

3V Lithium Batteries

Safety Guidelines and Precautions concerning the Use of 3V Lithium Batteries

Please observe the following warnings strictly. If misused, the batteries may explode or leak, causing injury or damage to the equipment.

- Keep batteries out of the reach of children, especially those batteries fitting within the limits of the truncated cylinder defined in ISO/DP 8124/2.2 page 17. In case of ingestion of a cell or battery, the person involved should seek medical assistance promptly.
- Equipment intended for use by children should have battery compartments which are tamper-proof.
- The circuits of equipment designed to use alternative power should be such as to eliminate the possibility of the battery being overcharged (see UL standard for diode use).
- The batteries must be inserted into the equipment with the correct polarity (+ and -).
- Do not attempt to revive used batteries by heating, charging or other means.
- Do not dispose of batteries in fire. Do not dismantle batteries.
- Replace all batteries of a set at the same time. Newly purchased batteries should not be mixed with partially exhausted ones. Batteries of different electrochemical systems, grades or brands should not be mixed. Failure to observe these precautions may result in some batteries in a set being driven beyond their normal exhaustion point and thus increase the possibility of leakage.
- Do not short circuit batteries.
- Avoid directly soldering to batteries.
- Do not expose batteries to high temperatures, moisture or direct sunlight.
- When discarding batteries with solder tags, insulate the tags by wrapping them with insulating tape.
- Improper welding can damage the internal components of batteries and impair their performance.
- Do not place batteries on a conductive surface (anti-static work mat, packaging bag or form trays) as it can cause the battery to short.

Rev. 10/02

CR2450N

3V Lithium Battery

Swiss Made

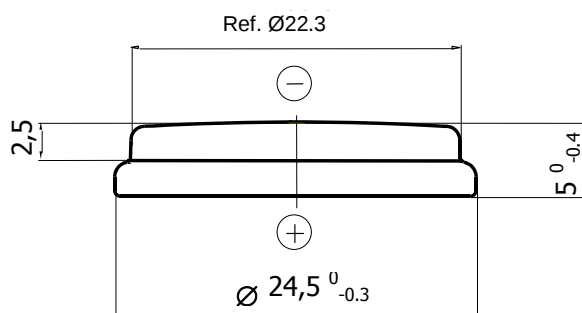
Technical Data Sheet

Specifications

Chemical System	Li / MnO ₂
Nominal Voltage	3 V
Rated Capacity	540 mAh
Standard Discharge Current	0,8 mA
Max. Cont. Discharge Current**	3,0 mA
Average Weight	~ 5,9 g
Temperature Range	-40 - +85 °C
Self Discharge at 23°C	< 1% / year

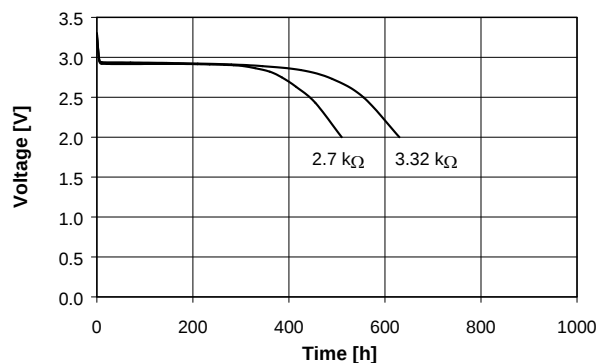
Dimensions

(According to IEC 60086)

