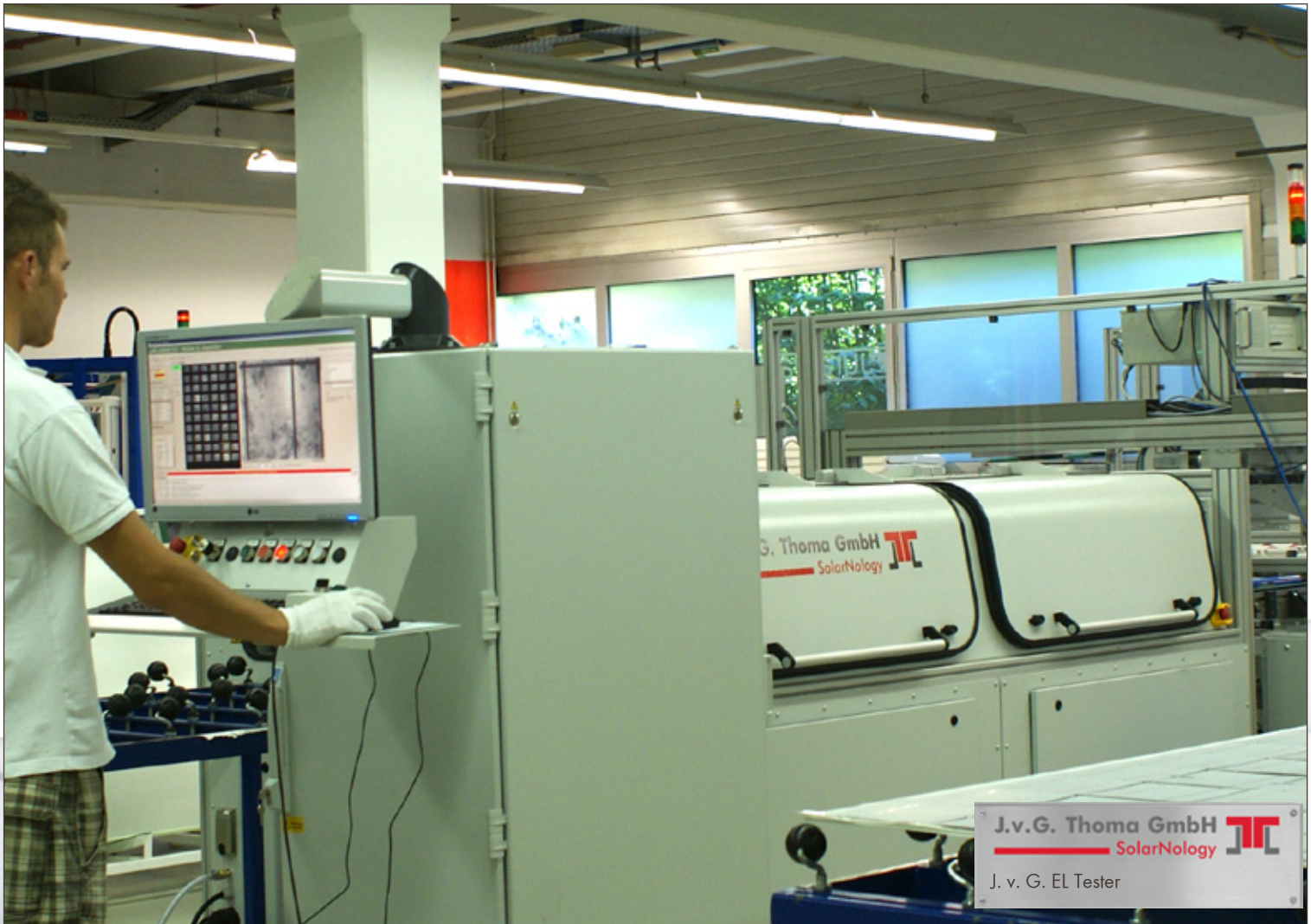
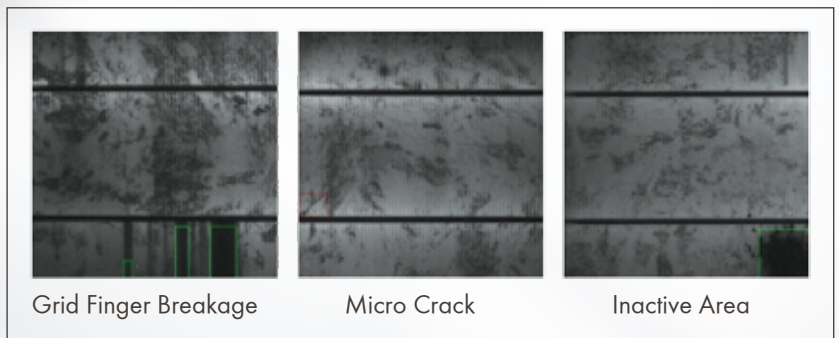


