Maximize Returns On Your Solar Projects



Lower O&M Expenses

Long Lifespan / Low Degradation / Low Failure Rate

High Reliability

Industry-leading Cell Technology

- The only PV manufaturer 100% implementing high-aspect-ratio double-printing in the industry -Addresses contact resistance and solderability optimization without compromising one or another
- Superior PID-resistant performance

- Less finger interruption

High-quality Components from Best Suppliers

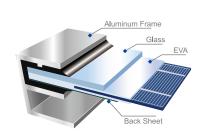
- High transparency, reliable quality
- High durability against PID degradation and UV yellowing

• Fluoride material ensures excellent resistance against harsh environment and low water vapor penetration

- Supplied by reputable tier 1 suppliers to reduce hot spot risks
- Potted J-Box ensures excellent leak-proofness

- Closed Nanoscale structure AR-coating ensures excellent reliability and anti-soiling performance
- High transparency, reliable quality
- Excellent scratch resistance

- Outstanding surface treatment technology and higher line density ensure strong corrosion resistance and mechanical strength
- High salt & ammonia resistance



100% In-house Automatic Module Manufacturing to Guarantee **Product Quality and Performance**

Manufacturing Process, Quality, and Facility Certified by TÜV SÜD, CTF and ETL, and Third-Parties Agencies **Including PI-Berlin and Solar-IF**



Long-term Reliability Tests

- Mechanical load test 5400Pa to 10000Pa (about 2×IEC standard)
- HAST test DH1000 (85℃ and 85% RH) to 121℃ 3 times atmospheric pressure and 100%RH
- Thresher test (about 3×IEC standard)

Thresher Test
Thermal cycling, 600 cycles
Damp heat 3000 hours
UV 45KWH
Humidity freeze 30 cycles
Hot spot endurance 20 hours

Environment Endurance Tests

Ammonia Resistance Test, Salt Mist Spray Test, S02 Resistance Test, Dust and Sand Test, Hot-Dry Climate, Damp-Heat Climate, and Plateau Climate Conditions



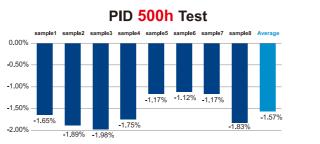
100% Mass-production of PID-resistant Cells, Double 85 Anti-PID 96 hours test standard for **All Modules**

PID: Potential Induced Degradation

























More Power Output

Lower Logistics, Installation, Land and BOS Costs / More Power per M²

High Conversion Efficiency

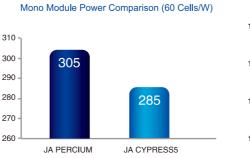
Mono Module Conversion Efficiency Comparison

Multi Module Conversion Efficiency Comparison

Installation cost

100% Positive Power Tolerance:0~+5W

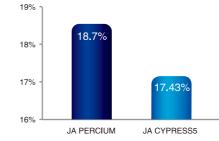


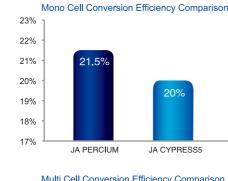


Multi Module Power Comparison (60 Cells/W)

High Conversion Efficiency Benefits

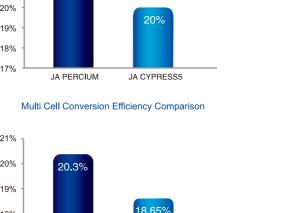
Transportation cost

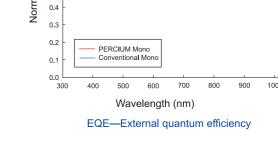




3% less

BOS cost



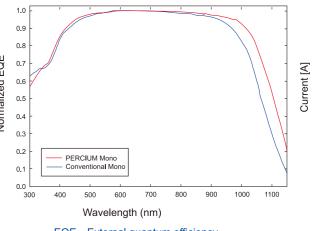


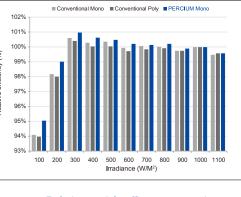
Lower Construction Cost

Excellent Low-light Performance / Elaborated Module Current Rating

High Yield Efficiency

Outstanding Low-light Performance





Relative module efficency comparison under different irradiance



Elaborated Module Current Rating to Improve Yield Efficiency

The modules are classified into three current category.

