**LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY**

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

|  |  |
| --- | --- |
| **Name/Description of cell / model no. of product** | |
|  | e.g. BT-X53 |

**Manufacturer of cell**

|  |  |
| --- | --- |
| Name | Dongguan HuanYuYuan Technology Co., Ltd. |
| Address | Block 72C Dongyuan Industrial Park No.28 Beihuan Road West Longteng Area Shiyan town Baoan District Shenzhen China |
| Phone | 0769-83531866 |
| E-Mail | 1260350392@qq.com |
| Website | www.hyybattery.net |

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

|  |  |
| --- | --- |
| Name | Technaxx Deutschland GmbH & Co. KG |
| Address | Kruppstraße 105, 60388 Frankfurt am Main |
| Phone | +49 [69] 90 47552 0 |
| E-Mail | Zentrale@technaxx.de |
| Website | www.technaxx.de |

**Test laboratory of cell**

|  |  |
| --- | --- |
| **Name** | **Shenzhen NCT Testing Technology Co., Ltd.** |
| Address | 1/F No.B Buliding Mianshang Younger Pioneer Park Hangcheng Road Gushu Xixiang Street Baoan District Shenzhen Guangdong China |
| Phone | 0755-27790922 |
| E-Mail | service@nct-testing.com |
| Website | www.nct-testing.com |

**ID-number and date**

|  |  |
| --- | --- |
| Unique test report identification number | NCT19016211XB1-1 |
| Date of test report | 2019-04-25 |

**DESCRIPTION OF CELL ( Mark with an“X“)**

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

**Parameters**

|  |  |
| --- | --- |
| **Mass in gram (g):** | **31.8g** |
| **Lithium ion:** Indicate watt-hour rating (Wh): | 7.4v |
| **Lithium metal:** Indicate lithium metal content in gram (g): |  |

**Physical description of cell**

|  |
| --- |
| Li-ion Battery 18650 7.4V 2000mAh |

**Model numbers**

|  |
| --- |
| **SZNS18650-2000** |

**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**

|  |
| --- |
|  |

**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** |  |

|  |  |  |
| --- | --- | --- |
| **Place, Date** | **Title, Surname, First Name** | **Company stamp and Signature** |
| **Frankfurt am Main, den 20.08.2020** | **Pekcan, Pascal** | CEO_signature |