

CERTIFICATE OF COMPLIANCE

Certificate Number 20231018-E341165
Report Reference E341165-20200608
Date 2023-10-18

SB

Issued to: ENPHASE ENERGY, INC.
1420 N McDowell Blvd Petaluma, CA 94954-6515
United States

This is to certify that representative samples of Multimode inverter accessory

Models: EP200G101-M240US00, EP200G101-M240US01,
SC200D111C240US01, and SC200G111C240US01

Have been investigated by UL in accordance with the Standard(s)
indicated on this Certificate.

Standard(s) for Safety: See Page 2

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Standards for Safety:

UL 1741, Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources, Edition 3, Issue Date 09/28/2021, Revision Date: 2022-10-18. Including the requirements in UL 1741 Supplements SA and SB.

IEEE 1547, Interconnection and Interoperability of Distributed Energy Resources (DERs) with Associated Electric Power Systems (EPSs) Interfaces, Issue Date 02/15/2018.

IEEE 1547.1, IEEE Standard Conformance Test Procedures for Interconnecting Distributed Energy Resources (DERs) with Electric Power Systems (EPSs) Associated Interfaces, Issue Date 03/05/2020. See Appendix A.

CSA C22.2 No. 107.1, Power Conversion Equipment, Edition 4, Issue Date 06/2016

R21: The evaluation to the Standards above provides evidence of compliance to the intent of the existing California Rule 21 Interconnection. See Appendix A (Method SA and SB).

14H (SA): The evaluation to the Standards above provides evidence of compliance to HECO Rule 14H, SRD V1.0, Interconnection Application.

14H (SB): The evaluation to the Standards above provides evidence of compliance to HECO Rule 14H, SRD V2.0, Interconnection Application.



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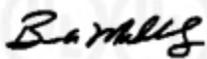


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Firmware Version:			
Model	UL 1998 (grid support)	Date	Version
SC200 G 111C240US01, SC200 D 111C240US01	Yes	2022-12-15	3.0.4846
EP200G101-M240US00, EP200G101-M240US01	Yes	2023-01-27	2.0.4976
EP200G101-M240US00, EP200G101-M240US01	Yes	2023-04-13	2.0.5229
EP200G101-M240US00	Yes	2023-06-20	1.5.5390
EP200G101-M240US01	Yes	2023-06-20	2.0.5390
SC200 G 111C240US01, SC200 D 111C240US01	Yes	2023-06-20	3.0.5390



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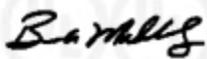
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Appendix A

The DER was subjected to following applicable IEEE1547.1-2020 & UL1741SB Grid Support Interactive Test based on its limited grid support functions:

IEEE1547.1-2020 Test Name	IEEE 1547.1-2020 Section	Subject DER complies with IEEE 1547.1-2020
Temperature Stability	5.3	Pass
Enter Service CAT III	5.6	Pass
Over-Voltage Trip	5.4.2	Pass
Under-Voltage Trip	5.4.3	Pass
Over-Frequency Trip	5.5.2	Pass
Under-Frequency Trip	5.5.3	Pass
Persistence of DER Parameter Settings	5.19	Pass



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Appendix B

As permitted by UL1741, 3rd Edition, Table SA1.1, shown below, allows for the evaluation of products using either the UL 1741 SA tests or alternative testing methods using the requirements of IEEE 1547.1-2020 in accordance with IEEE 1547-2018 and IEEE 1547a-2020.

UL1741 SA Test Name	SA Test Section	Comparable IEEE 1547.1-2020 and UL1741 SB Test Section	Subject Inverter complies with SA/IEEE 1547.1-2020
Anti-Islanding Protection	SA8	5.10.2	N/E
Low and High Voltage Ride-Through	SA9	5.4.4, 5.4.7	N/E
Low and High Frequency Ride-Through	SA10	5.5.3, 5.5.4	N/E
Normal Ramp Rates	SA11.2	NA ^a	Pass
Soft-Start Ramp Rates	SA11.4	5.6	Pass
Specified Power Factor	SA12	5.14.3	N/E
Volt/Var Mode	SA13	5.14.4	N/E
Frequency-Watt	SA14	5.15.2	N/E
Volt-Watt	SA15	5.14.9	N/E
Disable Permit Service	SA17	5.6	N/E
Limit Active Power	SA18	5.13	N/E

For the purpose of Grid Support Interactive evaluations, this table provides options to use tests from either the UL 1741 SA or IEEE 1547.1 2020 and UL1741SB.

^a IEEE 1547-2018 and IEEE 1547.1-2020 do not have a requirement for, or test equivalent to, the UL 1741 SA Normal Ramp Rate which is presently a local requirement per California Rule 21 and/or Hawaii 14H which both require compliance with the Normal Ramp Rate test of SA11.2. **Additional testing to SA11.2 Normal Ramp Rate has been conducted to demonstrate compliance on this DER.**

N/E – “Not Evaluated” based on the DER’s limited grid support functionalities.



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