IEC IECEE CB SCHEME

Ref. Certif. No.

JPTUV-088064

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	LITHIUM BATTERY
Name and address of the applicant Nom et adresse du demandeur	EEMB Energy Power Co., Ltd 6/F, 110# Building, Jindi Industrial Zone, Shatou Street, Futian District, Shenzhen, P. R. China
Name and address of the manufacturer Nom et adresse du fabricant	Hubei Zhongju (EEMB) Energy Power Co., Ltd (Slantwise Opposite the Dongfeng Primary School) Jiangxu Road, Economic, Development Zone, Hanchuan, Hubei 432300, P. R. China
Name and address of the factory Nom et adresse de l'usine	Hubei Zhongju (EEMB) Energy Power Co., Ltd (Slantwise Opposite the Dongfeng Primary School) Jiangxu Road, Economic, Development Zone, Hanchuan, Hubei 432300, P. R. China
Ratings and principal characteristics Valeurs nominales et charactéristiques principales	3.6V, 1200mAh
Trademark (if any) Marque de fabrique (si elle existe)	EEMB
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	N/A
Model / Type Ref. Ref. de type	ER14250
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2ème page)	
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60086-4:2014 See Test Report for National Differences
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	50134066 001

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜVRheinland®

TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
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Web: www.tuv.com

Date: 28.05.2018

Signature:

Dipl.-Ing. Univ. S. O. Steinke

TÜV Rheinland (China) Ltd.
Member of TÜV Rheinland Group

TÜVRheinland®
Precisely Right.

EEMB Energy Power Co., Ltd
Ms. Yijun Hu
-
6/F, 110# Building,
Jindi Industrial Zone, Shatou Street,
Futian District, Shenzhen
P. R. China

Date : 28.05.2018
Our ref. : SZ
Your ref.: 164123525

Ref : CB Certificate Japan

Type of Equipment : LITHIUM BATTERY
Model Designation : See Certificate
Certificate No. : JPTUV-088064
Report No. : 50134066 001

Dear Ms. Yijun Hu,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

We appreciate your support and would like to offer our assistance in the approval of your future products through our extensive range of technical services.

Please feel free to contact us whatever your requirements may be.

With kind regards,

Certification Body

Dipl.-Ing. Univ. S. O. Steinke

Enclosure

TÜV Rheinland (China) Ltd.
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Test Report issued under the responsibility of:

TÜVRheinland®

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

Report Number. .....:	**50134066 001**
Date of issue .....:	2018-05-28
Total number of pages.....:	21 pages
Name of Testing Laboratory preparing the Report.....:	**TÜV Rheinland (Shenzhen) Co., Ltd.**
Applicant's name.....:	EEMB Energy Power Co., Ltd
Address .....:	6/F, 110# Building, Jindi Industrial Zone, Shatou Street, Futian District, Shenzhen, 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

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 ..... :	EEMB®
Manufacturer..... :	Hubei Zhongju (EEMB) Energy Power Co., Ltd (Slantwise Opposite the Dongfeng Primary School) Jiangxu Road, Economic, Development Zone, Hanchuan, Hubei 432300, P. R. China
Model/Type reference ..... :	ER14250
Ratings ..... :	3.6V, 1200mAh

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) ..... :		Eric Cui	Eric Cui
Approved by (name, function, signature) .. :		Jason Tang	Jason Tang
☐	**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 6.5.3 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 7.2 Safety precautions (Ingestion gauge)	**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:

BE, DE, DK, FI, FR, JP, NL, SE, SG, US

BE=Belgium, DE=Germany, DK=Denmark, FI=Finland, FR=France, JP=Japan, NL=Netherlands, SE=Sweden, SG=Singapore, US=United States of America

☒**The product fulfils the requirement of EN60086-4: 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.

LITHIUM BATTERY

\+ ER14250 1ER14G258

3.6V 1200mAh

\-

CAUTION: EZOC08

-Do not disassemble or modify

-Do not short-circuit

-Do not dispose in fire

Remark:

The code EZOC08 represents that:

EZ for Internal code of the manufacturer

O for Year 2018 e.g M=2016, N=2017, O=2018 ...

