

IEC 60068-2-68:1994 Dust and Sand test Lc1 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/Nshb A) STPXXXS-C72/Nshb

A) STPXXXS-C72/Nshm
B) STPXXXS-C54/Nshb
B) STPXXXS-C54/Nshm

B) STPXXXS-C54/Nshy

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 60068-2-68, Dust and Sand test Lc1

Test sequence: Based on IEC 61701:2011

Test conditions

Dust concentration: 4.8 - 5.3 g/m³

Wind velocity: 18.5 - 20.4 m/s

Particle size: Variant 3, <590 µm

Dust composition: Quartz, 95% SiO2

Testing time: Front side: 4 h, Rear side: 4 h

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: $< 0.1\Omega$



Summary of test results:

Maximum power degradation: allowed max. 5 %

measured max. 0.77 %

The measured degradation is below the allowed degradation.

Dry insulation resistance: required min. 15.5 M Ω

measured $>500 M\Omega$

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required min. 15.5 M Ω

measured $>500 M\Omega$

The measured wet insulation resistance is above the limit.

Ground continuity test: required max. 0.1Ω

measured max. 0.0108Ω

The measured ground continuity test is below the limit.

The complete test results and the relevant bill of materials are given in Test Report No.: TRPVM- ET-20221016-187-2.

VDE Renewables GmbH

Zhiyao Wang

Dean Wen

Shanghai, 2023-02-02

File Ref.: 10011/ ET-20221016-187 Page 2 of 2