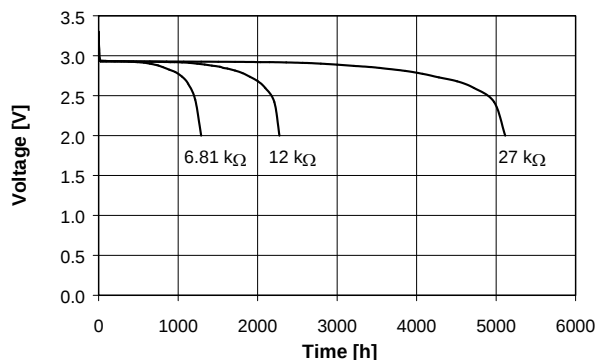


Performance

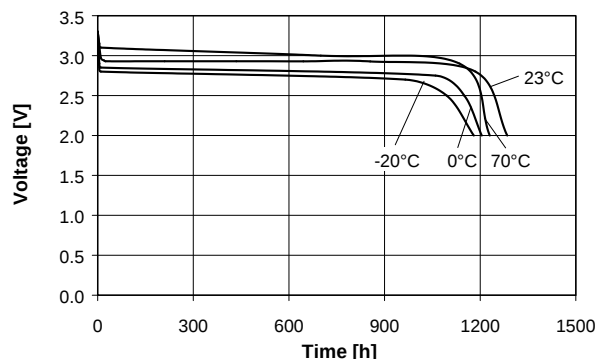
Discharge performance at 23°C



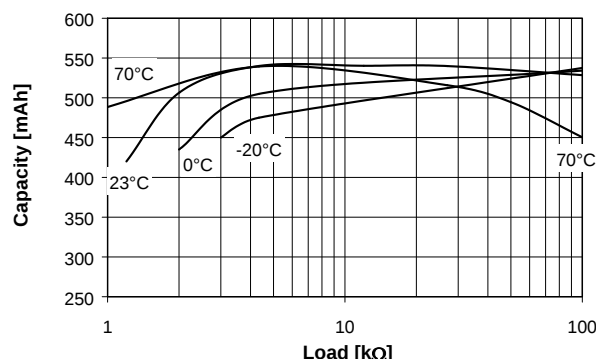
Discharge performance at 23°C



Temperature performance Load 6.81kΩ



Cell capacity at various loads



*In applications where the battery is exposed to temperatures above 70 °C, please contact Renata for consultancy.

** The maximum current is determined for a yield of 70% of the nominal capacity with a cut-off voltage of 2.0V, at 23°C.

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Rev. CR2450N.08 / 08.2019

LITHIUM CELLS OR BATTERIES TEST SUMMARY IN ACCORDANCE WITH SUB-SECTION 38.3 OF MANUAL OF TESTS AND CRITERIA

TRANSPORTATION INFORMATION

Name of cell, battery or product manufacturer, as applicable: ☒ Cell ☐ Battery ☐ Product Item Number/Name: CR2450N Item Description: Primary Lithium Manganese Dioxide Cell (Li+MnO₂ → LiMnO₂) Nominal Voltage: 3V		Cell, battery or product manufacturer's contact information to include address, phone number, email address and website for more information: Renata SA Kreuzenstrasse 30 4452 Itingen Switzerland +41 61 975 75 75 / logistics@renata.com www.renata.com	
Name of the test laboratory to include address, phone number, email address and website for more information: Shanghai Research Institute of Chemical Industry Testing Centre No.345 East Yunling Road 200062 Shanghai China +86-21-31765555 / battery@ghs.cn http://www.ghs.cn		A unique test report identification number: 1121110161	Date of the test report: 13-DEC-2021
Description of cell or battery to include at a minimum: Lithium ion or Lithium metal cell or battery; Mass; Watt-hour rating, or lithium content; Physical description of the cell/battery: Cell / battery Type: Lithium metal Cell or Battery: Cell Lithium contain: 0.16 Grams Battery Weight: 6 Grams		List of tests conducted and results (i.e., pass/fail): Test T.1: Altitude Simulation Passed Test T.2: Thermal Test Passed Test T.3: Vibration Passed Test T.4: Shock Passed Test T.5: External short circuit Passed Test T.6: Impact/Crush Passed Test T.7: Overcharge Not applicable Test T.8: Forced discharge Passed Testing additional comments:	
Reference to assembled battery testing requirements, if applicable (i.e., 38.3.3(1) and 38.3.3;(g)): Not Applicable	Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto, if any: ST/SG/AC. 10/11/Rev.7 38.3	For air transport only: Does the cell or battery comply with the 30% State of Charge? Not Applicable	
PRODUCT CLASSIFICATION FOR TRANSPORT (According to UN - DGP)			
UN Classification: UN 3090	Proper Shipping Name: Lithium metal batteries		
Signature with name and title of signatory as an indication of the validity of information provided: Jürgen Ruther Head of Marketing & Sales Member of the Management Board <i>(Signature)</i> CH-4452 Itingen		This document remains valid as long as no changes, modifications, or additions are made to the model(s) described in this document. The model(s) has (have) been classified according to the applicable transport regulations and the UN Manual of Tests and Criteria as of the date of the certification. The model(s) must be packaged, labeled, and documented according to country and other international regulations for transportation.	
Date document was generated: 04-FEB-2022 Important! The above signatory / signatories affirm that this document is a true and correct summary of the original individual tests and test data. The original test data is confidential information available to competent State Authorities with valid identification and only upon their formal request. Disclosure of the original test data to any other entity upon its request will be considered by Renata SA and, should Renata SA consider this request is with merit, may be subject to the prior execution of a nondisclosure agreement.			