C for Month March e.g A=January, B=February, C=March ...

08 : On behalf of the production date

Below warning will be marked on the immediate package.

KEEP OUT OF REACH OF CHILDREN. Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.

Test item particulars ..... :	
Classification of installation and use ..... :	To be defined in final product
Supply Connection ..... :	Supply by cap for positive and enclosure for negative
Weight of Battery ..... :	Approx.10g
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 ..... :	2018-04-03
Date (s) of performance of tests ..... :	2018-04-03 to 2018-04-30

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:

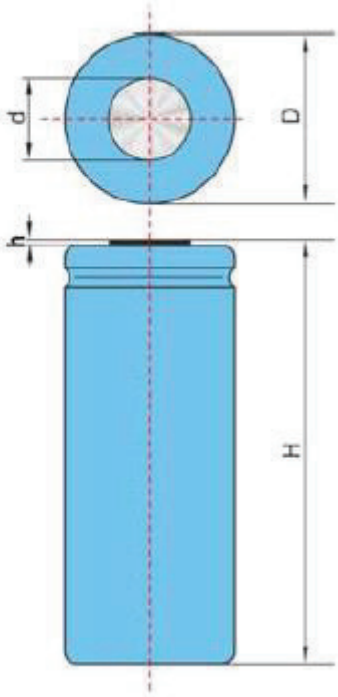
This product is a battery with one primary lithium cell, without any other protective circuit.

The main features of the LITHIUM BATTERY are shown as below:

Model	Nominal capacity	Nominal voltage	Maximum discharge current	Discharge cut-off voltage	Dimensions
ER14250	1200mAh	3.6V	40mA	2.0V	See below construction

Construction:

Item	Specification
D	Max. 14.5
H	Max. 25.8
d	Max. 6.5
h	Max. 2.4



D x H (Max.): 14.5mm x 25.8mm
LITHIUM BATTERY

Circuit diagram:
No protective circuit exist.

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 on top side of cylindrical cell.	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.	ISO 9001: 2015 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 ……..:	Single cell battery.	P
	m: multi cell battery ……..:		N/A
6.1.3	Ambient temperature ……..:	20°C ± 5°C	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
6.2.7	Explosion		P

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
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)	P
6.4.2	Test B: Thermal cycling .....……..……..:	(See appended Table 1 and Table 6.4.2)	P
6.4.3	Test C: Vibration ……...……..……..:	(See appended Table 1 and Table 6.4.3)	P
6.4.4	Test D: Shock ……..……..……..:	(See appended Table 1 and Table 6.4.4)	P
6.5	**Tests for reasonably foreseeable misuse**		**P**
6.5.1	Test E: External short-circuit ……..……..:	(See appended Table 1 and Table 6.5.1)	P
6.5.2	Test F: Impact ……..……..……..:	Diameter< 20mm	N/A
6.5.3	Test G: Crush ……...……..……..:	(See appended Table 1 and Table 6.5.3)	P
6.5.4	Test H: Forced discharge ..……..……..:	(See appended Table 1 and Table 6.5.4)	P
6.5.5	Test I: Abnormal charging …...……..……..:	(See appended Table 1 and Table 6.5.5)	P
6.5.6	Test J: Free fall ……..……..……..:	(See appended Table 1 and Table 6.5.6)	P
6.5.7	Test K: Thermal abuse ……..……..:	(See appended Table 1 and Table 6.5.7)	P
6.5.8	Test L: Incorrect installation ……..……..:	(See appended Table 1 and Table 6.5.8)	P
6.5.9	Test M: Overdischarge ……..……..:	(See appended Table 1 and Table 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 ……..……..:	0.5mA	P
	b) Shape: prismatic, flexible, coin or cylindrical Diameter: not more than 20 mm or greater than 20 mm. ….……..……..……..:	Cylindrical battery. Diameter: max 14.5mm.	P
	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.	40mA as specified by manufacturer applied.	P
	d) Rated capacity specified by the manufacturer for test H……:	1200mAh.	P

