

MB31 认证报告

Product Certification

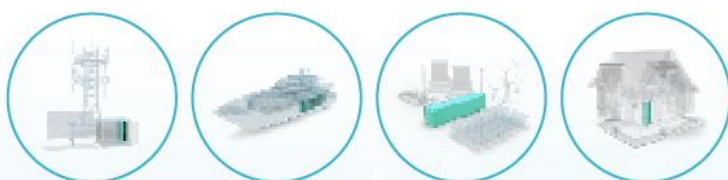
Liquid Cooling Battery Cluster

UL1642

版本 Version V1.0

编制：解决方案中心

Prepared by: ESS Solution Centre



武汉亿纬储能有限公司

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武汉亿纬储能有限公司

EVE Energy Storage Co., Ltd.

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修订履历 Change history

序号 No.	版本 Version	修订日期 Date	修订内容 Contents	修订人 Revised by
1	1.0	2024-02-19	首版发行 First release	/

1. UL1642 证书

Certificate of Compliance

Certificate Number:
MH62190

Report Reference:
MH62190-2021-12-24

Issue Date:
2024-01-23

Issued to:

EVE POWER Co., Ltd.
No. 68, Jingnan Avenue, Jingmen Hi-tech Zone
Jingmen Hubei Sheng 448000 China

This certificate confirms that representative samples of:

LITHIUM BATTERIES - COMPONENT

See Addendum Page for Product Designation(s).

Has been evaluated by ULC Inc. in accordance with Standard(s) for Safety:

UL 1642 : Standard for Safety for Lithium Batteries

Additional Information:

See UL Product iQ® at <https://iq.ulprospector.com> for additional information.

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the ULC Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the ULC Mark.

Only those products bearing the ULC Mark should be considered as being ULC Certified and covered under UL's Follow-Up Services.

Look for the ULC Certification Mark on the product.



A handwritten signature in black ink, appearing to read 'G. Paintal'.

Gunsimar Paintal
ULC Mark Certification Program Manager
Underwriters Laboratories of Canada Inc.

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CERTIFICATE OF COMPLIANCE

Certificate number MH62190
Report reference MH62190-2021-12-24
Date 2024-01-23

This is to certify that representative samples of the product as specified on this certificate were tested according to the current ULC requirements.

Models :

Secondary, Lithium-ion prismatic cells : LF280K , MB30 , MB31



Gunsimar Paintal
ULC Mark Certification Program Manager
Underwriters Laboratories of Canada Inc.



Solutions

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2. UL1642 测试报告

File MH62190

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Issued: 2021-12-24

New: 2024-01-18

TEST RECORD NO. 4

SAMPLES:

The manufacturer furnished representative samples of the cell Models noted below for the investigation. These samples were subjected to the test program described on the following pages.

Model	Cell Chemistry	Cell Shape	Energy Density, mAh/mm ³	End Point Voltage, V dc	Nominal Voltage Rating, V dc	Capacity, Ah	Maximum Charging Current, A	Maximum Charging Voltage, V dc
MB31	LiFePO ₄	Prismatic	0.121680 48	>0°C 2.5; ≤0°C 2.0	3.2	314	1004.8 W(402A)	3.8

GENERAL:

Test results relate only to the items tested.

All tests were conducted under WTDP Program at GUANGDONG UTL CO., LTD. (Party site number: 232320), addressed Lianding Testing Building, No.18 Center Road of Yawan Industrial Zone, Nancheng District, Dongguan 523083, Guangdong, China.

Due to similarity of Models MB31 to R/C Models for this manufacturer in MH62190 Vol 1.1&1.3, except for capacity, weight, dimension, energy density, only the following tests were conducted necessary.

Abbreviated tests program (V1) was conducted on Model MB31, the only model in family.

Tests were considered covered as follows:

Test	File Reference	Report Date	Test Record No.
Short circuit at room temperature, Shock, Vibration, Temperature Cycling, Low Pressure	MH62190	2017-06-19	1~10
	MH62190	2021-12-24	1~3

File MH62190

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Issued: 2021-12-24

New: 2024-01-18

The following tests were conducted.

Model	Test	UL 1642, Section	Complied, Y, N Or N/A	Comments
MB31	Short Circuit: (At 55°C)	10	Y	Complying
	Abnormal Charging	11	Y	Complying
	Crush	13	Y	Complying
	Impact	14	Y	Complying
	Heating	17	Y	Complying
	Projectile	20	Y	Complying

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in the Standard for Lithium Batteries, UL 1642 Sixth Edition, revised on October 12, 2022.

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the UL Standard for Safety for Lithium Batteries, UL 1642 Sixth Edition, revised on October 12, 2022, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

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Test Record by:
Jenny X Wang
Engineer Project Associate

Reviewed by:
Jissee Liu
Senior Project Engineer

CONCLUSION:

Samples of the components covered by this Report have been found to comply with the requirements covering the category and the components are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify the product(s) described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Recognized Marking on such products which comply with UL's Follow-Up Service Procedure and any other applicable requirements of UL LLC. The Recognized Component Mark of UL LLC on the product, or the Recognized Marking symbol on the product and the Recognized Component Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Recognition and Follow-Up Service.

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Test Record by:
Becky Li,
Senior Project Engineer

Reviewed by:
Jenny Wang,
Senior Project Engineer