



# INTERNATIONAL STANDARD

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

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 29.220.10

ISBN 978-2-8322-9685-1

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## CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references .....	8
3 Terms, definitions, symbols and abbreviated terms.....	8
3.1 Terms and definitions.....	8
3.2 Symbols and abbreviated terms .....	10
4 Battery dimensions, symbols .....	10
5 Dimensional stability.....	11
6 Validity of testing.....	11
7 Constitution of the battery specification tables .....	11
8 Physical and electrical specifications .....	13
8.1 Category 1 batteries .....	13
8.1.1 General .....	13
8.1.2 Category 1 – Specifications: LR1, R1, LR8D425 .....	14
8.1.3 Category 1 – Specifications: LR03, FR10G445, R03.....	15
8.1.4 Category 1 – Specifications: LR6, FR14505, R6P, R6S .....	16
8.1.5 Category 1 – Specifications: LR14, R14P, R14S.....	17
8.1.6 Category 1 – Specifications: LR20, R20P, R20S.....	18
8.2 Category 2 batteries – Specifications: CR14250, CR15H270, CR17345, CR17450, BR17335 .....	19
8.3 Category 3 batteries – Specifications: LR9, CR11108 .....	20
8.4 Category 4 batteries .....	21
8.4.1 General .....	21
8.4.2 Category 4 – Specifications: PR70, PR41, PR48, PR44, PR1154 .....	21
8.4.3 Fit acceptance gauge for PR batteries .....	23
8.4.4 Category 4 – Specifications: LR41, LR55, LR54, LR43, LR44 .....	24
8.4.5 Category 4 – Specifications: SR62, SR63, SR65, SR64, SR60, SR67, SR66, SR58, SR68, SR59, SR69, SR41, SR57, SR55, SR48, SR54, SR42, SR43, SR44 .....	26
8.4.6 Category 4 – Specifications: CR1025, CR1216, CR1220, CR1225, CR1616, CR2012, CR1620, CR1632, CR2016, CR2025, CR2320, CR2032, CR2330, CR2430, CR2354, CR3032, CR2450, CR2477, BR1225, BR2016, BR2320, BR2325, BR3032.....	28
8.5 Category 5 batteries .....	30
8.5.1 Category 5 – Specifications: 2CR13252, 4LR44, 4SR44 .....	30
8.5.2 Category 5 – Specification: 8LR932.....	32
8.5.3 Category 5 – Specifications: AR40, 5AR40, 6AR40, 5PR175/172, 6PR225/155.....	33
8.6 Category 6 batteries .....	34
8.6.1 Category 6 – Specification: 4LR61 .....	34
8.6.2 Category 6 – Specification: CR-P2.....	35
8.6.3 Category 6 – Specification: 2CR5 .....	36
8.6.4 Category 6 – Specifications: 3R12P, 3R12S, 3LR12 .....	37
8.6.5 Category 6 – Specifications: AS4, AS6, AS8, AS10, AS12, PS8S, PS8P, PS10.....	38
8.6.6 Category 6 – Specification: 4R25Y .....	39

