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**Vtiči, vtičnice, konektorji in uvodnice na vozilih - Kabelsko napajanje električnih vozil - 2. del: Zahteve za dimenzijsko skladnost pribora s trni in cevastimi kontakti za izmenični tok (AC) (IEC 62196-2:2025)**

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 62196-2:2025)

Stecker, Steckdosen, Fahrzeugkupplungen und Fahrzeugstecker - Konduktives Laden von Elektrofahrzeugen - Teil 2: Maßliche Kompatibilitätsanforderungen an Wechselspannungssteckvorrichtungen mit Stiften und Buchsen (IEC 62196-2:2025)

Fiches, socles de prise de courant, prises mobiles de véhicule et socles de connecteurs de véhicules - Charge conductive des véhicules électriques - Partie 2: Exigences dimensionnelles de compatibilité pour les appareils à broches et alvéoles pour courant alternatif (IEC 62196-2:2025)

**Ta slovenski standard je istoveten z: EN IEC 62196-2:2026**

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43.120	Električna cestna vozila	Electric road vehicles

**SIST EN IEC 62196-2:2026****en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 62196-2**

January 2026

ICS 29.120.30; 43.120

Supersedes EN IEC 62196-2:2022

English Version

**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 62196-2:2025)**

Fiches, socles de prise de courant, prises mobiles de  
véhicule et socles de connecteurs de véhicule - Charge  
conductive des véhicules électriques - Partie 2: Exigences  
dimensionnelles de compatibilité pour les appareils à  
broches et alvéoles pour courant alternatif  
(IEC 62196-2:2025)

Stecker, Steckdosen, Fahrzeugkupplungen und  
Fahrzeugstecker - Konduktives Laden von  
Elektrofahrzeugen - Teil 2: Maßliche  
Kompatibilitätsanforderungen an  
Wechselspannungssteckvorrichtungen mit Stiften und  
Buchsen  
(IEC 62196-2:2025)

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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 62196-2:2026 (E)****European foreword**

The text of document 23H/580/FDIS, future edition 4 of IEC 62196-2, 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 62196-2:2026.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2027-01-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2029-01-31 document have to be withdrawn

This document supersedes EN IEC 62196-2:2022 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document is read in conjunction with EN IEC 62196-1:2026.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

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**Endorsement notice**

The text of the International Standard IEC 62196-2:2025 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 61851 series	NOTE	Approved as EN IEC 61851 series
IEC 62196-3	NOTE	Approved as EN IEC 62196-3
IEC 62752	NOTE	Approved as EN IEC 62752

## 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.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61851-1	2017	Electric vehicle conductive charging system - Part 1: General requirements	EN IEC 61851-1	2019
IEC 62196-1	2025	Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 1: General requirements	EN IEC 62196-1	2026

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IEC 62196-2

Edition 4.0 2025-11

# INTERNATIONAL STANDARD

**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**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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**

## 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 62196-2 has been prepared by IEC 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 2022. This edition constitutes a technical revision.

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

- a) addition of new tests for latching devices;
- b) corrections to standard sheets.

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

Draft	Report on voting
23H/580/FDIS	23H/587/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

This document is to be read in conjunction with IEC 62196-1:2025. The clauses of the particular requirements in this document supplement or modify the corresponding clauses in IEC 62196-1:2025. Where the text indicates an "addition" to or a "replacement" of the relevant requirement, test specification or explanation of IEC 62196-1:2025, these changes are made to the relevant text of IEC 62196-1:2025, which then becomes part of this document. Where no change is necessary, the words "IEC 62196-1:2025, Clause X, applies" are used.

Subclauses, figures, tables, or notes which are additional to those in IEC 62196-1:2025 are numbered starting from 201. Additional annexes are lettered AA, BB, etc.

In this document, the following print types are used:

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

A list of all the 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.

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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

## INTRODUCTION

The IEC 61851 series specifies requirements for electric vehicle (EV) conductive supply equipment.

The IEC 62196 series specify the requirements for plugs, socket-outlets, vehicle connectors, vehicle inlets and cable assemblies as described in the IEC 61851 series and in IEC 62752.

Some charging using on-board vehicle chargers can be achieved by direct connection from an electric vehicle to an AC supply network using common socket-outlets or by the use of equipment incorporating control and communication circuits.

