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**Distribution automation using distribution line carrier systems - Part 4: Data communication protocols - Section 1: Reference model of the communication system (IEC 1334-4-1:1996)**

Distribution automation using distribution line carrier systems -- Part 4: Data communication protocols -- Section 1: Reference model of the communication system

Verteilungsautomatisierung mit Hilfe von Trägersystemen auf Verteilungsleitungen -- Teil 4: Datenkommunikationsprotokolle -- Hauptabschnitt 1: Referenzmodell für das Kommunikationssystem

Automatisation de la distribution à l'aide de systèmes de communication à courants porteurs -- Partie 4: Protocoles de communication de données -- Section 1: Modèle de référence du système de communication

**Ta slovenski standard je istoveten z: EN 61334-4-1:1996**

**ICS:**

29.240.20	Daljnovodi	Power transmission and distribution lines
33.040.40	Podatkovna komunikacijska omrežja	Data communication networks

**SIST EN 61334-4-1:1997** en

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ICS 33.020; 33.040.40

Descriptors: Electric power, distribution automation, line carrier communication systems, data communication protocol, reference model

English version

**Distribution automation using distribution line carrier systems**  
**Part 4: Data communication protocols**  
**Section 1: Reference model of the communication system**  
**(IEC 1334-4-1:1996)**

Automatisation de la distribution à l'aide de systèmes de communication à courants porteurs  
Partie 4: Protocoles de communication de données  
Section 1: Modèle de référence du système de communication  
(CEI 1334-4-1:1996)

Verteilungsautomatisierung mit Hilfe von Trägersystemen auf Verteilungsleitungen  
Teil 4: Datenkommunikationsprotokolle  
Hauptabschnitt 1: Referenzmodell für das Kommunikationssystem  
(IEC 1334-4-1:1996)

This European Standard was approved by CENELEC on 1996-10-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

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

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### Foreword

The text of document 57/260/FDIS, future edition 1 of IEC 1334-4-1, 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 61334-4-1 on 1996-10-01.

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) 1997-07-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 1997-07-01

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

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annex A is informative.

Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 1334-4-1:1996 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 1334-4-32	1996	Distribution automation using distribution line carrier systems Part 4: Data communication protocols Section 32: Data link layer - Logical link control (LLC)	EN 61334-4-32	1996
IEC 1334-4-41	1996	Section 41: Application protocols Distribution line message specification	EN 61334-4-41	1996
IEC 1334-4-42	1996	Section 42: Application protocols Application layer	EN 61334-4-42	1996
ISO 7498-3	1989	Information processing systems Open Systems Interconnection Basic Reference Model Part 3: Naming and addressing	-	-
ISO/IEC 8802-2	1994	Information technology Telecommunications and information exchange between systems Local and metropolitan area networks Specific requirements Part 2: Logical link control	-	-

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**1334-4-1**

Première édition  
First edition  
1996-07

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**Automatisation de la distribution à l'aide  
de systèmes de communication à  
courants porteurs –**

**Partie 4:**

**Protocoles de communication de données –  
Section 1: Modèle de référence du système  
de communication**

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<https://standards.iteh.ai/catalog/standards/sist/10b29452-cc14-48fb-aafb->

**Distribution automation using  
distribution line carrier systems –**

**Part 4:**

**Data communication protocols –  
Section 1: Reference model of the  
communication system**



Numéro de référence  
Reference number  
CEI/IEC 1334-4-1: 1996

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

DISTRIBUTION AUTOMATION USING  
DISTRIBUTION LINE CARRIER SYSTEMS –

**Part 4 : Data communication protocols –  
Section 1: Reference model of the communication system**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization 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 organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 1334-4-1 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
57/260/FDIS	57/280/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.

Annex A is for information only.

## INTRODUCTION

The documents specifying communication through power line carrier systems aim at drawing up a comprehensive specification according to the structure of the open system interconnection model (OSI from ISO).

This reference model provides a basic description. Details of the specifications are given in the other sections of part 4.

This document describes the communication system based on a three-layer model. Future extensions to more layers are possible.

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