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Certificate of compliance

Applicant: SMA Solar Technology AG
Sonnenallee 1
34266 Niestetal
Germany

Product: Photovoltaic (PV) and battery inverter

Model: SBSE3.6-50
SBSE4.0-50
SBSE5.0-50
SBSE6.0-50

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

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.

DIN VDE V 0124-100:2020 (5.5.2.1 Functional safety of network and system protection)

Grid integration of generator plants - Low-voltage - Test requirements for generator units to be connected to and operated in parallel with low voltage distribution networks.

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.

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.

Report number: 23TH0286-EN50549-1_1

Certification Program: NSOP-0032-DEU-ZE-V01

Certificate number: U24-0271

Date of issue: 2024-04-09

Certification body



Certification body Bureau Veritas Consumer Products Services Germany GmbH accreditation to DIN EN ISO/IEC 17065

Testing laboratory accredited according to DIN EN ISO/IEC 17025

A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH



Annex to the EN 50549-1 certificate of compliance No. U24-0271

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Appendix

Extract from test report according to EN 50549-1 No. 23TH0286-EN50549-1_1

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

Manufacturer / applicant	SMA Solar Technology AG Sonnenallee 1 34266 Niestetal Germany
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Micro-generator Type	Photovoltaic and battery inverter
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	SBSE3.6-50	SBSE4.0-50	SBSE5.0-50	SBSE6.0-50
Photovoltaic (DC)				
MPP DC voltage range [V]	60 - 480	60 - 480	60 - 480	60 - 480
Max DC voltage [V]	60 - 600	60 - 600	60 - 600	60 - 600
Input DC current [A]	15	15	15	15
Battery (DC)				
Battery DC voltage range [V]	90 - 500	90 - 500	90 - 500	90 - 500
Battery charge current [A]	30	30	30	30
Battery discharge current [A]	30	30	30	30
Connection (AC)				
Output AC voltage [V]	211 - 264	211 - 264	211 - 264	211 - 264
Rated AC current [A]	16,0	17,4	21,7	26,0
Max AC current [A]	16,0	20,0	25,0	30,0
Active Power [W]	3600	4000	5000	6000
Apparent power [VA]	3600	4000	5000	6000

Firmware version	03.08.03.R
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Description of the structure of the power generation unit:
 The power generation unit is equipped with a PV/DC and line-side EMC filter. The power generation unit has galvanic isolation between DC input and AC output. Output switch-off is performed with single-fault tolerance based on the inverter bridge and relays in each line and neutral. This enables a safe disconnection of the power generation unit from the network in case of error.

Note:
 The settings of the interface protection are password protected adjustable.
 In case the above stated generators are used with an external protection device, the protection settings of the inverters are to be adjusted according to the manufacturer's declaration.
 The above stated generators are tested according to the requirements in the EN 50549-1:2019 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.