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Communication networks and systems in substations - Part 7-2: Basic communication structure for substations and feeder equipment- Abstract communication service interface (ACSI) (IEC 61850-7-2:2003)

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**Communication networks and systems in substations  
Part 7-2: Basic communication structure for substation  
and feeder equipment –  
Abstract communication service interface (ACSI)  
(IEC 61850-7-2:2003)**

Réseaux et systèmes de communication  
dans les postes  
Partie 7-2: Structure des communications  
de base pour les postes électriques  
et les équipements de lignes –  
Interface abstraite des services  
de communication (ACSI)  
(CEI 61850-7-2:2003)

Kommunikationsnetze und -systeme  
in Stationen  
Teil 7-2: Grundlegende  
Kommunikationsstruktur für stations- und  
feldbezogene Ausrüstung –  
Abstrakte Schnittstelle für  
Kommunikationsdienste (ACSI)  
(IEC 61850-7-2:2003)

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This European Standard was approved by CENELEC on 2003-04-01. 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.

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 57/612/FDIS, future edition 1 of IEC 61850-7-2, prepared by IEC TC 57, Power system control and associated communications, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61850-7-2 on 2003-04-01.

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) 2004-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-04-01

Annexes designated "normative" are part of the body of the standard.

In this standard, annexes A and ZA are normative.

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61850-7-2:2003 was approved by CENELEC as a European Standard without any modification.

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**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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/TS 61850-2	- <sup>1)</sup>	Communication networks and systems in substations Part 2: Glossary	-	-
IEC 61850-5	- <sup>1)</sup>	Part 5: Communication requirements for functions and devices models	-	-
IEC 61850-7-1	- <sup>1)</sup>	Part 7-1: Basic communication structure for substation and feeder equipment - Principles and models	-	-
IEC 61850-7-3	- <sup>1)</sup>	Part 7-3: Basic communication structure for substation and feeder equipment - Common data classes	EN 61850-7-3	2003 <sup>2)</sup>
IEC 61850-7-4	- <sup>1)</sup>	Part 7-4: Basic communication structure for substation and feeder equipment - Compatible logical node classes and data classes	EN 61850-7-4	2003 <sup>2)</sup>
IEC 61850-8-1	- <sup>1)</sup>	Part 8-1: Specific communication service mapping (SCSM) - Mappings to MMS (ISO/IEC 9506 Part 1 and Part 2) and to ISO/IEC 8802-3	-	-

1) Undated reference.

2) Valid edition at date of issue.

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# INTERNATIONAL STANDARD

**IEC**  
**61850-7-2**

First edition  
2003-05

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## Communication networks and systems in substations –

### Part 7-2:

### Basic communication structure

### for substation and feeder equipment –

### Abstract communication service interface (ACSI)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMUNICATION NETWORKS AND SYSTEMS IN SUBSTATIONS –

**Part 7-2: Basic communication structure  
for substation and feeder equipment –  
Abstract communication service interface (ACSI)**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organisation for standardisation comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardisation in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organisations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organisation for Standardisation (ISO) in accordance with conditions determined by agreement between the two organisations.
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International Standard IEC 61850-7-2 has been prepared by IEC technical committee 57: Power system control and associated communications.

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

FDIS	Report on voting
57/612/FDIS	57/629/RVD

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.

IEC 61850 consists of the following parts, under the general title *Communication networks and systems in substations*:

- Part 1: Introduction and overview <sup>1</sup>
- Part 2: Glossary <sup>1</sup>
- Part 3: General requirements
- Part 4: System and project management

<sup>1</sup> To be published.

- Part 5: Communication requirements for functions and device models <sup>2</sup>
- Part 6: Configuration description language for communication in electrical substations related to IEDs <sup>2</sup>
- Part 7-1: Basic communication structure for substation and feeder equipment – Principles and models
- Part 7-2: Basic communication structure for substation and feeder equipment – Abstract communication service interface (ACSI)
- Part 7-3: Basic communication structure for substation and feeder equipment – Common data classes
- Part 7-4: Basic communication structure for substation and feeder equipment – Compatible logical node classes and data classes
- Part 8-1: Specific communication service mapping (SCSM) – Mappings to MMS (ISO/IEC 9506-1 and ISO/IEC 9506-2) and to ISO/IEC 8802-3 <sup>2</sup>
- Part 9-1: Specific communication service mapping (SCSM) – Sampled values over serial unidirectional multidrop point to point link
- Part 9-2: Specific communication service mapping (SCSM) – Sampled values over ISO/IEC 8802-3 <sup>2</sup>
- Part 10: Conformance testing <sup>2</sup>

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition; or [SIST EN 61850-7-2:2004](https://standards.iteh.ai/catalog/standards/sist/37d643c7-5a0b-41ff-ab15-71be5b2f8d6c/sist-en-61850-7-2-2004)
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A bilingual version of this publication may be issued at a later date.

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<sup>2</sup> To be published.