



IEC 62716:2013
Photovoltaic (PV) modules
- Ammonia corrosion testing -
Confirmation of test results

VDE Renewables File Ref.: 10011/ ET-20221016-187

Applicant: Wuxi Suntech Power Co., Ltd.
16 Xin Hua Road, Xinwu District, 214028 Wuxi City, China

Product: Crystalline silicon Photovoltaic (PV)-Modules

Type: **A) STPXXXS-C72/Nsh+** **B) STPXXXS-C54/Nshb+**
B) STPXXXS-C54/Nsh+ **B) STPXXXS-C54/Nshm+**

XXX in the type replace the power in Watt and can be any number between:
545 – 580 for A); 405 – 435 for B)

Manufacturer: Wuxi Suntech Power Co., Ltd.

Standard: IEC 62716:2013, Ammonia corrosion testing

Test conditions

Hours including heating up:	8 h
NH ₃ -concentration (ppm):	6667
Chamber temperature:	60°C
Relative Humidity:	100 %
Hours including cooling:	16 h
NH ₃ -concentration (ppm):	0
Chamber temperature:	23°C
Relative Humidity:	75 %

Pass criteria

Power degradation:	< 5%
Dry Insulation:	> 40 MΩm ²
Wet insulation:	> 40 MΩm ²
Ground continuity:	< 0.1Ω

Bypass diode functionality: Shall be functional after test



Summary of test results:

Maximum power degradation: allowed max. 5 %
measured max. 0.72 %

The measured degradation is below the allowed degradation.

Dry insulation resistance: required min. 15.5 M Ω
measured >500 M Ω

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required min. 15.5 M Ω
measured >500 M Ω

The measured wet insulation resistance is above the limit.

Ground continuity test: required max. 0.1 Ω
measured max. 0.0074 Ω

The measured ground continuity test is below the limit.

Visual inspection: No findings

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- ET-20221016-187-5.

VDE Renewables GmbH

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Shanghai, 2023-02-02

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