SLOVENSKI STANDARD
SIST EN 61436:2001

01-februar-2001

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-metal hydride rechargeable single cells

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-metal hydride rechargeable single cells

Akkumulatoren mit alkalischem oder anderen nichtsäurehaltigen Elektrolyten - Gasdichte wiederaufladbare Nickel-Metall-Hydrid-Einzelzellen

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide - Eléments individuels rechargeables étanches au nickel-métal hydrure

Ta slovenski standard je istoveten z: **EN 61436:1998**

ICS:

29.220.30	Alkalni sekundarni ļ leni in baterije	Alkaline secondary cells and batteries

SIST EN 61436:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61436

April 1998

ICS 29.220.30

English version

Secondary cells and batteries containing alkaline or other non-acid electrolytes Sealed nickel-metal hydride rechargeable single cells (IEC 61436:1998)

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide Eléments individuels rechargeables étanches au nickel-métal hydrure (CEI 61436:1998)

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

This European Standard 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 Central Secretariat has the same status as the official versions.

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 21A/224+224A/FDIS, future edition 1 of IEC 61436, 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 was approved by CENELEC as EN 61436 on 1998-04-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1999-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2001-01-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61436:1998 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60051	series	Direct acting indicating analogue electrical measuring instruments and their accessories	EN 60051	series
IEC 60068-2-29 + corrigendum	1987	Basic environmental testing procedures Part 2: Tests Test Eb and guidance: Bump	EN 60068-2-29	1993
IEC 60410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 60485	1974	Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters	-	-

NORME INTERNATIONALE

INTERNATIONAL STANDARD

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Première édition
First edition
1998-01

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide –

Eléments individuels rechargeables étanches au nickel-métal hydrure

Secondary cells and batteries containing alkaline or other non-acid electrolytes –

Sealed nickel-metal hydride rechargeable single cells

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INTRODUCTORY NOTE

Traditionally, the manufacturers and users of secondary alkaline cells and batteries have expressed the current used to charge and discharge these cells and batteries as a multiple of the capacity. For example, a current of 20 A used to charge a cell with a rated capacity (C) of 100 Ah would be expressed as C/5A or 0,2 CA. This method of current designation has been used in all standards relating to alkaline cells and batteries.

Comments have been made that this method of current designation is dimensionally incorrect in that a multiple of the capacity (ampere-hours) will be in ampere hours and not, as required for current, in amperes. As a result of these comments, IEC subcommittee 21 A has published a "Guide to the designation of current in alkaline secondary cell and battery standards" – IEC 61434 (1996-09) and the method described therein has been used in this Standard.

In brief, the method states that the test reference current (I_t) shall be expressed as

$$I_tA = C_nAh/1\ h$$

where

I_t is the reference test current in amperes;

C_n is the rated capacity in ampere-hours declared by the manufacturer;

n is the time base (hours) for which the rated capacity is declared.

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES –

SEALED NICKEL-METAL HYDRIDE RECHARGEABLE SINGLE CELLS

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.

4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61436 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 standard is based on the following documents:

FDIS	Report on voting
21A/224/224A/FDIS	21A/226/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.

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SEALED NICKEL-METAL HYDRIDE RECHARGEABLE SINGLE CELLS

1 General

1.1 Scope

This International Standard specifies tests and requirements for sealed nickel-metal hydride rechargeable single cells, suitable for use in any orientation.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60051, *Direct acting indicating analogue electrical measuring instruments and their accessories*

IEC 60068-2-29:1987, *Basic environmental testing procedures – Part 2: Tests – Test Eb and guidance: Bump*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 60485:1974, *Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters*

1.3 Definitions

For the purpose of this International Standard, the following definitions apply:

1.3.1
sealed nickel-metal hydride cell
cell which remains closed and does not release either gas or liquid when operated within the limits of charge and temperature specified by the manufacturer. The cell is equipped with a safety device to prevent dangerously high internal pressure. The cell does not require addition to the electrolyte and is designed to operate during its life in its original sealed state.

NOTE – The nickel-metal hydride cell, however, may release gas towards the end of its life due to the accumulation of hydrogen in the cell.

1.3.2
small prismatic cell
cell in the form of a rectangular parallelepiped whose width and thickness dimensions are not more than 25 mm.