SLOVENSKI STANDARD
SIST EN 61951-1:2018/A1:2023

01-maj-2023

Sekundarni členi in baterije z alkalnimi ali drugimi nekislinskimi elektroliti - Sekundarni hermetični členi in baterije za prenosne naprave - 1. del: Nikelj-kadmij - Dopolnilo A1

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary sealed cells and batteries for portable applications - Part 1: Nickel-Cadmium

Sekundärzellen und -batterien mit alkalischen oder anderen nichtsäurehaltigen Elektrolyten - Tragbare wiederaufladbare gasdichte Zellen und Batterien - Teil 1: Nickel-Cadmium

Accumulateurs alcalins et autres accumulateurs à électrolyte non-acide - Accumulateurs étanches pour applications portables - Partie 1: Nickel-Cadmium

Ta slovenski standard je istoveten z: **EN 61951-1:2017/A1:2023**

ICS:

29.220.30	Alkalni sekundarni členi in baterije	Alkaline secondary cells and batteries

SIST EN 61951-1:2018/A1:2023 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61951-1:2017/A1

March 2023

ICS 29.220.30

English Version

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary sealed cells and batteries for portable applications - Part 1: Nickel-cadmium (IEC 61951-1:2017/AMD1:2023)

Accumulateurs alcalins et autres accumulateurs à électrolyte non-acide - Accumulateurs étanches pour applications portables - Partie 1: Nickel-cadmium (IEC 61951-1:2017/AMD1:2023)

Akkumulatoren und Batterien mit alkalischen oder anderen nichtsäurehaltigen Elektrolyten - Tragbare wiederaufladbare gasdichte Einzelzellen - Teil 1: Nickel-Cadmium (IEC 61951-1:2017/AMD1:2023)

This amendment A1 modifies the European Standard EN 61951-1:2017; it was approved by CENELEC on 2023-03-13. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 21A/821/FDIS, future IEC 61951-1/AMD1, prepared by SC 21A "Secondary cells and batteries containing alkaline or other non-acid electrolytes" of IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61951-1:2017/A1:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-12-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-03-13

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Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61951-1:2017/AMD1:2023 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Add the following reference:

Publication	Year	Title	EN/HD	Year
IEC 62902	-	Secondary cells and batteries - Marking symbols for identification of their chemistry	EN IEC 62902	-

IEC 61951-1

Edition 4.0 2023-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary sealed cells and batteries for portable applications – Part 1: Nickel-cadmium

Accumulateurs alcalins et autres accumulateurs à électrolyte non-acide – Accumulateurs étanches pour applications portables – Partie 1: Nickel-cadmium

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SECONDARY SEALED CELLS AND BATTERIES FOR PORTABLE APPLICATIONS –

Part 1: Nickel-cadmium

AMENDMENT 1

FOREWORD

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Amendment 1 to IEC 61951-1:2017 has been prepared by subcommittee 21A: Secondary cells and batteries containing alkaline or other non-acid electrolytes, of IEC technical committee 21: Secondary cells and batteries.

The text of this Amendment is based on the following documents:

Draft	Report on voting
21A/821/FDIS	21A/828/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications/.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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2 Normative references

Add, at the end of the existing list, IEC 62902 to the list of normative references, as follows:

IEC 62902, *Secondary cells and batteries – Marking symbols for identification of their chemistry*

3 Terms and definitions

*Add the following term and definition for "*trickle charge*":*

3.11
trickle charge
method of charge applied to a battery wherein the state of charge is maintained by a continuous, long term, regulated small electric current

Note 1 to entry: The trickle charge compensates self-discharge effects and maintains the battery in an approximately fully charged state.

5.3.1 Small prismatic cells and cylindrical cells

*Replace, in the sixth bullet point, "*name or identification*" with "*name, identification or registered trademark*" as follows:*

- name, identification, or registered trademark of manufacturer or supplier;

5.3.2 Button cells

*Replace, in the fourth bullet point, "*name or identification*" with "*name, identification or registered trademark*" as follows:*

- name, identification, or registered trademark of manufacturer or supplier.

5.3.3 Batteries

Add a fifth bullet point at the end of the existing bulleted list as follows:

- marking symbols (identification of the chemistry according to IEC 62902).

Table 5 – Discharge performance at 20 °C for small prismatic cells and cylindrical cells

Replace the existing title to Table 5 with the following new title:

Table 5 – Discharge performance at 20 °C for small prismatic cells

Add, after Table 5, the following new Table 32:

Table 32 – Discharge performance at 20 °C for cylindrical cells

Discharge conditions		Minimum discharge duration h/min					
Rate of constant current A	Final voltage V	Cell designation					
		L/LT/LU/LS	M/MT/MU	J	JT	H/HT/HU	X
0,2 I_t [a]	1,0	5 h	5 h	5 h	5 h	5 h	5 h
1,0 I_t	0,9	–	42 min	48 min	43 min	48 min	54 min
5,0 I_t [b]	0,8	–	–	–	–	6 min	9 min
10,0 I_t [b]	0,7	–	–	–	–	–	4 min

[a] Five cycles are permitted per cell for this test. The test shall be terminated at the end of the first cycle of each cell which meets the requirement.

[b] Prior to the 5 I_t A and 10 I_t A tests, a conditioning cycle may be included if necessary. This cycle shall consist of charging at 0,1 I_t A in accordance with 7.2 and discharging at 0,2 I_t A in an ambient temperature of 20 °C ± 5 °C according to 7.3.2.

7.5.1.3 Cylindrical cells dimensionally interchangeable with primary cells

Replace the bulleted item at the end of the subclause with the following:

- 200 for KR03, KR6, KR14 and KR20 cells.

7.8 Safety device operation

Replace the existing title to 7.8 with the following:

7.8 Pressure relief feature

Replace the first paragraph after the warning statement with the following paragraph:

The following test shall be carried out in order to establish that the pressure relief feature of the cell will operate to allow the escape of gas when the internal pressure exceeds a critical value.

7.12 Internal resistance

7.12.1 General

Add, after the second paragraph, the following paragraph:

There is no requirement for internal resistance, but when the value is requested, measurement is performed according to the method described in this document.