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/Nsh+
B) STPXXXS-C54/Nshtb+
B) STPXXXS-C54/Nshk+
B) STPXXXS-C54/Nshb+
B) STPXXXS-C54/Nshm+
B) STPXXXS-C54/Nshkm+

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

545 – 595 for A); 405 – 445 for B)

Manufacturer: Wuxi Suntech Power Co., Ltd.

Standard: IEC 62716:2013, Ammonia corrosion testing

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 %

Pass criteria

Power degradation:	< 5%
Dry Insulation:	> 40 MΩm²
Wet insulation:	> 40 MΩm²
Ground continuity:	< 0.1Ω
Bypass diode functionality:	Shall be functional after test

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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 MΩ
	measured	>500 MΩ

The measured dry insulation resistance is above the limit.

Wet insulation resistance:	required	min. 15.5 MΩ
	measured	>500 MΩ

The measured wet insulation resistance is above the limit.

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

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

Zhiyao Wang ***Dean Wen***

Shanghai, 2024-03-26