

Lab: Energy Assurance, LLC
2350 Centennial Drive
Gainesville, GA 30504 USA

Email: information@energy-assurance.com

Office Phone: +1-404-954-2054





Product Photo

Test Summary per UN 38.3.5

Mfg Company Name StorTronics

Mfg Company Address 31829 8 Mile Rd

Mfg Company City, State, Country, Postal Code Livonia, MI, USA 48152

Mfg Contact Email jhelm@stortronics.com

Mfg Contact Phone Number 248-875-3010

Product Name(s) ST254900 - 3.3V 1.1Ah LIFEPO4 BATTERY PACK W/ PCM

Product Part Number(s) ST254900

Nominal Voltage (V) 3.3 Rated Capacity (mAh) 1100

Mass (g) 43 Rated Energy (Wh) 4

Product Type Single-Cell Battery Pack, Secondary (Lithium Ion), Small

Test Standard UN38.3, UN Manual of Tests and Criteria, 7th Revised Edition,

Effective January 1, 2020

Overall Test Result PASS

Component Test Results

Overcharge (T.7) PASS

Name

*Tests T.1 through T.5 are not applicable to a single-cell battery pack.

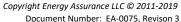
*Tests T.6 (Impact/Crush) and T.8 (Forced Discharge) are applicable to cell-level testing only.

Release Approved By

John C. Copeland, Vice President and COO

Shuc. Cychl.

Date 5/28/2021





Test Standard: UN38.3, UN Manual of Tests and Criteria, 7th Revised Edition,

Projected 25X Duration

Rated Energy

4 Wh

3 days

Effective January 1, 2020





UN 38.3 Report - Small, Secondary, Single-Cell Battery Packs (T7-ONLY)

PROJECT NUMBER EA4142
DATE OF REPORT 5/28/2021
STATUS Compliant
DATE SAMPLES RECEIVED 5/18/2021

Contact Email jhelm@stortronics.com

Contact Phone Number 248-875-3010
Company Name StorTronics
Company Address 31829 8 Mile Rd
Company City, State, Country, Postal Code Livonia, MI, USA 48152

Product Name(s) ST254900 - 3.3V 1.1Ah LIFEPO4 BATTERY PACK W/ PCM

[1C]

[0.05C]

[1C]

Product Part Number(s) ST254900

Nominal Voltage (V) 3.300
Rated Capacity (mAh) 1100
Charge Current for 25X cycling - CC mode (mA) 1100
Maximum Continuous Charge Current (mA) 4000

Normal Charge Voltage (V) 3.600 Maximum Charge Voltage (V) 3.600

End of Charge Current - CV mode (mA) 50
Discharge Current for 25X Cycling (mA) 1100
Maximum Specified Discharge Current (mA) 4000

End of Discharge Voltage (V) 2.000

Nominal Mass of Battery (grams) 43

Mass Loss Critical Threshold (Lookup) 0.002

Small or Large Battery (Lookup) Small

Mass Precision (Calculated Digits) 3

Sample Numbering Legend F Fresh (cycle 1); fully charged C Cycled (cycle 50); fully charged

S (Spare)

V-Check Criteria

Post Test Voltage ≥ 90% Pre-Test Voltage

M-Check Criteria

Mass (M) of cell or	Mass loss limit
M<1g	0.5%
1g≤M≤75g	0.2%
M>75g	0.1%

Laboratory Address: Ene

Energy Assurance, LLC 2350 Centennial Drive Gainesville, GA 30504 USA

http://www.energy-assurance.com

Report Summary Comments

Samples tested demonstrated compliance to the referenced standard.

Single-cell battery pack. Tests T1-T5 not required.

General notes regarding this report: Test results relate only to the items tested. Energy Assurance reserves the right to use approved parter laboratories in the delivery of services. This is denoted below by a "Y" in the OS field of each test section below. This report shall not be reproduced except in full without the approval of Energy Assurance, LLC.

Revision History

Rev	Date	Comments
1	5/28/2021	Initial issue

Reviewed & Released By:

Aluc-Cyrl.

Name John C. Copeland, Vice President and COO

Date 5/28/2021

Product Photo:





Overcharge (T.7)

Test Procedure:

The charge current shall be twice the manufacturer's recommended maximum continuous charge current. The minimum voltage of the test shall be as follows:

(a) when the manufacturer's recommended charge voltage is not more than 18V, the minimum voltage of the test shall be the lesser of two times the maximum charge voltage of the battery or 22V.

(b) when the manufacturer's recommended charge voltage is more than 18V, the minimum voltage of the test shall be 1.2 times the maximum charge voltage.

Tests are to be conducted at ambient temperature. The duration of the test shall be 24 hours.

Date (Test Start) Date (Test Finish) **Model Tested**

5/24/2021 5/26/2021 ST254900

OS Tech Rated Capacity (mAh) Ν JG/BO 1100

Test Step Notes (T.7)

None

*For Dis-Assy & Fire, observation period is test completion + 7 days.

Setup Conditions

Charge Current 8000

Min Test Voltage 7.20

> **Test Ambient** 22.3

Dis-Assy Fire C5 Ν Ν C6 Ν Ν C7 Ν Ν C8 Ν Ν F5 Ν Ν F6 Ν Ν Ν Ν F7 F8 Ν Ν S3

Overcharge Channel

Box-1,1 Box-1,2 Box-1,3 Box-1,4 Box-1,1 Box-1,2 Box-1,3 Box-1,4 Pass/Fail Pass Pass

Pass Pass Pass Pass **Pass** Pass No Data

No Data

Comments

None None None None None None None None Spare3 Spare4

Measurement Equipment Information (Calibration details available upon request)

S4

Ambient Temp Gauge Overcharge System1 Digital Temperature-Humidity Meter, S/N 10 Overcharge Test Apparatus, 5 Channel, BOX1-20

Overcharge System2 Overcharge Test Apparatus, 5 Channel, BOX2-35