MBJ EL
Lab

Stand alone lab system

The MBJ EL - Lab is a stand-alone electrolumi-
nescence 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

| Technical specification	MBJ EL - Lab (MAX)
Max. module size	1400 x 2700 mm
Min. module size	250 x 250 mm
Image processing	Fully automatic, system will be delivered with a standard network for the detection of cracks on mono crystalline cells
Camera type	12 MPixel cooled CMOS camera
No. of cameras	2
Resolution	180 μm/pixel
Image aquisition time	18 s
Module contacting	Manual by solar connector or crocodile clamps
Module types	All types of standard crystalline modules, others on request

MBJ EL - Lab

High resolution electroluminescence

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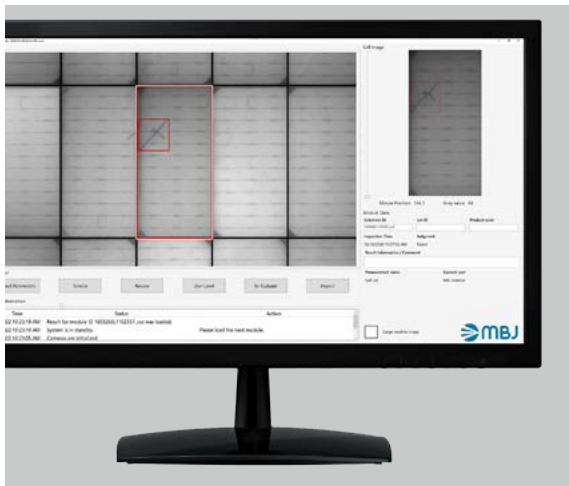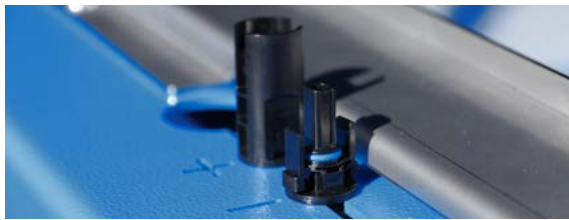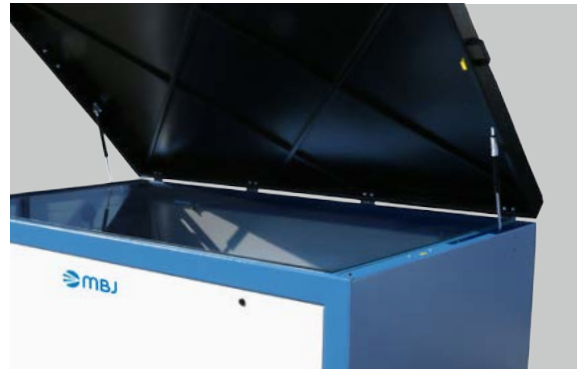
Defective cells will be marked and classified for easy identification. The overall quality of the module can be graded accurately.

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.

MBJ Solutions GmbH
Jochim-Klindt-Straße 7
DE-22926 Ahrensburg

+49 4102 778 90 10
info@mbj-solutions.com
www.mbj-solutions.com

MBJ