

Confirmation of Test Result

IEC 62716:2013

Ammonia corrosion testing of photovoltaic (PV) modules

Ref.: TRPVM-2019- 40222

Applicant: SOLARWATT GmbH, Maria-Reiche-Str. 2a, 01109 Dresden

Manufacturer: SOLARWATT GmbH, Maria-Reiche-Str. 2a, 01109 Dresden

Product: Crystalline silicon Photovoltaic (PV)-Modules

Standard: IEC 62716:2013, Ammonia corrosion test

Type: Vision 60M Easyln 60M style

Vision 60M style Vision 60M (1500V edition)
Vision 60M construct Vision 60M style (1500V edition)

Vision 60P style

Test conditions

Hours including heating up: 8 h

NH3 -concentration (ppm): 6667

Chamber temperature: 60°C

Relative Humidity: 100 %

Hours including cooling: 16 h

NH3 -concentration (ppm): 0

Chamber temperature: 23°C

Relative Humidity: 75 %

Number of Cycles: 20

Total exposure: 480h

Pass criteria

Power degradation: < 5%

Dry Insulation: $> 40 \text{ M}\Omega\text{m}^2$

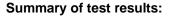
Wet insulation: $> 40 \text{ M}\Omega\text{m}^2$

Ground continuity: $< 0.1\Omega$

Visual Inspection: No findings which may affect safety.

Bypass diode functionality: Shall be functional after test.





Maximum power degradation:

required

max. 5 %

measured

max. 0,2 %

The measured degradation is below the allowed degradation.

Dry insulation resistance:

required

24,10 MΩ

measured $>9990 M\Omega$

The measured dry insulation resistance is above the limit.

Wet insulation resistance:

required

 $24.10~\text{M}\Omega$

measured

>911 MΩ

The measured wet insulation resistance is above the limit.

Visual inspection:

No findings

Ground continuity test:

required

max. 0,1Ω

measured

max. $0,0008\Omega$

Bypass diode functionality test: Still functional after test

The complete test results and the relevant bill of materials are given

in Test Report No.: TRPVM-2019-40222-2

VDE Renewables GmbH

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File Ref.: 10013/2019-40222 Page 2 of 2