To support the connection of AC power for such vehicles, this document provides the standard interface configurations of AC vehicle couplers and accessories to be used in conductive charging of electric vehicles, taking the most frequent charging situations into consideration.

The IEC 62196 series consists of the following parts:

- IEC 62196-1: General requirements, comprising clauses of a general character;
- IEC 62196-2: Dimensional compatibility requirements for AC pin and contact-tube accessories;
- IEC 62196-3: Dimensional compatibility requirements for DC and AC/DC pin and contact-tube vehicle couplers;
- IEC TS 62196-4: Dimensional compatibility and interchangeability requirements for DC pin and contact-tube accessories for class II or class III applications;
- IEC 62196-6: Dimensional compatibility requirements for DC pin and contact-tube vehicle couplers intended to be used for DC EV supply equipment where protection relies on electrical separation;
- IEC TS 62196-7<sup>1</sup>: Vehicle adapter.

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<sup>1</sup> Under preparation. Stage at the time of publication: IEC TS/ADTS 62196-7:2025.

## 1 Scope

This part of IEC 62196 applies to EV plugs, EV socket-outlets, vehicle connectors and vehicle inlets with pins and contact-tubes of standardized configurations, herein referred to as "accessories". These accessories have a nominal rated operating voltage not exceeding 480 V AC, 50 Hz to 60 Hz, and a rated current not exceeding 63 A three phase or 70 A single phase, for use in conductive charging of electric vehicles.

This document covers the basic interface accessories for vehicle supply as specified in IEC 62196-1:2025.

NOTE 1 The term "electric road vehicles (EV)" comprises all road vehicles, including plug-in hybrid road vehicles (PHEV) that derive all or part of their energy from the rechargeable energy storage systems (RESS).

These accessories are intended to be used for circuits specified in IEC 61851-1 and IEC 62752, which operate at different voltages and frequencies, and which can include extra-low voltage (ELV) and communication signals.

The use of these accessories for bidirectional power transfer is under consideration.

This document applies to accessories to be used in an ambient temperature between  $-30\text{ }^{\circ}\text{C}$  and  $+40\text{ }^{\circ}\text{C}$ .

NOTE 2 In the following country, other requirements regarding the lower temperature can apply: NO.

NOTE 3 In the following country,  $-40\text{ }^{\circ}\text{C}$  applies: SE.

These accessories are intended to be connected only to cables with copper or copper-alloy conductors.

Vehicle inlets and vehicle connectors described in this document are intended to be used for charging in modes 1, 2 and 3, cases B and C. The EV socket-outlets and EV plugs covered by this document are intended to be used for charging mode 3 only, case A and B.

The modes and permissible connections are specified in IEC 61851-1.

## 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 61851-1:2017, *Electric vehicle conductive charging system - Part 1: General requirements*

IEC 62196-1:2025, *Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 1: General requirements*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62196-1:2025 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>

## 4 General

IEC 62196-1:2025, Clause 4, applies.

## 5 Ratings

IEC 62196-1:2025, Clause 5 applies, except as follows.

### 5.1 Preferred rated operating voltage ranges

*Replacement:*

#### 5.1 Rated operating voltage ranges

Rated operating voltages are as follows:

- 30 V (signal or control purposes only);
- 250 V AC;
- 480 V AC.

### 5.2 Preferred rated currents

*Replacement of the title "Preferred rated currents" with "Rated currents".*

#### 5.2.1 General

*Replacement:*

The rated currents are as follows:

- 10 A single phase;
- 13 A single phase;
- 16 A single and three phase;
- 20 A single and three phase;
- 30 A or 32 A single and three phase;
- 60 A or 63 A single and three phase;
- 70 A single phase only.

NOTE 1 In the following country, the branch circuit overcurrent protection device is based upon 125 % of the accessory rating: US.

NOTE 2 Reference to "30 A or 32 A" and "60 A or 63 A" rating is made in accordance with national requirements.

## 6 Connection between the power supply and the electric vehicle

IEC 62196-1:2025, Clause 6 applies, except as follows.

### 6.1 Interfaces

*Replacement:*

This Clause 6 provides a description of the physical conductive electrical interface requirements between the vehicle and the power supply, which allows the following design at the vehicle interface: a basic interface that provides for current ratings up to 63 A AC three-phase and up to 70 A AC single phase.