MBJ EL lab 5.0

Electroluminescence Module Inspection

Stand alone lab system

The MBJ EL lab 5.0 is a stand-alone electroluminescence inspection systems designed to inspect framed or unframed solar modules before or after lamination. The system captures and displays electroluminescence images of each individual solar cell so defective cells can be identified and the overall quality of the solar module under test can be graded accurately.

- Automatic defect detection
- Premium image quality
- Auto report funtcion
- Easy to use
- Made in Germany

MBJ EL lab 5.0	
Max. module size	1400 x 2700 mm
Min. module size	200 x 200 mm
Image processing	Fully automatic
Camera type	SolarCam12
No. of cameras	2
Resolution	180 µm/pixel
Image aquisition time	18 s
Module contacting	Manual by solar connector or crocodile clamps
Module types	framed or unframed modules, before or after lamination, mono or multi-crystalline

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MBJ EL lab 5.0

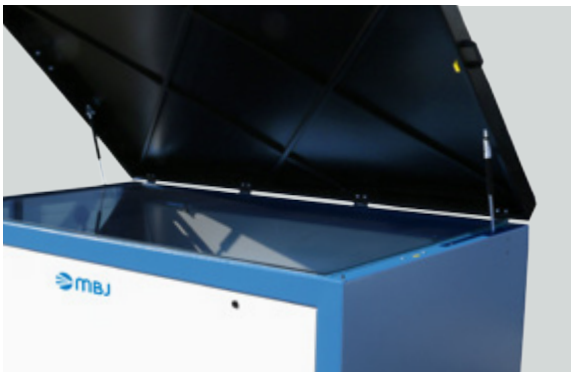
High resolution electroluminescence

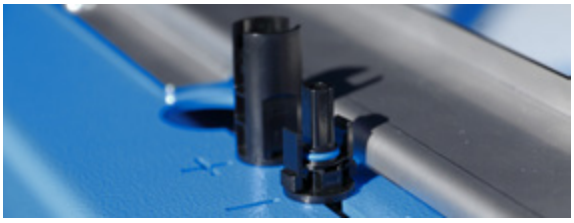
The MBJ EL lab 5.0 is designed as a stand-alone system to inspect framed or unframed solar modules before or after lamination.

The unique table top design allows easy manual loading and electrical connection of solar modules of different sizes, no hardware changes are necessary.

The system captures and displays high quality electroluminecence images with a resolution of 180µm/pixel using 2 CMOS cameras.

An AI based defect detection, created with deep learning, is used on the system. Included from the start is a neural network for automatic crack defect detection on crystalline modules.





Defective cells will be marked and classified for easy identification. The overall quality of the module can be graded accurately.

A standard USB barcode reader can be used to transfer the module ID to the inspection system. All data will be uniquely identified by the module ID.

A user friendly graphical interface supports all necessary function. Recipes for different solar module types can be cretaed and saved. The matching parameters is always only one click away.

All module images and the result data are stored together with the module ID, for fast and easy identification. The xml complient result data set can be used for statistical evaluation.

With the automatic report function it is possible to generate a Word file with all relevant images and result information included.

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