



BSI Standards Publication

Secondary cells and batteries containing alkaline or other non acid electrolytes — Secondary sealed cells and batteries for portable applications

Part 2: Nickel-metal hydride (IEC 61951-2:2017)

National foreword

This British Standard is the UK implementation of EN 61951-2:2017. It is identical to IEC 61951-2:2017. It supersedes BS EN 61951-2:2011, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/21/1, Secondary cells and batteries containing alkaline and other non-acidic electrolytes.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EUROPEAN STANDARD

EN 61951-2

NORME EUROPÉENNE

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June 2017

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Supersedes EN 61951-2:2011

English Version

**Secondary cells and batteries containing alkaline or other non
acid electrolytes - Secondary sealed cells and batteries for
portable applications - Part 2: Nickel-metal hydride
(IEC 61951-2:2017)**

Accumulateurs alcalins et autres accumulateurs à
électrolyte non acide - Accumulateurs étanches pour
applications portables - Partie 2: Nickel-métal hydrure
(IEC 61951-2:2017)

Akkumulatoren und Batterien mit alkalischem oder anderen
nichtsäurehaltigen Elektrolyten - Tragbare wiederaufladbare
gasdichte Einzelzellen - Teil 2: Nickel-Metallhydrid
(IEC 61951-2:2017)

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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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 21A/623/FDIS, future edition 4 of IEC 61951-2, 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 61951-2:2017.

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) 2018-01-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-04-26

This document supersedes EN 61951-2:2011.

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Endorsement notice.

The text of the International Standard IEC 61951-2:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60051 (series)	NOTE	Harmonized as EN 60051 (series).
IEC 60086 (series)	NOTE	Harmonized as EN 60086 (series).
IEC 61434	NOTE	Harmonized as EN 61434.

Annex ZA
 (normative)

**Normative references to international publications
 with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-482	2004	International Electrotechnical Vocabulary (IEV) -- Part 482: Primary and secondary cells and batteries	-	-
IEC 60086-1	-	Primary batteries - Part 1: General	EN 60086-1	-
IEC 60086-2	-	Primary batteries - Part 2: Physical and electrical specifications	EN 60086-2	-
IEC 61959	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Mechanical tests for sealed portable secondary cells and batteries	EN 61959	-
IEC 62133-1	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 1: Nickel systems	EN 62133-1	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SECONDARY CELLS AND BATTERIES CONTAINING
ALKALINE OR OTHER NON-ACID ELECTROLYTES –
SECONDARY SEALED CELLS AND BATTERIES
FOR PORTABLE APPLICATIONS –****Part 2: Nickel-metal hydride**

FOREWORD

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International Standard IEC 61951-2 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.

This fourth edition cancels and replaces the third edition published in 2011 of which it constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- addition of battery type;
- addition of 'F' (high recovery type) designation for cells and batteries;
- addition of 'I' (low self-discharge type) designation for cells;

- revision of Figure 3 (6.1.3.1);
- addition of “optional pip” note to positive contact;
- changed leader line position from pip to flats of positive contact (B and G).

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

FDIS	Report on voting
21A/623/FDIS	21A/629/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61951 series can be found, under the general title *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary sealed cells and batteries for portable applications*, on the IEC website.

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

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

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

Part 2: Nickel-metal hydride

1 Scope

This part of IEC 61951 specifies marking, designation, dimensions, tests and requirements for secondary sealed nickel-metal hydride small prismatic, cylindrical and button cells and batteries, suitable for use in any orientation, for portable applications.

2 Normative references

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.

IEC 60050-482:2004, *International Electrotechnical Vocabulary (IEV) – Part 482: Primary and secondary cells and batteries*

IEC 60086-1, *Primary batteries – Part 1: General*

IEC 60086-2, *Primary batteries – Part 2: Physical and electrical specifications*

IEC 61959, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Mechanical tests for sealed portable secondary cells and batteries*

IEC 62133-1, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells and for batteries made from them, for use in portable applications – Part 1: Nickel systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-482 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

nominal voltage

suitable approximate value of the voltage used to designate or identify a cell or a battery

Note 1 to entry: The nominal voltage of a sealed nickel-metal hydride rechargeable single cell is 1,2 V.

Note 2 to entry: The nominal voltage of a battery of n series connected cells is equal to n times the nominal voltage of a single cell.