



Test Report issued under the responsibility of:



**TEST REPORT
IEC 62133-2**

**Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications –
Part 2: Lithium systems**

Report Number.....: S03A26031129S001
Date of issue.....: 2023-09-21, amendment:2026-04-13
Total number of pages.....: 6

Name of CB Testing Laboratory preparing the Report.....: Guangdong ESTL Technology Co., Ltd.

Applicant's name.....: JIANGXI DBK CO., LTD.
Address.....: High Tech industrial park,Fuzhou,Jiangxi,344000,China

Test specification:

Standard.....: IEC 62133-2:2017, IEC 62133-2:2017/AMD1:2021
Test procedure.....: CB Scheme
Non-standard test method.....: N/A

TRF template used.....: IECEE OD-2020-F1:2024, Ed.1.7

Test Report Form No.....: IEC62133_2C

Test Report Form(s) Originator.....: DEKRA Certification B.V.

Master TRF.....: Dated 2025-09-26

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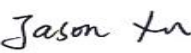
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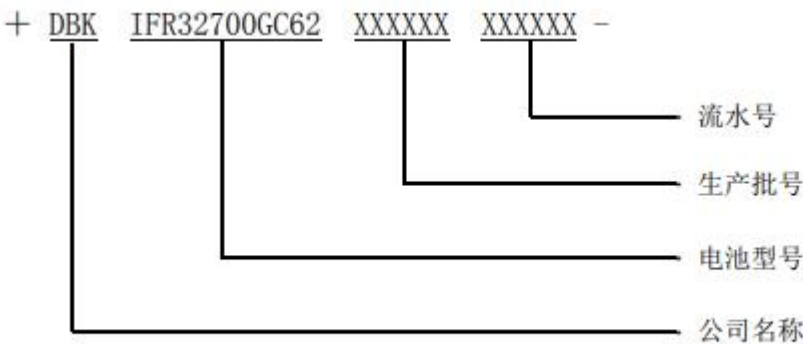
General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing NCB. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description..... :	LiFePO4 cell	
Trade Mark(s)..... :	N/A	
Manufacturer..... :	Dongguan LongTTech Company Ltd. No. 138 Qingbin East Road, Qingxi Town, Dongguan City, Guangdong Province, China	
Model/Type reference..... :	IFR32700GC62	
Ratings..... :	3.2V, 6200mAh, 19.84Wh	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	CB Testing Laboratory:	Guangdong ESTL Technology Co., Ltd.
Testing location/ address..... :		No. 9 & 11 Headquarters 2nd Road, Songshan Lake Park, Dongguan, Guangdong 523808 China
Tested by (name, function, signature)..... :		Mina Li/ Project Handler 
Approved by (name, function, signature)... :		Jason Xu/ Reviewer 
☐	Testing procedure: CTF Stage 1:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature)... :		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address..... :		
Tested by (name + signature)..... :		
Witnessed by (name, function, signature).. :		
Approved by (name, function, signature)... :		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature).. :		
Approved by (name, function, signature)... :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment): - National Differences (3 pages) - Enclosure (4 pages)	
Summary of testing:	
Tests performed (name of test, test clause and date test performed): N/A	Testing location: (CBTL, SPTL, CTF, Subcontractor) N/A
Summary of compliance with National Differences • IECEE Member countries that are also CENELEC members Compliance with Group Differences evaluated ☐ yes ☐ No ☒ N/A • IECEE Member countries with published National Differences which were evaluated: KR • IECEE Member countries that did not publish any National Differences: N/A To support compliance with published National Differences, attach a compilation of relevant ND and/or GD TRFs to the CB Test Report	
Use of uncertainty of measurement for decisions on conformity (decision rule): ☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method"). ☐ Other: ... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply) Information on uncertainty of measurement: The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE. IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer. Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.	

Copy of marking plate:
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



流水号 XXXXXX, 从 000001 开始递增.

生产批号 XXXXXX 中的第 1 码: 用 R 表示圆柱, 第 2 码为年, 第 3 码为月, 第 4-5 码为日, 第 6 码为投料批次. 其中年月代码如下表.

