SLOVENSKI STANDARD

SIST EN 60623:2002

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Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells

ICS 29.220.30

Referenčna številka
SIST EN 60623:2002(en)

EUROPEAN STANDARD **EN 60623**

NORME EUROPÉENNE

EUROPÄISCHE NORM November 2001

ICS 29.220.99 Supersedes EN 60623:1995

English version

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells
(IEC 60623:2001)

Accumulateurs alcalins ou autres accumulateurs à électrolyte non acide - Eléments individuels parallélépipédiques rechargeables ouverts au nickel-cadmium (CEI 60623:2001)

Akkumulatoren und Batterien mit alkalischem oder anderem nicht-säurehaltigen Elektrolyten - Geschlossene prismatische wiederaufladbare Nickel-Cadmium-Einzelzellen (IEC 60623:2001)

This European Standard was approved by CENELEC on 2001-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Ref. No. EN 60623:2001 E

Foreword

The text of document 21A/327/FDIS, future edition 4 of IEC 60623, 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 60623 on 2001-10-01.

This European Standard supersedes EN 60623:1995.

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)	2002-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-10-01

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 60623:2001 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61434	NOTE	Harmonized as EN 61434:1996 (not modified).

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 60050-486	- [1)]	International Electrotechnical Vocabulary Chapter 486: Secondary cells and batteries	-	-
IEC 60051	Series	Direct acting indicating analogue electrical measuring instruments and their accessories	EN 60051	Series
IEC 60410	- [1)]	Sampling plans and procedures for inspection by attributes	-	-
IEC 60417	Series	Graphical symbols for use on equipment	EN 60417	Series
IEC 60485	- [1)]	Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters	-	-
IEC 61438	- [1)]	Possible safety and health hazards in the use of alkaline secondary cells and batteries - Guide to equipment manufacturers and users	-	-

[1)] Undated reference.

NORME INTERNATIONALE

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Accumulateurs alcalins ou autres accumulateurs à électrolyte non acide – Eléments individuels parallélépipédiques rechargeables ouverts au nickel-cadmium

Secondary cells and batteries containing alkaline or other non-acid electrolytes – Vented nickel-cadmium prismatic rechargeable single cells

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

VENTED NICKEL-CADMIUM PRISMATIC 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 specifications, 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 60623 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 1990, Amendment 1 (1992) and Amendment 2 (1992), and constitutes a technical revision.

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

FDIS	Report on voting
21A/327/FDIS	21A/329/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 3.

The committee has decided that the contents of this publication will remain unchanged until 2006-01. At this date, the publication will be

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

INTRODUCTION

Traditionally the manufacturers and users of alkaline secondary 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* Ah) of 100 Ah would be expressed as *C*/5 A or 0,2 *C* A. This method of current designation has been used in earlier standards relating to alkaline secondary cells and batteries.

Comments have been made, however, 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, the method described in IEC 61434 has been used in this standard.

In brief, the method states that the reference test current (I_t) is expressed as:

$$I_t \text{ A} = \frac{C_n \text{ Ah}}{1 \text{ h}}$$

where

C_n is the rated capacity declared by the manufacturer in ampere-hours (Ah), and

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