Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 60086-4
Primary batteries
Part 4: Safety of lithium batteries

Report Number. .....:	50074683 001
Date of issue .....:	2017-03-22
Total number of pages.....	21 pages

Name of Testing Laboratory preparing the Report……: TÜV Rheinland (Shenzhen) Co., Ltd.

Applicant's name.....:	Shenzhen Hui Jin Long Trading Co., Ltd
Address .....:	R1206, oversea friendship building, Ying chun road, Luohu area, Shenzhen, 518020, P.R. China

Test specification:

Standard.....:	IEC 60086-4:2014 (Fourth Edition)
Test procedure .....:	CB Scheme
Non-standard test method……:	N/A

Test Report Form No.....:	IEC60086_4B
Test Report Form(s) Originator ....:	Intertek Semko AB
Master TRF.....:	Dated 2015-03

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

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 CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description ..... :	Lithium Battery
Trade Mark ..... :	EVE
Manufacturer ..... :	EVE Energy Co., Ltd EVE Industrial Park, Xikeng Industrial Zone, Huihuan Town, Huizhou, Guangdong, P.R. China
Model/Type reference ..... :	ER18505M
Ratings ..... :	DC 3.6V, 3.5Ah

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

☒	**CB Testing Laboratory:**	**TÜV Rheinland (Shenzhen) Co., Ltd.**	
Testing location/ address .....:		East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA	
☐	**Associated CB Testing Laboratory:**		
Testing location/ address .....:			
Tested by (name, function, signature).....:		Jacob Lu	Jacob Lu
Approved by (name, function, signature)...:		Daniel Dai	Daniel Dai
☐	**Testing procedure: TMP/CTF Stage 1:**		
Testing location/ address .....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: WMT/CTF Stage 2:**		
Testing location/ address .....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: SMT/CTF Stage 3 or 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):

Attachment 1: Photo documentation (2 pages).

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
6.4.1 Test A: Altitude 6.4.2 Test B: Thermal cycling 6.4.3 Test C: Vibration 6.4.4 Test D: Shock 6.5.1 Test E: External short-circuit 6.5.2 Test F: Impact 6.5.3 Test G: Crush 6.5.4 Test H: Forced discharge 6.5.5 Test I: Abnormal charging 6.5.6 Test J: Free fall 6.5.7 Test K: Thermal abuse 6.5.8 Test L: Incorrect installation 6.5.9 Test M: Overdischarge	**TÜV Rheinland (Shenzhen) Co., Ltd.** East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA

Summary of compliance with National Differences:

N/A

☒ **The product fulfils the requirements of EN 60086-4:2015**

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.

Test item particulars.....:	
Classification of installation and use.....:	To be defined in final product
Supply Connection.....:	DC terminal
Weight of Battery.....:	Approx. 31.7g
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 .....:	Jan. 06, 2017
Date (s) of performance of tests.....:	Jan. 11, 2017- Feb. 14, 2017

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 IECEE 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.

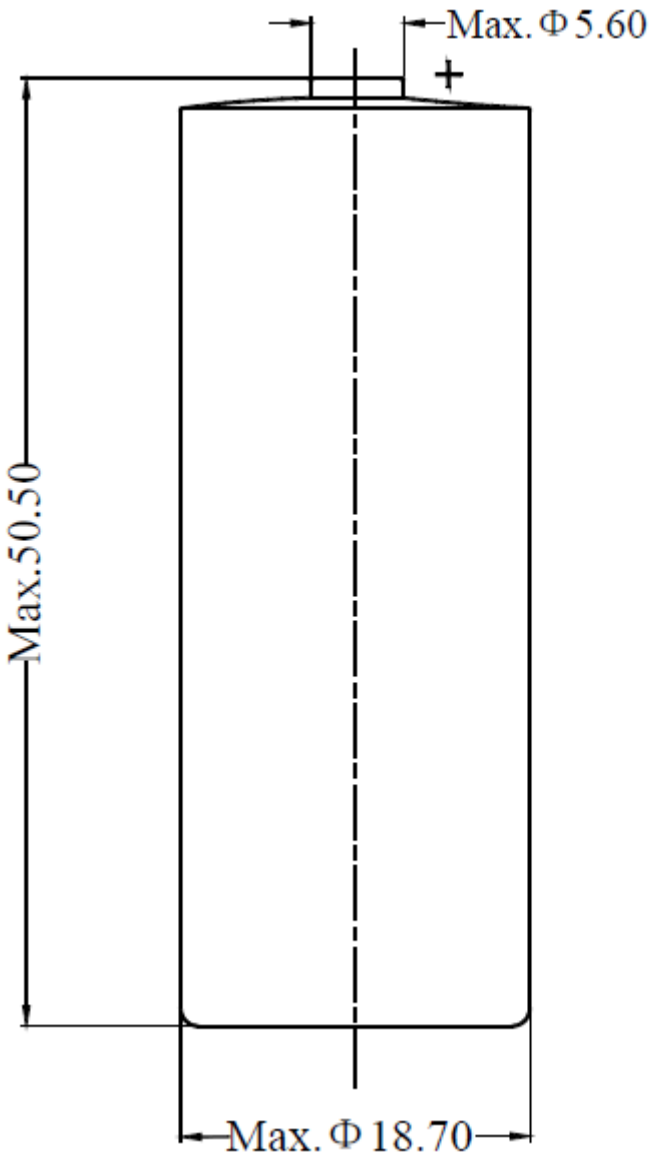
Name and address of factory (ies).....: Same as manufacturer

