MBJ Sun Simulator - Inline

Future-proof innovative LED technology







- Newest LED technology
- Outstanding spectrum
- IEC 60904-9 Ed.3 certified
- Made in Germany

LED sun simulator with outstanding spectrum for all module sizes

With up to 22 different LED types an almost perfect spectrum is achieved, that speaks for itself. Additional benefits are the long flash duration and a light source that is stable over a long period of time. Thanks to the modular concept, the MBJ Sun Simulator can easily be adapted to any module size.

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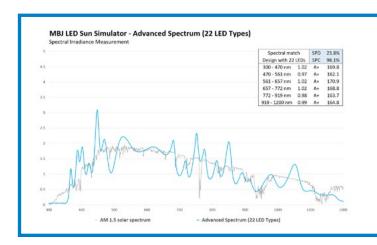
Field of Application

The MBJ Sun Simulator 4.0 is an innovative TÜV certified IEC 60904-9 Ed.3 triple A+ LED sun simulator. It is available in two different configurations: with the standard spectrum made of 13 LED types or with the new advanced spectrum with 22 different LED types. The advanced spectrum leads to an outstanding spectral deviation of less than 24 %.

Four different machine sizes make it possible to measure the new and larger module sizes. Additional options are a support unit for fast and safe handling of glass-glass modules, the integration of a Hipot and grounding test for framed modules, a MES interface or a label printer.

Benefit from the well-known advantages of LED technology: a much longer life of the light source, stability of the light source over time, outstandingly stable repeatability over time and significantly reduced operating costs.

The MBJ Sun Simualtor combines the long light pulse with the innovative step wise IV-sweep when measuring the latest high capacitive cell technologies.



Technical specification	Standard spectrum	Advanced spectrum	
Spectrum / Light source	Class A+ IEC 60904-9 Ed.3 , LED with UV and IR extended spectrum		
No. of LED types	13	22	
Spectral coverage (SPC)	> 94 %	> 98 %	
Spectral deviation (SPD)	< 44 %	< 24 %	
Total irradiance	200 - 1200 W/m²		
Non uniformity	<+/-1 %, Class A+ IEC 60904-9 Ed.3		
Long term instability (LTI)	<+/-1 %, Class A+ IEC 60904-9 Ed.3		
Accuracy of Pmax	+/- 1 % based on reference module usage		
Repeatability Pmax	< 0.1 %		
Flash pulse duration	200 ms at 1000 W/m ² / 100ms at 1200 W/m ²		
Load element	Passive electronic load		
Measurement options	Forward and backward sweep, high capacity measurement mode		
Life time of LED's	> 10 million flashes at 1000 W/m2		

MBJ Sun Simulator	Standard	WIDE	ECO	MAX
Max. module size	1060 x 2250 mm	1400 x 2250 mm	1240 x 2400 mm	1400 x 2750 mm
Max. active area (A+)	1040 x 2160 mm	1360 x 2160 mm	1200 x 2320 mm	1360 x 2640 mm

Available o	ptions
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Additional LED unit for bi-facial modules, support for frameless modules, MES interface, Hipot and grounding test, operator desk with PC and label printer, light tower, UPS





