

Partial Discharge Test

on reverse side foils of PV modules
 according to IEC 60664-1, IEC 61730

22. August 2008.

Company / Examined foil:

Madico, Inc	
Protekt HD Black	
Fluoropolymer	13 micron
PET	125 micron
EVA	100 micron

Number of measurements: 10

Remarks: None

Extinction voltage		Deviation from the mean value (%)
Min. value in (V)	1087	-4,2
Mean value in (V)	1134	
Max. value in (V)	1192	5,1

The mean value minus the experimental standard deviation will be used to calculate the max. permissible voltage.

Experimental standard deviation: 33 V

Calculation of the max. permissible operating voltage on the basis of the ascertain values

Basis: IEC 60664-1

$U_{max} = U_e \times 1,414 / 1,2 \times 1,25$

1,414 Calculation of the peak value
 1,2 Safety factor (humidity, temperature, etc.)
 1,25 Safety factor (double or reinforced insul.)

Maximum permissible system voltage	1040 VDC
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Responsible for Partial Discharge Testing



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