

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Batteries d'accumulateurs au plomb-acide pour usage général (types à
soupapes) –
Partie 1: Exigences générales et caractéristiques fonctionnelles – Méthodes
d'essai**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**GENERAL PURPOSE LEAD-ACID BATTERIES
(VALVE-REGULATED TYPES) –****Part 1: General requirements, functional characteristics –
Methods of test**

FOREWORD

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International Standard IEC 61056-1 has been prepared by IEC technical committee 21: Secondary cells and batteries.

This third edition cancels and replaces the second edition of IEC 61056-1 published in 2002. It constitutes a technical revision.

The main changes consist in adding new battery designations and an update of the requirements like the one concerning the marking.

The text of this standard is based on the following documents:

FDIS	Report on voting
21/768/FDIS	21/774/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61056 series, published under the general title *General purpose lead-acid batteries (valve-regulated types)*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

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

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

1 Scope

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 correspond to these test procedures. The tests may also be used for type qualification.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60417, *Graphical symbols for use on equipment*

IEC 60445, *Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals, conductor terminations and conductors*

IEC 61056-2:2012, *General purpose lead-acid batteries (valve-regulated types) – Part 2: Dimensions, terminals and marking*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.