



SMARTWIRE CONNECTION TECHNOLOGY SWCT™

Maximal module power

Low material and manufacturing costs

Improved durability and resilience

High process reliability

Cost-effective production line

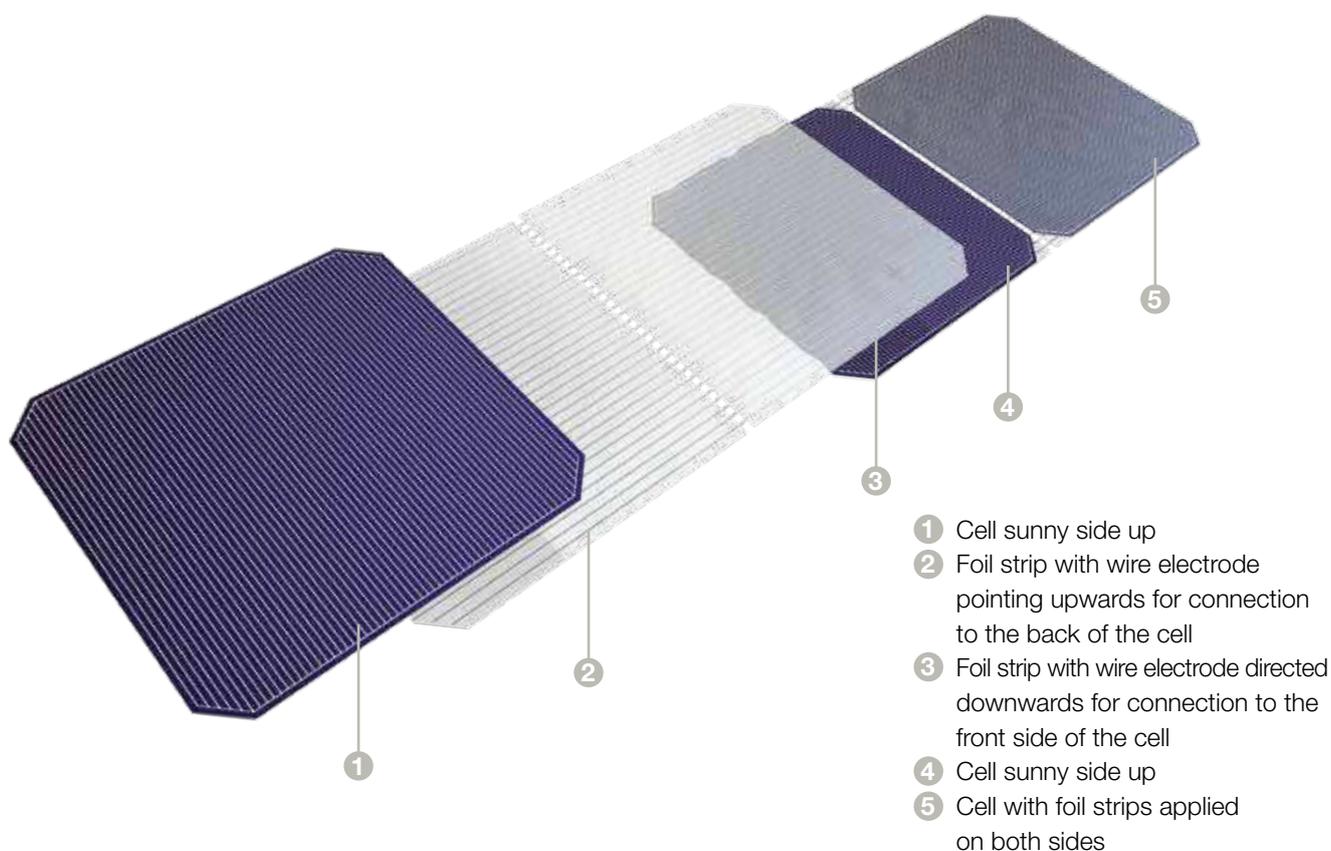
SmartWire Connection Technology

SmartWire Connection Technology (SWCT™) was developed for use in connecting current and future generations of solar cells. This technology is available exclusively from Meyer Burger.

SWCT™ is an entirely new way to connect cells. This patented technology allows very cost-effective and resource-friendly mass production of high-performance, top-quality solar modules. SWCT™ is extremely flexible

and powerful: almost all cell and module types can be processed, including state-of-the-art developments such as bifacial HJT glass/glass solar modules.