General product information:

This product is single cell battery, without any protective circuit.
The main features of the battery are shown as below:

Model	Nominal capacity	Nominal voltage	Maximum discharge current	Discharge cut-off voltage	Dimensions
ER18505M	3.5Ah	3.6V	1A	2.0V	D:18.7mm Max, H: 50.5mm Max

Construction:



Circuit diagram:

None, the battery without protective circuit.

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
4	**REQUIREMENTS FOR SAFETY**		**P**
4.1	**Design consideration**		P
	a) Abnormal temperature rise above the critical value		P
	b) Control of temperature increases in the battery		P
	c) Lithium cells and batteries shall be designed to relieve excessive internal pressure or to preclude a violent rupture under conditions of transport, intended use and reasonably foreseeable misuse.	Venting mechanism exists.	P
4.2	**Quality plan**		**P**
	The manufacturer shall prepare and implement a quality plan defining the procedures for the inspection of materials, components, cells and batteries during the course of manufacture, to be applied to the total process of producing a specific type of battery. Manufactures should understand their process capabilities and should institute the necessary process controls as they relate to product safety.	Complied. ISO 9001: 2008 certificate provided.	P
5	**SAMPLING**		**P**
5.1	**General**		P
5.2	**Test samples**	(See table 1)	P
6	**TESTING AND REQUIREMENTS**		**P**
6.1	**General**		**P**
6.1.1	Test application	(See 6.2)	P
	s: cell or single cell battery ……..:		P
	m: multi cell battery ……..:		N/A
6.1.3	Ambient temperature ..... :		P
6.1.4	Parameter measurement tolerances		P
6.1.5	Predischarge		P
6.1.6	Additional cells		P
6.2	**Evaluation of test criteria**		**P**
6.2.1	Short-circuit		P
6.2.2	Excessive temperature rise		P
6.2.3	Leakage		P
6.2.4	Venting		P
6.2.5	Fire		P
6.2.6	Rupture		P

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.7	Explosion		P
6.3	**Tests and requirements – Overview**	(See table 4 in the standard)	**P**
6.4	**Tests for intended use See the standard**		**P**
6.4.1	Test A: Altitude ……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.4.2	Test B: Thermal cycling .....……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.4.3	Test C: Vibration ……..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.4.4	Test D: Shock ……..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5	**Tests for reasonably foreseeable misuse**		**P**
6.5.1	Test E: External short-circuit ……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.2	Test F: Impact ……..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.3	Test G: Crush ……..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.4	Test H: Forced discharge ...……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.5	Test I: Abnormal charging …..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.6	Test J: Free fall ……..……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.7	Test K: Thermal abuse ……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.8	Test L: Incorrect installation ……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.5.9	Test M: Overdischarge ……..……..:	(See appended Table 1 and Table 6.4.1 – 6.5.9)	P
6.6	**Information to be given in the relevant specification**		**P**
	a) Predischarge current or resistive load and end-point voltage specified by the manufacturer ……..……..:		P
	b) Shape: prismatic, flexible, coin or cylindrical Diameter: not more than 20 mm or greater than 20 mm. …..……..……..……..:	Cylindrical battery, Diameter: not more than 20 mm	P

