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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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN IEC 62196-2:2026 sisaldab Euroopa standardi EN IEC 62196-2:2026 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.01.2026.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN IEC 62196-2:2026 consists of the English text of the European standard EN IEC 62196-2:2026.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 30.01.2026.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 29.120.30, 43.120

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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)

This European Standard was approved by CENELEC on 2025-12-30. 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

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.

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

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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CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 General	8
5 Ratings	8
6 Connection between the power supply and the electric vehicle	8
6.1 Interfaces	8
6.2 Basic interface	9
6.3 DC interface	10
6.4 Combined interface	10
6.201 Communication and control pilot function	10
7 Classification of accessories	10
7.4 According to electrical operation	10
7.5 According to interface	11
7.201 According to the standard sheet used	11
8 Marking	11
9 Dimensions	12
9.201 Standard sheets	12
10 Protection against electric shock	12
11 Size and colour of protective earthing and neutral conductors	13
12 Provisions for earthing	13
13 Terminals	13
13.201 Wire connections of components	13
14 Interlocks	13
14.201 Engage and disengage the latching device (configurations without a retaining means that are not suitable for making and breaking under load)	13
14.201.1 General	13
14.201.2 Samples	13
14.201.3 Test sequence	14
14.201.4 Test gauges	16
15 Resistance to ageing of rubber and thermoplastic material	19
16 General construction	19
17 Construction of EV socket-outlets	20
18 Construction of EV plugs and vehicle connectors	20
19 Construction of vehicle inlets	20
20 Degrees of protection	20
21 Insulation resistance and dielectric strength	20
22 Breaking capacity	20
23 Normal operation	20
24 Temperature rise	20
25 Flexible cables and their connection	20
26 Mechanical strength	20

27	Screws, current-carrying parts and connections.....	21
28	Creepage distances, clearances and distances through sealing compound.....	21
29	Resistance to heat and to fire	21
30	Corrosion and resistance to rusting	21
31	Conditional short-circuit current.....	21
32	Electromagnetic compatibility	21
33	Vehicle drive over.....	21
34	Thermal cycling	21
35	Humidity exposure.....	21
36	Misalignment.....	21
37	Contact endurance test.....	22
201	Resistor coding.....	22
	STANDARD SHEETS.....	23
	CONFIGURATION TYPE 1.....	23
	CONFIGURATION TYPE 2	33
	CONFIGURATION TYPE 3	48
	CONFIGURATION TYPE 4	67
	Annex A (normative) Standard sheets for test gauges in 14.1.9	73
	Annex B (informative) EV accessories directly connected to printed circuit boards (PCBs)	74
	Annex AA (informative) Legacy drawings from IEC 62196-2:2016	75
	Annex BB (informative) Coordinate systems and package spaces for automatic docking and undocking of vehicle connectors and vehicle inlets	80
	BB.1 General.....	80
	BB.2 IEC 62196-2 configuration type 1	80
	BB.2.1 Coordinate system of vehicle inlet	80
	BB.2.2 Coordinate system of vehicle connector.....	81
	BB.3 IEC 62196-2 configuration type 2.....	81
	BB.3.1 Coordinate system of vehicle inlet	81
	BB.3.2 Coordinate system of vehicle connector.....	82
	BB.4 Package space for automatic docking	83
	Bibliography.....	84
	Figure 201 – Example of test setup for checking latched position and unlatched position.....	15
	Figure 202 – Test gauge of EV plug (configuration type 2) and vehicle connector (configuration type 2) – Side view	16
	Figure 203 – Test gauge of EV plug (configuration type 2) for checking latched position and unlatched position	16
	Figure 204 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 1	17
	Figure 205 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 2.....	17
	Figure 206 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 3.....	18
	Figure 207 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 4.....	18

Figure 208 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 5.....	19
Figure 209 – Test gauge of vehicle connector (configuration type 2) for checking latched position and unlatched position – Detail 6.....	19
Figure BB.201 – Vehicle inlet coordinate system of vehicle inlet according to IEC 62196-2:2022, Standard Sheet 2-I, Sheet 1	80
Figure BB.202 – Vehicle connector coordinate system of vehicle connector according to IEC 62196-2:2022, Standard Sheets 2-I, Sheet 2.....	81
Figure BB.203 – Vehicle inlet coordinate system of vehicle inlet according to IEC 62196-2:2022, Standard Sheet 2-II f	82
Figure BB.204 – Vehicle connector coordinate system of vehicle connector according to IEC 62196-2:2022, Standard Sheet 2-II e.....	83
Table 201 – Overview of the basic vehicle interface, configuration type 1, single phase.....	9
Table 202 – Overview of the basic vehicle interface, configuration types 2, 3 and 4, three phase or single phase	10
Table 203 – Electrical operation of configurations based on current rating	11
Table 204 – Configuration types and standard sheets	12
Table 205 – Definition of interlock test numbers for checking latched position and unlatched position.....	14
Table 206 – Interoperation of configuration type 2 accessories	33

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

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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.

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. The main document types developed by IEC are described in greater detail at 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 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 62196-7¹: Vehicle adapter.

¹ 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>