

# INTERNATIONAL STANDARD

# IEC 60254-2

Edition 3.1  
2000-11

Edition 3:1997 consolidated with amendment 1:2000

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## Lead-acid traction batteries –

### Part 2:

### Dimensions of cells and terminals and marking of polarity on cells

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*This **English-language** version is derived from the original **bilingual** publication by leaving out all French-language pages. Missing page numbers correspond to the French-language pages.*



Reference number  
IEC 60254-2:1997+A1:2000(E)

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PRICE CODE

**CB**

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## CONTENTS

	Page
FOREWORD .....	5
Clause	
1 General.....	7
1.1 Scope and object .....	7
1.2 Normative references .....	7
2 Main dimensions of traction battery cells .....	7
2.1 Standard series.....	7
2.2 External dimensions.....	7
2.3 Cell range prevalent in Asia .....	9
2.4 Cell range prevalent in North America .....	9
3 Marking of polarity on traction battery cells and dimensions of corresponding symbols .....	9
3.1 General provisions for marking of cell polarity.....	9
3.2 Form of marking.....	9
3.3 Symbols used for marking and their dimensions .....	9
4 Basic dimensions of traction battery terminals .....	9
4.1 General provisions for dimensions of battery terminals .....	9
4.2 Conical traction battery terminals .....	11
4.3 Bolted traction battery terminals .....	11
Bibliography .....	17
Figure 1 – Basic dimensions of conical traction battery terminals .....	13
Figure 2 – Basic dimensions of traction battery cable ends for bolted terminals .....	15
Table 1 – Main dimensions of traction battery cells .....	11
Table 2 – Cell range prevalent in Asia – Main dimensions of traction battery cells .....	11
Table 3 – Cell range prevalent in North America – Main dimensions of traction battery cells (vented).....	13

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LEAD-ACID TRACTION BATTERIES –****Part 2: Dimensions of cells and terminals and marking  
of polarity on cells**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60254-2 has been prepared by IEC technical committee 21: Secondary cells and batteries.

This third edition cancels and replaces the second edition published in 1985 and constitutes a technical revision.

This consolidated version of IEC 60254-2 consists of the third edition (1997) [documents 21/406/FDIS and 21/423/RVD] and its amendment 1 (2000) [documents 21/488/FDIS and 21/505/RVD].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 3.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2005. At this date, the publication will be

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

# LEAD-ACID TRACTION BATTERIES –

## Part 2: Dimensions of cells and terminals and marking of polarity on cells

### 1 General

#### 1.1 Scope and object

This part of IEC 60254 is applicable to lead-acid traction batteries used as power sources for electric propulsion.

The object of the present standard is to specify

- the maximum external (overall) dimensions of traction battery cells, that is, the width, the height and the length;
- the form of the marking of traction battery cell polarity and dimensions of corresponding symbols;
- the basic dimensions of some commonly used traction battery terminals designed to connect output cables to the battery;
- the dimensions of cells commonly used in Asia and North America.

#### 1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60254. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60254 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60417-1:1998, *Graphical symbols for use on equipment – Part 1: Overview and application*

IEC 60417-2:1998, *Graphical symbols for use on equipment – Part 2: Symbol originals*

### 2 Main dimensions of traction battery cells

#### 2.1 Standard series

Traction battery cells in accordance with this standard shall belong to one of the following two dimensional series determined by the width:

E (narrow)      L (wide)

#### 2.2 External dimensions

**2.2.1** The external (overall) dimensions of traction battery cells are represented by the following symbols:

- b* width (dimension parallel to the surface of the plates);
- h* height (including lid, vent plugs and terminals, but without output cable);
- l* length (dimension perpendicular to the surface of the plates).