

SLOVENSKI STANDARD

SIST EN IEC 62196-1:2023

01-maj-2023

Nadomešča:
SIST EN 62196-1:2015

Vtiči, vtičnice, konektorji in uvodnice na vozilih - Kabelsko napajanje električnih vozil - 1. del: Splošne zahteve (IEC 62196-1:2022)

Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 1: General requirements (IEC 62196-1:2022)

Stecker, Steckdosen, Fahrzeugkupplungen und Fahrzeugstecker - Konduktives Laden von Elektrofahrzeugen - Teil 1: Allgemeine Anforderungen (IEC 62196-1:2022)

Fiches, socles de prise de courant, prises mobiles de véhicule et socles de connecteurs de véhicule - Charge conductive des véhicules électriques - Partie 1: Exigences générales (IEC 62196-1:2022)

Ta slovenski standard je istoveten z: EN IEC 62196-1:2022

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43.120	Električna cestna vozila	Electric road vehicles

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NORME EUROPÉENNE
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November 2022

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English Version

**Plugs, socket-outlets, vehicle connectors and vehicle inlets -
Conductive charging of electric vehicles - Part 1: General
requirements
(IEC 62196-1:2022)**

Fiches, socles de prise de courant, prises mobiles de
véhicule et socles de connecteurs de véhicule - Charge
conductive des véhicules électriques - Partie 1: Exigences
générales
(IEC 62196-1:2022)

Stecker, Steckdosen, Fahrzeugkupplungen und
Fahrzeugstecker - Konduktives Laden von
Elektrofahrzeugen - Teil 1: Allgemeine Anforderungen
(IEC 62196-1:2022)

This European Standard was approved by CENELEC on 2022-11-09. 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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62196-1:2022 (E)**European foreword**

The text of document 23H/499/FDIS, future edition 4 of IEC 62196-1, prepared by SC 23H "Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles" of IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62196-1:2022.

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) 2023-08-09
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-11-09

This document supersedes EN 62196-1:2014 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 62196-1:2022 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 60068-2-75:2014	NOTE	Harmonized as EN 60068-2-75:2014 (not modified)
IEC 60309-1	NOTE	Harmonized as EN IEC 60309-1
IEC 60309-2	NOTE	Harmonized as EN IEC 60309-2
IEC 60947-1:2020	NOTE	Harmonized as EN IEC 60947-1:2021 (not modified)
IEC 60999-1:1999	NOTE	Harmonized as EN 60999-1:2000 (not modified)
IEC 60999-2:2003	NOTE	Harmonized as EN 60999-2:2003 (not modified)
IEC 61008-1	NOTE	Harmonized as EN 61008-1
IEC 61009-1	NOTE	Harmonized as EN 61009-1
IEC 61140	NOTE	Harmonized as EN 61140
IEC 61300-2-4	NOTE	Harmonized as EN IEC 61300-2-4
IEC 61300-2-6	NOTE	Harmonized as EN 61300-2-6

IEC 61300-2-7	NOTE	Harmonized as EN 61300-2-7
IEC 61439-1:2020	NOTE	Harmonized as EN IEC 61439-1:2021 (not modified)
IEC 61540	NOTE	Harmonized as HD 639 S1
IEC 61851 (series)	NOTE	Harmonized as EN IEC 61851 (series)
IEC 62752	NOTE	Harmonized as EN 62752

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 60112	-	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN IEC 60112	-
IEC 60227	series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V	-	-
IEC 60228	2004	Conductors of insulated cables	EN 60228	2005
-	-		+ corrigendum May	2005
IEC 60245-4	-	Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 4: Cords and flexible cables	-	-
IEC 60269-1	-	Low-voltage fuses - Part 1: General requirements	EN 60269-1	-
IEC 60269-2	-	Low-voltage fuses - Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to K	HD 60269-2	-
IEC 60309-4	2021	Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 4: Switched socket-outlets with or without interlock	EN IEC 60309-4	2022
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
-	-		+ corrigendum May	1993
+ A1	1999		+ A1	2000
+ A2	2013		+ A2	2013

EN IEC 62196-1:2022 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60664-1	2020	Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests	EN IEC 60664-1	2020
IEC 60664-3	-	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution	EN 60664-3	-
IEC 60695-2-11	-	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT)	EN IEC 60695-2-11	-
IEC 60695-10-2	-	Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test method	-	-
IEC 60947-3	2020	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units	EN IEC 60947-3	2021
IEC 60947-5-1	-	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1	-
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998
IEC 61058-1	2016	Switches for appliances - Part 1: General requirements	EN IEC 61058-1	2018
IEC 61851-1	2017	Electric vehicle conductive charging system - Part 1: General requirements	EN IEC 61851-1	2019
IEC 61851-23	— ¹	Electric vehicle conductive charging system - Part 23: DC electric vehicle supply equipment	EN IEC 61851-23	— ²
IEC 62196-2	2022	Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 2: Dimensional compatibility requirements for AC pin and contact-tube accessories	-	-
IEC 62196-3	2022	Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 3: Dimensional compatibility requirements for DC and AC/DC pin and contact-tube vehicle couplers	-	-
ISO 1456	-	Metallic and other inorganic coatings - Electrodeposited coatings of nickel, nickel plus chromium, copper plus nickel and of copper plus nickel plus chromium	EN ISO 1456	-
ISO 2081	-	Metallic and other inorganic coatings - Electroplated coatings of zinc with supplementary treatments on iron or steel	EN ISO 2081	-

¹ Second edition under preparation. Stage at the time of publication: IEC PRVC 61851-23:2022.

² Under preparation. Stage at the time of publication: prEN IEC 61851-23:2020.

EN IEC 62196-1:2022 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 2093	-	Electroplated coatings of tin; Specification and test methods	-	-
ISO 4521	-	Metallic and other inorganic coatings - Electrodeposited silver and silver alloy coatings for engineering purposes - Specification and test methods	EN ISO 4521	2008

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Edition 4.0 2022-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles –
Part 1: General requirements**

**Fiches, socles de prise de courant, prises mobiles de véhicule et socles de connecteurs de véhicule – Charge conductive des véhicules électriques –
Partie 1: Exigences générales**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLUGS, SOCKET-OUTLETS, VEHICLE CONNECTORS AND VEHICLE
INLETS – CONDUCTIVE CHARGING OF ELECTRIC VEHICLES –****Part 1: General requirements****FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 62196-1 has been prepared by subcommittee 23H: Plugs, socket-outlets and couplers for industrial and similar applications, and for electric vehicles, of IEC technical committee 23: Electrical accessories. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2014. This edition constitutes a technical revision.

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

- a) deletion of references to universal AC and DC interfaces;
- b) additional requirements for contact materials and plating;
- c) changes to the temperature rise test to include additional points of measurement;
- d) additional tests for accessories to address thermal stresses and stability, mechanical wear and abuse, and exposure to contaminants;

e) relocation of information and requirements for DC charging to IEC 62196-3.

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

Draft	Report on voting
23H/499/FDIS	23H/503/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.

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 parts in the IEC 62196 series, published under the general title *Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles*, can be found on the IEC website.

Subsequent parts of IEC 62196 deal with the requirements of particular types of accessories. The clauses of those particular requirements supplement or modify the corresponding clauses in this document.

In this document, the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under 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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