



IEC 61701:2011

Salt mist corrosion testing of photovoltaic (PV) modules

Confirmation of test results

Ref.: 10056/2017-40205

Applicant: SolarWorld Americas, Inc.
25300 NW Evergreen Rd, Hillsboro OR 97124, USA

Product: Crystalline silicon Photovoltaic (PV)-Modules

Type: A) Sunmodule Plus SWA XXX mono Y
A) Sunmodule Plus SWA XXX poly Y
B) Sunmodule SWA XXX XL mono Y
B) Sunmodule SWA XXX XL poly Y
C) Sunmodule Protect SWA XXX mono Y
C) Sunmodule Protect SWA XXX poly Y
D) Sunmodule Bisun SWA XXX duo
E) Sunmodule Bisun SWA XXX XL duo

XXX in the type replace the power in watt and can be any number between:

200 – 320 for A), C), D); 260 – 360 for B), E).

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

Manufacturer: SolarWorld Americas Inc.

Standard: IEC 61701:2011

Test conditions: As given in IEC 61701:2011

Severity:	6
Testing time:	56 days
Mist ph level:	6,9
Angle of inclination from horizontal:	60°

Pass criteria

Visual inspection:	No findings which may affect safety
Power degradation:	< 5 %
Dry Insulation:	> 40 MΩm ²
Wet insulation:	> 40 MΩm ²
Bonding path resistance:	< 0,1 Ω
Bypass diode functionality test:	Bypass diodes shall remain functional



Summary of test results:

Visual inspection: No findings which affect safety

Maximum power degradation: allowed < 5 %
measured min. + 0,95%

There was no degradation measurable.

Dry insulation resistance: required $\geq 23,81 \text{ M}\Omega$
measured min. 500 M Ω

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required $\geq 23,81 \text{ M}\Omega$
measured min. 268 M Ω

The measured wet insulation resistance is above the limit.

Bonding path resistance: required < 0,1 Ω
measured max. 0,04 Ω

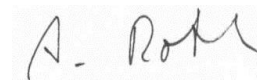
The measured bonding path resistance is below the limit.

Bypass diode functionality test: Bypass diodes remain functional

The complete test results are given in the Test Reports No.:
TRPVM-2017-40205-2 and TRPVM-2017-40205-3.

VDE Renewables GmbH


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63755 Alzenau, 2017-08-03