



IEC 62716 ed. 1.0

Ammonia corrosion testing of photovoltaic (PV) modules

Ref.: 5005440-3972-0001/195279

Applicant: SolarWorld AG
Martin-Luther-King-Str. 24, 53175 Bonn

Product: Crystalline silicon Photovoltaic (PV)-Modules

Type: A) Sunmodule Plus SW XXX mono Y
A) Sunmodule Plus SW XXX poly Y
B) Sunmodule Plus SW XXX XL mono Y
B) Sunmodule Plus SW XXX XL poly Y
C) Sunmodule Protect SW XXX mono Y
C) Sunmodule Protect SW XXX poly Y
D) Sunmodule Plus SW XXX mono Y
D) Sunmodule Plus SW XXX poly Y
E) Sunmodule SW XX mono RHA
F) Sunmodule SW XXX poly RGP
G) Sunmodule SW XXX mono R6A
G) Sunmodule SW XXX poly R6A
H) Sunmodule Bisun SW XXX duo
I) Sunmodule Bisun SW XXX XL duo

XXX / XX in the type replace the power in watt and can be any number between:

200 – 300 for A), C), D), H); 260 – 360 for B), I); 100 for F); 140 – 160 for G); 75 - 85 for E).

Y in the type replaces a potential suffix and can be black or clear.

Manufacturer: SolarWorld AG

Standard: IEC 62716 ed.1.0

Test conditions: As given in IEC 62716 ed. 1.0

1st test section: Testing time 8 h

NH₃ Concentration: 6667 ppm

Chamber temperature: 60°C

Rel. humidity: 100%





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2nd test section:	Testing time	16 h
	NH ₃ Concentration:	0 ppm
	Chamber temperature:	25°C
	Rel. humidity:	75 %
Total testing time		480 h (20 cycles)

Pass criteria

Visual inspection:	No findings which may affect safety
Power degradation:	< 5 %
Dry Insulation:	> 40 MΩm ²
Wet insulation:	> 40 MΩm ²
Bonding path resistance:	< 0,1 Ω
Bypass diode functionality test:	Bypass diodes shall remain functional

Summary of test results:

Visual inspection: No findings which may affect safety

Maximum power degradation: required < 5 %
measured max. 0,43 %

The measured degradation is below the allowed degradation.

Dry insulation resistance: required ≥23,81 MΩ
measured min. 500 MΩ

The measured dry insulation resistance is above the limit.

Wet insulation resistance: required ≥23,81 MΩ
measured min. 416 MΩ

The measured wet insulation resistance is above the limit.