8.6.7	Category 6 – Specifications: 4R25X, 4LR25X .....	40
8.6.8	Category 6 – Specifications: 4R25-2, 4LR25-2.....	41
8.6.9	Category 6 – Specifications: 6AS4S, 6PS4S, 6PS4P .....	42
8.6.10	Category 6 – Specifications: 6F22, 6LR61, 6LP3146 .....	43
8.6.11	Category 6 – Configurations: Stud for 6F22, 6LR61 6LP3146 .....	44
8.6.12	Category 6 – Specifications: 6AS6P, 6AS6S, 6PS6P, 6PS6S.....	45
Annex A (informative)	Tabulation of batteries by application .....	46
Annex B (informative)	Cross-reference index .....	52
Annex C (informative)	Index.....	55
Annex D (informative)	Common designation.....	56
Annex E (informative)	Compliance checklist.....	57
Bibliography	.....	58
Figure 1 – Dimensional drawing: Category 1 .....		13
Figure 2 – Dimensional drawing: LR1, R1, LR8D425.....		14
Figure 3 – Dimensional drawing: LR03, FR10G445, R03.....		15
Figure 4 – Dimensional drawing: LR6, FR14505, R6P, R6S .....		16
Figure 5 – Dimensional drawing: LR14, R14P, R14S.....		17
Figure 6 – Dimensional drawing: LR20, R20P, R20S.....		18
Figure 7 – Dimensional drawing: CR14250, CR15H270, CR17345, CR17450, BR17335 .....		19
Figure 8 – Dimensional drawing: LR9, CR11108 .....		20
Figure 9 – Dimensional drawing: Category 4.....		21
Figure 10 – Dimensional drawing: PR70, PR41, PR48, PR44, PR1154 .....		21
Figure 11 – Gauge opening for P system batteries.....		23
Figure 12 – Suggested gauge layout.....		23
Figure 13 – Air hole placement diagram for P system batteries .....		24
Figure 14 – Dimensional drawing: LR41, LR55, LR54, LR43, LR44 .....		24
Figure 15 – Dimensional drawing: SR62, SR63, SR65, SR64, SR60, SR67, SR66, SR58, SR68, SR59, SR69, SR41, SR57, SR55, SR48, SR54, SR42, SR43, SR44 .....		26
Figure 16 – Dimensional drawing: CR1025, CR1216, CR1220, CR1225, CR1616, CR2012, CR1620, CR2016, CR2412, CR1632, CR2025, CR2320, CR2032, CR2330, CR2430, CR2354, CR2477, CR3032, CR2450, BR1225, BR2016, BR2320, BR2325, BR3032 .....		28
Figure 17 – Dimensional drawing: 2CR13252, 4LR44, 4SR44 .....		30
Figure 18 – Dimensional drawing: 8LR932.....		32
Figure 19 – Dimensional drawing: AR40, 5AR40, 6AR40, 5PR175/172, 6PR225/155 .....		33
Figure 20 – Dimensional drawing: 4LR61 .....		34
Figure 21 – Dimensional drawing: CR-P2.....		35
Figure 22 – Dimensional drawing: 2CR5 .....		36
Figure 23 – Dimensional drawing: 3R12P, 3R12S, 3LR12 .....		37
Figure 24 – Dimensional drawing: AS4, AS6, AS8, AS10, AS12, PS8S, PS8P, PS10.....		38
Figure 25 – Dimensional drawing: 4R25Y.....		39
Figure 26 – Dimensional drawing: 4R25X, 4LR25X .....		40
Figure 27 – Dimensional drawing: 4R25-2, 4LR25-2 .....		41
Figure 28 – Dimensional drawing: 6AS4S, 6PS4S, 6PS4P .....		42

Figure 29 – Dimensional drawing: 6F22, 6LR61, 6LP3146 .....	43
Figure 30 – Dimensional drawing: Stud .....	44
Figure 31 – Dimensional drawing: 6AS6P, 6AS6S, 6PS6P, 6PS6S .....	45
Table 1 – Gauge opening dimension (mm) .....	23
Table A.1 – Automatic camera .....	46
Table A.2 – CD, digital audio, wireless gaming and accessories .....	46
Table A.3 – Digital audio .....	46
Table A.4 – Digital still camera .....	46
Table A.5 – Electric equipment .....	46
Table A.6 – Electrical fence equipment, parking meters, light houses, beacons, railway signaling and road signaling.....	47
Table A.7 – Electronic key .....	47
Table A.8 – Hearing aid .....	47
Table A.9 – Hearing aid standard.....	48
Table A.10 – High intensity lighting .....	48
Table A.11 – Implant high drain .....	48
Table A.12 – Implant low drain.....	48
Table A.13 – Implant low drain with wireless.....	48
Table A.14 – Photo .....	48
Table A.15 – Portable lighting (LED) .....	49
Table A.16 – Portable stereo .....	49
Table A.17 – Radio .....	49
Table A.18 – Radio / Clock .....	50
Table A.19 – Radio/clock/remote control.....	50
Table A.20 – Remote control.....	50
Table A.21 – Road warning lamp .....	50
Table A.22 – Smoke detector .....	50
Table A.23 – Toy (motor) .....	51
Table A.24 – Toy (non-motorized).....	51
Table A.25 – Wireless streaming.....	51
Table B.1 – Category 1 batteries.....	52
Table B.2 – Category 2 batteries.....	52
Table B.3 – Category 3 batteries.....	52
Table B.4 – Category 4 batteries.....	53
Table B.5 – Category 5 batteries.....	54
Table B.6 – Category 6 batteries.....	54
Table C.1 – Index .....	55
Table D.1 – Index .....	56
Table E.1 – Summary of specified items .....	57

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### PRIMARY BATTERIES –

#### Part 2: Physical and electrical specifications

#### 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 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*