# Company Overview

<table>
<thead>
<tr>
<th>Headquarters</th>
<th>Shanghai, China (with EU, US &amp; Japan Offices)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founded / IPO</td>
<td>May 2005 / February 2007 JASO (NASDAQ)</td>
</tr>
<tr>
<td>Business</td>
<td>c-Si solar module, cell &amp; system supplier</td>
</tr>
<tr>
<td>Shipments</td>
<td>1.7GW in 2012</td>
</tr>
<tr>
<td>Product Highlights</td>
<td>High efficiency, reliability</td>
</tr>
<tr>
<td>Capacity (Annual)</td>
<td>1.8 GW Module, 2.5 GW Cell, 1.0 GW Wafer</td>
</tr>
<tr>
<td>Mission</td>
<td>Mission: Responsible Partners</td>
</tr>
<tr>
<td>Employees</td>
<td>9,784 as of December 31, 2012</td>
</tr>
</tbody>
</table>
## Selectively Optimized Vertically Integrated Model

<table>
<thead>
<tr>
<th>Polysilicon</th>
<th>Silicon wafer</th>
<th>Cell</th>
<th>Module</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Polysilicon" /></td>
<td><img src="image2.jpg" alt="Silicon wafer" /></td>
<td><img src="image3.jpg" alt="Cell" /></td>
<td><img src="image4.jpg" alt="Module" /></td>
<td><img src="image5.jpg" alt="System" /></td>
</tr>
</tbody>
</table>

### Solar wafers
- Low-cost, high-quality production
- Leading the industry in high-efficiency wafer research

### Solar cells
- One of the world’s largest manufacturers
- Recognized for top tech at low cost
- High-performance mono- and multi-crystalline solar cells

### PV modules
- High-quality product with high-quality BOM
- Additional channel for product distribution
- Working with leading brands on OEM modules

### EPC
- Partnering with top-tier developers in China
- Cooperation with global leading IPPs on utility scale projects
...with State-of-the-art Production Facilities

Yanjiao Wafer Facility
500MW Capacity

Ningjin Cell Facility
900MW Capacity

Yangzhou Cell Facility
1600MW Capacity
State-of-the-art PV R&D Center

Hefei Solar Products Facility
3GW Capacity (Started from Y11)
Current Module Capacity 500MW

Fengxian Module Facility
1300MW Capacity

Lianyungang Wafer Facility
500MW Capacity

Shanghai Head Quarter
## TOP 10 c-Si cell manufacturer in the world

<table>
<thead>
<tr>
<th>Rank</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JA Solar</td>
<td>JA Solar</td>
<td>Yingli</td>
</tr>
<tr>
<td>2</td>
<td>Suntech</td>
<td>Suntech</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sharp</td>
<td>Trina</td>
<td>Trina</td>
</tr>
<tr>
<td>4</td>
<td>Q-Cells</td>
<td>Yingli</td>
<td>Suntech</td>
</tr>
<tr>
<td>5</td>
<td>Trina</td>
<td>Motech solar</td>
<td>Motech solar</td>
</tr>
<tr>
<td>6</td>
<td>Yingli</td>
<td>Hareon</td>
<td>Gintech Solar</td>
</tr>
<tr>
<td>7</td>
<td>Motech</td>
<td>Gintech solar</td>
<td>Canadian Solar</td>
</tr>
<tr>
<td>8</td>
<td>Gintech</td>
<td>Q-Cells</td>
<td>Jinko</td>
</tr>
<tr>
<td>9</td>
<td>Kyocera</td>
<td>NEO Solar</td>
<td>NEO Solar</td>
</tr>
<tr>
<td>10</td>
<td>Others</td>
<td>Canadian Solar</td>
<td>Sunpower</td>
</tr>
</tbody>
</table>

Source: IMS & SolarBuzz, 2012
World’s Fastest-growing Leading Module Manufacturer

- Module shipment ranked 8th globally in 2012, increasing 7 spots YoY
- Successful transformation into a major module supplier

**Top 10 PV Module Suppliers in 2012**

<table>
<thead>
<tr>
<th>2012 Rank</th>
<th>Module Supplier</th>
<th>Change from 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yingli Green Energy</td>
<td>+1</td>
</tr>
<tr>
<td>2</td>
<td>First Solar</td>
<td>+2</td>
</tr>
<tr>
<td>3</td>
<td>Suntech</td>
<td>-2</td>
</tr>
<tr>
<td>4</td>
<td>Trina Solar</td>
<td>-1</td>
</tr>
<tr>
<td>5</td>
<td>Canadian Solar</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Sharp Solar</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Jinko Solar</td>
<td>+2</td>
</tr>
<tr>
<td>8</td>
<td>JA Solar</td>
<td>+7</td>
</tr>
<tr>
<td>9</td>
<td>SunPower</td>
<td>-1</td>
</tr>
<tr>
<td>10</td>
<td>Hanwha SolarOne</td>
<td>-3</td>
</tr>
</tbody>
</table>

