# **Confirmation of Test Results**



Ref.: Applicant:		10018/2024-40428 REC SOLAR PTE. LTD. 20 Tuas South Avenue 14, 637312 Singapore		
Product:		Crystalline Silicon Photo	ovoltaic (PV)-Modules	
Туре:	A) B) D) E) H) K) L)	RECxxxAA Pure-R RECxxxAA Pro L RECxxxAA Pro XL RECxxxAA Pro MG RECxxxAA Pure-RX RECxxxAA Pure-RX RECxxxAA Pure2 RECxxxAA Pro M RECxxxAA Pro S RECxxxAA Pure-RXG RECxxxAA Pure 2G	REC Alpha Pure-R Series REC Alpha Pro L Series REC Alpha Pro XL Series REC Alpha Pro MG Series REC Alpha Pure-RX Series REC N-Peak 3 Series REC Alpha Pure 2 Series REC Alpha Pro M Series REC Alpha Pro S Series REC Alpha Pure-RXG Series REC Alpha Pure 2G Series	

xxx in the type number replaces the power in Watt at STC, Refer to Annex 100 of Certificate 40055660 for certified watt classes.

#### Manufacturer: REC SOLAR PTE. LTD.

### This Confirmation of Test Results includes

Standard:	IEC 61701:2011	(page 2)
	IEC 62716:2013	(page 4)



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6.01 Location: Alzenau Registered at the local court Aschaffenburg, No. HRB 13820

Managing Director: Ansgar Hinz





## IEC 61701:2011 Salt mist corrosion testing of photovoltaic (PV) modules

Manufacturer:	REC S	OLAR PTE. LTD.	1 1		
Standard:	IEC 61	701:2011			
Test conditions:	As given in IEC 61701:2011				
	Severit	ty:		6	
	Testing	g time:		56 days	
	Mist ph	n level:		7	
	Angle	of inclination from h	norizontal:	75	
Pass criteria:	Visual inspection:		No finding safety.	No findings which may affect safety.	
	Power degradation:		< 5 %	< 5 %	
	Dry Insulation:		> 40 MΩm	> 40 MΩm²	
	Wet in		sulation: > 40 MΩm <sup>2</sup>		
	Bondin	ig path resistance:	< 0,1 Ω		
	Bypass	s diode functionalit		pass diodes shall main functional.	
Summary of test resul	ts:				
Visual inspection:		No findings whi	ch affect safet	у.	
Maximum power degradation:		allowed measured	< 5 % max. 1,68	< 5 % max. 1,68 %	
The measured degrada	tion is belo	w the max. allowed	d degradation		
Dry insulation resistance:		required measured		≥13,00 MΩ min. 500 MΩ	
The measured dry insul	ation resis	tance is above the	min. required	insulation resistance.	
Wet insulation resistance:		required measured		≥13,00 MΩ min. 500 MΩ	
The measured wet insu resistance.	lation resis	stance is above the	min. required	wet insulation	
		and an allocated	1010		

Bonding path resistance:	required measured	< 0,1 Ω max. 0,01 Ω
	modourou	

The measured bonding path resistance is below max. allowed resistance.

Bypass diode functionality test: Bypass diodes remain functional.



### IEC 61701:2011 Salt mist corrosion testing of photovoltaic (PV) modules

The complete test results and the related bill of materials are given in the Test Report No. TRPVM-2024-40428-4

The overview of the already approved modules with the approved bill of materials is given in Annex 1 to 10018/2024-40428-4, dated 2024-08-12

### **VDE Renewables GmbH**

Jose Jojo

63755 Alzenau, 2024-08-12

A. Roth

Arnd Roth



# IEC 62716:2013 Ammonia corrosion testing of photovoltaic (PV) modules

Manufacturer:	REC SO	LAR PTE. LTD.	I		
Standard:	IEC 62716:2013				
Test conditions: 1st test section:	As given in IEC 62716:201 Testing time		3 8 h		
	NH₃ Cor	centration:	6667 p	pm	
	Chambe	r temperature:	60°C		
	Rel. hum	nidity:	100%		
2nd test section:	Testing time		16 h		
	NH₃ Cor	centration:	0 ppm		
	Chambe	r temperature:	23°C		
	Rel. hum	nidity:	70 %		
Total testing time			480 h (	20 cycles)	
Pass criteria:	Visual inspection:		No findings which may affect safety.		
	Power d	egradation:	< 5 %		
	Dry Insu	ulation: > 40 I		/Ωm²	
	Wet insu	ulation: > 40 M		Ωm²	
	Bonding path resistance		< 0,1 Ω		
	Bypass diode functionality te		est:	Bypass diodes shall remain functional	
Summary of test results	:				
				•	
Visual inspection:		No findings which		afety.	
Maximum power degrad	ation:	allowed measured	< 5 % max. 2	,58 %	
The measured degradation is below the max. allowed degradation.					
Dry insulation resistance:		required measured	≥13,00 MΩ min. 500 MΩ		
The measured dry inculati	on resista	nco is above the mi	n requi	red inculation registance	

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



### IEC 62716:2013 Ammonia corrosion testing of photovoltaic (PV) modules

Wet insulation resistance:

required measured ≥13,00 MΩ min. 500 MΩ

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

Bonding path resistance:	required	< 0,1 Ω
	measured	max. 0,01 Ω

The measured bonding path resistance is below max. allowed resistance.

Bypass diode functionality test: Bypass diodes remain functional.

The complete test results and the related bill of materials are given in the Test Report No. TRPVM-2024-40428-5

The overview of the already approved modules with the approved bill of materials is given in Annex 1 to 10018/2024-40428-5, dated 2024-08-12

### **VDE Renewables GmbH**

63755 Alzenau, 2024-08-12

Jose Jojo

A. Roth

Arnd Roth