SVENSK STANDARD

SS-EN IEC 62813, utg 2:2025

2025-10-22

REDLINE VERSION

Litium-jonkondensatorer – Provning av elektriska egenskaper

Lithium ion capacitors for use in electric and electronic equipment – Test methods for electrical characteristics

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IEC 62813

Edition 2.0 2025-01
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

Lithium-ion capacitors for use in electric and electronic equipment – Test methods for electrical characteristics

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LITHIUM-ION CAPACITORS FOR USE IN ELECTRIC AND ELECTRONIC EQUIPMENT – TEST METHODS FOR ELECTRICAL CHARACTERISTICS

FOREWORD

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62813:2015. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 62813 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

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40/3178/FDIS	40/3195/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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LITHIUM-ION CAPACITORS FOR USE IN ELECTRIC AND ELECTRONIC EQUIPMENT – TEST METHODS FOR ELECTRICAL CHARACTERISTICS

1 Scope

This International Standard specifies the electrical characteristics (capacitance, internal resistance, discharge accumulated electric energy, and voltage maintenance rate) test methods of lithium-ion capacitors (LIC) for use in electric and electronic equipment.

2 Normative references

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.

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

~~NOTE The terms printed in italics are those which are defined in this Clause 3.~~

3.1
upper category temperature
highest ambient temperature including internal heating in which a LIC is designed to operate continuously

[SOURCE: ~~IEC 62576:2009, 3.3, modified~~ IEC 61881-3:2012, 3.17, modified – The note to entry has been deleted.]

3.2
rated voltage
U_R
maximum direct current (DC) voltage that may be applied continuously for a certain time under the *upper category temperature* (3.1) to a LIC so that it can exhibit specified demand characteristics

Note 1 to entry: This voltage is the setting voltage in LIC design.

Note 2 to entry: The endurance test using the rated voltage is described in Annex A.

[SOURCE: ~~IEC 62576:2009, 3.6, modified~~ IEC 62576:2018, 3.20, modified – The word "capacitor" has been replaced by "LIC".]

SVENSK STANDARD

SS-EN IEC 62813, utg 2:2025

Fastställd	Sida	Ansvarig kommitté
2025-10-22	1 (25)	SEK TK 40

Litium-jonkondensatorer – Provning av elektriska egenskaper

Lithium ion capacitors for use in electric and electronic equipment – Test methods for electrical characteristics

Som svensk standard gäller europastandarden EN IEC 62813:2025. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62813:2025.

Nationellt förord

Europastandarden EN IEC 62813:2025

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
  – **IEC 62813, Second edition, 2025 - Lithium ion capacitors for use in electric and electronic equipment – Test methods for electrical characteristics**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62813, utg 1:2015 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2028-02-29.

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Denna standard är fastställd av SEK Svensk Elstandard,
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62813

February 2025

ICS 31.060.99

Supersedes EN 62813:2015

English Version

Lithium ion capacitors for use in electric and electronic equipment - Test methods for electrical characteristics (IEC 62813:2025)

Condensateurs au lithium-ion destinés à être utilisés dans les équipements électriques et électroniques - Méthodes d'essai relatives aux caractéristiques électriques (IEC 62813:2025)

Lithium-Ionen-Kondensatoren zur Verwendung in elektrischen und elektronischen Geräten - Prüfverfahren für die elektrischen Kennwerte (IEC 62813:2025)

This European Standard was approved by CENELEC on 2025-02-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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

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Ref. No. EN IEC 62813:2025 E

SEK Svensk Elstandard

SS-EN IEC 62813, utg 2:2025

European foreword

The text of document 40/3178/FDIS, future edition 2 of IEC 62813, prepared by TC 40 "Capacitors and resistors for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62813:2025.

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) 2026-02-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-02-29

This document supersedes EN 62813:2015 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 62813:2025 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 standard indicated:

IEC 61881-3:2012	NOTE	Approved as EN 61881-3:2012 (not modified)
IEC 62391-1:2022	NOTE	Approved as EN IEC 62391-1:2022 (not modified)
IEC 62576:2018	NOTE	Approved as EN IEC 62576:2018 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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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.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014

IEC 62813

Edition 2.0 2025-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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