SLOVENSKI STANDARD
SIST EN 62660-1:2019

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SIST EN 62660-1:2011

Sekundarni litij-ionski členi za pogon električnih cestnih vozil - 1. del: Preskušanje zmogljivosti

Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 1: Performance testing

Lithium-Ionen-Sekundärzellen für den Antrieb von Elektrostraßenfahrzeugen - Teil 1: Prüfung des Leistungsverhaltens

Eléments d'accumulateurs lithium-ion pour la propulsion des véhicules routiers électriques - Partie 1: Essais de performance

Ta slovenski standard je istoveten z: **EN IEC 62660-1:2019**

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ICS:

29.220.20	Kislinski sekundarni členi in baterije	Acid secondary cells and batteries
43.120	Električna cestna vozila	Electric road vehicles

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62660-1

February 2019

ICS 29.220.20; 43.120

Supersedes EN 62660-1:2011

English Version

Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 1: Performance testing (IEC 62660-1:2018)

Eléments d'accumulateurs lithium-ion pour la propulsion des véhicules routiers électriques - Partie 1: Essais de performance (IEC 62660-1:2018)

Lithium-Ionen-Sekundärzellen für den Antrieb von Elektrostraßenfahrzeugen - Teil 1: Prüfung des Leistungsverhaltens (IEC 62660-1:2018)

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European foreword

The text of document 21/975/FDIS, future edition 2 of IEC 62660-1, prepared by IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62660-1:2019.

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)	2019-10-16
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-01-16

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Endorsement notice

The text of the International Standard IEC 62660-1:2018 was approved by CENELEC as a European Standard without any modification.

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

IEC 62660-2	NOTE	Harmonized as EN 62660-2
IEC 62660-3	NOTE	Harmonized as EN 62660-3
IEC 61434:1996	NOTE	Harmonized as EN 61434:1996 (not modified)

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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.

Publication	Year	Title	EN/HD	Year
ISO/TR 8713	-	Electrically propelled road vehicles - Vocabulary	-	-

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Secondary lithium-ion cells for the propulsion of electric road vehicles – Part 1: Performance testing

Éléments d'accumulateurs lithium-ion pour la propulsion des véhicules routiers électriques – Partie 1: Essais de performance

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SECONDARY LITHIUM-ION CELLS FOR THE PROPULSION OF ELECTRIC ROAD VEHICLES –

Part 1: Performance testing

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International Standard IEC 62660-1 has been prepared by IEC technical committee 21: Secondary cells and batteries.

This second edition cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) The purpose of each test has been added.
b) The power test has been revised for clarification, and an informative part of the current-voltage characteristic test has been moved to the new Annex C.

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
21/975/FDIS	21/985/RVD

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

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

A list of all the parts in the IEC 62660 series, published under the general title *Secondary lithium-ion cells for the propulsion of electric road vehicles*, can be found on the IEC website.

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

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

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INTRODUCTION

The commercialization of electric road vehicles including battery, hybrid and plug-in hybrid electric vehicles has been accelerated in the global market, responding to the global concerns on CO_2 reduction and energy security. This, in turn, has led to rapidly increasing demand for high-power and high-energy-density traction batteries. Lithium-ion batteries are estimated to be one of the most promising secondary batteries for the propulsion of electric vehicles. In the light of the rapid spread of hybrid electric vehicles and the emergence of battery and plug-in hybrid electric vehicles, a standard method for testing performance requirements of lithium-ion batteries is indispensable for securing a basic level of performance and obtaining essential data for the design of vehicle systems and battery packs.

This document specifies performance testing for automobile traction lithium-ion cells that basically differ from the other cells including those for portable and stationary applications specified by other IEC standards. For automobile application, it is important to note the usage specificity; i.e. the design diversity of automobile battery packs and systems, and specific requirements for cells and batteries corresponding to each of such designs. Based on these facts, the purpose of this document is to provide a basic test methodology with general versatility, which serves a function in common primary testing of lithium-ion cells to be used in a variety of battery systems.

This document is associated with ISO 12405-4 [1][1].

IEC 62660-2 [2] specifies the reliability and abuse testing for lithium-ion cells for electric vehicle application.

IEC 62660-3 [3] specifies the safety requirements of lithium-ion cells for electric vehicle application.

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1 Numbers in square brackets refer to the Bibliography.