

IEC 62716:2013 Photovoltaic (PV) modules

- Ammonia corrosion testing -Confirmation of test results

VDE Renewables File Ref.: 10011/TRPVM-ET-20220909-165

Applicant:Wuxi Suntech Power Co., Ltd.
16 Xin Hua Road, Xinwu District, 214028 Wuxi City, ChinaProduct:Crystalline silicon Photovoltaic (PV)-ModulesType:A) STPXXXS-D66/Pmh+B) STPXXXS-D60/Pmh+XXX in the type replace the power in Watt and can be any number between:

640 – 685 for A); 580 – 620 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
Pass criteria	Relative Humidity:		75 %
	Power degradation:	< 5%	
	Dry Insulation:	> 40 N	IΩm²
	Wet insulation:	> 40 N	IΩm²
	Ground continuity:	< 0.1Ω	2

Bypass diode functionality: Shall be functional after test

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Summary of test results:

Maximum power degradation:	allowed	max. 5 %
	measured	max. 0.34 %

The measured degradation is below the allowed degradation.

Dry insulation resistance:	required	min. 12.9 MΩ
	measured	>500 MΩ

The measured dry insulation resistance is above the limit.

Wet insulation resistance:	required	min. 12.9 MΩ
	measured	>500 MΩ

The measured wet insulation resistance is above the limit.

Ground continuity test:	required	max. 0.1Ω
	measured	max. 0.0110Ω

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-20220909-165-16.

VDE Renewables GmbH

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