

VERIFICATION OF COMPLIANCE

No.: FS GZFS2404000057BA

Date of Issue: 7th June 2024 Expiry Date: 7th June 2029

Applicant: Guangdong Felicity New Energy Co., Ltd.
(KongGangBaiYun) No. 2, Donghua Huaye Road, Renhe Town,
Baiyun Area, Guangzhou, Guangdong, China

Manufacturer: Same as Applicant

Product Description: Lithium iron phosphate battery

Model No./ Series: LUX-X-48100LCG01-US, LUX-X-48100LMG01-US,
LUX-X-48100LG01-USM2, LUX-X-48100LG01-USM3,
LUX-X-48100LG01-USM4, LUX-X-48100LG01-USM5,
LUX-X-48100LG01-USM6, LUX-X-48100LG01-USM7,
LUX-X-48100LG01-USM8

Hardware Version: V1.0

Software Version: V518

Trade Mark/Name: Felicity ESS

Assessment Performed: Safety protection function of Battery Management System was assessed
to have achieved class B according to UL 60730-1 Annex H.

Conclusion: In the opinion of SGS the submitted technical file satisfies the
requirements for software Class B of UL 60730-1 Annex H.

Test Report Number(s): GZFS240400005701

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant specific standards.




David Guo
Technical Manager
SGS-CSTC Standards Technical Services Co., Ltd.

2024-06-07



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Test Report

For

ANSI/CAN/UL9540A

**Test Method for Evaluating Thermal Runaway Fire
Propagation in Battery Energy Storage Systems**

[Module Level]

Report Number: CQES240300021001

Date of issue: 2024-06-04

Total number of pages: 24

**Test object / Model: Lithium iron phosphate battery
LUX-X-48100LMG01-US, LUX-X-48100LCG01-US**

Applicant's name: Guangdong Felicity New Energy Co., Ltd.

**Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe
Town, Baiyun Area, Guangzhou, Guangdong, China**



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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CEC Energy Technology (Chongqing) Co., Ltd.

Building 13 & 14, No.1839, Ranjun Road, Shuangtu Street, Jiangjin District, Chongqing, China 402260

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Report Number: CQES240300021001
Manufacturer: Guangdong Felicity New Energy Co., Ltd.
Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China
Factory: Guangdong Felicity New Energy Co., Ltd.
Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China
Test object / Model: Lithium iron phosphate battery
 LUX-X-48100LMG01-US, LUX-X-48100LCG01-US
Test specifications: ANSI/CAN/UL9540A:2019 Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems
 Fourth Edition, Dated November 12, 2019
Date of receipt: 2024-04-18
Sample No.: M1
Test Period: 2024-04-18 to 2023-04-30
Issuing Laboratory: SGS-CEC New Energy Technology (Chongqing) Co., Ltd.
Address: Building 13 & 14, No. 1839, Ranjun Road, Shuangfu Street, Jiangjin District, Chongqing, China
Testing location: SGS-CEC New Energy Technology (Chongqing) Co., Ltd.
 Building 13 & 14, No. 1839, Ranjun Road, Shuangfu Street, Jiangjin District, Chongqing, China
Test Result: Refer to summary of test results page for details.
Remark: Test results reported relate only to the items being tested.

Strictly Confidential

Confidential level: Private and Confidential
 Public

Tested by / Witness by

Reviewed by

Kyle Tian

Jerry Xiao

Kyle Tian
Project Engineer

Jerry Xiao
Technical Manager



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Test Report

For

ANSI/CAN/UL9540A

Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems

[Unit Level]

Report Number: CQES240600043401

Date of issue: 2024-07-12

Total number of pages: 44

Test object / Model: Lithium iron phosphate battery system / LUX-X-48100LMG01-US, LUX-X-48100LCG01-US, LUX-X-48100LG01-USM2, LUX-X-48100LG01-USM3, LUX-X-48100LG01-USM4, LUX-X-48100LG01-USM5, LUX-X-48100LG01-USM6, LUX-X-48100LG01-USM7, LUX-X-48100LG01-USM8

Applicant's name: Guangdong Felicity New Energy Co., Ltd.

Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China



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Report Number: CQES240600043401
Manufacturer: Guangdong Felicity New Energy Co., Ltd.
Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China
Factory: Guangdong Felicity New Energy Co., Ltd.
Address: (Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China
Test object / Model: Lithium iron phosphate battery system / LUX-X-48100LMG01-US, LUX-X-48100LCG01-US, LUX-X-48100LG01-USM2, LUX-X-48100LG01-USM3, LUX-X-48100LG01-USM4, LUX-X-48100LG01-USM5, LUX-X-48100LG01-USM6, LUX-X-48100LG01-USM7, LUX-X-48100LG01-USM8
Test specifications: ANSI/CAN/UL9540A:2019 Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems Fourth Edition, Dated November 12, 2019
Date of receipt: 2024-06-01
Sample No.: M1, M2
Test Period: 2024-06-20 to 2026-06-25
Issuing Laboratory: SGS-CEC New Energy Technology (Chongqing) Co., Ltd.
Address: Building 13 & 14, No. 1839, Ranjun Road, Shuangfu Street, Jiangjin District, Chongqing, China
Testing location: SGS-CEC New Energy Technology (Chongqing) Co., Ltd. Building 13 & 14, No. 1839, Ranjun Road, Shuangfu Street, Jiangjin District, Chongqing, China
Test Result: Refer to summary of test results page for details.
Remark: Test results reported relate only to the items being tested.

Strictly Confidential

Confidential level: Private and Confidential

Public

Tested by / Witness by

Reviewed by

Kyle Tian
Project Engineer

Ryan Hu
Technical Manager



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CERTIFICATE OF CONFORMITY

Electromagnetic Compatibility Directive 2014/30/EU

Certificate No.: SZNTC2403014EV00

Applicant : Guangdong Felicity New Energy Co., Ltd
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Manufacturer : Guangdong Felicity New Energy Co., Ltd
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Factory : Guangdong Felicity New Energy Co., Ltd
Address : (KongGangBaiYun)No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, P. R. CHINA

E.U.T. : Lithium iron phosphate battery

Brand Name : felicityESS

Model No. : LUX-X-48100LCG01

Test Report No. : SZNTC2403014EV00

Standard : EN IEC 61000-6-1: 2019
EN IEC 61000-6-3: 2021
EN IEC 61000-6-2: 2019
EN IEC 61000-6-4: 2019



March 5, 2024

The certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical report and documentation are at the applicant's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU, in its latest amended version, referred to EMC Directive. The certificate does not imply assessment of the production and does not permit the use of Lab's logo.

Remark: The CE Marking may be used only if all relevant and effective EC Directives are complied with.

CERTIFICATE OF COMPLIANCE

Certificate Number: SGSNA/24/SZ/00231U

Contract Number: 802716
Certificate Project Number: SZ-CERT240602096

Certified Product: Lithium iron phosphate battery
Trademarks: Felicity ESS
Model(s): LUX-X-48100LMG01-US, LUX-X-48100LCG01-US, LUX-X-48100LG01-USM2, LUX-X-48100LG01-USM3, LUX-X-48100LG01-USM4, LUX-X-48100LG01-USM5, LUX-X-48100LG01-USM6, LUX-X-48100LG01-USM7, LUX-X-48100LG01-USM8

Technical Data:
LUX-X-48100LMG01-US: 51.2 Vdc, 97.3 Ah;
LUX-X-48100LCG01-US: 51.2 Vdc, 97.3 Ah;
LUX-X-48100LG01-USM2: 51.2 Vdc, 97.3 Ah x 2;
LUX-X-48100LG01-USM3: 51.2 Vdc, 97.3 Ah x 3;
LUX-X-48100LG01-USM4: 51.2 Vdc, 97.3 Ah x 4;
LUX-X-48100LG01-USM5: 51.2 Vdc, 97.3 Ah x 5;
LUX-X-48100LG01-USM6: 51.2 Vdc, 97.3 Ah x 6;
LUX-X-48100LG01-USM7: 51.2 Vdc, 97.3 Ah x 7;
LUX-X-48100LG01-USM8: 51.2 Vdc, 97.3 Ah x 8

Certificate Holder: Guangdong Felicity New Energy Co., Ltd.
(Konggangbaiyun) No. 2, Donghua Huaye Road, Renhe Town, Baiyun Area, Guangzhou, Guangdong, China

This certificate supercedes previous certificates issued with the same certificate number. Certification is valid when products are indicated on the SGS directory of certified products at www.sgs.com or using the QR code below. The product is certified according to ISO/IEC Guide 17067, Conformity assessment - Fundamentals of product certification, System 3, and in accordance with:

ANSI/CAN/UL 1973, 3.0 Edition, Dated February 25, 2022

Schedule of Limitations

1. The final evaluation of the battery must be conducted in the end device application for which the battery will be used.
2. Overvoltage category III and pollution degree 2 were considered.

Authorized by:

Effective date: 05 June 2024

Jason Wei
Certifier



Certification Body

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