

LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

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

N/A = Not Applicable

1. Name/Description of cell	
Conrad Energy; Lithium Batterie CR 2032; Nr. 650183	

2. Manufacturer of cell	
Name	CEI Conrad Electronic International (HK) Limited
Address	18 Flr, Tower 2, Nina Tower, No. 8 Yeung UK Road, Tsuen Wan, NT, HK
Phone	(852) 2559 6328
Email	panda.ng@cei-hk.com
Website	www.cei-hk.com

2a. Manufacturer of the equipment (if the cell is contained in equipment)	
Name	
Address	
Phone	
Email	
Website	

3. Test laboratory of cell	
Name	Vkan Certification & Testing Co., Ltd.
Address	No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, P.R. China.
Phone	86 (020) 32293888
Email	office@cvc.org.cn
Website	www.cvc.org.cn

4. ID-number and date			
Unique test report identification number	RZUN2017-4066-M1	Date of test report	2019-01-04

DESCRIPTION OF CELL

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

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Name/Description of cell (taken from field 1)

Conrad Energy; Lithium Batterie C

6. Parameters	Cell
Mass in gram (g):	3.0
Lithium ion: Indicate watt-hour rating (Wh):	
Lithium metal: Indicate lithium metal content in gram (g):	0.068

7. Physical description of cell
Silvery bitton metal shell

8. Model numbers
CR 2032 3 V

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 - for cylindrical cells having a diameter of at least 18 mm	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm	<input checked="" type="radio"/>	<input 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"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto
ST/SGAC.10/11/Rev.6/Amend.1 & Amend. 2 38.3 United Nations "Recommendation on the Transport of Dangerous Goods" Manual of Test and Criteria



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ADDITIONAL SUPPLIER INQUIRY

11. Quality management system for manufacturing cells 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"/>
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12. Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium metal cell: more than 1 g Lithium	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>
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Check point 13 – 15 need to be answered when 12 has been ticked "YES":				
13. Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?	<input type="radio"/>	YES	NO	<input type="radio"/>
14. Is each cell equipped with an effective means of preventing external short circuits?	<input type="radio"/>	YES	NO	<input type="radio"/>
15. 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.)	Not relevant for cells			N/A <input type="radio"/>

16. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells						
State of Charge (SoC) max. 30 %	<input checked="" type="radio"/>	N/A	<input type="radio"/>	YES	NO	<input type="radio"/>

CELLS INSTALLED IN EQUIPMENT

17. Check point 17 needs to be answered when the cells are installed in articles:						
17.a) Only button cells enclosed?	<input type="radio"/>	YES	NO	<input type="radio"/>		
17.b) Number of enclosed cells (other than button cells) per equipment						
When the equipment is intentionally active/switched on during transport e.g. data loggers:						
17.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"/>
17.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"/>

18. Place, Date	19. Title, Surname, First name	20. Company stamp and signature
Hong Kong Dec. 16, 2019	Head of Quality: Ng, Panda	 