



SLOVENSKI STANDARD
SIST EN 50342-4:2009

01-september-2009

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Lead-acid starter batteries - Part 4: Dimensions of batteries for heavy vehicles

Blei-Akkumulatoren-Starterbatterien - Teil 4: Maße von Nutzkraftwagen-Batterien

Batteries de démarrage au plomb - Partie 4: Dimensions des batteries pour poids lourds

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Ta slovenski standard je istoveten z: EN 50342-4:2009

ICS:

29.220.20 Sä |ä • \ ä ^ \ ~ } å æ } ä | ^ } ä ð Acid secondary cells and batteries

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 50342-4

July 2009

ICS 29.220.20

Supersedes EN 60095-4:1993 + A11:1994

English version

**Lead-acid starter batteries -
Part 4: Dimensions of batteries for heavy vehicles**

Batteries d'accumulateurs
de démarrage au plomb -
Partie 4: Dimensions des batteries
pour poids lourds

Blei-Akkumulatoren-Starterbatterien -
Teil 4: Maße von
Nutzkraftwagen-Batterien

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This European Standard was approved by CENELEC on 2009-07-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 21X, Secondary cells and batteries.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50342-4 on 2009-07-01.

This European Standard supersedes EN 60095-4:1993 + A11:1994.

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) | 2010-07-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2012-07-01 |

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1 Scope and object

This European Standard is applicable to lead-acid batteries used for heavy vehicles.

The object of this European Standard is to specify the European requirements of the main dimensions of starter batteries.

For new and future developments of the above applications it is strongly recommended that only batteries from the “Preferred Types” series be used.

Batteries of the series of “Other Types” exist under several national standards. They have been transferred from the previous standard EN 60095-4.

The preferred types A, B and C are newly introduced and correspond closely to the types D4, D5 and D6 with some differences in tolerances and dimensions.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 50342-1, Lead-acid starter batteries – Part 1: General requirements and methods of test

EN 50342-2, Lead-acid starter batteries – Part 2: Dimensions of batteries and marking of terminals

[SIST EN 50342-4:2009](https://standards.iteh.ai/catalog/standards/sist/17709bfc-2f8-4220-81a0-097102c3a449/sist-en-50342-4-2009)

EN 61429, Marking of secondary cells and batteries with the international recycling symbol ISO 7000-1135 and indications regarding directives 93/86/EEC and 91/157/EEC (IEC 61429)

EN ISO 1043-1:2001, Plastics – Symbols and abbreviated terms – Part 1: Basic polymers and their special characteristics (ISO 1043-1:2001)

IEC 60050-482:2004, International Electrotechnical Vocabulary (IEV) – Part 482: Primary and secondary cells and batteries

IEC 60417 database, Graphical symbols for use on equipment

3 Definitions

For the purposes of this document, the terms and definitions of IEC 60050-482 are applicable.

4 General requirements

4.1 Safety labelling

The batteries shall bear the six coloured safety symbols in accordance with EN 50342-1.

4.2 Marking

The batteries shall be marked with signs for both polarities that have to be positioned near to or on top face of the terminals.

4.2.1 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 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.

4.2.3 Design and dimensions of marking of terminals

The symbols used for marking the terminals shall be in accordance with IEC 60417, symbol 5005a for the positive polarity and symbol 5006a for the negative polarity.

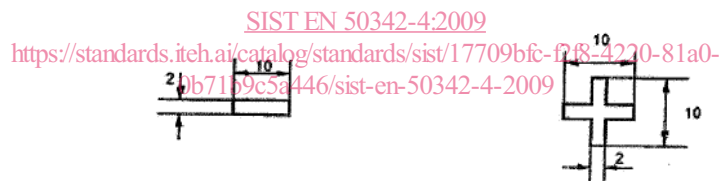


Figure 1 – Marking of polarity

The polarity symbols may be either indented or embossed by $0,4 \text{ mm} \pm 0,1 \text{ mm}$.