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
	c) Maximum continuous discharge current specified by the manufacturer for test H; ……: NOTE Forced discharge of a cell can occur when it is connected in series with other cells and when it is not protected with a bypass diode.	1A as specified by manufacturer applied.	P
	d) Rated capacity specified by the manufacturer for test H……:	3.5Ah	P
	e) Abnormal charging current declared by the manufacturer for test I ……: NOTE Abnormal charging of a cell can occur when it is connected in series with other cells and one cell is reversed or when it is connected in parallel with a power supply and the protective devices do not operate correctly. and	15mA as specified by manufacturer applied.	P
	f) Normal reverse current declared by the manufacturer which can be applied to the battery during its operating life……: NOTE Normal reverse current flow through a cell can occur when it is connected in parallel with a power supply and the protected devices are operating properly.	Built-in battery, the protective circuit of final product need to add the devices as specified in battery specification.	P
7	**INFORMATION FOR SAFETY**		**P**
7.1	**Safety precautions during design of equipment**		P
7.1.1	General		P
7.1.2	Charge protection		P
7.1.3	Parallel connection		P
7.2	**Safety precautions during handling of batteries**	Safety precautions are shown in battery specification.	P
7.3	**Packaging**		P
7.4	**Handling of battery cartons**		P
7.5	**Transport**		P
7.5.1	General		P
7.5.2	Air transport		P
7.5.3	Sea transport		P
7.5.4	Land transport		P
7.6	**Display and storage**		P
7.7	**Disposal**		P
8	**INSTRUCTIONS FOR USE**		**P**
9	**MARKING**		**P**

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
9.1	**General**		P
9.2	**Small batteries**	Not swallowable battery	N/A
9.3	**Safety pictograms**		P

IEC 60086-4					
Clause	Requirement + Test			Result - Remark	Verdict
	TABLE 1 and 6.4.1 – 6.5.9				P
Tests A-E	Cells and single cell batteries	Undischarged	10		P
		Fully discharged	10		P
	Multi cell batteries	Undischarged	4		N/A
		Fully discharged	4		N/A
Test F or G	Cells and single cell batteries	Undischarged	5		P
		Fully discharged	5		P
	Multi cell batteries	Undischarged	5 component cells		N/A
		Fully discharged	5 component cells		N/A
Test H	Cells and single cell batteries	Fully discharged	10		P
	Multi cell batteries		10 component cells		N/A
Test I to K	Cells and single cell batteries	Undischarged	5		P
	Multi cell batteries		5		N/A
Test L	Cells and single cell batteries	Undischarged	5 (+15)		P
	Multi cell batteries		n/a		N/A
Test M	Cells and single cell batteries	50% predischarged	5 (+15)		P
	Multi cell batteries		n/a		N/A
	Cells and single cell batteries	75% predischarged	5 (+15)		P
	Multi cell batteries		n/a		N/A

	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Cell	EVE Energy Co.,Ltd.	ER18505M	DC 3.6V,3.5Ah	IEC 60086-4: 2014	Tested with appliance
-Cell can	Shangyu daoxu hardware factory	ER18505M	47.8mm, SUS304 stainless steel	--	--
-Cell cover	EVE Energy Co.,Ltd.	ER18505	Φ17.5*2.8*6.5mm, SUS304 stainless steel	--	--
-anode	EVE Energy Co.,Ltd.	0.33*36mm	Metal lithium Li content≥99.9%	--	--
-cathode	Mostbros chemicals co.,Ltd.	DENKA, BLACK	Carbon 50% Compressed	--	--
-Separator	Hollingsworth& Vose(Suzhou) Co., Ltd.	BG04013	0.18*600mm, Fibreglass	--	--
-Electrolyte	Hangzhou huarun industrial co.,LTD.	Lithium battery exclusive use	$SOCL_2$, content≥99.60%	--	--
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance.					

6.4.1	**TABLE: Test A: Altitude** (Undischarged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.667	31.262	3.667	31.260
#2	3.666	31.443	3.666	31.442
#3	3.668	31.255	3.667	31.254
#4	3.668	31.269	3.667	31.268
#5	3.667	31.712	3.666	31.712
#6	3.667	31.261	3.666	31.261
#7	3.670	31.287	3.668	31.287
#8	3.664	31.698	3.663	31.698
#9	3.669	31.340	3.668	31.339
#10	3.671	31.501	3.669	31.501
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.4.1	**TABLE: Test A: Altitude** (Fully discharged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.671	31.686	3.681	31.686
#2	3.669	31.248	3.682	31.247
#3	3.677	31.549	3.680	31.547
#4	3.671	31.874	3.678	31.872
#5	3.674	31.736	3.679	31.735
#6	3.669	31.797	3.682	31.797
#7	3.668	31.780	3.681	31.779
#8	3.683	31.395	3.684	31.394
#9	3.666	31.326	3.680	31.326
#10	3.663	31.804	3.678	31.804
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.4.2	**TABLE: Test B: Thermal cycling** (Undischarged)		P
Batt. No.	Before test	After test	

	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.667	31.260	3.688	31.260
#2	3.666	31.442	3.690	31.440
#3	3.667	31.254	3.689	31.253
#4	3.667	31.268	3.688	31.268
#5	3.666	31.712	3.690	31.710
#6	3.666	31.261	3.689	31.259
#7	3.668	31.287	3.690	31.285
#8	3.663	31.698	3.690	31.695
#9	3.668	31.339	3.690	31.338
#10	3.669	31.501	3.689	31.499

Supplementary information:

- No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.

