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Laddningsbara alkaliska celler och batterier – Prismatiska laddningsbara nickel-kadmiumceller med partiell gasrekombination

*Secondary cells and batteries containing alkaline or other non-acid electrolytes –
Nickel-cadmium prismatic secondary single cells with partial gas recombination*

Som svensk standard gäller europastandarden EN 62259:2004. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62259:2004.

Nationellt förord

Europastandarden EN 62259:2004^{*)}

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62259, First edition, 2003 - Secondary cells and batteries containing alkaline or other non-acid electrolytes - Nickel-cadmium prismatic secondary single cells with partial gas recombination**

utarbetad inom International Electrotechnical Commission, IEC.

^{*)} EN 62259:2004 ikraftsattes 2004-03-22 som SS-EN 62259 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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English version

**Secondary cells and batteries containing alkaline
or other non-acid electrolytes –
Nickel-cadmium prismatic secondary single cells
with partial gas recombination
(IEC 62259:2003)**

Accumulateurs alcalins et autres
accumulateurs à électrolyte non acide -
Eléments d'accumulateurs individuels
parallélépipédiques au nickel-cadmium
à recombinaison partielle des gaz
(CEI 62259:2003)

Sekundärzellen und -batterien mit
alkalischem oder anderen
nichtsäurehaltigen Elektrolyten -
Wiederaufladbare prismatische Nickel-
Cadmium-Einzelzellen mit teilweiser
Gasrekombination
(IEC 62259:2003)

This European Standard was approved by CENELEC on 2003-12-01. 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, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

Foreword

The text of document 21A/386/FDIS, future edition 1 of IEC 62259, 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 62259 on 2003-12-01.

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) 2004-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62259:2003 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 60622	NOTE	Harmonized as EN 60622:2003 (not modified).
IEC 60623	NOTE	Harmonized as EN 60623:2001 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-486	- ¹⁾	International Electrotechnical Vocabulary (IEV) Chapter 486: Secondary cells and batteries	-	-
IEC 60051	Series	Direct acting indicating analogue electrical measuring instruments and their accessories	EN 60051-1	Series
IEC 60410	- ¹⁾	Sampling plans and procedures for inspection by attributes	-	-
IEC 60417	database	Graphical symbols for use on equipment	-	-
IEC 60485	- ¹⁾	Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters	-	-
IEC 61434	- ¹⁾	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Guide to the designation of current in alkaline secondary cell and battery standards	EN 61434	1996 ²⁾
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.

2) Valid edition at date of issue.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE
OR OTHER NON-ACID ELECTROLYTES –
NICKEL-CADMIUM PRISMATIC SECONDARY SINGLE CELLS
WITH PARTIAL GAS RECOMBINATION**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62259 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/386/FDIS	21A/392/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.

The committee has decided that the contents of this publication will remain unchanged until 2008-12. 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 the reference test current (I_t) is expressed as

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

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.

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – NICKEL-CADMIUM PRISMATIC SECONDARY SINGLE CELLS WITH PARTIAL GAS RECOMBINATION

1 Scope

This International Standard specifies marking, designation, dimensions, tests and requirements for vented nickel-cadmium prismatic secondary single cells where special provisions have been made in order to have partial or, under very specific conditions, full gas recombination.

NOTE In this context, "prismatic" refers to cells having rectangular sides and base.

When there exists an IEC standard specifying test conditions and requirements for cells used in special applications and which is in conflict with this standard, the former shall take precedence.

2 Normative references

The following referenced documents are indispensable for the application 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 60050-486, *International Electrotechnical Vocabulary (IEV) – Chapter 486: Secondary cells and batteries*

IEC 60051 (all parts), *Direct acting indicating analogue electrical measuring instruments and their accessories*

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

IEC 60417-DB:2002¹, *Graphical symbols for use on equipment*

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

IEC 61434, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Guide to the designation of current in alkaline secondary cell and battery standards*

IEC 61438, *Possible safety and health hazards in the use of alkaline secondary cells and batteries – Guide to equipment manufacturers and users*

¹ "DB" refers to the IEC on-line database.