 3 diodes	Application class	Class A
Cable & Connector	Portrait: 500 mm (cable length can be customized), 1×4 mm ² or 12AWG	Withstanding Hail	Maximum diameter of 25 mm with an impact speed of 23 m/s

DIMENSIONS

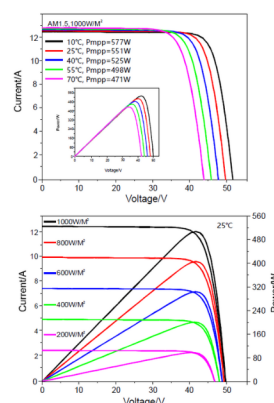
Packaging Dimensions(L×W×H) 2310×1125×1253mm



TEMPERATURE CHARACTERISTICS

NOCT	45°C(±2°C)
Voltage Temperature Coefficient	-0.27%/°C
Current Temperature Coefficient	+0.048%/°C
Power Temperature Coefficient	-0.32%/°C

IV CURVES



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