6.4.2	**TABLE: Test B: Thermal cycling** (Fully discharged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.681	31.686	3.690	31.684
#2	3.682	31.247	3.690	31.246
#3	3.680	31.547	3.690	31.545
#4	3.678	31.872	3.692	31.871
#5	3.679	31.735	3.692	31.734
#6	3.682	31.797	3.690	31.795
#7	3.681	31.779	3.688	31.778
#8	3.684	31.394	3.691	31.392
#9	3.680	31.326	3.691	31.324
#10	3.678	31.804	3.689	31.802

Supplementary information:

- No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.

6.4.3	**TABLE: Test C: Vibration** (Undischarged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.688	31.260	3.689	31.260

6.4.3	**TABLE: Test C: Vibration** (Undischarged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#2	3.690	31.440	3.690	31.440
#3	3.689	31.253	3.690	31.253
#4	3.688	31.268	3.688	31.268
#5	3.690	31.710	3.690	31.710
#6	3.689	31.229	3.689	31.229
#7	3.690	31.285	3.691	31.285
#8	3.690	31.695	3.690	31.695
#9	3.690	31.338	3.690	31.338
#10	3.689	31.499	3.689	31.499
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.4.3	**TABLE: Test C: Vibration** (Fully discharged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.690	31.684	3.690	31.684
#2	3.690	31.246	3.691	31.246
#3	3.690	31.545	3.690	31.545
#4	3.692	31.871	3.692	31.871
#5	3.692	31.734	3.692	31.734
#6	3.690	31.795	3.690	31.795
#7	3.688	31.778	3.688	31.778
#8	3.691	31.392	3.691	31.392
#9	3.691	31.324	3.691	31.324
#10	3.689	31.802	3.689	31.802
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.4.4	**TABLE: Test D: Shock** (Undischarged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)

6.4.4	**TABLE: Test D: Shock** (Undischarged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.689	31.260	3.689	31.260
#2	3.690	31.440	3.690	31.440
#3	3.690	31.253	3.690	31.253
#4	3.688	31.268	3.688	31.268
#5	3.690	31.710	3.690	31.710
#6	3.689	31.229	3.689	31.229
#7	3.691	31.285	3.691	31.285
#8	3.690	31.695	3.690	31.695
#9	3.690	31.338	3.690	31.338
#10	3.689	31.499	3.689	31.499
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.4.4	**TABLE: Test D: Shock** (Fully discharged)			P
Batt. No.	Before test		After test	
	battery voltage (V)	battery weight (g)	battery voltage (V)	battery weight (g)
#1	3.690	31.684	3.690	31.684
#2	3.691	31.246	3.691	31.246
#3	3.690	31.545	3.690	31.545
#4	3.692	31.871	3.692	31.871
#5	3.692	31.734	3.692	31.734
#6	3.690	31.795	3.690	31.795
#7	3.688	31.778	3.688	31.778
#8	3.691	31.392	3.691	31.392
#9	3.691	31.324	3.691	31.324
#10	3.689	31.802	3.689	31.802
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.				

6.5.1	**TABLE: Test E: External short-circuit** (Undischarged)	P

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	54.2	3.689	95	65.0	P
#2	54.4	3.690	95	64.1	P
#3	54.4	3.690	95	64.7	P
#4	54.4	3.688	95	65.2	P
#5	53.9	3.690	95	65.1	P
#6	54.3	3.689	95	65.5	P
#7	54.3	3.691	95	64.9	P
#8	54.2	3.690	95	66.2	P
#9	54.2	3.690	95	66.5	P
#10	54.4	3.689	95	65.8	P

Supplementary information:

- No excessive temperature rise (>170ºC), no rupture, no explosion and no fire.

6.5.1	**TABLE: Test E: External short-circuit** (Fully discharged)	P

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	54.1	3.690	95	63.8	P
#2	54.5	3.691	95	65.2	P
#3	54.5	3.690	95	62.4	P
#4	54.4	3.692	95	62.8	P
#5	54.3	3.692	95	64.1	P
#6	54.3	3.690	95	64.9	P
#7	54.6	3.688	95	61.3	P
#8	54.5	3.691	95	64.1	P
#9	54.3	3.691	95	62.7	P
#10	54.2	3.689	95	62.2	P

Supplementary information:

- No excessive temperature rise (>170ºC), no rupture, no explosion and no fire.

