

LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

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

| Name/Description of cell |
|--------------------------|
| BT-X23 |

Manufacturer of cell

| | |
|---------|-----------------------------------------------------------------------------------------|
| Name | Dongguang Zhechang Industrial Co. |
| Address | No.8 Jiangnan West road Xiagang Industry park Chang An Town Dongguang Guangdong Provice |
| Phone | +86 769 85348900 |
| E-Mail | zecsep@zhechang.com |
| Website | www.zhechangcn.com |

Manufacturer of the equipment (if the cell is contained in equipment)

| | |
|---------|-----------------------------------------------------------------------------------------|
| Name | Dongguang Zhechang Industrial Co. |
| Address | No.8 Jiangnan West road Xiagang Industry park Chang An Town Dongguang Guangdong Provice |
| Phone | +86 769 85348900 |
| E-Mail | zecsep@zhechang.com |
| Website | www.zhechangcn.com |

Test laboratory of cell

| | |
|---------|----------------------------------------------------------------------------------|
| Name | Shenzhen LCS Compliance Testing Laboralory Ltd. |
| Address | 1/F Xingyuan Industrial Park Tongda Road Baoan Avenue Baoan District Shenzhen |
| Phone | +86 755 8259 1330 |
| E-Mail | Jane.lee@lcs-cert.com |
| Website | http://www.lcs-cert.com |

ID-number and date

| | |
|------------------------------------------|-----------------|
| Unique test report identification number | LCS181226095ASA |
| Date of test report | 2019-01-18 |

DESCRIPTION OF CELL (Mark with an "X")

| | |
|--------------------|---|
| Lithium ion cell | X |
| Lithium metal cell | |

Parameters

| | |
|------------------------------------------------------------|--------|
| Mass in gram (g): | 8.9g |
| Lithium ion: Indicate watt-hour rating (Wh): | 1.11Wh |
| Lithium metal: Indicate lithium metal content in gram (g): | |

Physical description of cell

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Model numbers

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| |
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TESTS AND RESULTS

| List of tests conducted and results - Mark N/A, pass or fail with an "X" | N/A | Pass | Fail |
|-----------------------------------------------------------------------------|-----|------|------|
| T1 - Altitude simulation | | X | |
| T2 - Thermal Test | | X | |
| T3 - Vibration | | X | |
| T4 - Shock | | X | |

| | | | |
|------------------------------------------------------------------------------------------------------------------------|--|---|--|
| T5 - External Short Circuit | | X | |
| T6 - Impact - for cylindrical cells having a diameter of at least 18 mm | | X | |
| T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm | | X | |
| T7 – Overcharge | | X | |
| T8 - Forced Discharge | | X | |

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

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ADDITIONAL SUPPLIER INQUIRY

| Mark Yes or no with an "X" | Yes | No |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 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? | X | |
| Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium metal cell: more than 1 g Lithium | X | |

Check point 13 – 15 need to be answered when 12 has been ticked "YES":

| Mark Yes or no with an "X" | Yes | No |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage? | X | |
| Is each cell equipped with an effective means of preventing external short circuits? | X | |
| 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 | X | |




Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells


| | | |
|---------------------------------|---|--|
| State of Charge (SoC) max. 30 % | X | |
|---------------------------------|---|--|

CELLS INSTALLED IN EQUIPMENT

| Check point 17 needs to be answered when the cells are installed in articles: Mark N/A, pass or fail with an "X" | N/A | Pass | Fail |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|
| 17c) Only button cells enclosed? | | X | |
| 17b) Number of enclosed cells (other than button cells) per equipment | | | |
| When the equipment is intentionally active/switched on during transport e.g. data loggers: | | | |
| 17c) Confirmation that no dangerous amount of heat is emitted from the equipment | | X | |
| 17d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160 | | X | |

Please mark the correct column with an X

| Single Cell or Battery | Build in Cell/ Battery | Over 100Wh |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |
| | X | |

| Place, Date | Pascal Pekcan | Company stamp and Signature |
|-------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
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