

TEST SYSTEMS

ATS Custom Solar Testing



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Description

Representing over 20 years of ATS development in providing cell and module testers for crystalline and thin film applications in both automated production and manual laboratory environments. Built on our custom tooling and proven ATS Test Executive test management software, customers can have confidence in the quality & reliability of our testers.

Optional:

- Dark curve
- Calibrated reference cell
- Infrared temperature measurement
- Temperature controlled nest
- Vision inspection
- Molded urethane cell carriers
- Laser induced current (LBIC)



Specifications

ATS Test PV Cell Test System Specifications

Model	ATS Test Cell Test System	ATS Test cell/Module Test System
Year of market introduction	1998	2003
Simulator Dimensions		
Total system size (length x width x height)	Custom	Custom
Total system weight	Custom	Custom
Light Generator		
Manufacturer of light generator	Simulator integrated	Simulator integrated
Max. illuminated area	200 x 200 mm	3000 x 4000 mm
Cell type	All	All
Weight	Simulator integrated	Simulator integrated
Length x width x height	Simulator integrated	Simulator integrated
Light Generator - Power Supply		
Utilities	95-264 VAC/15A/47-63Hz	1Ph, 115/230V, 50/60Hz
Max. power	1.1 kW	2kW
Average power consumption	1.0 kW/h	0.8kW/h
Electronic Load		
Manufacturer of electronic load	ATS Test Systems	ATS Test Systems
Measured voltage ranges	0-1V	0-100V
Measured current ranges	0-10A	0-37.5A
Voltage resolution	0.002%	0.153%
Current resolution	0.008%	0.057%
Reference cell range	0-1 Vdc	0-1 Vdc
Accuracy	± 0.25%	± 0.25%
Max. cell output power under flash light	10W	400W
Duration of IV measurement	1 sec	10ms
D/A and A/D resolution	16 bits	16 bits
Max. no of measuring points per curve	750	750
Max. data acquisition speed per measurement	133 µs	0.0133 µs
Max. cell measurements	Loading dependent	Loading dependent
Nominal cell measurements	Loading dependent	Loading dependent
Tests Performed		
	Complete I-V Curve Open Circuit Voltage Maximum Power Current & Voltage @ Max Power Short Circuit @ Fixed Voltage Level Efficiency Series Resistance Parallel Resistance Temperature	Complete I-V Curve Open Circuit Voltage Maximum Power Current & Voltage @ Max. Power Short Circuit @ Fixed Voltage Level Efficiency Series Resistance Parallel Resistance Temperature
System Control + Software		
PC inclusive	ATS Test Executive	ATS Test Executive
Soft. Incl. Database	Yes	Yes
Soft. Incl. Tools for integr. in autom. cell sort unit	Yes	Yes
Read/print facility for barcode labels	Opt.	Opt.



Contact ATS directly for custom or product specific applications beyond the scope of this document.

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August 2015