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Analysis featured in forthcoming Marketbuzz 2013 Report
Experts Rank JA Solar Amongst Future Leaders

- **April 2012: Financial Times Germany**
  Report on a study on the solar industry by the strategy consultancy Simon-Kucher identifying companies with strong financials.
  - Germany: Solarworld, Aleo, Payom, Solarfabrik
  - USA: First Solar
  - China: JA Solar, Trina
  
  Source: *Die Solarbranche kann es noch schaffen, April 13, 2012. Financial Time Deutschland*

- **August 2012: China Development Bank**
  JA was enlisted to be one of the top Chinese solar manufacturers whose credit lines are supported by CDB and other major domestic commercial banks.

- **Sep. 2012: Goldman Sachs ‘Transforming China’ Report**
  JA placed at long term hold.
  Predicted to become industry survivor and amongst leaders

- **October 2012: GTM Research USA**
  Researchers placed JA Solar in the forecasted 9 major global module manufacturers of 2015.
  
Sustainable Development

- Innovation
- Globalization Market Strategy
- Product Reliability
- Healthy Financial Conditions
- Customer Service
- Social Responsibility
■ CYPRESS Series high efficiency solar cell

- Average efficiency in mass production:
  - Mono-crystalline cell: **19.4%**
  - Multi-crystalline cell: **17.9%**

- Excellent solderability
  - Application of double printing technology in production enhances solderability

**High efficiency cells in mass production**

![Graph showing efficiency comparison between mono and multi cells.](image)

**High efficiency modules in mass production**

**High efficiency solar module**

- Average efficiency in mass production:
  - Mono-crystalline module: **16.5%**
  - Multi-crystalline module: **15.9%**

- Reliable Quality
  - 100% EL double-inspection ensures modules are defect free
  - Potential Induced Degradation (PID) Resistant

![Graph showing efficiency comparison between mono and multi modules.](image)
High efficiency and low cost solar cell and module technology

- Innovative solar cell technology
  - PERCIUM Solar Cell (P-type): ~20.1%
  - BYCIUM Solar Cell (N-type): >20.1%
  - WRACIUM Back-contact Cell: ~18.6% (Poly), ~19.9% (Mono)

- Proprietary technology and innovative processing to continuously improve solar cell conversion efficiency
  - DT(Dry Texturing ) Poly Cell: >18.3%

- Develop new module manufacturing and system integration technology based on existing high efficiency cell technology

- Long-term research for next generation PV cell and module technology
Product Reliability – Long-term Reliability & Special Tests

- **Long-term Reliability Test**
  - DH1000 to DH3000
  - TC200 to TC600
  - Mechanical load test 5400Pa to 10000Pa
  - HAST test DH1000 to 121°C and 100%RH
  - PID test: -1000V, 85°C, 85%RH, 96h
  - Thresher test: HF 30, Hot Spot 20h

- **Special Test Certification & Factory Audit Program**
  - TÜV-Rheinland Ammonia Resistance Test Certificate
  - Intertek Salt Fog Spray Test Certificate
  - TÜV-NORD Salt Mist Spray Test Certificate
  - Certificate for H₂S Acid Test
  - Overall Factory Audit by Third-party PI-Berlin
Global Service Network

- Process
- Planning
- Quality assurance

Prompt Response
- Immediate feedback within 24 hours
- Service E-mail: services@jasolar.com

Linear Warranty
- 10 year warranty on material and workmanship
- 25 year linear power output warranty

“The linear warranty of JA Solar modules offers the additional insurance of electricity generation, they even offered retroactive warranty upgrade for modules originally purchased under the staircase warranty.”

– Customer A
Globalization Market Strategy – Well Positioned in Major Emerging Markets

- **Japan**: Top 2 Chinese module supplier in year of 2012 and 1H 2013.
- **Middle East**: No.1 Chinese module supplier in 1H 2013.
- **China**: 3rd largest module supplier in 2012.
- **Other APAC market**: India, Thailand breakthroughs
- **Africa Market**: Morocco breakthroughs

*Source: Solarzoom & China Customs*
JA Solar has established long-term strategic partnerships with various leading corporations around the world.
Healthy Financial Conditions – Strong Credit Profile Relative to Peers

**Total Liabilities / Total Equity**

- **Average:** 604.8%
- **JASO:** 153%
- **Peer A:** 241%
- **Peer B**: 275%
- **Peer C:** 445%
- **Peer D:** 602%
- **Peer E:** 658%
- **Peer F:** 665%
- **Peer G**: 788%
- **Peer H**: 1163%

Note: Balance sheet figures are as of 6/30/2013 (except ** as of 3/31/2012, ^ as of 3/31/2013).