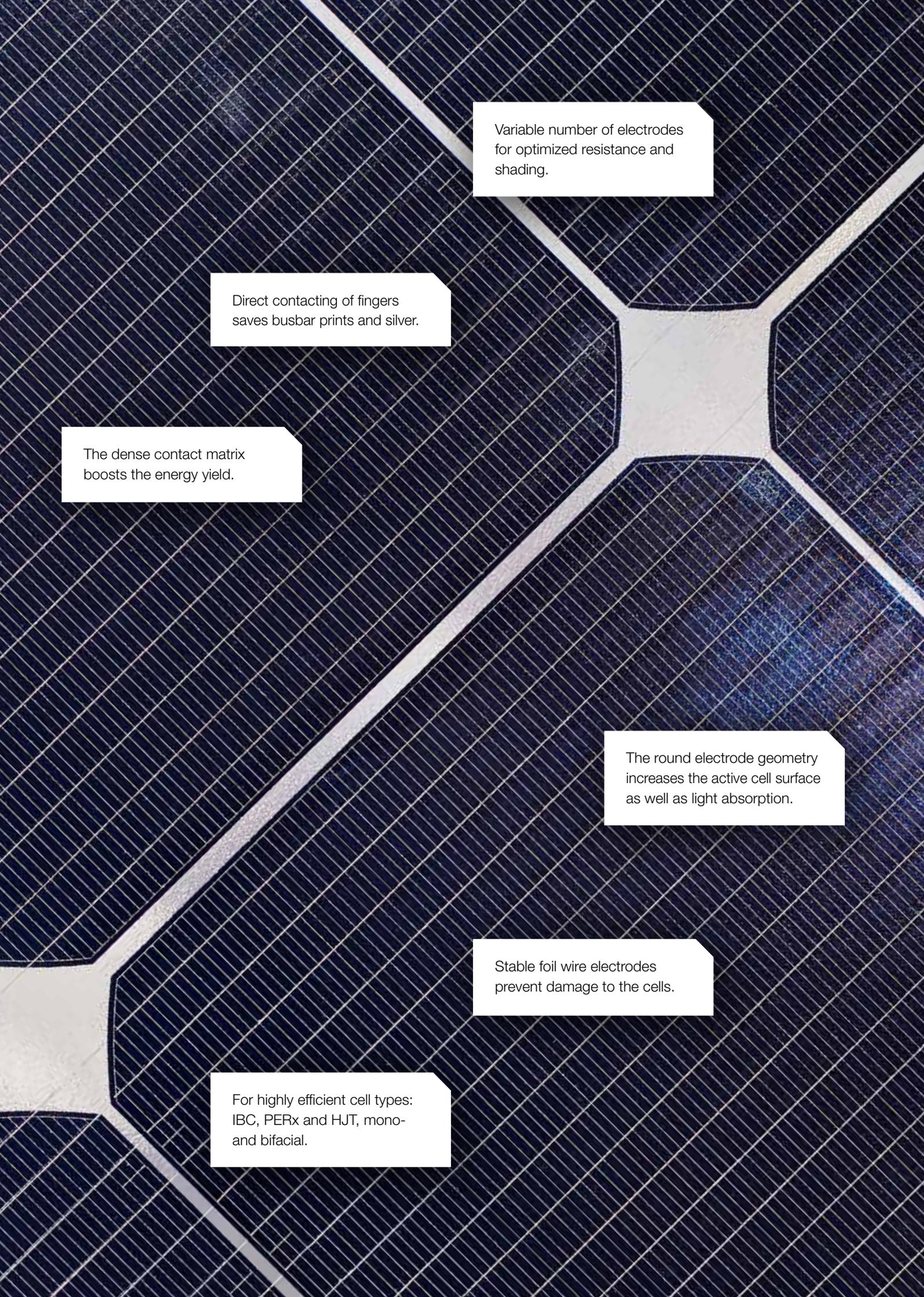
Since the introduction of SWCT™, Meyer Burger has worked to continuously refine and expand this technology as well as the company's range of advanced production equipment. Together, they serve as a highly productive centerpiece for any advanced module production line.



Record-setting module with 480 Wp power

The current benchmark, not just a futuristic dream: 480 Wp solar modules with 72 bifacial HJT cells and SWCT™ cell connection technology can now be industrially manufactured using production equipment from Meyer Burger. The bifacial module represents a further development of the record-setting 410 W monofacial module developed in cooperation with the renowned CEA research institute in France. That module previously achieved the highest energy yield in the world (410 W).

Meyer Burger works with well-known partners around the globe to develop key technologies for highly efficient solar modules. The company is investing heavily into research and development at its locations in Switzerland, Germany and the Netherlands in order to constantly expand the company's leadership.



Variable number of electrodes
for optimized resistance and
shading.

