



# SLOVENSKI STANDARD

## SIST EN 61334-3-22:2002

01-april-2002

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### [Not translated]

Distribution automation using distribution line carrier systems -- Part 3-22: Mains signaling requirements - MV phase-to-earth and screen-to-earth intrusive coupling devices

Verteilungsautomatisierung mit Hilfe von Trägersystemen auf Verteilungsleitungen -- Teil 3-22: Netzbedingte Anforderungen an die Signalübertragung - Außenleiter - Erdleiter und eingefügte Schirm - Erdleiter Ankopplungseinrichtungen für Mittelspannung

Automatisation de la distribution à l'aide de systèmes de communication à courants porteurs -- Partie 3-22: Exigences concernant la transmission des signaux sur le secteur - Dispositifs de couplage intrusif phase-terre et blindage-terre MT

**Ta slovenski standard je istoveten z: EN 61334-3-22:2001**

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### **ICS:**

29.240.20	Daljnovodi	Power transmission and distribution lines
33.200	Daljinsko krmiljenje, daljinske meritve (telemetrija)	Telecontrol. Telemetering

**SIST EN 61334-3-22:2002**

**en**

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EUROPEAN STANDARD

**EN 61334-3-22**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2001

ICS 29.240.20;33.200

English version

**Distribution automation using distribution line carrier systems**  
**Part 3-22: Mains signaling requirements -**  
**MV phase-to-earth and screen-to-earth intrusive coupling devices**  
(IEC 61334-3-22:2001)

Automatisation de la distribution à l'aide  
de systèmes de communication à  
courants porteurs  
Partie 3-22: Exigences concernant la  
transmission des signaux sur le secteur -  
Dispositifs de couplage intrusif phase-  
terre et blindage-terre MT  
(CEI 61334-3-22:2001)

Verteilungsautomatisierung mit Hilfe von  
Trägersystemen auf Verteilungsleitungen  
Teil 3-22: Netzbedingte Anforderungen  
an die Signalübertragung -  
Außenleiter - Erdleiter und eingefügte  
Schirm - Erdleiter Ankopplungs-  
einrichtungen für Mittelspannung  
(IEC 61334-3-22:2001)

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**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**

## Foreword

The text of document 57/477/FDIS, future edition 1 of IEC 61334-3-22, 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 61334-3-22 on 2000-11-01.

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) 2001-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-11-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

The International Electrotechnical Commission (IEC) and CENELEC draw attention to the fact that it is claimed that compliance with this International Standard/European Standard may involve the use of a patent concerning capacitive coupling devices.

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## Endorsement notice

The text of the International Standard IEC 61334-3-22:2001 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 60060-1	<sup>1)</sup>	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991 <sup>2)</sup>
IEC 60358	<sup>1)</sup>	Coupling capacitors and capacitor dividers	HD 597 S1 + Corr. March	1992 <sup>2)</sup> 1992 <sup>2)</sup>
IEC 60870-2-2	<sup>1)</sup>	Telecontrol equipment and systems Part 2: Operating conditions – Section 2: Environmental conditions (climatic, mechanical and other non-electrical influences)	EN 60870-2-2	1996 <sup>2)</sup>

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<sup>1)</sup> undated reference.

<sup>2)</sup> valid edition at date of issue.

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

**Partie 3-22:**

**Exigences concernant la transmission  
des signaux sur le secteur –  
Dispositifs de couplage intrusif phase-terre  
et blindage-terre MT**

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

**Part 3-22:**

**Mains signalling requirements –  
MV phase-to-earth and screen-to-earth  
intrusive coupling devices**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**DISTRIBUTION AUTOMATION USING DISTRIBUTION  
LINE CARRIER SYSTEMS –**
**Part 3-22: Mains signalling requirements –  
MV phase-to-earth and screen-to-earth intrusive coupling devices**

## 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 co-operation 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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- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

International Standard IEC 61334-3-22 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
57/477/FDIS	57/486/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.

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this International Standard may involve the use of a patent concerning capacitive coupling devices.

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Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights other than those identified above. IEC shall not be held responsible for identifying any or all such patent rights.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that the contents of this publication will remain unchanged until 2010. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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## INTRODUCTION

Requirements of IEC 61334-3-21 are applicable for phase-to-phase isolated capacitive coupling devices for power-line carrier systems on distribution line carriers (DLC).

However, no international standard is available for the application of screen-to-earth intrusive inductive coupling devices.

Furthermore the already standardised earthed capacitive coupling device for high voltage power-line carrier systems as described by IEC 60481 is not suitable for the application of DLC on medium voltage (MV) networks for the following reasons:

- from a technical point of view, network characteristics differ considerably from HV to MV networks;
- handling of HV and MV equipment requires different operational means;
- from an economical point of view, the coupling device should have a price as low as possible.

These considerations have led to the present standardisation of other coupling devices such as the MV phase-to-earth capacitive coupling device and the screen-to-earth intrusive inductive coupling device. Figures 1 and 2 show solutions for these devices. Additional solutions may become available later.

As other coupling devices are standardised, new parts to IEC 61334 will be added.

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