



## Cross contacting system

All versions of cross contacting.

**komax** SOLAR



## Cross contacting system

Cross contacting from Komax Solar connects two contact ribbons for all thin film technologies. The user can select the most optimum connection technology from the selection offered.

### Area of application

A bus is attached in cross contacting. It carries the current from the contact ribbons to the junction box. In a superstrate configuration (usual with thin film silicon and CdTe), the bus is placed over the

active cells and has to be insulated. In the substrate configuration (usual with Cl(G)S), the bus is routed around the active cells, eliminating the need for insulation.

### User friendly design

Cross contacting systems from Komax Solar feature a user friendly design. Vertically opening safety doors and a sliding operator's panel make for optimum accessibility. To minimize material changeover times, ribbons are processed from large film rolls and a threading aid is provided.

A cross contacting system from Komax Solar can be easily integrated into a contacting system but is also available as a stand-alone unit.



### Cross contacting of a-Si, $\mu$ -Si and CdTe modules

The ultrathin insulating tape with double side adhesive is rolled out across the cells with the process tape applicator. The bus is then applied, and the stable omega loop is formed in the bus fully automatically. The position of the omega loop and the position of the junction box can be selected within a large range. The ribbon and bus can be connected by the customer's choice of conductive adhesive, soldering or welding.

Low-voltage modules (multiple contact ribbons on the module) are cross-connected using the same principle.



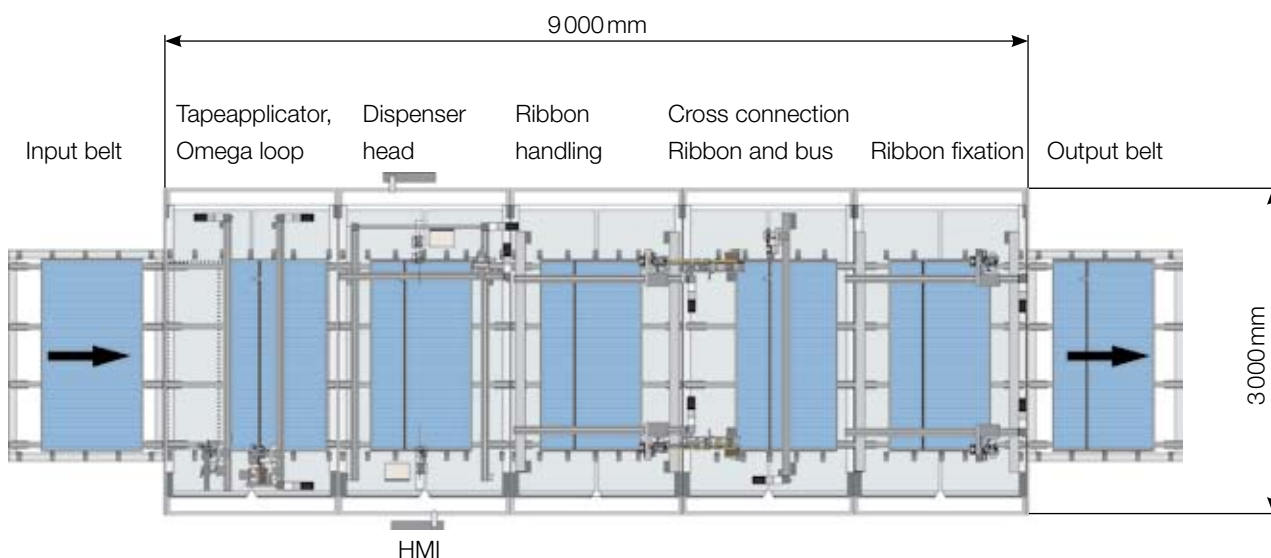
### Cross contacting of Cl(G)S modules

Additional materials such as soldering material or insulated tape are not required in the cross contacting of Cl(G)S modules (substrate configuration). At the end of the cells, the projecting contact ribbons are folded back by 90° and guided through the two holes in the glass to the junction box on the back. Then the black cover tape is applied that neatly covers and fastens down the metallic ribbon.



## Options

Cross contacting systems from Komax Solar are suitable for producing both standard and low-voltage modules and can be integrated readily into a contacting system. They are available in a fully automatic and a semi-automatic version. Different connection technologies are available.



### Technical data

Cycle time	< 30 s
Dimensions (W×H×D)	9000 × 2150 × 3000 mm
Operations	Graphical user interface with touch panel
Electrical connection	3 × 400 V, 10 kVA
Contacting technologies	- Gluing - Soldering

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### Your benefits:

- Reliable and ultra-precise contacting technology
- Longitudinal and cross contacting combined in a single system
- Possible to produce standard and low-voltage modules
- Integrated process control
- Minimal material changeover times
- User friendly design
- Compact design

Komax Solar is your contact partner for all backend needs. The Photovoltaic Competence Center in Rotkreuz offers you solutions for reliable, ultra-precise thin-film technology. Please contact us!