

## Deutsche Akkreditierungsstelle

### Annex to the Accreditation Certificate D-PL-12074-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 08.05.2024

**Date of issue:** 08.05.2024

Holder of accreditation certificate:

**SMA Solar Technology AG**  
**Sonnenallee 1, 34266 Niestetal**

with the location

**SMA Solar Technology AG**  
**Sonnenallee 1, 34266 Niestetal**

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

#### **Tests in the fields:**

**Electromagnetic compatibility (EMC)**

**The testing laboratory is permitted, without being required to inform and obtain prior approval from DAKkS, to use standards or equivalent testing methods listed here with different issue dates.**

**The testing laboratory maintains a current list of all testing methods within the flexible scope or accreditation.**

*This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.*

Abbreviations used: see last page

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**Annex to the Accreditation Certificate D-PL-12074-01-00**

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
<b>Basic standards</b>			
EMC	DIN EN 61000-4-2; VDE 0847-4-2:2009	Electromagnetic compatibility (EMC) - Part 42: Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2:2008); German version EN 61000-4-2:2009	
EMC	DIN EN IEC 61000-4-3; VDE 0847-4-3:2021	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3:2020); German version EN IEC 61000-4-3:2020	
EMC	DIN EN 61000-4-4 ; VDE 0847-4-4:2013	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test (IEC 61000-4-4:2012); German version EN 61000-4-4:2012	
EMC	DIN EN 61000-4-5; VDE 0847-4-5:2019	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test (IEC 61000-4-5:2014 + A1:2017); German version EN 61000-4-5:2014 + A1:2017	Except examinations according to Annex A and Chapter 6.3.3.3 ≤ 32A/phase
EMC	DIN EN 61000-4-6; VDE 0847-4-6:2014	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-46:2013); German version EN 61000-4-6:2014	

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EMC	DIN EN 61000-4-8; VDE 0847-4-8:2010	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test (IEC 61000-4-8:2009); German version EN 61000-4-8:2010	
EMC	DIN EN IEC 61000-4-11; VDE 0847 Teil 4-11:2021	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase (IEC 61000-4-11:2020 + COR1:2020); German version EN IEC 61000-4-11:2020 + AC:2020	
EMC	DIN EN 61000-4-34; VDE 0847-4-34:2010	Electromagnetic compatibility (EMC) - Part 4-34: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase (IEC 61000-4-34:2005 + A1:2009 + Cor.:2009); German version EN 61000-4-34:2007 + A1:2009	≤ 32A/phase
EMC	DIN EN 60255-1; VDE 0435-300:2010	Measuring relays and protection equipment - Part 1: Common requirements (IEC 602551:2009); German version EN 60255-1:2010	
EMC	DIN EN 60255-26; VDE 0435-320:2014  Correction 1:2014  Correction 2: 2015	Measuring relays and protection equipment - Part 26: Electromagnetic compatibility requirements (IEC 60255-26:2013); German version EN 60255-26:2013 + AC:2013 Corrigendum to DIN EN 60255-26 (VDE 0435-320):2014-03 Corrigendum to DIN EN 60255-26 (VDE 0435320):2014-03	No test according to EN61000-4-17

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EMC	DIN EN 55016-2-1 (VDE 0877-16-2-1):2019	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements (CISPR 16-21:2014 + A1:2017); German version EN 55016-2-1:2014 + A1:2017	Procedure with CDNE according to Chap. 9 only up to 30MHz, no artificial hand according to 7.4.2.4, only V-net simulation according to 7.3.2.2
EMC	DIN EN 55016-2-3 (VDE 0877-16-2-3):2020	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements (CISPR 16-2-3:2016 + A1:2019); Deutsche Fassung EN 55016-2-3:2017 + A1:2019	No loop antenna system according to 7.2, only SAC and OATS, no APD measurement method according to Annex D
<b>Generic standards</b>			
EMC	DIN EN 61000-6-1; VDE 0839-6-1:2019	Electromagnetic compatibility (EMC) - Part 61: Generic standards - Immunity standard for residential, commercial and light-industrial environments (IEC 61000-6-1:2016); German version EN IEC 61000-6-1:2019	
EMC	DIN EN IEC 61000-6-2; VDE 0839-6-2:2019	Electromagnetic compatibility (EMC) - Part 62: Generic standards - Immunity standard for industrial environments (IEC 61000-6-2:2016); German version EN IEC 61000-6-2:2019	