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Abnormal charging current declared by the manufacturer: 10mA.	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.	Normal reverse current declared by the manufacturer: 10mA.	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	Charge protection instructions mentioned in manufacturer's specifications	P
7.1.3	Parallel connection	Parallel connection instructions mentioned in manufacturer's specifications	P
7.2	**Safety precautions during handling of batteries**	Safety precautions mentioned in manufacturer's specification.	P
7.3	**Packaging**	Packaging instructions mentioned in manufacturer's specifications	P
7.4	**Handling of battery cartons**	Handling of battery cartons instructions mentioned in manufacturer's specifications	P
7.5	**Transport**	UN 38.3 report provided.	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**	Display and storage instructions mentioned in manufacturer's specifications	P
7.7	**Disposal**	Disposal instructions mentioned in manufacturer's specifications	P

IEC 60086-4			
Clause	Requirement + Test	Result - Remark	Verdict
8	**INSTRUCTIONS FOR USE**	Instructions for use instructions mentioned in manufacturer's specifications	**P**
9	**MARKING**		**P**
9.1	**General**		P
9.2	**Small batteries**	Caution for ingestion 9.1g) shall also be marked on the immediate package.	P
9.3	**Safety pictograms**		N/A

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	Hubei Zhongju(EEMB) Energy Technology CO., LTD	ER14250	3.6V, 1200mAh	IEC 60086-4: 2014	Tested with appliance
-Electrolyte	LANXESS	SOCL2	Thionyl chloride	--	--
-Separator	Zhongcai Keiji Film Materials Co. LTD.	LMG-Z-2	Fiberglass	--	--
-Positive electrode	Jiaozuo City Hexing Chemlcal Industry CO., Ltd	Acetylene Black	Acetylene black powder	--	--
-Negative electrode	China Energy Lithium Co., Ltd	1*37	Metal Lithium strip	--	--
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	3.665	9.451	3.659	9.451
2	3.662	9.467	3.657	9.467
3	3.656	9.363	3.656	9.363
4	3.657	9.528	3.661	9.528
5	3.660	9.280	3.665	9.280
6	3.660	9.433	3.660	9.433
7	3.659	9.495	3.659	9.495
8	3.657	9.410	3.657	9.410
9	3.660	9.237	3.661	9.237
10	3.666	9.370	3.665	9.370
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	3.669	9.801	3.668	9.801
2	3.668	9.810	3.665	9.810
3	3.669	9.866	3.668	9.866
4	3.669	9.798	3.667	9.798
5	3.667	9.802	3.666	9.802
6	3.667	9.842	3.666	9.842
7	3.670	9.848	3.668	9.848
8	3.668	9.702	3.667	9.702
9	3.668	9.697	3.667	9.697
10	3.668	9.764	3.666	9.764
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	3.659	9.451	3.680	9.452
2	3.657	9.467	3.680	9.467
3	3.656	9.363	3.676	9.363
4	3.661	9.528	3.678	9.532
5	3.665	9.280	3.679	9.282
6	3.660	9.433	3.677	9.434
7	3.659	9.495	3.675	9.495
8	3.657	9.410	3.675	9.410
9	3.661	9.237	3.676	9.238
10	3.665	9.370	3.677	9.372
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	3.668	9.801	3.700	9.803
2	3.665	9.810	3.697	9.811
3	3.668	9.866	3.699	9.866
4	3.667	9.798	3.698	9.800
5	3.666	9.802	3.695	9.803
6	3.666	9.842	3.698	9.844
7	3.668	9.848	3.701	9.846
8	3.667	9.702	3.699	9.705
9	3.667	9.697	3.699	9.699
10	3.666	9.764	3.701	9.763
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	3.680	9.452	3.682	9.452
2	3.680	9.467	3.682	9.467
3	3.676	9.363	3.678	9.363
4	3.678	9.532	3.680	9.532
5	3.679	9.282	3.681	9.282
6	3.677	9.434	3.679	9.434
7	3.675	9.495	3.678	9.495
8	3.675	9.410	3.678	9.410
9	3.676	9.238	3.679	9.238
10	3.677	9.372	3.683	9.372
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	3.700	9.803	3.701	9.803
2	3.697	9.811	3.698	9.811
3	3.699	9.866	3.700	9.866
4	3.698	9.800	3.700	9.800
5	3.695	9.803	3.699	9.803
6	3.698	9.844	3.699	9.844
7	3.701	9.846	3.702	9.846
8	3.699	9.705	3.700	9.705
9	3.699	9.699	3.701	9.699
10	3.701	9.763	3.703	9.763
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)
1	3.682	9.452	3.681	9.451
2	3.682	9.467	3.682	9.467
3	3.678	9.363	3.678	9.363
4	3.680	9.532	3.679	9.532
5	3.681	9.282	3.680	9.282
6	3.679	9.434	3.678	9.433
7	3.678	9.495	3.677	9.495
8	3.678	9.410	3.677	9.410
9	3.679	9.238	3.678	9.238
10	3.683	9.372	3.682	9.372
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	3.701	9.803	3.702	9.803
2	3.698	9.811	3.699	9.811
3	3.700	9.866	3.701	9.866
4	3.700	9.800	3.700	9.800
5	3.699	9.803	3.699	9.803
6	3.699	9.844	3.699	9.844
7	3.702	9.846	3.702	9.846
8	3.700	9.705	3.700	9.705
9	3.701	9.699	3.701	9.699
10	3.703	9.763	3.702	9.763
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
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
1	55.7	3.681	81.03	108.2	P
2	55.7	3.682	81.52	107.2	P
3	55.7	3.678	80.87	97.8	P
4	55.7	3.679	81.22	103.2	P
5	55.7	3.680	81.76	106.4	P
6	56.3	3.678	81.18	94.9	P
7	56.3	3.677	81.47	108.9	P
8	56.3	3.677	81.09	98.0	P
9	56.3	3.678	81.13	93.3	P
10	56.3	3.682	81.64	101.3	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
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
1	56.2	3.702	80.21	67.2	P
2	56.2	3.699	81.33	70.0	P
3	56.2	3.701	81.42	67.7	P
4	56.2	3.700	81.37	66.9	P
5	56.2	3.699	81.65	66.4	P
6	55.7	3.699	80.55	67.4	P
7	55.7	3.702	81.37	67.1	P
8	55.7	3.700	81.38	74.5	P
9	55.7	3.701	81.82	66.6	P
10	55.7	3.702	81.71	65.6	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
Battery 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
Battery 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
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
1	23.5	3.660	24.1	P
2	23.5	3.662	24.4	P
3	23.5	3.666	24.3	P
4	23.5	3.659	24.4	P
5	23.5	3.657	24.2	P
Supplementary information:				
- No excessive temperature rise (>170ºC), no explosion and no fire.				

