



SLOVENSKI STANDARD
SIST EN 60623:1997
01-februar-1997

Vented nickel-cadmium prismatic rechargeable single cells

Vented nickel-cadmium prismatic rechargeable single cells

Offene prismatische wiederaufladbare Nickel-Cadmium-Einzelzellen

Éléments individuels parallélépipédiques rechargeables ouverts au nickel-cadmium

Ta slovenski standard je istoveten z: EN 60623:1995

[SIST EN 60623:1997](https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997)

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

ICS:

29.220.30 Alkaline secondary cells and batteries

SIST EN 60623:1997 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60623:1997

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60623

November 1995

ICS 29.220.30

Descriptors: Alkaline batteries, nickel-cadmium batteries, parallelepipedic shape, designation, marking, dimensions, electrical tests, mechanical tests

English version

Vented nickel-cadmium prismatic rechargeable single cells
(IEC 623:1990 + A1:1992 + A2:1992)

Éléments individuels parallélépipédiques
rechargeables ouverts au
nickel-cadmium
(CEI 623:1990 + A1:1992
+ A2:1992)

Offene prismatische wiederaufladbare
Nickel-Cadmium-Einzelnzellen
(IEC 623:1990 + A1:1992
+ A2:1992)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60623:1997

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

This European Standard was approved by CENELEC on 1995-07-04. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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

Foreword

The text of the International Standard IEC 623:1990 and its amendments 1:1992 and 2:1992, prepared by SC 21A, Alkaline secondary cells and batteries, of IEC TC 21, Secondary cells and batteries, was submitted to the formal vote and was approved by CENELEC as EN 60623 on 1995-07-04 without any modification.

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) 1996-07-15
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-07-15

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 623:1990 and its amendments 1:1992 and 2:1992 was approved by CENELEC as a European Standard without any modification.

(standards.iteh.ai)

SIST EN 60623:1997

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 51	series	Direct acting indicating analogue electrical-measuring instruments and their accessories	EN 60051	series
IEC 410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 417	1973	Graphical symbols for use on equipment Index, survey and compilation of the single sheets	HD 243 S12 ¹⁾	1995
IEC 485	1974	Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters	-	-

1) HD 243 S12 includes supplements A:1974 to M:1994 to IEC 417.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60623:1997](#)

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

**CEI
IEC
623**

Troisième édition
Third edition
1990-03

**Éléments individuels parallélépipédiques
rechargeables ouverts au nickel-cadmium**

**Vented nickel-cadmium prismatic
rechargeable single cells**

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

SIST EN 60623:1997

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>



Numéro de référence
Reference number
CEI/IEC 623: 1990

CONTENTS

	Page
FOREWORD	5
SECTION 1: GENERAL	
Clause	
1.1 Scope	7
1.2 Normative references	7
1.3 Definitions	7
1.4 Measuring instruments	9
SECTION 2: DESIGNATION AND MARKING	
2.1 Cell designation	11
2.2 Cell termination	11
2.3 Marking	11
SECTION 3: DIMENSIONS	
3.1 Dimensions	13
<p style="color: red; font-weight: bold;">iTeh STANDARD PREVIEW</p> <p style="color: red; font-weight: bold;">(standards.iteh.ai)</p> <p style="color: red; font-size: small;">SIST EN 60623:1997</p> <p style="color: red; font-size: x-small;">https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec- dc16495c9817/sist-en-60623-1997</p>	
SECTION 4: ELECTRICAL TESTS	
4.1 Charging procedure for test purposes	17
4.2 Discharge performance	17
4.3 Charge retention	19
4.4 Endurance	21
4.5 Charge acceptance at constant voltage	23
4.6 Overcharge	23
4.7 Vent operation	23
4.8 Storage (under consideration)	23
SECTION 5: MECHANICAL TESTS	
5.1 Mechanical test (under consideration)	23
SECTION 6: CONDITIONS FOR APPROVAL AND ACCEPTANCE	
6.1 Type approval	25
6.2 Batch acceptance	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

VENTED NICKEL-CADMIUM PRISMATIC RECHARGEABLE SINGLE CELLS

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

iTech STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60623:1997

<https://standards.iteh.ai/catalog/standards/sist/46e8f86d-68c3-4e79-a5ec-dc16495e98f4/sist-en-60623-1997>

This standard has been prepared by Sub-Committee 21A: Alkaline secondary cells and batteries, of IEC Technical Committee No. 21: Secondary cells and batteries.

It constitutes the third edition of IEC 623 and replaces the second edition, issued in 1983, and Amendment No. 1, issued in 1988.

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

Six Months' Rule	Report on Voting
21A(C0)63	21A(C0)67

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

VENTED NICKEL-CADMIUM PRISMATIC RECHARGEABLE SINGLE CELLS

SECTION 1: GENERAL

1.1 Scope

This international standard specifies tests and requirements for vented nickel-cadmium prismatic secondary single cells.

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.

1.2 Normative references

The following standard contains provisions which, through reference in this text, constitute provisions of this international standard. At the time of publication, the editions indicated were valid. All standards 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 standards listed below. Members of IEC and ISO maintain registers of currently valid international standards.

- IEC 51: Direct acting indicating analogue electrical measuring instruments and their accessories.
- IEC 410 (1973): Sampling plans and procedures for inspection by attributes.
- IEC 417 (1973): Graphical symbols for use on equipment - Index, survey and compilation of the single sheets.
- IEC 485 (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 *Vented cell*

A secondary cell having a cover provided with an opening through which gaseous products may escape.

NOTE - The opening may be fitted with a venting system.

1.3.2 *Nominal voltage*

The nominal voltage of a vented nickel-cadmium rechargeable single cell is 1,2 V.

1.3.3 *Rated capacity*

The quantity of electricity C_5 in Ah (ampere-hours) declared by the manufacturer which a single cell can deliver at the 5 h discharge rate to a final voltage of 1,0 V at +20 °C after charging, storing and discharging under conditions specified in section 4.

1.4 Measuring instruments

The measuring instruments used for the tests shall be selected according to the magnitude of the parameters to be measured. Equipment shall be regularly calibrated to ensure that it shall at all times have the degree of accuracy given below.

1.4.1 *Voltage measurement*

The instruments used for voltage measurement shall be voltmeters having an accuracy class of 0,5 or better as defined in IEC 51 for analogue instruments and IEC 485 for digital instruments.

The resistance of voltmeters shall be at least 1 000 Ω/V .

1.4.2 *Current measurement*

The instruments used for current measurement shall be ammeters having an accuracy class of 0,5 or better as defined in IEC 51 for analogue instruments. Digital instruments shall be of the same accuracy. This accuracy class shall be maintained for the assembly of ammeter, shunt and leads.

1.4.3 *Temperature measurement*

The instruments used for temperature measurement shall be thermometers having a graduated or digital scale in which the value of each graduation or digit is not in excess of one Celsius degree. The absolute accuracy of the instrument shall be at least 0,5 °C.

1.4.4 *Time measurement*

Time measurement shall be to an accuracy of 0,1% or better.