J. v. G. EL Tester automatic / manual



For installation in automated production lines or for using offline.  
 Inspection may be implemented before or after lamination.  
 EL images are evaluated either visually by the operator, or fully automatically by comprehensive algorithms of the advanced software PV Control.



## Specification datas

- 1 Inline or Offline Systems:
- 2 Choice of Application:
- 3 Three Software Packages:
- 4 Adjustable to Module Size:
- 5 Low Conveyor Level:
- 6 Module Feeding:
- 7 High Optical Resolution:
- 8 Short Cycle Time:
- 9 Data Base Storage:
- 10 PV-IDent:

manual loading of modules, or fully automatic loading and contacting available  
 before or after lamination, laminates or framed modules  
 visual inspection by operator, automatic defect search and annotation, or fully automatic identification of defects like micro cracks, broken grid fingers and others  
 1000 mm X 645 mm to 1970 mm X1040 mm  
 adjustable up to 900 mm  
 short or long edge leading  
 up to 72 Mpixel (72 cells)  
 10s to 90s depending on model selected  
 SQL data base and MES interface optional  
 generation of ID code from EL images and storage as compact data set

### 11 Dark IV Curve Evaluation

## Overview EL Tester systems

EL Module Inspection System:	High Speed	High Speed	Automatic	Automatic	Economic	Economic	Basic	Basic
System Design for Application	Inline	Inline	Inline	Inline	Offline	Offline	Offline	Offline
Part No for module entering short edge leading	PBAES-S-MD0132	PBAES-S-MD0150	PBAES-S-MD0134	PBAES-S-MD0136	PBAES-S-MD0138	PBAES-S-MD0140	PBAES-S-MD0142	PBAES-S-MD0144
Part No for module entering long edge leading	PBAES-S-MD0133	PBAES-S-MD0151	PBAES-S-MD0135	PBAES-S-MD0137	PBAES-S-MD0139	PBAES-S-MD0141	PBAES-S-MD0143	PBAES-S-MD0145
Module Size min.	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells	1000 x 645 mm or 4x6 cells
Module Size max.	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm	1970 x 1040 mm
Optical Resolution	72 Mpixel	72 Mpixel	72 Mpixel	72 Mpixel	72 Mpixel	72 Mpixel	8 Mpixel	1.44 Mpixel
Pixel Resolution	< 0.14 mm	< 0.14 mm	< 0.14 mm	< 0.14 mm	< 0.14 mm	< 0.14 mm	< 0.6 mm	< 1.5 mm
Smallest defect detectable	> 0.1 mm <sup>2</sup>	> 0.1 mm <sup>2</sup>	> 0.1 mm <sup>2</sup>	> 0.1 mm <sup>2</sup>	> 0.1 mm <sup>2</sup>	> 0.1 mm <sup>2</sup>	--	--
Cycle Time (including loading and unloading modules) :	10 s	28 s	45 s	90 s	Manual loading	Manual loading	Manual loading	Manual loading
Cycle Time (inspection only)	4 s	20s	30 s	60 s	30 s	60 s	4 s	3 s
<b>Software Packages:</b> (x indicates compatibility)								
Visual Inspection by Operator PBAES-S-MD0146					X	X	X	X
Defect Search and Annotation PBAES-S-MD0147					X	X		
Fully Automatic Inspection PBAES-S-MD0148	X	X	X	X	X	X		
<b>Options:</b>								
Data Base BYS0098	X	X	X	X	X	X	X	X
MES BYS0105	X	X	X	X	X	X	X	X
Dark IV (no Temperature Compensation) PBAES0107	X	X	X	X	X	X	X	X
Dark IV (with Temperature Compensation) PBAES0108	X	X	X	X	X	X	X	X
PV-IDent PBAES0109	X	X	X	X	X	X		