6.5.3	**TABLE: Test G: Crush** (Fully discharged)			P
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Maximum case temperature ~~rise ΔT~~, (°C)	Results
1	23.1	3.669	23.8	P
2	23.1	3.668	24.0	P
3	23.1	3.668	23.9	P
4	23.1	3.669	24.1	P
5	23.1	3.669	23.9	P
Supplementary information:				
- No excessive temperature rise (>170ºC), no explosion and no fire.				

6.5.4	**TABLE: Test H: Forced discharge** (Fully discharged)			P
Battery No.	OCV at start of test, (Vdc)	Max. discharge current, (mA)	Test duration, (min)	Results
1	3.669	40	1800	P
2	3.668	40	1800	P
3	3.668	40	1800	P
4	3.668	40	1800	P
5	3.669	40	1800	P
6	3.667	40	1800	P
7	3.668	40	1800	P
8	3.667	40	1800	P
9	3.669	40	1800	P
10	3.669	40	1800	P
Supplementary information:				
- No explosion and no fire.				

6.5.5	**TABLE: Test I: Abnormal charging** (Undischarged)			P
Battery No.	OCV at start of test, (Vdc)	Max. charge current, (A)	Test duration, (min)	Results
1	3.661	0.03	6000	P
2	3.656	0.03	6000	P
3	3.660	0.03	6000	P
4	3.656	0.03	6000	P
5	3.657	0.03	6000	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	3.657	3.657	P
4	3.658	3.658	P
5	3.659	3.659	P
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, 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	3.670	3.669	P
2	3.668	3.668	P
3	3.669	3.669	P
4	3.670	3.670	P
5	3.670	3.668	P
Supplementary information: - No mass loss, no leakage, no venting, no short-circuit, no rupture, no explosion and no fire.			

