MBJ Mobile Lab Advanced

Integrated in a container

solutions to meet the needs

All in one mobile solution

Integrated in a container, the standalone MBJ Mobile Lab Advanced offers high-quality I-V curve measurements and high-resolution electroluminescence images under standard test conditions.

Ideal for stationary use on site when setting up large PV parks.

Check the quality on site under laboratory conditions and reliably find underperformance and quality defects such as soldering errors and microcracks.

- I/V-curve, Hi-Res EL & diode test
- Most compact design
- Great evaluation SW
- Easy to use
- Made in Germany

Sun Simulator	MBJ Mobile Lab Advanced (MAX)
Spectrum / Light source	Class A+ IEC 60904-9 Ed.3 LED with UV and IR extended spectrum
Spectral coverage (SPC)	94 % +/-3 %
Spectral deviation (SPD)	43 % +/-3 %
Total irradiance	200 - 1000 W/m^2
Non uniformity	< +/- 1 % / Class A+ IEC60904-9 Ed3
Long term instability (LTI)	< +/- 1 % / Class A+ IEC60904-9 Ed3
Measurement uncertainty	1.3 %, when using a reference module of the same module type with a measurement uncertainty of 1.1 %
Repeatability Pmax	± 0.2 % (absolute)
Flash pulse duration	200 ms at 1000 W/m^2
Life time of LED's	> 12 million flashes at 1000 W/m2

Electroluminescence	MBJ Mobile Lab Advanced (MAX)
Camera type	CMOS camera
Resolution	> 30 MPixel
Power supply	Up to 250 V, up to 12 A for module power supply
Operation mode	Fully automatic image acquisition, manual judgment through operator

Go to product:

MBJ Mobile Lab Advanced

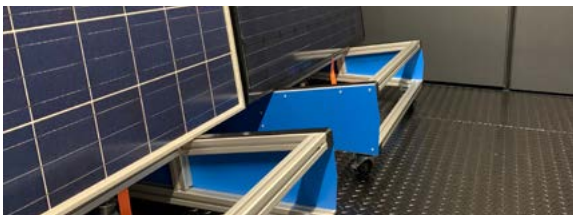
The on-site test center

The MBJ Mobile Lab Advanced version is designed as lab system for an in-depth quality analysis of photovoltaic panels. Integrated in a container it is ideal for the in-field use at installation sites.

The Mobile Lab Advanced consists of a high-resolution electroluminescence system and an A+A+A+ LED sun simulator for power and IV-curve measurement. Further electrical tests are possible too.

The operation is easy: Modules are placed on the system and connected manually. The operator shades the measurement chamber.

The user-friendly Windows 10® based software installed on a notebook allows the judgment of the EL images and the data evaluation of the IV curve. Extensive reporting functions are also included in the software.



There is also a major advantage. Due to the insulation of the container, black inner walls and an air conditioner, measurements can be carried out under near standard test conditions. Several modules can be pre-loaded in the storage to allow them to acclimatize.

The LED technology guaranties a long lifetime of the light source, which leads to a huge reduction of the maintenance costs. Furthermore, the MBJ LED technology offers a long flash duration, which is necessary for new module designs.

The very stable light during the entire flash leads to an extraordinary good repeatability.

Technical Specification	MBJ Mobile Lab Advanced (MAX)
Min. module size	800 x 890 mm
Max. module size	1400 x 2700 mm
Cell formats	Fully configurable
Module types	framed and frameless glass-glass or glass-foil modules, bifacial solar modules, mono-crystalline or multi-crystalline also PERC types, thin film
Contacting of modules	Manual
Container size	20 ft (6058 mm x 2438 mm x 2438 mm)
Including	A/C unit, working space, feed in point for electrical power, 2 x 230 V CE sockets with switcher, 1 x 230 V CE socket, circuit breaker, residual current circuit breaker, Air conditioner, Illumination, 3 module storages for 10 modules, table
Doors	two hinged doors, extra door: DIN L BRM (875 x 2000) mm

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