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EMC	DIN EN IEC 61000-6-3; VDE 0839-6-3:2022	Electromagnetic compatibility (EMC) - Part 63: Generic standards - Emission standard for equipment in residential environments (IEC 61000-6-3:2020); German version EN IEC 61000-6-3:2021	No TEM waveguide
EMC	DIN EN IEC 61000-6-4; VDE 0839-6-4 :2020	Electromagnetic compatibility (EMC) - Part 64: Generic standards - Emission standard for industrial environments (IEC 61000-6-4:2018); German version EN IEC 61000-6-4:2019	
EMC	DIN EN IEC 61000-6-8; VDE 0839-6-8:2022	Electromagnetic compatibility (EMC) - Part 68: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations (IEC 61000-6-8:2020); German version EN IEC 61000-6-8:2020	
<b>Product family standards</b>			
EMC	DIN EN 61326-1; VDE 0843-20-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements (IEC 61326-1:2012); German version EN 61326-1:2013	
EMC	DIN EN 62920; VDE 0126-131:2018	Photovoltaic power generating systems - EMC requirements and test methods for power conversion equipment (IEC 62920:2017); German version EN 62920:2017	
EMC	DIN EN 62920/A11; VDE 0126-131/A11:2021	Photovoltaic power generating systems - EMC requirements and test methods for power conversion equipment; German version EN 62920:2017/A11:2020	

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EMC	DIN EN 50121-3-2; VDE 0115-121-3-2:2017	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus; German version EN 50121-3-2:2016	No test according to EN61000-4-30
EMC	DIN EN 50121-3-2/A1; VDE 0115-121-3-2/A1:2020-11	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus; German version EN 50121-3-2:2016/A1:2019	No test according to EN61000-4-30
EMC	DIN EN 55011; VDE 0875-11:2022	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement (CISPR 11:2015, modified + A1:2016 + A2:2019); German version EN 55011:2016 + A1:2017 + A11:2020 + A2:2021	-Radiated emission measurements up to 6GHz -Testing of medical devices as well as industrial inductive and dielectric heating systems cannot be carried out -GCPCs with AC currents up to 400A -DC-AMN up to 200A
EMC	DIN EN 55032 VDE 0878-32:2016	Electromagnetic compatibility of multimedia equipment - Emission Requirements (CISPR 32:2015); German version EN 55032:2015	Tests according to standard procedure Table A.1 section A.1.1, A.1.3 to 6GHz

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EMC	DIN EN 55035 (VDE 0878-35):2018	Electromagnetic compatibility of multimedia equipment - Immunity requirements (CISPR 35:2016, modified); German version EN 55035:2017	Only for Network functions according to Appendix F without F.4 (xDSL - Connections)
EMC	DIN EN 61000-3-2; VDE 0838-2:2019-12	Electromagnetic compatibility (EMC) - Part 32: Limits - Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase) (IEC 61000-3-2:2018); German version EN IEC 61000-3-2:2019	
EMC	DIN EN 61000-3-3; VDE 0838-3:2023-02	Electromagnetic compatibility (EMC) - Part 33: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection (IEC 61000-3-3:2013 + A1:2017+A2:2021+A2:2021/COR1:2022); German version EN 61000-3-3:2013+A1:2019+A2:2021+A2:2021/AC:2022	
EMC	DIN EN IEC 61000-3-11; VDE 0838:2021	Electromagnetic compatibility (EMC) - Part 311: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public lowvoltage supply systems - Equipment with rated current $\leq 75$ A and subject to conditional connection (IEC 61000-3-11:2017); German version EN IEC 61000-3 11:2019	

