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**Vtiči, vtičnice in ladijske spojke za visokonapetostne priključne sisteme na kopnem (HVSC-sistemi) - 2. del: Zahteve za dimenzijsko skladnost in zamenljivost dodatkov, ki se uporabljajo pri različnih vrstah ladij**

Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-systems) - Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships

Stecker, Steckdosen und Schiffssteckvorrichtungen für Hochspannungs-Landanschlusssysteme (HVSC-Systeme) - Teil 2: Anforderungen an die Austauschbarkeit von Steckvorrichtungen, die an verschiedenen Schiffstypen anzuwenden sind

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Prises de courant et connecteurs de navires pour les systèmes haute tension de raccordement des navires à quai - Partie 2: Règles dimensionnelles de compatibilité et d'interchangeabilité pour les appareils destinés à être utilisés par divers types de navires

**Ta slovenski standard je istoveten z: EN IEC 62613-2:2018**

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**ICS:**

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EUROPEAN STANDARD

**EN IEC 62613-2**

NORME EUROPÉENNE

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March 2018

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**Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-systems) - Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships (IEC 62613-2:2016)**

Prises de courant et connecteurs de navires pour les systèmes haute tension de raccordement des navires à quai - Partie 2: Règles dimensionnelles de compatibilité et d'interchangeabilité pour les appareils destinés à être utilisés par divers types de navires (IEC 62613-2:2016)

Stecker, Steckdosen und Schiffssteckvorrichtungen für Hochspannungs-Landanschlussysteme (HVSC-Systeme) - Teil 2: Anforderungen an die Austauschbarkeit von Steckvorrichtungen, die an verschiedenen Schiffstypen anzuwenden sind (IEC 62613-2:2016)

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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 62613-2:2018 (E)****European foreword**

This document EN IEC 62613-2:2018 consists of the text of IEC 62613-2:2016 prepared by SC 23H "Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles" of IEC/TC 23 "Electrical accessories".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-03-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2021-03-05

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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](http://www.cenelec.eu).

**Annex ZA of EN 62613-1:2018 applies, except as follows:**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<b>Addition:</b>				
IEC 62613-1	2011	Plugs, socket-outlets and ship couplers for EN 62613-1 high-voltage shore connection systems (HVSC-Systems) - Part 1: General requirements		2018

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IEC 62613-2

Edition 2.0 2016-11

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-systems) –  
Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships**

<https://standards.iteh.ai/catalog/standards/sist/abcbe20a-082e-434e-8331-30c23591411a/iec-62613-2-2018>

**Prises de courant et connecteurs de navires pour les systèmes haute tension de raccordement des navires à quai –  
Partie 2: Règles dimensionnelles de compatibilité et d’interchangeabilité pour les appareils destinés à être utilisés par divers types de navires**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLUGS, SOCKET-OUTLETS AND SHIP COUPLERS FOR HIGH-VOLTAGE SHORE CONNECTION SYSTEMS (HVSC-SYSTEMS) –****Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships**

## FOREWORD

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International Standard IEC 62613-2 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.

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

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

- a) addition of configuration I: 7,2 kV 350 A three-phase accessories with three IP0 pilot contacts;
- b) addition of configuration J: 12 kV 500 A three-phase accessories with seven pilot contacts;
- c) improvement of drawings in standard sheets and addition of missing dimensions.

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

CDV	Report on voting
23H/352/CDV	23H/362/RVC

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

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

This part of IEC 62613 shall be read in conjunction with IEC 62613-1:2011.

The clauses of these particular requirements supplement or modify the corresponding clauses in Part 1. Where the text of subsequent parts indicates an "addition" to or a "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 the standard. Where no change is necessary, the words "Clause X of IEC 62613-1:2011 applies" are used. Standard sheets are in Annexes A, B, etc.

A list of all the parts in the IEC 62613 series, under the general title *Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-systems)*, 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, [SIST EN IEC 62613-2:2018](https://standards.iteh.ai/catalog/standards/sist/abcbe20a-082e-434e-8331-09c2c93c59b7/sist-en-iec-62613-2-2018)
- withdrawn, <https://standards.iteh.ai/catalog/standards/sist/abcbe20a-082e-434e-8331-09c2c93c59b7/sist-en-iec-62613-2-2018>
- replaced by a revised edition, or
- amended.

