

# MBJ Steady State Sun Simulator

## Made for cell development

The MBJ Steady State Sun Simulator is designed for the characterization of small modules during the development of new cell technologies like Perovskites in the lab.

The configuration with 22 different LED types provides an outstanding good spectrum with a spectral coverage of > 98% and a spectral deviation of < 24%.

- Continuous or flash mode
- Long LED lifetime
- EL test and IV measurement
- Compact set up
- Made in Germany



Sun Simulator	Advanced spectrum
Spectrum / Light source	Class A+ IEC 60904-9 Ed.3 LED with UV and IR extended spectrum
No. of LED types	22
Spectral coverage (SPC)	> 98 %
Spectral deviation (SPD)	< 24 %
Configurable irradiance	200 - 1500 W/m <sup>2</sup>
Non uniformity	< ± 1 % (Class A+ IEC 60904-9 Ed.3 < ± 1 %)
Long term instability (LTI)	< ± 0.5 % (Class A+ IEC 60904-9 Ed.3 < ± 1 %)
Accuracy of Pmax	+/- 0.2% (FSR)
Measurement modes	Forward and backward sweep, high capacity measurement mode
Flash pulse duration	500 ms long pulse, steady light capable
Load element	Active electronic load

Electroluminescence	
Camera type	CMOS camera
Resolution	5 MPixel
Power supply	Up to 63 V, up to 20 A for module power supply
Image aquisition time	< 5 s

# MBJ Steady State Sun Simulator

Go to product:

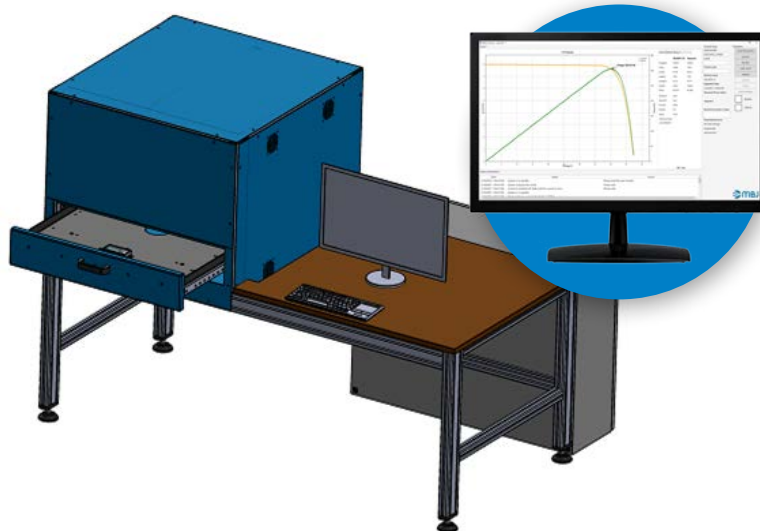


## Made for development

The MBJ Steady State Sun Simulator is designed for the characterization of small modules during the development of new cell technologies like Perovskites in the lab.

LED technology offers many advantages. Continuous light and flash operation are possible. The intensity can be easily varied from 200 W/m<sup>2</sup> to 1500 W/m<sup>2</sup>. It is also easy to vary the spectrum. LEDs are also maintenance-free and long-lasting.

With the electroluminescence camera integrated in the MBJ Steady State Sun Simulator, a very compact test system can be set up that combines EL test and IV measurement in one system.



Technical specification	
Max. module size	500 x 500 mm
Max. active area (A+)	600 x 600 mm
Module types	framed modules, unframed glass – foil / glass – glass
Contacting of modules	Alligator clip
Loading of modules	Manual
Results	Data base for storage and access of the inspection results. All results are stored with the module ID.

Cooling system	
WL Series Liquid Cooling System	Liquid to air heat exchanger
Nominal Cooling Capacity	5000 W
Coolant	Water or Water/Glycol
Operating temperature	5°C to 40 °C
Storage temperature range (w/o coolant)	25°C to 70°C