年份代码	代码	A	B	C	D	E	F	G	H	I	J	K	L
	年份	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
月份代码	代码	A	B	C	D	E	F	G	H	I	J	K	L
	月份	1	2	3	4	5	6	7	8	9	10	11	12

生产批号范例: RKH231 表示圆柱 2023 年 8 月 23 日生产的第一批次.

“LTT” means to Manufacturer: Dongguan LongTTech Company Ltd.
The “+” represents the positive electrode; The “-” represents the negative electrode.

Test item particulars..... :	
Classification of installation and use..... : To be defined in final system	
Supply Connection..... : N/A	
Recommend charging method declared by the manufacturer..... : CC/CV	
Discharge current (0,2 It A)..... : 1240mA	
Specified final voltage..... : 2.0V	
Upper limit charging voltage per cell..... : 3.65V	
Maximum charging current..... : 18600mA	
Charging temperature upper limit..... : 60°C	
Charging temperature lower limit..... : 0°C	
Polymer cell electrolyte type..... : ☐ gel polymer ☐ solid polymer ☒ N/A	
Possible test case verdicts:	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
Testing..... :	
Date of receipt of test item..... : 2026-04-02	
Date (s) of performance of tests..... : N/A	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC62 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:	☐ Yes ☒ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)..... : Dongguan LongTTech Company Ltd. No. 138 Qingbin East Road, Qingxi Town, Dongguan City, Guangdong Province, China	

General product information and other remarks:

Single Cell

IFpR33/71 is the marking of IEC 61960 requirement for the model IFR32700GC62.

The product was investigated to the following standards: EN 62133-2:2017, EN 62133-2:2017/A1:2021, KC62133- 2(2025-10)

The main features of the cell are shown as below(clause7.1.2):

Model	Rated capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Limited Charge Voltage	Cut-off Voltage
IFR32700G C62	6200mAh	3.2V	6200mA	6200mA	18600mA	18600mA	3.65V	2.0V

The main features of the cell are shown as below(clause7.1.2):

Model	Upper limit charge voltage	Taper-off current	Lower charge temperature	Upper charge temperature
IFR32700G C62	3.65V	62mA	0°C	60°C

Amendment 1 Report:

This original Test Report was issue by Guangdong ESTL Technology Co., Ltd.

Test Report No. S03A23080227S002, issued 2023-09-21. Certif.No.: DK-145729-UL, was correction on 2024-07-17 to include the following changes:

- Correction the report Page 6 of 25 Maximum charging current: "6200" to "18600" due to typo.
- Correction the report Page 14 of 25 7.3.7 Results "N/A" to "P" due to typo.

Amendment 2 Report:

The original Test Report was issue by Guangdong ESTL Technology Co., Ltd.

Report No. S03A23080227S002 (issued on 2023-09-21), Ref. Certif. No.DK-145729-A1-UL (issued on 2023-11-16), was corrected on 2026-04-13 to include the following changes, which were considered administrative modifications:

- Update TRF and National Differences.
- According to the customer's production requirements, the manufacturer and factory actual production address has been changed from: **"Building C&D, No. 18, Zhongkeng Road, Sanzhong Village, Qingxi Town, Dongguan City, Guangdong Province, China"** to: **"No. 138 Qingbin East Road, Qingxi Town, Dongguan City, Guangdong Province, China"**.
- Based on previously conducted testing and the review of product construction it was determined that the product continues to comply with the standard

