SLOVENSKI STANDARD
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01-december-2021

Polprevodniški elementi - Polprevodniški elementi za brezžični prenos moči in napajanje - 1. del: Splošne zahteve in specifikacije (IEC 63244-1:2021)

Semiconductor devices - Semiconductor devices for wireless power transfer and charging - Part 1 : General requirements and specifications (IEC 63244-1:2021)

Halbleiterbauelemente – Halbleiterbauelemente für die drahtlose Leistungsübertragung und Ladung – Teil 1: Allgemeine Anforderungen und Festlegungen (IEC 63244-1:2021)

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Ta slovenski standard je istoveten z: **EN IEC 63244-1:2021**

ICS:

31.080.01	Polprevodniški elementi (naprave) na splošno	Semiconductor devices in general

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63244-1

October 2021

ICS 31.080.99

English Version

Semiconductor devices - Semiconductor devices for wireless power transfer and charging - Part 1: General requirements and specifications (IEC 63244-1:2021)

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

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European foreword

The text of document 47/2706/FDIS, future edition 1 of IEC 63244-1, prepared by IEC/TC 47 “Semiconductor devices” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63244-1:2021.

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) 2022–07–19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024–10–19

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

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IEC 60747-16-1 NOTE Harmonized as EN 60747-16-1

IEC 63028 NOTE Harmonized as EN 63028

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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
IEC 60068-2-1	-	Environmental testing - Part 2–1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-2	-	Environmental testing - Part 2–2: Tests - Test B: Dry heat	EN 60068-2-2	-
IEC 60068-2-14	-	Environmental testing - Part 2–14: Tests - Test N: Change of temperature	EN 60068-2-14	-
IEC 60068-2-30	-	Environmental testing - Part 2–30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
IEC 60749-10	-	Semiconductor devices - Mechanical and climatic test methods - Part 10: Mechanical shock	EN 60749-10	-
IEC 61967-2	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz - Part 2: Measurement of radiated emissions - TEM cell and wideband TEM cell method	EN 61967-2	-
IEC 61967-4	-	Integrated circuits - Measurement of electromagnetic emissions - Part 4: Measurement of conducted emissions – 1 Ω /150 Ω direct coupling method	EN IEC 61967-4	-
IEC 61967-8	-	Integrated circuits - Measurement of electromagnetic emissions - Part 8: Measurement of radiated emissions - IC stripline method	EN 61967-8	-
IEC 62132-2	-	Integrated circuits - Measurement of electromagnetic immunity - Part 2: Measurement of radiated immunity - TEM cell and wideband TEM cell method	EN 62132-2	-

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IEC 62132-4	-	Integrated circuits - Measurement of electromagnetic immunity 150 kHz to 1 GHz - Part 4: Direct RF power injection method	EN 62132-4	-
IEC 62132-8	-	Integrated circuits - Measurement of electromagnetic immunity - Part 8: Measurement of radiated immunity - IC stripline method	EN 62132-8	-
IEC 62262	-	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	-
IEC 62969-2	2018	Semiconductor devices - Semiconductor interface for automotive vehicles - Part 2: Efficiency evaluation methods of wireless power transmission using resonance for automotive vehicles sensors	EN IEC 62969-2	2018
IEC CISPR 11	-	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN 55011	-

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Semiconductor devices – Semiconductor devices for wireless power transfer and charging – Part 1: General requirements and specifications

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Dispositifs à semiconducteurs – Dispositifs à semiconducteurs pour le transfert de puissance et la charge sans fil – Partie 1: Exigences et spécifications générales

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SEMICONDUCTOR DEVICES – SEMICONDUCTOR DEVICES FOR WIRELESS POWER TRANSFER AND CHARGING –

Part 1: General requirements and specifications

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

Draft	Report on voting
47/2706/FDIS	47/2723/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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This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all the parts in the IEC 63244 series, published under the general title *Semiconductor devices – Semiconductor devices for wireless power transfer and charging*, 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 IEC 63244 series is planned to comprise the following parts:

- IEC 63244-1: Semiconductor devices – Semiconductor devices for wireless power transfer and charging – Part 1: General requirements and specifications
- IEC 63244-2: Semiconductor devices – Semiconductor devices for wireless power transfer and charging – Part 2: Far-field based wireless power transfer – Electromagnetic-wave based wireless power transfer
- IEC 63244-3-1: Semiconductor devices – Semiconductor devices for wireless power transfer and charging – Part 3-1: Near-field based wireless power transfer – Magnetic-field based wireless power transfer
- IEC 63244-3-2: Semiconductor devices – Semiconductor devices for wireless power transfer and charging – Part 3-2: Near-field based wireless power transfer – Electric-field based wireless power transfer

The standardization bodies for wireless power transfer and charging technologies is as follow:

1) Wireless power consortium (WPC): Wireless power consortium covers MF WPT technology such as inductive WPT and magnetic resonance WPT. WPC has Qi certification process to ensure the safety and quality.
2) AirFuel alliance: AirFuel alliance covers NF WPT technology such as resonant mode of magnetic-field based wireless power transfer. And also, AirFuel alliance is working on FF WPT technology such as electromagnetic-wave based wireless power transfer. AirFuel alliance has Rezence certification process for resonant mode of MF WPT to ensure the safety and quality. AirFuel alliance was formed by the merge of Alliance for Wireless Power (A4WP) and Power Matters Alliance (PMA) in 2015.

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