

# UN/DOT 38.3

Certification  
for Lithium Batteries



# UN38.3 PASSED

Transport Safety Certified

# ELERIX EX-L100K

Lithium Iron Phosphate Cell


TEST RESULT: **PASSED**

<b>Applicant</b>	<b>ELERIX LTD</b>
	Enterprise House 2 Pass Street, Oldham, Manchester, United Kingdom, OL9 6HZ
	<a href="http://www.elerix.com">www.elerix.com</a>

<b>EU Representative</b>	<b>GIWAL LTD, o.z.</b>
	Sterboholska 1404/104, 102 00 Praha 10 Czech Republic, EU
	<a href="http://www.giwal.com">www.giwal.com</a>

<b>Certified Laboratory</b>	<b>Shenzhen TCT Testing Technology Co. Ltd.</b> 1B/F. Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen, Guangdong. China		
			

<b>Test Report No.</b>	<b>TCT2010009B022</b>	<b>Date of issue</b>	2020-10-23
<b>Test Results</b>	PASSED	<b>Validity</b>	Permanent
<b>Tested According To:</b>	ST/SG/AC.10/11/Rev.6/Section 38.3		

	Issued: 2021/8/13  <i>Kurt Sanders</i> Chief Technology Officer
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<b>APPLICANT</b>	<b>ELERIX LTD</b>
	Enterprise House 2 Pass Street, Oldham, Manchester, United Kingdom, OL9 6HZ
	www.elerix.com
<b>BRAND</b>	<b>ELERIX (OEM)</b>
<b>MODEL</b>	<b>EX-L100K</b>
<b>Nominal Voltage</b>	<b>3.2 V</b>
<b>Nominal Capacity</b>	<b>100 Ah</b>
<b>Nominal Energy</b>	<b>320 Wh</b>

<b>TEST DATA RESULTS</b>	
<b>Test Report ID</b>	<b>TCT2010009B022</b>
<b>38.3.4.1 - T1 – Altitude Simulation (Primary and Secondary Cells and Batteries)</b> Low pressure testing that simulates unpressurized airplane cargo area at 15,000-meter altitude. After storing batteries at 11.6kPa for >6 hours, these criteria shall be met: no mass loss, leaking, venting, disassembly, rupture or fire, and voltage within 10% of pre-test voltage.	<b>PASSED</b>
<b>38.3.4.2 - T2 – Thermal Test (Primary and Secondary Cells and Batteries)</b> Test covers changes in temperature extremes from -40C to +75C. Batteries are stored for 6 hours at -40C (12 hours for large cells/batteries), then 6 hours at +75C (12 hours for large cells/batteries), for a total of 10 cycles.	<b>PASSED</b>
<b>38.3.4.3 - T3 – Vibration (Primary and Secondary Cells and Batteries)</b> Test simulates vibration during transportation. Test is a Sine Sweep: 7Hz – 200Hz – 7Hz in 15 Minutes; 12 Sweeps (3 hours); 3 mutually perpendicular axes.	<b>PASSED</b>
<b>38.3.4.4 - T4 – Shock (Primary and Secondary Cells and Batteries)</b> Test also simulates vibration during transportation. Test is a Half-Sine pulse: 150G/6ms for small cells/batteries; 50G/11ms for large cells/batteries; 3 pulses per direction; 6 directions (+/-z, +/-x, +/-y).	<b>PASSED</b>
<b>38.3.4.5 - T5 – External Short Circuit (Primary and Secondary Cells and Batteries)</b> This test simulates an external short to the terminals of the cell or battery. At temperature of +55C, apply short circuit (<0.1ohm) across terminals. Maintain at least an hour after sample temperature returns to +55 +/-2°C. Pass criteria are: Case temperature does not exceed +170°C and no disassembly, rupture, or fire within 6 hours of test. Fuse, current limiting circuit, and venting mechanism activation are allowable.	<b>PASSED</b>
<b>38.3.4.5 - T6 – Impact (Primary and Secondary Cells)</b> This test is only applicable to primary and secondary cells. For cylindrical cells >20mm diameter, it simulates impact to case of cell.	<b>PASSED</b>
<b>38.3.4.5 - T7 – Overcharge (Secondary Batteries)</b> This test is for secondary or rechargeable batteries only. It simulates an overcharge condition on a rechargeable battery: 2x the manufacturer’s recommended charge current for 24 hours. Then battery shall be monitored for 7 days for fire or disassembly.	<b>PASSED</b>
<b>38.3.4.5 - T8 – Forced Discharge (Primary and Secondary Cells)</b> This testing simulates a forced discharge condition for primary and secondary cells only.	<b>PASSED</b>
<b>SUMMARY OF PERFORMED TESTS</b>	<b>ALL PASSED</b>

PHOTOS OF PRODUCTS AND SAMPLES

