

STN	Vidlice, zásuvky, konektory vozidiel a prívodky vozidiel Nabíjanie elektrických vozidiel vodivým prepojením Časť 2: Požiadavky na rozmerovú kompatibilitu a zameniteľnosť príslušenstiev s kolíkmi a dutinkami na striedavé napätie	STN EN 62196-2 35 4530
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Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/17

Obsahuje: EN 62196-2:2017, IEC 62196-2:2016

Oznámením tejto normy sa od 28.04.2020 ruší
STN EN 62196-2 (35 4530) z decembra 2012

125463

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2017
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62196-2

April 2017

ICS 29.120.30; 43.120

Supersedes EN 62196-2:2012

English Version

**Plugs, socket-outlets, vehicle connectors and vehicle inlets -
Conductive charging of electric vehicles - Part 2: Dimensional
compatibility and interchangeability requirements for a.c. pin and
contact-tube accessories
(IEC 62196-2:2016)**

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 et d'interchangeabilité
pour les appareils à broches et alvéoles pour courant
alternatif
(IEC 62196-2:2016)

Stecker, Steckdosen, Fahrzeugkupplungen und
Fahrzeugstecker - Konduktives Laden von
Elektrofahrzeugen - Teil 2: Anforderungen und Hauptmaße
für die Kompatibilität und Austauschbarkeit von Stift- und
Buchsensteckvorrichtungen für Wechselstrom
(IEC 62196-2:2016)

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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 23H/324/CDV, future edition 2 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 62196-2:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2017-10-28
national level by publication of an identical national
standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2020-04-28
the document have to be withdrawn

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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.

Annex ZA of Part 1 applies.

Addition

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62196-1 (mod)	2014	Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 1: General requirements	EN 62196-1	2014



INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories**

**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 et d'interchangeabilité pour les appareils à broches et alvéoles pour courant alternatif**



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles –
Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories**

**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 et d'interchangeabilité pour les appareils à broches et alvéoles pour courant alternatif**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.120.30; 43.120

ISBN 978-2-8322-3154-8

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	8
4 General	8
5 Ratings.....	8
6 Connection between the power supply and the electric vehicle	8
7 Classification of accessories	10
8 Marking	11
9 Dimensions	11
10 Protection against electric shock.....	12
11 Size and colour of protective earthing conductors.....	12
12 Provision for earthing.....	12
13 Terminals	12
14 Interlocks	12
15 Resistance to ageing of rubber and thermoplastic material	12
16 General construction.....	12
17 Construction of socket-outlets.....	12
18 Construction of plugs and vehicle connectors.....	12
19 Construction of vehicle inlets	12
20 Degrees of protection	13
21 Insulation resistance and dielectric strength	13
22 Breaking capacity	13
23 Normal operation	13
24 Temperature rise	13
25 Flexible cables and their connection.....	13
26 Mechanical strength.....	13
27 Screws, current-carrying parts and connections.....	13
28 Creepage distances, clearances and distances	13
29 Resistance to heat, to fire and to tracking.....	13
30 Corrosion and resistance to rusting	13
31 Conditional short-circuit current withstand test	14
32 Electromagnetic compatibility (EMC)	14
33 Vehicle driveover	14
201 Components	14
202 Resistor coding.....	15
STANDARD SHEETS.....	16
CONFIGURATION TYPE 1	16
CONFIGURATION TYPE 2	28
CONFIGURATION TYPE 3	43

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 and 3, three-phase or single phase.....	10
Table 203 – Configuration types and standard sheets.....	11
Table 204 – Interoperation of configuration type 2 accessories	28

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLUGS, SOCKET-OUTLETS, VEHICLE CONNECTORS AND VEHICLE
INLETS – CONDUCTIVE CHARGING OF ELECTRIC VEHICLES –****Part 2: Dimensional compatibility and interchangeability
requirements for a.c. pin and contact-tube accessories**

FOREWORD

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International Standard 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.

This second edition cancels and replaces the first edition published in 2011 and constitutes a technical revision.

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

- a) Standard sheets for configurations type 2 and type 3 have been updated.
- b) Configuration type 2 is now available with optional shutter.

The text of this standard is based on the following documents:

CDV	Report on voting
23H/324/CDV	23H/342/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

This part of IEC 62196 is to be read in conjunction with IEC 62196-1:2014. The clauses of the particular requirements in Part 2 supplement or modify the corresponding clauses in Part 1. Where the text indicates "addition" to or "replacement" of the relevant requirement, test specification or explanation of Part 1, these changes are made to the relevant text of Part 1, which then becomes part of this standard. Where no change is necessary, the words "Clause X of IEC 62196-1:2014 is applicable" are used.

In this standard, the following print types are used:

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

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

Responding to global challenges of CO₂ reduction and energy security, the automobile industries have been accelerating the development and commercialization of electric vehicles and hybrid electric vehicles. In addition to the prevailing hybrid electric vehicles, battery electric vehicles including plug-in hybrid electric vehicles are going to be mass-marketed. To support the diffusion of such vehicles, this standard provides the standard interface configurations of a.c. vehicle couplers and accessories to be used in conductive charging of electric vehicles, taking the most frequent charging situations into consideration.

IEC 62196 is divided into several parts:

- Part 1: General requirements
- Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories
- Part 3: Dimensional compatibility and interchangeability requirements for d.c. and a.c./d.c. pin and contact-tube vehicle couplers

PLUGS, SOCKET-OUTLETS, VEHICLE CONNECTORS AND VEHICLE INLETS – CONDUCTIVE CHARGING OF ELECTRIC VEHICLES –

Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories

1 Scope

This part of IEC 62196 applies to plugs, socket-outlets, vehicle connectors and vehicle inlets with pins and contact-tubes of standardized configurations, herein referred to as accessories. They have a nominal rated operating voltage not exceeding 480 V a.c., 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 part of IEC 62196 covers the basic interface accessories for vehicle supply as specified in IEC 62196-1, and intended for use in conductive charging systems for circuits specified in IEC 61851-1:2010.

NOTE 1 Electric road vehicles (EV) implies all road vehicles, including plug-in hybrid road vehicles (PHEV), that derive all or part of their energy from RESS.

These accessories are intended to be used for circuits specified in IEC 61851-1:2010 which operate at different voltages and frequencies and which may include extra-low voltage (ELV) and communication signals.

These accessories may be used for bidirectional power transfer (under consideration).

This standard applies to accessories to be used in an ambient temperature between –30 °C and +50 °C.

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

NOTE 3 In the following country, –35 °C applies: SE.

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

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

The modes and permissible connections are specified in IEC 62196-1:2014.

2 Normative references

Clause 2 of IEC 62196-1:2014 applies except as follows:

Addition:

IEC 62196-1:2014, *Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles – Part 1: General requirements*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN