

## **Confirmation of Test Result**

IEC 62716:2013

Ammonia corrosion testing of photovoltaic (PV) modules

Ref.:	2022- 40079				
Applicant:	SOLARWATT GmbH, Maria-F	Reiche-	Str. 2a, 0	1109 Dresden	
Manufacturer:	SOLARWATT GmbH, Maria-Reiche-Str. 2a, 01109 Dresden				
Product:	Crystalline silicon Photovoltaic (PV)-Modules				
Standard:	IEC 62716:2013, Ammonia corrosion test				
Panel vision GM Panel vision GM Panel vision GM Panel vision GM Panel vision GM Panel vision GM Panel vision GM	Change of type designation d 3.0 (xxx Wp) pure 3.0 (xxx Wp) pure, low carbon 3.0 (xxx Wp) style 3.0 (xxx Wp) style, low carbon 3.0 (xxx Wp) construct 3.0 (xxx Wp) construct, low ca 3.0 (xxx Wp) black 3.0 (xxx Wp) black, low carbor 3.0 (xxx Wp) black, low carbor 3.0 (xxx Wp) black, light 3.0 (xxx Wp) black, HV	rbon	Panel vi Panel vi Panel vi Panel vi Panel vi	reasons sion GM 3.0 (xxx Wp) pure, light sion GM 3.0 (xxx Wp) pure, HV sion GM 3.0 (xxx Wp) style, light sion GM 3.0 (xxx Wp) style, HV sion GM 3.0 (xxx Wp) construct, lig sion GM 3.0 (xxx Wp) construct, H	
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 %		
	Number of Cycles:		20		
	Total exposure:		480 h		
Pass criteria					
	Power degradation:	< 5 %			
	Dry Insulation:	> 40 N	lΩm²		
	Wet insulation:	> 40 N	lΩm²		
	Ground continuity:	< 0.1 0	2		
	Visual Inspection:	No find	lings whi	ch may affect safety.	
	Bypass diode functionality:	Shall b	e functio	ch may affect safety. nal after test.	

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Location: Alzenau District Court: Aschaffenburg Registration No: HRB 13820 Tax Number: 204/141/20793 Bank Information: Deutsche Bank AG IBAN: DE14 5007 0010 0235 5006 01 BIC: DEUTDEFFXXX



## Summary of test results:

Maximum power degradation:	required	max. 5 %
	measured	max. 1,33 %

The measured degradation is below the allowed degradation.

Dry insulation resistance:	required	21,4 MΩ
	measured	>276 MΩ

The measured dry insulation resistance is above min. required dry insulation resistance.

Wet insulation resistance:	required	21,4 MΩ
	measured	>276 MΩ

The measured wet insulation resistance is above min. required wet insulation resistance.

Visual inspection:	No findings	
Ground continuity test:	required measured	max. 0,1 Ω max. 0,004 Ω

The measured resistance is below the max. allowed resistance.

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-2021-40202-1

VDE Renewables GmbH

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