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Standards

Irish Standard  
I.S. EN IEC 60086-2:2021

# Primary batteries - Part 2: Physical and electrical specifications

**I.S. EN IEC 60086-2:2021**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN IEC 60086-2:2021 is the adopted Irish version of the European Document EN IEC 60086-2:2021, Primary batteries - Part 2: Physical and electrical specifications

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EUROPEAN STANDARD

**EN IEC 60086-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2021

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Supersedes EN 60086-2:2016 and all of its amendments  
and corrigenda (if any)

English Version

## Primary batteries - Part 2: Physical and electrical specifications (IEC 60086-2:2021)

Piles électriques - Partie 2: Spécifications physiques et  
électriques  
(IEC 60086-2:2021)

Primärbatterien - Teil 2: Physikalische und elektrische  
Spezifikationen  
(IEC 60086-2:2021)

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

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Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## **EN IEC 60086-2:2021 (E)**

### **European foreword**

The text of document 35/1466/FDIS, future edition 14 of IEC 60086-2, prepared by IEC/TC 35 "Primary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60086-2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-03-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-06-01

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### **Endorsement notice**

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60086-3	NOTE	Harmonized as EN 60086-3
IEC 60086-4	NOTE	Harmonized as EN IEC 60086-4
IEC 60086-5	NOTE	Harmonized as EN 60086-5
IEC 62281	NOTE	Harmonized as EN IEC 62281

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60086-1	-	Primary batteries - Part 1: General	EN IEC 60086-1	-
ISO 1101	-	Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	-

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**IEC 60086-2**

Edition 14.0 2021-04

# **INTERNATIONAL STANDARD**

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**Primary batteries –  
Part 2: Physical and electrical specifications**





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**IEC 60086-2**

Edition 14.0 2021-04

# **INTERNATIONAL STANDARD**

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## **Primary batteries – Part 2: Physical and electrical specifications**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### PRIMARY BATTERIES –

#### Part 2: Physical and electrical specifications

#### FOREWORD

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International Standard IEC 60086-2 has been prepared by IEC technical committee 35: Primary cells and batteries.

This fourteenth edition cancels and replaces the thirteenth edition published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) clarification and distinct separation of the terms used for coin (lithium button) and button cells and batteries;
- b) importation of the dimensional stability from 60086-1;
- c) reordering category 1, 5 and 6 batteries by volume;
- d) addition of cochlear implant tests and a new zinc air hearing aid battery type;
- e) modification of PR70 hearing aid tests;
- f) addition of a compliance checklist annex (Annex E);

- g) modifications to the LR1/R1 tests;
- h) addition of new specifications for 8LR932, CR1632, CR1225, CR2477, 6AS6P, 6AS6S, 6PS6P, 6PS6S, 6PS4P, 6PS4S, 5PR175/172, 6PR225/155, AS4, AS6, AS8, AS10, AS12, PS121/195S, PS121/195P, AS149/195, 6AS4S, AR40, 5AR40, 6AR40.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
35/1466/FDIS	35/1468/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

A list of all parts in the IEC 60086 series, under the general title *Primary batteries*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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



## INTRODUCTION

The technical content of this part of IEC 60086 provides physical dimensions, discharge test conditions and discharge performance requirements. IEC 60086-2 complements the general information and requirements of IEC 60086-1.

This part was prepared to benefit primary battery users, device designers and battery manufacturers by furnishing the specifics of form, fit and function for individual standardized primary cells and batteries. Over the years, this part has been changed to improve its contents and may again be revised in due course in the light of comments made by national committees and experts on the basis of practical experience and changing technology.

This current revision is the result of a reformatting initiative, as well as some content changes, aimed at making this part more user-friendly, less ambiguous, and, from a cross reference basis, fully harmonized with other parts of IEC 60086.

NOTE Safety information is available in IEC 60086-4, IEC 60086-5 and IEC 62281.

## PRIMARY BATTERIES –

### Part 2: Physical and electrical specifications

#### 1 Scope

This part of IEC 60086 is applicable to primary batteries which are based on standardised electrochemical systems.

It specifies

- the physical dimensions,
- the discharge test conditions and discharge performance requirements.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60086-1, *Primary batteries – Part 1: General*

ISO 1101, *Geometrical product specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out*

#### 3 Terms, definitions, symbols and abbreviated terms

For the purposes of this document, the terms and definitions given in IEC 60086-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### 3.1 Terms and definitions

###### 3.1.1

###### **application test**

simulation of the actual use of a battery in a specific application

###### 3.1.2

###### **button cell or battery**

small round cell or battery where the overall height is less than the diameter, containing aqueous electrolyte

Note 1 to entry: See coin (cell or battery), lithium button (cell or battery).

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