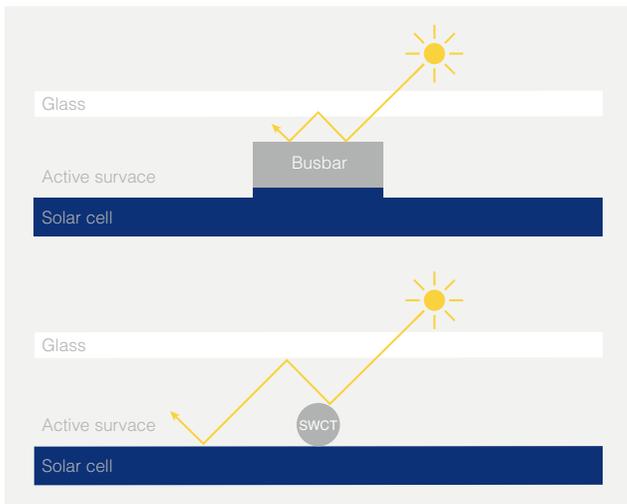
Direct contacting of fingers
saves busbar prints and silver.

The dense contact matrix
boosts the energy yield.

The round electrode geometry
increases the active cell surface
as well as light absorption.

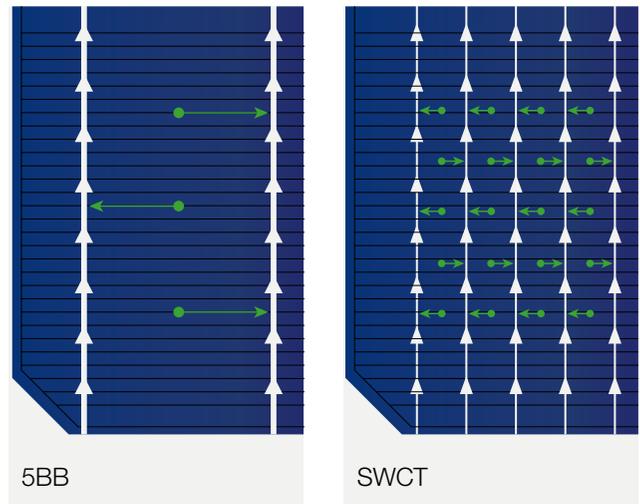
Stable foil wire electrodes
prevent damage to the cells.

For highly efficient cell types:
IBC, PERx and HJT, mono-
and bifacial.



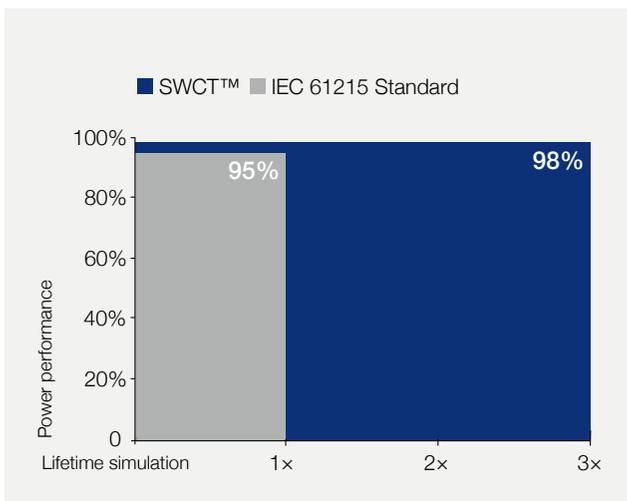
Maximal absorption of sunlight

The geometrical shape of the thin round wire reduces the effective shading on the active surface of the solar cell. Sunlight is reflected on the round wire surface and trapped in the module.



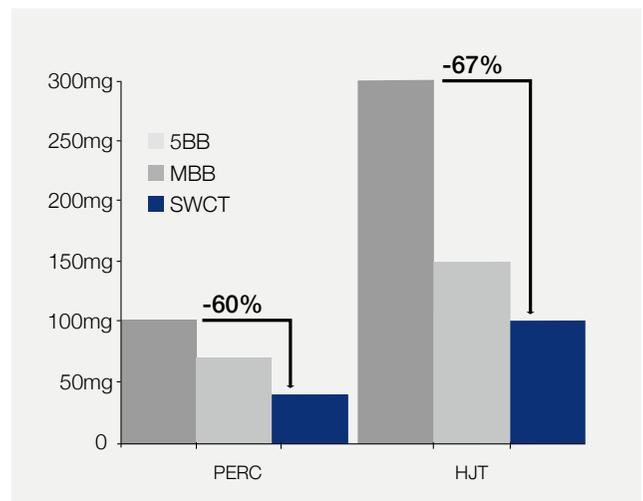
Minimal electrical loss

SWCT™ reduces the electrical loss by spreading the current with up to 24 wires. A 2% increase in module output is thus possible.