## INTRODUCTION

International Standard series IEC 62613 has been developed to address the needs in terms of plugs, socket-outlets and ship couplers (ship connectors and ship inlets), herein referred to as “accessories”, of IEC/ISO/IEEE 80005-1:2012, *Utility connections in port – Part 1: High Voltage Shore Connection (HVSC) Systems – General requirements*. The purpose of IEC/ISO/IEEE 80005-1 is to define requirements that allow compliant ships to connect to compliant high-voltage shore power supplies through standardized shore-to-ship connection accessories.

Ships that do not require connecting with standardized high-voltage shore power supplies as above may use accessories that are not covered by the standard sheets of IEC 62613-2 but they may find it impossible to connect to these shore supplies.

Other low voltage plugs, socket-outlets, connectors and inlets used for the connection of certain ship types to low-voltage shore power supplies can be found in the IEC 60309 series.

The IEC 62613 series is divided into the following parts:

- *Part 1: General requirements*, comprising clauses of a general character
- *Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships*

These ships are described in IEC/ISO/IEEE 80005-1.

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# PLUGS, SOCKET-OUTLETS AND SHIP COUPLERS FOR HIGH-VOLTAGE SHORE CONNECTION SYSTEMS (HVSC-SYSTEMS) –

## Part 2: Dimensional compatibility and interchangeability requirements for accessories to be used by various types of ships

### 1 Scope

This part of IEC 62613 contains standard sheets for different configurations of (shore) socket-outlets, (shore) plugs, ship connectors and ship inlets, hereinafter referred to as accessories, up to 12 kV, 500 A, 50/60 Hz and with up to seven pilot/auxiliary contacts.

General requirements are given in IEC 62613-1.

### 2 Normative references

Clause 2 of IEC 62613-1:2011 applies, with the following exception:

*Addition:*

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IEC 62613-1:2011, *Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-systems) – Part 1: General requirements*

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### 3 Terms and definitions

Clause 3 of IEC 62613-1:2011 applies.

### 4 General

Clause 4 of IEC 62613-1:2011 applies.

### 5 Standard ratings

Clause 5 of IEC 62613-1:2011 applies.

### 6 Classification

Clause 6 of IEC 62613-1:2011 applies.

### 7 Marking

Clause 7 of IEC 62613-1:2011 applies.

### 8 Dimensions

Clause 8 of IEC 62613-1:2011 applies except as follows:

#### 8.1 Replacement:

Accessories shall comply with the appropriate standard sheets given in Annexes A to J.

## **9 Protection against electric shock**

Clause 9 of IEC 62613-1:2011 applies.

## **10 Provision for Earthing**

Clause 10 of IEC 62613-1:2011 applies.

## **11 Terminals and terminations**

Clause 11 of IEC 62613-1:2011 applies.

## **12 Locking devices and interlocks**

Clause 12 of IEC 62613-1:2011 applies.

## **13 Resistance to ageing of rubber and thermoplastic material**

Clause 13 of IEC 62613-1:2011 applies.

## **14 General construction**

Clause 14 of IEC 62613-1:2011 applies.

## **15 Construction of socket-outlets and ship inlets**

Clause 15 of IEC 62613-1:2011 applies.

## **16 Construction of ship connectors**

Clause 16 of IEC 62613-1:2011 applies.

## **17 Construction of plugs**

Clause 17 of IEC 62613-1:2011 applies.

## **18 Degrees of protection**

Clause 18 of IEC 62613-1:2011 applies.

## **19 Insulation resistance, dielectric withstand and partial discharge tests**

Clause 19 of IEC 62613-1:2011 applies.

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**20 Normal operation**

Clause 20 of IEC 62613-1:2011 applies.

**21 Temperature rise**

Clause 21 of IEC 62613-1:2011 applies.

**22 Flexible cables and their connection**

Clause 22 of IEC 62613-1:2011 applies.

**23 Mechanical strength**

Clause 23 of IEC 62613-1:2011 applies.

**24 Screws, current-carrying parts and connections**

Clause 24 of IEC 62613-1:2011 applies.

**25 Resistance to heat, to fire and to tracking**

Clause 25 of IEC 62613-1:2011 applies.

**26 Corrosion and resistance to rusting**

Clause 26 of IEC 62613-1:2011 applies.

**27 Conditional short-circuit current withstand test**

Clause 27 of IEC 62613-1:2011 applies.

**28 Electromagnetic compatibility**

Clause 28 of IEC 62613-1:2011 applies.

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