

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

The European Standard EN 60623:2001 has the status of a
British Standard

ICS 29.220.30

National foreword

This British Standard is the official English language version of EN 60623:2001. It is identical with IEC 60623:2001. It supersedes BS EN 60623:1996 which will be withdrawn on 2004-10-01.

The UK participation in its preparation was entrusted to Technical Committee PEL/21/1, Secondary cells and batteries containing alkaline and other non-acid electrolytes, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 10 April 2002

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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)

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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

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).
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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.