

IEC 62716:2013

Ammonia corrosion testing of photovoltaic (PV) modules

Confirmation of test results

Ref.: 10036/2021-40357

Applicant: LG Electronics Inc.

168, Suchul-daero, Gumi-si, Gyeongsangbuk-do,

730-903, South Korea

Product: Crystalline Silicon Photovoltaic (PV)-Modules

Type: A) LGXXXN3C-V6

B) LGXXXN3W-V6 C) LGXXXN3K-V6

XXX in the type replace the power in Watt and can be any number between: 395 - 415 for A), B) and 390 - 410 for C)

Manufacturer: LG Electronics Inc.

Standard: IEC 62716:2013

Test conditions: As given in IEC 62716:2013

1st test section: Testing time 8 h

NH₃ Concentration: 6667 ppm

Chamber temperature: 60°C

Rel. humidity: 100%

2nd test section: Testing time 16 h

NH₃ Concentration: 0 ppm

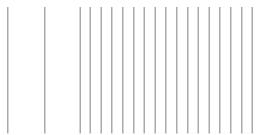
Chamber temperature: 25°C

Rel. humidity: 36 %

Total testing time 480 h (20 cycles)

BIC: DEUTDEFFXXX





Pass criteria

Visual inspection: No findings which may affect

safety.

Power degradation: <5 %

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

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

Bonding path resistance: $<0,1 M\Omega$

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 0,92 %

The measured degradation is below the allowed degradation.

Dry insulation resistance: required ≥18,2 MΩ

measured min. 999 M Ω

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required ≥18,2 MΩ

measured min. 999 M Ω

The measured wet insulation resistance is above the limit.

Bonding path resistance: required <0,1 $M\Omega$

measured <0,01 $M\Omega$

The measured resistance is below the limit.

Bypass diode functionality test: Bypass diodes remain functional

The complete test results and the related bills of materials are given in the Test Reports No. TRPVM-2021-40357-1.

VDE Renewables GmbH

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