

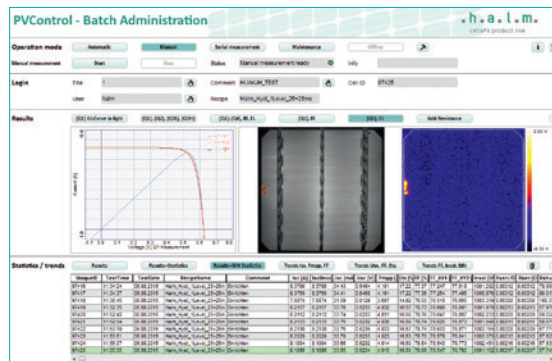


# cetisPV- IUCT-1800

Class A+A+A+ xenon flasher  
and IV measurement system



cetisPV product line



# cetisPV- IUCT-1800

Class A+A+A+ xenon flasher  
and IV measurement system

The established h.a.l.m. xenon flasher and IV measurement system **cetisPV-IUCT-1800** allows precise and highly reproducible IV measurements of solar cells in production lines.

**Quality** – One of the key components is its unique programmable pulsed solar simulator, which provides highly stable irradiance output over long flash times from a single light source. Combined with the h.a.l.m. IV curve tracer, this system is designed to match the demands of current and up-coming solar cell technologies.

**Reliability** – With more than 900 systems installed, the **cetisPV-IUCT-1800** has proven its worth to solar cell manufacturers all over the world. Integrated into sorting machines from all common vendors and maintained by an experienced support staff, the **cetisPV-IUCT-1800** is the reference for reliability and customer satisfaction.

**Flexibility** – The standard IV measurement system can be complemented by further tools for quality and process control such as electroluminescence or infrared imaging, inline spectral response, grid resistance and dark IV measurement.

## Technical specifications

<b>Throughput</b>	up to 1,800 wph
<b>Flash duration</b>	up to 40 ms
<b>Flash profiles</b>	single, double, triple level, ramp
<b>Repeatability (standard deviation)</b>	Isc and Voc < ±0.1% / Pmpp and FF < ±0.15%
<b>Measurement resolution</b>	< 0.004% FSR (3 synchronous 16-bit channels for voltage, current and irradiance)
<b>Measurement accuracy</b>	< 0.05% FSR for current and voltage measurements
<b>Voltage measurement ranges</b>	±1 V / ±2 V / ±4 V / ±10 V / ±20 V
<b>Current measurements ranges</b>	±2 A / ±4 A / ±10 A / ±20 A ±16 mA / ±32 mA / ±80 mA / ±160 mA or ±0.1 A / ±0.2 A / ±0.5 A / ±1 A
<b>Electronic load</b>	active 4-quadrant load
<b>Spectral match*</b>	0.88 – 1.12 (class A 0.75 – 1.25)
<b>Non-uniformity of irradiance*</b>	< 1% (class A ≤ 2%)
<b>Short-term instability of irradiance*</b>	< 0.05% (class A ≤ 0.5%)
<b>Long-term instability of irradiance*</b>	< 0.8% (class A ≤ 2%)
<b>Lamp lifetime (guaranteed/typical)</b>	500,000/3,000,000 flashes (for 40 ms flashes all 2 seconds)
<b>Advanced measurements and evaluations</b>	multiple series and shunt resistance evaluations methods, simple and advanced hysteresis optional: Single-flash hysteresis, 2-diode analysis, SunsVoc
<b>Optional packages</b>	EL imaging, IR imaging, spectral response, grid resistance

\*IEC 60904-9 Ed. 2      Technical data are subject to change without notice.

h.a.l.m. elektronik gmbh

Friesstr. 20 60388 Frankfurt / Germany Tel +49 (0) 69 94 33 53-0 Fax +49 (0) 69 94 33 53-141 info@halm.de www.halm.de