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Edition 5.0 2021-08

INTERNATIONAL STANDARD

colour inside

Lead-acid starter batteries –
Part 2: Dimensions of batteries and dimensions and marking of terminals



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LEAD-ACID STARTER BATTERIES –

Part 2: Dimensions of batteries and dimensions and marking of terminals

FOREWORD

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International Standard IEC 60095-2 has been prepared by IEC technical committee 21: Secondary cells and batteries.

This fifth edition cancels and replaces the fourth edition published in 2009. This edition constitutes a technical revision.

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

a) update of the dimensions of batteries:
   - in Europe according to the last version of the European standard;
   - in USA with figures updated;
   - in Asia with one type of Japanese battery removed.

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

FDIS	Report on voting
21/1086/FDIS	21/1092/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/standardsdev/publications.

A list of all parts in the IEC 60095 series, published under the general title *Lead-acid starter 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- withdrawn,
- replaced by a revised edition, or
- amended.

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LEAD-ACID STARTER BATTERIES –

Part 2: Dimensions of batteries and dimensions and marking of terminals

1 Scope

This part of IEC 60095 is applicable to lead-acid batteries used for starting, lighting and ignition of passenger cars and light vehicles with a nominal voltage of 12 V.

All batteries in accordance with this document can be fastened to the vehicle either by means of the ledges around the container or by means of a hold-down device engaging with the lid.

This document specifies dimensions of battery for Europe, East Asia and North America.

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 60050-482, *International Electrotechnical Vocabulary – Part 482: Primary and secondary cells and batteries*

IEC 60095-1:2018, *Lead-acid starter batteries – Part 1: General requirements and methods of test*

IEC 60417:2002 , *Graphical symbols for use on equipment*

ISO/IEC 10646, *Information technology – Universal coded character set (UCS)*

ISO 1043-1, *Plastics – Symbols and abbreviated terms – Part 1: Basic polymers and their special characteristics*

ISO 11469, *Plastics – Generic identification and marking of plastics products*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in IEC 60050-482 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

4 General requirements

4.1 General

The specifications of Clause 4 are common to all starter batteries according to this document.

4.2 Marking

4.2.1 Safety labelling

The batteries shall bear the six coloured safety symbols in accordance with 6.1.6 of IEC 60095-1:2018.

4.2.2 Marking of the polarity of terminals

4.2.2.1 General

The batteries shall carry the marking of polarity, at least of the positive terminal.

4.2.2.2 Marking of positive terminals

This marking shall take the form of the symbol "+" either on the upper surface of the positive terminal or on the lid adjacent to the positive terminal.

4.2.2.3 Marking of negative terminals

This marking shall take the form of the symbol "–" either on the upper surface of the negative terminal or on the lid adjacent to the negative terminal.

4.2.2.4 Design and dimensions of marking of terminals

The symbols used for marking the terminals shall be in accordance with IEC 60417-5005:2012-10 for the positive and IEC 60417-5006:2012-10 for the negative polarity.

The dimensions of the marking shall be according to Figure 1.

Dimensions in millimetres



Figure 1 – Marking of polarity

The polarity symbols may be either indented or embossed by (0,4 ± 0,1) mm.

As an alternative, the wordings "POS" and "NEG" are permitted for the North American market only.