

Tesla Inc.  
 3500 Deer Creek Road,  
 Palo Alto, CA 94304  
 USA

2022-11-10

Report Number: 32195916.002  
 Project Number: P00793743  
 Equipment Type: Battery Energy Storage System  
 Grid Support Utility Interactive Inverter  
 Model(s): 1850000-XX-Y (XX=00-99; Y=A-Z)

Dear Mr. /Mrs. Viraj Andrabadu/Nirja Vakil,

Based on the evaluations undertaken, the model(s) of the below product have been found to comply with the requirements of the below referenced specifications.

<b>Nationally Recognized Testing Laboratory (NRTL)</b>	TUV Rheinland of North America, Inc.
<b>NRTL Issuing Office Address</b>	1279 Quarry Lane, Suite A, Pleasanton, CA 94566
<b>Applicant Name</b>	Tesla, Inc.
<b>Applicant Address</b>	3500 Deer Creek Road, Palo Alto, CA 94304, USA
<b>Model Numbers</b>	1850000-XX-Y consists of: <ul style="list-style-type: none"> <li>• ACPW (1092170-XX-Y or 2012170-XX-Y or 3012170-XX-Y)</li> <li>• PVI (1538000-XX-Y)</li> </ul>
<b>Software/Firmware Version</b>	PV Inverter MD5 Firmware Checksum: 1217B43E9B859EAB26ECB10B5FBECC64  AC Powerwall2 Firmware Checksum: 3700B98CF516D8D8421D23891E9AD8D5  *Gateway 2.0 with Site Master Controller (SMC) MD5 Firmware checksum: dcq80iBXbQWYnK9UhCAjvl02/py2MZymmWAQYOn8jSc=  Note:* Gateway 2.0 with Site Master Controller (SMC) is required to full compliance to UL1741SB
<b>Standard(s)</b>	ANSI/UL-9540:2020 Energy Storage Systems and Equipment

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	<p>UL 1741:2021 Edition 3: Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources</p> <p>UL 1741:2021 Edition 3 Supplement SA- GRID SUPPORT UTILITY INTERACTIVE EQUIPMENT</p> <p>UL 1741:2021 Edition 3 Supplement SB, Sept. 28, 2021– GRID SUPPORT UTILITY-INTERACTIVE INVERTERS AND CONVERTERS BASED UPON IEEE 1547-2018 and IEEE 1547.1-2020</p> <p>IEEE 1547.1-2020- IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems and Associated Interfaces</p> <p>IEEE 1547a:2020 - IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces Amendment 1: To Provide More Flexibility for Adoption of Abnormal Operating Performance Category III</p> <p>Default New England Bulk System Area Settings Requirement</p>
<p><b>Source Requirements Document</b></p>	<p>IEEE 1547:2018 - IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces</p> <p>Hawaiian Electric’s SRD V2.0</p> <p>Electric Rule No.21-2020 Generating Facility Interconnections</p>
<p><b>Performance Categories</b></p>	<p>Normal Operating Performance Category B Abnormal Operating Performance Categories III</p>
<p><b>Communication Protocol</b></p>	<p>IEEE 2030.5 protocol</p>
<p><b>Reference reports:</b></p>	<p>This document should be read together with 32195333.001, 32195333.002, 32195333.003, 32195333.004 and US22SZZU.001</p>

### Product Ratings

Nominal Battery Energy	13.5 kWh
System Nominal Grid Voltage	240 VAC
Maximum continuous Output Power On Grid	7.6kVA
Maximum continuous Input Power	5.8kVA
Maximum continuous Output Power Off Grid	9.6kVA
Frequency	60 Hz
Phase	2 wire + neutral+ ground
Maximum Continuous Output Current On Grid	32A AC
ACPW Continuous Input Current	24 A
Maximum continuous Power Off Grid	40A AC
PV Operating DC Input Voltage range	60-550 VDC
PV Max. Input Current	13A DC
Software/Firmware version	PV Inverter MD5 Firmware Checksum: 1217B43E9B859EAB26ECB10B5FBECC64  AC Powerwall2 Firmware Checksum: 3700B98CF516D8D8421D23891E9AD8D5  *Gateway 2.0 with Site Master Controller (SMC) MD5 Firmware checksum: dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwaQYOn8jSc=  Note:* Gateway 2.0 with Site Master Controller (SMC) is required to full compliance to UL1741SB
Enclosure Type	Type 3R
Rated ambient temperature [°C]	-20°C to +50°C (Derated at 43°C to 50°C)

Thank you for the opportunity to service your product testing needs. Please do not hesitate to contact our engineering or sales team for any questions you may have.

Evaluated by:

**Liu Han**

Test Engineer

Email: liu.han@us.tuv.com

Reviewed by:

**Howard Liu**

Manager, Power Electronics Segment  
 – Americas

Email: hliu@us.tuv.com

**Appendix 1: Revision History**

12/17/2021-Liu Han	-Original
11/10/2022-Liu Han	-Removed 208V rating from this letter -Added Gateway 2.0 with Site Master Controller (SMC) MD5 Firmware checksum -Updated the standard to ANSI/UL-9540:2020 and UL 1741:2021 Edition 3 -Added UL 1741 SB, IEEE 1547.1 2020, IEEE 1547a 2020, IEEE 1547 2018, HECO SRD V2.0 in this letter.

-----End of the Letter-----