



# TS IEC 62804: draft 2013-12

## Test Method for Detection of Potential Induced Degradation of Photovoltaic (PV) Modules

**Ref.:** 5005440-3972-0001/195271

**Applicant:** SolarWorld AG  
Martin-Luther-King-Str. 24, 53175 Bonn

**Product:** Crystalline silicon Photovoltaic (PV)-Modules

**Type:**

- A) Sunmodule Plus SW XXX mono Y
- A) Sunmodule Plus SW XXX poly Y
- B) Sunmodule Plus SW XXX mono Y
- B) Sunmodule Plus SW XXX poly Y
- C) Sunmodule Plus SW XXX Compact mono Y
- C) Sunmodule Plus SW XXX Compact poly Y
- D) Sunmodule SW XXX XL mono Y
- D) Sunmodule SW XXX XL poly Y
- E) Sunmodule Plus SW XXX Vario poly Y
- E) Sunmodule Plus SW XXX Vario mono Y
- F) Sunmodule Plus SW XXX Compact mono Y
- G) Sunmodule Protect SW XXX mono Y
- G) Sunmodule Protect SW XXX poly Y
- H) Sunmodule Plus SW XXX mono Y
- H) Sunmodule Plus SW XXX poly Y
- I) Sunmodule SW XX poly RMA
- J) Sunmodule SW XX poly RGA
- K) Sunmodule SW XX poly RNA
- L) Sunmodule SW XX mono RHA
- M) Sunmodule SW XXX poly RIB
- N) Sunmodule SW XXX poly RGP
- O) Sunmodule SW XXX poly R6A

XXX / XX in the type replaces the power in watt and can be any number between:

135 – 195 for A), 200 – 300 for B), G), H), 130 – 170 for C), F), 260 – 360 for D), 184 – 240 for E), 50 – 55 for I), 50 for J), 80 - 85 for K), 80 for L), 100 for M), N), 140 – 160 for O)

Y in the type replaces a potential suffix and can be black or clear.

**Manufacturer:** SolarWorld AG

**Standard:** TS IEC 62804: draft 2013-12, modified

### Test conditions

Testing time: 96 h

Chamber temperature: 60 °C

Relative Humidity: 85 %

Potential to ground: - 1000 V





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### Pass criteria

Power degradation:	< 5%
Dry Insulation:	> 40 MΩm <sup>2</sup>
Wet insulation:	> 40 MΩm <sup>2</sup>

### Summary of test results:

<b>Maximum power degradation:</b>	required	max. 5 %
	measured	max. 2,75 %

The measured degradation is below the allowed degradation.

<b>Dry insulation resistance:</b>	required	23,81 MΩ
	measured	>500 MΩ

The measured dry insulation resistance is above the limit.

<b>Wet insulation resistance:</b>	required	23,81 MΩ
	measured	>500 MΩ

The measured wet insulation resistance is above the limit.

**Visual inspection:** No findings


The complete test results are given in Test Report No.: Report\_ET2\_195271.

**VDE Prüf- und Zertifizierungsinstitut GmbH**

**VDE Testing and Certification Institute**

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