4.2.4 Marking of plastic material

The batteries container and lid shall be marked to identify the type of plastic material by embossing or indenting it into the battery housing.

4.3 Recycling

4.3.1 Recycling of lead

The batteries shall be marked with the recycling symbol and the EC-Symbol of a crossed through rollout container, both in accordance with EN 61429.

4.3.2 Recycling of plastic material

The marking of plastic moulded parts has to be fixed in the tooling of the container e.g. on the bottom or on one short wall side near the ledge.

For the polypropylene/polyethylene copolymer the marking > PP/PE < in accordance with EN ISO 1043-1 is minimum.

As supplementation is permissible

- the international recycling symbol (ISO 7000, symbol 1135),
- the number 7 or 07 for PP/PE, and
- the addition of "other".



Figure 2 – Marking of polypropylene

The marking shall be achieved by moulding in relief. The recommended thickness is 0,2 mm – 0,4 mm. The height of the marking characters shall be between 5 mm and 7 mm.

4.4 Dimensions and design

All dimensions are millimeters.

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Details of the design that are not indicated in the generic drawings have to be chosen appropriately.

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The illustrations in this standard, especially those of the design of the handles, ribs, ledges, vent caps and their locations are not mandatory.

4.5 Dimensions of terminals

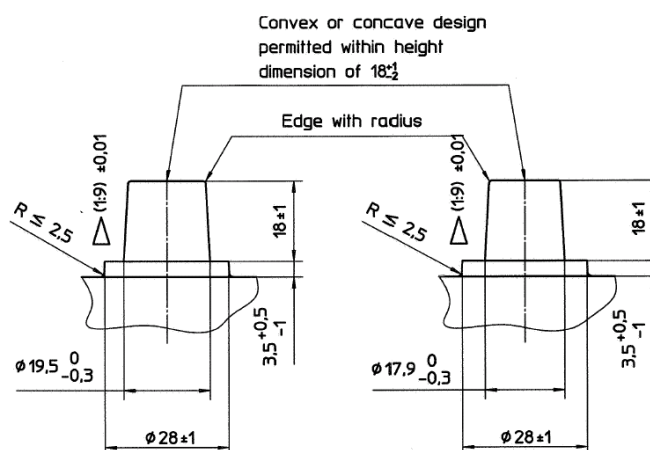


Figure 3 – Dimensions of positive and negative terminals

If the terminal has a base "ring" as shown above, it should conform to the dimensions given in drawing.

5 Preferred types

5.1 General

Handles for manual handling:

Batteries with a weight of more than 20 kg shall have handles.

The figures below show the handles only generically.

It is recommended that the polarity of the terminals is as shown in the figures.

5.2 Dimension table for types D2, A, B, C

The dimensions are indicated in millimeters and they correspond to the figures shown for each type of battery.

Table 1 – Dimensions of batteries “Preferred Types”

Type	l	l_1	l_2	l_3	b	b_1	b_2	h	h_1
D2	349_{-5}^0	344_{-8}^0	--	--	175_{-4}^0	162_{-4}^{+4}	--	235_{-4}^0	213_{-4}^0
A	513_{-4}^0	475_{-3}^0	482_{-2}^{+2}	200_{-4}^{+4}	188_{-2}^{+2}	178_{-2}^0	86_{-1}^{+1}	223 max.	195_{-3}^0
B	513_{-4}^0	475_{-3}^0	482_{-2}^{+2}	200_{-4}^{+4}	222_{-2}^{+2}	210_{-2}^0	102_{-1}^{+1}	223 max.	195_{-3}^0
C	518_{-4}^0	475_{-3}^0	482_{-2}^{+2}	200_{-4}^{+4}	274_{-2}^{+2}	265_{-2}^0	130_{-1}^{+1}	242 max.	216_{-3}^0

For the types A, B and C:

A minimum clearance with a 27 mm radius concentric to both terminals shall be kept clear for clamping purposes.

For a central degassing the outlets at the lid should be located at the end of the battery away from the terminals. The dimensions of the outlets shall conform to EN 50342-2.