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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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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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Contents

Page

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*

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