

SLOVENSKI STANDARD

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SIST EN IEC 60086-2:2021

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Primarne baterije - 2-1. del: Fizikalne in električne specifikacije baterij z vodnim elektrolitom (IEC 60086-2-1:2026)

Primary batteries - Part 2-1: Physical and electrical specifications of batteries with aqueous electrolyte (IEC 60086-2-1:2026)

Primärbatterien - Teil 2-1: Physikalische und elektrische Eigenschaften von Batterien mit wässrigem Elektrolyt (IEC 60086-2-1:2026)

Piles électriques - Partie 2-1: Spécifications physiques et électriques des piles à électrolyte aqueux (IEC 60086-2-1:2026)

Ta slovenski standard je istoveten z: EN IEC 60086-2-1:2026

ICS:

29.220.10 Primarni členi in baterije Primary cells and batteries

SIST EN IEC 60086-2-1:2026 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60086-2-1

September 2026

ICS 29.220.10

Supersedes EN IEC 60086-2:2021; EN IEC 60086-2:2021/AC:2022-07; EN IEC 60086-2:2021/AC:2026-04

English Version

**Primary batteries - Part 2-1: Physical and electrical specifications
of batteries with aqueous electrolyte
(IEC 60086-2-1:2026)**

Piles électriques - Partie 2-1: Spécifications physiques et
électriques des piles à électrolyte aqueux
(IEC 60086-2-1:2026)

Primärbatterien - Teil 2-1: Physikalische und elektrische
Eigenschaften von Batterien mit wässrigem Elektrolyt
(IEC 60086-2-1:2026)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN IEC 60086-2-1:2026 E

EN IEC 60086-2-1:2026 (E)**European foreword**

The text of document 35/1591/FDIS, future edition 1 of IEC 60086-2-1, prepared by TC 35 "Primary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60086-2-1:2026.

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) 2027-09-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2029-09-30

This document supersedes EN IEC 60086-2:2021 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 60086-2-1:2026 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 standard indicated:

IEC 60086-2-2	NOTE	Approved as EN IEC 60086-2-2
IEC 60086-3	NOTE	Approved as EN IEC 60086-3
IEC 60086-5	NOTE	Approved as EN IEC 60086-5

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60086-1	2026	Primary batteries - Part 1: General	EN IEC 60086-1	— ¹
ISO 1101	-	Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	-

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¹ Under preparation. Stage at the time of publication: FprEN IEC 60086-1:2026.

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IEC 60086-2-1

Edition 1.0 2026-06

INTERNATIONAL STANDARD

**Primary batteries -
Part 2-1: Physical and electrical specifications of batteries with aqueous
electrolyte**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Primary batteries -
Part 2-1: Physical and electrical specifications
of batteries with aqueous electrolyte**

FOREWORD

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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 60086-2-1 has been prepared by IEC technical committee 35: Primary cells and batteries. It is an International Standard.

This first edition cancels and replaces the fourteenth edition of IEC 60086-2 published in 2021. This edition constitutes a technical revision.

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

- a) the physical and electrical specifications of IEC 60086-2:2021 were divided into two new standards based on their electrolyte types. IEC 60086-2-1 provides specifications for standardized primary batteries containing aqueous electrolyte. IEC 60086-2-2 covers specifications for standardized lithium-based primary batteries;
- b) in Clause 3, terms were reordered according to their functions: basic terms, electrochemical systems, electrical characteristics and specifications;

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- c) TR03 and TR6 were added in Category 1, Round batteries;
- d) load of digital audio test for LR03, TR03 and R03 was changed from 50 mA to 75 mA and MAD was modified;
- e) personal grooming test of LR6 was added instead of high drain application test;
- f) high drain application test was added for TR6;
- g) radio /clock /remote control test was added for R6S;
- h) CD, digital audio, wireless gaming and accessories test was removed for LR6, R6P and R6S;
- i) 4.5V of common designation was added for 3LR12, 3R12P and 3R12S;
- j) Annex D for common designation of IEC 60086-2:2021 was moved to IEC 60086-1:2026, as Annex H;
- k) Annex E for Compliance checklist of IEC 60086-2:2021 was removed and merged into Annex J of IEC 60086-1:2026.

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

Draft	Report on voting
35/1591/FDIS	35/1599/RVD

Full information on the voting for its approval 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. The main document types developed by IEC are described in greater detail at www.iec.ch/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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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INTRODUCTION

The technical content of this part of IEC 60086 provides physical dimensions, discharge test conditions and discharge performance requirements. IEC 60086-2-1 and IEC 60086-2-2 complement the general information and requirements of IEC 60086-1. Safety information of IEC 60086-2-1 is available in IEC 60086-5.

This document 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 of IEC 60086 has been changed to improve its contents and might 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.

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1 Scope

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

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 60086-1:2026, *Primary batteries - Part 1: General*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60086-1:2026 and the following apply.

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

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

3.1

primary cell

primary battery

cell or battery that is not designed to be electrically recharged

3.2

round cell

round battery

cell or battery with circular cross section

3.3

button cell

button battery

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