

CTU Compact Test Unit



## Suncycle Solar Services

### On-site electroluminescence and performance test

STC performance | EL w/o module dismantling | EL in daylight | High-resolution | Assessments



**CTU lab**  
compact test unit  
Electroluminescence | STC – Performance



**CTU flex EL**  
compact test unit  
Electroluminescence mounted @ daylight

# CTU Compact Test Unit

As an independent partner certified by renowned banks and insurance companies, Suncycle offers on-site tests of photovoltaic modules with legally watertight measurement results at a laboratory level. We have developed our own measurement methods for this together with a leading PV institute. Save time and money by using the Suncycle Compact Test Unit (CTU), with no compromises in terms of the quality of the test.



<b>Main features</b>		
STC performance measurements	•	
EL test in daylight	•	•
EL test on mounted modules		•
Measurement time / module	approx. 45 sec. (up to 200 modules a day)	approx. 30 sec. (up to 200 modules a day)
<b>Electroluminescence</b>		
NIR-CCD cameras	•	•
Full format module image	•	•
Resolution 10 MPixel; pixel approx. 400µm	•	•
Module energisation	max. 600 W (single module)	max. 12 kW (single module & complete strings possible)
<b>STC performance measurements</b>		
Irradiation output	up to 1500 W/m <sup>2</sup> / up to 250 ms	
Spectrum	400 – 800 nm	
Uniformity of irradiance	<±2% (class A acc. to IEC 60904-9)	
Temporal irradiance stability	<±2% (class A to IEC 60904-9)	
Repeat accuracy	<0,5% (flash to flash)	
Current measuring range	0-32A (±0,2% fsr)	
Voltage measuring range	0-200V (±0,2% fsr)	
MPP-Toleranz	±3%	
Built-in reference sensor	•	
<b>Measurement results</b>		
EL image for each module	•	•
Error display for each cell	•	•
STC reference characteristic curve	•	
STC measurement data (P <sub>MPP</sub> , U <sub>MPP</sub> , I <sub>MPP</sub> , FF, I <sub>SC</sub> , U <sub>OC</sub> )	•	
Digital photos of error causes	•	•
<b>General data</b>		
Module dimensions LxW	up to 1700mm x 1100mm	up to 1700mm x 1100mm
Weight	approx. 200 kg	approx. 12 kg
Power supply	Power set 110V/ 230V	Power set 110V/ 230V/ 400V
Barcode scanner (laser scanner)	•	•
Data transfer from any location	•	•
Real-time measured data storage	•	•

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