

**TÜV Rheinland
Solar Energy**

Extract from

Report

Factory Inspection

as part of the photovoltaic module qualification
according to IEC 61215 / IEC 61730 / ANSI/UL 61730

Report no.: DE24XMP3 001

August 2024

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Requirements of the CIG 023 report are covered by this report.

Inspection report no.: DE24XMP3 001
Inspector: E. Janknecht

Inspection of photovoltaic (PV) module manufacturing site

☒	Initial inspection
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☐	Follow-up inspection
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Date and time of inspection:	20/08/2024 09:00 a.m. – 19:00 p.m. 21/08/2024 09:00 a.m. – 12:30 a.m.
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Participants of the opening meeting:

Name	Company	Position
Omissis	3SUN S.r.l	Head of 3SUN Gigafactory
	3SUN S.r.l	Head of Product Quality
	3SUN S.r.l	Head of Certification Product Quality
	3SUN S.r.l	Head of HSEQ and Security
	3SUN S.r.l	Head of Operations
	3SUN S.r.l	Quality
	3SUN S.r.l	Head of Module Assembly Innovation Technology Transfer
	3SUN S.r.l	Head of Device Architecture Inn.
	3SUN S.r.l	Product Quality
	3SUN S.r.l	Product Quality
	3SUN S.r.l	Product Quality
	3SUN S.r.l	
	TÜV Rheinland	Project manager, inspector

Participants of the closing meeting:

Name	Company	Position
Omissis	3SUN S.r.l	Head of 3SUN Gigafactory
	3SUN S.r.l	Head of Product Quality
	3SUN S.r.l	Head of Certification Product Quality
	3SUN S.r.l	Product Quality
	3SUN S.r.l	
	TÜV Rheinland	Project manager, inspector

Company details:

Name/Description:	3SUN S.r.l
Street:	Contrada Blocco Torrazze – Zona Industriale
Postcode/City:	95121 Catania
Country:	Italy
Phone:	0956366147
E-mail:	3sunsrl@pec.enel.it
Web address:	https://www.3sun.com/

Contact details Quality manager:

Name: Department: Phone: E-mail:	Omissis
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Inspection report no.: DE24XMP3 001
Inspector: E. Janknecht

Contact details Inspector:

Name: Department: Phone: E-mail:	Omissis
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Production at several sites:

☐ Yes ☒ No

Address of the inspected site:

Name/Description: Street: Postcode/City: Country: Type of production:	3SUN S.r.l Contrada Blocco Torrazze – Zona Industriale 95121 Catania Italy Hetero-Junction crystalline silicon PV cell and module manufacturing
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Additional manufacturing sites:

Name/Description: Street: Postcode/City: Country: Inspection: Type of production:	N/A
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Name/Description: Street: Postcode/City: Country: Inspection: Type of production:	N/A
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List of contents

1	Ambit of the inspection	6
2	Inspected facility areas	6
3	Production in the considered period	7
4	Components and materials for the production	8
4.1	Solar cell	8
4.2	Front cover	9
4.3	Backside cover	9
4.4	Interconnection circuit	9
4.4.1	Cell connector	9
4.4.2	String connector	10
4.4.3	Glueing material	10
4.4.4	Soldering material	11
4.4.5	Cell fixing tape	11
4.5	Electrical connection	12
4.5.1	Junction box, bypass diode, cable, connector	12
4.5.2	Junction box adhesive	13
4.5.3	Potting material of junction box	13
4.6	Cell encapsulation	13
4.7	Frame and frame adhesive	14
4.7.1	Frame	14
4.7.2	Frame adhesive (tape/silicone)	14
4.8	Mounting and attachment parts	15
4.9	Markings	16
4.10	Other components	17
5	Production process	18
5.1	Incoming inspections and preparation of materials	18
5.2	Lay-up of glass	18
5.3	Solar cell cutting (only applicable to own cells)	19
5.4	Solar cell tabbing and connection to strings	19
5.5	Interconnection of strings	20
5.6	Recording of EL images	20
5.7	Compilation of material layers	20
5.8	Lamination process	21
5.9	Edge trimming	21
5.10	Framing	21
5.11	Electrical connection	22
5.12	Curing	22
5.13	Edge grinding and visual control	22
5.14	Control of output power	23
5.15	Safety and functionality tests	24
5.15.1	Hi-pot test	24
5.15.2	Insulation test	24
5.15.3	Continuity of equipotential bonding test	24
5.15.4	Wet leakage test	25
5.15.5	Bypass diode functionality test	25
5.15.6	Functional check on test equipment	25
5.16	Labelling machine	26
5.17	Final visual control	26
6	Quality assurance / control	27
6.1	Quality management system	27
6.2	Premises and environmental conditions	27
6.2.1	Storage and handling of materials	27
6.2.2	Production areas	27
6.2.3	Staff training	28
6.3	Handling of test and calibration equipment	28
6.4	Regular quality assurance tests and product verification tests	29
6.5	Documentation of process data	29
6.6	Directing of faulty products	29
6.7	Changes to certified products	30
6.8	Factory self-assessment of production and control process of certified products	30

