

Test Verification of Conformity

Verification Number: 2404B0010SHA-V1

On the basis of the tests undertaken, the sample<s> of the below product have been tested with the requirements of the referenced specification<s>/standard<s>. This verification is part of the full test report<s> and should be read in conjunction with it <them>.

Applicant Name & Address:	EG4 Electronics LLC 1130 Como Street South, Sulphur Springs, TX 75482 USA
Product Description:	Rechargeable Li-ion battery
Ratings & Principle Characteristics:	See Appendix (Specifications table)
Models/Type References:	SR-48-100-LP4-IN-02
Brand Name:	EG4 ELECTRONICS
Relevant Standards:	Clause 8.1-8.4 (module level test) of ANSI/CAN/UL 9540A:2019 (Fourth Edition) + UL CRD's
Verification Issuing Office Name & Address:	Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Date of Tests:	2024-01-22 to 2024-03-22
Test Report Number(s):	2404B0010SHA-001
Manufacturer:	EG4 Electronics LLC 1130 Como Street South, Sulphur Springs, TX 75482 USA

Additional information in Appendix.


Signature

Name: Max Jin

Position: General Manager

Date: 2024-06-20

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APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 2404B0010SHA-V1

Specifications table

Mode name	SR-48-100-LP4-IN-02
Cells in series/parallel	16S1P
Cooling method	Natural convection cooling
Rated capacity	100 Ah
Rated energy	5120 Wh
Nominal voltage	51.2 V/(3.2 V/cell)
Mass of equipment	44 ± 1 kg
Dimension of equipment	470*442*154 mm
Standard charge method	
Charge current	50 A
End of charge voltage	57.6 V/(3.65 V/cell)
Standard discharge method	
Discharge current	50 A
End of discharge voltage	44.8 V/(2.5 V/cell)
Summary of testing	
Thermal runaway propagation	1 cell (Cell 08) went to thermal runaway due to external heating. 1 cell (Cell 09) vented and went to thermal runaway due to thermal runaway propagation. 1 cell (Cell 05) vented and not went to thermal runaway.
Peak chemical heat release rate HRR (kW)	11.82 kW
Peak smoke release rate SRR (m ² /s)	0.6967 m ² /s
Total smoke release TSR (m ²)	72.51 m ²
Total Hydrocarbons (equivalent to CH ₄ , measured by FID) (L)	53.5 L
Module weight loss (kg)	0.6 kg
Conclusion:	
Thermal runaway and propagation from cell to cell happened during test. Thermal runaway is contained by module design, but cell vent gas is flammable as determined by the cell level test. According to the standard, a unit level testing in accordance with UL 9540A needs to be conducted on a unit employing this module.	

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