

LITHIUM CELL/BATTERY TEST SUMMARY AND SUPPLIER INQUIRY

IN ACCORDANCE WITH SUB-SECTION 38.3
OF MANUAL OF TESTS AND CRITERIA

N/A = Not Applicable

1. Name of cell / battery
Pad-Pak-03

2. Manufacturer of cell / battery	
Name	HeartSine Technologies Ltd.
Address	203 Airport Road West, Belfast, Northern Ireland, BT3 9ED
Phone	(44) 28 90939400
Email	heartsinesupport@stryker.com
Website	heartsine.com

3. Test laboratory of cell / battery	
Name	Anecto Ltd.
Address	15-16E Mervue Business Park, Mervue, Galway, Ireland, H91 D3T0
Phone	(353) 91 7574004
Email	anecto_sales@steris.com
Website	anecto-testservices.com

4. ID-number and date			
Unique test report identification number	A-000J10785-VAL	Date of test report	25 Jan 2016

DESCRIPTION OF CELL / BATTERY

5. Mark the type of cell/battery with an "•"			
<input type="radio"/>	Lithium ion cell	Lithium metal cell	<input checked="" type="radio"/>
<input type="radio"/>	Lithium ion battery	Lithium metal battery	<input type="radio"/>
<input type="radio"/>	Lithium hybrid battery		

6. Parameters	Cell	Battery
Mass in gram (g):		245
Lithium ion: Indicate watt-hour rating (Wh):		
Lithium metal: Indicate lithium metal content in gram (g):		3.18
Lithium hybrid: Indicate lithium metal content in gram (g) and watt-hour rating (Wh):		g Wh

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Name of cell/battery (taken from field 1)

Pad-Pak-03

7. Physical description of cell / battery

Disposable single-use combined battery and defibrillation electrode cartridge (LiMnO₂ 18V)

8. Model numbers

Pad-Pak-03
 Pad-Pak-04
 Pad-Pak-07

TESTS AND RESULTS

9. List of tests conducted and results - Mark N/A, pass or fail with an "●"	N/A	pass	fail
T1 - Altitude simulation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T2 - Thermal Test	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T3 - Vibration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T4 - Shock	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T5 - External Short Circuit	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T6 - Impact / Crush	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T7 - Overcharge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
T8 - Forced Discharge	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Free Fall	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Thermal Abuse	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

10. Reference to assembled battery testing requirements

IEC 60086-4:2014

N/A

11. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

N/A

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ADDITIONAL SUPPLIER INQUIRY

12. Quality management system for manufacturing cells / batteries Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?		<input checked="" type="radio"/>	YES	NO	<input type="radio"/>		
13. Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium ion battery: more than 100 Wh Lithium metal cell: more than 1 g Lithium Lithium metal battery: more than 2 g Lithium Lithium hybrid Battery: more than 1,5 g Lithium and/or more than 10 Wh		<input checked="" type="radio"/>	YES	NO	<input type="radio"/>		
Check point 14 – 16 need to be answered when 13 has been ticked "YES":							
14. Does each cell / battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?		<input checked="" type="radio"/>	YES	NO	<input type="radio"/>		
15. Is each cell / battery equipped with an effective means of preventing external short circuits?		<input type="radio"/>	YES	NO	<input type="radio"/>		
16. Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.)?		<input type="radio"/>	N/A	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
17. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells/batteries and lithium polymer cells/batteries							
State of Charge (SoC) max. 30 %		<input type="radio"/>	YES	NO	<input type="radio"/>		

CELLS/BATTERIES INSTALLED IN EQUIPMENT

18. Check point 18 needs to be answered when the cells / batteries are installed in articles:							
18.a) Only button cells enclosed?		<input type="radio"/>	YES	NO	<input type="radio"/>		
18.b) Number of enclosed cells (other than button cells)/batteries per equipment							
Enclosed cells per equipment		Enclosed batteries per equipment					
When the equipment is intentionally active/switched on during transport e.g. data loggers:							
18.c) Confirmation that no dangerous amount of heat is emitted from the equipment		<input type="radio"/>	N/A	<input type="radio"/>	YES	NO	<input type="radio"/>
18.d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160		<input type="radio"/>	N/A	<input type="radio"/>	YES	NO	<input type="radio"/>
19. Place, Date	20. Title, Surname, First name		21. Company stamp and signature				
Belfast, 23 Dec 2019	Mrs, McIntyre, Colette						