



# Certificate of Compliance

**Certificate:** 80136856

**Master Contract:** 302852

**Project:** 80136856

**Date Issued:** 2024-08-20

**Issued To:** SMA Solar Technology AG  
Sonnenallee 1  
Niestetal, Hesse, 34266  
Germany

**Attention:** Marvin Mewes

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*

**Issued by:** *Peter Lim*  
Peter Lim



## **PRODUCTS**

CLASS - C531109 - POWER SUPPLIES Distributed Generation Power Systems Equipment

CLASS - C531189 - POWER SUPPLIES - Distributed Generation Power Systems Equipment - Certified to U.S. Standards

Bi-directional Transformerless PV/Battery/Hybrid Power Conversion Equipment with Grid Support Utility Interactive or Standalone, permanently connected. System ratings as follows:

Models: SBSE3.8-US-50 (Sunny Boy Smart Energy 3.8-US); SBSE4.8-US-50 (Sunny Boy Smart Energy 4.8-US); SBSE5.8-US-50 (Sunny Boy Smart Energy 5.8-US); SBSE7.7-US-50 (Sunny Boy Smart Energy 7.7-US)

Enclosure: For indoor and Outdoor

For details related to rating and notes, reference should be made to the CSA Certification Record, the Descriptive Report or Annex A Ratings.



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**Conditions of Acceptability:**

- (1) Do not operate grounded PV modules or batteries together with the product.
- (2) The product must only be operated in connection with an intrinsically safe lithium-ion battery with UL:1973 approval and authorized by SMA Solar Technology AG.
- (3) Battery pack is not evaluated as part of the inverter system.
- (4) Allow the capacitors of the inverter to discharge (5 minutes)
- (5) The products have also been verified for functional safety under UL1998 Software Class 1 for all safety functions and accepted for similar class B requirements as per CSA C22.2 No. 0.8 related to the integrated PVRSE and related Inverter Shutdown and Remote Shutdown functions.

**APPLICABLE REQUIREMENTS**

CSA C22.2 62109-1 Safety of Power Converters for use in Photovoltaic Power Systems – Part 1: General Requirements (IEC 62109-1:2020, MOD) (Reaffirmed 2021)

UL 62109-1 STANDARD FOR SAFETY OF POWER CONVERTERS FOR USE IN PHOTOVOLTAIC POWER SYSTEMS - PART 1: GENERAL REQUIREMENTS (Dated April 30<sup>th</sup> 2019)

CSA-C22.2 No.107.1-16 Power Conversion Equipment (R2021)

\*UL Std No. 1741-Third Edition Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (Third Edition, Dated May 19, 2023)

\*\*UL 1699B Photovoltaic (PV) DC Arc-Fault Circuit Protection (First Edition, Revision Dated May 18, 2021)

CSA-C22.2 No.330-23 Photovoltaic rapid shutdown systems (February 2023)

CSA C22.3 No. 9 Interconnection of Distributed Energy Resources and Electricity Supply Systems

1) Conformity to UL 1741(Third Edition, Dated May 19, 2023) includes compliance with applicable requirements of grid support function is evaluated according to IEEE 1547.1-2020, the interoperability is verified with IEEE 2030.5-2018 communication protocol with the SRDs of California Electric Rule 21 and also verified according to UL 1741 Supplement SB and IEEE 1547a-2020.

2) \*\*To fulfill the rapid shutdown requirements of the NEC Article 690.12 and CEC Sec 64-218 Photovoltaic system rapid shutdown with the SBSE series models, the inverter can be used together with a suitable rapid shutdown device, or the inverter must be mounted within the boundary values given in the NEC and CEC Article. The ac output of the inverter complies with the requirements of following standards to ensure the ac conductors are within the controlled limits of 30Vdc, 15Vac and 8A within the 30s:



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- a) UL1741 3<sup>rd</sup> edition (PVRSE)
  - b) CAN/CSA C22.2 No. 330-17
- 3) The functional safety has been evaluated according to applicable requirement of UL 1998-Edition 3 as required by the product standard (refer to UL functional Safety report E210376) and accepted under Class B for CSA C22.2 No. 0.8.
- 4) For Canadian C22.3 No. 9, the dbof range is from 17 mHz to 100 mHz.
- 5). Grid support Utility Interactive inverter, SMA inverter is evaluated with reactive power priority Volt/Var Mode (Q(V)) Test.

**Notes:**

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Products certified under Class(es) C531109 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80136856	2024-08-20	Model Certification to evaluate models WR Series (C/US) under UL1741 Third edition and CSA C22.2 No. 107.1-16 Third edition CSA C22.2 No. 62109-1 and CSA 22.2 No 62109-2 UL 62109-1 and CDR UL 62109-1(IEC62109-2)