7 Requirements for MCS 010 certification 31

7.1 General 31

7.2 Internal quality control 31

7.3 Complaints 32

8 Summary 33

Annex 1: List of surveyed documents 36

Inspection report no.: DE24XMP3 001

Inspector: E. Janknecht

1 Ambit of the inspection

All (to be) certified module type families the inspection refers to at the site inspected shall be listed.			
3SHBGH-AA-xxx (xxx = power value in Wp) 3SHBGH-CA-xxx (xxx = power value in Wp) 3SHBGH-CC-xxx (xxx = power value in Wp) H = Hetero-Junction Technology B = Bifacial G = Glass-Glass H = Layout G12 half-cut cell A/C (first digit) = 3Sun cell (A) / external cell (C) A/C (second digit) = Cable length See Constructional Data Form (CDF) no. DE2432KI 001 as reference.			
Co licences: -			
Company name	Licence no.	Main licence no. (as reference)	Production since last inspection [MW _p]

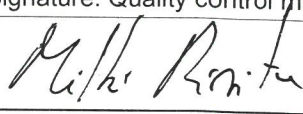
2 Inspected facility areas

☒ Production line no. 1, production of PV module type 3SHBGH-CC-xxx ☒ Completely running ☐ Partly running ☐ Not running ☒ Warehouse (temporary storage) ☐ Warehouse (external bigger warehouse) ☐ Quality / research lab – currently under construction; area for offline tests and additional external lab (for Wet leakage current test) available; not inspected this time ☐ Other

3 Production in the considered period

Number of production lines:		1 (start of 2 nd and 3 rd line [copy of 1 st line] by end of 2024)		
Number of shifts:		3 each with 8 hours (06:00 a.m. - 02:00 p.m., 02:00 p.m. - 10:00 p.m., 10:00 p.m. - 06:00 a.m.)		
Number of production staff per shift:		25 → 5 teams each with approx. 25 persons (rotating system)		
Production times		☒ All year ☐ Seasonal: from ... to ...		
Holiday shut down		☒ No ☐ Yes, from ... to ...		
Production capacity:	400	MW _p per year (2024; based on 1 line)		
Serial number:	from	3SAHBGHC24803075	until	-
Period:	from	20/08/2024	until	-
Explanation for serial number coding:				
3SAHBGHC24803075 Digit 1+2: 3S: Manufacturer (3SUN) Digit 3: Production line: A (line no. 1) – B – C – D – E Digit 4-7: Module technology: H (HJT), B (Bifacial), G (Glass-Glass), H (layout G12 half-cut cell) Digit 8: Tech version: A (Version 1 with 3Sun cell), C (version 2 with external cell) Digit 9-10: 24 for year of production Digit 11: 8 for month of production (1=Jan, 2=Feb, ..., 9=Sep, X=Oct, Y=Nov, Z=Dec) Digit 12-16: 03075 for module progressive number; if the incremental number is more than 99999, the next digit will be A0001-A9999, B0001-B9999, ..., Z0001-Z9999 Coding is defined in an internal document (technical specification).				
Example for traceability supplied by a bill of materials for one module:				
Serial number: 3SAHBGHC24702151 Bill of materials and process data (can be supplied by corresponding documents in the annex): Each serial number of a module is linked to a set of SAP codes (one SAP code per raw material) which clearly defines one Bill of materials. COA, packing list, transport information are accessible via this SAP code. Full material traceability is ensured.				

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Are the requirements of MCS 010 fulfilled?		
☐ Yes	☐ No	☒ Not applicable
Place/Date		(Signature: Inspector)
Cologne, 03/09/2024		
Place/Date		(Signature: Quality control manager)
Cologne, 04/09/2024		

Annex: List of surveyed documents

Pages from 8 to 34 and from 36 to 41 are omitted