
**Sekundarne baterije (z izjemo litijevih) za pogon električnih cestnih vozil -
Varnostne zahteve za nikelj-kovinske hidridne celice in module**

Secondary batteries (except lithium) for the propulsion of electric road vehicles - Part 4:
Safety requirements of nickel-metal hydride cells and modules

Sekundärbatterien (außer Lithium) für den Antrieb von Elektrostraßenfahrzeugen - Teil 4:
Sicherheitsanforderungen an Nickel-Metallhydrid-Zellen und -Module

Accumulateurs (excepté lithium) pour la propulsion des véhicules routiers électriques -
Partie 4: Exigences de sécurité pour les éléments et modules d'accumulateurs nickel
métal-hydrure

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Secondary batteries (except lithium) for the propulsion of electric
road vehicles - Part 4: Safety requirements of nickel-metal
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(IEC 61982-4:2015)

Accumulateurs (excepté lithium) pour la propulsion des
véhicules routiers électriques - Partie 4: Exigences de
sécurité pour les éléments et modules d'accumulateurs
nickel métal-hydrure
(IEC 61982-4:2015)

Sekundärbatterien (außer Lithium) für den Antrieb von
Elektrostraßenfahrzeugen -
Teil 4: Sicherheitsanforderungen an Nickel-Metallhydrid-
Zellen und -Module
(IEC 61982-4:2015)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 61982-4:2016**European foreword**

The text of document 21/852/CDV, future edition 1 of IEC 61982-4, prepared by IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61982-4:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-09-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-12-01

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60051	NOTE	Harmonized in EN 60051 series.
IEC 60359	NOTE	Harmonized as EN 60359.
IEC 61982	NOTE	Harmonized as EN 61982.
IEC 62660-2	NOTE	Harmonized as EN 62660-2.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-482	2004	International Electrotechnical Vocabulary (IEV) - Part 482: Primary and secondary cells and batteries	-	-
IEC 61434	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Guide to the designation of current in alkaline secondary cell and battery standards	EN 61434	-

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NORME INTERNATIONALE

**Secondary batteries (except lithium) for the propulsion of electric road vehicles –
Part 4: Safety requirements of nickel-metal hydride cells and modules**

**Accumulateurs (excepté lithium) pour la propulsion des véhicules routiers
électriques –** [https://standards.iteh.ai/catalog/standards/sist/72f48365-38fb-4524-a20f-](https://standards.iteh.ai/catalog/standards/sist/72f48365-38fb-4524-a20f-077c9e1c1b/iec-61982-4:2016)

**Partie 4: Exigences de sécurité pour les éléments et modules d'accumulateurs
nickel métal-hydrure**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SECONDARY BATTERIES (EXCEPT LITHIUM) FOR THE PROPULSION OF ELECTRIC ROAD VEHICLES –

Part 4: Safety requirements of nickel-metal hydride cells and modules

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International Standard IEC 61982-4 has been prepared by IEC technical committee 21: Secondary cells and batteries.

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

CDV	Report on voting
21/852/CDV	21/866/RVC

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 in the IEC 61982 series, published under the general title *Secondary batteries (except lithium) for the propulsion of electric road vehicles*, 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 website 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.

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INTRODUCTION

The electric road vehicles (EV) including hybrid electric vehicles (HEV) begin to diffuse in the global market with backing from global concerns on CO₂ reduction and clean energy, as well as from relevant technology advancement and cost reduction. Nickel-metal hydride (Ni-MH) batteries have advantages in cost and balanced performance, and have been used extensively for EV application, especially for the propulsion of HEV.

This standard provides the safety test procedures and acceptance criteria of Ni-MH batteries (cells and modules) for EV application in order to evaluate their basic safety performance. For automobile application, it is important to note the designing diversity of battery packs and systems, and specific requirements for cells corresponding to each of such designs. Based on these facts, the purpose of this standard is to provide a basic level of safety test methodology and criteria with general versatility, which serves a function in common primary testing of cells or modules to be used in a variety of battery systems.

For specific requirements for the safety of cell differ depending on the system designs of battery pack or vehicle, final pass-fail criteria of cell are to be based on the agreement between the cell manufacturers and the customers.

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