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## UN 38.3 Test Summary Report

Battery Test Summary according to Sub-section 38.3 of the UN Manual of Tests and Criteria, Part III, subsection 38.3.5

Date: 03/25/2020

Battery: Plug Power 4P13S		
Contact information: Plug Power Inc. 968 Albany Shaker Rd, Latham, NY 12110 Phone: +1 518 782 7700 <a href="mailto:gendrive@plugpower.com">gendrive@plugpower.com</a> <a href="mailto:serviceeurope@plugpower.com">serviceeurope@plugpower.com</a> <a href="https://www.plugpower.com">https://www.plugpower.com</a>		
Test laboratories: T3-T4 MGA Research Corporation, 12790 Main Road, Akron, NY 14001 +1 (716) 542-5515 <a href="mailto:headquarters@mgaresearch.com">headquarters@mgaresearch.com</a> <a href="https://www.mgaresearch.com">https://www.mgaresearch.com</a>  T5, T7 Plug Power Inc., 968 Albany Shaker Rd, Latham, NY, 12110 968 Albany Shaker Rd, Latham, NY 12110 Phone: +1 518 782 7700 <a href="mailto:gendrive@plugpower.com">gendrive@plugpower.com</a> <a href="mailto:serviceeurope@plugpower.com">serviceeurope@plugpower.com</a> <a href="https://www.plugpower.com">https://www.plugpower.com</a>		
Test	Test reports	Result
38.3.4.3 T.3: Vibration	C12T1-293, Dated 11-02-2012	PASS
38.3.4.4 T.4: Shock	C12T1-293, Dated 11-02-2012	PASS
38.3.4.5 T.5: External short circuit	0000016141, Dated 11/12/2012	PASS
38.3.4.7 T.7: Overcharge	0000016141, Dated 11/12/2012	PASS
Battery description: - Lithium ion battery - Mass – 34.5 Kg - Watt-hour – 1498 - Lithium cell weight – 15.1 Kg - 48 Volt battery - Model – 4P13S	Tested per: Transport of Dangerous Goods, Manual of Test and Criteria, Fifth Revised Edition, Amendment 1, Sub-section 38.3	

Signature:   
 (John PARKS, Director, Electrical Engineering)