Norma Española

# UNE-EN IEC 61500:2019

Idioma: Inglés

## Centrales nucleares. Sistemas de Instrumentación y control importantes para la seguridad. Comunicación de datos en sistemas que realizan funciones de categoría A. (Ratificada por la Asociación Española de Normalización en agosto de 2019.)

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UNE-EN IEC 61500:2019

# Centrales nucleares. Sistemas de Instrumentación y control importantes para la seguridad. Comunicación de datos en sistemas que realizan funciones de categoría A. (Ratificada por la Asociación Española de Normalización en agosto de 2019.)

*Nuclear power plants - Instrumentation and control systems important to safety – Data communication in systems performing category A functions (Endorsed by Asociación Española de Normalización in August of 2019.)*

*Centrales nucléaires de puissance - Systèmes d'instrumentation et de contrôle-commande importants pour la sûreté - Communications de données dans les systèmes réalisant des fonctions de catégorie A (Entérinée par l'Asociación Española de Normalización en août 2019.)*

En cumplimiento del punto 11.2.5.4 de las Reglas Internas de CEN/CENELEC Parte 2, se ha otorgado el rango de documento normativo español UNE al documento normativo europeo EN IEC 61500:2019 (Fecha de disponibilidad 2019-06-28)

Este documento está disponible en los idiomas oficiales de CEN/CENELEC/ETSI.

Este anuncio causará efecto a partir del primer día del mes siguiente al de su publicación en la revista UNE.

La correspondiente versión oficial de este documento se encuentra disponible en la Asociación Española de Normalización (Génova 6 28004 MADRID, www.une.org).

Las observaciones a este documento han de dirigirse a:

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

**EN IEC 61500**

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ICS 27.120.20

Supersedes EN 61500:2011

English Version

# Nuclear power plants - Instrumentation and control systems important to safety - Data communication in systems performing category A functions (IEC 61500:2018)

Centrales nucléaires de puissance - Systèmes d'instrumentation et de contrôle-commande importants pour la sûreté - Communications de données dans les systèmes réalisant des fonctions de catégorie A (IEC 61500:2018)

Kernkraftwerke - Leittechnische Systeme mit sicherheitstechnischer Bedeutung - Datenkommunikation in Systemen, die Funktionen der Kategorie A ausführen (IEC 61500:2018)

This European Standard was approved by CENELEC on 2019-06-17. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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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**



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# European foreword

This document (EN IEC 61500:2019) consists of the text of IEC 61500:2018 prepared by IEC/SC 45A: "Instrumentation, control and electrical power systems of nuclear facilities", of IEC/TC 45: "Nuclear instrumentation".

The following dates are fixed:

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|---|---|---|
| • latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2020-06-17 |
| • latest date by which the national standards conflicting with this document have to be withdrawn | (dow) | 2022-06-17 |

This document supersedes EN 61500:2011.

As stated in the nuclear safety directive 2009/71/EURATOM, Chapter 1, Article 2, item 2, Member States are not prevented from taking more stringent safety measures in the subject-matter covered by the Directive, in compliance with Community law. In a similar manner, this European standard does not prevent Member States from taking more stringent nuclear safety and/or security measures in the subject-matter covered by this standard.

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.

## Endorsement notice

The text of the International Standard IEC 61500:2018 was approved by CENELEC as a European Standard without any modification.

## 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 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.

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60671 | 2007 | Nuclear power plants - Instrumentation and control systems important to safety - Surveillance testing | EN 60671 | 2011 |
| IEC 60709 | - | Nuclear power plants - Instrumentation and control systems important to safety - Separation | EN 60709 | - |
| IEC/IEEE 60780-323 | 2016 | Nuclear facilities - Electrical equipment important to safety - Qualification | EN 60780-323 | 2017 |
| IEC 60880 | 2006 | Nuclear power plants - Instrumentation and control systems important to safety - Software aspects for computer-based systems performing category A functions | EN 60880 | 2009 |
| IEC 60980 | - | Recommended practices for seismic qualification of electrical equipment of the safety system for nuclear generating stations | - | - |
| IEC 60987 | 2007 | Nuclear power plants - Instrumentation and control important to safety - Hardware design requirements for computer-based systems | EN 60987 | 2015 |
| + A1 | 2013 | | - | - |
| IEC 61000 | series | Electromagnetic compatibility (EMC) | EN 61000 | series |
| IEC 61513 | - | Nuclear power plants - Instrumentation and control important to safety - General requirements for systems | EN 61513 | - |
| IEC 62003 | - | Nuclear power plants - Instrumentation and control important to safety - Requirements for electromagnetic compatibility testing | - | - |
| IEC 62340 | 2007 | Nuclear power plants - Instrumentation and control systems important to safety - Requirements for coping with common cause failure (CCF) | EN 62340 | 2010 |
| IEC 62566 | 2012 | Nuclear power plants - Instrumentation and control important to safety - Development of HDL-programmed integrated circuits for systems performing category A functions | EN 62566 | 2014 |
| IEC 62645 | 2014 | Nuclear power plants - Instrumentation and control systems – Requirements for security programmes for computer-based systems | - | - |

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| IEC 62859 | - | Nuclear power plants - Instrumentation and control systems - Requirements for coordinating safety and cybersecurity | - | - |
| IAEA safety guide No. SSG-39 | 2016 | Design of instrumentation and control systems for nuclear power plants | | |