6.5.8	TABLE: Test L: Incorrect installation (Undischarged)				P
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise~~ ΔT, (°C)	Results
1	24.5	3.656	91.56	42.0	P
2	24.5	3.661	91.36	59.0	P
3	24.5	3.661	92.01	44.9	P
4	24.5	3.657	91.45	37.4	P
5	24.5	3.659	91.21	38.9	P
Supplementary information: - No explosion and no fire during this test.					

6.5.9	TABLE: Test M: Overdischarge (Undischarged) (50% predischarged）				P
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (Ω)	Maximum case temperature ~~rise~~ ΔT, (°C)	Results
1	22.5	3.671	8.2	51.2	P
2	22.5	3.672	8.2	60.0	P
3	22.5	3.672	8.2	63.0	P
4	22.5	3.669	8.2	47.4	P
5	22.5	3.668	8.2	70.0	P
Supplementary information: - No explosion and no fire during this test.					

6.5.9	TABLE: Test M: Overdischarge (Undischarged) (75% predischarged）				P
Battery No.	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature ~~rise~~ ΔT, (°C)	Results
1	23.0	3.670	8.2	45.6	P
2	23.0	3.670	8.2	61.5	P
3	23.0	3.670	8.2	40.4	P
4	23.0	3.670	8.2	41.9	P
5	23.0	3.671	8.2	54.2	P
Supplementary information: - No explosion and no fire during this test.					

