

Lead-acid starter batteries - Part 6: Batteries for  
Micro-Cycle Applications

## EESTI STANDARDI EESSÕNA

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English Version

## Lead-acid starter batteries - Part 6: Batteries for Micro-Cycle Applications

Batteries d'accumulateurs de démarrage au plomb - Partie  
6: Batteries pour applications micro-cycles

Blei-Akkumulatoren-Starterbatterien - Teil 6 : Batterien für  
Mikrozyklen-Anwendungen

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<b>Contents</b>	<b>Page</b>
European foreword.....	4
1 Scope .....	5
2 Normative references .....	5
3 General .....	5
3.1 Designation of starter batteries .....	5
3.2 Condition on delivery .....	5
4 General requirements — Identification and labelling .....	5
5 General test conditions.....	6
5.1 Characteristics and abbreviations.....	6
5.1.1 Nominal capacity $C_n$ .....	6
5.1.2 Cranking current $I_{CC}$ .....	6
5.2 Syntax of test descriptions.....	6
5.3 Requirements for measuring equipment capability.....	8
5.3.1 Equipment requirements for the micro-hybrid test MHT (7.2) .....	8
5.3.2 Equipment requirements for the dynamic charge acceptance test DCA (7.3) .....	9
5.3.3 Water bath .....	9
5.3.4 Equipment for other tests, measuring instruments .....	9
5.4 Sampling of batteries .....	9
6 Test sequence .....	9
7 Inspections and test procedures .....	11
7.1 Charging of batteries.....	11
7.2 Micro-hybrid test (MHT) .....	11
7.2.1 Purpose .....	11
7.2.2 Procedure .....	11
7.2.3 Battery preparation.....	11
7.2.4 Micro-cycles .....	11
7.2.5 Check-up after cycling .....	12
7.2.6 Data evaluation .....	13
7.3 Dynamic Charge acceptance test (DCA) .....	13
7.4 Endurance in cycle test with 17,5 % depth of discharge (DoD).....	17
7.5 Endurance in cycle test with 50 % depth of discharge (DoD) at 40 °C and preceded deep discharge .....	18
8 Requirements and battery performance levels .....	20
8.1 General .....	20
8.2 Tests to be passed (no performance differentiation) .....	20
8.3 Tests determining the micro-cycle performance level .....	21
Annex A (normative) Flow charts of DCA test procedure, 7.3 .....	22
Annex B (normative) Marking / Labelling of Batteries .....	26
Bibliography .....	27

## Tables

Table 1 — Test steps .....	6
Table 2 — Description of columns .....	7
Table 3 — Acronyms and Symbols .....	8
Table 4 — Equipment requirements for the micro-hybrid test MHT .....	8
Table 5 — Equipment requirements for the dynamic charge acceptance test DCA .....	9
Table 6 — Test sequence .....	10
Table 7 — MHT – Battery preparation .....	11
Table 8 — MHT – Micro-cycle .....	12
Table 9 — MHT – Check-up after cycling .....	12
Table 10 — DCA – Pre-cycling .....	14
Table 11 — DCA – Charge Acceptance qDCA procedure .....	14
Table 12 — DCA – The $DCA_{pp}$ procedure .....	15
Table 13 — DCA – The $DCR_{ss}$ part .....	16
Table 14 — Endurance 17,5 % DoD – Cycling units .....	18
Table 15 — Endurance 50 % DoD – Deep discharge part .....	19
Table 16 — Endurance 50 % DoD – Cycling part .....	20
Table 17 — Requirements of tests to be passed .....	21
Table 18 — Requirements of tests determining the micro-cycle performance level M1...M3 .....	21

## Figures

Figure 1 — Sub-phases of the $DCR_{ss}$ part .....	17
Figure B.1 — Optional Start-Stop logo .....	26

## European foreword

This document (EN 50342-6:2015) 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.

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

- *Part 1: General requirements and methods of test* [currently at Formal Vote stage];
- *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* [the present document];
- *Part 7: General requirements and methods of tests for motorcycle batteries* [currently at Formal Vote stage].

## 1 Scope

This European Standard is applicable to lead-acid batteries with a nominal voltage of 12 V, used primarily as power source for the starting of internal combustion engines (ICE), lighting and also for auxiliary equipment of ICE vehicles. These batteries are commonly called "starter batteries". Batteries with a nominal voltage of 6 V are also included in the scope of this standard. All referenced voltages need to be divided by two for 6 V batteries. The batteries under scope of this standard are used for micro-cycle applications in vehicles which can also be called Start-Stop (or Stop-Start, idling-stop system, micro-hybrid or idle-stop-and-go) applications. In cars with this special capability, the internal combustion engine is switched off during a complete vehicle stop, during idling with low speed or during idling without the need of supporting the vehicle movement by the internal combustion engine. During the phases in which the engine is switched off, most of the electric and electronic components of the car need to be supplied by the battery without support of the alternator. In addition, in most cases an additional regenerative braking (recuperation or regeneration of braking energy) function is installed. The batteries under these applications are stressed in a completely different way compared to classical starter batteries. Aside of these additional properties, those batteries need to crank the ICE and support the lighting and also auxiliary functions in a standard operating mode with support of the alternator when the internal combustion engine is switched on. All batteries under this scope need to fulfil basic functions, which are tested under application of EN 50342-1:2015.

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

- Lead-acid batteries of the dimensions according to EN 50342-2 for vehicles with the capability to automatically switch off the ICE during vehicle operation either in standstill or moving ("Start-Stop");
- Lead-acid batteries of the dimensions according to EN 50342-2 for vehicles with Start-Stop applications with the capability to recover braking energy or energy from other sources.

This standard is not applicable to batteries for purposes other than mentioned above, but it is applicable to EFB delivered in dry-charged conditions according to EN 50342-1:2015, Clause 7.

NOTE The applicability of this standard also for batteries according to EN 50342-4 is under consideration.

## 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 50342-1:2015, *Lead-acid starter batteries — Part 1: General requirements and methods of test*

## 3 General

### 3.1 Designation of starter batteries

Regarding the designation of starter batteries, refer to EN 50342-1:2015, 3.2.

### 3.2 Condition on delivery

Regarding the condition on delivery, refer to EN 50342-1:2015, 3.3.

## 4 General requirements — Identification and labelling

The batteries shall be identified according to the legal demands within the European community.

NOTE The regulations of the battery directive 2006/66/EC and the amendment 2008/12/EC or their equivalent national laws need to be applied.