BS EN 50342-1:2015

BSI Standards Publication

Lead-acid starter batteries

Part 1: General requirements and methods of test

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National foreword

This British Standard is the UK implementation of EN 50342-1:2015. It supersedes BS EN 50342-1:2006+A1:2011 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/21, Secondary cells and batteries.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments issued since publication

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EN 50342-1

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English Version

Lead-acid starter batteries - Part 1: General requirements and methods of test

Batteries d'accumulateurs de démarrage au plomb - Partie 1 : Prescriptions générales et méthodes d'essais

Blei-Akkumulatoren-Starterbatterien - Teil 1: Allgemeine Anforderungen und Prüfungen

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (EN 50342-1:2015) has been prepared by CLC/TC 21X “Secondary cells and batteries”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-10-05
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-10-05

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 50342-1:2006.

EN 50342, *Lead-acid starter batteries*, is currently composed of the following parts:

− *Part 1: General requirements and methods of test* [the present document];

− *Part 2: Dimensions of batteries and marking of terminals*;

− *Part 3: Terminal system for batteries with 36 V nominal voltage*;

− *Part 4: Dimensions of batteries for heavy vehicles*;

− *Part 5: Properties of battery housings and handles*;

− *Part 6: Batteries for Micro-Cycle Applications* [currently at Formal Vote stage];

− *Part 7: General requirements and methods of tests for motorcycle batteries* [currently at Formal Vote stage].

EN 50342-1:2015 includes the following significant technical changes with respect to EN 50342-1:2006:

a) The following topics have been reworked/changed in the new version:

   1) simplified structure;

   2) correction of errors;

   3) updated to actual state of art of lead acid batteries;

   4) definition of new requirement levels and a new system for identification.

b) The following test procedures and requirements have been updated:

   1) charging procedure (reworked);

   2) cold cranking procedure (reworked);

3) charge retention (reworked);

4) deep discharge (new);

5) cycling (reworked);

6) water consumption;

7) vibration test procedures (reworked and new requirement level V4 added for heavy trucks).

1 Scope

This European Standard is applicable to lead-acid batteries with a nominal voltage of 12 V, used primarily as a power source for the starting of internal combustion engines, lighting and also for auxiliary equipment of internal combustion engine vehicles. These batteries are commonly called “starter batteries”. Batteries with a nominal voltage of 6 V are also included within the scope of this standard. All referenced voltages need to be divided by two for 6 V batteries.

This European Standard is applicable to batteries for the following purposes:

- batteries for passenger cars,
- batteries for commercial and industrial vehicles.

This European Standard is not applicable to batteries for other purposes, for example the starting of railcar internal combustion engines or for motorcycles.

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.

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

EN 50342–4, *Lead-acid starter batteries — Part 4: Dimensions of batteries for heavy vehicles*

EN 50342-5, *Lead-acid starter batteries — Part 5: Properties of battery housings and handles*

EN 50342–6, *Lead-acid starter batteries — Part 6: Batteries for Micro-Cycle Applications*

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)*

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

3 General

3.1 Introduction

The object of this standard is to specify:

- general requirements;
- certain essential functional characteristics, the relevant test methods and results required, for several classes and types of starter batteries.

For general definitions of terms see IEC 60050-482, Part 482 of the International Electro-technical Vocabulary (IEV).