

General purpose lead-acid batteries (valve-regulated types) —

Part 1: General requirements, functional characteristics — Methods of test

The European Standard EN 61056-1:2003 has the status of a
British Standard

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National foreword

This British Standard is the official English language version of EN 61056-1:2003. It is identical with IEC 61056-1:2002. It supersedes BS EN 61056-1:1993 which will be withdrawn on 2005-12-01.

The UK participation in its preparation was entrusted to Technical Committee PEL/21, Secondary cells and batteries, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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General purpose lead-acid batteries (valve-regulated types)
Part 1: General requirements, functional characteristics -
Methods of test
(IEC 61056-1:2002)

Batteries d'accumulateurs au plomb-acide
pour usage général (types à soupapes)
Partie 1: Prescriptions générales et
caractéristiques fonctionnelles -
Méthodes d'essai
(CEI 61056-1:2002)

Bleibatterien für allgemeine
Anwendungen (verschlossen)
Teil 1: Allgemeine Anforderungen,
Eigenschaften -
Prüfverfahren
(IEC 61056-1:2002)

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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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 21/568/FDIS, future edition 2 of IEC 61056-1, prepared by IEC TC 21, Secondary cells and batteries, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61056-1 on 2002-12-01.

This European Standard supersedes EN 61056-1:1993.

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) | 2003-09-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2005-12-01 |

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61056-1:2002 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 standards indicated:

IEC 60051-1	NOTE	Harmonized as EN 60051-1:1998 (not modified).
IEC 60051-2	NOTE	Harmonized as EN 60051-2:1989 (not modified).
IEC 60095	NOTE	Harmonized as EN 50342:2001 and in EN 60095 series (modified).
IEC 60254	NOTE	Harmonized in EN 60254 series (not modified).
IEC 60359	NOTE	Harmonized as EN 60359:2002 (not modified).
IEC 60896	NOTE	Harmonized in EN 60896 series (not modified).

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GENERAL PURPOSE LEAD-ACID BATTERIES (VALVE-REGULATED TYPES) –

Part 1: General requirements, functional characteristics – Methods of test

1 Scope and object

This part of IEC 61056 specifies the general requirements, functional characteristics and methods of test

- for all general purpose lead-acid cells and batteries of the valve-regulated type
 - for either cyclic or float charge application;
 - in portable equipment, for instance, incorporated in tools, toys, or in static emergency, or uninterruptible power supply and general power supplies.

The cells of this kind of lead-acid battery may either have flat-plate electrodes in prismatic containers or have spirally wound pairs of electrodes in cylindrical containers. The sulphuric acid in these cells is immobilized between the electrodes either by absorption in a micro-porous structure or in a gelled form.

NOTE The dimensions, terminals and marking of the lead-acid cells and batteries which are applied by this standard are given in IEC 61056-2.

This part of IEC 61056 does not apply for example to lead-acid cells and batteries used for

- vehicle engine starting applications (IEC 60095 series),
- traction applications (IEC 60254 series), or
- stationary applications (IEC 60896 series).

Conformance to this standard requires that statements and claims of basic performance data by the manufacturer shall correspond to these test procedures. The tests may also be used for type qualification.

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.

IEC 60050(486), *International Electrotechnical Vocabulary (IEV) – Chapter 486: Secondary cells and batteries*

IEC 60417 (all parts), *Graphical symbols for use on equipment*