ATTACHMENT to TRF IEC62133_2C			
ATTACHMENT TO TEST REPORT IEC 62133-2 (Republic of Korea) NATIONAL DIFFERENCES (Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems)			
Differences according to.....:		National standard KC62133-2(2025-10)	
TRF template used:.....:		IECEE OD-2020-F3:2024, Ed. 1.3	
Attachment Form No.....:		KR_ND_IEC62133_2C	
Attachment Originator.....:		KTR	
Master Attachment.....:		Dated 2025-10-27	
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Clause	Requirement + Test	Result - Remark	Verdict
	National Differences		P
7.3.6	Over-charging of battery		N/A
(Revision)	<i>[Add the bolded text]</i> b) Test The test shall be carried out in an ambient temperature of 20 °C ± 5 °C. Each test battery shall be discharged at a constant current of 0,2 k A, to a final discharge voltage specified by the manufacturer. Sample batteries shall then be charged at a constant current of 2,0 k A, using a supply voltage which is: • 1,4 times the upper limit charging voltage presented in Table A.1 (but not to exceed 6,0 V) for single cell/cell block batteries or • 1,2 times the upper limit charging voltage presented in Table A.1 per cell for series connected multi-cell batteries, and • sufficient to maintain a current of 2,0 k A throughout the duration of the test or until the supply voltage is reached. <u>• In case the charging voltage specified by the manufacturer is higher than the overcharge test voltage, the maximum charging voltage specified by manufacturer should be applied with 2.0 k A,</u> <u>(e.g., quick charging power bank, etc.)</u>		N/A

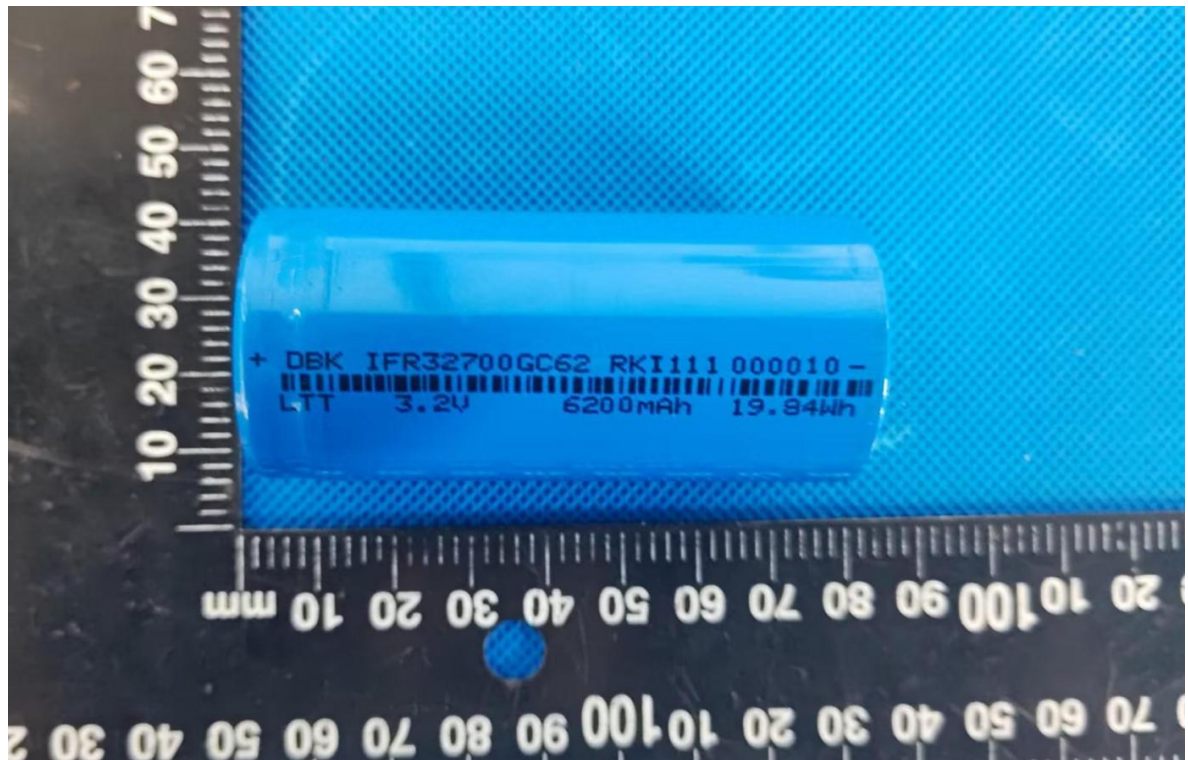
Clause	Requirement + Test	Result - Remark	Verdict
	[Replace to the following statement] c) Acceptance criteria Filling beyond the manufacturer's specified limits should not result in ignition or explosion		N/A
Annex G	Definition for shape and materials of outer case for cell		—
(Addition)	G.1 General Annex G provides definitions for shape and materials of outer case for cell G.2 Shape of outer case for cell G 2.1 Cylindrical cell Cell with a cylindrical shape in which the overall height is equal to or greater than diameter. G 2.2 Prismatic cell Cell having the shape of a parallelepiped whose faces are rectangular G.3 Materials of outer case for cell G.3.1 Soft case Non-metallic outer case or container for cell G.3.2 Hard case Metallic outer case or container for cell.	(Shape of outer cases) ☒ Cylindrical ☐ Prismatic (Materials of outer cases) ☒ Hard ☐ Soft	—
Annex H	Calculation method of the volumetric energy density for cell		—
(Addition)	Annex H provide a calculation method of the volumetric energy density for cell in use of smart phone, tablet, notebook. H.1 General Unless otherwise stated in the Annex E, the dimensions for calculation are based on these for cell before shipment and the volumetric energy density shall be calculated with a maximum values specified by manufacturer. If the specification for cell can't be provided a dimension for calculation, the manufacturer's other documentation shall be provided to demonstrate compliance for its calculation.	343.6Wh / L	—