6.5.2	**TABLE: Test F: Impact** (Undischarged)	N/A

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results

Supplementary information:

- No excessive temperature rise (>170ºC), no explosion and no fire.

6.5.2	**TABLE: Test F: Impact** (Fully discharged)	N/A

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results

Supplementary information:

- No excessive temperature rise (>170ºC), no explosion and no fire.

6.5.3	**TABLE: Test G: Crush** (Undischarged)	P

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	22.0	3.660	23.7	P
#2	23.0	3.659	23.4	P
#3	22.9	3.658	23.2	P
#4	23.0	3.660	23.1	P
#5	23.0	3.658	23.1	P
Supplementary information: - No excessive temperature rise (>170ºC), no explosion and no fire.				

6.5.3	**TABLE: Test G: Crush** (Fully discharged)	P

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	20.8	3.606	21.2	P
#2	20.8	3.639	21.2	P
#3	20.9	3.614	21.1	P
#4	21.0	3.603	21.2	P
#5	20.7	3.628	21.2	P
Supplementary information: - No excessive temperature rise (>170ºC), no explosion and no fire.				

6.5.4	**TABLE: Test H: Forced discharge** (Fully discharged)	P

Batt. No.	OCV at start of test, (Vdc)	Max. discharge current, (A)	Test duration, (Min)	Results
#1	3.664	1	210	P
#2	3.660	1	210	P
#3	3.658	1	210	P
#4	3.660	1	210	P
#5	3.661	1	210	P
#6	3.660	1	210	P
#7	3.662	1	210	P
#8	3.661	1	210	P
#9	3.660	1	210	P
#10	3.659	1	210	P
Supplementary information: - No explosion and no fire.				

6.5.5	**TABLE: Test I: Abnormal charging** (Undischarged)	P

Batt. No.	OCV at start of test, (Vdc)	Max. charge current, (A)	Test duration, (hours)	Results
#1	3.664	0.045	195	P
#2	3.659	0.045	195	P
#3	3.660	0.045	195	P
#4	3.661	0.045	195	P
#5	3.658	0.045	195	P
Supplementary information: - No explosion and no fire.				

6.5.6	**TABLE: Test J: Free fall** (Undischarged)		P
Batt. No.	Before test	After test	Test results
	battery voltage (V)	battery voltage (V)	
#1	3.660	3.660	P
#2	3.661	3.661	P
#3	3.659	3.659	P
#4	3.663	3.663	P
#5	3.661	3.661	P
Supplementary information: - No venting, no explosion and no fire.			

6.5.7	**TABLE: Test K: Thermal abuse** (Undischarged)		P
Batt. No.	Before test	After test	Test results
	battery voltage (V)	battery voltage (V)	
#1	3.660	3.692	P
#2	3.660	3.693	P
#3	3.660	3.671	P
#4	3.659	3.668	P
#5	3.660	3.692	P
Supplementary information: - No explosion and no fire.			

6.5.8	**TABLE: Test L: Incorrect installation** (Undischarged)	P

Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	23.9	3.658	95	45.4	P
#2	23.9	3.660	95	44.7	P
#3	24.0	3.662	95	45.5	P
#4	23.8	3.659	95	47.0	P
#5	23.8	3.664	95	48.8	P
Supplementary information: - No explosion and no fire.					

6.5.9	**TABLE: Test M: Overdischarge** (50% predischarged)				P
Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (Ω)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	23.8	3.674	8.2	48.9	P
#2	21.1	3.677	8.2	40.9	P
#3	22.1	3.677	8.2	41.7	P
#4	23.6	3.679	8.2	45.0	P
#5	20.2	3.679	8.2	48.1	P
Supplementary information: - No explosion and no fire.					

6.5.9	**TABLE: Test M: Overdischarge** (75% predischarged)				P
Batt. No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (Ω)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
#1	22.7	3.688	8.2	52.4	P
#2	23.4	3.688	8.2	58.2	P
#3	20.6	3.689	8.2	58.0	P
#4	20.6	3.689	8.2	58.4	P
#5	21.5	3.689	8.2	55.7	P
Supplementary information: - No explosion and no fire.					

--End of Report--

Product: Lithium Battery

Type Designation: ER18505M

Figure 1 Front view of battery

Figure 2 Back view 1 of battery

Product: Lithium Battery

Type Designation: ER18505M

Figure 3 Back view 2 of battery