Current class—H (high) Current class—M (middle) Current class—L (low)



Excellent Quality Management System and Product Quality Assurance



















Note: Cost saving estimation is made by comparison between 295W and 275W modules

Land cost

Your Trustworthy Long-term Partner

Research and Development

Global leader of PV cell technologies through innovation and invention

With its tremendous efforts spent on research and development in advancing PV technology through innovation and invention, JA Solar has firmly established itself as a globally recognized PV technology leader with a six-month leading edge ahead of the others. JA is very proud to be the first company in the world started mass producing and commercializing selective emitter, MWT, and PERC structured PV cells and applied double-printing technology to all cell manufacturing lines.

• Industry front runner of PV module performance based on proprietary technical approaches

Relentlessly pursuing process optimization of PV modules assembly process and continuously improving their performance and reliability are the key engineering focus of JA Solar's extensive R&D efforts. Using proprietary technologies and various innovative approaches, in combination with its advanced cell technologies, JA Solar's PV modules consistently out-perform competitors' modules by 5-10 watts in terms of power rating.

Product and R&D Milestones

R5 Cel Mono Multi 1	18.8%, PID-resista	PID-resistant cell and module		RIECIUM Cell: Black silicon technology, Multi 18.4%	: Multi PERC Cell: 19%	Multi PERC Cell: 20%	Mass production 280W moi module/60 cells/4BB	no produc) Perciu	ction of of 2	ss production 85W mono dule/60cells	production of bifacial mono PERC double glass module	N type Mono high efficiency Passivated cell: >22%
2011.1	12 2012.10		2013.10	2013.12	2014.01	2014.09	2015.06	2016.	02 201	6.08	2017.05	2018.02
2011.06	2012.06	2013.07	2013.10	2013.12	2014.01		2015.04	2015,12	2016.07	2016.12	2 201	17.12
MWT:	CYPRESS Cell:		: Fast-installation		Light Weight		Mass production	100% in		uction Mass pro		output power of
Mono 19.4% Multi 17.6%	Mono 19%, Multi 17.5%		Residential Rooftop	DC-DC Modules	Modules		of 270W multi module/60 cells/4BB	compliance with double 85 anti-PID	of 275W m module/60 /4BB		mod	cell mono PERC dule set a new ld record

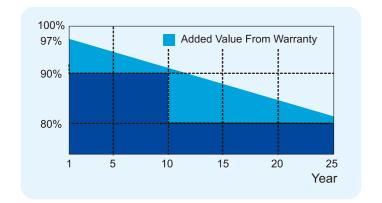
Product Warranty

- 12-year warranty on materials and workmanship
- 25-year linear power warranty (>80%)

Additional Insurance Options







Premium Cells, Premium Modules

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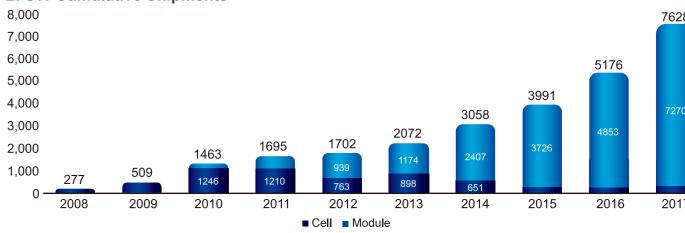


Your Trustworthy Long-term Partner

Overview

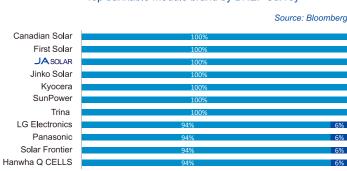
Founded in 2005, JA SOLAR is a leading global manufacturer of high-performance photovoltaic (PV) products, with a business portfolio including wafers, cells, modules and photovoltaic power stations. Thanks to its 11 production bases and 27 branches, JA SOLAR products are available in over 100 countries and regions. They are used extensively in utility scale power plants, commercial and institutional applications and residential rooftops. Supported by technological innovation, sound financial performance, and an advanced global sales and service network, JA SOLAR has been well received by domestic and foreign clients. For several consecutive years, the company has been listed on the Fortune China 500 list and the World TOP 500 Energy Companies.

27GW Cumulative Shipments



Global Leading Bankable Module Brand

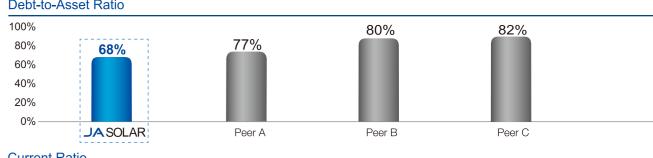
Top bankable module brand by BNEF Survey



■ Bankable ■ Not Bankable

Solid Finance

Debt-to-Asset Ratio



Harvest the Sunshine

