oerlikon Solar

Oerlikon Solar is the world leader in offering turnkey manufacturing solutions for the production of high-efficiency thin-film silicon PV modules. We strive to make solar energy economically viable and are committed to continually improve our technology through innovation. Heavy investments in our R&D continuously drive down the production cost for PV modules and increase module efficiency.

Oerlikon Solar is part of the Oerlikon group, which is one of the most innovative industrial groups in the world with over 16,000 employees in more than 150 sites in 36 countries. Our daily passion is to enable our customers to produce Swiss high-tech quality anywhere in the world.

Specifications:

- **ThinFab™**
  - **Module efficiency**: 10% (143 Wp)
  - **Annual output**: 120 MWp (~850,000 modules)
  - **Module size**: 1.1 x 1.3 m²
  - **System control**: Manufacturing Execution System
  - **Technology**: Micromorph®

**ThinFab™** is the latest generation turnkey manufacturing line for the production of thin-film silicon PV modules using high-efficiency Micromorph® technology. A host of equipment and product improvements have led to dramatic improvements in the competitiveness of ThinFab™. The production line has a guaranteed average module efficiency of 10% and the estimated production cost is below €0.50/W. This combination of high efficiency and low cost means that Oerlikon Solar’s Micromorph® technology can be extremely competitive in fast-growing markets for clean electricity. Electricity can be produced at €0.10/kWh or less in many locations, e.g. Southern Europe, a cost that is significantly lower than the price of electricity from conventional sources in many regions of the world. Furthermore, in contrast to conventional energy prices which are on an increasing trend, Oerlikon Solar’s technology roadmap will assure that the price of solar electricity based on Oerlikon Solar’s ThinFab™ and Micromorph® technologies will continue to drop in coming years due to its continuous equipment design improvements.

**SALeS & Service coNTAcTS**

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www.oerlikon.com/solar
Manufacturing cost below €0.50/Wp enables energy production at €0.10/kWh

Market leading and industry proven thin film silicon technology with average module power of 143 Wp / 10% efficiency

Line yield of 97%

Master certificate for TÜV and UL

Upgradeability of manufacturing equipment

Highest equipment availability, reduced process steps, and highly optimized line concept

YOUR CHALLENGE
In the high-tech mass production of thin film silicon solar modules, you always strive for:

- LCoE: Producing energy at lowest cost per kWh
- CoO: Producing solar modules at lowest cost per Wp
- Shortest time to money: Time to market and return of investment
- Highest utilization of capital
- Competitiveness today and in the future

OUR SOLUTION
ThinFab™ has unique features to meet these challenges:

- Manufacturing cost below €0.50/Wp enables energy production at €0.10/kWh
- Market leading as industry proven thin film silicon technology
- Average module power of 143 Wp / 10% efficiency
- Line yield of 97%
- Master certificate for TÜV and UL
- Upgradeability of manufacturing equipment
- Highest equipment availability, reduced process steps, and highly optimized line concept

YOUR BENEFITS

- Electricity production below grid parity level in many regions of the world
- Guaranteed performance to secure your business case
- Fastest time to money and shortest return of investment
- Upgradeable manufacturing line to assure future competitiveness and access to Oerlikon Solar’s technology roadmap
- Strong and reliable technology partner for move-in, installation and ramp-up of entire manufacturing line