**Cash & Cash Equivalent (1) / Short-term Borrowings**

- **Average:** 52.1%
- **JASO:** 81%
- **Peer A:** 72%
- **Peer B**: 66%
- **Peer C:** 66%
- **Peer D:** 64%
- **Peer E:** 53%
- **Peer F:** 42%
- **Peer G**: 42%
- **Peer H**: 12%

Source: Company filings.
Note: Balance sheet figures are as of 6/30/2013 (except ** as of 3/31/2012, ^ as of 3/31/2013).
Peer H* Total Liabilities / Total Equity value is negative, illustrated in absolute value for comparison purpose
(1): including restricted cash
Healthy Financial Conditions – Ability to Meet Short-term Obligations

Current Ratio

<table>
<thead>
<tr>
<th>Company</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>JASOLAR</td>
<td>113%</td>
</tr>
<tr>
<td>Peer B^</td>
<td>109%</td>
</tr>
<tr>
<td>Peer E</td>
<td>102%</td>
</tr>
<tr>
<td>Peer A</td>
<td>100%</td>
</tr>
<tr>
<td>Peer F</td>
<td>86%</td>
</tr>
<tr>
<td>Peer C</td>
<td>72%</td>
</tr>
<tr>
<td>Peer D</td>
<td>66%</td>
</tr>
<tr>
<td>Peer G**</td>
<td>64%</td>
</tr>
<tr>
<td>Peer H</td>
<td>19%</td>
</tr>
</tbody>
</table>

Average: 77.2%

(Current Assets – Inventories – Short-term Pre-payment) / Current Liabilities

<table>
<thead>
<tr>
<th>Company</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>JASOLAR</td>
<td>86%</td>
</tr>
<tr>
<td>Peer E</td>
<td>87%</td>
</tr>
<tr>
<td>Peer B^</td>
<td>84%</td>
</tr>
<tr>
<td>Peer A</td>
<td>77%</td>
</tr>
<tr>
<td>Peer C</td>
<td>63%</td>
</tr>
<tr>
<td>Peer F</td>
<td>63%</td>
</tr>
<tr>
<td>Peer D</td>
<td>46%</td>
</tr>
<tr>
<td>Peer G**</td>
<td>44%</td>
</tr>
<tr>
<td>Peer H</td>
<td>13%</td>
</tr>
</tbody>
</table>

Average: 59.6%

Source: Company filings.
Note: Balance sheet figures are as of 6/30/2013 (except ** as of 3/31/2012, ^ as of 3/31/2013).
Healthy Financial Conditions – Strong Balance Sheet for Future Growth

- Strong cash position and unused credit lines provides adequate liquidity to ensure sustainable development.

(1) Includes restricted cash

Healthy Financial Conditions – Strong Bank Partnership

Recent activities to further strengthen our balance sheet

- Successfully closed a registered direct offering of up to $96 million.

- Extended the terms of an outstanding loan with the Hefei High-tech Development Committee in the amount of $234.6 million.

- Together with Jinglong Group, secured RMB 550 million loan with Bank of Communications of China. Of the RMB 550 million, RMB 250 million (roughly $41 million) will be available to JA Solar.

Supported by Leading Banks
Prudent inventory control and working capital management ensure long-term viability.

Days of Inventory (DOI)

Average: 82 Days

Source: Company filings.
Note: Balance sheet figures are as of 6/30/2013 (except ** as of 3/31/2012, ^ as of 3/31/2013).
By the end of 2012, the global PV cumulative installed capacity reached 100GW, the cost of PV power generation has been lower than the retail price of natural gas.

The decline in the cost of PV power generation is faster than the projection of Professor Sachs. Currently, some regions with high consumer electricity price and rich solar irradiation have already reached “grid parity”.

Residential Grid Parity Regions in 2013

Source: Professor Emanuel Sachs, Massachusetts Institute of Technology

Source: Bloomberg, 2012
Germany: JA Solar is the Chief Official Sponsor of German Cycling Federation.

USA: Donated modules to Stanford University for its construction of the Bioengineering & Chemical Engineering building.

China: Sponsors Peking University, Tsinghua University, and Tongji University in their participation at the “Solar Decathlon SD”.

Haiti: Following Haiti’s earthquake, JA donated PV modules to the local fish farmers for electricity generation.
Thank You