

BS EN 61500:2011



BSI Standards Publication

Nuclear power plants — Instrumentation and control important to safety — Data communication in systems performing category A functions

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National foreword

This British Standard is the UK implementation of EN 61500:2011. It supersedes BS IEC 61500:2009, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee NCE/8, Reactor instrumentation.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date	Text affected
31 October 2011	This corrigendum renumbers BS IEC 61500:2009 as BS EN 61500:2011

**Nuclear power plants -
Instrumentation and control important to safety -
Data communication in systems performing category A functions
(IEC 61500:2009)**

Centrales nucléaires de puissance -
Instrumentation et contrôle-commande
importants pour la sûreté -
Communication de données dans les
systèmes réalisant des fonctions de
catégorie A
(CEI 61500:2009)

Kernkraftwerke -
Leittechnik mit sicherheitstechnischer
Bedeutung -
Datenkommunikation in Systemen, die
Kategorie-A-Funktionen ausführen
(IEC 61500:2009)

This European Standard was approved by CENELEC on 2011-08-08. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of the International Standard IEC 61500:2009, prepared by SC 45A, Instrumentation and control of nuclear facilities, of IEC TC 45, Nuclear instrumentation, was submitted to the formal vote and was approved by CENELEC as EN 61500 on 2011-08-08 without any modification.

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

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2012-08-08
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-08-08

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 measures in the subject-matter covered by this standard.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61500:2009 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 standards indicated:

IEC 60068 series	NOTE	Harmonized in EN 60068 series (not modified).
IEC 60721 series	NOTE	Harmonized in EN 60721 series (not modified).
IEC 60964	NOTE	Harmonized as EN 60964.
IEC 60965	NOTE	Harmonized as EN 60965.
IEC 61158-3-19	NOTE	Harmonized as EN 61158-3-19.
IEC 61508-1	NOTE	Harmonized as EN 61508-1.
IEC 61508-2	NOTE	Harmonized as EN 61508-2.
IEC 61508-3	NOTE	Harmonized as EN 61508-3.
IEC 61508-4	NOTE	Harmonized as EN 61508-4.
IEC 61784-3	NOTE	Harmonized as EN 61784-3.
IEC 62138	NOTE	Harmonized as EN 62138.

Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60709	-	Nuclear power plants - Instrumentation and control systems important to safety - Separation	EN 60709	-
IEC 60780	1998	Nuclear power plants - Electrical equipment of the safety system - Qualification	-	-
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 (mod)	2007	Nuclear power plants - Instrumentation and control important to safety - Hardware design requirements for computer-based systems	EN 60987	2009
IEC 61000	Series	Electromagnetic compatibility (EMC)	EN 61000	Series
IEC 61226	-	Nuclear power plants - Instrumentation and control important to safety - Classification of instrumentation and control functions	EN 61226	-
IEC 61513	-	Nuclear power plants - Instrumentation and control for systems important to safety - General requirements for systems	-	-
IEC 62340	2007	Nuclear power plants - Instrumentation and control systems important to safety - Requirements for coping with common cause failure (CCF)	EN 62340	2010
IAEA Safety guide NS-G-1.3	2002	Instrumentation and control systems important to safety in nuclear power plants	-	-

CONTENTS

INTRODUCTION.....	5
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	8
4 Symbols and abbreviations.....	9
5 General requirements	9
5.1 Principles of selection of data communication techniques and equipment.....	9
5.2 Functional requirements	9
5.3 Performance requirements	10
5.4 Failure detection	10
5.5 Communication within division.....	10
5.6 Interfaces to systems of lower importance to safety.....	10
6 Physical separation and isolation.....	11
6.1 Electrical isolation	11
6.2 Physical separation	11
7 Functional independence.....	11
8 Reliability	12
8.1 Self-supervision and failure mitigation	12
8.1.1 Communication error detection	12
8.1.2 Response to failure	12
8.2 Test.....	12
8.3 Prevention of failures (including CCF)	13
9 Qualification	13
10 Maintenance and modification	14
Bibliography.....	15