IEC 62716:2013
Ammonia corrosion testing of photovoltaic (PV) modules
Confirmation of test results

Ref.:	**10002/2024-40490-1**	
Applicant:	**aleo solar GmbH** **Marius-Eriksen-Str. 1** **17291 Prenzlau, Germany**	
Product:	**Crystalline silicon terrestrial PV modules**	
Type:	**LEO L62YXXX** **LEO Black L82YXXX** **P24YXXX** **LEO Sol S62YXXX** **LEO Sol S64YXXX** **LEO-N L62YXXX** **LEO-N Black L82YXXX** **LEO-N Sol S82YXXX** **LEO L64YXXX** **LEO Black L84YXXX** **LEO Sol S82YXXX** **LEO Sol S84YXXX** **LEO-N L64YXXX** **LEO-N Black L84YXXX** **LEO-N Sol S84YXXX**	
	XXX in the type replaces the rated output of the module (Pmax) Y in the model designation represents S, denoting different properties of front sheet (glass) or T, denoting different properties of module	
Manufacturer:	aleo solar GmbH	
Standard:	IEC 62716:2013	
Test conditions:	As given in IEC 62716:2013	
1st test section:	Testing time:	8 h
	NH_3 concentration:	6667 ppm
	Chamber temperature:	60 °C
	Relative humidity:	100 %
2nd test section:	Testing time:	16 h
	NH_3 concentration:	0 ppm
	Chamber temperature:	25 °C
	Relative humidity:	36 %
Total testing time:		480 h (20 cycles)

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

Pass criteria:

Visual inspection:	No findings which may affect safety.
Power degradation:	< 5 %
Dry Insulation:	> 40 MΩm²
Wet insulation:	> 40 MΩm²
Ground continuity:	< 0,1 Ω
Bypass diode functionality:	Bypass diodes shall remain functional.

Summary of test results:

Visual inspection: No findings which affect safety.

Maximum power degradation: required < 5 %
measured max. 1,24 %

The measured degradation is below the allowed degradation.

Dry insulation resistance: required min. 20,0 MΩ
measured > 1000 MΩ

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required min. 20,0 MΩ
measured min. 455 MΩ

The measured wet insulation resistance is above the limit.

Ground continuity: required < 0,1 Ω
measured max. 0,0035 Ω

The measured resistance is below the limit.

Bypass diode functionality: Bypass diodes remain functional.

The complete test results and the related bill of materials are given in Test Report No. TRPVM-2024-40490-1.

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Dietmar Wald

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63755 Alzenau, 2024-10-15