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EMC	DIN EN 61000-3-12; VDE 0838-12:2012	Electromagnetic compatibility (EMC) - Part 312: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase (IEC 61000-3-12:2011); German version EN 61000-3-12:2011	
EMC	DIN EN 61000-3-12 Beiblatt 1; VDE 0838-12 Beiblatt 1:2015	Electromagnetic compatibility (EMC) - Part 312: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase	
EMC	DIN EN IEC 61851-21-2 VDE 0122-2-1-2:2021	Electric vehicle conductive charging system - Part 21-2: Electric vehicle requirements for conductive connection to an AC/DC supply - EMC requirements for off board electric vehicle charging systems (IEC 61851-21-2:2018); German version EN IEC 61851-21-2:2021	No test according to Annex B (Keyless Entry)
<b>EMC in the telecommunications sector (RED)</b>			
EMC (radio equipment)	ETSI EN 303 446-1 V1.2.1 :2019-10	ElectroMagnetic Compatibility (EMC) standard for combined and/or integrated radio and non-radio equipment; Part 1: Requirements for equipment intended to be used in residential, commercial and light industry locations	No test according on PLC-Port to EN50561-1/-3

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EMC (radio equipment)	ETSI EN 303 446-2 V1.2.1 :2019-10	ElectroMagnetic Compatibility (EMC) standard for combined and/or integrated radio and non-radio equipment; Part 2: Requirements for equipment intended to be used in industrial locations	No test according on PLC-Port to EN50561-1/-3
EMC (radio equipment)	ETSI EN 301 489-1 V2.2.3:2019	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility	No tests according to chapter 9.6 „Transients and surges in vehicular environment“... and according to chapter 9.8.2.1 for unshielded symmetrical cables
EMC (radio equipment)	ETSI EN 301 489-3 V2.1.1:2023-01	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz; Harmonised Standard for ElectroMagnetic Compatibility	
EMC (radio equipment)	ETSI EN 301 489-17 V3.2.4:2020-09	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility	

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<b>Withdrawn methods or procedures for which newer issues exist (but which are still referenced)</b>			
<b>Basic standards</b>			
EMC	DIN EN 60255-22-1; VDE 0435-22-1:2008	Measuring relays and protection equipment - Part 22-1: Electrical disturbance tests - 1 MHz burst immunity tests (IEC 60255-22-1:2007); German version EN 60255-22-1:2008	
EMC	DIN EN 60255-22-2; VDE 0435-3022:2009	Measuring relays and protection equipment - Part 22-2: Electrical disturbance tests - Electrostatic discharge tests (IEC 60255-22-2:2008); German version EN 60255-22-2:2008	
EMC	DIN EN 60255-22-3; VDE 0435-3023:2009	Measuring relays and protection equipment - Part 22-3: Electrical disturbance tests - Radiated electromagnetic field immunity (IEC 60255-22-3:2007); German version EN 60255-22-3:2008	
EMC	DIN EN 60255-22-4; VDE 0435-3024:2009	Electrical relays - Part 22-4: Electrical disturbance tests for measuring relays and protection equipment; Electrical fast transient/burst immunity test (IEC 60255-224:2008); German version EN 60255-22-4:2008	
EMC	DIN EN 60255-22-5; VDE 0435-3025:2011	Measuring relays and protection equipment - Part 22-5: Electrical disturbance tests - Surge immunity test (IEC 60255-22-5:2008); German version EN 60255-22-5:2011	

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EMC	DIN EN 60255-22-6; VDE 0435:2002	Electrical relays - Part 22-6: Electrical disturbance tests for measuring relays and protection equipment; Immunity to conducted disturbances induced by radio frequency fields (IEC 60255-22-6:2001); German version EN 60255-22-6:2001	
EMC	DIN EN 60255-22-7; VDE 0435 Teil 3027:2004	Electrical relays - Part 22-7: Electrical disturbance tests for measuring relays and protection equipment - Power frequency immunity tests (IEC 60255-22-7:2003); German version EN 60255-22-7:2003	
EMC	DIN EN 60255-11; VDE 0435-3014:2010	Measuring relays and protection equipment - Part 11: Voltage dips, short interruptions, variations and ripple on auxiliary power supply port (IEC 60255-11:2008); German version EN 60255-11:2010	
<b>Product family standards</b>			
EMC	DIN EN 55022; VDE 0878-22:2011  Correction 1:2016	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 22:2008, modified); German version EN 55022:2010, Corrigendum to DIN EN 55022 (VDE 087822):2011-12; German version EN 55022:2010/AC:2011	
EMC	DIN EN 55024; VDE 0878-24:2016	Information technology equipment - Immunity characteristics - Limits and methods of measurement (CISPR 24:2010 + Cor.:2011 + A1:2015); German version EN 55024:2010 + A1:2015	No test according to Annex A possible

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**Abbreviations used:**

DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardisation

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