Clause	Requirement + Test	Result - Remark	Verdict
	H.2 Calculation Method L : Length (max.) of cell (including terrace) W : Width (max.) of cell T : Thickness (max.) when shipping charge (For reference, Please Exclude the dimension of any tape that is attached to cell) $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{\text{Length (L)} \times \text{Width (W)} \times \text{Thickness (T)}}$ [H.1 – Prismatic cell using soft case] L : Length (max.) of cell W : Width (max.) of cell T : Thickness when shipping charge (For reference, Please Exclude the dimension of any tape that is attached to cell) $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{\text{Length (L)} \times \text{Width (W)} \times \text{Thickness (T)}}$ [H.2 – Prismatic cell using hard case] D : Diameter (max.) of cell L : Length (max.) of cell (According to shape of cell at shipping, The dimension of tube for cell may be included In overall dimension of cell) $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{3.14159 \times \frac{\text{Diameter (D)}^2}{4} \times \text{Length(L)}}$ [H.3 – Cylindrical cell using hard case]		

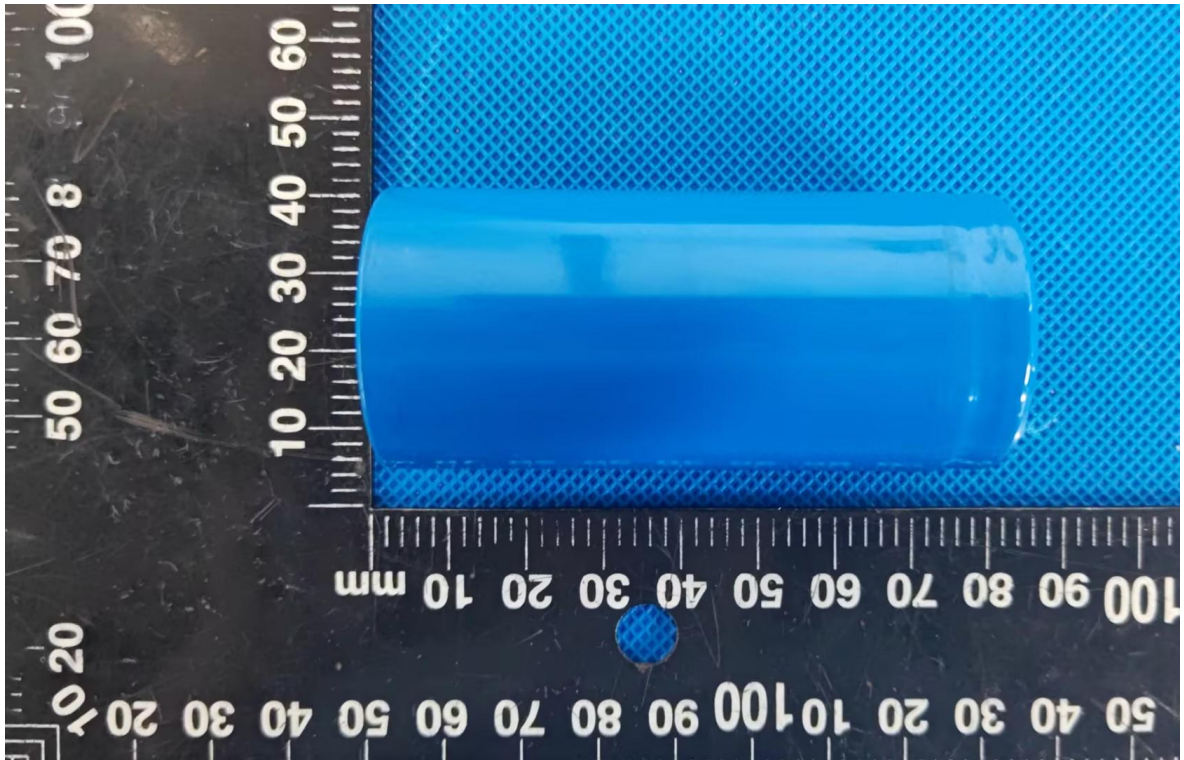
ENCLOSURE

Supplement ID	Description
01-1	Overall View 1 of Cell
01-2	Overall View 2 of Cell
02	Enclosure Drawing

ID 01-1

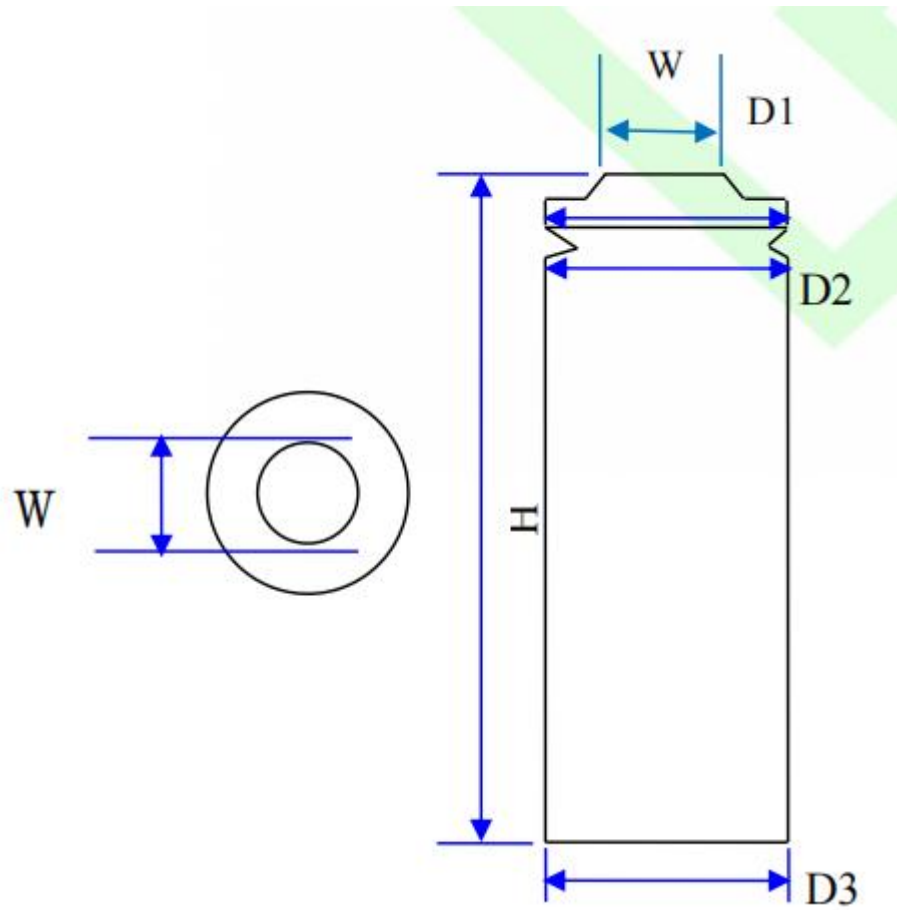


ID 01-2



ID 02

Cell Drawing:



D3 : H=32.2mm max. : 70.9mm max.