Consistent performance for the long term

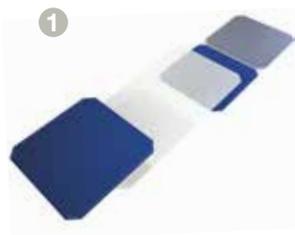
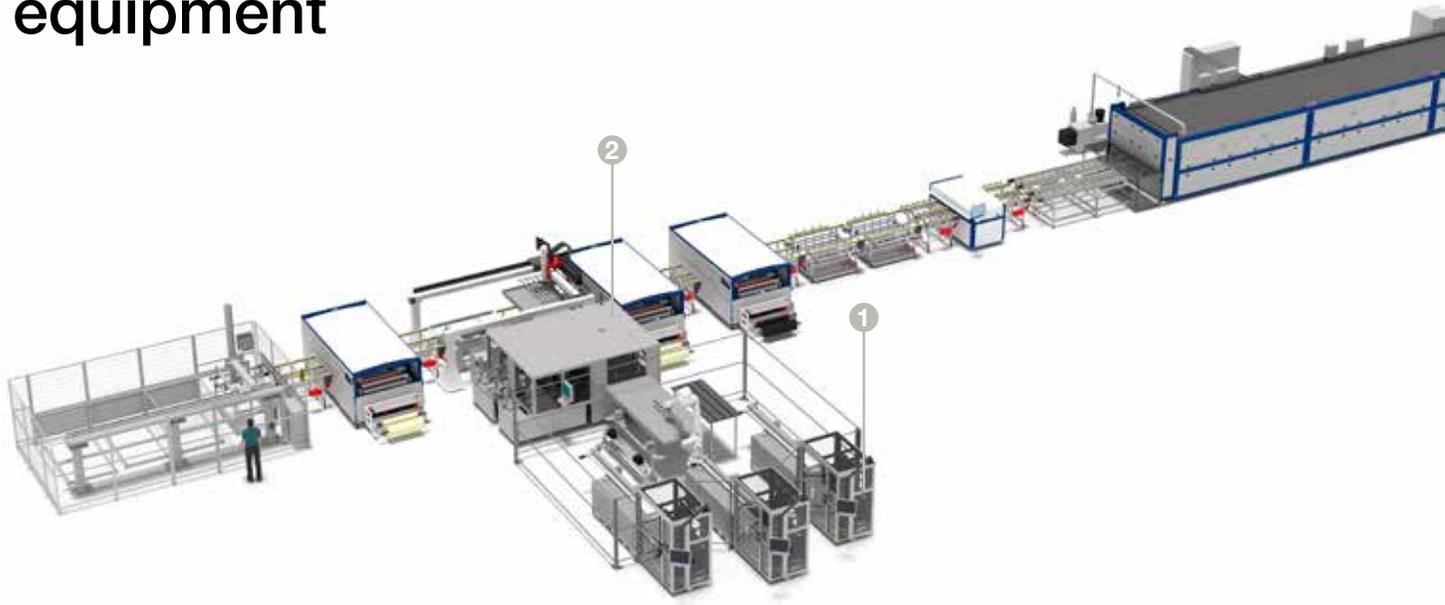
Modules with SWCT™ meet IEC criteria in triplicate, which is far beyond the industry standard. In addition, the modules are highly resistant to mechanical stress and tolerate a wide range of climatic conditions.



Significant silver savings

The copper electrodes are encased using an exclusive alloy and are mounted directly on the thin contact fingers without a silver busbar print. Since SWCT™ does not use any indium or lead and already fulfills the RoHS Directives for hazardous substances, it is a resource-saver and future-proof.

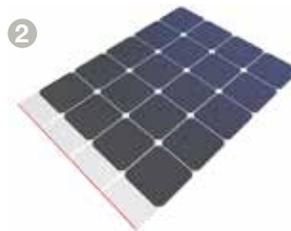
SWCT™ production equipment



Cell-to-String

The cells are connected with the wire foil ribbon to form a string.

Meyer Burger stringing equipment: Ibex.



String-to-Matrix Lay-up

Multiple cell strings are positioned side by side and embedded in encapsulation material and glass panes. Meyer Burger manufacturing cell: Unicorn.

Specifications

Modules

types	sizes	cells per module
Glass/back sheet, glass/glass, BIPV	1,600 – 1,700 (L), 960 – 1,010 (W) (other sizes on request)	60 or 72

Wire

diameter	numbers
200, 250, 300 µm	Standard 18, option for 12 to 24

Cells

types	sizes	format	thickness
IBC, PERC, PERT, HJT mono-/bifacial	M2 = 156.75 mm to max. 170 mm	full, pseudo square & ½ cells	120 to 180 µm

Worldwide presence



Service

Meyer Burger, with its service centers near you, offers first-class service that only the original manufacturer can deliver. We take responsibility for the availability and productivity of your equipment today and tomorrow.

With a complete range of services, we support you from commissioning through production support and maintenance to life-prolonging system upgrades. All works are carried out by qualified technicians and with original service parts only – at your site or in our local service center.

Wherever you need it, our service is available in time, and of top quality.

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We reserve the right to make changes reflecting technical progress.