



SLOVENSKI STANDARD
SIST-TP CLC/TR 62102:2006

01-julij-2006

Nadomešča:
SIST-TP CLC/TR 62102:2005

Električna varnost – Klasifikacija vmesnikov za opremo, namenjeno priključevanju na omrežja z informacijsko in komunikacijsko tehnologijo (IEC/TR 62102:2005)

Electrical safety - Classification of interfaces for equipment to be connected to information and communications technology networks

Elektrische Sicherheit - Klassifizierung der Schnittstellen für den Anschluss von Geräten an Informations- und Kommunikationsnetze

Sécurité électrique - Classification des interfaces pour les matériels destinés à être connectés à des réseaux de traitement de l'information et de communication

Ta slovenski standard je istoveten z: CLC/TR 62102:2006

ICS:

35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment
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TECHNICAL REPORT
RAPPORT TECHNIQUE
TECHNISCHER BERICHT

CLC/TR 62102

April 2006

ICS 35.020; 29.020

Supersedes CLC/TR 62102:2005

English version

**Electrical safety –
Classification of interfaces for equipment
to be connected to information and communications
technology networks
(IEC/TR 62102:2005)**

Sécurité électrique –
Classification des interfaces
pour les matériels destinés à être
connectés à des réseaux de traitement
de l'information et de communication
(CEI/TR 62102:2005)

Elektrische Sicherheit –
Klassifizierung der Schnittstellen
für den Anschluss von Geräten an
Informations- und Kommunikationsnetze
(IEC/TR 62102:2005)

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This Technical Report was approved by CENELEC on 2005-10-08.

CENELEC members are the national electrotechnical committees of Austria, Belgium, 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

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

Foreword

The text of the Technical Report IEC/TR 62102:2005, prepared by IEC TC 108, Safety of electronic equipment within the field of audio/video, information technology and communication technology, was submitted to the formal vote and was approved by CENELEC as CLC/TR 62102 on 2005-10-08.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the Technical Report IEC/TR 62102:2005 was approved by CENELEC as a Technical Report without any modification.

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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 Where 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 60950-1 (mod)	2001	Information technology equipment – Safety Part 1: General requirements	EN 60950-1	2001
IEC 60950-21	2002	Information technology equipment - Safety Part 21: Remote power feeding	EN 60950-21	2003

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TECHNICAL REPORT

IEC TR 62102

Second edition
2005-05

Electrical safety – Classification of interfaces for equipment to be connected to information and communications technology networks

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International Electrotechnical Commission
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PRICE CODE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL SAFETY –
CLASSIFICATION OF INTERFACES FOR EQUIPMENT
TO BE CONNECTED TO INFORMATION AND
COMMUNICATIONS TECHNOLOGY NETWORKS**

FOREWORD

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The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC 62102, which is a technical report, was prepared by IEC technical committee 108: Safety of electronic equipment within the field of audio/video, information technology and communication technology, previously organized as IEC technical committee 74: Safety and energy efficiency of IT equipment.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision. The principal changes in this edition as compared with the first edition of IEC 62102 are as follows (small changes are not listed):

- this 2nd edition was updated to accord with IEC 60950-1:2001;
- RFT (remote feeding telecommunication) circuits from IEC 60950-21 have been added;

- in Annex B more interfaces have been added;
- in Annex B the category of xDSL interfaces have replaced ADSL interfaces.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
108/128/DTR	108/130/RVC

Full information on the voting for the approval of this technical report 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.

Terms printed in **bold** in the text are defined in Clause 3.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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A bilingual version of this document may be published at a later date.

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INTRODUCTION

This technical report is a guide to the determination of the interface requirements for equipment in terms of safety. It lists a number of interfaces and indicates the safety category of each listed interface. This technical report does not contain sufficient detail for conformance testing purposes, except when used in conjunction with product standards such as IEC 60950-1 and IEC 60950-21.

The equipment safety standards IEC 60950-1 and IEC 60950-21 specify the requirements for categories of circuits as **SELV circuits**, **TNV circuits**, **RFT circuits** and **hazardous voltage circuits** (among others). For stand-alone equipment it is a relatively simple matter to determine the different categories of circuits. However, an equipment which has data port interfaces is intended to be connected to other equipment, either locally or via a network. In this case, the safety categories of the interfaces which will be connected together have to be compatible with each other. Furthermore, the category of the interface of the remote equipment may be unknown. This is the case in systems where telecommunication equipment and data processing equipment are connected together via different types of interfaces and networks.

To overcome this situation it is necessary to classify the interfaces of equipment in such configurations according to the application and to select the safety category for the interfaces of the equipment and for the type of the network. Similarly, the interfaces have to be classified for protection against damage of the equipment and of the network. Aspects of protection are dealt with in the ITU-T K series of recommendations.

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ELECTRICAL SAFETY – CLASSIFICATION OF INTERFACES FOR EQUIPMENT TO BE CONNECTED TO INFORMATION AND COMMUNICATIONS TECHNOLOGY NETWORKS

1 Scope

This technical report applies to equipment interfaces. These interfaces within the equipment may be connected to **telecommunication networks**, may form part of the **telecommunication network** infrastructure or may provide localized transfer of data. This technical report provides guidance on the classification of interfaces in accordance with the circuit types defined in IEC 60950-1 and IEC 60950-21 following an analysis of the **telecommunication network** characteristics.

This technical report only covers equipment appropriately interconnected. Furthermore, it does not address damage caused by one equipment to another equipment to which it is connected. Exceptionally, interfaces may be designed for higher or lower levels for special applications. In such cases it should be ensured that only interfaces having the same safety category and protection level are connected together. This is based on the available specifications of the equipment manufacturers and network providers, and on information regarding the installation category of the mains interface.

This technical report is intended to be used by equipment designers, network operators, network regulators/authorities, standards writers and network installers. It is applicable to various interfaces of equipment. **Network presentations** are not equipment and so are not covered by IEC 60950-1 and IEC 60950-21; hence they are also not covered by this technical report. However, it is necessary to consider the characteristics, installation and presentation of **telecommunication networks** when determining what equipment interface requirements apply (for example, **SELV circuit**, **TNV-1 circuit**, **TNV-2 circuit**, **TNV-3 circuit** etc.).

If a standard other than IEC 60950-1 or IEC 60950-21 is used for designing the equipment and its interface (for example, IEC 62151 in conjunction with other product safety standards), then the corresponding requirements of these other standards are to be preferred.

If there is a conflict between this technical report and a more detailed specification, the latter prevails.

This technical report applies regardless of ownership or responsibility for installation and maintenance of the equipment or network.

NOTE Terminal equipment is often connected to customer premises cabling when used in a business environment, and there are standards covering such cabling.

2 Normative references

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.

IEC 60950-1:2001, *Information technology equipment – Safety – Part 1: General requirements*

IEC 60950-21:2002, *Information technology equipment – Safety – Part 21: Remote power feeding*