

Certificate of compliance

Applicant: SOLARWATT GmbH
Maria-Reiche-Straße 2a 01109 Dresden
Germany

Product: Storage Inverter

Model: Inverter vision one 1.0 (3.0 kW), Inverter vision one 1.0 (3.7 kW),
Inverter vision one 1.0 (4.6 kW), Inverter vision one 1.0 (5.0 kW),
Inverter vision one 1.0 (6.0 kW), Inverter vision one 1.0 (5.0 kW, NL),
Inverter vision one 1.0 (6.0 kW, FR)

The device is designed to work as a generation unit of the type: A

Inverter for single-phase parallel connection to the public grid. The network monitoring and disconnection device is an integral part of the above-mentioned model.

Applied rules and standards:

EN 50549-1:2019/A1:2023

Requirements for parallel connection of installations with distribution networks - Part 1: Connection to an LV distribution network - Production of installations up to and including Type B

- 4.4 Normal operating range
- 4.5 Immunity to disturbances
- 4.6 Active response to frequency deviation
- 4.7 Power response to voltage variations and voltage changes
- 4.8 EMC and power quality
- 4.9 Interface protection
- 4.10 Connection and starting to generate electrical power
- 4.11 Ceasing and reduction of active power on set point

4.13 Requirements regarding single fault tolerance of interface protection system and interface switch

EN 50549-10:2022

Requirements for generating plants to be connected in parallel with distribution networks - Part 10: Tests for conformity assessment of generating units

Compliance with the parameters in Annex C of the standard

(see manufacturer's declaration)

Commission Regulation (EU) 2016/631 of 14 April 2016

Establishing a network code on requirements for grid connection of generators (NC RFG).

Type approval for generation units to use in Type A plants.

At the time of issue of this certificate, the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

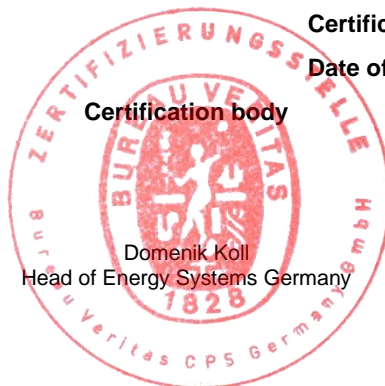
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Certificate number: U25-0082

Certification Program: NSOP-0032-DEU-ZE-V10

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Accreditation



Domenik Koll
Head of Energy Systems Germany



Accredited certification body by Deutsche Akkreditierungsstelle GmbH (DAkkS) according to ISO/IEC 17065. The accreditation is valid only for the scope listed in the annex of the accreditation certificate D-ZE-12024-01-00. The Deutsche Akkreditierungsstelle GmbH (DAkkS) is signatory of the multilateral arrangements of EA, ILAC and IAF for mutual recognition.

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Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016

Manufacturer	SOLARWATT GmbH Maria-Reiche-Straße 2a 01109 Dresden Germany			
Product type	Storage Inverter			
Static converter model	Inverter vision one 1.0 (3.0 kW)	Inverter vision one 1.0 (3.7 kW)	Inverter vision one 1.0 (4.6 kW)	Inverter vision one 1.0 (5.0 kW)
Input DC (photovoltaic)				
MPP voltage range [V]	80-550	80-550	80-550	80-550
Max. input voltage [V]	600	600	600	600
Max. input current per MPPT [A]	16/16	16/16	16/16	16/16
Input DC (battery)				
DC voltage range [V]	80-480	80-480	80-480	80-480
Max. DC voltage [V]	480	480	480	480
Max. DC current per DC input [A]	40/40	40/40	40/40	40/40
Output AC				
Rated AC voltage [V]	230, L/N/PE, 50/60Hz	230, L/N/PE, 50/60Hz	230, L/N/PE, 50/60Hz	230, L/N/PE, 50/60Hz
Rated output current [A]	13,6	16,7	20,9	22,7
Max. output current [A]	15,0	18,4	23,0	25,0
Nom. converter output (P _{NINV}) [W]	3000	3680	4600	5000
Rated apparent power [VA]	3300	4048	5060	5500
Static converter model	Inverter vision one 1.0 (6.0 kW)	Inverter vision one 1.0 (5.0 kW, NL)	Inverter vision one 1.0 (6.0 kW, FR)	--
Input DC (photovoltaic)				
MPP voltage range [V]	80-550	80-550	80-550	--
Max. input voltage [V]	600	600	600	--
Max. input current per MPPT [A]	16/16	16/16	16/16	--
Input DC (battery)				
DC voltage range [V]	80-480	80-480	80-480	--
Max. DC voltage [V]	480	480	480	--
Max. DC current per DC input [A]	40/40	40/40	40/40	--
Output AC				
Rated AC voltage [V]	230, L/N/PE, 50/60Hz	230, L/N/PE, 50/60Hz	230, L/N/PE, 50/60Hz	--
Rated output current [A]	27,3	22,7	27,3	--
Max. output current [A]	30,0	22,7	27,3	--
Nom. converter output (P _{NINV}) [W]	6000	5000	6000	--
Rated apparent power [VA]	6600	5000	6000	--

Interface protection system and interface switch (Network and system protection "NS-protection")	
Type of protection	Integrated NS-protection
Assigned to generation unit type	Inverter vision one 1.0 (3.0 kW), Inverter vision one 1.0 (3.7 kW), Inverter vision one 1.0 (4.6 kW), Inverter vision one 1.0 (5.0 kW), Inverter vision one 1.0 (6.0 kW), Inverter vision one 1.0 (5.0 kW, NL), Inverter vision one 1.0 (6.0 kW, FR)
Integrated interface switch	Type of switching equipment 1: Relay (Model HF161F-2/12-HT(477)) Type of switching equipment 2: Relay (Model HF161F-2/12-HT(477))
	Note: The output is switched off by the inverter bridge and two relay in series in each line and neutral.
Firmware version	V1.27
Note <p>The settings of the generators are password protected adjustable.</p> <p>In case the generators are used with an external protection device, the protection settings of the inverters are to be adjusted according to the manufacturer's declaration.</p> <p>The above stated generators are tested according to the requirements in the EN 50549-1 and the Commission Regulation (EU) 2016/631 of 14 April 2016. Any modification that affects the stated tests must be named by the manufacturer/supplier of the product to ensure that the product meets all requirements.</p>	