

IEC 62716:2013

Ammonia corrosion testing of photovoltaic (PV) modules Confirmation of test results

Ref.:	10036/2021-40045					
Applicant:	LG Electronics Inc. 168, Suchul-daero, Gumi-si, Gyeongsangbuk-do, 730-903, South Korea					
Product:	Crysta	Crystalline Silicon Photovoltaic (PV)-Modules				
Туре:	A) LG <u>)</u> B) LG <u>)</u> C) LG <u>)</u> D) LG <u>)</u> E) LG <u>)</u> F) LG <u>)</u>	A) LG <u>XXX</u> Q1K-N5 B) LG <u>XXX</u> N1K-L5 C) LG <u>XXX</u> N1K-N5 D) LG <u>XXX</u> N1K-A6 E) LG <u>XXX</u> Q1K-A6 F) LG <u>XXX</u> QAK-A6				
	\underline{XXX} in the type replaces the power in Watt at STC and can be any number between 360-380 for A), 310-370 for B), C), 345-370 for D), 375-390 for E) and 415-430 for F).					
Manufacturer:		LG Electronics Inc.				
Standard:		IEC 62716:2013				
Test condition	ns:	As given in IEC 62716:2013				
1st test section:		Testing time	8 h			
		NH ₃ Concentration:	6667 ppm			
		Chamber temperature:	60°C			
		Rel. humidity:	100%			
2nd test section:		Testing time	16 h			
		NH ₃ Concentration:	0 ppm			
		Chamber temperature:	23°C			
		Rel. humidity:	36 %			
Total testing	time		480 h (20 cycles)			

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Pass criteria	Visual inspection:		No findings which may affect			
			safety.			
Pow		wer degradation:		<5 %		
	Dry Insu	lation:	>40 MΩm²			
	Wet insu	ulation:	>40 M	Ωm²		
	Bonding path resistance: <0,1 M Ω					
	Bypass	diode functionality	y test:	Bypass diodes shall remain functional		
Summary of test result	ts:					
Visual inspection:		No findings which affect safety.				
Maximum power degra	dation:	allowed measured	<5 % 1,23 %	,		
The measured degradat	ion is bel	ow the allowed de	egradat	ion.		
Dry insulation resistan	required measured	≥23,1 MΩ min. 500 MΩ				
The measured dry insula	ation resi	stance is above th	ne limit.			

Wet insulation resistance:required $\geq 23,1 \text{ M}\Omega$ measuredmin. 500 M Ω

The measured wet insulation resistance is above the limit.

Bonding path resistance:	required	<0,1 MΩ
	measured	<0,01 MΩ

The measured resistance is below the limit.

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-2021-40045-6.

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UL-Sato

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Ilderbe

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