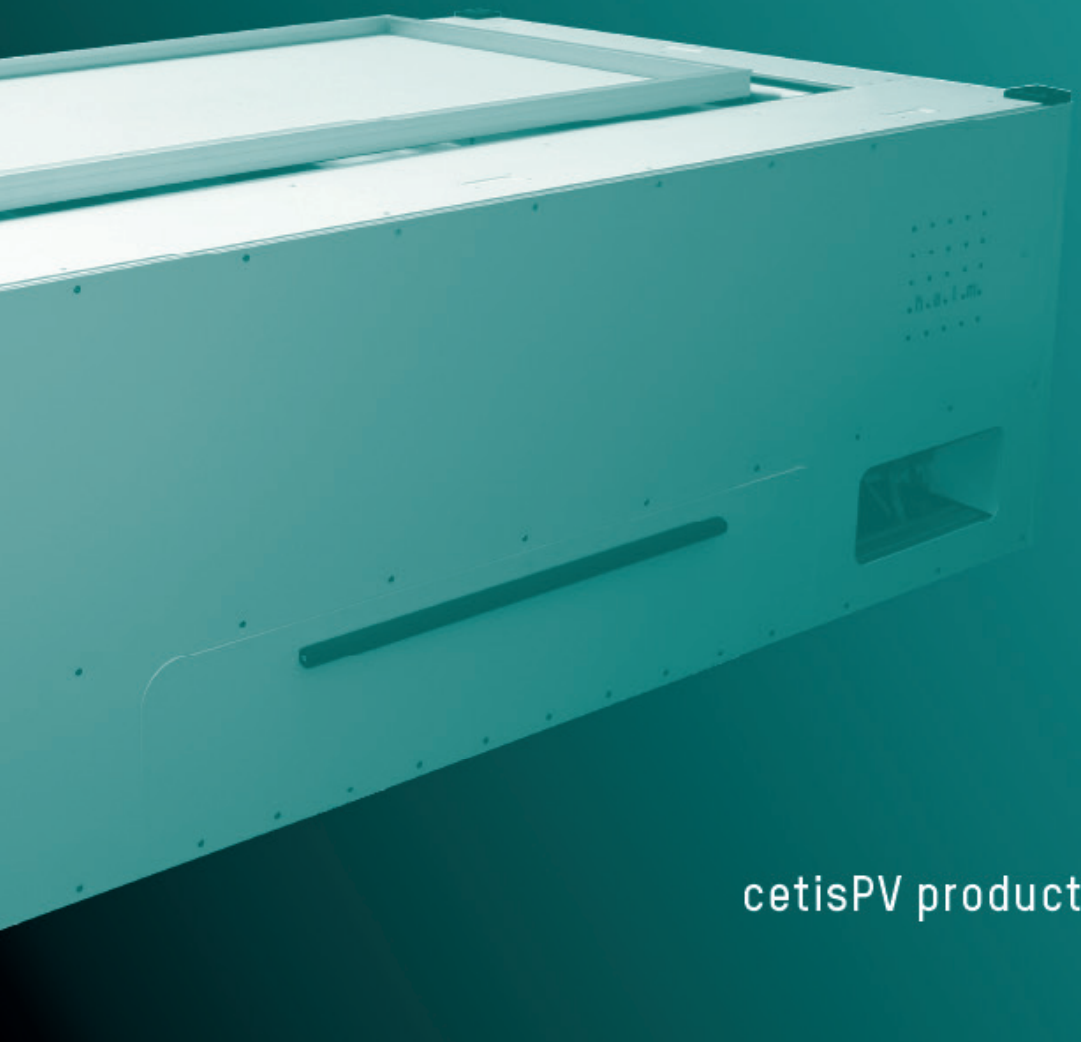
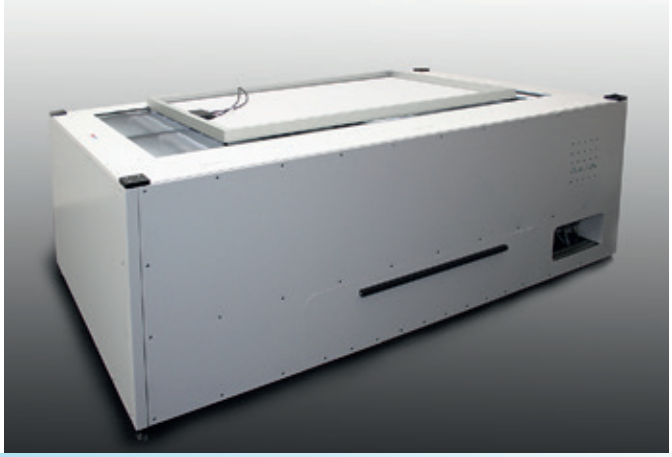
.h.a.l.m.

cetisPV-IUCT-Q

Class AAA table flasher for
IV measurement of solar modules
in production lines



cetisPV product line



cetisPV-IUCT-Q

Class AAA table flasher for IV measurement of solar modules in production lines

The cetisPV-IUCT-Q is a ready-to-operate high-precision pulsed xenon flasher solution for IV measurements of photovoltaic modules.

Integration – The economic footprint combined with a low profile allows module examination at standard conveyor level height. Therefore, it can easily be integrated into new or existing production lines and R&D facilities. As solar modules are tested sunny-side down – matching the typical orientation in production lines – complex module positioning by robots and large dark rooms become dispensable.

Sustainability – The programmable pulsed solar simulator provides a highly stable intensity over long flash times from a single light source. Combined with the h.a.l.m. IV curve tracer and the optional advanced hysteresis feature to measure high-capacitance modules, this system is designed to match the demands of current and up-coming solar cell technologies.

Flexibility – The system is controlled by the versatile PVControl software package with statistic functions, hysteresis measurements, and flexible database storage options. Moreover interfaces for most common MES solutions, as well as barcode reader and label printing options are available.

Technical specifications

Cycle Time	20 s
Flash duration	up to 65 ms
Flash profiles	single, double, triple level, ramp
Repeatability	Isc and Voc < ± 0.1 % / Pmpp and FF < ± 0.15 %
Measurement resolution	< 0.004 % FSR (3 synchronous 16-bit channels for voltage, current and irradiance)
Standard illumination area	2,000 x 1,000 mm²
Dimensions of flasher unit	2,600 mm x 1,500 mm x 900 mm (L x W x H)
Spectral match*	0.9 – 1.2 (class A 0.75 – 1.25)
Non-uniformity of irradiance*	< 2 % (class A ≤ 2 %)
Short-term instability of irradiance*	< 0.05 % (class A ≤ 0.5 %)
Long-term instability of irradiance*	< 0.5 % (class A ≤ 2 %)
Lamp lifetime (guaranteed/typical)	100,000/3,000 flashes

*IEC 60904-9 Ed. 2

Technical data are subject to change without notice.

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