--End of Report--

Product: LITHIUM BATTERY

Type Designation: ER14250

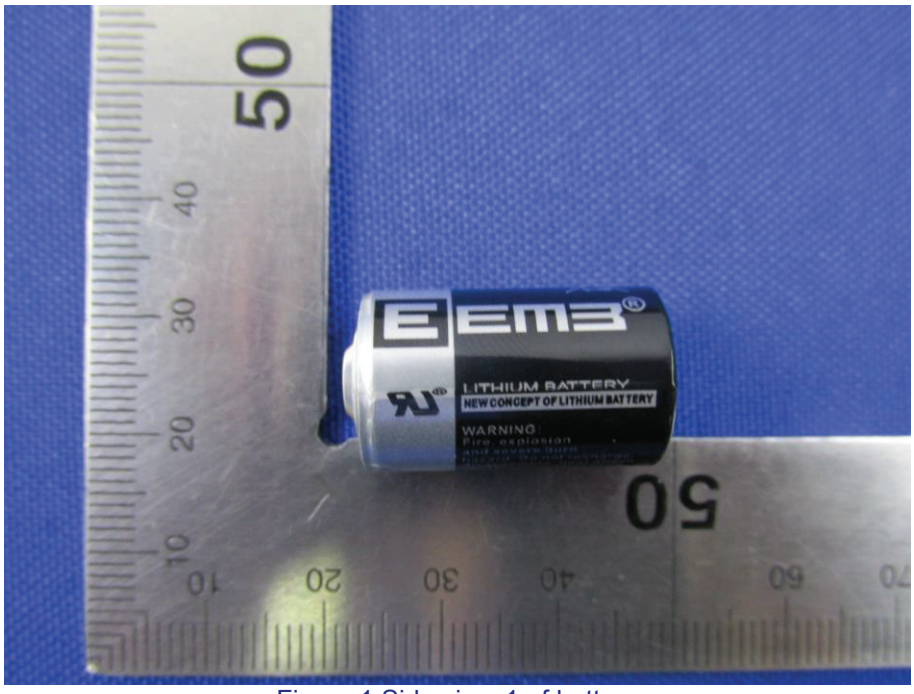


Figure 1 Side view-1 of battery

Figure 2 Side view-2 of battery

Product: LITHIUM BATTERY

Type Designation: ER14250

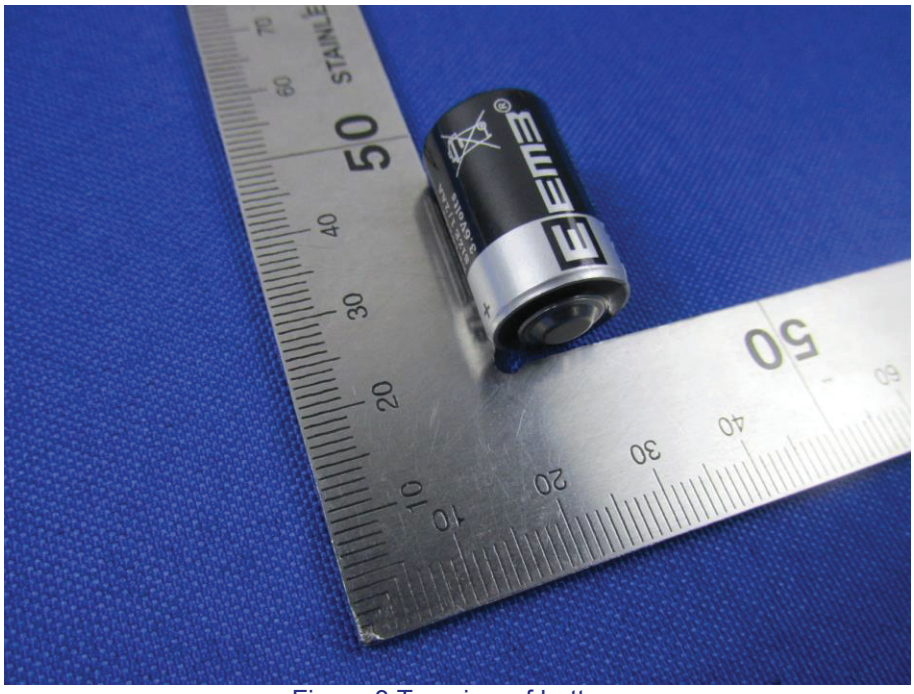


Figure 3 Top view of battery

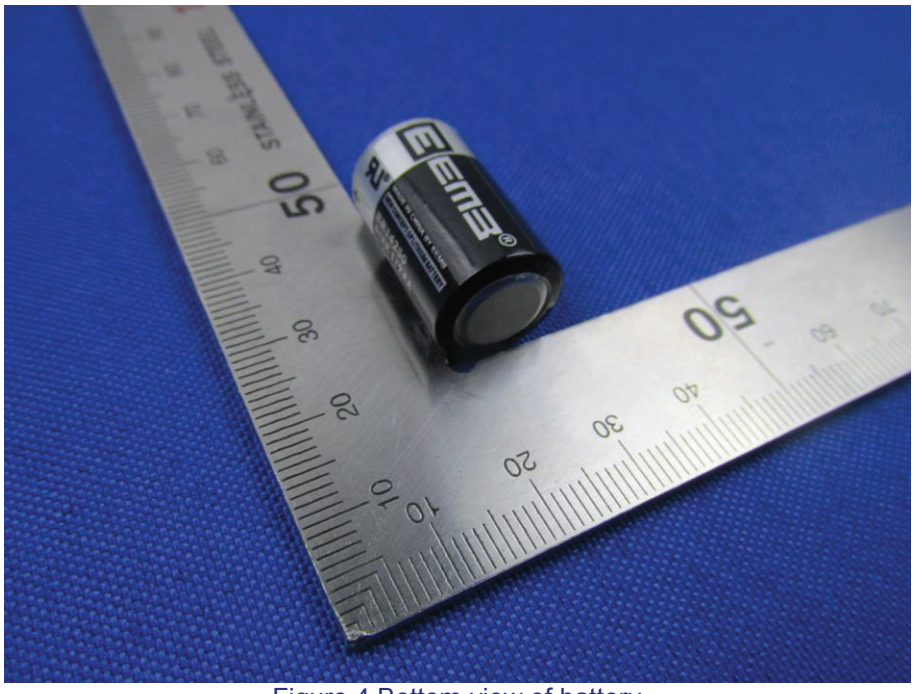


Figure 4 Bottom view of battery